

SCHOOL AND HEALTH 21, 2010

PAPERS ON HEALTH EDUCATION

Evžen Řehulka (ed.)



SCHOOL AND HEALTH FOR THE 21ST CENTURY

The volume of papers is supported by the research (MSM0021622421).

RESEARCH Editorial Board

In cooperation with Faculty of Education, Masaryk University, Brno,
within the research project "School and Health for the 21st century".

prof. PhDr. Blahoslav Kraus, CSc.

Faculty of Education, University of Hradec Kralove, CZ

prof. RNDr. Vratislav Kapička, DrSc.

Faculty of Science, Masaryk University, Brno, CZ

prof. PhDr. Josef Maňák, CSc.

Faculty of Education, Masaryk University, Brno, CZ

prof. PhDr. Vladimír Smékal, CSc.

Faculty of Social Studies, Masaryk University, Brno, CZ

prof. PhDr. Eva Sollárová, CSc.

Faculty of Social Sciences and Health Care,
Constantine The Philosopher University, Nitra, SK

prof. PhDr. Ing. Josef Šmajš, CSc.

Faculty of Arts, Masaryk University, Brno, CZ

prof. PhDr. Hana Válková, CSc.

Faculty of Physical Culture, Palacky University, Olomouc, CZ

prof. MUDr. Jan Žaloudík, CSc.

Faculty of Medicine, Masaryk University, Brno, CZ

Book viewers:

prof. PhDr. Ján Grác, DrSc.

Trnava University, Trnava, SK

prof. PhDr. Jozef Kuric, DrSc.

Constantine The Philosopher University, Nitra, SK

prof. PhDr. Jiří Musil, CSc.

Tomas Bata University, Zlín, CZ

© 2010 Masarykova univerzita

© 2010 Evžen Řehulka (ed.)

© 2010 MSD

ISBN 978-80-210-5260-4 (Masarykova univerzita. Brno)

ISBN 978-80-7392-133-0 (MSD. Brno)

CONTENT

INTRODUCTION	7
ON THE FINAL OUTCOMES OF THE HEALTH RESEARCH <i>Bohumír BLÍŽKOVSKÝ</i>	9
PHILOSOPHY OF HEALTH AS EDUCATION TO HEALTHY LIFE <i>Radovan RYBÁŘ</i>	13
HEALTH PROMOTION IN THE CURRICULUM AND EDUCATIONAL REALITY AT THE PRIMARY AND SECONDARY SCHOOLS <i>Eva MARÁDOVÁ</i>	23
THE CZECH PUBLIC'S OPINIONS ON THE REALIZATION OF HEALTH EDUCATION IN PRIMARY EDUCATION <i>Leona MUŽÍKOVÁ</i>	31
FRAMEWORK EDUCATION PROGRAMES AND THE ATTITUDES OF TEACHERS IN PRE-PRIMARY AND PRIMARY EDUCATION TO SELECTED ASPECTS OF HEALTH EDUCATION <i>Dagmar KUBÁTOVÁ</i>	41
EDUCATIONAL NEEDS OF ELEMENTARY SCHOOL WOMEN TEACHERS IN HEALTH EDUCATION AREA <i>Evžen ŘEHULKA</i>	55
THE CZECH PUBLIC'S OPINIONS ON THE EDUCATIONAL CONTENT OF PHYSICAL EDUCATION IN PRIMARY EDUCATION <i>Vladislav MUŽÍK</i>	73
THEORETICAL FRAMEWORK FOR THE TEACHER'S ACTIVITIES AIMED AT STRENGTHENING FORMATION OF HEALTHY SOCIAL RELATIONSHIPS AMONG PUPILS <i>Stanislav STŘELEČ</i>	85
CONDITIONS FOR THE CLASS TEACHERS' WORK IN AFFECTING HEALTHY DEVELOPMENT OF THEIR PUPILS <i>Stanislav STŘELEČ, Jana KRÁTKÁ</i>	93

ACTIVATING TECHNIQUES IN THE TEACHER'S PSYCHOLOGICAL PREPARATION

Jaroslav ŘEZÁČ.....103

THE INDIVIDUAL PROGRAMMES OF THE HEALTH IMPROVEMENT USING THE METHOD OF VIDEO-COMPUTER PSYCHODIAGNOSIS IN THE PEDAGOGICAL PROCESS

Maria S. GONCHARENKO, A. N. TYMCHENKO.....113

KNOWLEDGE OF THE INDICATORS OF A HEALTHY LIFESTYLE AMONG STUDENTS OF THE TEACHING PROFESSION

Jitka ŠIMÍČKOVÁ-ČÍŽKOVÁ, Jaroslav ŠIMÍČEK.....117

PERCEPTION OF WORKLOAD BY MEN AND WOMEN TEACHERS AND SELF-ASSESSED HEALTH STATUS

Karel PAULÍK.....123

ENVIRONMENTAL ASPECTS OF EDUCATION FOR HEALTH

Hana HORKÁ.....131

PSYCHOLOGICAL SOLUTIONS FOR ENVIRONMENTAL EDUCATION

Viktor KULHAVÝ.....139

ENVIRONMENTAL EDUCATION AND HEALTH (HEALTH EDUCATION)

Boris RYCHNOVSKÝ.....161

ENVIRONMENTAL ASPECTS OF EDUCATION FOR THE HEALTH IN CURRICULUM OF PREGRADUAL PREPARATION OF TEACHERS

Hana HORKÁ.....171

PERCEPTION OF HEALTH IN THE CONTEXT OF ENVIRONMENTAL ISSUES AS A BASIS FOR TRANSFORMATION OF PROFESSIONAL TRAINING OF TEACHERS

Hana HORKÁ.....179

BIOLOGY AND HEALTH EDUCATION

Boris RYCHNOVSKÝ.....195

THE ECOTHERAPEUTIC POTENTIAL OF NATURE AND TAKING CARE OF ONE'S HEALTH

Hana HORKÁ, Zdeněk HROMÁDKA.....201

THE PERCEPTION OF THREAT TO HEALTH ARISING FROM ENVIRONMENTAL ISSUES BY STUDENTS OF PDF MU BRNO

Zdeněk HROMÁDKA.....213

TITLE: STUDENTS OF PDF MU AND THEIR FIRST AID ACQUIREMENTS AND SKILLS (RESEARCH IN PROGRESS)

Jitka REISSMANNOVÁ, Alice PROKOPOVÁ, Marie HAVELKOVÁ, Jarmila KELNAROVÁ.....221

TEACHER – PREVENTION METHODIST IN PRIMARY SCHOOLS

Jana VESELÁ.....227

APPLICATION OF SOCIAL NORM CAMPAIGN IN HIGH SCHOOLS

Martina ROMANOVÁ, Tomáš SOLLÁR.....241

TRAFFIC EDUCATION AS A COMPLEMENT OF HEALTH EDUCATION

Mojmír STOJAN.....251

TRAFFIC EDUCATION - ACTIVE PREVENTION

Jitka HEINRICHOVÁ.....261

THE IMPACT OF SELECTED DETERMINANTS ON OUR HEALTH

Tatiana KIMÁKOVÁ.....275

HOW LIFESTYLE AFFECTS HEALTH

Viera PETERKOVÁ, Ivona PAVELEKOVÁ.....283

LIFESTYLE SELECTED SAMPLE OF HIGH SCHOOL YOUTH

Ivona PAVELEKOVÁ, Viera PETERKOVÁ293

CHANGE OF LIFESTYLE THROUGH A CONCRETE CHOSEN EXAMPLE OF EDUCATION

Miroslav JANDA, Jana TOMEČKOVÁ, Gabriela VĚCHTOVÁ.....303

STRESSFUL EXPERIENCES IN SCHOOLAGE FROM THE PERSPECTIVE VIEW OF UNIVERSITY STUDENTS

Rudolf KOHOUTEK.....315

THE HEALTH-PROMOTING SCHOOL PROJECT AND THE DOMESTIC VIOLENCE PHENOMENON

Martin GRIM.....339

MOBBING IN PRIMARY SCHOOLS – EFFECTS ON INTERPERSONAL RELATIONSHIPS AND SCHOOL CLIMATE, OPTIONS FOR PROTECTION AND PREVENTION

Tomáš ČECH.....347

COMPETENCY OF PRIMARY SCHOOL TEACHERS FOR THE PRIMARY PREVENTION OF DRUG ABUSE WITH A VIEW OF THE ATTITUDES TOWARDS THE TOPICS OF DRUGS ABUSE PREVENTION

Tomáš ČECH.....357

TOPIC FOR “HEALTHY“ MORAL EDUCATION

Petra LAJČIAKOVÁ.....365

AESTHETIC PERCEPTION OF ARTWORKS BY ADOLESCENTS AND ITS IMPACT ON MENTAL HEALTH

Michaela LUKAČIKOVÁ.....373

BIBLIOGRAPHY.....379

LIST OF AUTHORS.....401

NAME INDEX.....405

SUBJECT INDEX.....415

INTRODUCTION

For the past several years, we have conducted theoretical and practical research of issues related to school and health. The impulse and inspiration for our work were modern documents outlining the present and future concepts of healthcare and education in this country and in the world. The process of mutual connecting, influencing and utilizing is increasingly evident in today's scholastic and healthcare programs, real or potential. It eventually leads to goals characterized by words like health, upbringing, quality of life, prevention (especially the primary kind), resistance, optimism and others. Our research indicates that the interaction between "school" and "health" issues appears to be highly effective for both sides, which have more things in common than originally thought.

This volume is another in the series of publications coming from the SCHOOL AND HEALTH FOR THE 21ST CENTURY research project that the Faculty of Education at the Masaryk University has pursued since 2005. The project activities culminate every year in a conference called SCHOOL AND HEALTH 21 with international participation, where researchers from project teams and other participants in the project report on their work. Our conferences are also traditionally attended by a number of scientists who are actively involved in a given project and consider periodic contacts with other experts in the field essential for their own work. We appreciate the cooperation of foreign colleagues as both valuable and symptomatic of the fact that health education commands world-wide interest, although it might stem from different concerns or emphasize different objectives. In addition to the tree-day SCHOOL AND HEALTH 21 conference (August 24-26, 2009), we began to sponsor, on a quarterly basis, one-day thematic seminars devoted to specific problems arising from active projects. There have been seminars on environmental studies, traffic education, the role of teachers in health education, philosophical and historical aspects of health education and other subjects. A selection of proceedings from the conference and seminars is presented in this volume. We tried to organize the studies to reflect the entire range of the "school and health" research and the next phase of our project.

The contributions contained in this publication are linked by a common theme of "school and health" and reveal, in many cases, the author's fundamental expertise as his or her starting point, because health education requires a multi-discipline approach. The editing of the individual articles was minimal as the full responsibility for the studies rests with their authors, whose complete contact information is listed at the end of the book.

This compilation is a working document intended to show the status of health education research with regard to the current school system and its policies. We

do not aspire to formulate definitive conclusions but hope to spark off discussions, innovative suggestions and new ideas.

It closing, it is our pleasant duty to thank the Ministry of Education, Youth and Sports, as well as to the leadership of the Masaryk University and the Faculty of Education for making our work on this research project possible.

July 2010

Evžen Řehulka
Investigator of the Research Intent
“SCHOOL AND HEALTH FOR THE 21st CENTURY”

ON THE FINAL OUTCOMES OF THE HEALTH RESEARCH

Bohumír BLÍŽKOVSKÝ

Abstract: *The essence of healthy lifestyle in the 21st. century needs to be defined with greater accuracy and promoted with greater effectiveness. Health is the basic system-forming element of the quality of sustainable human life. The more pervasive and universal in nature is the crisis that we go through, the more important is the need to protect health and other essential life-giving, cultivating and life-direction values. What we frequently see is undesired reduction of the sciences concerned with man and society to mere examination of what they are, without sufficient promoting of what they should be. The pedagogy after the November 1989 has almost abandoned the ancient ideal of harmonious development of each personality as well as the whole society in harmony with nature.*

Keywords: *healthy lifestyle, values, social crisis, pedagogy after the November 1989*

The results of the research and remedial effort focusing on human health are remarkably comprehensive and hope-giving. Apart from continued learning they also enable realistic recovery of our physical and spiritual life. Its potential also corresponds to the present-time efforts pursuing sustainable development of the human world. The essence of healthy lifestyle in the 21st. century “only“ needs to be defined with greater accuracy and promoted with greater effectiveness. The self-preservation importance of the healthy lifestyle in the present-day world of changeability as well as its system-forming factors and wider context therefore need to be highlighted in the final outcomes. The more pervasive and universal in nature is the crisis that we go through, the more important is the need to protect health and other essential life-giving, cultivating and life-direction values.

Health is the basic system-forming element of the quality of sustainable human life and this quality becomes one of the three main criteria for the measurement of general social progress within the ongoing project of the OECD countries, started in 2006. Since last year France has been an important centre of this systemic research with some prominent Nobel Prize laureates involved. It is therefore needed and judicious to consider this holistic and open context. Inspirational in this respect may also be the work “Živé hodnoty Masarykova Československa“ (“Living values of the Masaryk Czecho-

slovakia“) (Blížkovský, B. et al., CCB, Brno 2009, 266 s., see the enclosed information) published this year and now reprinted, concentrating on the vital values for the 21st. century. It is actually a summarization of the conclusions of six interdisciplinary international conferences striving to find a “cure“ for our society.

Mainly I would like to support your norm-setting and realization trend. Good therapy, however, must be preceded by the correct diagnosis. We are living in a civilization advanced one-sidedly to such a point that it itself is noticeably ill and much criticised. There is enough evidence showing that risks and existential threats tend to increase rather than decrease. For a example a well-known American futurologist A. Toffler warns of a pandemic of functional illiteracy, i.e. the growing incapability to solve problems of some complexity. There are already more than enough victims of this affliction – “universal dilettantes“, who know something about everything and there is nothing they are really good at, “professional idiots“, who to the contrary have such a narrow speciality that they possess almost complete knowledge of nearly nothing, and the most dangerous kind, “universal conformists“, whose lack of morality has reached such a point that they can “justify“ anything at any time, they just need to know the price – including this country.

Mankind probably has the last chance to grow wiser. The need for remedy is acute in this country. Hardly anywhere the population has been afflicted with such massive historical destabilization of the continuity of the good as it happened in the twice ruined Czechoslovakia. Let us just bring to mind the shattering turning points in our history within the two thirds of the past century : 1938, 1948, 1968, 1992.

Even our science has not yet fully ridded itself of excessive succumbing to a variety of one-sided approaches. The deficit of reliable “direction-giving“ axiological perspectives has now become self-destructive. What we frequently see is undesired reduction of the sciences concerned with man and society to mere examination of what they are, without sufficient promoting of what they should be. The pedagogy after the November 1989 has almost abandoned the ancient ideal of harmonious development of each personality as well as the whole society in harmony with nature. The vitally important, i.e. definition of the basic educational values to cope with the challenges posed by the 21st. century, has been given the least attention. The country of Komenský does not even have the nationally defined requirements for the school-leaving examinations (relating to secondary education) in place until now. Although we have the “Framework educational programmes“, there is still no nationally verified curriculum implemented for the secondary education. Not even the “pedagogical standards“ defining the minimum educational objectives and results have been adopted yet. The same applies to the “final state examinations“, specified more or less independently by most of the fields of study at the individual faculties of universities. Such confusion is unparalleled in our modern history. Along with that, regrettably, there is no up-to-date, simple and functional definition of and adequate adherence to standards of healthy lifestyle, corresponding with the general needs of the 21st. century.

Even the whole of the Czech Republic has no longer-term, conceptual strategic priorities properly established for the 21st. century as yet, let alone implemented. Little wonder we often tend to totter from one extreme to another. The extreme regimentation

and “planning mania“ have frequently been replaced only by the limitless neoliberal deregulation, market-mania and arbitrariness of the cult of mammon and power.

There are three basic styles of living and its management: authoritative – emphasizing order, liberal – preferring freedom, and democratic – striving for “As much freedom as is possible and as much order as is necessary“, as concisely expressed by T. G. Masaryk. Each of these styles is justified in different degrees in specific situations. The most risky tends to be, however, ultra-authoritative absolutization of what is asserted to be the „order“ and ultraliberal absolutization of what is asserted to be “freedom“. Soon after the hopeful year 1989 we could only too frequently see this “overturn to the opposite extreme“ prevail. Therefore we are still a long distance away from the true humane democracy and following Masaryk’s quoted advice. The majority of citizens is frequently disoriented and disgusted to the point that they do not even go to the polls.

According to the STEM agency data this year, only one fourth of the population believes that we are headed in the right direction, more than one third believes that we are moving in the wrong direction and almost half of the population believes that our development is aimless. All kinds of disorders have probably reached some limit. We are dangerously underestimating the possibility that the whole society may become ill, that everything falls apart without the reliable “direction-setting“ common values. Small wonder that people are beginning to fear more extremes. As needless to mention in the academic community, the elementary need of every living thing is safety which can only be ensured through observing the necessary order. Wherever this art is lacking, despair, hazard, delusions or dangerous existential insecurity set in. “Poverty can make rogues of people“, as Voskovec and Werich already sang. “Power tends to corrupt, and absolute power corrupts absolutely“, L. Mňačko wisely observed already in the 1960s.

If not even the elementary universally human standard is recognized: “Do to others what you would have them do to you.“, this may lead to ruining the acceptable relationships between people and nations. For example in the Czech Republic as many as two thirds of the new marriages break up. Our adolescents are the most alienated generation of the whole of Europe, as they mostly grow up without being given the necessary common fundamentals of the national awareness. Nearly half of the lower-grade pupils at our schools are exposed to the bullying. Dealing with lack of discipline presents the greatest professional burden for teachers at elementary and secondary schools.

The facts described hopefully suffice to justify the urgent need of the healthy lifestyle to help us live up to the challenges of the 21st. century. This final statement is only seemingly simple, while in reality this involves responsible and demanding functional interconnecting of the interdisciplinary, international, systemic as well as stylistic dimensions. Of course there is not an excess of secondary details expected as would be the simulation of the present-day dysfunctional “legal jungle“, or formulations that may be interpreted in various ways. The advice by Komenský saying that good upbringing does not require many rules, but the adherence to only a few basic rules, aptly applies in this case. I believe that your promising project-operator team will succeed to the benefit of all.

K FINÁLNÍM VÝSTUPŮM VÝZKUMU ZDRAVÍ

Abstrakt: Podstatu zdravého způsobu života v 21. století nutno přesněji definovat a účinněji prosazovat. Zdraví je základní systémostvornou složkou kvality udržitelného lidského života. Čím pronikavější i všestrannější krizi zažíváme, tím více vystupuje do popředí ochrana zdraví a dalších základních životodárných kultivačních směrodatných hodnot. Často totiž dochází k nežádoucí redukci věd o člověku a společnosti na pouhé zkoumání toho, co je, bez dostatečného prosazování toho, co býtí má. Polistopadová pedagogika na klasický ideál harmonického rozvíjení každé osobnosti i celé společnosti v souladu s přírodou téměř zapomněla.

Klíčová slova: zdravý způsob života, hodnoty, společenská krize, polistopadová pedagogika

PHILOSOPHY OF HEALTH AS EDUCATION TO HEALTHY LIFE

Radovan RYBÁŘ

Abstract: *The health as a value of human life means to live healthy, wisely and rationally. The health is a reflection of our own being and thinking. The philosophy of health as a stand on life perceives human from perspective of holistic medicine or global understanding of health. The philosophy of health is focused on support of positive and constructive approach to life and health. It also presents procedure open discussion about philosophical basics of medical ethics. Systemic conception of health is not discovery of modern times but we can find its beginnings in ancient medicine. The support of health in a school environment is also important.*

Keywords: *health; philosophy; systemic conception; school.*

Health as a value of human life

Health is a frequent conception being occurred in the present time. Healthy nutrition, healthy lifestyle, healthy environment, healthy school etc. are often discussed. The health is considered to be the highest value of the human life. But we feel deficiency of the health or its endangering only *in extreme life situations*.

Such situation can be also *an initial stage of philosophical view* of the world. Many classical philosophers have already regarded the state of harmony of the physical and mental health as the ideal of human life.

Healthy living comprised also to live wisely and rationally. For example, *Aristotle* regarded a state of blessedness and harmonic perfection as a sense of human behaviour, called by him *eudaemonia*.

The health becomes a reflection of the state of our own being, it is an experience of our generally satisfying life, a good feeling of our body, soul and spirit and it reflects also our relationships towards the surrounding world... *The authentic health* can not be assigned by any diagnosis, any investigations or tests and external evaluation. It can be only lived as a comprehensively satisfying life feeling.

The health is not a product of a scientific research, it is not the matter of therapeutic methods or absence of disease. The health is a *personal value* of an individual, which can be reached by means of good communication with oneself and with the surrounding world, by a wise life. The health is not the existing state, but the matter

we endeavour constantly to reach. We must be trying to find the health along with our sense of life.

The base of health and sense of living is a spontaneous and creative self-formation of a person face to face of possible risks. So the exact *definition of the health has always been missing*. In approach to health we can identify two different methodological ways. *The usual, empiric approach* tries to curtail the concept of health by generalization of partial medical knowledge with use of mathematical methods. *The philosophic, hermeneutic approach* is based on anticipated hypothetical statements and derives from them various conclusions.

Nowadays, the opinion should be that the *health*, in the existing state of *civilization*, means the same value for every individual in any place of the world. But it is not so simple. In the past and also in the present time the value of health and life can be different because it is influenced by the culture of individual areas, by the approach to health, by different customs and traditions and on a large scale it depends also on local life conditions and possibilities.

Thus *nowadays, the health is considered* as a process of reaching health. It is the *active process*, which can be influenced by each of persons concerned, however, with participation of the family, lifestyle, school etc. For this reason, *a medicine man or an occidental physician* with their ways and methods of healing can be more or less successful if people believe them... In the various parts of the world they do not use expensive technology or chemical preparations and nevertheless they can reach a comparable success. Of course, it must be say that people using medicine man services have different physical and psychic “base“ in comparison with us, who are often far way off natural healing methods. Despite of it, we can also learn from experience and practice of those natural people.

In the present time it can seem to us that everything concerning the health is only in hands of physicians because they are those who are able to heal and cure an individual who would formerly die. Therefore, *by the words of Aldouse Huxley*, the English writer of the 20th century it is possible to say that: “*Medical research* has advanced so much that there is no healthy human being in the world“ But the *disease* is something that comes to an individual to arouse him, to help him in his spiritual maturity or to destroy him.

Science is a measurable area but the health is not only an exact matter; it is a changing process influenced by behaviour and experience of the respective human. Thus, *the disease* can not be taken as an isolated problem which can be removed by one medical performance. It is necessary to see the human as an agreement of the mass and the spirit – two components in mutual interaction. So diseases can start their existence only in our mind.

“Worries, hate and fear - together with their branches: anxiety, bitterness, cupidity and cruelty - those strains attack our body on its cellular level. Under those circumstances it is not possible to keep the healthy body. *All diseases are born out of your mind.*”¹

¹ Walsch, Neale Donald: *Hovory s bohem II*. Praha: Pragma, 1999, p. 22, ISBN: 80-7205-645-X.

Philosophy of health as the attitude to life

The philosophical point of view can be applied to any thing, situation or problem. It implies the insight to investigate, reflect and ask. What should be comprised in the prospective *philosophy of health*? It is the perception of the health which *respects the human being* from the so called *holistic medicine point of view* or/also in the sense of the *global understanding of the health*. With using this insight, the interconnection of our body and soul are investigated in more details. It takes also into account the fact that our world consists of various societies that are in mutual interaction and form one integrated system.

According to philosophical openness and dialog, all is acceptable. *The philosopher* asks a question and gives reply; but here there is always a space for a new formulation of the question and for repeated revision of the reply. Some possible imperfect current solution can always exist for the philosopher, which brings him stimulation for seeking a new solution of the respective problem.

Of course, we can also hold a *discussion on need of the philosophy*, namely the philosophy of health; one may reject it, the other may support it enormously. All things that are not “measurable“ and “real“ can make impression of inutility and non-objectiveness. But the philosophy has been here since time immemorial and it tries to investigate also questions inspired by our daily life.

The believe in opportunity of continual progress in the cognition of our world - it has become *the leading idea of development of the European mind*. From all sides appeals come to us on thinking about our life, unethical behaviour towards other people and environment etc. Also from all sides the appeals come to us to change ourselves and our behaviour.

Despite it, consumption demands are increasing and those needs appear in new areas where they have not yet existed. Unfortunately, this *consumption trend* has been shifted *nowadays* also to the *medicine and pharmacy*. Research results have given evidence that after a promoting presentation of solution of some healthy problem in public media, people - without provable need - started taking medicaments for solution of this problem.

The human of our times is fascinated with the *promotion and science* and he has reduced himself to be a subject taking on himself an overflow of continuously discovered new diseases and medicaments. Sometimes information has appeared that various clinical studies may be influenced by great pharmaceutical companies acting as the funding source for the studies. Here the rule is likely used: as much as possible to conceal negatives and to exaggerate merits of the medicaments studied.

Philosophy of health proves to be competent also with the following question: In fact, where is the borderline between the science and humanity, between pragmatism and cognition of health indisputable principle? To find a proper scale of all and in all – it is the most often and the most difficult task of human doing. In such situation it is necessary to contemplate philosophically, to stop for a while, to make self-reflection for change of own behaviour and to strive after living in harmony with oneself, near surrounding and nature.

Philosophy of health is focused on support of positive and constructive approach

to life and health, on preventing negative attitudes that can disturb our *negative balance* because: “Our every idea or activity is based on love or fear...”²

All *our ideas* use to be derived from those basic life attitudes. *The fear* is a negative energy that can limit, close and damage us, can hide and accumulate, whereas *the love* is a positive energy that can broaden, disclose, share, open and cure us.

We must learn to perceive different ways of lifestyle in order to compare them with our own style. *Our life and health* should correspond to our decisions either those done or not done. The function of *our soul* is to indicate our desire, the function of our mind is to choose one of possibilities and the function of our body is to carry out the choice.

The human must think about why his *disease* came and what he must to do for his cure. Of course we must *distinguish among diseases* “on account of life“ and inborn diseases evoked genetically. If the human does not find a cause of his disorders, the disease is transferred in its chronic form and he only takes prescribed medicaments. Undesirable effects he tries to suppress by taking other medicaments. In this way he starts his “vicious circle“ of difficulties. Slowly he starts to understand that only he himself can cure his disorders. Commercial *business and profit* do not go hand in hand with medical ethics. Unfortunately nowadays also the *health service* is getting to be the area for earnings because people are always willing to invest in health.

The *physician* should believe his patient. He has no reason not to believe him because only the patient himself can assess subjectively his pain and his state. Only later on the physician should investigate and dispute various diagnoses. Sometimes physicians may exist with the opinion which seems to be ridiculous, namely that there is only one reason, one consequence of the disease and one way to cure the patient.

Philosophy of health is a procedure of open discussion about philosophical basics of *medical ethics*. Although the field of medical ethics has also been developed in our country in recent years, the respect and willing of professionals from other professions seem to be in the beginning.

History of systemic conception of health (philosophy of health)

Systemic conception of health has not been discovered in modern times but we can find its indications in the ancient medicine. Hellenic medicine was born from the existing ancient Greek philosophy which is characterized by systematic procedures and now it is taken as the first serious philosophy from historical point of view..

Medicine was the first scientific field born from this philosophy and has been developed in relationships with it. *Ancient Greek philosophers* considered the universe as a whole and called it *physis* containing both an order and a continuous movement.

The movement goes on in *three phases*; *the first* phase is the state of harmonic ordering of all existences and their mutual relationships, *the second* phase is making disorder in this harmony and the *third* phase re-organization of the original order.

Hellenic medicine, originated from this philosophical system, is the first medicine in the sense of a scientific branch; it comprises the research and the corresponding

² the same title, p. 23.

medical practice coming from systemic conception of health and disease, inspired by the concept of the nature as a universal whole.

Long ago the ancient Greek medicine discovered that a certain natural constitution and certain susceptibility to illness belong to each human age period. Health is taken as a common healthy natural constitution, as an equivalence of individual elements of a complex unit. For this reason, diseases are not perceived in isolation, as specific problems themselves, but as a consequence of a disturbed balance. Therefore the ill individual is seen in various connections and with investigation of his natural environment.

In the 5th century B.C. the *ancient Greek philosophy* started, on the contrary, to draw inspiration from the medical science, from its conceptual and cognitive results. Several philosophers became concurrently physicians and stepwise the medicine has been reversely influenced by philosophy.

The physician can be regarded as an *authentic medical man* if he tries to take a disease from its very beginning, is concentrated on external circumstances, investigates them and simultaneously gives edification to his patient.

Support of health in school environment

In recent time a lot of community projects arose with the aim to achieve better health in a certain community by means of beneficial changes. It concerns not only the project for school environment. Besides the project Healthy School there are other European projects e.g. Healthy City, Healthy Enterprise etc.

Community projects for support of health are based on two items; the first one is the fact that the human as a social being is satisfying his basic needs by means of social relationships with his nearest surrounding and so his health reflects especially the quality of those relationships. Further, the projects are grounded on information that every community disposes of a certain strength and power to influence lives of its members and the surrounding world.

The *strength and power* of the community depends on proportion of contributions of its members and on extent of its institutionalization. In this way it can achieve also a formal authority. The community is able to influence the health of near and remote groups, their present and future forms. Although individual project can differ in several items, all of the projects have *two identical basic principles*: respect for needs of the individual within the society as a whole; development of communication and cooperation within the community and among communities.

Although *many community projects* were started, the priority attention is paid to the projects focused on *education*. From this point of view *children and youth* are the most endangered group because they are still creating their own attitudes to themselves and to the society; their personalities are still being formed, they accept stimuli, attitudes and accepted models. Children and youth are the group that should have a chance to learn to observe things from a new and undistorted point of view, to form their attitudes by means of sufficient volume of information and by using social tools with e.g. *democratic principles* among them.

In nineties of 20th century the **European Network of Health Promoting Schools** (hereinafter ENHPS) was created with the aim to establish a group of model schools in

all regions of *World Health Organization* (hereinafter WHO); those schools should prove importance of support of health in the school environment. The *model schools* should publish their knowledge and experience to other education and health institutions that can influence the health support strategy on the national and international level.

The initial *conception of school promoting health* was discussed in early eighties. This topic of many conferences and seminars had been broadly discussed and changed and then it served as a base of ENHPS development. After *pilot tests* of this conception in Hungary, Slovakia, Poland and the Czech Republic, the European Union (EU), Council of Europe (CE) and WHO Regional Office for Europe accepted the project; ENHPS was established in 1992 and has since been quickly spread. In the year 1997, 37 countries were linked to the conception, each of them with own pilot network of schools.

”The participated schools committed to promotion of health by creation of school environment that would be safe and beneficial for healthy life and work and healthy development. (...) The school supporting health tries to create opportunities for all its involved individuals, to follow and improve their physical and mental health by means of change of its management structure and structure of internal and external relationships, by means of teaching and learning and by means of the methods supporting interoperation with social environment.“³

To ensure success of all such endeavour, it is necessary to implant support of health into all school everyday doings and activities. The *school supporting health* is an opportunity of European countries for change to better, for better future – and these countries can not stand aside - in self-interest and in interest of the non-European world.

The *European region* comprises many various cultures and the main goal of ENHPS is to come just to mutual understanding and recognition of variety of those cultures. Therefore, the important precondition of this project is mutual cooperation on the national and local level, exchange of experience and mutual respect. The aim of ENHPS is to bring up nowadays’ youth to be healthy and educated people with sense for responsibility and with skills necessary for living in the modern world. By the resolution of the *1st Conference of ENHPS in 1997*: in Europe each child and young man has right and should have opportunity to be educated in the health promoting school.

The program of health promotion at school (hereinafter the Program HPS)- in sense of the European Conference - should bring benefits for children and youth not only in all components of their health but it should contribute to general transformation of school process. It should bring elements of democracy both to education itself and to school institutions and in this way produce benefits for children and youth and also for teachers. The aim is to form healthy and educational, learning and working environment. Such operation school should be a base for formation of the healthy society with applying democratic principles that are the human aim for the present time and hopefully also for the future.

The Program HPS is divided into *three fundamental pillars*:

1) *Supportive environment*: comfortable material environment; comfortable social environment; comfortable operating environment.

³ Havlinová, M.: Program podpory zdraví ve škole: rukověť projektu Zdravá škola. Edit. Miluše Havlinová. 1st issue, Praha: Portál, 1998. p. 244-245, ISBN: 80-7178-263-7.

2) *Healthy learning*: meaningfulness of education; option of choice and adequacy of education; participation and cooperation in education; motivating evaluation of pupils.

3) *Open partnership*: school as a democratic community; school as an education centre of municipality.

Further characteristics of the contents of the Program HPS:

The first pillar of the health promoting school, with respect to the *supportive environment*, comes from the fact that each person lives in a certain environment and he cannot break himself of it because it belongs to his life. The environment constitutes a means to satisfy our needs and it is also a certain model that we try to create and maintain during our life.

The second pillar of the health promoting school, with respect to the *healthy learning*, describes the process of acquiring certain skills, knowledge and attitudes. In the last years *pedagogy* underwent a substantial development. *Based on philosophical and psychological knowledge and research results it tries to humanize the education process and to respect particularity of an individual. Bloom theory* is important for this trend, with accepting the presumption that all pupils can acquire new skills and knowledge under favourable conditions and sufficient time.

Modern school education tends to individualization, to adaptation of the whole educational process to the individuality of a pupil with all his needs and particularities. It is based on proper identification of the so called *initial characteristics of pupils*. It means to find individual differences in learning, by the type of intelligence and the differences given by previous knowledge and skills, attitude to learning and by culture and family environment. Taking into account those characteristics, the favourable education methods and strategies can be selected to reach educational goals and to retain space for accomplishment of education needs of the pupils.

Generally the *principles of healthy education* defined in the *Program HPS* strive after development of the pupil's personality with needs of the group he participates in, i.e. with respecting the community, the world. *The school promoting health attends to advisability of learning*, i.e. practical usability of skills and knowledge being learned by pupils for their real life. As regards the education contents and methods, the school promoting health takes care of suitability and option of choice, for facilitating every pupil to learn also the extending curriculum in the way corresponding with his personality and intelligence type, in a *balance of the rational-emotive education*. The school promoting health tries to create *uncompetitive environment* which can intensify self-confidence, self-reliance and responsibility of pupils and to supply pupils with motivating for evaluation.

The third pillar of the health promoting school, with respect to the *open partnership*, strives for *transferring from a closed authoritative system to an open system with elements of democracy* and in this way to prevent from social-pathological effects that could be supported if the school social system would be closed. The social system of the school is formed by persons inside the school (pupils, teachers, school management workers, non-pedagogical workers and parents) and the so called *strategic partners of the school*, i.e. institutions and organizations influencing operation of the school (education advisory centres, school office authorities, municipal board etc.). The mentioned

partners play various roles and perform functions in the social system of the school; they have various relationships that define the extent and ways of their participation in school activities.

In connection with the Program HPS, the Framework Education Program is an important inspiration source for forming conception of interconnection and inter-curricula relations relevant for education to health.

With formulation of education aims and free choice of education methods and teaching means, the *Framework Education Program* provides teachers with procedures to achieve results by methods suitable for individual students with their particularities, orientation etc.; it gives them enough space for themes difficult to insert in an individual curriculum by use of the so called *cross-section themes*. The cross-section themes comprise topics of several subjects; here teachers cooperate in educational process and in this way the individual topics are presented in all contexts and some current themes of our present society can be pointed out. Therefore *global education, multicultural education, environmental education, philosophy, philosophical anthropology, axiology, ethics, medical ethics* are the new parts of curriculum that should discover important new relationships and knowledge of human existence and consequences of human activities as projected in sense of human life and its values, significance of health, environment or intercultural relationships.

"In the school environment there is an option to draw up the new specialization – **philosophy of health**. This discipline could be a universal education agent with its complex and integration character. Within philosophy of health we should mainly seek things and phenomena promoting human ethics and responsible attitude towards health and to all things supporting mental development, with avoiding impact to mental devastation. It should comprise cultivation of sense of positive life attitudes including responsible social behaviour and acting.

Philosophy of health should contribute to personal growth and socially constructive attitudes. Its basics is reflective morality, i.e. conscious consideration of possible consequences of own acting. Generally it should be a dynamic balance based on individual and creative approach. Philosophy of health should teach us to see our disease as a challenge to create successful life strategies. Our world is very risky place for living and if a disease strikes it could take us into dark abysses of our soul. Therefore, philosophy of health must to teach us to live with our disease by means of a lot of fruitful compromises that enable us still to participate with dignity in the life."⁴

FILOZOFIE ZDRAVÍ JAKO VÝCHOVA KE ZDRAVÉMU ŽIVOTU

Abstrakt: Zdraví je dnes chápáno i jako osobní hodnota lidského života. „Žít zdravě“ znamená „žít moudře“, „žít rozumně.“ Zdraví je odrazem našeho bytí a myšlení. Filozofie zdraví nahlíží na člověka prostřednictvím holistické / celostní medicíny, a tedy i zdraví chápe „globálně“. Zaměřuje se především na podporu pozitivních a konstruk-

⁴ Rybář, R.: Úvodní poznámka k filozofii zdraví. In *School and Health* 21 (1), Volume 1. (Ed.) Řehulka, E., MU Brno, 2006. p. 265. ISBN: 80-210-4071-8.

tivních přístupů k životu a zdraví. Takové systémové, celostní pojetí zdraví však není „objevem“ moderní medicíny, jeho počátky sahají až do doby počátků medicíny a filozofie v antickém Řecku. V současné době nabývají na významu také otevřené diskuse o lékařské etice, do škol je zaváděn „Program podpory zdraví ve škole“.

Klíčová slova: zdraví, filozofie, systémové pojetí, škola

HEALTH PROMOTION IN THE CURRICULUM AND EDUCATIONAL REALITY AT THE PRIMARY AND SECONDARY SCHOOLS

Eva MARÁDOVÁ

***Abstract:** The paper presents the results of a comparative study focusing on the current state of implementation of the education to promote and protect health into educational programmes for primary-school pupils and grammar-school students, as prepared at the Centre for health education within the Faculty of Education of Charles University, Prague. Research has shown that the educational programmes at schools and in particular the educational reality do not live up to the visions of the authors of the pedagogical documentation in this respect. The paper analyzes the causes of the identified state and presents possible solutions.*

***Keywords:** health education, curriculum, school educational programmes*

1. Implementation of the “Health 21“ programme objectives into the educational system

More than 10 years have passed since the publication of the “Health 21“ document which can be seen as the basis laid for the present European strategy of health promotion. In the Czech Republic, too, the issues concerning the comprehensive approach to health care have become a priority of the health care policy with regard to the objectives of the Long-term programme to improve health of the Czech Republic population known as “Health for all in the 21st. century“ (Government Resolution No. 1046/2002), and have been reflected in the description of work content for several departments. It is necessary to follow in this connection to what extent the fulfilment of the tasks set for the department of education in this field continues with success. In relation to the need to increase the health literacy among the population, specialists are first of all interested in the current stage of implementation of health education into schools. What activities are being effectively developed in schools and educational institutions in the area of health promotion? Can any positive changes be seen in the given area?

The Ministry of Education, Youth and Sports of the Czech Republic submits reports on fulfilling the “Health 21” programme. These documents show that the curricular documents represent an integral system of education in the health area, continuously supported by an information methodical portal and an expanded offer of continued education for teachers and educators. We are pleased to state that at the level of state curriculum the problems related to health promotion are among educational priorities and should be comprehensively and “spirally” developed at schools. The health education objectives formulated by the framework educational programmes (i.e. RVP) for the system of secondary education are a continuation of the RVP for primary education, namely of the programme for pre-school education. At the same time grant programmes are supported aimed at health education, prevention of accidents or forming of nutritional habits of children and youth. The ‘Health promoting school’ programme is being developed.

The realization of the goals in the area of health education in the elementary schools was reviewed by the Czech School Inspection during the school year 2007/2008; it carried out inspections in 116 elementary schools. There were considerable differences found between schools already at the level of implementation of the health education objectives into the school educational programmes (i.e. SVP). Only 48 % of the schools satisfactorily incorporated the conditions for healthy teaching and the fields of education associated with the subject, into the SVP. These schools created better projects of risk behaviour prevention compared with the others, nearly half of them made use of specialist assistance.

The report further states that schools primarily focus on providing healthy nutrition for pupils, safety and health protection mainly during their stay at school. The quality of school meals has improved, now nearing the principles of healthy eating, as well as the availability of drinks during the school day. Justified complaints about health and safety of children and pupils in schools being put at risk are rather are and usually made repeatedly about one particular school.

The school managements made it possible for 37 % of the educators to complete courses treating the subject of health education in 2007/2008. All the school staff are continuously trained in the area of safety and health protection (pursuant to Article 103, para 2 of the Labour Code) and in organizing first aid (pursuant to Article 102, para 6 of the Labour Code). Despite this effort the schools still have not managed to reduce the occurrence of accidents. The adopted preventive measures lack in efficiency and frequently are treated as mere formality. Although schools have drawn up preventive strategies to forestall bullying, the evidence given by pupils testifies to bullying incidents not being rare in elementary schools.

The above results suggest that two possible angles of views need to be considered when evaluating the level of fulfilment of the Health 21 programme objectives in the department of education. At the legislative and conception levels an important positive shift has definitely been achieved. Schools and educational institutions have the state-guaranteed documents available that define expected outputs, i.e. clearly describe what competences for pupils to acquire in relation to health promotion the schools should aim for. The problems remain, however, at the level of transforming the curriculum into practice Marádová, 2007, Mužíková, 2007. Only some of the evaluated schools

managed to use the materials in the manner leading to their adaptation to specific conditions and thus achieve the expected targets in practice. Is this a chance finding or rather a commonplace practice?

2. Health promotion within the curriculum of the primary and secondary education

The ongoing curricular reform has entered its next phase, the transformation of education based on the framework educational programmes is applied across the systems of primary as well as secondary education. A precondition for the achievement of the expected outputs of the individual programmes is the development of pupils and students' competences within the elementary, grammar-school and vocational-school education, in relation to the objectives of the "Health 21" document, also in the area of health promotion. The elementary education is aimed at building a relation to health and awareness of preventive protection of one's own health and safety. The follow-up education at the grammar school and secondary vocational school focuses on acquiring the competence of actively promoting and protecting health within the broader community.

It should be noted that elementary school pupils in the 1st. and 6th. forms started to work according to their own SVP as early as 1 September 2007. Whereas the elementary schools have now been collecting and evaluating their experience of realization of the educational programmes which they created in the course of recent years (based on the requirements of the Framework programme for the elementary education), the grammar schools and secondary vocational schools are only now opening the "door toward transformation". The framework educational programme for the grammar schools was approved on 24 July 2007 and its implementation began on 1 September 2009.

At the elementary schools health promotion has been traditionally given (in relation to educational needs of children and their personality and social development) much more attention than at the grammar schools. In the 21st. century conditions, however, education toward health represents an important part of life literacy and preparedness of people to live a meaningful life. Therefore it is also incorporated as a new educational subject in the curriculum for grammar schools. This innovation corresponds with the European and global strategies of populationwide education, that are steadily gaining ground in the interest of the protection and improving of health of both individuals and the whole population. The realization of this educational area at the grammar school (as compared with the elementary education) can to a much greater degree draw on self-reliance of students and their active approach to problems involved, their personal experience and views, develop their responsibility for safety and health etc.

At the present time, educators no longer question the importance of incorporating the field of "Humans and Health" into all the mentioned levels of education. But it still remains unanswered how to manage this area of education so as to achieve the required health literacy.

3. Research carried out at the selected elementary schools and grammar schools with study exceeding four years

The current problems relating to the preparation of school educational programmes concerned with health education are systematically studied by a research team at the Faculty of Education at Charles University, Prague. The results of the completed long-term researches have confirmed that it is just the implementation of health education into SVP which is one of the more difficult tasks within the transformation of elementary schools and on account of that specialist support, first of all methodical, should be offered to schools in this field. The effort to find the effective form of assistance must take into account the present needs of practical teaching. With regard to that, material and operational conditions for health education in schools are explored on a running basis, including methods of incorporation of the content into syllabus, the follow-up activities of a school targeted at health promotion (projects, offers of free-time activities), preparedness of teachers to communicate health education as well as educational reality as such at the selected schools.

Interesting results have been brought by the pilot study conducted in 2008, with teachers and students of the Faculty of Education, UK, Prague, participating. Its aim was to gain information about the ways of implementing health education into school programmes at randomly selected elementary schools and grammar schools and then compare the approach to health promotion at the two types of school which conduct the education process based on the same RVP ZV. Along with that the research probe allowed for testing methodology and verification of reliability and validity of tools being prepared for broader exploration of the current state of implementation of health promotion into the curriculum and educational reality in schools.

The data was provided by **12 elementary schools and 12 grammar schools**. We assumed that in relation to the preparation of the school educational programme the SWOT analysis had been completed in these schools, describing the current situation in a given school including the area of health promotion and protection of pupils' safety, which in turn stimulated increased interest of the school staff in health education. Regarding the fact that the same outputs of elementary education (RVP ZV) are being fulfilled at the second stage of elementary schools and in the lower grades of grammar schools (with length of study over four years), there should be no significant differences in the realization of this educational area.

To verify individual hypotheses several qualitative and quantitative methods were used: content analysis of curriculum, structured interview with a member of school management, observation and questionnaire-based research among pupils of individual schools.

4. Selected results of the research

The results obtained through the individual methods were comparatively analyzed, laid out in tables, compared with other available data and commented on against the defined hypotheses.

a) Implementation of health education into syllabus

The following overview shows how the monitored elementary schools and grammar schools incorporated the health-related problems into the syllabus in their school educational programme.

No. of schools	Manner of implementation of health education into syllabus
ELEMENTARY SCHOOLS:	
4	Health education as a separate subject taught every year from the 6th. to 9th. grades.
2	Health education as a separate subject taught every year in the 6th., 7th. and 8th. grades.
2	Health education as an integrated subject with physical education in the 7th. and 8th. grades.
1	Health education as an integrated subject with civics in the 7th. and 8th. grades.
1	A separate subject named family education taught in the 8th. and 9th. grades
1	Health education as a separate subject taught in the 8th. and 9th. grades. Health education as an integrated subject with physical ed. in the 6th. and 7th. grades.
1	Health education as an integrated subject with biology in the 8th. grade Health education as a separate subject taught in the 9th. grade
GRAMMAR SCHOOLS WITH STUDY EXCEEDING FOUR YEARS:	
2	Health education as a separate subject taught in the first and third grades
5	Integration of content into physical education – continuously throughout the grades
2	Integration of content into civics – continuously throughout all grades
1	Integration of content into biology in the third grade Health education as a separate subject taught in the fourth grade
2	Health education is not considered at all in the school educational programme.

b) Facilities and material conditions for achieving health education goals

The information collected *at the elementary schools* confirms that all schools have their own facilities appropriate for physical exercise of their pupils, i.e. pupils have gyms as well as outside school playing fields available. In addition to that, one school has expanded physical education, two schools have set up relaxation rooms for children.

The conditions in the monitored *grammar schools* are less favourable. Only 6 of the approached schools have their own facilities for physical education classes. Two of the schools provide classes of health-oriented physical education. As for the remaining grammar schools, pupils go to rented facilities to have physical education. These schools therefore cannot provide any sports facilities for use outside the classes.

c) Provision of eating and drinking regimen

All the *elementary schools* provide school meals at the canteens run by the schools, 9 school canteens offer pupils a choice from two meals. Five schools are involved in the School milk programme and have milk and milk products vending machines in service. 10 elementary schools have snack counters, whose offer, though, does not even in one case satisfy the requirement of healthy nutrition. All the elementary schools have drink vending machines in service, whose offer of course cannot be seen as provi-

ding the satisfactory drinking regimen. In six of the approached elementary schools the drinking regimen is supported by a special offer only reserved, though, for the 1st. stage pupils attending the after-school care centre.

The provision of healthy meals for pupils at the *grammar schools* is given less attention by comparison. School canteens with more than one meal to choose from is run at nine grammar schools. Pupils of the remaining three schools go to a different school (i.e. another building) to have lunch, if interested. Snack counters offer refreshments at six schools, 11 schools have drink vending machines in service. The food and drinks offered by the snack counters or drink vending machines do not satisfy the principles of healthy diet or appropriate drinking regimen either.

d) Health promotion in projects and other activities of schools

All the *elementary schools* provide a wide range of freetime activities of different kinds that are used by pupils. It was further ascertained that 6 elementary schools organize on a regular basis projects to promote health involving the whole school, 6 school use a help-box and carry out activities concentrating on the personality and social education. Attempts to promote health-oriented activities by means of notice boards have been recorded at 7 schools, but the information put up was not updated during the school year.

An offer of freetime activities for pupils has only been ascertained at 4 *grammar schools*. Every year these four schools realize health-promotion oriented projects and organize introductory “get-together“ excursions for pupils, whose programme is aimed at their personality and social development. In addition, one school has a help-box set up for pupils. As for health promotion, at two schools only were notice boards found, focused on substance abuse prevention.

5. Summary

The findings gained through examining the individual aspects of implementation of health promotion into the curriculum and exploring its teaching at the selected elementary schools and grammar schools (with a focus on the target group of pupils aged 11 – 15) can be summarized in the following problem groups:

- Compared to grammar schools with study exceeding four years, health education is given much greater attention at elementary schools, not only in terms of incorporating its content into the syllabus, but also and in particular as regards implementation of health promotion into the daily life of the school.
- Health education is only viewed in most grammar schools in the narrow (mainly medical) sense and its real goals (although specified within the valid curricular documents with regard to integral development of human personality) still evade many teachers.
- The health education themes are considered less important at some grammar schools, there is “not enough time“ for their development.
- It is assumed that pupils are sufficiently informed about health-related problems in the family and can learn more from other sources (internet, TV, magazines etc.).

- The content of health education is divided into several subjects (mostly biology, physical education, civics). Further, discussions or school projects are organized.
- Some topics are dealt with during excursions (mostly as part of programmes of prevention of pupils' risk behaviour).
- Health, its promotion and protection are only considered at the school's general level in association to safety training and familiarization with the school rules.

The completed pilot study identified some significant disproportions between the approaches to implementation of health education into the learning processes at the 2nd. stage of the elementary school on the one hand and in the corresponding grades at the grammar schools on the other. The elementary schools definitely have long-term experience of teaching the content focused on health-related problems (e.g. the earlier taught compulsory subject of family education). The grammar schools, by contrast, frequently see this educational area as a new "load" and probably need more time to fully appreciate its relevance and look for suitable ways to its implementation. Health promotion, however, should by no means be underrated within the grammar-school education. At both types of school the same target group of adolescents are involved after all, and they all have the right to acquire the competences needed for health protection and safe life.

6. How can the faculties educating teachers help?

Following evaluation of all the partial outputs of the described pilot stage of the research the schools will be offered further collaboration with regard to health education. The teachers will be provided with specialist information based on their interests as well as methodical support.

We are considering a closer interconnection of future teachers' training with the educational practice:

- Research activities in schools will be undertaken in cooperation with teachers and students of health education at the Faculty of Education of Charles University;
- Quality criteria for school activities and evaluation tools will be defined in the field of health promotion;
- Students will have an opportunity to collect materials in schools and follow the problems of the studied branch in connection with the learning process;
- Not only the valid curriculum, but also the objective risks threatening health and safety of adolescents (in relation to lifestyle changes, the growing occurrence of socially undesired phenomena etc.) should motivate each school to seek efficient strategy of developing health literacy of their pupils;
- Students will prepare within the college seminars specific proposals for continued development of the health promotion programme at the collaborating schools. They will use a modern approach that apart from getting information across also tries to influence attitudes, decision-making on styles of behaviour, supports confidence in children and their skills to resist unwanted influence of their peers;

- After defending the drafted scenarios the methodical material will be offered for further use by schools;
- Presence of education students at schools may be a motivating element for teachers in practice as well as pupils.

PODPORA ZDRAVÍ V KURIKULU A EDUKAČNÍ REALITĚ NA ZÁKLADNÍCH A STŘEDNÍCH ŠKOLÁCH

Abstrakt: V příspěvku jsou uvedeny výsledky srovnávací studie zaměřené na současný stav implementace výchovy k podpoře a ochraně zdraví do vzdělávání žáků základních škol a gymnázií, která byla zpracována na oddělení výchovy ke zdraví na Pedagogické fakultě Univerzity Karlovy v Praze. Výzkumné šetření odhalilo, že školní vzdělávací programy a zejména edukační realita nenaplnují v tomto ohledu představy tvůrců pedagogické dokumentace. Stat' analyzuje příčiny zjištěného stavu a předkládá možná řešení.

Klíčová slova: výchova ke zdraví, kurikulum, školní vzdělávací programy

THE CZECH PUBLIC'S OPINIONS ON THE REALIZATION OF HEALTH EDUCATION IN PRIMARY EDUCATION

Leona MUŽÍKOVÁ

Abstract: *The research results reveal the opinions of Czech Republic citizens on the realization of the educational content of health education in primary education. The paper continues a similar research from 2007 concerning the opinions of the Czech population on the overall quality of health education in primary education.*

The results were obtained by means of a representative sociological research into the issue of health and healthy lifestyle. The research was carried out in cooperation with the INRES –SONES agency towards the end of 2008.

The research involved 1795 respondents aged over 15 and was representative in terms of age, gender and regional citizenship of Czech Republic citizens.

The Czech public is positively in favour of teaching topics concerning health and healthy lifestyle. Most citizens prefer topics focusing on healthy diet and personal safety, however, they approve of other topics of the educational content of health education as well.

The obtained findings inspire recommendations for both teaching practice as well as teacher training. The findings are part of the School and Health for the 21st Century research plan.

Keywords: *health, health education, healthy lifestyle, realization of the educational content, primary education*

Introduction

Currently, a new concept of health education is being introduced within primary education in the Czech Republic. This innovated educational field should significantly contribute to enhancing health awareness and conscious behaviour in the Czech population. In this context, the term health literacy is often quoted (Holčík 2004). This literacy should become a precondition for healthy lifestyle, which reflects itself in the quality of life expressing the overall satisfaction with life and a general sense of personal well-being, psychic harmony and life satisfaction (more e.g. in Liba 2005).

The *Standard for Basic Education* (1995) represents a fundamental document of primary education and is in the centre of attention in this paper because it for the first time defined the educational field of health education in primary education as an individual subject, and classified it, together with physical education, within the *Healthy Lifestyle* educational area. The same document also determines existing *educational programmes for primary education*: the *Primary School* (1996), the *General Primary School* (1997) and the *National Primary School* (1997). The majority of Czech schools pursue the *Primary School* programme.

The above educational programmes are gradually being replaced by the *Framework Educational Programme for Basic* (i.e. primary and lower secondary) *Education* (FEP BE) (2005, 2007¹), which represents a national curricular document and defines a general framework for individual educational stages. All schools are obliged to observe this document when creating their own *school educational programmes – SEP*; these serve as curricular documents at school level and are designed by each school according to its specific needs.

The term *curriculum* is perceived as a fundamental pedagogical category. In the broadest sense of the word, it is defined as a set of problems related to solving questions linked to expected effects of education; in the narrow sense of the word it is understood as a curricular document or as educational content (Maňák, Janík, Švec 2008). The term *health education curriculum* is therefore understood as the educational content of the educational field of health education.

The educational field of health education is within the *Framework Educational Programme for Basic Education* defined as follows:

“The educational field of Health Education provides pupils with fundamental information on the human body as related to preventative health measures. Pupils learn to actively promote and protect health in all its forms (social, emotional and physical) and to be responsible for their own state of health. In its educational content, this field is closely linked to the educational area of Humans and Their World. Pupils reinforce their hygienic, nutritional, work and other preventative healthcare habits, expand their ability to refuse harmful drugs, avoid injuries and deal with personal threats in everyday and emergency situations. They expand and deepen their knowledge of family, school, peer group, nature, humans and interpersonal relationships, and learn to see their activities through the prism of the health-related needs and prospects of a growing young individual and to make decisions beneficial to their health. In view of the individual and social dimension of health, the educational field of Health Education is closely linked with the cross-curricular subject of Personal and Social Education.” (FEP BE, 2005: 76)

On research into the health education curriculum

Interdisciplinary research aimed at clarifying the position of health education in relation to other school subjects has been commenced only recently. So far, it has focu-

¹ Up-dated version of the FEP BE.

sed on the projected form of the health education curriculum (Mužíková 2006, 2008) and the relation of health education to family education and physical education (e.g. Marádová 2005; Mužík, Mužíková 2007). What is more, the position which the individual topics such as the issues of lifestyle (Csémy et al. 2005), diet (Rouhová, Pillerová, Havelková 2001; Procházková 2006) social behaviour (Prokopová 2006), risky behaviour (Čech, Hanáková 2008) or health risks (Žaloudíková 2004) should occupy in the health education curriculum has also been discussed.

There have not been many research projects into the realized form of curriculum in the Czech Republic relevant in respect to the topic of this paper. Marádová (2007), who has been engaged in studies of this area for a relatively long time, carried out a questionnaire survey accompanied by interviews in 2004–2006. Its aim was to gain information about the implementation of health education in contemporary primary education from the lower and upper primary school teachers' perspective. The respondents' answers indicate that pupils are especially interested in family and sexual education, however, teachers tend to avoid this area and in the overall research evaluation it occupied the position of the least favourite topic.

Other research (Mužíková 2006, 2008; Běličková 2008; Hloucalová 2008) analysed head teachers' opinions (n = 684) about the ways of realization of health education in schools. The obtained findings confirmed that the status of health education as an independent educational field is in many schools very low and the projected form of the health education curriculum is not realized in an expected and appropriate way.

Other findings concerning health education are based on research by Žaloudíková (2003, 2004). Even though the attention was paid especially to the result form of curriculum², some of the findings can also be related to the realized curriculum. The research, among other things, points out that the respondents (pupils, teacher trainees and teachers) miss sufficient information about most threatening factors to human health and health prevention of serious diseases. The author also explores the child conception of health and diseases as well as smoking (e.g. Žaloudíková, Hrubá 2009).

Similarly, a range of other authors focus on partial health education topics, but complex research into its curriculum is still absent.

Research problem and research aims

The research into the opinions of Czech Republic citizens carried out in 2007 helped to identify main reasons for dissatisfaction of the Czech public with the overall quality of health education in primary education, revealing that Czech Republic citizens are in particular dissatisfied with the extent and content of health education in terms of topics supporting health and healthy lifestyle (Mužíková 2009). The research thus confirmed the above mentioned negative findings obtained by means of research into the head teachers' opinions on the realization of health education in primary schools (Mužíková 2006, 2008 etc.). This state thus represents a striking contrast with the high quality of health education in many countries all over the world (Pühse, Gerber 2005).

In respect to introducing newly conceived health education within primary education in the Czech Republic, we decided to further specify the current opinion of the

2 In the area of pupils, students and teachers' health risks awareness.

Czech public on including health education and its thematic content in primary school education. We also attempted to verify if the views among population changed with age, gender or other socio-demographic population characteristics.

Research sample

The Czech Republic citizens' opinions were obtained from the sample of 1796 respondents selected randomly by means of quotas. The sample was representative of the Czech population aged over 15. Representativeness was derived from the population of the Czech Republic aged over 15.³ It can be argued that the results stated below are representative of the Czech population aged over 15 in terms of gender, age and regional citizenship.

Other signs, which were not representative but were observed within the research, included education, marital status, number of children, size of the respondent's residential municipality, occupation, net monthly family income, attitude to religion and type of accommodation. Cases where statistical significance was proved are pointed out. Nevertheless, due to the fact that these data are not representative, revealed statistically significant correlations can be interpreted only as tendencies.

Research method

The research was designed as a sociological one and was based on questions proposed by the author of this paper. The survey was carried out by means of a standardized guided interview between an interviewer and a respondent.

Data were gathered by 360 interviewers of the *INRES - SONES Agency* across the whole of the Czech Republic. The *INRES - SONES Agency* was also responsible for visual and logical inspection, coding and computerising the data, and for results tabulating. The interpretation of the obtained results was performed by the author of this paper.

The data were statistically processed by the SASD 1.3.0 program (statistical analysis of social data). One-factor analysis and contingency tables for selected signs of two-factor analysis were processed. The correlation level of selected signs was defined by means of chi-square test and other testing criteria, applied according to the character of signs. This analysis served as a basis for subsequent data interpretation.

Respondents' answers were recorded in a written form; answer sheets were verified in a pre-research. The inspection focused on logical relations as well as the level of completeness and information credibility. The sheets with non-functional illogical links and incomplete sheets (when the respondent refused to answer the questions and decided to finish the interview earlier) were excluded. These sheets were placed in the "non-respondents" category.

The assessed items often contained continuous answers, which had to be transformed in such a way that would enable making a clear summary of the main results.

³ See the *Population Structure of the Czech Republic by Major Age Groups in 2007*. (31 Dec. 2007) Prague: Czech Statistical Office, 2008.

The continuous answers were divided into partial statements, and thus the character of the transformed variable signs changed from a continuous to category form.

Research schedule

The research project was designed in September and October 2008 and was subjected to objecting in the beginning of November 2008. The pre-research verifying the research techniques and formulating the questions to be asked involved a sample of 286 respondents and was carried out in November 2008. Simultaneously, all interviewers were instructed.

The actual survey was organized across the whole of the Czech Republic at the turn of November and December 2008. In December 2008, the completed answer sheets were gathered and visually and logically inspected. The obtained data were subsequently computerised. The next step involved adjusting the data, their basic mathematical and statistical analysis, processing frequency and selected contingency tables, and primary data interpretation.

The results were interpreted by the author in the beginning of 2009.

Results

The aim of the research was to find out what views Czech Republic citizens held as regards including topics enhancing health and healthy lifestyle awareness in primary education. This aim was reflected in the wording of the following question:

“Do you think that primary school classes, resp. primary education should include topics contributing to health and healthy lifestyle awareness?”

This closed dichotomic question allowed for two possible answers, “yes” or “no”.

A predominant majority of Czech Republic citizens (88.6 %) believe that topics contributing to health and healthy lifestyle awareness should be part of primary school education. Only approximately one in ten citizens (11.4 %) argue that this area should not be included in primary education.

Table / Graph 1 Czech Republic citizens' attitude as regards including health education in primary education (n = 1795)

<i>Attitude</i>	<i>Frequency of answers (%)</i>
Agree	88.6
Disagree	11.4

Two-factor analysis signals a correlation between the opinion on this question and gender. Female respondents significantly more often agree that primary school education should include also topics contributing to health and healthy lifestyle awareness (at the level of significance $p = 0.01$) while there are more male respondents not sharing

this view ($p = 0.01$). The characteristics of the chi-square test for gender equals to 6.772 for the number of degrees of freedom equal to 1.

The correlation between the answers to this question and respondents' age is weaker. Testing according to individual age groups has revealed that only the youngest age group (aged 15–19) significantly more often does not agree with including the above mentioned topics ($p = 0.01$). As for the other age groups, statistically significant differences were not identified. In the case of age, chi-square equalled to 8.958 for the number of degrees of freedom equal to 6.

Another correlation was identified as regards the views of this question and citizens' education. Respondents with primary education significantly more often disapprove of including topics contributing to health and healthy lifestyle awareness in primary school education ($p = 0.01$); respondents with "maturita" exam are, on the other hand, significantly more often in favour of these topics ($p = 0.05$). Chi-square for education equals to 10.788 for the number of degrees of freedom equal to 3. In this case, however, age can partially reflect itself through education because respondents aged 15–19 who disapproved of this view most commonly stated primary education. The same can be applied to correlation with the number of children when greater opponents of including these topics in primary school education are childless citizens ($p = 0.01$). Other statistically significant correlations were not identified.

The question surveying the citizens' views of the prospective inclusion of topics contributing to health and healthy lifestyle awareness in primary school education had a filter character. Respondents who supported the inclusion of these topics in primary school education (1590) were asked about the health and healthy lifestyle topics which should be included in primary school education in particular. The question had the following wording:

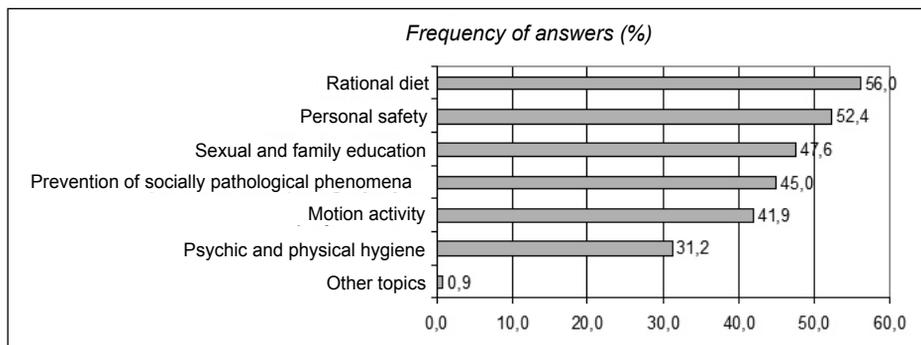
"State which topics contributing to health and healthy lifestyle awareness should be in your view especially included in primary education."

The question was formulated as semi-open and respondents could choose up to three topics they considered most important from the offered range. If they were not satisfied with the offered alternatives, they could state other topics in their own words. The range of answers offered to respondents to choose up to three topics was as follows:

- topics concerning healthy diet (basic components of nutrition etc.),
- topics concerning motion activity (fitness programmes for the health etc.),
- topics concerning psychic and physical hygiene (daily routine, prevention of diseases etc.),
- topics concerning personal safety (first aid, critical situations etc.),
- topics concerning prevention of socially pathological phenomena (drug abuse etc.),
- topics concerning sexual and family education (contraception, venereal diseases, partner and family relations etc.),
- other topics (state).

From the above listed topics, Czech Republic citizens mostly support those related to healthy diet (56.0 %) and personal safety (52.4 %). These topics were preferred by more than a half of respondents who stated that they wanted topics contributing to health and healthy lifestyle awareness to be included in primary education.

The second group of topics, whose integration is supported by more than two fifths of respondents, involves sexual and family education topics (47.6 %), topics concerning socially pathological phenomena (45 %) and topics related to motion activity (41.9 %). The least popular seem to be topics dealing with psychic and physical hygiene, which are preferred by less than a third of respondents (31.2 %).



Graph 2 Preferences for topics concerning health and healthy lifestyle (n = 1582)

In general, it can be argued that the topics dealing with health and healthy life style which the citizens wish to be included in primary school education are varied and balanced. With the exception of psychic and physical hygiene, all topics are preferred by approximately a half of respondents who stated that these topics should be part of primary school education.

As regards other answers, the most frequent is the statement that all listed topics are important and it is therefore not possible to choose only three of them. In the category of “other topics” the respondents often suggested care for senior citizens and protection against bullying. Other topics were stated very rarely.

Male respondents prefer motion activities significantly more often than their female counterparts ($p = 0.01$), but on the whole, the statements are balanced in terms of gender (chi-square for gender equals to 13.928 for the number of degrees of freedom equal to 6). Other statistically significant correlations have not been identified, which means that there is no statistically significant difference in terms of particular age or education groups, or other groups of respondents defined on the basis of the other socio-demographic characteristics.

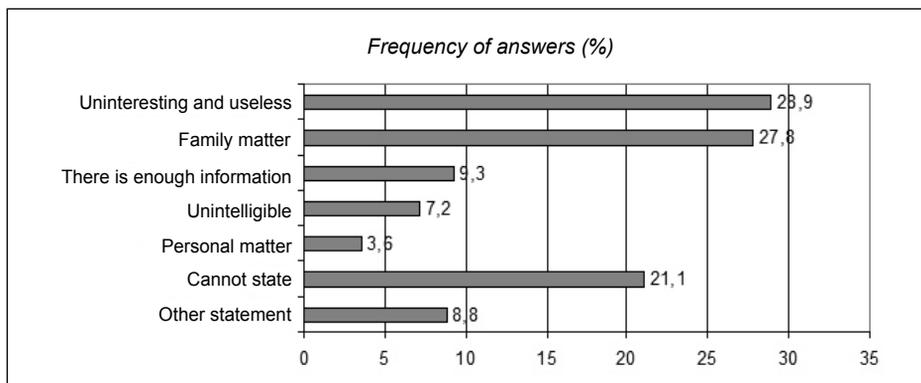
The group of respondents arguing that primary school education should not include topics dealing with health and healthy lifestyle (n = 205) was asked to state the reasons for not including these topics in education. The question was filtered and formulated as open, i.e. respondents were not offered a range of possible answers, but were encouraged to express their own views. Their opinions were therefore spontaneous and not influenced by offered alternatives. The question had the following wording:

“In your view, what are the reasons for not including the topics contributing to health and healthy lifestyle awareness in primary school education? Answer briefly in your own words.”

The answers were subjected to content analysis resulting in the following categorisation of answers:

- It is primarily a family matter: “let the family handle it; parental influence is more important; it is parents’ responsibility; it should be handled in the family” etc.
- It is uninteresting and useless: “attention should be paid to other subjects; it is uninteresting; it is boring; there is no point in it; it is not important; children should rather move; they should study hard” etc.
- It is unintelligible to pupils: “children would not understand it; they are not prepared for it; they are too young; they are not able to absorb it; they would not take anything from it; it is enough to teach it at secondary school” etc.
- There is enough information: “there is a plenty of information everywhere – everyone should find for themselves; the media are full of information; it is already taught within other subjects” etc.
- It is a personal matter: “let everyone do what they want; everybody is different; everybody has different genes; everybody has their own lifestyle; everybody should decide for themselves” etc.
- Other statements: “teachers are not trained, doctors should inform instead; children could learn inappropriate information; children would lead a too healthy lifestyle – in my view this is harmful; it could lead to anorexia” etc.
- Do not know, cannot answer.

According to these respondents, the most important reasons why the topics dealing with health and healthy lifestyle should not be included in primary school education are that they are uninteresting or useless (28.9 % of respondents), or that it is primarily a family matter (27.8 %). Less respondents (9.3 %) state the fact that there is enough information concerning this topic in the media, other school subjects etc., or that this topic is unintelligible to primary school pupils (7.2 % of respondents). More than a fifth of respondents (21.1 %) who do not agree with the inclusion of the above mentioned topics were not able to state their reasons and answered “I don’t know”.



Graph 3 Reasons against the inclusion of health education in primary school education (n = 195)

The applied testing criteria did not signal any statistically significant correlations between this view and the selected socio-demographic characteristics; nevertheless, it is necessary to point out that due to a low number of cases the possibility of their application was very limited.

Conclusion

The sociological research from 2007 (Mužíková, 2009) identified main reasons for dissatisfaction of Czech Republic citizens with the overall quality of health education in primary education. The main reasons for dissatisfaction were the extent of education and the educational content of health education. These attributes were further studied in a follow-up research carried out in 2008.

The follow-up research revealed these findings:

The predominant majority of Czech Republic citizens are in favour of the inclusion of topics contributing to health and healthy lifestyle awareness in primary school education. Only a tenth of citizens are against it. Negative attitudes are more common in male respondents, citizens of the youngest age group aged 15 – 19, persons with primary education and childless citizens, the main reason being that topics dealing with health and healthy lifestyle are uninteresting and useless for children and that it is primarily a matter of each family, which should be responsible for educating children in this area.

As for the educational content, the Czech public supporting health education prefers especially topics concerning healthy diet and personal safety; however, it places great emphasis on sexual and family education, prevention of socially pathological phenomena and topics related to motion activity too. The least popular topics seem to be those of psychic and physical hygiene. The public view of this question is rather homogenous and the opinions of individual groups divided according to socio-demographic characteristics do not statistically significantly differ, with the exception of gender.

The above mentioned findings inspire recommendations not only for teaching in primary education but also for teacher training. It can be recommended that the curricular objectives of the *Health Education* educational field in primary education should be realized. Adequate undergraduate and postgraduate teacher training of primary school teachers, however, must correspond with these objectives. The research, among others, acknowledged the importance and justified the realization of the *Teacher Training in Health Education for Primary Schools* study course, which is currently newly in progress at Czech faculties of education.

NÁZORY ČESKÉ VEŘEJNOSTI NA REALIZACI VÝCHOVY KE ZDRAVÍ V ZÁKLADNÍM VZDĚLÁVÁNÍ

Abstrakt: Výsledky výzkumu přinášejí názory občanů České republiky na realizaci vzdělávacího obsahu výchovy ke zdraví v základním vzdělávání. Příspěvek navazuje na obdobný výzkum z roku 2007 týkající se názorů české populace na celkovou úroveň výchovy ke zdraví v základním školství.

Výsledky byly získány na základě reprezentativního sociologického výzkumu k problematice zdraví a zdravého způsobu života. Výzkum byl proveden ve spolupráci s agenturou INRES – SONES na konci roku 2008.

Výzkumu se zúčastnilo 1795 respondentů ve věku nad 15 let. Soubor byl reprezentativní z hlediska věku, pohlaví a regionální příslušnosti občanů České republiky.

Česká veřejnost jednoznačně podporuje výuku témat z oblasti zdraví a zdravého životního stylu. Většina občanů preferuje témata týkající se správné výživy a osobního bezpečí. Souhlasí ale i s ostatními tématy vzdělávacího obsahu výchovy ke zdraví.

Ze získaných poznatků plynou doporučení pro pedagogickou praxi i pro přípravu učitelů. Výsledky jsou příspěvkem k řešení výzkumného záměru Škola a zdraví pro 21. století.

Klíčová slova: zdraví, výchova ke zdraví, zdravý životní styl, realizace vzdělávacího obsahu, základní vzdělávání

FRAMEWORK EDUCATION PROGRAMMES AND THE ATTITUDES OF TEACHERS IN PRE-PRIMARY AND PRIMARY EDUCATION TO SELECTED ASPECTS OF HEALTH EDUCATION

Dagmar KUBÁTOVÁ

Abstract: *The paper points out certain persisting attitudes held by pre-primary and primary school teachers that represent an obstacle to the full implementation of the educational programme “Health Education”.*

Comparison of the results of studies into the work of teachers in the area of health education before and after the introduction of the Framework Education Programme in schools showed that the topics of drug prevention education (and illegal drugs in particular) and sex education (including the prevention of sexual abuse) are still incorporated into teaching only sporadically or not at all. The attitudes of teachers to open education in this area, which encroaches on the intimacy of the family, continue to be influenced, first and foremost, by their own individual scholarship, communication skills (including communication with the families of their pupils), their view of the world and their personal experience.

Instruction in the area of medical skills and first aid also continues to lack a systematic approach in the majority of schools, generally taking the form of one-off project days at which instruction is the responsibility of members of the emergency services. The approach taken by teachers is primarily influenced by the fact that their training is generally merely theoretical, and that they have not had the opportunity of training lifesaving methods in practice. They lack the practical skills required for teaching such methods, for which reason they do not demonstrate them.

Keywords: *drug prevention education, sex education, instruction in medical skills and first aid*

Introduction

The issue of health (healthcare and health education) can be said to have become part of the education offered in our schools many decades ago, evidence of which is

provided by, for example, textbooks of elementary teaching and science dating back to the formation of Czechoslovakia (e.g. TŮMA, 1920, etc.). The idea of health education is not, then, an entirely new one within the educational system in this country. Various topics associated with a knowledge of the human body, health and illness, injuries, first aid, etc. were incorporated into teaching, though this could not be considered a comprehensive or thoroughly integrated system encompassing all aspects of health. The aim of this *health and hygiene conception*, focusing on medicine, was primarily:

- *to ingrain habits of good hygiene*
- *to prevent infectious diseases*
- *to provide first aid instruction*

This conception continued until the nineteen nineties, and in its time made a great contribution to the awareness of the population of this country and to the majority of the population observing the principles of good hygiene and the recommendations and instructions of medical staff, and taking an interest in health education, to this day.

The change in political conditions at the beginning of the nineteen nineties was accompanied by increasingly frequent calls from health service staff and educators for an improvement to the environment seen in primary schools, which inevitably created health risks for children (the excessive burden placed on the children, situations of mental stress, their being forced to sit in place for long periods of time, the general restriction of physical movement, the risk of social conflict, etc.).

Efforts aimed at improving the primary school environment were supported by the Faculty of Education at J. E. Purkyně University in Ústí nad Labem in 1992 with the introduction of the optional course “Health Education”, which was then incorporated into the compulsory syllabus for the study fields Teaching at the First Level of Primary School and Pedagogy in the following year (1993). This was inspired by the “Programme of Improvement for Primary Schools” drawn up by the National Institute of Public Health and the study trip to Holland taken by Czech university educators in 1991, during which they became acquainted with the content and conception of “Health Education” in Dutch primary schools and with the idea of the “Healthy School” project, which was beginning at that time.

If Czech educators were rather bewildered by the wide-ranging scope of “Health Education” in the local primary schools during their trip to Holland in 1991, by 1995 it had become clear that the problems leading to this conception of health education in the countries of Western Europe (drug abuse, the increase in aggression, the issue of AIDS, etc.) had also snowballed in this country. The aforementioned “Standard of Primary Education in the Area Healthy Lifestyle” of 1995, along with the introduction of the position of school prevention methodologist, were the first responses of the Ministry of Education of the Czech Republic to the rapid spread of negative social influences among increasingly young age groups of primary school pupils. In essence, this represented a (largely borrowed) model of health education used in Belgium, Holland and other Western European countries, in which elements of health education were accompanied by environmental education.

The “Standard of Primary Education in the Area Healthy Lifestyle” introduced into schools in 1995 by a Ministry of Education Gazette set out the following basic components of health education:

- The individual development of the child (self-fulfilment)
- Physical and mental hygiene, a daily regime
- Nutrition
- Exercise
- Drug prevention education
- Sex education
- Personal safety

Issues that had formerly been widely seen as extremely intimate and delicate (drug prevention education, sex education and the prevention of risks associated with personal safety, including child abuse), that encroach on the intimacy of the family, became part of the educational curriculum in our schools on an official basis for the first time. It had always been the family, first and foremost, that had selected a certain strategy in these areas with a view to family traditions, their view of the world, their religious beliefs and the personal experience of family members. Three basic approaches, which can also be distinguished among individual educators, can be seen within these strategies:

- The restrictive approach – sees first and foremost the risks and threats of social destabilisation in the provision of information relating to intimate issues and drugs. Sees a solution to the influence of destabilisation in placing as many obstacles and impediments (prohibitions, threats, the suppression of all discussion) as possible to the realisation of activities in these areas. Considers open information as potentially threatening, disintegrating and corrupting.
- The tabooising approach – a complete lack of the provision of information about these areas or discussion of a particular area being taboo. Simply ignoring a particular issue amounts to the same as a teaching method that presents the given issue as undesirable.
- The liberal–open approach – takes the position that only a universally informed and knowledgeable person is capable of properly assessing all the positive and negative aspects of these issues, and that only such a person behaves responsibly even when there is no threat of restriction. Based also on the conviction that it is possible to talk to a child about anything, even serious and intimate matters, openly from the earliest age. Suitable words corresponding to the child’s intellectual development and age can always be found, divesting the issue in question of its mythical nature and mysteriousness. Sufficiently strong barriers to asocial behaviour can be formed for the future before the child’s first contact with a negative phenomenon at a time at which the child still has a complete acceptance of authority.

Following the introduction of the “Standard of Primary Education in the Area Healthy Lifestyle” into schools, its teaching at the first level of primary school fell within “Elementary Teaching” (elements of health education) and in years 4 and 5

within “Science”. The course “Health Education” (33 teaching hours) was drawn up as part of the subject “Science” within the educational programme “Primary Schools”, with the knowledge and practical skills demanded being elaborated in detail for the individual components of health education within the programme’s syllabuses.

Our experience of school teaching (KUBÁTOVÁ, 2004) indicated that more than 80 % of teachers in the first level of primary schools working according to the educational programme “Primary Schools” overlooked the course entitled “Health Education” and failed to implement it, as it was not attached to the subject “Science” as an integral part of it within the programme’s syllabuses, but given elsewhere. Teachers took no interest in this course, since Health Education did not exist as a separate subject, and since the majority of teachers overlooked the Gazette introducing health education and a healthy lifestyle into schools.

Teachers’ attitudes to drug prevention education

Drug prevention education fared worst of all aspects of health education in the aforementioned research into the work of teachers according to the “Standard of Primary Education in the Area Healthy Lifestyle”, in which 93 teachers in the first level of primary schools in Bilina, Most and Teplice took part. Responding to the question as to whether teachers agree to the inclusion of drug prevention education in the educational curriculum, 70 % of those questioned replied positively, 21 % were unable to decide whether it was a good or bad thing, and 9 % of teachers were definitely opposed. These attitudes were confirmed by their responses to the question as to how often the teachers considered the topic during teaching. A total of 8 % of teachers held the tabooising approach, i.e. stated that they deliberately avoided the issue of drugs in an alleged effort not to draw children’s attention to drugs, and 52 % of teachers incorporated the issue into teaching less than once a month, and then only in response to a particular problem that had to be resolved.

Table 1: What did primary school teachers in the Central Bohemia and Ústí Regions consider the greatest problem in the area of negative social phenomena in the year 2008–9 (n = 64 teachers from 16 schools)

Negative phenomenon / Occurrence among pupils (% of teachers’ answers)	not at all %	sporadically %	among 1/3 of pupils %	among 1/2 of pupils %
Addictive substances, primarily smoking	26	53	15	6
Bullying	18	76	6	-
Absenteeism (primarily truancy)	35	59	6	-
Rude and vulgar behaviour towards teachers	23	71	5	-
Theft	21	76	3	-

a) Drug prevention education in primary school syllabuses in the Ústí Region in the 2008–9 school year:

- In spite of the fact that, according to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2004), 36.2 % of 13-year-old children in this country have had at least one experience of sniffing solvents, 20.7 % an experience with the use of cannabis products, 18.1 % with the use of ecstasy, and 12.4 % with the use of pervitin, the school syllabuses drawn up in accordance with the Framework Education Programme that we had at our disposal do not reflect this situation to any great extent. Research among teachers in the 2008–9 academic year, however, showed that it is drugs that teachers consider the greatest problem in the area of negative social phenomena (KŮPEČKÁ, 2009, see Table 1).
- In spite of the fact that the issue of drugs affects increasingly young age groups, a third of teachers at the first level of primary school still believe that talking to young schoolchildren about illegal drugs only arouses or increases an undue interest in them, and do not realise the importance of awareness and the formation of defences and anti-drug attitudes at a time at which children have yet to encounter the given phenomenon.
- At a number of schools there may be a certain tabooising of the issue of drugs associated with fears for the prestige of the school and concerns that the school may attract smaller numbers of pupils. In this respect, the public should be informed in a targeted manner of the fact that no school can avoid socio-pathological phenomena, including drugs, and that it is of the utmost importance that these phenomena are not concealed, but rather resolved. Schools that prove capable of successfully resolving any problems that do arise and ensuring personal safety and the health of the social environment for each child should, in contrast, gain even greater prestige. Following our research into the primary school syllabuses at selected schools in the Ústí Region we stated that a school drug prevention strategy had been incorporated in a comprehensive manner both into the school syllabus and on the school's webpages for parents, including information about how to tell whether their children are taking drugs and recommendations of action to be taken in such cases, at only two of the twenty primary schools studied.
- It is, however, positive to see that drug prevention education was included in all the twenty primary school syllabuses in the Ústí Region that were available to us. In view of the fact that this related merely to alcohol and smoking in the majority of cases, the introduction of the Framework Education Programme for Primary Education in schools can be said to have resulted in a desired shift in the attitudes of teachers to school drug prevention teaching as compared to the situation before its introduction, though generally only in the case of alcohol and smoking.
- It is clear from the primary school syllabuses evaluated at selected schools and the School Prevention Programmes that draw up methodologies of prevention, and which are referred to in primary school syllabuses, that one-off projects from outside the school that establish methodologies of prevention are generally used in school drug prevention education, rather than systematic work on the part of the teacher.

A total of 42 % of teachers state that when teaching drug prevention (understood principally as anti-smoking) to their pupils they feel a sense of futility, feel that they are lacking necessary skills, or feel that the family has a greater influence (KOPECKÁ, 2009).

The teacher’s own relationship to drugs also plays a role in teaching, as is shown by research conducted among future primary school teachers at the Faculty of Education at J. E. Purkyně University in Ústí nad Labem (see below). The Czech public is generally considered to have an extremely tolerant attitude towards drugs, and this is also true of many of our future teachers. A tolerant attitude towards certain psychotropic substances may have an influence on the plausibility of their teaching work with their pupils (see Diagrams 1, 2, 3 and 4).

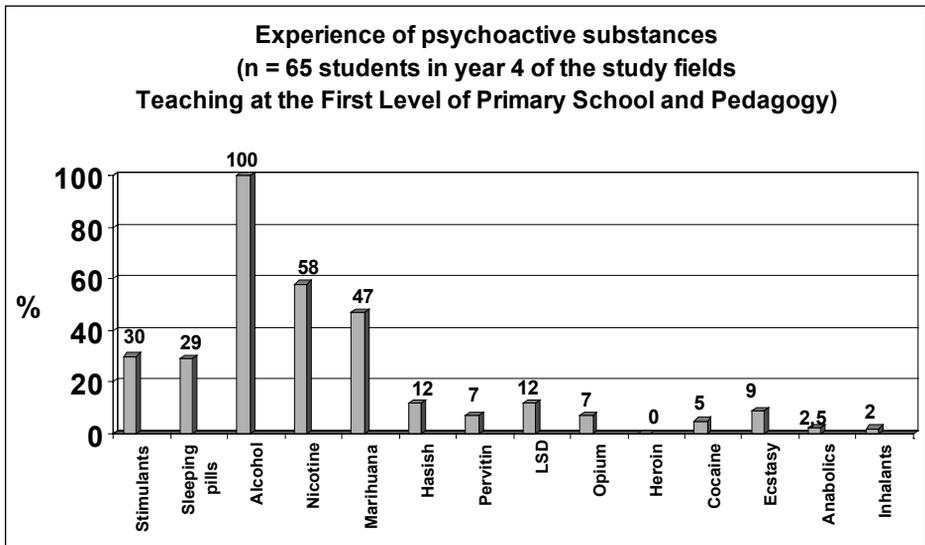


Diagram 1: Students’ experience of psychoactive substances

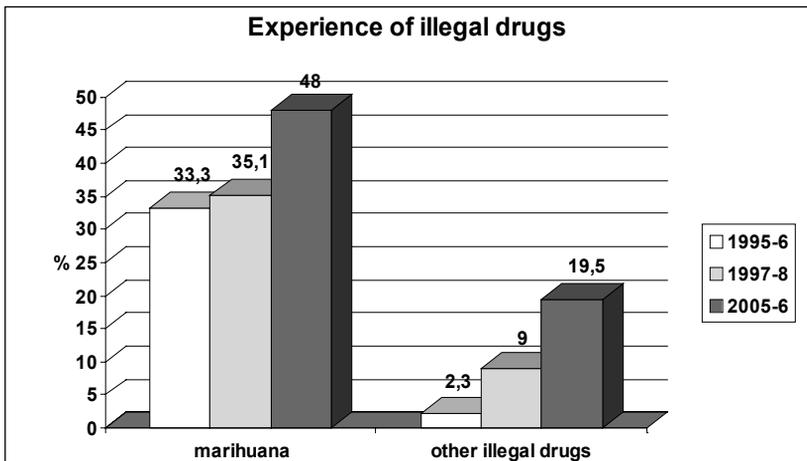


Diagram 2: Students’ experience of illegal drugs in the period 1995–2006

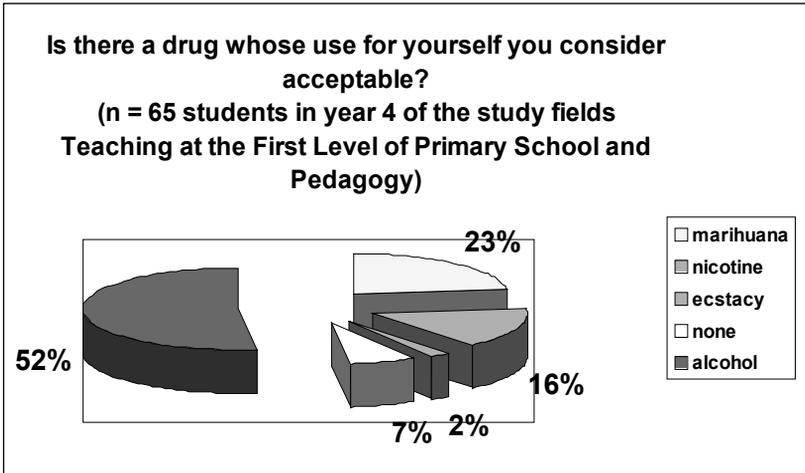


Diagram 3: Students' attitudes towards the tolerance of drugs

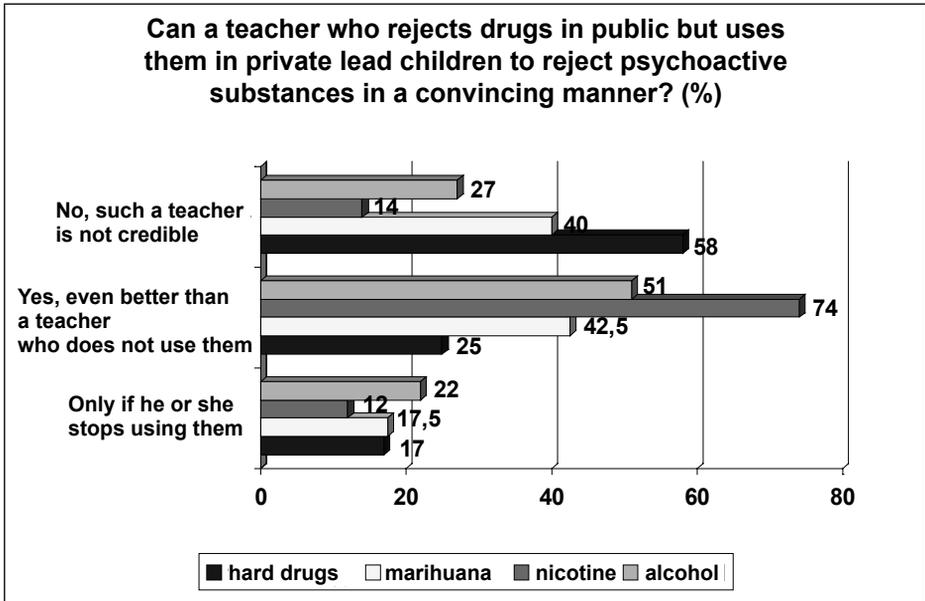


Diagram 4: Students' view of the teaching work of teachers in the area of drug prevention in relation to their own private lifestyle
 (n = 65 students in year 4 of the study fields Teaching at the First Level of Primary School and Pedagogy)

b) Drug prevention education in nursery school syllabuses in the Ústí Region in the 2008–9 school year:

Only 15 % of the 23 preschool syllabuses in the Ústí Region available to us included a programme of drug prevention education relating to alcohol and smoking. This result indicates that nursery schools are not, as yet, fully aware of the importance of their role in shaping attitudes towards drugs at an age at which children are most easily influenced.

Teachers' attitudes towards sex education

Our experience of teaching before the introduction of the Framework Education Programme for Primary Education and Framework Education Programme for Preschool Education into schools indicated, on the basis of our research, that sex education (if taught at all) was not taught in a comprehensive manner, but rather on a psychological and social level (KUBÁTOVÁ, 2004).

Factors influencing the attitude of teachers towards sex education (n = 67 teachers at the first level of primary school, Děčín)

Factor	% of respondents		
Faith	Religious 17 %	Not religious 83 %	Did not say 0 %
Sexual orientation	Heterosexual 89 %	Homosexual 1.6 % Bisexual 6 %	Did not say 3.4 %
Sexual abuse in childhood	Physical 2 %	Verbal 1 %	None 96 %
Relationship towards sex	Positive 73 %	Difficult 27 %	Did not say 0 %
Concerns about possible problems with the families of pupils	Yes 86 %	No 14 %	Do not know 0 %

The greatest problem was seen to be the lack of soundness among teachers in the area of sex education and the resulting uncertainty as to how to teach sex education in such a way that there was no conflict with the families of pupils.

Sex education in nursery school and primary school syllabuses in the Ústí Region in the 2008–9 school year:

- There was no specific mention of either sex education or prevention of sexual abuse in any of the 23 preschool syllabuses in the Ústí Region available to us, in spite of the fact that the media have recently presented a number of dramatic cases of sexual abuse and child abuse. E. VANÍČKOVÁ, K. PROVAZNÍK, HADJ-MOUSSOVÁ (1999) draw attention to the importance of the school in the prevention of sexual abuse and child abuse.

- The 20 primary school syllabuses in the Ústí Region available to us gave most frequent mention to the prevention of HIV AIDS (18). None of them made specific mention of the prevention of sexual abuse or child abuse.
- The teacher training experience of students points to the fact that sex education is still neglected in our schools. Only 2 of 32 students in year 4 of the study field Teaching at the First Level of Primary School encountered the topic of sex education during continuous work experience in the current academic year. Of 12 students studying Nursery School Teaching none encountered the topic.

Teachers' attitudes towards the teaching of medical skills and first aid

Our experience of teaching following the introduction of the “Standard of Primary Education in the Area Healthy Lifestyle” into schools was that this area continued to be neglected. The principal reason for this was the uncertainty of the teachers themselves in respect of the skills of lifesaving and first aid, resulting in them being unable to pass them on to their pupils.

First aid teaching in primary school syllabuses in the Ústí Region in the 2008–9 school year:

The teaching of medical skills and first aid was included in all twenty of the primary school syllabuses in the Ústí Region that were available to us. It can be said, however, that their teaching in the majority of schools is still not conducted on a systematic basis, usually taking the form of one-off project days at which instruction is the responsibility of members of the emergency services. Teachers' attitudes are influenced primarily by the fact that although they are trained, this training is generally only theoretical, and does not give them the chance of trying out lifesaving methods in practice. They still lack the practical skills necessary for teaching, for which reason they do not perform this teaching themselves. The majority of schools also do not have sufficient aids (resuscitation dummies, training bandages, etc.).

Research conducted among pupils in years 5 and 9 at primary schools in the Litoměřice area (ISEROVÁ, 2009) discovered that the unsystematic approach to the teaching of first aid and the reliance of teachers exclusively on project days featuring demonstrations of the work of the emergency services are reflected negatively in the knowledge and skills of pupils, particularly in the higher years of primary school, where interest in such repeated events falls. The discovery that self-assessment on the part of the pupils did not reveal any great difference between pupils in years 5 and 9 is particularly alarming. The percentage of year 9 pupils who believed themselves capable of providing first aid to an unconscious person was actually lower than that of year 5 pupils (see Diagrams 5 and 6).

It is appropriate to support interest in the teaching of first aid among older pupils, who have a greater interest in modern technology, with the use of media sources (com-

puter technology, the Internet, communication over the Internet, etc.). The commensurate skills and a sense of certainty in performing first aid cannot, however, be attained without practical training. Teachers' attitudes towards the teaching of first aid cannot change if they do not themselves attain practical skills in first aid methods. Modern teaching methods also demand the use of computer technology and the Internet, in order that teachers do not lag behind their pupils.

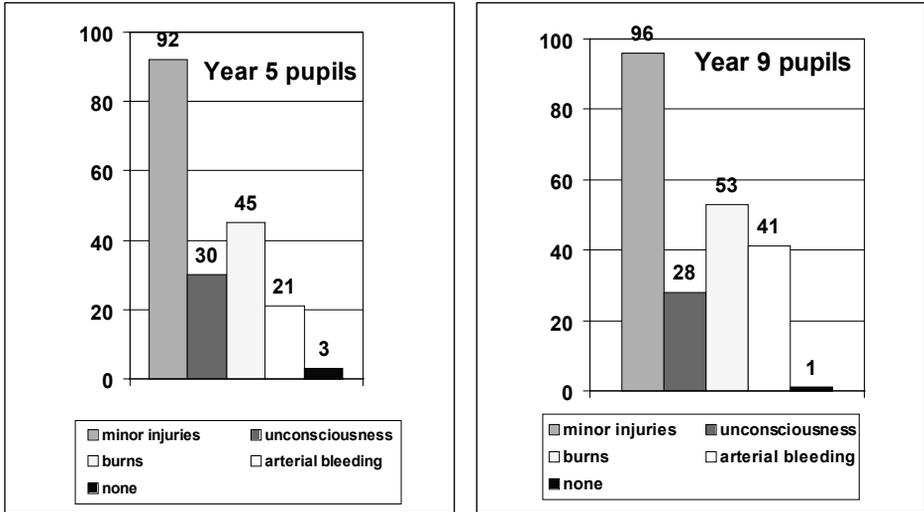


Diagram 5: A comparison of the ability of pupils in years 5 and 9 (expressed by the pupils themselves) to provide first aid (%)

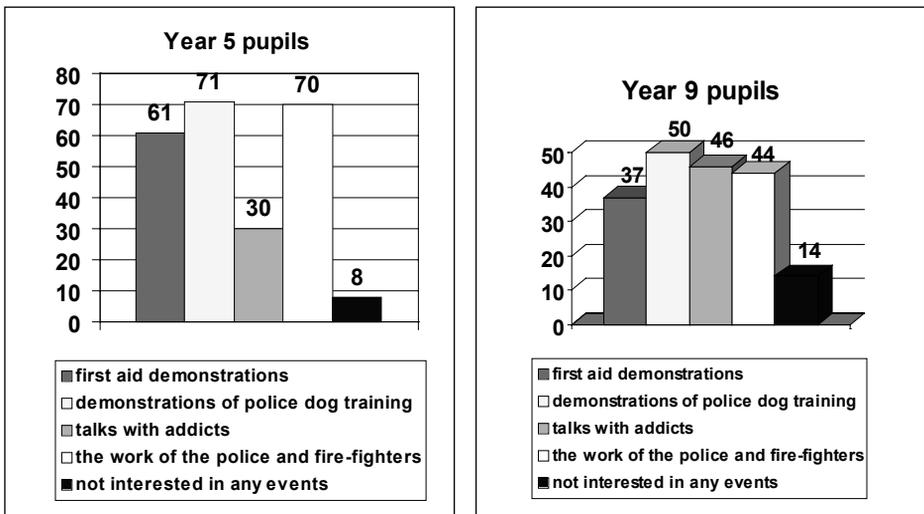


Diagram 6: A comparison of the level of interest among pupils (as expressed by the pupils themselves) in various project day events (%)

The creation of preschool and primary school syllabuses in the area of health education

Health support has become an integral part of the Framework Education Programme for Preschool Education and Framework Education Programme for Primary Education in the Czech Republic – binding documents for nursery schools and primary schools – and the school syllabuses based on them. Both these programmes offer schools wide-ranging opportunities for the realisation of health education, which are reflected in educational goals, competencies, conditions and content. **The creation of school syllabuses is, however, extremely dependent on the soundness of those drawing them up, in order that important aspects of health support are not neglected.**

The principal educational area for health education within the Framework Education Programme for Preschool Education is The Child and Its Body. The most important results expected include:

- The child being able to name the parts of the body and certain organs (including the genitals), knowing what their function is, having an awareness of its body and its development (birth, the growth of the body and its changes), knowing the basic terms used in connection with health, exercise and sport.
- The child being able to differentiate between what is good for the health and what is detrimental to it; the child behaving in a way that does not endanger its own health, safety or well-being or that of others in ordinary situations familiar to it.
- The child being aware of certain ways of protecting its personal health and safety, and about where to seek help if necessary (who to turn to, who to call, how to do this, etc.).

The principal educational area for health education at the first level of primary school within the Framework Education Programme for Primary Education is Man and His World, subject area Man and Health. The most important results expected include:

- Pupils expressing a responsible relationship towards themselves and the rules of a healthy lifestyle.
- Pupils reacting in an appropriate way to physiological changes during adolescence and behaving in a civilised manner towards the opposite sex.
- Pupils understanding the medical and psychosocial risks associated with the abuse of addictive substances and the prospects in life of young people; applying acquired social skills and models of behaviour when they come into contact with socio-pathological phenomena both at school and outside school; seeking expert help for themselves and others if necessary.
- Pupils expressing responsible behaviour in situations in which their health or personal safety is endangered, under extraordinary circumstances; providing adequate first aid if necessary.

In drawing up preschool and primary school syllabuses it should be remembered that the principal goals of drug prevention education at the preschool and early school age include:

- Having an influence on the child within the framework of primary drug prevention. The role of the teacher comes to the forefront in pre-primary and primary education, as at a preschool and early school age the child still has a complete respect of authority and is therefore still capable of forming effective defences against antisocial behaviour and antisocial acts.
- Forming attitudes against drugs, if possible before the child comes into contact with drugs for the first time.
- Preventing imitation in cases in which a child sees a bad example in the family or its surroundings, thereby avoiding later problems associated with the abuse of alcohol, other drugs and medicaments.

It should also be remembered that the principal aims of sex education at a preschool and early school age include:

- Teaching children to be aware of and like their bodies, and to want to take care of them.
- Supporting civilised communication between boys and girls.
- Contributing towards the prevention of sexual abuse and child abuse (identification of the intimate parts of the body, a knowledge of what certain kinds of touching mean, when one shouldn't keep a "secret", what to do in the case of danger posed by contact with strangers and possible danger posed by family members, acquainting children with the proper role of individual family members in relation to them).

Practical skills are the most important in the teaching of first aid.

Conclusion

- The results of our research into school syllabuses drawn up in accordance with Framework Education Programmes (20 primary school syllabuses and 23 preschool syllabuses in the Ústí Region) showed that the topics of drug prevention education (specifically illegal drugs) and sex education (including the prevention of sexual abuse) appear only sporadically or not at all.
- The majority of teachers in pre-primary and primary education still do not appreciate the importance of primary prevention, including the primary prevention of drug dependency, which should come at a time before children's first contact with this negative phenomenon, and that they are not fully aware of the importance of their role for children at a preschool or early school age in creating defences against risky behaviour in the future.
- In the area of drug prevention and sex education we see a persistence of the attitudes held by teachers in the period before the introduction of the Framework Education Programme for Preschool Education and Framework Education Programme for Primary Education, with the exception of the prevention of alcohol and smoking. The attitudes of teachers to open education in this area, which encroaches on the intimacy of the family, are particularly influenced by their individual scholarship, communication skills (including communication with

the families of their pupils), their own view of the world and their own personal experience.

- Rather than systematic work in the teaching process about delicate or intimate subjects or during first aid instruction, teachers tend to rely on one-off events held on project days at which instruction is the responsibility of external experts.
- For older pupils with a greater interest in modern technology, it is appropriate to focus on teaching in this area (computer technology, the Internet, communication over the Internet, etc.), which necessitates teachers having the appropriate skills in the use of computer technology and the Internet, so as not to lag behind their students.
- Our findings raise the question as to whether the Framework Education Programme for Primary Education is not too general, i.e. whether it provides those drawing up primary school syllabuses with all the necessary foundations for drawing up a high-quality syllabus that does not neglect any of the important aspects of health support. At the present time, the most important thing in the drawing up of school syllabuses is the soundness of those drawing them up.

RÁMCOVÉ VZDĚLÁVACÍ PROGRAMY A POSTOJE UČITELŮ PREPRIMÁRNÍHO A PRIMÁRNÍHO VZDĚLÁVÁNÍ K VYBRANÝM ASPEKTŮM VÝCHOVY KE ZDRAVÍ

Abstrakt: Příspěvek poukazuje na některé přetrvávající postoje učitelů preprimárního a primárního vzdělávání, které jsou na překážku realizace vzdělávacího obsahu „Výchovy ke zdraví“ v plném rozsahu.

Porovnáním výsledků průzkumu práce učitelů v oblasti výchovy ke zdraví před a po zavedení RVP do škol bylo zjištěno, že tematika protidrogové výchovy (konkrétně nelegálních drog) a sexuální výchovy (včetně prevence sexuálního zneužívání) je zařazována do výuky i nadále jen sporadicky nebo vůbec. Postoje učitelů k otevřené výchově v této oblasti, která zasahuje i do intimity rodiny, jsou i nadále ovlivněny především jejich erudovaností, komunikativními schopnostmi (včetně komunikace s rodinami žáků), světovým názorem a osobními zkušenostmi.

Také výuka zdravotnických dovedností a první pomoci stále na většině škol neprobíhá systematicky, nejčastěji jen formou jednorázových projektových dní, kdy výuku přebírají členové záchranných sborů. Postoje učitelů jsou ovlivněny především tím, že jsou sice proškolení, ale obvykle jen teoreticky, bez možnosti vyzkoušet si život zachraňující úkony prakticky. Pro výuku jim chybí praktické dovednosti, proto ji sami neprovádějí.

Klíčová slova: protidrogová výchova, sexuální výchova, výuka zdravotnických dovedností a první pomoci

EDUCATIONAL NEEDS OF ELEMENTARY SCHOOL WOMEN TEACHERS IN HEALTH EDUCATION AREA

Evžen ŘEHULKA

Abstract: *This study examines educational needs of elementary school women teachers in the health education area by means of a specially prepared questionnaire. The results show that the women teachers are very interested in health education area but at the present time they do not fully appreciate new possibilities and duties for health education that arise from new health concepts and Framework Education Programmes. The educational needs of the health education area can be built on self-reflection of teachers; they can deepen the teacher qualification both cognitively and also from a personal development aspect. Those educational needs should find an adequate offer in additional education of teachers which would be composed with the concept of the current health issues organically included into the pedagogical theory and practice and would bring progress in the health literacy of the teachers.*

Keywords: *health education, education of teachers, educational needs, Framework Education Programme*

Topic

Each profession has its own evolutionary dynamic which is determined by many factors. These are especially historical-social circumstances, topical social-political tasks, current development of the respective scientific field within which the profession is realized and existing technical resources to accomplish the profession. Of course, additional detailed factors could be found that can determine activities and character of a certain profession.

It is the teaching profession that can be studied from this point of view, because of its long history and significant tradition; it can express many characteristics of a given society, it represents fully practical activity but it has also a deep theoretical anchorage and enables (if it does not demand) a great personal involvement and creativity (see e.g. Průcha 2002, J. Vašutová 2004 and others).

Such aspects can be considered in training of teachers and also in the career growth in this profession. Different tasks can be distinguished in individual develop-

ment of teachers that can be imposed on teachers by external institutions and organizations; the teacher must fulfil those task because to meet public order and also he should correspond with tasks following from his/her own professional aims and conceptions to be managed. Just in those resources we can find motivation structures specified as educational needs of teachers whenever an officially fully qualified and relatively experienced teacher recognizes what theoretical areas or practical skills he should manage to be satisfied with his job execution. This process is never ending in every profession but can be studied “cross-sectionally“ always for each prospective situation.

The educational needs of teachers, from our viewpoint presented here, are more complex than cognitive needs; it is necessary to comprehend them also with self-realization needs, needs to be appreciated and needs of good working efficiency.

Subjective educational needs of teachers go out mainly from the self-reflection which has been less often investigated from this point of view. The teacher’s self-reflection itself is often described in the literature but, as J. Vašutová (2004) quoted, it is usually focused on the analysis of “the level of a professional self-consciousness developed from perception of external evaluation and self-evaluation“. By the author a shortage of the professional self-consciousness is a cardinal problem of the teaching profession of our days. The most research results obtained in our country consider the increase of the social prestige of teachers as a very important factor connected with an adequate financial evaluation of the teaching profession - though the most research results quote also importance of pedagogical expertness and social insubstitutability. A specific feature of the teaching profession is - and it is also the main value and the ethos of teaching - that the teacher’s qualities are connected with a personality development and self-improvement.

By our opinion, the implementation of *Framework Education Programmes* (hereinafter FEPs) was a significant impulse which could initiate new educational needs of Czech teachers. Here we do not want to deal neither with evaluation of those programmes nor the consecutive discussion or results of the whole reform – let’s such questions be answered by other specialists. We go out from the fact that FEPs bring new and significant impulses for the teacher’s professional development. By preparing individual FEPs the teachers create the School Education Programme in each of the schools; in this programme they can:

To create the profile of the school and in this way to distinguish it from other schools

- To form own conception of education forms in the school
 - To remove useless duplicity in curriculum contents
 - To cooperate better within interdisciplinary education
 - To intensify the team spirit in the teaching staff
 - To teach creatively
- (School education program by WIKIPEDIA)

These possibilities stimulate the teachers to consider what new information and skills they could obtain both in theoretical and practical areas. In this study we are interested in the issues that are very up-to-date in our school system and that we had studied before - namely the health education. It is a relatively new field which has been signifi-

cantly and newly initiated in FEP; there it is included in the important chapter 5.8 HUMAN AND HEALTH. This chapter is connected - among others - with knowledge and programmes of the World Health Organization as it can be seen from the first paragraph quoting *“Human health is understood as a balanced state of physical, emotional and social well-being. It is created and influenced by many different factors, including lifestyle, healthy conduct, interpersonal relationships, the environment, and the individual’s safety and security. Because health is a fundamental condition for leading an active and satisfied life and for optimum work productivity, learning about one’s health and promoting health and prevention represent a priority of basic education.”* (FEP, p. 72)

The education area Human and Health comprises two education parts, i.e. Health Education and Physical Education. In our study we deal only with Health Education which is focused on the primary prevention and should teach pupils to develop and protect actively their health.

For illustration we transmit here the target scope of the whole education area as quoted in FEP (p. 73):

Instruction in this educational area focuses on the formation and development of key competencies by guiding pupils towards:

- *recognizing health as the most important life value*
- *understanding health as a balanced state of physical, emotional and social well-being and feeling a sense of joy from physical activities, a pleasant environment and a climate of positive interpersonal relations*
- *recognizing human beings as biological individuals dependent, in the various stages of their life, on their own behaviour and decision-making, on the quality of interpersonal relationships and on the quality of their environment*
- *gaining a basic orientation in opinions on what is healthy and can benefit personal health, as well as threats to health and what causes damage to health*
- *applying the acquired preventative methods in order to influence their health in daily life, strengthening decision-making and behaviour in order to actively promote health in all life situations and learning about and making use of sites related to preventative healthcare*
- *combining behaviour and activities related to health and healthy interpersonal relationships with basic ethical and moral attitudes, willpower etc.*
- *understanding fitness, good physical appearance and mental well-being as important preconditions for choosing a professional career, partners, social activities etc.*
- *becoming actively engaged in activities which promote health and in promoting healthy activities at school and in the municipality*

More information can be found in the FEP materials.

From the conceptual and professional viewpoint we can essentially state that all educational area of Human and Health in FEP is well and competently elaborated and its realization can be very useful. By means of identification of basic key competences the FEP materials are naturally concentrated on pupils. Another question is to what extent the teachers are prepared to work pedagogically in this education area which is, especially in its concept, still quite new. We consider, of course, a university qualification

of the teachers in certain specializations and preparation for implementation of FEP as ensured by school authorities. In parallel the idea of J. Průcha (2002, p. 46) is valid that in all innovations of education systems it is necessary to examine “if the teachers are professionally prepared for desired changes, if they are able to realize them in existing conditions and first of all if the teachers can positively accept requirements demanded and are willing to perform them”.

The still pertinent question is how and by whom the health education subject should be taught. Health education can be a separate subject or it can be “spread“ in various subjects, e.g. biology, physical education, civics etc. From viewpoint of teaching specializations, health education can be taught - as a separate subject - by the teachers of various specializations, biology, physical education etc., or by the teachers that are graduated in health education as a separate field of study, e.g. at Faculty of Education, Masaryk University (E. Řehulka 2006) The most researches show that teachers are enormously interested in the health issues and are convinced about importance of this subject in their educational work (E. Řehulka, O. Řehulková 1998). In the present time many Czech guide books exist for health education, e.g. the authors E. Marádová (2006), J. Machová, D. Kubátová et al. (2009) and others.

From the viewpoint of self-reflection of the teachers we interpret our problem as education needs that the teachers can feel if they should teach health education at elementary schools.

In health education we do not start from a zero point because nowadays health issues represent a category broad enough so each of the teachers can present it didactically from position of his/her specialization; we do not suppose that this situation can induce limitation but it can, on the contrary, bring an advantage. In this context it is convenient to work with the term *health literacy*; it was defined by J. Holčík (2009, p. 145) as “ability to accept proper decisions in the everyday context - at home, in a society, at workplace, in health service institutions, in business and policy environments. It is an important method increasing influence of people on their health state and enforcing their ability to get and use information, to accept and bear their personal part of responsibility.”

Research

The goal of our research was to find education needs of women teachers at elementary schools by health education teaching - in case that they must deal with this subject in their educational work.

We performed our research for 82 women-teachers of elementary schools; they had not studied the health education specialization but they had met this topic and included it in their lessons. Their field experience was minimally 5 years and the age from 30 to 54, the average age 34.45. It was a coincidence that only women teachers participated in this research - because prevalence of women is a typical feature of the Czech school system but this fact must be taken into account in the interpretation of results (E. Řehulka, O. Řehulková 2001).

The research was performed in the second half of the year 2009 during postgraduate studies, in the lessons of psychology of health and psychohygiene where issues of health education teaching were also informally discussed.

Investigated persons (hereinafter IP) answered question of a questionnaire in the written form. The questionnaire (given below) was administered in groups within a study workshop. Our results are shown in tables and diagrams; they were processed by the most simple statistic calculations which we consider to be adequate for this research.

The questionnaire on educational needs of the teachers for health education teaching:

1. *For health education teaching I would need information*
 - a) *Theoretical*
 - b) *Practical*
 - c) *Didactic*
2. *For health education teaching I would need information from the area of*
 - a) *Physical health*
 - b) *Mental health*
 - c) *Social health*
3. *To improve quality of health education teaching, I would need*
 - a) *Graduate in a special study*
 - b) *Pass training courses*
 - c) *Spend individual time in study hours*
4. *For health education teaching I would need better knowledge on treatment of diseases and defects concerning*
 - a) *Physical health*
 - b) *Mental health*
 - c) *Social health*
5. *For health education teaching at the elementary school*
 - a) *It is necessary to be graduated in this special education area*
 - b) *Additional study is sufficient in case of any teaching qualification*
 - c) *Personal experiences of graduated teachers are sufficient*
6. *In health education teaching at the elementary school*
 - a) *I can well distinguish scientific knowledge from alternative information*
 - b) *The boundary between scientific knowledge and alternative information is fuzzy*
 - c) *Sometimes alternative information can be helpful and it is useful to know it*
7. *In case of customary health problems of pupils at school*
 - a) *I can cope with them*
 - b) *I am not sure*
 - c) *It is out of my competences*
8. *Elementary school teachers should master first aid principles*
 - a) *In a compulsory basic first aid course*
 - b) *In a compulsory advanced first aid course*
 - c) *In an optional first aid course*
9. *In case of mentally demanded and stress situations of pupils*
 - a) *I can cope with them*
 - b) *I would like to cope with them better*
 - c) *It depends on practical experience*
10. *Psychohygiene of pedagogical work at school:*
 - a) *It is a well-considered component personally for me*

- b) *It is a part of my theoretical qualification*
 - c) *I work with it intuitively*
11. *I think that today graduated pedagogues should have competent knowledge on health topics*
- a) *Certainly*
 - b) *It is the domain of other professionals*
 - c) *Health is a part of education*
12. *When I find out all that belongs to health education area*
- a) *I am surprised*
 - b) *I agree with it*
 - c) *It means too many tasks*
13. *Primary health prevention at school should be first of all the task for*
- a) *Teachers*
 - b) *Health workers*
 - c) *Other specialists*
14. *Health literacy of elementary school teachers is*
- a) *Sufficient*
 - b) *Above-average*
 - c) *Below-average*
15. *In self-education the elementary school teachers would need the most knowledge in the area of*
- a) *Physical health*
 - b) *Mental health*
 - c) *Social health*

1. Answers of the question: “For health education teaching I would need information a) Theoretical b) Practical c) Didactic“

	occurrence	Percent
theoretical	53	64,6
practical	20	24,4
didactic	9	11
TOTAL	82	100

Table 1

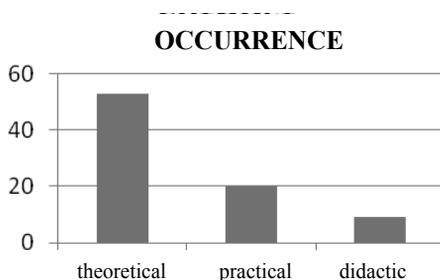


Diagram 1

The answers of Table 1 and Diagram 1 show that our respondents mostly need theoretical information. Health education should mediate many health knowledge that are not, in principle, a part of qualification of the teachers and therefore the teachers feel insufficiency; in parallel the answers demonstrate that the teachers see their role in health education mainly in information level. The teachers are less concerned about practical items of health education and, as expected for graduated pedagogues, they have minimal needs in didactic education area.

2. Answers of the question: *“For health education teaching I would need information from the area of a) Physical health b) Mental health c) Social health”*

	occurrence	percent
physical	49	59,8
mental	12	14,6
social	21	25,6
TOTAL	82	100

Table 2

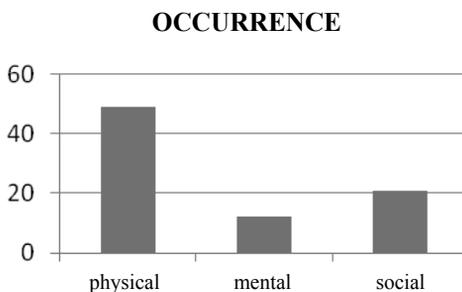


Diagram 2

Table 2 and Diagram 2 show expected results; health is taken first of all as physical health and teachers feel that for preparation of health education they need the most information from the somatic health area. Also public usually thinks in this way and so similar expectation of pupils can be supposed. In relationships with other data of the table this result can be explained also in another way, namely that teachers qualified in psychology and pedagogy have more knowledge in mental and social areas than in physical health area.

3. Answers of the question: *“ To improve quality of health education teaching, I would need a) Graduate in a special study b) Pass training courses c) Spend individual time in study hours.”*

	occurrence	percent
study	26	31,7
courses	31	37,8
individ.study	25	30,5
TOTAL	82	100

Table 3

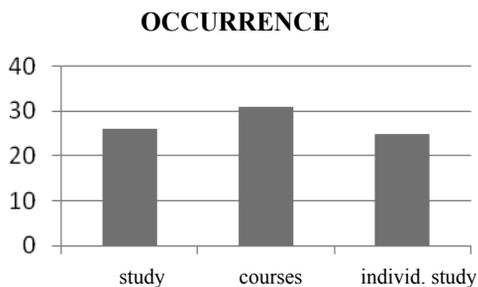


Diagram 3

For improving quality of health education the teachers need certain additional educations; they prefer mostly courses, the special study is in second position; individual study hours are in the last position. However, there are small differences in the responses and they are probably influenced by a personal study style and perceptions of individual respondents than by the form and contents of additional education.

4. Answers of the question: “*For health education teaching I would need better knowledge on treatment of diseases and defects concerning a) physical health b) mental health c) social health.*”

	occurrence	percent
physical	30	36,6
mental	20	24,4
social	32	39
TOTAL	82	100

Table 4

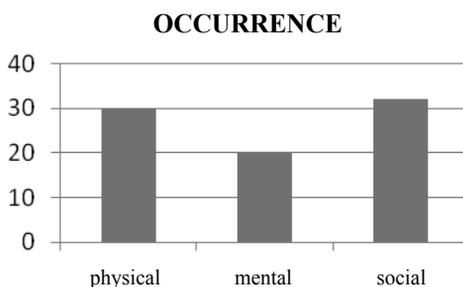


Diagram 4

Health knowledge is understood mainly negatively in the contemporary population - we are informed on our health in case of health difficulties, i.e. when we are ill. For such consideration of health education there are minimal needs of respondents in mental health area; that can be apparently connected with the fact mentioned before – the teachers are relatively well professionally educated in psychology, psychopatho-

logy, consultancy and other similar branches. It is noticeable that quite the same is the occurrence of the answers on needs concerning physical and social health, for the social health the occurrence is slightly higher. We suppose that it reflects a weak ability of teachers to intervene in bullying, lack of discipline, troublesome communication and similar problems that are very difficult to be coped with.

5. Answers of the question: *“For health education teaching at the elementary school a) It is necessary to be graduated in this special education b) Additional study is sufficient in case of any teaching qualification c) Personal experiences of graduated teachers are sufficient.”*

	occurrence	percent
grad.study	23	28
addit.study	40	48,8
experience	19	23,2
TOTAL	82	100

Table 5

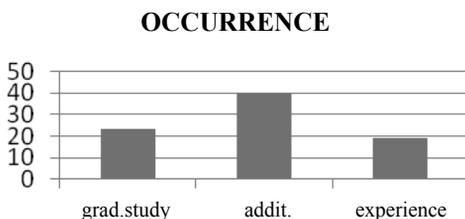


Diagram 5

The answers summarized in Table 5 and Diagram 5 are interesting – majority of the women teachers consider additional studies to be sufficient for health education. For a less orientated reader it is necessary to mention that nearly always professional trainings of the teachers give opportunity to pass courses on biology of child, school hygiene and psychological subjects that are also focused on health issues. In any case, we can see from the answers that the teachers require a certain study for their pedagogical work in health education and only a sole reliance in experiences is the least frequent response option.

6. Answers of the question: *“In health education teaching at the elementary school a) I can well distinguish scientific knowledge from alternative information b) The boundary between scientific knowledge and alternative information is fuzzy c) Sometimes alternative information can be helpful and it is useful to know it.”*

	occurrence	percent
distinguish.	17	20,7
not distinguish.	33	40,2
alternat.used	32	39,1
TOTAL	82	100

Table 6

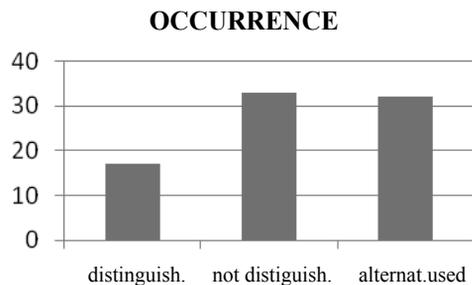


Diagram 6

In several previous researches we could see that the teachers are adequately motivated, they are interested in health topics and pay them attention. Sometimes troubles appear in determination of a boundary to distinguish scientific knowledge and principles of healthy lifestyle from alternative findings that can exist in a broad scope, from naive to prejudicial attitudes. Separation of “scientific“ and “unscientific“ areas can be really difficult sometimes, often it is not easy to find a consensus even among specialists; but for teachers, who work with children and youth, it needs to be considered more seriously and teacher’s recommendations, advices and guidance become competent directives in that the teachers should be fully responsible. The answers of Table 6 and Diagram 6 demonstrate how complicated this issue can be. Only 20.7% of the women-teachers can distinguish scientific knowledge from alternative information, 40% of IP are not able to differentiate and even almost the same part of women teachers considers extra-scientific knowledge and information to be useful! We take this observation as a very considerable fact that should be investigated more deeply because in some situations it should be a base for very dangerous pedagogical measures.

7. Answers of the question: “ *In case of customary health problems of pupils at school a) I can cope with them b) I am not sure c) It is out of my competences.* “

	occurrence	percent
I can	22	26,8
not sure	31	37,8
out of compet.	29	35,4
TOTAL	82	100

Table 7

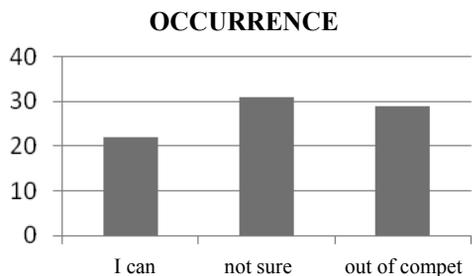


Diagram 7

Readiness of the teachers for health education can be also discovered by estimation of their own competence in solution of pupils' health problems. Table 7 and Diagram 7 indicate that only one third of the women teachers can cope with such situations, the most part of them feels uncertainty and 35.4% of them mean that they are not competent for resolution. Although the question is rather general and can be interpreted in various ways, it is interesting that the answers are heterogeneous and the teachers are too little ready to manage health problems of pupils.

8. Answers of the question: *“Elementary school teachers should master first aid principles a) In a compulsory basic first aid course b) In a compulsory advanced first aid c) In an optional first aid course.”*

	occurrence	percent
compuls. basic	20	24,4
compuls. advanced	46	56,1
optional	16	19,5
TOTAL	82	100

Table 8

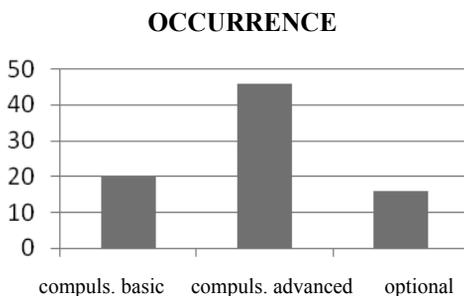


Diagram 8

In variant stages of teaching education the first aid principles have been a part of teaching qualification in various scopes. Generally it can be stated that instructions of the first aid principles belong to a basic knowledge of each human, especially those responsible for care of other persons and competent in child care especially. First aid know-how is very important for teachers, the respective training scope and teacher's duties can here be discussed. Our findings can be considered as positive because 80 % of IP take the first aid courses for compulsory; among them 56.1 % of women teachers prefer first aid courses in an advanced version.

9. Answers of the question: *“In case of mentally demanded and stress situations of pupils a) I can cope with them b) I would like to cope with them better c) It depends on practical experience.”*

	Occurrence	percent
I can	22	26,8
wish of better	34	41,5
practice	26	31,7
TOTAL	82	100

Table 9

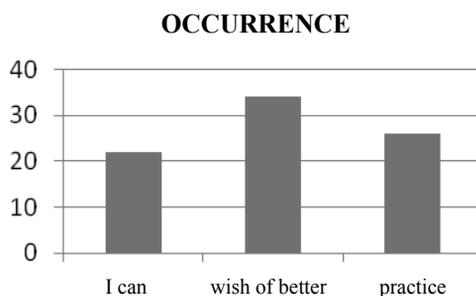


Diagram 9

We have mentioned previously that the teachers feel most sure in the mental health area and by coping with mentally demanding and stress situations which are a permanent part of their education work. Nowadays the teachers complain about great requirements just in this area. In professional teacher training more and more attention is paid to dealing with the load and stress. However, Table 9 and Diagram 9 show that the teachers would like to cope better with such problems - almost 42% of IP. Besides theoretical training, they also prefer practical experiences. In this direction it is also necessary to appreciate the ability of the pedagogues because more than one fifth of them suppose that they can cope with the mentally demanding and stress situations.

10. Answers of the question: *“Psychohygiene of pedagogical work at school*
a) It is a well-considered component personally for me b) It is a part of my theoretical qualification c) I work with it intuitively.“

	occurrence	percent
personal	24	29,3
learned	22	26,8
intuitive	36	43,9
TOTAL	82	100

Table 10

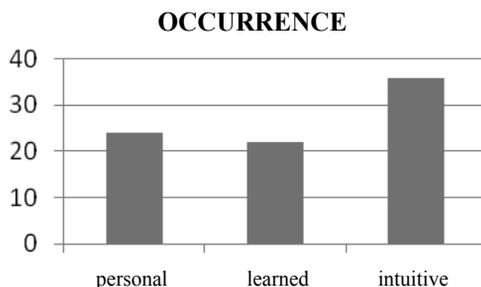


Diagram 10

Psychological readiness of teachers enjoys great and well-deserved attention; it can be stated (as it is confirmed by research results) that teachers are interested in theoretical and practical psychology training and really appreciate it. Psychohygiene is very important for the teacher because it can integrate knowledge on keeping and development of mental health or - more precisely - it deals with health from mental aspects. Each human has own psychohygienic principles based on personal experiences and occasional information that can be but need not be systematically processed. Most of our IP work with such implicit personal psychohygiene in the responses. If we summarize the responses of the questions 2 and 3 in this sense, we can count more than 80%. Only 72 % of IP rely on psychohygiene professionally supported. This number seems to be very small – although, on the other hand, we must consider the fact that the other responses do not imply unambiguously harmful behaviour means. It is a pity only that the teachers do not use more scientifically founded psychohygiene.

11. Answers of the question: *“I think that today graduated pedagogues should have competent knowledge on health topics a) Certainly b) It is the domain of other professionals c) Health is a part of education.”*

	occurrence	percent
knowledge need	20	24,4
other profes.	35	42,7
in educ.	27	32,9
TOTAL	82	100

Table 11

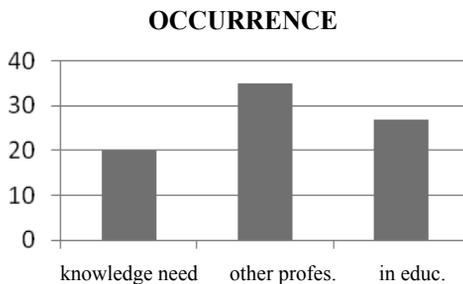


Diagram 11

In the answers of this question we can observe again a traditional understanding of professional competences when health issues are transferred to other specialists than pedagogues. We do not consider this concept to be wrong, nevertheless for our question formulation the b) responses demonstrate that health issues do not belong to duties of pedagogues. Although this answer is most frequent one, the majority of the women teachers think that they must be engaged in health issues on account of their profession or - more concisely, from the viewpoint of our school system programmes - they are convinced that health education issues are a part of teaching work.

12. Answers of the question: *“When I find out all that belongs to health education area a) I am surprised, b) I agree with it c) It means too many tasks.”*

	occurrence	percent
surprised	35	42,7
agree	31	37,8
too many	16	19,5
TOTAL	82	100

Table 12

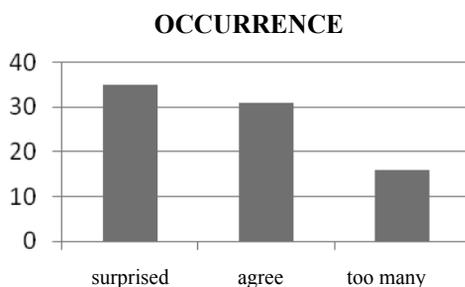


Diagram 12

How the teachers understand, manage and accept new conceptions of our school system? - this question is included in our research goals, in the sense expressed in Frame Research Programmes where health education is defined newly and significantly. The new perception of health issues is also described in the programmes of the World Health Organization (WHO) and is closely connected with new conceptions of health psychology, preventive and social medicine and other branches. In all these materials the important and unsubstitutable role is played by education which is professionally institutionalized at schools and realized mainly by teachers. With a certain simplification we can say that the success of these concepts could depend, in a decisive measure, on acceptance and realization by teachers. This situation is also characterized by the above given answers. It is obvious that most teachers (42.7%) are surprised by multifarious tasks demanded in health education; in parallel it is gratifying that one third of the teachers agrees with the tasks and in spite of one fifth of respondents consider the tasks to be excessive.

13. Answers of the question: *“Primary health prevention at school should be first of all the task for a) teachers b) health workers c) other specialists.”*

	occurrence	percent
teachers	32	39,1
health workers	38	46,3
other spec.	12	14,6
TOTAL	82	100

Table 13

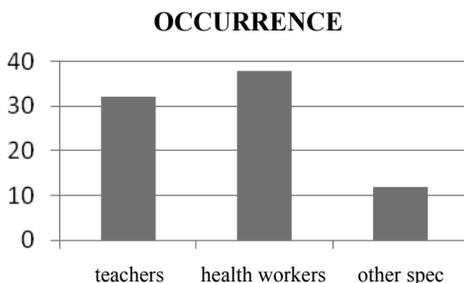


Diagram 13

The primary prevention is an important social mission and it belongs to school principle duties to participate in it. Building of a primary prevention system at schools - it is one of targets of teachers' work because the education is the most important way of primary prevention and first of all pedagogues are the relevant professionals. Prevention is usually comprehended in health care tradition; in this way we can understand 46% of the responses that ascribed the primary prevention to health workers. Although 40% of women teachers are here appreciated because they assume the primary prevention as their own task; only 15% of the respondents suppose that the primary prevention belongs to other specialists. This answer can be related to participation of school preventists, which is useful but it should not comprise lack of interest and remission of responsibility of other teachers in the prevention area.

14. Answers of the question: *“Health literacy of elementary school teachers is a) sufficient b) above-average, c) below-average.”*

	occurrence	percent
sufficient	43	52,4
above-aver.	36	43,9
below-aver.	3	3,7
TOTAL	82	100

Table 14

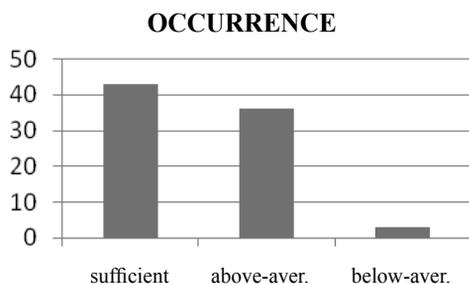


Diagram 14

Table 14 and Diagram 14 demonstrate good results obtained from the examined teachers for the evaluation of health literacy of elementary school teachers. Only 3.7% of respondents (i.e. 3 women teachers of the whole inquired set) are of opinion that health literacy is below-average, the remaining respondents consider health literacy to be sufficient (52.4%) and 43.9% even above-average. These results are stimulating and they indicate that generally the teachers are well prepared for health education. It is of course only a subjective evaluation of health literacy but we explained this term to the respondents properly so that they could perform an adequate self-reflection in this sense.

15. Answers of the question: *“In self-education the elementary school teachers would need the most knowledge in the area of a) physical health b) mental health c) social health.”*

	occurrence	percent
physical	30	36,6
Mental	29	35,4
Social	23	28
TOTAL	82	100

Table 15

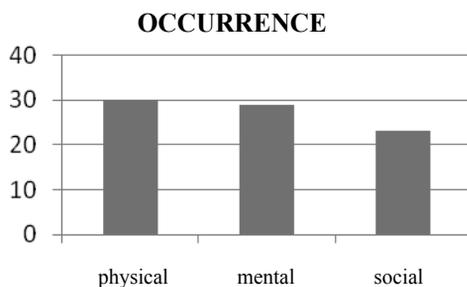


Diagram 15

In the last question we tried to find out the health area for that the women teachers would need the most knowledge. Almost equal responses concern the physical and mental health - obviously the areas of the highest load in the teaching profession.

Such results we obtained formerly (E. Řehulka, O. Řehulková 1998; O. Řehulková, E. Řehulka 1998). Rather fewer responses concern social well-being, which can reflect the fact that it is a new area of self-education usually included in the mental health area. The result can be understood positively, in the sense that the women teachers are orientated in the self education "in a holistic perspective" and they comprehend mutual relationships of individual aspects and components of health.

Discussion and conclusions

The results obtained in this study are not extraordinary and not surprising for those who know our recent school system. Nevertheless we have found out several data that could be a starting point for a next deeper and more extensive research or could inspire a reflection of managers of our school system.

Especially it is an underestimation of the topical health concept which means expansion of options and duties of non-health workers mainly in the school system. The majority of teachers perceive health mainly in the sense of physical health, in part also as mental health but the dimension of social well-being is not usually identified. A likeable fact is the interest of the teachers in additional education in health area that is noticeable in the whole research; this interest is focused also on getting theoretical knowledge and not only practical skills - as it could be expected from the practising teachers. Health issues are very recognized topics of edification, education and common knowledge - in such a measure that also risks can appear of non-scientific or even dangerous data penetration at transferring opinions and information into health care knowledge and health information. These complicated problems are often not fully resolved even among professionals. Such problems are more crucial for teachers because their decisions concerning human health and healthy lifestyle principles must be competent and responsible even if such topics are out of their professional qualification. For this reason teachers are interested in health issues but their interest is connected with certain doubts about correctness of knowledge and its practical applications. Teaching is a profession in which self-reflection is recommended as a way of professional development, and a creative performance of the teaching profession tends spontaneously to self-reflection. From this point of view the teachers often use well-considered own implicit methods and procedures concerning health, psychohygiene and mastering stress; they can form concepts of own self-education. Such reality is displayed in the research. A great part of such health behaviour consists of own individual experiences, which we consider to be a lack because these experiences can sometimes express doubts whether they are clearly professional. The whole conception of preparation and education of teachers must be arranged specifically for the teachers; health education knowledge must be built so as to use it in pedagogical practice and to accept it in the professional pedagogical qualification of the teachers.

We suppose that the research results and their interpretation offer the following conclusions:

A great part of the women teachers understands health in its traditional sense, i.e. orientated with respect to physical health and without fully comprehension of pedagogical possibilities of new health conception.

Health education is highly evaluated by the women teachers; they understand its usefulness and are interested in additional education in this area.

The women teachers are becoming acquainted with new options and duties in health education rather slowly and even more slowly they accept them.

Health literacy of the women teachers is very good, it consist in individual experiences and self-reflection; the women teachers are interested in getting deeper professional knowledge.

Educational needs of the women teachers at elementary schools in health education area are a positive motive in their professional development but must correspond with a sufficient offer which should be arranged for the teachers and organizationally classifiable into the system of pedagogical qualification.

VZDĚLÁVACÍ POTŘEBY UČITELEK ZÁKLADNÍCH ŠKOL V OBLASTI VÝCHOVY KE ZDRAVÍ

Abstrakt: Ve studii jsou prostřednictvím speciálně připraveného dotazníku zkoumány vzdělávací potřeby učitelek základních škol v oblasti výchovy ke zdraví. Výsledky ukazují, že učitelky mají velký zájem se v problematice zdraví vzdělávat, ale prozatím zcela nedoceňují nové možnosti a povinnosti ve výchově ke zdraví, které vyplývají z nových koncepcí zdraví a také z Rámcových vzdělávacích programů. Vzdělávací potřeby v oblasti výchovy ke zdraví mohou být budovány na sebereflexi učitelů, mohou prohloubit učitelskou kvalifikaci jak kognitivně, tak z aspektu rozvoje osobnosti. Tyto vzdělávací potřeby by měly nacházet adekvátní nabídku v dalším vzdělávání učitelů, které by bylo koncipováno tak, aby současná problematika zdraví byla organicky zahrnuta do pedagogické teorie a praxe a vedla k rozvoji zdravotní gramotnosti (health literacy) učitelů.

Klíčová slova: výchova ke zdraví, vzdělávání učitelů, vzdělávací potřeby, Rámcový vzdělávací program

THE CZECH PUBLIC'S OPINIONS ON THE EDUCATIONAL CONTENT OF PHYSICAL EDUCATION IN PRIMARY EDUCATION

Vladislav MUŽÍK

Abstract: *The research categorises opinions of Czech Republic citizens on the educational content of physical education in primary education. The paper continues a similar research from 2007 into opinions of the Czech population on the overall quality of physical education.*

The results were obtained by means of a representative sociological research into the issue of health and healthy lifestyle. The research was carried out in cooperation with the INRES –SONES agency towards the end of 2008.

The research involved 1795 respondents aged over 15 and was representative in terms of age, gender and regional citizenship of Czech Republic citizens.

The Czech public prefers especially sports activities and compensatory and fitness exercises in physical education. As for the educational performance of PE teachers, respondents mostly appreciate patience when working with children, but are critical of PE classes as being physically over-demanding. Nevertheless, more than 40% of respondents do not have any serious objections to teachers' work.

The obtained findings inspire a range of concrete suggestions for improving the quality of work in primary schools as well as in teacher training of would-be PE teachers, showing the aspects that should attract most attention. The findings are part of the School and Health for the 21st Century research plan.

Keywords: *physical education, educational content, teacher's educational performance, primary school, health education*

Introduction

The Czech Republic is currently undergoing a curricular reform, which in particular affects primary education. Since the professional public is familiar with the curricular aims of Czech education, we will only mention some basic facts concerning physical education.

The first educational document defining the physical education curriculum is the *Standard for Basic Education* (1995). This document introduced a new educational

area of *Healthy Lifestyle*, which encompasses a traditional educational field of *physical education* and a brand new educational field of *health education*, thus emphasising the function of physical education in enhancing pupils' health awareness.

Since 2007/2008 school year the *Framework Educational Programme for Basic* (i.e. primary and lower secondary) *Education* (2007) has been in operation. This document contains nine educational areas, including the *Humans and Health* educational area encompassing *health education*, *physical education* and *remedial physical education* educational fields. The actual act of defining the above listed areas strengthens the importance of complex education of pupils in health education, and the role of physical education as a subject closely linked to health education.

Physical education enables pupils, on the one hand, to learn about their own physical possibilities and interests; on the other hand, to experience the effects of concrete physical activities on their physical condition and psychic and social well-being. It proceeds from a spontaneous physical activity to an activity that is controlled and selective; the point is to be able to assess the level of personal fitness. A daily regimen should include physical activities satisfying personal physical needs and interests, optimally enhancing fitness and performance, enabling regeneration and compensation for different strains, and supporting health and life protection.

Such a conception of physical education makes more demands on the ways of realization as well as teachers' qualification. Therefore, we may ask a question whether the requirements existing in physical education even prior this new conception were met or not.

Research problem

Recent experience and research findings indicate that there is a discrepancy between the so called projected curriculum, i.e. the declared educational content, and the so called realized curriculum, i.e. the realized educational content (e.g. Průcha 2002, 2006). The causes of this discrepancy have been explored by means of various methods in physical education¹ as well as health education (e.g. Mužík, Trávníček 2006; Mužík, Janík 2007; Mužíková 2007).

If we draw our attention to assessing the quality of the realized curriculum in a particular educational field, we can, among other things, consider the opinions of school-leavers or graduates in this subject and their retrospective view of the quality of education. Therefore, we have tried to find out what opinions about physical education there are among the Czech public and if these opinions depend on respondents' age and gender. We focused on assessing the quality of physical education during the compulsory school attendance and also on assessing the contemporary quality of physical education in primary education.

The research into the opinions of Czech Republic citizens² carried out in 2007 revealed these findings (see Mužík 2009):

1 Methodological starting points and a review of research into this area were published e.g. in studies by Mužík, Janík (2007), Janíková, Janík, Mužík, Kundera (2008) and others.

2 The sample was representative in terms of gender, age and regional citizenship of Czech Republic citizens aged over 15.

More than three quarters of respondents were satisfied *with the overall quality of physical education during their compulsory school attendance*, the only exception being the youngest group of citizens aged 15 – 19, as it was statistically more significantly dissatisfied than the rest of the population. The most common causes of dissatisfaction were the educational content of physical education and the quality of educational performance of physical education teachers. Other age groups expressed most objections to the educational content³ of physical education too.

Other reasons for dissatisfaction with physical education in primary education included the extent of education, the quality of sports facilities and equipment, school assessment in physical education etc. These reasons, however, showed a relatively low frequency.

The obtained findings determined the aim of a follow-up research: to specify the opinions of Czech Republic citizens on the educational content and the educational performance of physical education teachers in primary education.

Research sample

The Czech Republic citizens' opinions were obtained from the sample of 1796 respondents selected randomly by means of quotas. The sample was representative of the Czech population aged over 15. Representativeness was derived from the population of the Czech Republic aged over 15.⁴ It can be argued that the results stated below are representative of the Czech population aged over 15 in terms of gender, age and regional citizenship.

Other signs, which were not representative but were observed within the research, included education, marital status, number of children, size of the respondent's residential municipality, occupation, net monthly family income, attitude to religion and type of accommodation. Cases where statistical significance was proved are pointed out. Nevertheless, due to the fact that these data are not representative, revealed statistically significant correlations can be interpreted only as tendencies.

Research method

The research was designed as a sociological one and was based on questions proposed by the author of this paper. The survey was carried out by means of a standardized guided interview between an interviewer and a respondent.

Data were gathered by 360 interviewers of the *INRES - SONES Agency* across the whole of the Czech Republic. The *INRES - SONES Agency* was also responsible for visual and logical inspection, coding and computerising the data, and for results tabulating. The interpretation of the obtained results was performed by the author of this paper.

3 The term *educational content* is understood as the content of school education realized by the teachers in classes. *Classes* are considered to be the main form of the teacher's educational performance and pupils' learning performance.

4 See the *Population Structure of the Czech Republic by Major Age Groups in 2007*. (31 Dec. 2007) Prague: Czech Statistical Office, 2008.

The data were statistically processed by the SASD 1.3.0 program (statistical analysis of social data). One-factor analysis and contingency tables for selected signs of two-factor analysis were processed. The correlation level of selected signs was defined by means of chi-square test and other testing criteria, applied according to the character of signs. This analysis served as a basis for subsequent data interpretation.

Respondents' answers were recorded in a written form; answer sheets were verified in a pre-research. The inspection focused on logical relations as well as the level of completeness and information credibility. The sheets with non-functional illogical links and incomplete sheets (when the respondent refused to answer the questions and decided to finish the interview earlier) were excluded. These sheets were placed in the "non-respondents" category.

The assessed items often contained continuous answers, which had to be transformed in such a way that would enable making a clear summary of the main results. The continuous answers were divided into partial statements, and thus the character of the transformed variable signs changed from a continuous to category form.

Research schedule

The research project was designed in September and October 2008 and was subjected to objecting in the beginning of November 2008. The pre-research verifying the research techniques and formulating the questions to be asked involved a sample of 286 respondents and was carried out in November 2008. Simultaneously, all interviewers were instructed.

The actual survey was organized across the whole of the Czech Republic at the turn of November and December 2008. In December 2008, the completed answer sheets were gathered and visually and logically inspected. The obtained data were subsequently computerised. The next step involved adjusting the data, their basic mathematical and statistical analysis, processing frequency and selected contingency tables, and primary data interpretation.

The results were interpreted by the author in the beginning of 2009.

Results

a) Opinions of Czech Republic citizens on the educational content of physical education

The aim of the research was to find out the opinion of Czech Republic citizens on the educational content of physical education in primary education. This objective was surveyed by means of a semi-open question:

“Do you think that physical education in primary schools should include these thematic areas (you may mark at most 3 areas that you consider the most important)?”

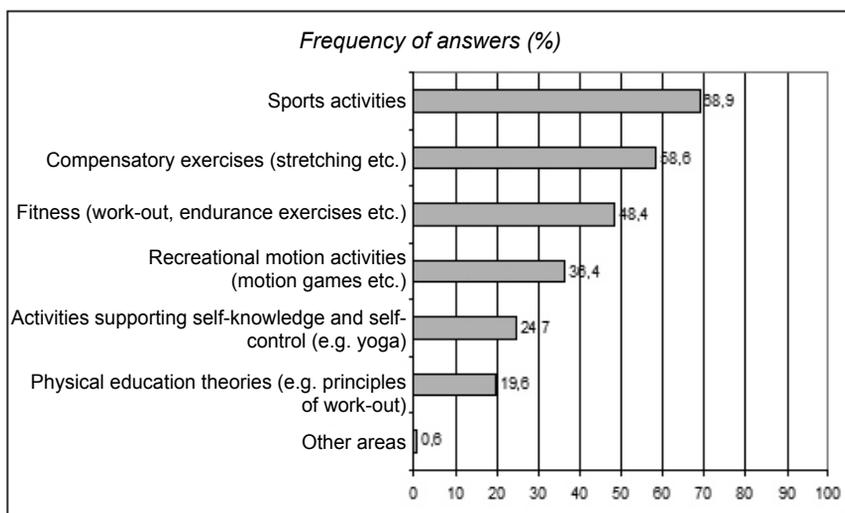
The respondents therefore had a chance to mark up to 3 possibilities from the following range of answers, or state in their own words which area they considered important.

The list of possible answers:

- sports activities and sports games (athletics, gymnastics, basketball, volleyball etc.),
- recreational motion activities (self-enjoying motion games, non-traditional activities such as juggling, activities chosen by pupils etc.),
- fitness exercises for optimal fitness development (muscle strength and endurance in particular),
- compensatory exercises preventing weakening of the skeletal and muscular system and posture (stretching, body-building and relaxing exercises),
- motion activities supporting self-knowledge and self-control (yoga for children etc.),
- physical education and sports theories (concerning motion strain, muscle weakness, measuring and assessing fitness etc.),
- other thematic areas (state which).

The interpretation of the answers has revealed the following results:

As for the educational content of physical education, Czech Republic citizens consider sports activities and sports games to be the most important. This area is preferred by more than two thirds of Czech Republic citizens (68.9 % of respondents). Compensatory exercises as a preventive measure of weakening of the skeletal and muscular system ranks as the second (58.6 % of respondents) and fitness exercises for optimal fitness development (48.4 % of respondents) rank as the third one. According to respondents, these thematic areas should constitute the core of physical education. Recreational motion activities are less preferred (36.4 % of respondents) together with motion activities supporting self-knowledge and self-control with approximately a quarter of respondents (24.7 %) believing it is important to include them. Only 19.6 % of respondents are of the opinion that the theory of physical education and sports is relevant; other areas practically were not suggested.



Graph 1 Preferred areas in the educational content of physical education (n=1792)

The opinion on the importance of the individual thematic areas depends on respondents' gender. Activities in the form of sport and sports games are more preferred by men than women ($p = 0.01$); women consider compensatory activities preventing weakening of the skeletal and muscular system and body posture ($p = 0.01$), and motion activities supporting self-knowledge and self-control ($p = 0.001$) more important. Other statistically significant differences have not been revealed, which means that the distribution within individual groups defined according to other socio-demographic characteristics in principle resembles the distribution within the whole sample population.

b) Opinions of Czech Republic citizens on the educational performance of PE teachers

The second area of the research focused on the educational performance of physical education teachers, as it closely corresponded with and also influenced the researched educational content of physical education. The Czech Republic citizens were asked about what they valued or were strongly critical of as regards the educational performance of teachers of this subject. In both cases, the questions were formulated as semi-open and respondents expressed their views in their own words. These views were then subjected to content analysis and coded in a way enabling their interpretation.

The question revealing what the citizens are mostly critical of was put as follows:

“What are you strongly critical of as regards the educational performance of PE teachers in primary schools? Comment on the question briefly in your own words.”

The content analysis of the individual comments determined the following categories of answers.

- Bad behaviour to children: “aggression, fits of rage, arrogance, humiliation, being inconsiderate, moodiness, ordering around, ridicule, stressfulness, nervousness, being unrealistic, impatience, intolerance, superiority, bullying, short temper, vulgarity, scream, physical punishments” etc.
- No interest in education: “no interest in children, unconcern, carelessness, laziness, laxity, low involvement, inconsistency, reluctance to teaching, slackness, passivity, showing not enough attention to children, neglecting safety rules, leaving children unsupervised” etc.
- Low quality of education: “mistakes in education, absence of individual approach, not differentiating between those showing talents for physical activities and the others, siding those being fit, low demands, lack of hardness, insufficient strictness, inability to exercise authority, low activity, not demonstrating the exercises, not exercising with children, not being objective” etc.
- Monotonousness of education: sticking to curriculum at all costs, mechanical assessment according to tables of norms, poor creativity, stereotype, low variety in classes, low effort to attract children, poor motivation of children, monotonousness, boredom, tediousness” etc.
- Unreasonably demanding education: “too many activities, too much running, unreasonable demands, pushing into activities pupils are not good at, unreasonable

harshness, too much activity, unreasonable ambitions, demanding or unreasonable requirements surpassing children's abilities, unreasonable strictness" etc.

- Non-professionalism: under-qualification, insufficient expertise, non-professionalism, absence of relevant qualification, bad physical condition, ignorance of PE as a discipline" etc.
- A lack of motion activities: "poor offer of sports activities, a lack of motion activities at school and in after-school activities" etc.
- Other objections (not directly concerning the educational performance of PE teachers).
- Is not critical of anything.
- Does not know, cannot form an opinion.

Fifty-eight respondents (i.e. 3.2 % of the overall number) were not willing to answer the question concerning the strongly criticised features of the educational performance of PE teachers in primary schools.

More than a fifth of Czech Republic citizens (21.9 %) do not have any objections to work of primary schools PE teachers, other 19 % of them do not know which critical remarks they could state, which means that more than 40 % of Czech Republic citizens are not critical of the educational performance of PE teachers either because they value and appreciate their work, and therefore do not criticize anything, or because they do not have sufficient information about their work, and thus do not feel competent enough to answer the question.

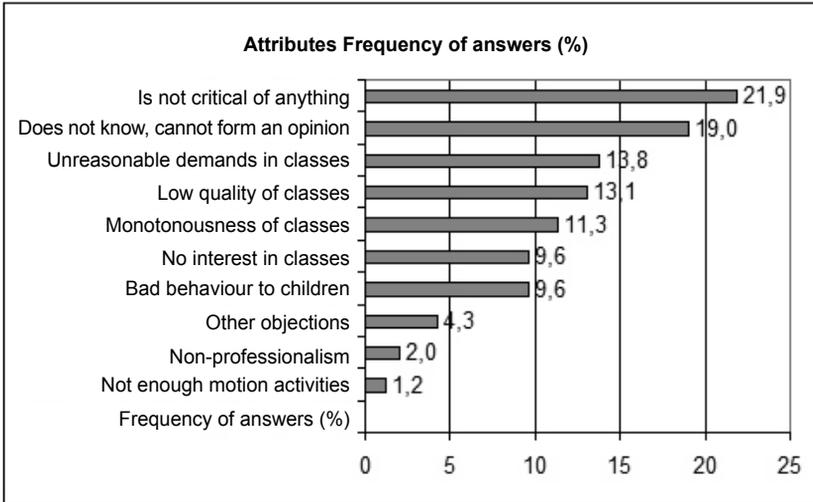
The critical comments concerning the educational performance of primary school PE teachers are relatively equal and none of them significantly outnumbers the others. The most common objection is the one concerning unreasonable physical demands, which are placed on pupils in physical education classes (13.8 % of respondents). Within this group of objections the citizens state that there are unnecessarily too many activities in PE classes and pupils are pushed into activities they do not manage; they experience unreasonable harshness and strictness; they are exposed to excessive activity of the teacher; and face physically demanding or unreasonable requirements inappropriate in respect to children's abilities.

The next group of objections, showing a nearly equal frequency (13.1 %), can be characterised as mistakes in teaching physical education. According to Czech Republic citizens, this involves a low quality of physical education classes, absence of individual approach to pupils, siding children who are fit, insufficient demands and strictness, inability to exercise authority, a low activity of teachers, not demonstrating the assigned exercises, non-objectivity etc.

More than one in ten citizens (11.3 %) are critical of monotonousness and low variety in education, mechanic assessment according to tables of norms, poor creativity, stereotypical classes, low effort to attract children, inability to motivate children, monotonousness, tediousness of physical education etc.

Another rather frequent critical comment concerns inappropriate/bad behaviour of PE teachers towards children (9.6 % of respondents). The respondents criticize especially manifestations of aggression, fits of rage, arrogance, humiliation, inconsideration, moodiness, ordering around, ridicule, stressfulness, nervousness, being unrealistic,

impatience, intolerance, superiority, bullying, short temper, vulgarity, scream, physical punishments etc. A group of remarks criticizing low interest of teachers in physical education classes is equally numerous (9.6%).



Graph 2 Criticized attributes of the educational performance of PE teachers (n = 1738)

As for statistically significant correlations, it must be pointed out that the application of testing criteria was limited due to a high number of categories defined, and therefore also a low number of cases in some squares of contingency tables. The tests, nevertheless, reveal several tendencies: The youngest age groups of citizens (15 – 24 years) significantly more often criticize monotonous classes and mechanical assessment according to tables of norms ($p = 0.0001$) while the oldest group (aged 65 and over) more often chooses the answer “I do not know” ($p = 0.001$).

As regards education, respondents with vocational training significantly more often do not criticize anything or state that they do not know ($p = 0.01$). Respondents with “maturita” exam are critical of monotonousness of classes and mechanical assessment based on tables of norms ($p = 0.001$). Respondents with university education are more often critical of the overall low quality of physical education ($p = 0.01$).

Czech Republic citizens were by means of another semi-open question asked about what they most appreciate about the educational performance of PE teachers. The question had the following wording:

“What do you most appreciate about the educational performance of PE teachers in primary schools? Comment on the question briefly in your own words.”

Similarly to the previous case, respondents’ answers were subjected to content analysis which led to defining the following categories:

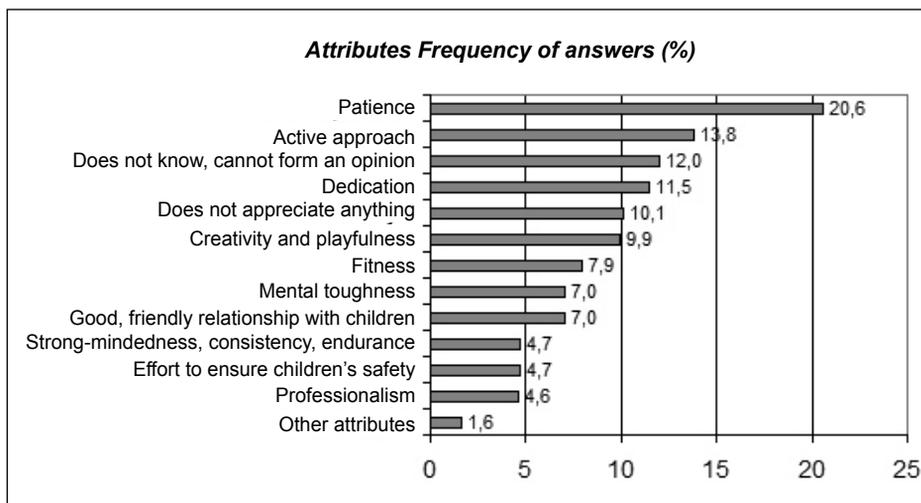
- Patience: “patient relationship, patient approach to children” etc.

- Dedication: “diligence, enthusiasm, involvement, sedulousness, unselfishness, vitality, interest, optimism, good mood, helpfulness, desire to work, desire to exercise, desire to work with children, interest, zeal, effort, strenuousness” etc.
- Creativity and playfulness: “ability to motivate and attract children, ability to involve them in games, ideas, variety, ability to entertain children, creativity, diversity, resourcefulness, inventiveness” etc.
- Good, friendly relationship with children: “helpful approach to children, empathy towards children, sensitive approach to pupils, friendly behaviour, understanding, tolerance, clemency, communicativeness, consideration, tact, helping pupils, objectivity, sense of fair-play” etc.
- Active approach: “activity, initiating activities for children, exercising with children, motion, flexibility, vitality, encouraging children to be active, ability to activate children, leading children to doing sports, health and healthy lifestyle” etc.
- Fitness: “endurance, being fit, agility, strength, fitness level, prowess, efficiency, ability to demonstrate exercises, join the activities, serve as a good example” etc.
- Mental toughness: “level-headedness, strong will, mental resilience” etc.
- Effort to ensure children’s safety: “ability to prevent injuries, watchfulness, courage, responsibility, caution” etc.
- Strong-mindedness, consistency, endurance: “doggedness, determination” etc.
- Professionalism: “organising skills, skilfulness, versatility, general skills, ability to exercise authority and respect, ability to recognise talents and enhance them, experience, general education, general preparation” etc.
- Other attributes: “organization of after/outside-school activities, swimming courses, skiing courses; all traits together” etc.
- Does not know, cannot form an opinion: “I do not have any information or experience” etc.
- Does not appreciate anything.

Twenty-three respondents refused to answer the above question, which accounts for 1.3 % of the total number of persons surveyed.

As regards the educational performance of primary schools PE teachers, Czech Republic citizens value especially patience for children and pursuing this profession. This trait is appreciated by 20.6 % of respondents. The second most frequent feature is active approach of PE teachers (13.8 % of respondents), the third one then dedication, hard-work and enthusiasm showed when realizing PE classes. These attributes were valued by 11.8 % of respondents. The relative frequency of the other categories is less than 10 %.

About one in ten citizens (10.1 %) state that there is nothing they appreciate about the educational performance of primary school PE teachers, other 12.0 % of respondents do not know or cannot form an opinion on teachers’ work.



Graph 3 Appreciated attributes of the educational performance of PE teachers
(n = 1772)

The tests of statistical significance signal mild correlations between some socio-demographic characteristics and appreciation of the educational performance of PE teachers; however, due to a high number of categories the condition of a sufficient number of cases in individual squares of contingency tables was not met, which made the possibility of their application rather limited. From this perspective, it seems to be clear that male respondents value dedication, diligence and enthusiasm ($p = 0.05$), but at the same time statistically more significantly answer “I do not know” ($p = 0.05$). Female respondents, on the other hand, place greater emphasis on creativity, playfulness and variety ($p = 0.05$), and appreciate teachers’ responsibility and their effort to ensure children’s safety ($p = 0.05$).

Respondents of the youngest age group (aged 15 – 19) emphasize especially creativity, playfulness and variety ($p = 0.001$), while the oldest citizens (aged 65 and over) more commonly answer “I do not know” or “I cannot form an opinion” ($p = 0.001$). Citizens with university education appreciate especially dedication ($p = 0.01$) and teachers’ professionalism ($p = 0.01$).

Conclusion

The sociological research from 2007 identified main reasons for satisfaction and dissatisfaction of Czech Republic citizens with physical education in primary education. The most significant reasons for dissatisfaction were the educational content of PE classes and the quality of the educational performance of PE teachers. These attributes of the educational process were in the centre of attention in a follow-up research carried out in 2008.

The follow-up research revealed these inspiring findings:

The Czech Republic citizens hold that the most important thematic areas which

should be part of physical education in primary schools involve activities in the form of sport and sports games, compensatory exercises as a prevention of weakening of the skeletal and muscular system and fitness exercises for optimal development of fitness.

The most common objection to the educational performance of PE teachers is that they set tasks that are too physically demanding for pupils, and they do not consider pupils' individual abilities or skills. Czech Republic citizens are also critical of inadequate behaviour, monotonous classes and mechanical assessment based on tables of norms. At the same time, however, it is necessary to point out that around two fifths of Czech Republic citizens are not critical of the PE teachers' work at all, or feel not competent enough to assess their work.

Czech Republic citizens speak highly of PE teachers' work too. They appreciate the patience they show when working with children. What is more, they also value active approach, devotion, diligence and enthusiasm that are characteristic of teachers' attitude to work. Last but not least, they praise resourcefulness and creativity enabling teachers to make their lessons attractive and varied.

The above listed findings lead to recommendations that should be applied not only in teaching profession in primary education, but also in teacher training of would-be PE teachers. It can be recommended to place greater emphasis on areas directly related to promoting health, i.e. compensatory exercises as a prevention of weakening of the skeletal and muscular system, and fitness exercises for the optimal development of fitness. More attention should be also paid to adequate behaviour of PE teachers.

NÁZORY ČESKÉ VEŘEJNOSTI NA OBSAH VÝUKY TĚLESNÉ VÝCHOVY V ZÁKLADNÍM VZDĚLÁVÁNÍ

Abstrakt: Provedený výzkum kategorizuje názory občanů České republiky na obsah výuky v tělesné výchově v základním vzdělávání. Příspěvek navazuje na obdobný výzkum z roku 2007 týkající se české populace na celkovou úroveň tělesné výchovy.

Výsledky byly získány na základě reprezentativního sociologického výzkumu k problematice zdraví a zdravého způsobu života. Výzkum byl realizován ve spolupráci s agenturou INRES - SONES na konci roku 2008.

Výzkumu se zúčastnilo 1795 respondentů ve věku nad 15 let. Soubor byl reprezentativní z hlediska věku, pohlaví a regionální příslušnosti občanů České republiky.

Česká veřejnost ve výuce tělesné výchovy preferuje zejména sportovní aktivity a kompenzační a kondiční cvičení. Na vzdělávací činnosti učitelů nejčastěji oceňují trpělivost při práci s dětmi a kritizují nepřiměřenou fyzickou náročnost výuky. Více než 40 % respondentů však nemá k činnosti učitelů vážnější výhrady.

Získané poznatky poskytují řadu konkrétních podnětů pro zkvalitnění práce na základních školách i v přípravě učitelů tělesné výchovy. Ukazují, na které aspekty je třeba zaměřit hlavní pozornost. Výsledky jsou příspěvkem k řešení výzkumného záměru *Škola a zdraví pro 21. století*.

Klíčová slova: tělesná výchova, obsah výuky, vzdělávací činnost učitele, základní vzdělávání, výchova ke zdraví

THEORETICAL FRAMEWORK FOR THE TEACHER'S ACTIVITIES AIMED AT STRENGTHENING FORMATION OF HEALTHY SOCIAL RELATIONSHIPS AMONG PUPILS

Stanislav STŘELEČ

Abstract: *Social health is a significant part of the pupil's health and the school is an important institution intervening into the process of its development. The term social health has been interpreted in special literature on different levels and in various contexts. The study aims at defining more stable theoretical framework for the application of educational means in the formation and development of healthy social relations in the school classroom. The study is a part of the MSM0021622421 Masaryk University Faculty of Education Brno research project 'The School and Health for the 21 century'.*

Keywords: *health literacy, social health, specific dimensions, school, teacher, educational means, formation, development*

The Czech primary and secondary school systems have been undergoing important changes nowadays. Alongside with the new School Act, the new curricula documentation system for the education of pupils and students aged 3 to 19 years old has been introduced and new education framework programmes have been declared as a new educational strategy. The new school education framework programmes have been declared as a new educational strategy. The innovative aims of primary education, key pupils' competencies, learning spheres and cross-sectional themes are the categories specifying the basic picture of the changes into which the Czech school has entered. In connection with that, the school has been characterized as the system of assistance to the pupil bringing about the prerequisites for their optimal individual and social self-assertion. As one of the basic educational aims being reflected in the long-term trends of globalizing (universalizing) educational pattern has become the implementation and development of human health. As E. Řehulka pointed out in his foreword to the J. Holčík's monograph 'Health literacy and its role in the care for health': 'An ideal situation would come up if the next chapters of health literacy were written down in lecture rooms, classrooms and staff rooms becoming thus an obvious and indispensable tool in good educational work and efficient care for health' (see Řehulka in Holčík, 2009, p. 5).

The above-mentioned topics and issues concerned with health literacy have also presage (thought not only in its general sense) the theme of this paper which has tried to establish more stable theoretical framework for the implementation of certain educational means in the formation and development of healthy social relations among school pupils.

Following the similitude of the terms health literacy and social health of the pupil, and for the purposes of further theoretical outlining of educational aspects of the pupil's social health, let me cite a few propositions from the above-mentioned Holčík's monograph:

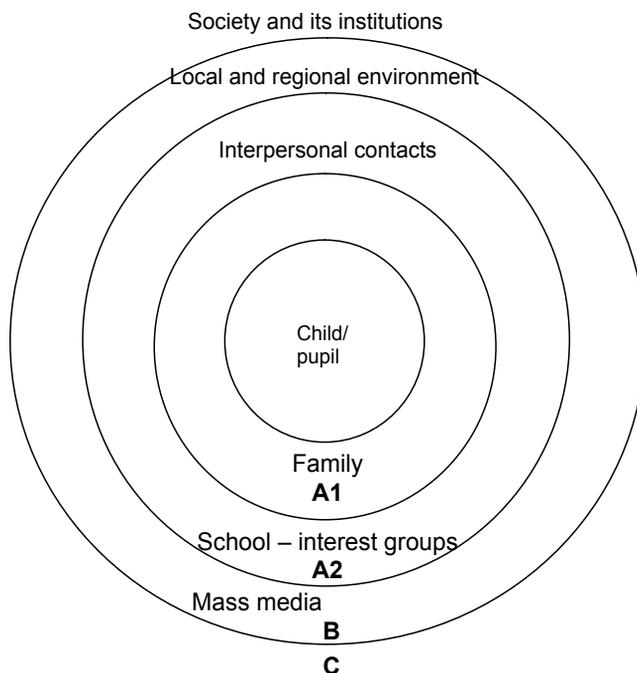
- „*Health literacy* constitutes the essentials for the future life. It can help people find and utilize necessary information and strengthen the influence on their health. Health literacy must become an essential part in the child's education. The sooner the child acquires necessary knowledge, skills and habits, and the sooner we can contribute to the formation of healthy attitudes, views and needs of him/her, the greater benefit health literacy can represent for their health.
- *Health literacy* is an important tool in the development of personality. Health literacy enables the citizens to strengthen their abilities in decision-making about their health and life, boosts their self-confidence, and builds up their dignity and self-reliance.
- *Health literacy* as an essential part of general culture affects not only the health of people. Healthy lifestyles, development of positive interpersonal relations, creative approach to life, awareness of appurtenance, strengthening of personal responsibility – those are the values that should become obvious characteristics of healthy society and its general culture“ (Holčík, 2009, pp. 10–11).

The next category determining the content of our paper is the term of *social health* of the pupil. The term *social* can be interpreted in pedagogy (and/or in other fields of study) on various levels. One of the cutting-edge branches of pedagogy is social pedagogy which in its closer definition can be characterised as an applied branch of education dealing with educational influence on the risk and/or socially deprived groups of children and youths. In such more general aspect and concept social education focuses on the educational issues researched in terms of the influence of social environment (family, school, formal and informal peer groups, local and regional environment, mass media, civic associations and organizations, including the institutions engaged with their educational programs in leisure time activities of children and adults. During the time of its development social education has formed a certain initial scheme for the assessment of groups of particular social environment factors (see, e.g., Wroczyński 1968, Baláž 1981, etc.).

The scheme in three layers (see below) typically determines the basic groups of social environment factors affecting the pupil (child). The group of social factors (agents, institutions, etc.) typically immediately and in a most intensive way affecting the life of a school-age child is called social micro-environment. Among the agents of social micro-environment, the crucial role is played by the family, school, sports and/or other hobby associations, as well as informal social groups affecting the pupil (child)

in a different, short-term or long-term intensity. The influence of country and town environment, the differences in the effect of local and regional environment including particular social and cultural institutions are all usually associated with social mezzio-environment. The Internet, mass media, television and radio broadcasting, newspapers and magazines can be included into that influence of social environment, The sphere indicated as social macro-environment comprises main economic, political, cultural and other social trends which altogether form the situation in which the citizens and the society appear in a particular country.

Social environment scheme from the point of its impact on the child (pupil)



- A - social microenvironment
- B - social mezzioenvironment
- C – social macroenvironment

The borders among micro-environment, mezzio-environment and macro-environment are changeable, their particular agents, institutions and their relations have dynamic characteristics. The influence of the social environment factors on the pupil can only be assessed from the point of view of concrete conditions in which the pupil lives and which have an impact on him/her. The schematic outline of social environment factors can be concluded by the fact that the biggest impact on social health of an individual has, as a rule, his/her family into which he/she was born and brought up during his/her childhood and adolescence. The educational and social impact of the family, alongside with its emotional and protective tasks, are considered most important parts of the fami-

ly impact on the child, especially in the early childhood, pre-school and early school-age periods. Upbringing is most frequently characterized as a process of intentional impact on the personality of a human aimed at reaching positive changes in his/her development. Socialization can be understood, in the first place, as the process of discovering the human society by an individual and of taking an appropriate position in the division of assignments and activities in the society. The process of socialization, called most frequently as placement, inclusion, and/or incorporation into the society, thus requires constant networking, deepening and enlargement of social contacts of an individual in the socio-cultural system as a prerequisite for permanent changes of personality and his/her relations to the environment (Řezáč, 1998, p. 43).

As a rule, the family has a substantial share in both the interwoven processes, i.e. upbringing and socialization, through which every individual undergoes during his/her life. Upbringing and socialization incorporate personalization (personality development) as an essential part. In the process of the child's socialization we distinguish the primary and secondary stages of his/her socialization. The primary socialization is carried out in the family. Within the family interactions, especially parent-child interactions, and starting from the earliest developmental stages, the first social experience of the child, and the first habits of social behaviour are being formed. However, upon the child's development the influence of the family gradually changes. The child becomes independent and his/her attitudes towards reality have been impacted by other factors, among which the school and other institutions play an important part. That is why the secondary socialization of the child is usually associated more with the school than with the family. But even on this stage of the child's life both the direct and indirect educational impact of family environment take an important place.

Tridimensionality in the area of social environmental influence can be also transferred into our approach to the social health concept (see Střelec – Krátká, 2008). The term *social health* has been interpreted in special literature on different levels and in various contexts. The term *relation* is used as the determining and universal feature of social health characteristics. For the purpose of our study, we distinguish three dimensions of social health – intrapersonal, interpersonal, and social dimensions. On the intrapersonal level, social health is viewed as inner transformation of the personality expressing the relation of the person to the person themselves, including his/her self-acceptance, self-control, autonomous acceptance of social roles, needs, values, etc. On the interpersonal level, social health is viewed as manifestation of a certain level in relation to other people. In case of the pupil, it comprises, e.g., the ability to cooperate with classmates, respect the views of other people, cooperate in project team work, communicate with understanding, and be disposed to friendship, fellowship, and partnership. The third level of relations – social level – comprises, in a broader (civic) sense, e.g., reflection of the human behaviour and action consequences for the life of social groups and the whole society.

In this respect we may ask: „What substantiation and support have the formation and development of the pupil's social health in the current primary and secondary school documentation?“ The current framework of the Education Programme for Primary School (EPPS) determines the following requirements within the main primary education aims:

- to teach the pupils develop and protect their physical, mental and social health,
- to lead the pupils to tolerance and thoughtfulness towards other people, cultures, and intellectual values, to teach them live together with other people,
- to help the pupils learn and develop their abilities and real possibilities implementing them along with obtained knowledge and skills in decision making about their life and career orientation (EPPS, 2005, p. 13).

From the point of view of the pupil's social health, the school environment should provide conditions convenient for the whole spectrum of pupils, encourage slow learners, protect and support the weak pupils, and ensure that every child, by means of upbringing and education adapted to individual needs, be developed by his/her individual method in a satisfactory way. That is why appropriate conditions for the education of pupils with special needs should be formed. Friendly and helpful atmosphere should encourage the pupils to study, work and activities according to their interests and provide them space and time for active learning and complete development of their personality. Further specification of the primary school goals in the EPPS involves key competencies of the pupil. The pupil's social health is reflected especially in social, personal, and civic competences. Social and personal competences encompass: 'Upon completion of their primary education, the pupils

- cooperate efficiently in a group and, along with the educator, they set rules in the team, impact in a positive way the quality of the project work on the grounds of accepting the new role in the set activity,
- participate in creating pleasant atmosphere in the team, contribute to building up good interpersonal relations on the grounds of respect and thoughtfulness in dealing with other people, in case of necessity, he/she provides assistance or is able to ask for it,
- contribute to the discussion in a small group or in the class, understand the necessity cooperate effectively with the others working out an assignment, appreciate experience of other people, respect different points of view, learn from what other people think, say, and do,
- create positive imagination of themselves supporting his/her self-confidence and independent development, control and manage his/her actions and behaviour in order to reach the feeling of self-satisfaction and self-esteem" (EPPS, 2005, p. 16).

Upon completion of their primary education, the pupils civic competences encompass:

- respect the beliefs of other people, appreciate their inner values, being able to empathize other people's situations, disapprove oppression and rude treatment, realize the necessity oppose physical and psychical violence,
- understand basic principles of social standards and laws, being aware of his/her rights and obligations in and out of the school,
- make responsible decisions in an appropriate situation, provide efficient assistance and behave in a responsible way in risk situations and in situations dangerous for life and health,

- respect and protect our traditions and cultural and historic heritage, express positive attitude towards pieces of arts, sense for culture and creativity, take an active part in cultural and sport activities,
- understand basic environmental consequences and issues, respect requirements for quality life environment, make decisions supporting and protecting health and permanent and sustainable development of the society (EPPS, 2005, p. 16).

Particular attention, in terms of the content and techniques of health education in schools, including social dimension of the pupil's health, is paid in one of the nine spheres of the EPPS called 'Human and Health' and in its subsequent cross-section theme categories. The cross-section theme in primary education utilises not only theme subjects, but also the pupil's experience, when the whole school climate (relations among all the participants of education based on cooperation, partnership, dialogue, and respect) creates democratic classroom atmosphere serving like 'laboratory of democracy' in which the pupils are in a higher degree motivated to implement their opinions in discussions, and to participate in the decisions about the rules and regulations in the class, society, community in a democratic way. At the same time, not only can the pupils themselves verify the importance of keeping the rules and regulations and participate in setting new rules by themselves, they can see the importance of keeping the set rules and regulations and the necessity to care for democracy being aware that breaking the rules may lead towards anarchy and/or anarchism. Such pupil's ability to distinguish hence develops their ability to think critically" (EPPS, 2005, p. 93).

There are other inspiring resources in addition to the EPPS. Looking at our particular subject, we considered some associations concerning the activity of a class teacher and the issues related to the 'Healthy School – the School Supporting Health' project (further on the Healthy School project). As the three basic conceptual pillars of the Healthy School project are considered 'friendly environment', 'healthy learning', and 'open partnership'. They are further specified and developed into nine principles (see Havlíková, 1998) out of which four principles have the closest relation to the social and health aspects in the pupil's education within the Healthy School project. The 'friendly environment' principle suggests mutual humanistic approach, creation of positive climate of the school, support of open communication, helpfulness, respect, trust, broad-mindedness, patience, and readiness to help.

Organizational environment well-being suggests that the school activities were organized in compliance with the regiment requirements, changing of work and relaxation, healthy nutrition, and active physical exercise of both the pupil and teacher. The partnership and cooperation principle supposes the teaching methods and forms which suggest the implementation of democratic principles, effective cooperation and partnership of children, development of contacts with other social and/or special partners – parents, municipality and educational institution representatives. The principle called 'School – model of a democratic society', supposes a change in hierarchic into partnership relations layout enabling thus the experience of a democratic way of life, at first inside and then also outside of the school. We pay special attention to the Healthy School project principles because the majority of the tasks related to the implementation

of the above-mentioned principles deals with the work of all the class teachers, not only those who have been involved from a long-term perspective.

Comparing the assumptions of the Healthy School project and the central EPPS concept we may conclude that both of them head towards the same goals, but each having a specific educational strategy. The Healthy School project declares physical, psychical and social dimensions of health as the central and predominant aim. This fact penetrates all the educating and educational aspects of the project while the educating aspects (personality and social development ones) prevail. If we compare and contrast the Healthy School project and the central EPPS, then the EPPS programme is a more complex and self-contained concept (in terms of the balance of educating and educational dimensions). The EPPS is a state-run educational programme with legislative and institutional support. While the Healthy School project used to be understood at the very beginning as more or less one of the alternative educational options which, in many ways, inspired the authors of the EPPS as well as other educational programmes. Both the documents ('The Healthy School' and 'The EPPS') reflect the global WHO (World Health Organization) 'Health for 21 Century' strategy and declare a long-term programme aimed at the improvement of health of population.

TEORETICKÁ VÝCHODISKA PRO ČINNOSTI UČITELŮ PODPORUJÍCÍ UTVÁŘENÍ ZDRAVÝCH SOCIÁLNÍCH VZTAHŮ MEZI ŽÁKY

Abstrakt: Sociální zdraví je významnou součástí zdraví žáka a škola je důležitou institucí zasahující do procesu jeho rozvoje. Pojem sociální zdraví je v odborné literatuře interpretován v různých rovinách a souvislostech. Cílem studie je vymezení stabilnějšího teoretického rámce pro aplikaci pedagogických prostředků při utváření a rozvoji zdravých sociálních vztahů ve školních třídách. Příspěvek je součástí řešení jednoho z témat výzkumného záměru PdF MU Brno MSM0021622421 Škola a zdraví pro 21. století.

Klíčová slova: zdravotní gramotnost, sociální zdraví, specifické dimenze, škola, učitel, pedagogické prostředky, utváření, rozvoj

CONDITIONS FOR THE CLASS TEACHERS' WORK IN AFFECTING HEALTHY DEVELOPMENT OF THEIR PUPILS

Stanislav STŘELEČ, Jana KRÁTKÁ

Abstract: *The article conveys the results of a survey into the conditions of primary and secondary class teachers' work aiming at identifying how the class teachers reflect the degree of strenuousness of their job, where they perceive the core of strenuousness, and how they view current financial reward for the class teacher's job. The article makes use of the data out of which some have previously been published within the 'School and Health for the 21 Century' project at Brno Masaryk University Faculty of Education (Project MSM002162421).*

Keywords: *class teacher, legislative sources, degree of educational strenuousness, healthy development factors, financial reward*

The class teacher's work at any level of school education is not only substantiated, but it also has some peculiarities resulting from both educational and psychological characteristics of the pupil at certain age, and the level of his/her individual mental, physical, and social maturity. In this respect, the class teacher is considered the factor having huge possibilities for affecting healthy development of every pupil and the school class. From the school stage point of view, natural penetration and integration of upbringing, educational, and socializing activities is quite specific. In some ways, such influence can be understood as a basic model in which specific conditions for upbringing enable the class teacher affect both the pupil's personality and social development in a well-balanced way (see Střelec – Krátká, 2006).

The first issue on which we have focused our attention starts with the question: 'Who is the class teacher and which duties does he/she have to tackle?'

The education dictionary characterizes the class teacher as a specialist, who 'manages the organization of the class and leads education of a group of pupils in the class, coordinates the educational activities of all the teachers giving lessons in the class, cooperates with parents, keeps the in-class documentation, and performs administration duties in his/her class' (Průcha, Walterová, Mareš, 2001, p. 253). Traditionally, as J. A. Ko-

menský in his *Didactica Magna* states, the main responsibility for all events in the class should be assigned to one particular teacher. Komenský thus anticipated significance of the class teacher, though he had never used the term of class teacher. A less encouraging fact is that despite the century-proved positive experience, we have not had an official, self-contained document declaring the status and duties of the class teacher in current Czech school. The Czech Ministry of Education (CME) only expresses their stance on the role and work of the class teacher by means of partial information in several guidelines and instructions, which address all the teachers in general and not the class teacher in particular. So far, the specific class-teacher's duties have been determined locally and constitute, more or less, a part of a particular school internal documentation.

The CME 48/2005 regulation on 'Primary Education and the Issues of Compulsory School Attendance' in section 17 *characterizes the class teacher as 'educator appointed by the school principal ensuring specific tasks resulting from the school principal assignment*. The CME 10007/98-26 instruction on 'Safety and Health Protection in Regional School Work' mentions that the class teacher should instruct the pupils about the safety behaviour basic rules, school rules and regulations, behaviour on public roads, fire safety and protection rules, harm of alcohol and tobacco, etc. The CME 72/2005 regulation on 'The Provision of Consultancy Services in Schools and School Consultancy Facilities' indicates that the class teacher should cooperate with a school counsellor, school prevention mentor, and/or school psychologist, special needs educator, etc. Other recommendations on the class teacher's work can be found in 10194/2002-14 CME instruction on the 'Common Procedures in Excusing and Releasing Pupils from the Classes, Truancy Prevention and Sanctions', in 28275/2000-22 CME instruction on 'Prevention and Tackling Bullying in Schools'. Besides, the school authorities and, to an appropriate extent class teachers as well as, shall learn the other documents, e.g.:

- 14 423/1999-22 CME instruction on the 'Prevention of Racism, Xenophobia, and Intolerance,' (5/1999 CME Bulletin).
- CME 25 884/2003-24 (CME Bulletin 11/2003) 'Pre-School, School, and School Facilities Cooperation with the Czech Police on the child's and youth's crime prevention and investigation'.
- CME 11691/2004-24 (CME Bulletin 6/20004) 'Rules for Parents and Children on Safer Use of the Internet'.
- CME 10 844/2005-24 Social and Pathological Phenomena Prevention Strategy in School Children and Youth in 2005–2008'.
- CME 37 014/2005 instruction (CME Bulletin 2/2006) on 'Safety and Health Protection of School Children, Pupils, and Students'.
- CME 20 006/2007-51 instruction (CME Bulletin 11/2007) on 'Social and Pathological Phenomena Primal Prevention in School Children, Pupils, and Students'.

If we take a closer look at those CME instructions from the point of view of the school and class teacher, we cannot but observe the expanding trend in such documentation as well as possible negative consequences resulting from such a non-stabilized methodology and legislature foundations for the school and teachers; especially, if we take into account underestimated in practice significance of educational activities of the class teacher (see Střelec–Krátká, 2009).

From the abovementioned facts results the need for standardized integrating information assisting the school authorities, educators, and, especially, class teachers in their educational efforts issuing unambiguous framework of their rights and responsibilities towards their pupils, parents, and other participating educational entities. In our opinion, the recourse of this effort could be in the 7/2005 CME Bulletin indicating that the class teacher:

- Motivates the pupils to create their in-class rules in agreement with the school rules and regulations, keeps an eye on respecting the rules (creating open and safe atmosphere and positive social climate in the classroom), supports the development of positive social interactions of pupils in the classroom.
- Intermediates communication with other teaching staff and guarantees cooperation of the school and the pupils' parents.
- Keeps record of specific features of particular class pupils and of their family background.
- Cooperates with the school career counsellor in providing consultancy services regarding decisions on the future education and career of the class pupils.
- Cooperates with the school prevention mentor in detection of warning signs, participates in implementation of minimum prevention programs, diagnoses the relationships in the classroom.
- Cooperates with the school psychologist and special needs teacher in prevention of poor academic achievement of the class pupils (rectification, guidance); in making good conditions for integration of pupils with special education needs, and, following the school principal instructions, in other areas of educational and consulting work with the pupils in the class.

In this respect, it appears very significant to strengthen the teaching profession status by, e.g., including the teacher into the public servant category.

All the mentioned circumstances have been taken into account when considering this part of our research aimed at the class teacher's reflection of the degree of strenuousness of their job, where they perceive the core of such strenuousness, and how they view current financial reward (pay increment) for the class teacher's job. Due to the limited extend of the article, we show only an excerpt of the survey results providing illustrative data on methodological procedure and its basic findings.

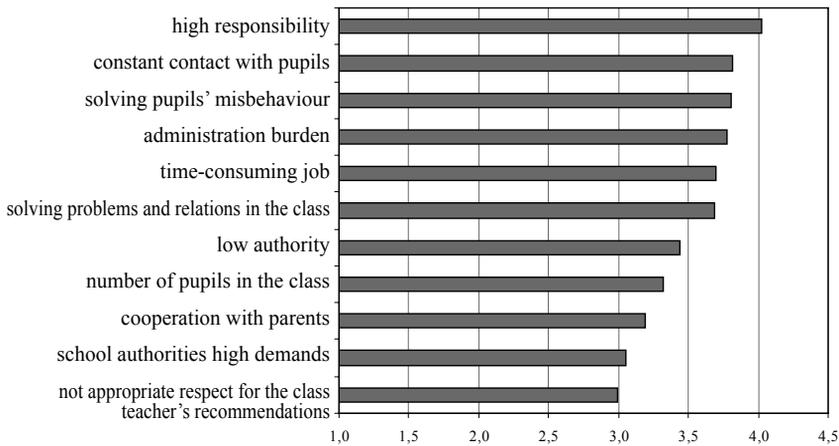
Research sample consisted of 240 (100 %) respondents (primary and secondary school teachers), out of them were 65 (27 %) lower primary school teachers, and 65 (27 %) upper primary school teachers, 110 (46 %) secondary school teachers (grammar schools, special schools, vocational schools). As for the age structure, 4 % of class teachers were younger than 25 years, 23 % class teachers were 26-35 years old, 60 % class teachers were 36-55 years old, and 14 % were 56 and over. In the research survey took part 56 (23 %) male class teachers and 184 (77 %) female class teachers.

Views on the causes of strenuousness of the class teacher's job:

(Circle the importance on the 1–5 scale. Number 1 is relatively least important value; number 5 is relatively most important value).

Question: Where do you perceive the core of strenuousness in the class teacher’s job?

- a) cooperation with parents
- b) not appropriate respect for the class teacher’s recommendations
- c) number of pupils in the class
- d) solving pupils’ misbehaviour
- e) administration burden
- f) time-consuming job
- g) solving problems and relations in the class
- h) high responsibility
- i) constant contact with pupils
- j) low authority
- k) school authorities high demands

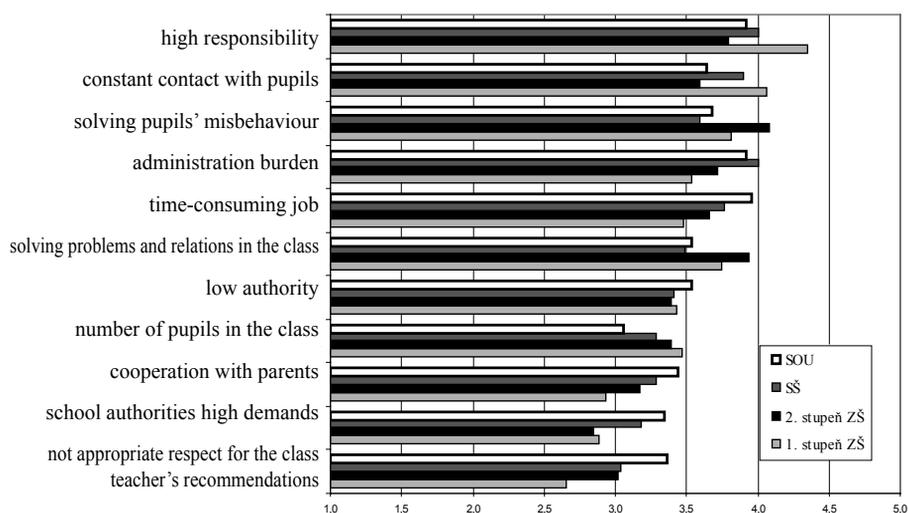


Graph comparison of average values indicates where the class teachers perceive the core strenuousness of their job:

The survey results show that the respondents (class teachers) perceive the most important factor affecting the strenuousness of their job to be **HIGH RESPONSIBILITY** arising from their work (4.03 on the 1–5 scale). The next factors: constant contact with pupils (3.81), solving pupils’ misbehaviour (3.80), administration burden (3.78), time-consuming job (3.70), solving problems and relations in the class (3.69), low authority (3.44), number of pupils in the class (3.32), cooperation with parents (3.19), school authorities high demands (3.05), low respect for the class teacher’s recommendations (3.0).

Views on strenuousness of the class teacher's job depending on the school type

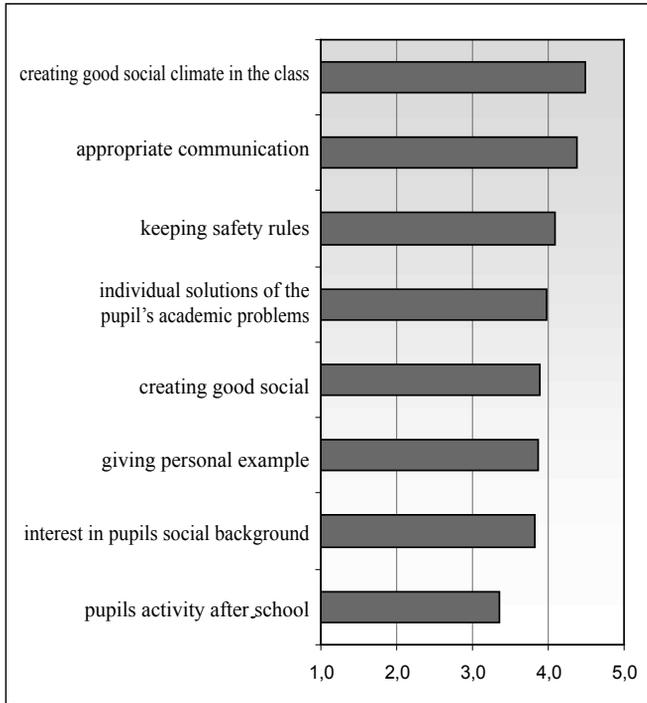
Partially, we have adopted the hypothesis assuming that the class teachers of different types of schools do perceive the core of strenuousness of their job in different areas. As expected, lower primary class teachers indicate the highest responsibility arising from their work as well as constant contact with pupils to be the core strenuousness of the class teacher's job. Strenuousness in solving the pupils' misbehaviour and relationships in the class is indicated mostly in the upper-primary class teachers' responses. Secondary school class teachers perceive strenuousness in time-consuming administration. Vocational school class teachers (more than other school-type teachers) indicate low respect for the class teacher's recommendation, difficulties in cooperation with their students' parents, and higher demands of the school authorities to be the most strenuous factors in their job.



Question: How and/or by what means can class teachers contribute to physical, mental, and social health of their pupils?

- individual solutions of the pupil's academic problems
- interest in other pupil's problems, active share in their solutions
- appropriate communication
- recommending and/or creating after-school activities of pupils
- interest in the pupil's social background, communication with parents
- class-teacher as a role-model of a lifestyle
- creating good social climate in the class
- keeping safety rules, warning against potential injuries

The following graph of average values of the responses compares on the 1–5 scale the areas by means of which the class teachers can contribute to health of their pupils:

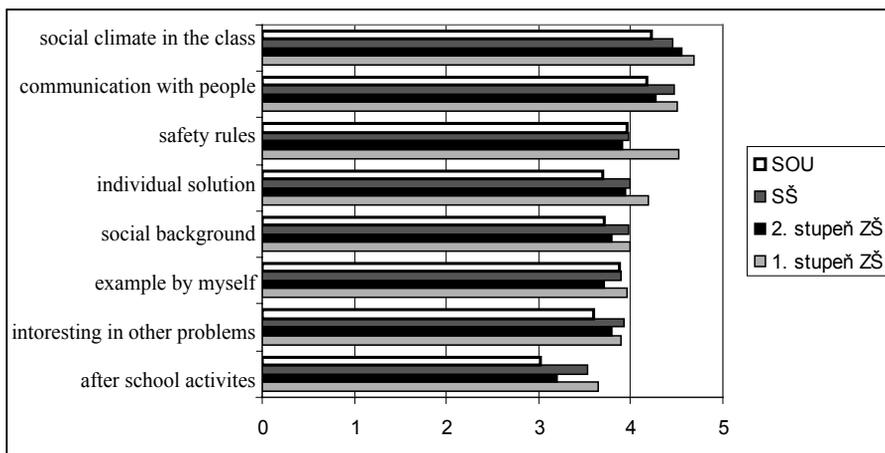


The survey results show that the respondents (class teachers) value creating good social climate in the class (4.5 on the 1–5 scale) as factor supporting the pupils' health most.

The next factors: appropriate communication with the pupils (4.37), keeping safety rules, warning against injuries (4.1), individual solutions of the pupil's academic problems (3.97), interest in social background of the pupil and communication with parents (3.88), teacher as a role-model of lifestyle (3.86), interest in other pupil's problems, active share in their solutions (3.81), recommending and/or creating after-school activities of pupils (3.36).

Views on the class teacher's contribution to the pupil's health depending on the school type

The class teachers' responses show significant differences depending on the type of school. E.g., non-parametric dispersion test results (Kruskal–Wallis test) indicate good social climate in the class as most appreciated by lower-primary school teachers, then by upper-primary teachers, secondary school teachers, and vocational school teachers, which corresponds indirectly with the age of the pupils/students (degree of their physical, mental, and social maturity).



H1: Class teachers of different types of school attribute different significance to the areas which could contribute to health of pupils/students

We have formulated zero and alternative hypotheses on the correlation between the views of class teachers on the ways contributing to health of pupils and the types of school where the class teachers work.

H_0 = There is no correlation between the number of class teachers responses on the questions and the type of their school

H_A = There is correlation between the number of class teachers responses on the questions and the type of their school.

Non-parametric dispersion test results (Kruskal–Wallis test) comparing several statistical averages led to partial rejection of zero hypothesis about no differences in the class teachers' responses on particular questions and the type of their school. Non-parametric dispersion test results do indicate statistically significant differences in the class teachers' responses, in particular, on recommending and/or creating after-school activities of pupils, keeping safety rules and warning against potential injuries, creating good social climate in the class, and appropriate communication (see Střelec–Krátká, 2006; Krátká, 2007).

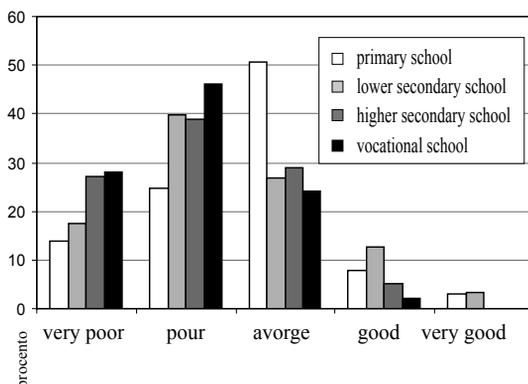
Class teachers' views on the financial reward (pay increment) for their work

Question: How do you view current financial reward for the class teacher's work?

very poor – poor – average – good – very good

21 percent of surveyed class teachers view their current financial reward very poor, 37% poor, and 33% average. Only for 7% of class teachers current financial reward is good and about 2 percent of class teachers find financial reward very good. The average value is 2.30 (on 1–5 scale).

Views on the class teacher's current financial reward depending on the school type



Current financial reward (pay increment) for the class teacher's work is viewed by the class teachers as bad (average value 2.30 on the 1–5 scale). We have adopted a hypothesis that the class teachers of different types of schools have different points of view on the current financial reward (pay increment) for their work. The lower-primary school class teachers (51 %) view their pay increment as average and are contented with them. The least contentment with their financial reward (pay increment) is expressed by secondary and vocational school teachers. We have rejected the hypothesis that the class teachers with different length of work experience have different views on current financial reward (pay increment) for their class teacher's work. Partially, we have adopted the hypothesis that male class teachers are of different opinions on financial reward for their class teacher's work than female class teachers. 33 % male class teachers view their financial reward very poor contrasting with 18 % of female class teachers. According to the opinion of surveyed teachers, the appropriate financial amount should reach CZK 2,000 (current pay increment for the class teacher's work reaches on average CZK 500–600 in the Czech Republic). We have rejected the hypothesis that the class teachers

from different types of school have different views on the appropriate financial reward (pay increment) for their class teacher's work

Particular (local) conditions for the class teacher's work have not been looked at within the scope of our research. The findings thus do not enable us to examine, e.g., into what extent the class teachers' responses were affected by number of pupils/students in the class, number of lessons spent with their pupils/students by class teachers, turnover of class teachers, level of successfulness of traditional and/or non-traditional class teacher–parent cooperation strategies, etc. These issues plus some others will come within the scope of our future research activities. Nevertheless, the survey findings have certain value pointing to the significance of the class teacher's work which has been attributed to it at present.

PODMÍNKY PRO PRÁCI TŘÍDNÍCH UČITELŮ PŘI OVLIVŇOVÁNÍ ZDRAVÉHO ROZVOJE ŽÁKŮ

Abstrakt: Příspěvek je sondou do podmínek pro činnosti třídních učitelů na základních a středních školách. Cílem studie bylo zjistit, jak je třídními učiteli reflektována míra náročnosti této jejich funkce, v čem vidí těžiště její náročnosti a jak se dívají na stávající finanční ohodnocení za funkci třídního učitele. V textu studie jsou použity faktografické údaje, z nichž některé byly již publikovány v rámci výzkumného záměru PdF MU Brno MSM002162421 Škola a zdraví pro 21. století.

Klíčová slova: třídní učitel, legislativní východiska, míra pedagogické náročnosti, faktory zdravého rozvoje, finanční ohodnocení.

ACTIVATING TECHNIQUES IN THE TEACHER'S PSYCHOLOGICAL PREPARATION

Jaroslav ŘEZÁČ

Abstract: *The present paper concentrates on the construction of training techniques in the context of the needs for social competence development, subjectively expressed by pedagogues of various types of school. It monitors required changes of social skills as reflected in teachers' subjective assessments related to themselves, their colleagues and the conditions of the teaching profession. The respondents in my sample also felt some problems in their communication with their superiors, in leading dialogues, communication with problem individuals or in problem situations (conditions). Self-reflection and self-control in professional situations should also be enhanced; statements that called for „starting self-development“ appeared as well, although they did not specify whether the „self-development“ concerned one's personality or one's professional role.*

Keywords: *training, interactive exercises, activating techniques, reflection on social skills and features*

Introduction

Within the range of the research project 'School and health for the 21st century' I direct my attention to the construction of a variant of interactive training, founded theoretically and specified by the needs of teaching practice, the so-called *interactive exercises*. In order to create the conception of the exercises and their continual updating, it is necessary to follow: 1) the current situation in the supply and level of the activating and training techniques at the teachers' disposal, 2) the changing needs of pedagogical practice subject to the changes of syllabuses and cardinal pedagogical documents, and 3) the requirements of practising experts (teachers, instructors, social workers etc).

We have lately been experiencing a certain boom of training techniques. It is an understandable response to the previous preference of knowledge courses and training that rather concerned administrative and legal aspects of pedagogical work. This also brings some difficulties. Although various university departments provide their students

with coherent trainings, they mostly only give them *information* on training techniques. This is because the curricula are crammed with traditional disciplines, leaving little space to seminars or tutorials requiring work in small social groups (12 – 15 participants).

Training techniques should in their nature address people who subjectively feel the necessity for their self-development. In other words, there should be a wider offer enabling choice for various groups of students. Otherwise the leader of the training is to a certain degree forced to construct a kind of ready-made exercises '*catering for the majority*'. Some participants in the training then logically feel that the training is *superficial* where he or she feels the need for a deeper intervention, that it is directed towards goals he or she has reached, or by means and methods he or she has mastered. These students often find out that such seminars do not bring any benefit to them, since they do not develop their creativity.

The very method characteristic of training techniques may not be suitable for every student either. If the training group includes students whose problem is an elementary interactive self-confidence as well as those who rather seek sophisticated ways of assertiveness or solution of interactive problems, the leader of the group can to a certain degree use this situation for cultivating co-operative interactions, but it would be more suitable if the two types of students worked in groups homogeneous from the suggested point of view.

The conception of interactive exercises was discussed comprehensively in my previous works¹ (including partial specifications of the exercises)² and therefore I will only briefly refer to the starting points and the used techniques, in order to explain the context of the test the results of which I am going to present here.

The starting points

Why interactive training?

The 'undesirable' stereotypes (attitudes, habits, unsuitable perception schemes, ineffective styles of activities, unsuitable strategies of relations) are reflected and revised here; professional success is more and more markedly dependent on not only professional knowledge but also social competence, and the training techniques make it possible to simulate a majority of social situations from the fields of management, leading, care, education etc; the techniques based on group fellowship help to soften the consequences of the civilizational cultural development, especially the considerable alienation and a certain absence of informal interactions.

¹ ŘEZÁČ, J.: První zkušenosti z interakčních cvičení v rámci profesionálních praktik na PdF MU. *Pedagogická orientace*, 1991, 2, 79-82.

ŘEZÁČ, J. Interactive Exercises and Their Use in the Psychological Preparation for Profession. Využití interakčních cvičení v psychologické přípravě na profesi. XXVI. International Colloquium on the Management of Educational Process. University of Defence Faculty of Economics and Management. Brno 2008. CD ISBN 978-80-7231-511-6.

² ŘEZÁČ, J.: Od sebeotevření k sebereflexi. Sb.: *Novinky v pedagogické a školní psychologii* 97. Zlín 1998., s.64-68. 9

ŘEZÁČ, J.: Zpětná vazba jako aktivizující a facilitující faktor interakčního učení. In.: kolektiv.: *Učitel, vyučování, situace*. Brno, Paido 1994. ŘEZÁČ, J.: K problému rozvíjení sebereflektivní kompetence v rámci interakčních cvičení. *Pedagogická orientace* 1997, 4, s.12-18, ISSN 1211-4669

- The main (key) ideas of interactive exercises predominantly relating to the interactive component could be briefly formulated as follows:
- We can exert a really effective influence on somebody only 'together with him or her' (*leading is not controlling*),
- education and upbringing will only be effective to the degree to which they will be *life itself, not only preparation for life ...*,
- revealing is easier when done together (*let us discover things together – and study individually*),
- ideas are like children: we always have them with somebody ... (*group discussion cultivates not only thought but also relations, or from individualism to individuality*),
- why do we want what we want? (*revealing the deeper layers of motivation and new motives - intransit motivation – Bruner*),
- life is an individual self-realization in the environment made by other people who strive for the same ...,
- there will be no skill without activity, and no social experience without actually experienced relations ...

Interactive training is directed to the cultivation of the following qualities:

- A) the skill to initiate, continue, deepen and influence human relations; to affect other people, to enforce one's interests and to exercise one's influence without impairing other people's activities and personality autonomy;
- B) social smartness, ie the ability to pursue and develop a meaningful interaction adequate to the social situation as well as the participant's needs and interests;
- C) the ability to create plans, tactics and strategies of social action;
- D) the ability to realize (to initiate and manage) social activities;
- E) the ability to behave and act so that all the expression components are in harmony, and the individual's action is clear for the partners (ie it is congruent and authentic);
- F) the ability to perceive one's own interactive style in the context of its possible consequences in pedagogical practice.

The participant of the exercise learns:

- *to recognize* correctly the outer *expectations* following from the situation,
- to choose correctly the *tactics* and *strategy* adequate to the situational *challenge*,
- *to mobilize oneself to performance* (motivation and condition),
- *to respond* to the situational challenge in an adequate way (so that one's social behaviour is adequate (to the activity) as well as *harmonic, consistent* and *congruent*).

The participants in the exercise are learning to identify (and to appreciate properly) the key determinants of personality changes, especially:

the protagonists' attitude styles (the dimensions of the interactive style have been derived from the experience of training groups and are formulated bipolarly (*direct – manipulative, creative – rigid, integrating – disintegrating, directive – indirective*),

the climate of intragroup interactions (it is assessed on the basis of the following polar characteristics: *freedom of speech – conformity, support – impediment to assertiveness, freedom or restriction in mutual relations, acceptance – rejection of individual expression or activities, empathy – social coldness, trust – distrust, affiliation – hostility*).

The planning and realization of the trainings (or individual techniques), aimed at the given principles, are easier if the author has a grasp of what changes in which fields of social life and personality qualities are preferred by the potential participants in the training sessions.

Research

The object of the research

The goal of the research is to find out the *frequency*, subjectively evaluated *quality* and *assets* of the training techniques studied within teachers' further education during pedagogical practice, and to get acquainted with declarations about further needs for self-education in the field of training techniques.

The method

A simple structured questionnaire was used for obtaining the basic data; it also enabled the tested persons to supplement the answers to open questions with commentaries, notes or illustrations of problems from practice.

The sample

The research sample consisted of 166 teachers of various types and grade levels of school.

The results

The offer of training and activating techniques during lifelong education seems to be quite considerable: 54.8 % of the respondents have during their teaching practice gone through at least one active training of some kind. Nearly all the respondents have during their practice taken part in a number of (mostly passive) instructive sessions and courses (2–3 times a year on average). About one fifth of them were courses including or exclusively based on activating techniques.

They were trainings directed above all towards:

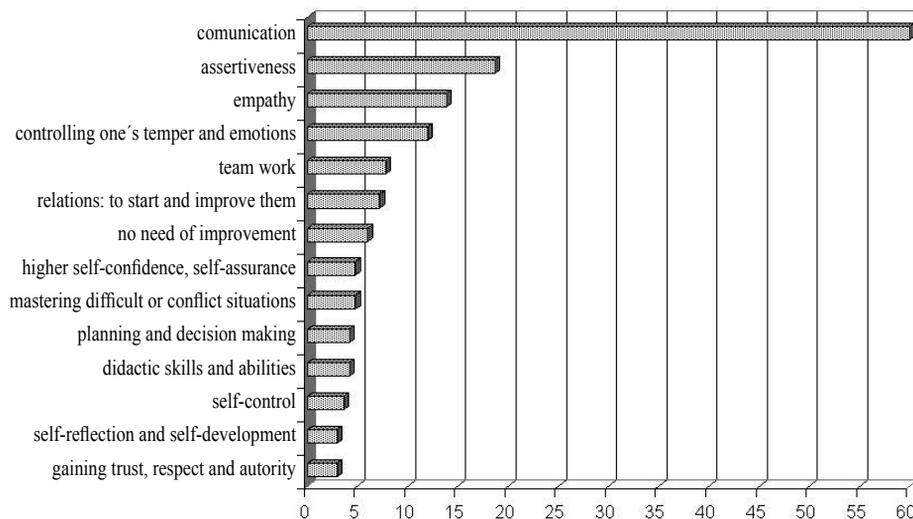
- communication
- assertiveness
- solution of conflict or problem situations
- management (time management, direction, leading)
- transactive analysis
- other business (other courses and workshops with special goals)

The subjective evaluation of the assets and quality of the courses is more down-to-earth: only 27.7 % of the respondents consider the courses that they have completed as qua-

lity ones and beneficial for their practice. The detailed analysis of the accompanying notes and commentaries seems to show that the rather sceptical result is a bit distorted by the fact that the trainings always cater for the whole collective of a workplace and do not respect the individual needs of the participants. Therefore the courses perceived and evaluated as not really positive also include some which were given the label 'fair quality' courses by a respondent but did not appeal to him or her because they tried to change the skills, qualities or features considered then by him or her as 'not important or necessary', or they were held at the time when his or her preferential engagement was needed somewhere else (topical problems at work, in the family, critical life situations etc). An interesting finding is also the fact that some teachers perceive the training courses with a pejorative touch due to the direct or indirect 'experience' of the misuse of psychology in everyday life ('... the current society is flooded with the offer of enhancing forms of social skills. The victims manipulated at various shopping actions could tell us how they were unable to face the argumentation of trained sellers... all those who have devoted their time to vital problems can only watch how they are walked over by people of absolutely no character who have gone through a specific schooling...' Tested Person (TP) No 88, female, 54).

The following CHART (1) gives a survey of the most frequent fields where the respondents feel a need for a relatively great positive change:³

Fig. 1. The subjectively perceived need for changes in social skills



(the figures express the percentages of the frequency of the given categories in the tested sample)

In the field of **communication** the most frequent answer was either the general 'need for the improvement of one's communicative skills', but also the more concrete 'improvement of the skill at communicating with a group (team) or within a certain group', im-

³ The chart shows the percentage of respondents giving particular skills in which they would like to improve. The total number of the fields given was 108.

proving or obtaining the ability to listen, to reach a more perfect way of *expressing oneself*, to improve the skill at *communicating with young people* (or pupils). Furthermore, the participants want to improve *non-verbal communication* and to learn *effective communication*.⁴ The respondents in my sample also felt some problems in their *communication with their superiors*, in *leading dialogues*, communication with *problem individuals* or in *problem situations* (conditions) etc. There also appeared a need to improve the *expression of criticism* or *rhetoric skills* and '*to improve voice as a means of interaction and detection*'. The need to improve the parameters of voice in regard to the demands of profession has been signaled in some other studies (eg Frostová, J. 2007); the same author is also working out a system of voice condition exercises, which could, among others, be useful for the participants in the interactive exercises focused on communication. Appreciating voice parameters and care of voice as a working tool has led me to the intention of enriching the wider conception of interactive exercises with exercises improving voice and speech cultivation.⁵

Controlling one's temper and emotions included especially: the need *to control one's impatience, rashness and recklessness* in behaviour and action, and *to control emotions in difficult situations* and the teacher's working conditions.

In the field of **team** work the respondents felt a need to improve the *team management* and *leadership of people*, to initiate and support *co-operation* and to establish a creative and pleasant *atmosphere* in work groups.

Emphasis was also laid on the improvement of one's *self-confidence*, *self-assurance* and *self-evaluation* in the context of *the ability to perceive oneself correctly* and *to cultivate the self-evaluation* in one's socio-professional role.

Human relations also needed various changes. The respondents signaled a need to improve *professional* and *non-professional relations*. They felt a certain handicap in the field of the establishment and development of professional relations. The most frequent problems concerned good relations with the pupils' *parents*, as well as *pupils* themselves. The most frequent reported problem in the non-professional field was starting relations with '*new people*'.

Self-reflection and self-control in professional situations should also be enhanced; statements that called for '*starting self-development*' appeared as well, although they did not specify whether the '*self-development*' concerned one's personality or one's professional role. This '*start*' is, interestingly, mostly expected from the outside.

As can be seen in CHART 1, a bit more than 6 % of the respondents either reported directly that they did not feel any need to change themselves in any significant way, or they did not answer the question at all ('... *I'm not aware that I would need to be more perfect in my profession or personal life. I'm trying to adapt to the given situation in the best possible way and to act so that in the end there is no conflict but mutual understanding and tolerance on both sides ...*' TP No 56, female, 33 years).

The illustrative information also brought answers to questions connected with the environment and people in the professional field.

A certain signal can be seen in the fact that the number of statements concerning this field was slightly higher than that concerning changes related to oneself (the absolu-

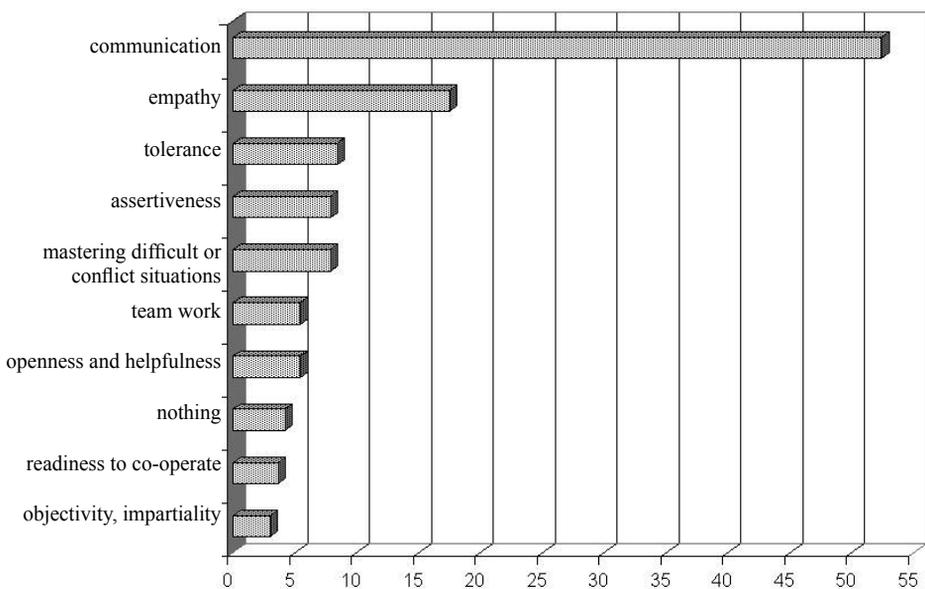
⁴ The terms are presented here as they were formulated by the respondents.

⁵ Frostová, J., Řezáč, J. *Projekce zpěvnosti do profesní komunikace* /The projection of 'singing tendencies' into professional communication/ (forthcoming).

te numbers were 108 : 132). The statements were less differentiated and related to fewer partial fields than changes needed in relation to one's own Ego. Expectations regarding social features were more numerous in them than those regarding skills and abilities.

The statements quite often expressed relatively general and indirect (proclamative) evaluations suggesting disappointment about the changes in the teacher's role and status (eg: *'I remember the times when the teacher was an example to pupils at school, in all respects if possible. This demand would be laughable today ...'* TP No 88, female, 54 years) or about the atmosphere at the workplace (*'... I often feel that my colleagues do not sufficiently understand human relations and are not loyal to the employer. Many of them have problems with maintaining good interpersonal contacts at the workplace ...'* TP No 164, male, 44 years).

Fig 2. The subjectively perceived need for changes in the colleagues' social skills and features



(the figures express the percentages of the frequency of the given categories in the tested sample)

The most needed skill is **communication** again (almost 55 %, see CHART 2). The concrete assessments are very similar to the subjectively perceived needs for self-correction. The most frequently expected change (in colleagues) is better listening to others and, as a general skill, a more effective and skilful communication. Open communication⁶ is expected, as well as the art of discussion, a well-founded, quality argumentation, communicativeness (as a feature of the character), the art of expressing the real object of communication, acceptance of criticism, a better communication with one's subordinates

⁶ The terms are again presented here as they were formulated by the respondents.

(respecting them as partners), effective communication, cultivated and adequate expression, and work with voice corresponding to the pedagogue's erudition.

Colleague-related expectations also noticeably concern the level of management and leading people. The missing qualities include the following: readiness to co-operate, authentic (not 'self-serving') quality observance of basic ethic rules in interpersonal relations, observance of norms and working orders, as well as moral norms (responsibility, respectability, reliability etc), co-operation, helpfulness, openness, impartiality, objectivity, willingness to help (social support) etc. The view of the need for change in colleagues (fellow workers, superiors, subordinates) is rather focused on social features than skills and abilities.

The analysis of the respondents' accompanying commentaries suggests that human relations in teaching staffs are aggravating ('... *some colleagues are not trying to solve problems, leave working activities unnoticed, relying on an automatic solution of the problems; some of them are 'wet blankets' ... assessing our collective as a whole, I feel that we are not a well co-ordinated team, because everybody wants something else and we are not able to agree on anything; rivalry and envy prevail ...*' TP No 156, female, 35 years, a passage). The commentaries often contain complaints about changes in pupils' behaviour and their attitudes to studying and to each other ('... *it is not only aggression that increases steeply, and it is not easy to master all situations with a smile on one's lips and bitterness in a corner of one's mind ...*' TP No 161, male, 28 years).

While here the assessments mostly relate to the features and qualities of the partners and teams, the self-assessment emphasizes skills or partial competence.

About one third (36 %) of the TPs feel the same need for positive changes of social skills and features in themselves and their colleagues,

34 % of the TPs feel a greater need for positive changes of social skills and features in their colleagues or in the environment (the climate of the school, its organization, the projection of the wider social environment),

30 % feel a more marked need for positive changes of social skills and features in themselves than in their colleagues.

The results of the probe suggest:

- an increasing interest in training techniques, but simultaneously some reservations about their content and the ways of their realization,
- in regard to the content and orientation of the training, the undoubtedly most desirable skills to be trained are communication, cultivation of interactive skills (leading and management, improvement of human relations and of the climate of intragroup interactions); understanding – empathy – social support and an adequate assertiveness in professional interactions,
- slightly higher demands for the colleagues to change than for oneself with the focus on social features,
- an indirect appeal for a change of the conditions of educational interactions (a better school climate and school management, value transformations of the society and the family: against aggression and arrogance in children, some parents' unwillingness to co-operate etc).

Practical conclusions

- It is necessary to direct the training in the future teachers' psychological preparation towards:
- Self-reflection and self-regulation (self-education)
- Perception and self-perception (adequate self-assessment)
- In communication towards
 - provision of an adequate and effective feedback
 - argumentation and critical thinking
 - carrying on dialogue and constructive discussion
 - authentic and congruent self-presentation
- In social behaviour towards
 - co-operation and team co-ordination
 - creating positive climate and providing social support
 - social behaviour strategy in the context of concrete social situations

AKTIVIZUJÍCÍ TECHNIKY V PSYCHOLOGICKÉ PŘÍPRAVĚ UČITELE

Abstrakt: Příspěvek je orientován na konstrukci výcvikových technik v kontextu subjektivně vyjadřovaných potřeb rozvoje sociální kompetence pedagogů různých typů škol. Sleduje potřeby změn sociálních dovedností, jak se odrážejí v subjektivních hodnotících soudech učitelů ve vztahu k sobě, kolegům a podmínkám pedagogické práce. Respondenti signalizují potřebu zdokonalit *vztahy* jak v *profesní*, tak *mimoprofesní* oblasti. Určitý hendikep pocítují v oblasti navazování a rozvíjení profesních vztahů. Výrazněji se ještě objevovala potřeba zdokonalení či zlepšení sebereflexe a sebeovládání v profesních situacích a objevovaly se i výroky volající po „*nastartování rozvoje*“.

Klíčová slova: výcvik, interakční cvičení, aktivizující techniky, reflexe sociálních dovedností a rysů

THE INDIVIDUAL PROGRAMMES OF THE HEALTH IMPROVEMENT USING THE METHOD OF VIDEO-COMPUTER PSYCHODIAGNOSIS IN THE PEDAGOGICAL PROCESS

Maria S. GONCHARENKO, A. N. TYMCHENKO

Abstract: *Our work deals with practical utilization of the video - computer psychoanalysis according to Anuashvili. Two groups of students with different study – orientation were chosen and according to method mentioned was concluded that the method is sufficiently sensitive and enables reliably determine mental type of the person and in this way find specific access to to her/his education.*

Keywords: *spirituality, video – computer analysis, mental types, cerebral activity, valeology.*

The nature of a person is determined by the permanent universal values – absolute principles, composing universal morality. One is considered to be a normal harmonic person if he or she aspires after these principles. The nature of a person is reflected in these absolute principles and is present there usually unconsciously.

The spirituality of a person is the source of his or her activity, the condition of development and richness of the mental world. It determines the deeds and the actions of a person, his or her way of life in general. The scientists established the interconnection between the level of the spiritual development of a person with the mental, social and physical health. The problem of the assessment of the constituents of the health remains one of the most acute up till now and demands innovative approaches when solved.

One of such methods is the method of video-computer psychodiagnosis by Anuashvili, founded on the background principle of the information perception. So, through the analysis of the image of a person's face his or her mental type, mental condition, and the activity of cerebral hemispheres can be estimated. On the whole, according to the given method 49 mental types are singled out (fig. 1). The method is actively introduced into practice at the chair of valeology of V. N. Karazin Kharkiv National University.

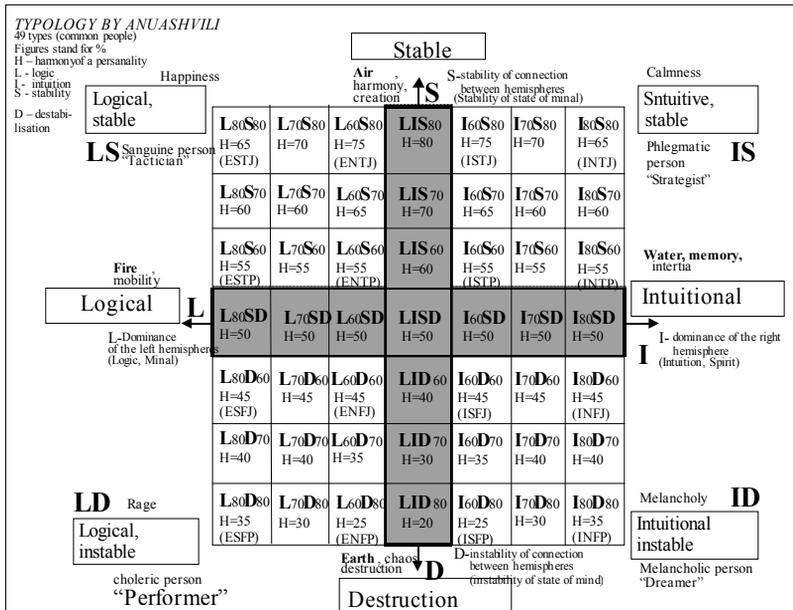


Fig. 1. Typology by Anuashvili

The analysis of the mental types of the students (20 people) of the department of philosophy (valeologists) and the department of ecology (ecologists) of V. N. Kharkiv National University was carried out with the help of video-computer diagnosis.

In the group of valeologists the middle mental type predominates with 50% of cases comparing with the instable (20%) and stable (30%) types (fig. 2). In the group of ecologists the instable and stable types are predominant (with 40% each) comparing with the middle mental type (20%).

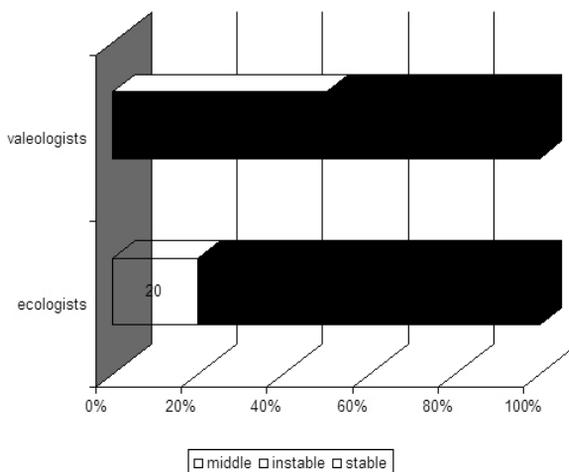


Fig. 2. The comparative analysis of mental types in the groups of ecologists and valeologists.

40 % of valeology students belong to the middle stable type, 20 % - to logical stable type, 20 % - to the intuitive stable type and 10 % correspondently to logical and intuitive instable types each.

In the group of ecology students we singled out 30 % of intuitive instable type, 30% - intuitive stable type, 10 % - logical stable type, 10 % - instable type without predominance and 20 % - middle stable type.

The analysis of the inter-hemispheric asymmetry accounts for the predominance of the logical thinking (the inter-hemispheric asymmetry of the left cerebral hemisphere) in 50 % of cases, the representational thought (the inter-hemispheric asymmetry of the right cerebral hemisphere) in 40 % of cases regardless of the specialization of the department. In 10 % of cases no explicit predominance of the inter-hemispheric asymmetry was revealed.

In the group of ecologists we observe a significant number of students (40 %) with the instable mental type, inclined to the manifestation of instability in mental state, risky and deviant behaviour, correspondently to the low manifestation of awareness of their deeds that causes the decrease of the spiritual health of a person. Thus, the connection of the spiritual health, as the top of the "health pyramid", generally accepted within the field of valeology studies, causes the changes in the social, mental and physical health of a personality. So we devised the programme of the individual self-development of a personality, which is actively implemented among the students of V. N. Kharkiv.

National University and includes the following parts:

- 1) activation of the work for the development of a personality;
- 2) formation of spiritual-moral culture;
- 3) harmonization of the emotional sphere of a personality;
- 4) fundamentals of the hygiene and the formation of the healthy life-style skills;
- 5) broadening of the knowledge of the culture of physical development and the formation of skills and their usage;
- 6) valeological fundamentals of the culture of nutrition;
- 7) culture of family relations closely correlating with the socialization of a personality.

Thus, the opportunity of the introduction of the video-computer diagnosis by Anuashvili into practice of the work of the high school gives the possibility to reveal students' mental types, to modify the appliance of the individualistic approach towards a student's personality and to use individual health-improving programmes aiming at the harmonization of a personality and his or her health.

INDIVIDUÁLNÍ PROGRAMY ZLEPŠENÍ ZDRAVÍ, VYUŽÍVAJÍCÍ VIDEOPOČÍTAČOVÉ PSYCHODIAGNOSTICKÉ METODY V PEDAGOGICKÉM PROCESU

Abstrakt: Práce je zaměřena na praktické využití metody videopočítačové psychoanalýzy podle Anuašviliho. Byly vybrány dvě skupiny studentů, jejichž studijní

směr se dosti značně liší a pomocí uvedené metody bylo zjištěno, že je dostatečně citlivá a umožňuje spolehlivě určit mentální typ člověka a tím najít specifický přístup k jeho výchově.

Klíčová slova: spiritualita, videopočítačová analýza, mentální typy, mozková činnost, valeologie

KNOWLEDGE OF THE INDICATORS OF A HEALTHY LIFESTYLE AMONG STUDENTS OF THE TEACHING PROFESSION

Jitka ŠIMÍČKOVÁ-ČÍŽKOVÁ, Jaroslav ŠIMÍČEK

Abstract: *A new trend in education at primary schools in The Czech Republic requires cohesion between a subject and its practical applicability. One of new educational areas is a piece of knowledge called „A Man and Health“. At the Pedagogical Faculty of the University of Ostrava we have been preparing students in the programme of Health Education in Bachelor's and Master's degrees since 2007. Our study deals with the investigation and comparison of the Pedagogical faculty students and wider population of university students as regards the knowledge about health. The results of our investigation provide documentary evidence of the need of information dissemination especially within the population of prospective teachers.*

Keywords: *health education, health indicators, knowledge of health*

Introduction

Health is the source of the quality of life; it enables us to achieve our aims in life and in the hierarchy of values health is just such an aim. Health in itself cannot be defined without being related to other concepts. Probably the best known definition of WHO specifies that health is physical, mental and social well-being, not the absence of disease or infirmity. In the social understanding of health the given indicators merge into one common denominator which is the way of life. This term contains the value that various people assign to the phenomenon of health, health care, environment and life conditions in the society.

An important concept of the way of life and its relation to human health is the concept of salutogenesis coined by A. Antonovsky and the concept of hardiness formulated by S. Kobasová. They are based on goal-directed arousal of interest in working at oneself and in this way shaping and strengthening one's own health. Salutogenesis is also comprehended as a principle of the lifestyle where the condition of working at oneself means to devote attention not only to the physical and mental components, but also to intellectual ones. The individual does not always have to be healthy to have a feeling

of well-being and dignity. In this sense health education should be focused on personal responsibility towards a meaningful life.

Problem

The transformation of the Czech school began at the beginning of the new millennium with the passing of the document Framework educational programme for primary education which gives preference to the development of key skills of pupils. The quotation of J. A. Komenský: “It is necessary to learn not a number of things but what is essential for life” captures the concept of this programme. In this context also health education is interpreted in the given document which should prepare pupils for a healthy lifestyle.

In the school programme the educational field Man and Health contains the standard for primary education. The topic of the support of health in education also requires proper training of methodically erudite teachers. In addition to postgraduate programmes in the past five years the subject Health Education was accredited to the Faculties of Education both as bachelor and master studies. At the Ostrava University in the academic year 2009/2010 the first students of these subjects will graduate as bachelors specialised in education and master graduates in Teaching of Health Education at lower secondary schools.

Our present study canvasses how groups of students studying subjects where different attention is devoted to the issue of health are oriented in the health issues. We chose three groups of university students, students of teaching at primary and lower secondary schools (in subjects other than Health Education), bachelor students of the subject Health Education and bachelor students of the subject Protection of Public Health.

Research question, method of investigations and the investigated group

We asked the question to what extent does information about health differ among university students. We go by the approach to generating skills on the basis of their orientation in essential knowledge about the activity where the skills are to be applied. It involves particularly the level of knowledge of protective and risk factors of health which are the substance of a healthy lifestyle.

In the investigated group we were seeking answers to the following questions:

1. What are the differences in knowledge about health between students of the teaching profession for primary and lower secondary schools with the exception of the specialisation in Health Education and students specialising in Health Education?
2. What are the differences in knowledge about health between students of the educational subject Health Education and the medical subject Protection of Public Health?

For the collection of data we used J. Šimíček's didactic questionnaire named Civilisation Diseases and a Healthy Lifestyle. The questionnaire contains 23 questions which are focused on two areas of knowledge about health, i.e. the causes of civilisation diseases and their prevention. Some questions contain more than one correct answers. (The maximal number of correct answers is 34.)

Examples of questions:

7. Heart attack results from diseases

- a) coronary arteries closure by thrombus
- b) strong positive emotions
- c) strong negative emotions
- d) great physical exertion

19. What kind of exertion protects from coronary

- a) any kind
- b) walking
- c) tennis, football and other ball games
- c) long-distance run

15. Diabetes mellitus I is produced by

- a) a deficit of insulin
- b) inherent disposition
- c) overeating
- d) lack of exercise

22. Cancer is a threat particularly to

- a) smokers
- b) excessively obese people
- c) persons with a deficiency of proteins in food
- d) alcoholics

The tested group consisted of students of the Teaching Faculty (PdF) and Faculty of Medical Studies (FZS) of Ostrava University. Tab. 1 contains basic data on the group.

Table No. 1: Description of the investigated group

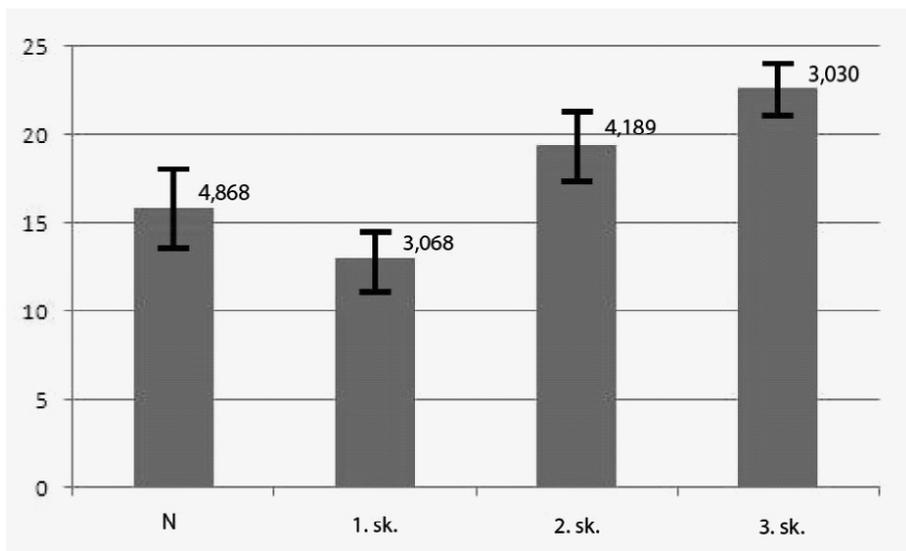
Faculty	Study subject	Number	Age
PdF OU	1. Primary and lower secondary school teachers	147	19 – 23
PdF OU	2. Health education	40	19 – 23
FZS OU	3. Protection of public health	40	19 - 26

Results

Tab. 2 gives a survey of data on the knowledge of students about health issues from the area of civilisation diseases and healthy lifestyle.

Table No. 2 and its graphic representation: Results of the group

Group	Number	Results		M	s
		minimum	maximum		
N	227	4	29	15.855	4.868
1.	147	4	20	13.020	3.068
2.	40	13	25	19.475	4.189
3.	40	15	29	22.725	3.030



Tab. 3 and 4 show the distribution of results in groups and statistically significant difference.

Table No. 3 and its graphic representation: Distribution of results in groups.

Groups	Results	
	M1 below-average	M2 above-average
1.	116	31
2.	6	34
3.	1	39

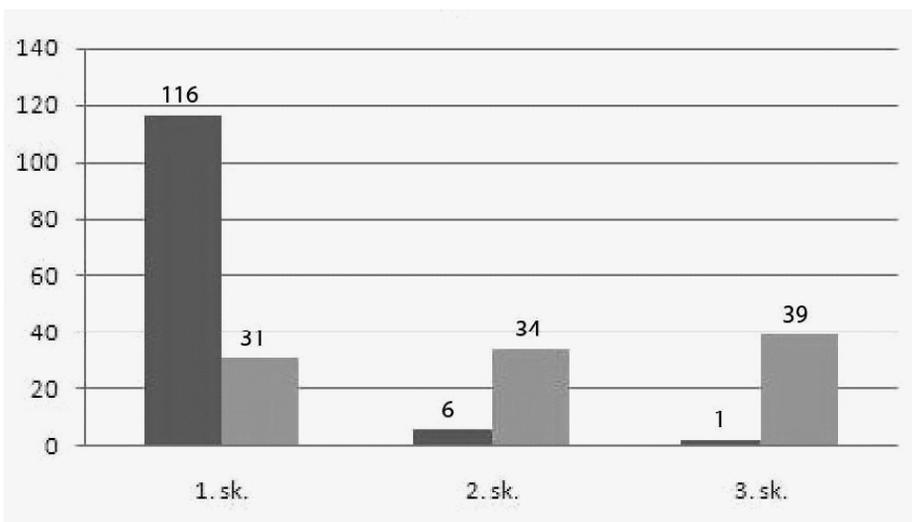


Table No. 4: Significance of difference in results

Groups	χ^2	P
1 : 2	56.638	0.0001
2 : 3	3.914	0.0479
3 : 1	78.389	0.0001

M1 results below the average of all groups

M2 results above the average of all groups

In the questionnaire the distribution of results of the groups shows that below-average knowledge on health was four times higher in the group of students of the teaching profession who come across health-related issues in their learning process only marginally. Although health protection issues for teachers of primary schools are incorporated in the educational programme, they are largely focused on nutrition, sex education and the prevention of drug abuse. For students of the teaching profession for lower secondary schools the programme of the subject Man and Health is included only as an the optional subject. Comparison of results on knowledge about health and health support between students of the specialisation Health Education and students of the medical subject Protection of Public Health show similar results. It is true that a statistically significant difference was proved but only on the threshold of statistical significance.

The questionnaire Civilisation Diseases and a Healthy Lifestyle contains questions related to the causes and prevention of civilisation diseases; therefore we compared the level of knowledge in these two areas. Questionnaire 25 contained the maximal number of correct answers in the area of aetiology, causes or origin of civilisation diseases, and questionnaire 9 in the area of prevention. Table 5 gives the statistical results.

Table No. 5 Results of the knowledge of causes and prevention of civilisation diseases

Group	Causes of civilisation diseases				Prevention of civilisation diseases			
	M	s	min.	max.	M	s	min.	max.
1.	9.87	2.55	4	15	3.40	1.30	0	8
2.	14.67	3.21	8	22	4.52	1.53	0	7
3.	17.02	2.87	11	24	4.97	1.09	2	8

The difference between group 1 and 2 is significant both in terms of aetiology and lifestyle ($\chi^2 = 33.59$, $P = 0.00001$). Between group 1 and 3 the result was similar ($\chi^2 = 71.41$, $P = 00001$) and between group 2 and 3 it is $\chi^2 = 8.81$ and $P = 0.03$ (degree of freedom for all groups equals 1). The difference between group 2 and 3, i.e. students of Health Education, and students of the Protection of Public Health is again statistically significant, but the probability level is considerably lower. Tests of the significance of differences between knowledge of aetiology of civilisation diseases and knowledge of the lifestyle provided similar results in the groups as well as in the entire complex. Groups 2 and 3 whose results in aetiology were better also showed better results in issues of prevention and lifestyle.

Students of the entire body showed that they had the best command in the issue of the negative effect of smoking on the origin of civilisation diseases (89.1 % correct

answers). Another issue with which the students seem to come across quite often and have a good knowledge of is cardiovascular diseases; 87.1 % of the respondents are familiar with heart attack; 81.6 % of the respondents know about the risk of acute cardiac infarction, 81.0 % of the respondents know the correct cause of death when afflicted with cardiac infarction and 71.4 % of the respondents indicated high blood pressure as a civilisation disease.

The students are not so familiar with prevention of cardiovascular diseases. Only 1.4 % of the respondents indicated long-distance running as a prevention of coronary disorders, and only 0.6 % of the respondents indicated a weekly running burden in kilometres after myocardial infarction. Only 1.6 % of the respondents see a lack of exercise as the potential risk of second-type diabetes. We also see gaps in the students' knowledge about the regimen; for instance only 18 % of the respondents indicated butter as the fat with the highest content of cholesterol.

Conclusions and summary

On the basis of knowledge of the indicators of a healthy lifestyle the students of teaching at primary and lower secondary schools showed that their command of the subject in the educational area Man and Health was insufficient and therefore their qualification for the profession of teacher was also insufficient, particularly when teaching the pupils personal responsibility for taking care of their health and boosting the healthy lifestyle.

Similar results in the knowledge of indicators of a healthy lifestyle of students of the medical subject Protection of Public Health support our concept of education of teachers in the study subject Health Education. Getting experts qualified in this area to schools may have a positive effect on the atmosphere in the sense of a healthy lifestyle in the entire school.

By and large, insufficient orientation in health issues of students of the teaching profession provides incentives for contemplation of how to extend the general basis in the educational programme in the sense of the Man and Health concept.

ZNALOSTI INDIKÁTORŮ ZDRAVÉHO ŽIVOTNÍHO STYLU STUDENTY UČITELSTVÍ

Abstrakt: Nový trend ve vzdělávání na základních školách v České republice vyžaduje provázanost mezi subjektem a praktickou aplikací. Jedna z nových vzdělávacích oblastí je předmětem známým pod označením „Člověk a zdraví“. Na Pedagogické fakultě Ostravské univerzity připravujeme studenty v programu Výchova ke zdraví v bakalářských a magisterských studijních programech od roku 2007. Naše studie pojednává o výzkumu, jenž srovnává studenty pedagogické fakulty se širším okruhem univerzitních studentů s ohledem na jejich znalosti o zdraví. Výsledky našeho výzkumu poskytují zřejmý důkaz pro nutnost rozšíření informovanosti o problematice především v řadách budoucích učitelů.

Klíčová slova: výchova ke zdraví, indikátory zdraví, znalosti o zdraví

PERCEPTION OF WORKLOAD BY MEN AND WOMEN TEACHERS AND SELF-ASSESSED HEALTH STATUS

Karel PAULÍK

Abstract: *The author analyzes relationships between subjective health and perceived load by men and women working as teachers. Results obtained from a research sample of teachers at the lower secondary stage of primary schools in the Czech Republic (N=967) confirmed the assumption of a relatively high perceived workload in the teaching profession. Self-assessment of one's own health showed symptomatic albeit low correlations with the teachers' load and satisfaction. Differences between men and women teachers were found in certain subjective and objective indicators of health, age, length of one's teaching career and the degree of importance attributed to the profession.*

Keywords: *teacher stress, teacher profession, self-assessed health status, genders aspect of teacher profession*

Introduction

Numerous research workers studying the teaching profession all agree that to work nowadays as a teacher is very often associated with requirements that place, when compared with other professions, specific and relatively high demands on individuals (see, e.g., C. J. Travers, C. L. Cooper, 1996, J. Průcha, 2002, K. Paulík, et al, 2009, M. Popelková, A. Šišková, M. Zatlková, 2010 and others). At the same time, these demands tend to grow as a result of social reconstruction and systemic changes in school education that are either taking place now or are expected to take place in the future (see, e.g., E. Walterová, 2002; V. Rosa, 2003). In this respect, the teachers' situation is made more complicated, problems with students aside, by not always adequate and realistic social tasks that cast them to ambiguous or even conflicting roles, constant supervision and criticism (sometimes unfounded), etc. Besides, there is quite often a feeling among teachers that support provided to them by, e.g., parents, and especially financial remuneration of their work, are not quite adequate to the demands placed on them. All of that plus demanding situations that are not directly related to their jobs may, under certain conditions (e.g. sudden increase in workload

in combination with less time for its execution, intensive conflicts, long-term accumulation of difficulties, etc.), induce stressful situations. In our studies (see, e.g. K. Paulík et al., 2009), the percentages of self-reported stressed teachers were in the range of 20-40 %.

In the present paper, we look into certain relationships between self-perceived workloads and self-perceived health status assessment among teachers, with attention also paid to possible differences between men and women.

Teacher stress and health

In agreement with the classical and relatively often referred to definition (cf. C. Kyriacou, J. Sutcliffe, 1979; M. Cole, S. I Walker, 1989), teacher stress can be described as a response syndrome of negative affect usually accompanied with pathogenic physiological changes resulting from a more or less significant failure of coping mechanisms activated upon the onset of various demands of the teaching profession, and mediated by cognitive assessment. The assessment result is a statement to the effect that work demands exceed (or do not use up) the teacher's work capacity and are therefore a threat to his wellbeing and self-appraisal. Causes of teacher stress are not discussed in detail in this paper. The reader can be referred to a number of other papers (see, e.g., J. Daniel, 2002, J. Průcha 2002, K. Paulík, et al, 2009, M. Popelková, A. Šišková, M. Zaťková, 2010 and others). From the above definition, the probability of certain consequences of teacher stress on the objectively existing or subjectively perceived health status can, among other things, be inferred. In addition to the more or less significant health problems, negative consequences of teacher stress include occupational dissatisfaction, emotional exhaustion (burnout), loss of interest in working as a teacher and tendency to absenteeism, etc. (for more information, see, e.g., K. Paulík, 2007, 2009 and others).

In this connection, a question may arise as to how increased demand on teachers in connection with the execution of their job is reflected in their self-assessment of their own health status. Our objective is to seek possible answers to the above question taking also into account possible differences between men and women teachers.

At the general level, the relationship between workload and health was studied by, e.g., V. Kebza (2005). Detailed studies into the relationship between workload and teachers' health were conducted by, e.g., B. Vašina and M. Valošková (1998), J. Průcha (2002) and K. Paulík et al. (2009). Information on teachers' health can be obtained from both teachers' subjective self-assessments and from real-life incidence of medically diagnosed illnesses that can be linked to the demands of the teaching profession. Regarding subjective health, survey results (see, e.g., B. Vašina, M. Valošková, 1998) seem to suggest that teachers evaluate their own health as poorer and complain about various psychological and physical problems in connection with demands of their profession more often than it is common among the unsorted economically active population. The increase in perceived health problems is linked, among others, to a decrease in job satisfaction. Also, as pointed out by various authors (see, e.g., K. Paulík et al, 2009) the intensity of health problems and the feeling of a general worsening of health of teachers increases with advancing age and the length of their teaching career. According to German sources (see J. Průcha, 2002) neurotic problems amongst teachers with fewer than

10 years of teaching experience were found in 8.3% but in up to 31% amongst teachers with 20 or more years of teaching.

Sickness absence from work is considered as a relatively valid indirect indicator of work-related stress (see, e.g., C. Kyriacou, J. Sutcliffe, 1979). Data on sickness absence frequency and length from different countries show a similar trend. The lowest morbidity is reported in summer holiday months and, during the school year, immediately after and before them. A marked increase in absence occurs in the autumn months of October and November (which very probably also reflects the negative effect of climatic factors). Sickness absence from work amongst teachers peaks in December and March.

Although the connection between stress and negative changes of health status are not unambiguous and no scientific evidence of a causal relationship between stress and somatic disease has been made available (see, e.g. V. Kebza, 2005), there is a strong likelihood that the existence of stress at work is projected into health and, at the very least, influences its subjective assessment. There can be no doubt that, for instance, stress affects immune system function (I. Šolcová, V. Kebza, 2007). Workplace stress can thus be ranked among risk factors for human health under certain conditions. In view of the fact that teachers - just like a majority of working age adults - spend a best part of the day in workplaces and, moreover, their job is among those that quite often affect the workers' private life after working hours (see, e.g., J. Průcha, 2002), teacher stress can be ranked among important factors that probably influence the health and life expectancy of teachers.

Survey

The **sample surveyed** consisted of teachers from Czech primary schools recruited for cooperation by informed distributors from among university students. The structure of the sample surveyed is in Table 1.

Table 1 Sample surveyed

	Number	Age		Length of teaching experience	
		Mean	Standard deviation	Mean	Standard deviation
Males	176	40.75	11.37	15.56	11.41
Females	791	41.06	10.06	16.43	10.35
Males+Females	967	41.00	10.31	16.28	10.56

For data acquisition, we used the **questionnaire** with items that we had used in various combinations for some time. In this case, we used items that directly tell how respondents, using a scale of 1 to 5, rate:

1. their occupational and non-occupational loads (I generally perceive (a) demands of my job (b) demands of life outside workplace as: 1 – not at all stressful, 2 – mildly stressful, 3 – moderately stressful, 4 – very stressful, 5 – extremely stressful“);
2. job satisfaction and satisfaction in one's life outside workplace (How satisfied are you with your (a) job (b) life: 1 – completely dissatisfied, 2 – rather dissatisfied, 3 – neither dissatisfied nor satisfied, 4 – rather satisfied, 5 - very satisfied“);

3. your health (1 very poor 5 excellent);
4. importance attributed to your teaching profession generally (1 absolutely unimportant... 5 very important);
5. days of sickness absence from work during last calendar year.

We also asked about the respondents' age, length of teaching experience (in years) and gender.

Table 2 Means and standard deviations of survey variables

		Males	Females	Males+Females
Occupational load	mean	2.93	3.05	3.03
	SD	0.93	0.83	0.85
Non-occupational load	mean	2.67	2.68	2.68
	SD	0.69	0.78	0.76
Life satisfaction	mean	3.77	3.88	3.86
	SD	0.82	0.66	0.69
Job satisfaction	mean	3.57	3.74	3.71
	SD	0.83	0.81	0.82
Job importance:	mean	3.96	4.15	4.12
	SD	0.91	0.80	0.82
No. of sickness absence days	mean	4.85	6.34	6.07
	SD	7.34	12.92	12.12
Self-perceived health status	mean	3.82	3.88	3.87
	SD	0.93	0.79	0.82

The perceived work-related load of the entire group was of an average magnitude (level 3 on a five-point scale). The result of self-assessed health status was near Level 4, i.e. „in good health“. Most people, more specifically 57.9 % (55.7 % males and 58.5 % females) in the group defined their health as „fair“. A total of 39.1 % of respondents (38.6 % males and 39.2 % females) considered themselves as of being in excellent health or in good health and only 3.0 % of all the respondents (5.7 % males and 2.3 % females) as being in poor health or very poor health. The extent to which the teaching profession was important for their lives was on average described by the respondents as „quite important“ (Level 4). No statistically significant differences between males and females on the basis of the means of survey variables were found in the study (t- test). This was also true about their evaluations of work-related and non work-related loads whose comparison may help us get a better insight into self-perceived challenges of the teaching profession. Both males and females considered teaching loads higher than life's load (t-test females: 9.25, males: 2.98, which in both cases is at the significance level of 1 %).

Table 3 Correlations of self-assessments of one's health

	Work load	Life's load	Life satisfaction	Job satisfaction	Job importance	sickness absence	Age	Practice
Males	-0.178+	-0.019	0.199++	0.234++	0.011	-0.192+	-0.221++	-0.201++
Females	-0.125++	-0.154++	0.180++	0.082+	0.014	-0.214++	-0.184++	-0.190++
Males + Females	-0.135++	-0.128++	0.186++	0.116++	0.016	-0.204++	-0.192++	-0.192++

The table shows values of Pearson's correlation coefficient

+ 5% level of significance

++ 1% level of significance

It follows from Tab. 3 that subjective assessments of one's own health in the entire group has statistically significant, albeit mostly low, negative correlations with workplace and non-workplace loads and positive correlations with work satisfaction and satisfaction with one's life in general. Symptomatic is also the significant - albeit low - negative correlation of health perception and age and the length of teaching experience. A similar situation exists in a negative correlation between the number of days of sickness absence from work and perception of one's own health. Differences between males and females were in the subjective perception of one's life's load that showed a significant (albeit low) correlation with subjective perception of one's health in females. Correlations of the length of sickness absence from work of female and male teachers as a kind of an objective index of health are given in Tab. 4.

Table 4 Correlations of sickness absence

	Work load	Life's load	Life satisfaction	Job satisfaction	Job importance	Age	Practice
Males	0.047	0.039	-0.018	-0.043	-0.162+	-0.152+	-0.149++
Females	0.118++	0.081+	-0.001	-0.021	-0.049	-0.034	-0.043
Males+Females	0.109++	0.076+	-0.001	-0.019	-0.057	-0.047	-0.052

The table shows values of Pearson's correlation coefficient

+ 5% level of significance

++ 1% level of significance

The number of teachers' days of sickness absence from work showed statistically significant correlation in the entire group with teaching loads and loads in life in general. In both cases, this was particularly true about females. In the male group, correlations were less pronounced. On the other hand, a statistically significant negative correlation between absence days and age, length of teaching career and the importance they attributed to their profession was found in the male group only. All these correlations were again very low.

For the purpose of analysing differences between selected variables and perception of load, satisfaction, degree of importance attributed to the teaching profession and sickness absence from work between males and females, we divided each of the two groups into two based on their self-perceived health status. The first group consisted of

respondents who rated their health as good. The second group included respondents who subjectively perceived themselves as not having good health and considered themselves in poor health or not in particularly good health. In tab. 6, the two groups are identified as “healthy” and “unhealthy”.

Table 5 Means and standard deviations with respect to self-perceived health status

		Healthy men	Healthy women	Unhealthy men	Unhealthy women
Occupational load	mean	2.86	2.99	3.06	3.44
	SD	0.92	0.83	0.87	0.71
Non-occupational load	mean	2.67	2.62	2.71	3.23
	SD	0.68	0.77	0.82	0.86
Life satisfaction	mean	3.84	3.93	3.29	3.56
	SD	0.78	0.63	1.02	0.90
Job satisfaction	mean	3.67	3.76	3.29	3.67
	SD	0.77	0.82	1.02	0.83
Job importance	mean	3.96	4.15	3.94	4.23
	SD	0.87	0.82	0.94	0.66
No. of sickness absence days	mean	4.06	5.12	6.06	15.21
	SD	7.12	11.28	8.92	26.79

A t-test performed showed that none of the differences between men and women were statistically significant. In other words, there were no discernible differences between men and women in the groups that perceived their health as fairly or completely good or rather poor or very poor.

The analysis of relationships between perceived occupational load and perceived health in the whole group of respondents was based on the data given in Tab 6.

Table 6 Perception of occupational load and self-perceived health status of men and women

Occupational load	Healthy	Unhealthy	Total
High	191	22	213
Low	187	6	193
Total	378	28	406

Teachers in the „healthy“ and „unhealthy“ columns in the table are those who chose options 4 or 5 on the health evaluation scale (good health and excellent health) and option 1 and 2 („very poor or poor health“), respectively. Similarly, persons with high loads were defined as those who chose numbers 4 or 5 on the occupational load assessment scale (high or extremely high loads) and persons with low loads were defined as those who chose numbers 1 or 2 (minimum or moderate loads). We performed the chi-square test only on the data from the entire group because the number of men and women in the „unhealthy“ group was very low (6 in total, of which 4 were men and 2 were women). The final result of the chi-square test (0.82) indicates that the difference was not statistically significant. To ascertain differences between sexes, we investigated relationships between occupational load assessments and self-perceived health separa-

tely for men and women using Fisher’s test for a 2x2 table (the results are in Tables 7 and 8 for men and women, respectively).

Table 7 Self-perception of workload and health in men

Occupational load	Healthy	Unhealthy	Total
High	29	6	35
Low	39	4	43
Total	68	10	78

Table 8 Self-perception of load and health in women

Occupational load	Healthy	Unhealthy	Total
High	162	16	178
Low	148	2	150
Total	310	18	328

No statistically significant relationship between perceived occupational load and self-perceived health status was found when the relationship data were analyzed separately for men and women teachers.

Discussion

Workload and satisfaction data ascertained in our respondents are similar to those obtained from teachers participating in our previous studies (e.g. K. Paulík et al, 2009). The existence of a relatively high self-perceived teachers’ workload was evident from significantly higher reported occupational workload than life’s load. This difference has been repeatedly reported in a number of studies. It is sometimes reported by both men and women, but in some cases it has been particularly stressed by women.

There were no significant differences in self-perceived health status between men and women in our group. This result is different from those obtained in our previous study (K. Paulík, 1999, 2001), in which male teachers from primary and secondary school self-evaluated their health as statistically significantly better than female teachers, who also reported more psychological and physical problems. Similar differences were also reported by, e.g., B. Vašina and M. Valošková, 1998.

Self-perception of our respondents’ health corresponded to the “good health” rating on the scale. In the entire group, that rating has the statistically expected significant, albeit mostly low, negative correlations with occupational and non-occupational loads and positive correlations with work satisfaction and satisfaction with one’s life in general. The low correlation figures suggest that these probable relationships are influenced by some other factors not monitored in the present study. Symptomatic is also the significant- albeit low - negative correlation of health perception and age and the length of teaching experience. A similar situation exists in a negative correlation between the number of days of sickness absence from work and perception of one’s own health. In view of correlation coefficient values, differences between men and women should not be overemphasized. Of the two, only women showed a statistically significant negative correlation with one’s life’s load in self-assessment of one’s health as a subjective health status indicator (health

ratings decrease with an increase in load). On the contrary, the objective health status indicator, which in our study was the number of days of sickness absence from work in the past calendar year, correlated with the importance attributed to the profession, length of teaching career and age in men only. This suggests that the relationship between age and self-assessment of one's health is rather complicated. Results of another study of ours (K. Paulík, V. Gajda, 2008) indicate that neither age nor the length of teaching career influence neither self-assessment of work load nor job satisfaction of women teachers directly, but they proved to be an important mediating factor in the work satisfaction - workload relationship, and therefore some indirect connection with self-perceived health status can also be expected. This assumption is corroborated by some other studies (K. Paulík et al, 2009) that highlighted the length of the teaching career as the mediating factor in the work load - self-perceived health status relationship. Both genders tended to assess their health status more negatively with an increasing length of their teaching career.

Conclusions

Our study present a framework view of a set of complicated issues with full awareness of obvious limitations of the approach used. The results obtained are indicative of what could have been expected at the general level. Certain connections between the perception of occupational and non-occupational loads and of self-assessment of the health status are probably not always the same in men and in women. The techniques of statistical analysis used, however, allow for only an approximate delineation of those differences. Moreover, we should also assume that some more influences are at play. For their more precise identification, more complicated and sophisticated statistical techniques would have to be used that would help to get a better understanding of relationships between variables, also with respect to their causality.

This paper reports some results from a project supported by GACR grant No. 406/09/0726 "Coping with Load by Men and Women".

PERCEPCE PRACOVNÍ ZÁTĚŽE UČITELŮ A UČITELEK A SUBJEKTIVNÍ ZDRAVÍ

Abstrakt: Příspěvek se zabývá souvislostmi subjektivního zdraví a percipované zátěže muži a ženami vykonávajícími učitelkou profesí. U výzkumného souboru učitelů působících na druhém stupni základních škol v ČR (N= 967) byl podpořen předpoklad o relativně vysoké míře subjektivní pracovní zátěže učitelství. Subjektivního hodnocení vlastního zdraví vykazovalo smysluplné, ale nízké korelace se zátěží i spokojeností učitelů. Rozdíly mezi učiteli a učitelkami byly zjištěny v některých souvislostech subjektivních a objektivních ukazatelů zdraví, věku, délky učitelského zaměstnání a míře důležitosti přičítané profesí.

Klíčová slova: učitelský stres, učitelská profese, subjektivní zdraví, genderový aspekt v učitelské profesi

ENVIRONMENTAL ASPECTS OF EDUCATION FOR HEALTH

Hana HORKÁ

Abstract: *Author refers to basic problems and thematic areas regarding the environmental and ecological education in context with the education for health with a special focus on transformation of the curriculum of pregradual preparation of undergraduate primary school teachers . The enlistment of the environmental education among cross-curricular themes pertaining to current framework of educative programmes represents a significant step forward especially concerning their understanding. The basic competence/capability of an individual is to become a cultivated guardian of the health and the environment. Such a competence - associated with students orientation in interrelated, spontaneously existing, causal relationships in the environment - obviously influences the quality of care for the environment and the health respectively.*

Keywords: *health, healthy life style, quality of life, care for the health, care for the environment, the attitudes, cross-curricular theme, environmental education, education for health, competence.*

Every unfavourable change of environment limits quality of life. This fact is an important commitment to care for the environment as an integral part of the ecological/environmental education. A variety of research works of czech and foreign authors (e.g. BUBELINIOVÁ, HAVLÍNOVÁ, LIBA, WIEGEROVÁ, YOUNG, WILIAMS) as well as official documents (e.g. WHO, the advisory board of the czech government for health and environment, National health institute, Action plan for the health and the environment of Czech Republic /NEHAP/) are devoted to the link connecting the health and process of health support and sustainable development.

The aim of our research project was to cast light upon the formation of the relation to the environment with a special focus on the care for the health. There has recently been a significant shift from empirical to ecological paradigm and concomitant change of attitude from positive to socially critical one. The education has thus become more or less friendly to the environment, comprising attitudes, values and positive behaviour (HUCKLE, STERLING 1996, PALMER 2001). The questions of the value of the health and potential threat of health disasters serve as special motivating means for the formation of the above noted educational process.

Instrumental and explanatory function of environmental education

The relationship of man and the nature is presented as „a struggle of biosphere and technosphere“, thus the need to renew the balance between man and the nature based on the principle of positive feedback is obvious (LIBA, 2005, s. 63). The comprehension aimed at understanding of harmony of natural events, their links and the existence of causal, spontaneously occurring relationships in the environment and subsequent disturbance of such a harmony induced by humans is inextricably bound to the above noted educational process.

Regarding the ecological/environmental education, the critical point represents understanding and description of relations and connections among the components of the environment, especially the conditionality of the three basic spheres: biosphere, abiosphere and antroposphere, the relationships of human activities and their products and the nature, including recognition of unwanted consequences of human activities leading to devastation and endangering natural quality of water, air, soil, fauna, flora and subsequent health hazard, finally threatening the existence of life on the Earth (HORKÁ 1994, s. 36).

The environmental education is characterized by a new way of critical thinking reflecting global and partial dimension of dysharmony- human culture versus the nature. It originates from the appreciation of high value and irreplaceability of the nature as well as the acknowledgement of principal human dependence on biosphere. The facts above are considered to be determinants for understanding of necessity to change the life style and behaviour as well as the attitudes and value preferences etc.. The newly formed principles of human culture are featured accordingly: value priority of the nature for human life, human dependence on the nature and requirement for ecologisation of spiritual and material culture. Ecological/environmental education clearly tends to overcome primitive egocentric and self-centred opinions and value preferences and contributes to a newly formed human integration, presenting man as a part of the nature and culture. It also attempts to reverse current way of exploitation and damage to the nature, in other words to halt antropocentric ideation submitted to ecological discipline and ethical sensation.

Ecological / environmental education serves as a tool to assure not only the sustainability (for comparison HORKÁ, 2001) but also the health. Such a function is referred as instrumental.

In regard to the explanatory function of the environmental education, including analysis, explanation and clarification, such a function comprises:

- Detection of causes and consequences of destruction and jeopardy of ecosystems, different ways of air, water and soil pollution.
- Orientation in natural resources, principles of nature protection, human influence on the environment, limits of the environment.
- Search for the measures protecting the environment and their promotion, limitation of devastation and consolidation of ecological situation, treatment of natural resources.
- Respect for life in all forms and altruism in sense of evaluation the mutual

cohesion of the world, decisions and behaviour favouring ecological ethics and principles of sustainability.

We introduce basic strategy in order to reach positive changes of the environment, tools to assure sustainability of the human world which is needed for self-preservation. At that point we find framework for education for health and environmental education.

The main task of curriculum of education for the health regarding the environmental issues is to contribute to understanding that there are not only relationships: living things and environment but also the interaction among the living things themselves. There are also questions of the influence of the nature and social environment on man. Devastation of the environment is undoubtedly associated with the influence on human health (intoxication of soil, intoxication of water-poisoned fish meat, mental deprivation due to desolation caused by devastated landscape, poisons in the air which we breathe etc...)

The aim of the education for the health is to develop and cultivate the attitudes towards the health of an individual as well as the others, considering that such a value is irreplaceable preposition of adequate life. The individual should be aware of himself/herself and the environment and should behave as an integrated and responsible personality for the whole life. The care for the environment is considered to be a certain „overlap“ of the care for the health. As our recent studies have shown (HORKÁ, HROMÁDKA 2007, 2008), the pupils are often engaged in the environmental issues but the main reason of their interest is not the environment itself but the fears and worries about their own health.

Environmental area as a part of education for the health is focused in the below noted themes:

- analysis of the relationship of man and the environment,
- biological, economical, social, psychological determination of ecological problems, the influences of human activities on the nature,
- the influence of the environment (not only the natural one) on the health.

In agreement with the work of J. Šmajš (2001, s. 8–9), we accept the thesis addressing the need for another picture of the world as well as another education. The author provocatively defines a new geocentrism and the ideation respectful for the life. To approach such a goal, it is necessary to carry on a new structure of the content of education and pronounce positive effect on the formation of personality. The accent on lexical rationality, encyclopedism, technically oriented success and scientific progress support exploitative attitude of man to the nature and minimally cultivate emotional element of personality. A new structure of knowledge should regard rehabilitation of terrestrial nature, feeding human submission in accord with magnificent evolutionary creativity of the universe (2008, s. 55–59). J. Šmajš (2008, s. 55–59) challenges to biophilic orientation of education abandoning axiologically arrogant anthropocentrism and additional mechanistic interpretation of facts and strengthens the imprinting of life as the highest value.

Aspects concerning health in the environmental education

The basic competence/capability of an individual (ŠVEC 2004, s. 29) is his ability to be a cultivated guardian of the health and the environment. The research works devoted to the topics of health support and ecological/environmental education (e. g. HAVLÍNOVÁ, HORKÁ, LIBA, WIEGEROVÁ) show that the level of ecological culture of a personality can influence, determine and stabilize 'immune system' and subsequently positive indicators of the health. The knowledge of existing interrelated causal, spontaneously occurring relationships in the environment influences the quality of care for the environment as well as care for the health. It also forms a basis necessary for individual ability to evaluate, to consider the risks and benefits and decide accordingly. Moreover, it also contributes to personal responsibility including consequences of behaviour in regard to the environment.

There are important thematic areas from the ecopedagogical point of view: Quality of the environment as an aspect of the health. Environment as a basic determinant of the health. Healthy environment as a target of the programme : Health for all. Ecosocial model of the health (for comparison Zdraví 21). The health as a central interest in the concept of sustainable development.

The following areas belong to domains of education for the health: health supporting way of living, exercise for health, environmental aspects of the health, analysis and search for the relations between man and the nature as well as the nature and the health, social aspects of the health, psychological aspects of the health, sexuality and health, care for personal health-hygiene, knowledge of the body, decrease of morbidity. (sr. WIEGEROVÁ 2005, s. 51)

Competence to support the health and to care for the environment in curriculum of czech school

The enlistment of the environmental education among the cross-curricular topics of framework educational programmes signifies an important step forward especially regarding its perception. The competence of man supporting the health corresponding with the competences of man caring for the environment in the areas related to the below noted subjects:

- knowledge of the health as the most important value of life;
- knowledge of man as biological individual, dependent on particular phase of life, on the way of behaving, decision making, and the level of personal relationships and the quality of environment;
- basic knowledge about what is beneficial for health on contrary what is harmful and damaging to the health;
- taking advantage of acquired preventive measures for influencing the health in everyday life, strengthening the decision making and dealing in accord with the active support of the health every day;
- connecting the health and healthy human relationships based on ethical and moral values, with voluntary efforts;
- active personal contribution to the support of the health and its promotion including beneficial activities at school and in community.

One of the fundamental aims of basic education is to teach the pupils actively develop and protect physical, mental and social health and to be responsible for them. Regarding the key competences, the target is explicitly rationalized in scope of civil competence: the graduate of basic school comprises basic ecological context and environmental issues, respecting the demands on the quality of environment, makes decision in accord with support and protection of the health and the sustainable development of society. Occupational competence reflects the attitude to the results of human activity from the point of view reflecting protection of his own health and the health of the others, additionally incorporating the protection of the environment, cultural and social values. Communicative competence uses acquired communication skills necessary for the formation of interpersonal relationships as a basis for full-value co-existence and cooperation with others. Social and personal competence is described as the ability to form a positive self-perception based on the thoughtfulness and respect to others undoubtedly leading to strengthening of good interpersonal relations.

Teachers competence for education for the health reflecting environmental context

In order to form concept of professional preparation of teachers is necessary to determine the structure of competence of a teacher and mediate knowledge about advisability and meaning of human behaviour and activities in the field of care for the environment. They are bound to specific methodology, immense pedagogical tact and suitable motivation and skills to connect affective targets with cognitive and psychomotoric ones. The teachers are supposed to be able to:

- to mediate the knowledge about advisability and significance of human behaviour and activities aimed at environmental issues
- to guide the pupils to make decisions considering healthy alternatives
- to clarify health risks (irrational nutrition, smoking, alcohol abuse)
- to select suitable and effective teaching procedures
- pedagogical tact
- to present the value of the nature in an attractive way
- to bring stimuli and experiences
- to make possible for students openly (without internal constraint and external influence) experience and comment on their own activity (care for flowers, dog, forest, fountain etc.)
- to be able to share emotionally their own experiences and feelings acquired out of school where there is chance to sense the magnitude and dimension of the nature and enjoy everything the nature brings about
- to induce such social situations which help students to show their empathy and sensitivity, to be sensitive and percetive to the needs and problems of others etc.
- their behaviour and dealing conform with the ecological commitment outweighing all extravagances of consumer life style, comfort and material advantages etc.

Based upon the theoretical outcomes, the results of pedagogical and research activities, we summarize that in order to improve quality of theory and praxis of education for the health reflecting the environmental context the following steps are necessary:

- to set up structure of education for the health and ecological/environmental education underlining existing interrelationships
- to reconsider the proportion of content between the education for the health and ecological/environmental education, to make precise their theory and methodology
- to make the strategy more effective concerning the understanding of activities supporting the health and quality of environment, their concrete application in every day life
- not to omit the influence of the hidden curriculum, make the research exploration and projects in the area of education for the health and the care for the environment
- to strengthen the will, consistency, self discipline, overcome the discomfort, thus the characters which are more or less constitutive and are not being nowadays encouraged
- to protect children from utilitarianism, instrumentalism and pragmatism of the adult world of previous generations,
- to introduce the world as the universe – order and harmony
- to implant to the children the opposite of what the everyday life brings as ethical, knowledge, relation and personal standard, standard of life style and value orientation
- to provide reserch exploration and projects in the field of health and the care for the environment

From the pedagogical point of view, it is fruitful to note that the correct decision making process about the health is not automatically set up. Physical, social, economical, cultural attributes of the environment the individuum lives in are considered to be the critical determinant of behaviour in favour of the health. Thus, it seems crucial to influence the environment in order to make the healthy selection easier, automatic and subconscious. Teachers ability to guide the pupils to decide for healthy alternatives, to clarify the health risks (unhealthy diet, smoking, alkohol abuse) is anticipated in connection with the support of society. They may be a significant stimulus for a change.

ENVIRONMENTÁLNÍ ASPEKTY VÝCHOVY KE ZDRAVÍ

Abstrakt: Autorka vymezuje základní problémy a tematické okruhy ekologické/environmentální výchovy v kontextu výchovy ke zdraví se zvláštním zřetelem k proměně kurikula pregraduální přípravy učitelů 1. stupně základní školy. Zařazení environmentální výchovy mezi průřezová témata v rámcových vzdělávacích programech znamená významný posun v jejím chápání. Být „kulturním ochráncem zdraví a životního prostředí“ představuje základní kompetenci/způsoblost jedince. Kompetence souvisí

s orientací v existujících vzájemně příčinných, spontánně se uplatňujících vztazích v životním prostředí, která ovlivňuje kvalitu péče o něj a potažmo o zdraví.

Klíčová slova: zdraví, zdravý životní styl, kvalita života, péče o zdraví, péče o životní prostředí, průřezové téma, ekologická/environmentální výchova, výchova ke zdraví, kompetence

PSYCHOLOGICAL SOLUTIONS FOR ENVIRONMENTAL EDUCATION¹

Viktor KULHAVÝ

Abstract: *This report discusses the field of environmental psychology, currently called conservation psychology, concepts of which have not become widespread in the Czech Republic yet. The study is based on a premise that psychology could potentially significantly contribute to the solution of the global problem consisting in the unsustainability of human activities. The study analyzes several components of the relationship between school-age children and the Nature from the position of conservation psychology that searches for methods of influencing environmental behavior of humans. It briefly outlines the development of studying the relationship between humans and the environment in psychology and lists selected theoretical concepts that are studied by the current conservation psychology. The relationship between humans and the Nature is outlined in the five-dimension model of J. Krajhanzl (2006). The study also discusses two components of the relationship between humans and the Nature - human emotional reaction to the Nature and the amount of human experience with the Nature. It tests hypotheses about the differences in these two characteristics in school-age children who regularly attend Scout clubs and in those who do not attend these clubs. The study uses the comparison data acquired from the "Research into Increasing Alienation between Humans and the Nature" from 2004 - 2005 (National Research Program of the Ministry of the Environment): Countryside and Settlements of Future, Project No. IC/4/40/04). The acquired results support the previously established hypotheses. There were discovered differences in the more positive emotional reaction and in the larger experience with the Nature exhibited by children from the Scout clubs. Scout club members have larger experience especially with activities developing their outdoor skills, they more frequently come into contact with wild animals and they also more frequently participate in environmentally-oriented educational activities. The study describes how the Scout clubs could contribute to the development of the children's relationship to the Nature and it also notes the limitations placed on such a development.*

Keywords: *conservation psychology, environmental education, relationship between humans and the Nature, Scout clubs*

¹ For the complete text of this report see: http://is.muni.cz/th/42121/fss_b/BP_Kulhavy_2008_psy_vychodiska.pdf

Introduction

Sustainability² of human activities on the planet Earth turns out to be a problem with a rather complex, integrated and difficult solution. It deeply affects the arrangement of the contemporary human society and re-evaluates the principles it is based on (e.g. anthropocentrism, consumerism and post-modernism). Whether a sustainable development of this civilization is possible at all is a question studied by specialists from many fields. The issue of the non-sustainable development impacts not only the fields that are closely related to it, such as environmental sciences, ecology, politics, economics, sociology, pedagogics and philosophy. It is increasingly related also to other fields, such as chemistry, physics, biology, etc. It is possible to say that you could hardly find an area of human knowledge which would have nothing to say about the sustainability issue. The multi-disciplinary character of this problem requires coordination among many fields of human activities and an establishment of a common thought model for its solution.

It seems that psychology has not managed to fully use its potential to contribute into this discussion. Nevertheless, the questions in front of us are of an absolutely fundamental significance. Stephen R. Kellert asks: „*Humans will survive the extinction of many forms of life and they will also resist water, air and soil contamination. But will these disturbed conditions provide for healthy physical, emotional, intellectual and spiritual development?*” (Kellert, 1996a, quote in Kahn, 1997, page 11; author’s translation)

The research into the relationship between humans and the Nature and into the human ontogenetic development thus becomes a current and required task for psychology; the fulfillment of this task may contribute to a better understanding of the causes of the environmental crisis and it could potentially help in its solution. From the development viewpoint it will be interesting to focus on the early development stages of human life.

It was the purpose of the presented study to perform a comparative survey considering two characteristics of the relationship with the Nature - an emotional reaction of a child to a contact with the outdoors and the extent of a child’s experience with the outdoors. This research follows the project “Children and the Nature: Experiencing and experiences” which was performed as a part of the “Research into Alienation of Humans from the Nature” realized in 2004-2005. This Research studied a relationship between children and the Nature from the differential psychology’s viewpoint among students of several elementary schools in Prague and Hradec Králové (Krajhanzl et al., 2004; Strejčková, 2005; Strejčková, 2006).

1. Theoretical Solutions

The following report is based on the concepts of the so-called conservation psychology³, a discipline studying two wide fields of knowledge: a) human motivation towards environmentally considerate behavior, b) a call for greater interest in the natural

² The report of the World Environmental Commission called *Our common future* (1987) contains the following definition of a sustainable development: „*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*”

³ This term was translated into Czech as „nature-protection psychology“ but the more easily comprehensible term „ecopsychology“ is used more frequently (Krajhanzl, 2006).

environment and human role in this environment (Saunders, 2003). “The relationship between humans and the Nature” seems to be the key term.

1.1. Relationship between Humans and the Nature

A relationship between humans and the Nature⁴ is a blurry term with many side meanings. It is based on the tradition of the environmental psychology, which understands it in a rather limited way - as an interaction between an individual and his/her immediate surroundings. This understanding emphasizes the influence of the environment as a part of socialization (the impact of the environment on humans), but it doesn't include the individual's relating to the beyond-human world. According to the current state of knowledge it is possible to declare that the relationship towards Nature is a complex concept including “...*mutually interconnected psychical phenomena, processes, states and characteristics which are related to the Nature within human experiencing and behavior.*“ (Krajhanzl, 2004).

If we want to investigate how people differ in their relationships with the Nature, we have to first describe and classify this relationship with the Nature. One of the possible structures is described by Krajhanzl (2004, page 3; also In Strejčková et al., 2005, page 38-45; 2006). The relationship between humans and the Nature is studied from the viewpoint of their interindividual differences and identifies the so-called *basic characteristics* of a relationship towards the Nature and *partial characteristics* belonging into one of the basic characteristics.

There are proposed five basic characteristics which are based mostly on the ideas of general psychology, social psychology and personality psychology (according to Krajhanzl, 2004; 2008b):

1. A need for contact with the Nature

- A frequency and quality of a contact with the Nature preferred by an individual.
- Motives for contacts with the Nature, a preferred form of contact.
- Strategy of coping with the need for contacts with the Nature.

A person with a higher need for contacts with the Nature spends more time outdoors and searches for ways how to spend more time outdoors. If this need is frustrated, such an individual exhibits somatic-psychical symptoms, such as lack of concentration, agitation and imagining being outdoors.

2. Outdoor Skills⁵

- These are physiological, motor, sensor-motor, intellectual, emotional-volitional abilities and skills of humans to stay outdoors and manipulate natural items.

⁴ „Nature is understood here as phenomena evoking in an individual experiences of a beyond-human world, i.e. a world without people, not created and not influenced by people, a world beyond non-material beings not connected with the world of the Nature through their existence.“ (Krajhanzl, 2006, page 7)

⁵ Should we understand this field wider as a competence for staying outdoors we would have to include not only the abilities but also knowledge, skills and habits (author's note)

From the general psychology's viewpoint it follows the processes of learning, sensory processes and the emotions theory. It applies the knowledge of the developmental psychology about the cognitive and emotional development, motor activity development and the development of basic abilities and skills in various periods of life.

A human adapted to a contact with the outdoor environment can easily move about outdoors, knows about potential hazards and is able to take care of himself/herself (starting a fire, food preparation, spending a night in the open).

3. Environmental Consciousness

- Includes the concepts of morality as related to the environment, consequences of one's own acts and acceptance of a responsibility for such acts.
- Perception of environmental hazards both at local and global levels.
- Motivation concerning the protection of the Nature

It is based on the theory of human moral development (Piaget, Kohlberg), concept of accepting responsibility - in a narrower sense a concept of environmental responsibility. It also refers to the motivation resources of humans, strategies of coping with environmental consciousness (see, for example, the theory of defense mechanisms).

A person with high environmental consciousness deliberately acquires habits that help eliminate his/her environmental path, perceives the consequences of human activities in the environment. At the emotional level he/she feels sympathy for the Nature clashing with the Culture, he/she may express fears about the future development.

4. Attitude to the Nature

- Adopting attitudes to the Nature - the natural environment evaluated as dangerous, unknown, beautiful, rich, pleasant and unpleasant.

This term refers to the theory of attitudes and their affective, behavioral and cognitive components. It also studies modifications in attitudes and impacts of emotions on their modifications due to the influences of the culture. An important area of the attitude theory, considering the relationship towards Nature, is the projection of attitudes into an individual's behavior (e.g. the Fishbein's and Ajzen's theory of justified behavior and the conflict between an attitude, intention to behave in a certain way and the observed behavior).

Continuums of submission-dominance and alliance-animosity could be considered to be the subdimensions of this attitude; on the basis of these continuums there have been selected some general attitudes, e.g. master, partner or administrator. The attitude reflects how a human understands his/her relationship towards the Nature.

5. Environmental Sensitivity

- An ability to focus on the natural environment, attentiveness, empathy.
- Sensual perception of the Nature.

This characteristic is based on the assumption of general psychology about the consciousness and its functions (e.g. the cognitive processing of information, watching the surroundings and oneself with the purpose of creating precise mental representations), more specifically on the perception theory (organization of the perception field, cognition, perception of movement, cognitive styles) and on the empathy theory (Rogers, Bateson).

Environmental sensitivity refers to the deepness of experiencing the contact with the natural environment. People apparently differ in the degree to which they pay attention to the Nature and take a notice of details, live creatures, sounds, smells, etc. This sensitivity could consist of intellectual, esthetic and spiritual levels.

The total description of our relationship with the Nature consists of the above listed components (see Figure 1). Together they make a total image but you can also study each of these components independently.

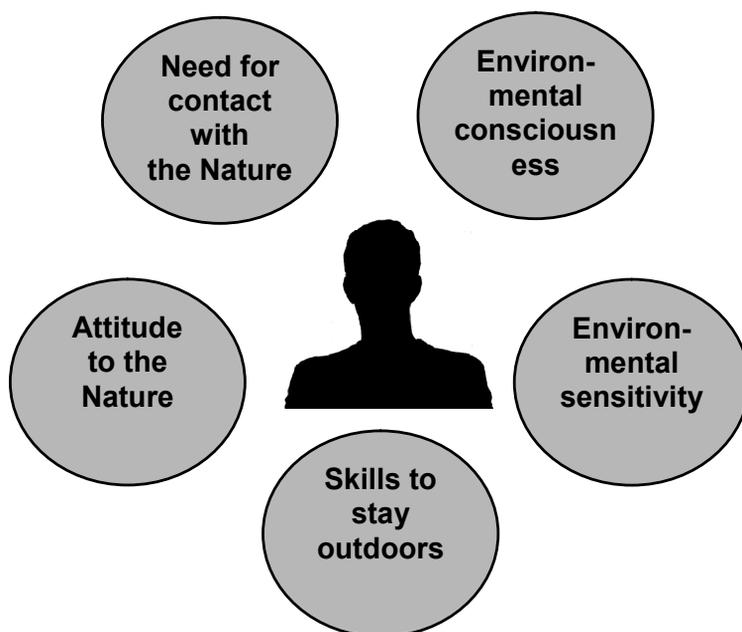


Figure 1: Relationship between humans and the Nature - five-dimension model
Source: Krajhanzl, 2006 (adopted)

It is possible to draw the five-dimension model in a different way as well. The dimensions are mutually independent but it is possible to identify section properties that interact with each of them - from psychological viewpoint these are, for example, emotional experiencing, from the pedagogics' viewpoint this is ecoliteracy. The section properties could be described as behavioral, cognitive and emotional aspects of each of the basic characteristics.

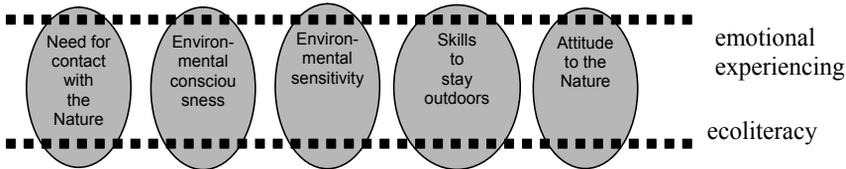


Figure 4: Relationship between humans and the Nature - five-dimension model with section properties

Source: Krajhanzl, 2008a

Two partial characteristics were selected for the purpose of this survey considering the relationship between children and the Nature.

The first one is “*an emotional reaction*” of a child to a contact with the natural environment. As stated above, emotions sectionally influence all five dimensions of the model. Experiencing pleasure or displeasure in various situations in the outdoors therefore interacts with the attitudes of the child to the outdoors (a description of the child’s environmental thinking⁶ - a biocentric or homocentric orientation), with his/her skills and abilities for staying outdoors, environmental awareness, need for contacts with the Nature and environmental sensitivity. In connection with emotional reactions Krajhanzl et al. (2004) refers to the research by Bixler and Floyd (1999) that operates with the concept of disgust to the Nature. The emotional reaction at the pleasant-unpleasant scale is more frequently described as “*pleasure-displeasure*” in the Czech Republic. The above-mentioned “*disgust*” could be therefore considered to be an expression of extreme displeasure in this context. According to Bixler and Floyd a negative emotional reaction is expressed by the feelings of “*disgust*” and it is connected mostly with contacts with rotten food, some animals (e.g. invertebrate), contacts with soil, rotting vegetation, some reptiles, amphibians and animal internal organs or body fluids. Fear, aversion and discomfort were identified as the three basic negative emotional reactions in this context.

“*The amount of experience with the natural environment*” acquired by a child in the course of ontogenesis is the other partial characteristic. This characteristic corroborates the validity of concepts dealing with the global decline of direct experience with the Nature (extinction of experience - Kellert, 2002), loss of special places (Nixon, 1997; Pyle, 2002; Sobel, 1993) that would provide for spontaneous children’s activities in non-structured natural environment and the hypothesis of the environmental generation amnesia (Kahn, 1997, 2002). The presented survey investigated whether a child acquired, in the course of his/her ontogenesis, specific experience with the outdoors as identified by a group of specialists.

⁶ This term is not established in the Czech terminology, the original term is „*environmental reasoning*“.

1.2 Summary of Theoretical Solutions and Research Question

Current development, as described in eco-psychological literature, draws attention to children's declining contact with the natural environment and to the possible consequences of preferring mediated experience with the Nature to direct experience. Also the evidence supporting the environmental generation amnesia hypothesis could have serious consequences as this hypothesis deals with the decline in the perceived standard of "healthy and undisturbed" environment.

This survey assumed that if a child attends, beyond a common school which is not directly focused on immediate contacts with the outdoors, also additional extra-curricular activities that provide such an experience, his/her emotional reactions to the natural environment and the volume of experience should be different. A sample of respondents was acquired from an organization that considers the relationship with the Nature to be one of the cornerstones of its educational mission⁷.

Research Question:

Are emotional reactions to the natural environment and the volume of experience with this environment in school-age (8-16 years) children attending a Scout club different from the emotional reactions and the volume of experience of children who are not members of such a club?

One of the presumptions of this research consisted in the fact that the Scout educational program, which includes "staying outdoors", offers children more contacts with the natural environment (experience with the Nature - see also the concept of Kellert, 2002). The other presumption expects that children attending a Scout club react to the natural environment emotionally more positively; this could refer either to the effects of the Scout education program performed outdoors or to a special trait of children attending Scout clubs. These presumptions were established as hypotheses:

Hypothesis 1: Children that regularly attend a Scout club react emotionally more positively to the natural environment than children that do not attend such a club.

Hypothesis 2: Children that regularly attend a Scout club have more experience with the outdoors than children that do not attend such a club.

2. Research Methodology

The respondent sample aged 8-16 years was selected from a population of children attending Scout clubs operating in the city of Brno. 56 children from seven Brno-based clubs participated in the research. In smaller clubs, all the children present at

⁷ The author cooperated, in the course of this survey, with Junák - the Union of Scouts of the Czech Republic. Junák is an organization with a tradition exceeding 100 years in this country. The so-called „scout method“ is the means of developing the Scout movement members. The „relationship with the Nature“ is one of its components. Many Scout club activities are performed outdoors, either around the club facilities, during weekend- or multiple-day trips or at summer camps.

a common club meeting in a specific week in the course of the research period (March - April 2008) participated in the survey. In case of larger clubs one of the meetings of each age category was randomly selected. All contacted club leaders agreed with their participation in the survey.

2.1 Research Set

The following table contains basic characteristics of the set of children from Scout clubs (N=56) and children from the reference survey at elementary schools (N=286):

Table 2: Characteristics of the respondent set - Scout clubs

Characteristic	Average	Median	Stand.Dev.
Age	11.93	12.00	2.552
		Absolute Frequency	Relative Frequency
Age Category	Junior (8-11 years)	25	45.5 %
	Senior (12-16 years)	30	54.5 %
		Absolute Frequency	Relative Frequency
Gender	Boys	22	40 %
	Girls	33	60 %

Note: *Age Category* classifies the respondents into a junior age category (Little Wolves - boys, Fireflies - girls, ages 8 - 11) and a senior age category (Scouts - boys, Scouts - girls, ages 12 - 16).

Table 3: Characteristics of the reference respondent set - elementary schools

Characteristic	Average	Median	Stand.Dev.
Age	12.33	13.00	5.31
		Absolute Frequency	Relative Frequency
Age Category	Junior (8-11 years)	114	39.9 %
	Senior (12-16 years)	172	60.1 %
		Absolute Frequency	Relative Frequency
Gender	Boys	149	52.1 %
	Girls	137	47.9 %

Source: Krajhanzl et al., 2004

The methods used for selecting the sample were used with the purpose of comparing results with the conclusions of a survey performed by Krajhanzl et al. (2004). Therefore the respondents come from an approximately identical age category (8-16

years) and they live in a city. Unfortunately, we were unable to include a more balanced ratio of boys and girls into the research set.

Considering the representative value of the selected set, the survey results could be generalized in a limited way only to Brno-based Scout clubs.

2.2 Survey Tools

As survey tools we used the *Experience Inventory* of H. Vostradovská et al. (in Strejčková, 2006) and the questionnaire *Trip v. 1.3* of J. Krajhanzl et al. (2004).

- *Questionnaire Trip v. 1.3*: Children were presented with scales for only 17 situations in which they were supposed to express their emotional reactions. Instructions were presented verbally, as well as the story, which was read to the children aloud. The story text itself was left out from the questionnaire due to the risk of children's lower concentration (focus on the text instead on the contents, paging forward and backward). Scales were magnified for better clarity and each of them had descriptions of limit values. Scales for Question No. 20 were also marked with extreme values.
- *The Experience Inventory questionnaire*: Questions asking about demographic data (these were acquired in the course of filling in the Trip questionnaire) and questions for a qualitative analysis of children's responses were left out. Version "I don't know" for Questions No. 21 to 89 was added.

The following analyses were performed in the course of the statistical processing:

- comparison *emotional reactions of children to the Nature* between the Trip questionnaire items from Scout club and elementary-school children - a comparison of averages for the individual items, raw scores, average raw score, age- and gender- conditioned differences (correlation coefficients)
- comparison *volume of acquired experience* between the Experience Inventory questionnaires from Scout club and elementary school children - raw scores, average raw scores, age- and gender- conditioned differences (correlation coefficients)

Descriptive statistical methods (frequency analysis - absolute and relative frequencies, medium values) were used for a basic comparison of children's answers to the individual items of the Trip and Experience Inventory questionnaires.

Using statistical analyses including hypothesis testing is of problematic value in this survey. As noted above, it is impossible to consider the survey set to be representative (i.e. it doesn't make it possible to use statistical inferences on the parameters of the Scout club population in Brno). Moreover, the survey set of the reference survey by Krajhanzl et al. (2004) doesn't represent the population of elementary school students in Prague, either. As noted by Urbánek (2008), statistical significance tests are meaningful if the selection of the survey set was performed according to probability procedures. Due to the above-listed limitations, the *statistical testing of hypotheses* was used to compare groups (by gender, age) according to their medium values (raw scores of both questionnaires, raw scores of the individual questionnaire items). A *two-sided t-test* (pa-

rametric) at the significance level of $\alpha=0.05$ was used for testing zero hypotheses about the absence of differences in case of normally distributed variables⁸. When normality was disturbed, we used the alternative non-parametric *Mann-Whitney test*. Besides the tests of statistical significance we used also the calculation of the *effect size* Cohen's *d* accompanying the calculations of the t-test significance.

Considering validity, the survey results were influenced by a lack of equivalence between the surveyed groups, due to the maturation of the respondents and probably also due to their family backgrounds (relationship with the Nature of their parents, for example)

3. Selected Quantitative Results

The following paragraphs describe selected descriptive statistics (average scores for the individual questionnaire items, relative frequencies of responses) for Scout clubs and for elementary schools.

3.1. Emotional Reaction to the Nature

Considering the emotional reactions of children, there were analyzed responses of the respondents at the scale from “very unpleasant” (value 1) to “very pleasant” (value 6) from the Trip questionnaire. The following table lists significant average values for the individual items.

Table 1: Average values of the individual items in the Trip questionnaire - comparison between Scout clubs and schools

Variable	Average Scouts	Average Schools	M-W test (p)	Effect size (Cohen d)
V_1: No going outdoors	2.88	2.63	0.00	0.13
V_5: An idea of a „cultivation“ of greenery	2.49	2.77	0.00	0.13
V_6: A detour due to partridges	3.68	3.79	0.00	0.07
V_7: Swimming in a muddy lake	4.5	3.76	0.03	0.35
V_8: Eating a candy that had fallen into a moss and needles	4.38	3.46	0.00	0.45
V_9: A friend throwing garbage around	1.47	2.02	0.00	0.24
V_10: Falling asleep in high grass	5.55	4.85	0.00	0.37
V_13: Picking up rotten apples with bare hands	4.15	3.45	0.01	0.38
V_15: Enjoying oneself alone in a forest	5.65	5.35	0.03	0.16
V_16: Sleeping under the open sky	6.05	5.75	0.02	0.19
V_17: Going to a department store next time	2.84	3.77	0.00	0.43

Note: N(Scouts)=54, N(schools)=286; $\alpha = 0.05$;

Statement:

Both elementary school and Scout children evaluate the following as the most attractive ideas: sleeping under the open sky (V_16), offer of an excursion with an expert (V_14), enjoying fun in a forest alone (V_15), falling asleep in high grass (V_10) and walking barefoot in dew-covered grass (V_2). No difference between the average

⁸ Testing at the significance level of $\alpha=0.01$ was used in specific situations (marked in the text)

values of answers and the order of items exceeds 0.5 point. Preference for these five items was confirmed also by a verification analysis of the answers to Question No. 18 “Which three moments of this trip will you remember best?”.

Also the five least pleasant ideas were evaluated in a similar way: a friend throwing garbage around (V_9), defecating outdoors (V_11), the idea of not going outdoors (V_1) and the idea of “cultivating” the greenery (V_5). Preference for these five items was confirmed also by a verification analysis of the answers to Question No. 19 “Which three moments of this trip will you remember least?”.

The following were more positively (the difference of at least 0.5 point), on average, assessed in the Scout clubs: swimming in a muddy lake (V_7, difference 0.74), eating a candy that had fallen into a moss and needles (V_8, difference 0.92), falling asleep in high grass (V_10, difference 0.7) and picking up apples with bare hands (V_13, difference 0.7).

Scout club children achieved a lower average with a greater difference only in the item “go to the department store next time” (V_17, difference 0.93).

Interpretation:

A discovery that there is no difference between the most preferred and least preferred items in both groups is not surprising. It seems that children follow a general trend of preferring “clean” activities (sleep, excursions, dew-covered grass) to “dirty” ones (garbage, rotting stuff, defecating) when staying outdoors. For Scouts there are more significant differences in the pleasantness of the “dirty” activities - this could be caused by a more frequent contact with the outdoors and by the declining importance of the difference between “clean” and “dirty”. That the idea of a subsequent trip to a department store was evaluated by Scouts as less attractive seems to be an interesting discrepancy with the largest difference. This result could demonstrate a preference for outdoor activities but also the effects of examples given by their leaders/parents (an attitude to such a spending of leisure time) or a higher social desirability of such a reply among Scouts.

3.2. Comparison of the Emotional Reaction Average Raw Score

A raw score (hs_v) was calculated for each respondent from the average scores of replies to the Trip questionnaire items. An average raw score for the Trip questionnaire for the whole survey set was acquired by the arithmetic average method from the raw scores (HS). The following table lists average raw scores for the complete set of elementary schools and Scout clubs⁹.

⁹ Results of the survey by Krajhanzl et al. (2004) do not imply any significant difference between the individual schools in the average raw scores from both questionnaires. There is therefore listed only the average HS for children from all three elementary schools.

Table 2: Comparison of the average raw score for the Trip questionnaire - Scout clubs, schools

Variable	Scouts	Standard dev.	Schools	Standard dev.	t-test (p)	Effect size (Cohen d)
Average Trip	80.54	12.70	75.68	12.75	0.011	0.38

Note: N(Scouts)=56; N(schools)=286; $\alpha = 0.05$;

Statement:

The table above implies that the average raw score for children from Scout clubs is about 5 points higher; this fact is corroborated by the statistical significance test (p -value < 0.05). The difference approximately equals one half of one standard deviation. Considering its rather high value, though, the difference doesn't have to be of decisive importance (reliability intervals overlap for the averages under comparison) - this is also corroborated by the effect size calculation.

Interpretation:

The survey performed by Krajhanzl et al. (2004, page 16) found minimum differences in the emotional reactions of children in the individual surveyed schools. The result was strengthened also by the fact that it wasn't influenced by the environmental specialization of any one of the elementary schools. There was also discovered no dependence of the emotional reaction on the presence of a natural environment around the place of residence or school. Subsequently there was conceived a hypothesis claiming that emotional reactions are not determined either by an environmental focus of the school or by the occurrence of a natural environment in the surroundings of the place of residence or school.

There is probably a difference in the emotional reaction of the Scouts, though. I can only guess what the determinant of this difference is. As implied by the differences in average scores of the individual Trip questionnaire items, the image of the natural environment could be perceived by children as less threatening (less "dirty"). This hypothesis could be also supported by the difference in the amount of experience with the outdoors.

3.3. Experience Volume

The children's volume of experience was compared by means of the Experience Inventory questionnaire. For significant results see below.

Table 3: Absolute and relative frequencies of “YES” replies in the individual items of the Experience Inventory questionnaire - a comparison between Scout clubs and schools

Variable	Relative frequency Scouts	Relative frequency Schools	chi-quadrat (p)
Z_21: Watching a bird of prey during flight	87.50%	76.60%	0.010
Z_24: Listening to a woodpecker	91.10%	79.70%	0.010
Z_25: Listening to a cuckoo	83.90%	78.30%	0.010
Z_27: Watching a firefly	80.40%	70.50%	0.031
Z_32: Picking up a frog	78.60%	55.80%	0.001
Z_33: Picking up a snake	57.10%	41.10%	0.036
Z_35: Walking barefoot along fir-needles	53.60%	33.60%	0.003
Z_36: Walking barefoot in a stream	98.20%	88.30%	0.032
Z_37: Defecating outdoors	69.90%	40.20%	0.000
Z_39: Walking across a ploughed field	80.40%	61.70%	0.001
Z_43: Collecting herbs for one's own use	50.00%	34.20%	0.003
Z_46: Gathering blackberries	94.60%	89.90%	0.015
Z_47: Collecting fossils	46.40%	33.60%	0.006
Z_48: Planting a tree	66.10%	49.70%	0.007
Z_52: Resting in the moss	71.40%	58.70%	0.029
Z_56: Participating in collecting garbage outdoors	51.80%	19.20%	0.000
Z_58: Spending a night outdoors in a tent	92.90%	79.00%	0.007
Z_59: Spending a night outdoors under the open sky	76.80%	56.50%	0.006
Z_61: Feeding an animal in the ZOO	57.10%	40.40%	0.005
Z_68: Fishing	46.4%	67.70%	0.006
Z_72: Forcing one's way through bushes	92.90%	81.10%	0.016
Z_73: Hiking in a protected area	75.00%	52.10%	0.000
Z_74: Opening fire outdoors	75.00%	42.00%	0.000
Z_77: Chopping and cutting wood	92.90%	73.40%	0.001
Z_78: Gathering meadow flowers	75.00%	66.40%	0.024
Z_79: Sorting garbage	94.60%	74.80%	0.001
Z_81: Binding a small wreath from flowers	66.10%	54.50%	0.017
Z_82: Preparing food on fire outdoors	75.00%	53.10%	0.001
Z_84: Picking lice from hair	32.10%	15.80%	0.005
Z_86: Cutting objects from bark	71.40%	57.30%	0.020
Z_89: Getting lost in a forest	66.10%	46.20%	0.000

Note: N(Scouts)=56, N(schools)=286; $\alpha = 0.05$;

Statement:

The results imply that there are certain differences between Scout club and elementary school children. The Scouts generally featured higher scores, only in a few items they were exceeded by school children in their volume of experience.

Over 15 % difference (in bold font) was discovered in the following items „Picking up a frog“ (Z_32), „Picking up a snake“ (Z_33), „Walking barefoot along fir-needles“ (Z_35), „Defecating outdoors“ (Z_37), „Walking across a ploughed field (Z_39), „Collecting herbs for one's own use“ (Z_43), „Planting a tree“ (Z_48), „Participating

in collecting garbage outdoors (Z_56), „Spending a night outdoors under the open sky“ (Z_59), „Feeding an animal in the ZOO“ (Z_61), „Hiking in a protected area (Z_73), „Opening fire outdoors“ (Z_74), „Chopping and cutting wood“ (Z_77), „Sorting garbage“ (Z_79), „Preparing food on fire outdoors“ (Z_82), „Picking lice from hair“ (Z_84) a „Getting lost in a forest“ (Z_89).

The amount of experience of schoolchildren was higher only in several cases, statistically significant differences were found only in “fishing” (Z_68, difference of 21 %). Statistically insignificant differences were found in the experience with “planting bushes” (Z_49, difference 7 %), “treating an injured or sick animal” (Z_69, difference 10 %), “taking care of an injured or sick animal” (Z_64, difference 8 %) and “making whistles from brushwood” (Z_80, difference 6 %).

Interpretation:

The discovered differences imply that Scout club children differ from elementary school children especially in the numbers of contacts with live creatures that you can meet in the outdoors (woodpecker, hedgehog, firefly, frog, earthworm and beetle). The differences also point to certain activities performed by the Scout club children during their trips outdoors and at summer camps (herb gathering, sleeping under open skies, feeding animals in the ZOO, visiting protected natural areas, opening fire outdoors and cooking there, cutting and chipping wood, getting lost in the forest). The differences in garbage sorting may follow from the requirements on the summer camps, from the established rules in Scout club rooms or from common practice in outdoors-oriented families of the club respondents.

School children achieved higher scores only in several items. These differences are small, though, they could be explained by a selection error and they didn't prove to be statistically significant. Nevertheless, should I try to interpret these results somehow, I would say that the differences were found mostly in hobby activities replacing direct contacts with the Nature (taking care for a domestic animal, fishing, making whistles from brushwood, planting bushes). There could also be other explanations - e.g. local differences and opportunities to get into contact with the outdoors.

3.4. Comparing Average Raw Scores for Experience Volumes

Just like in case of the Trip questionnaire, raw scores (hs_z) were calculated here as well. Average raw score for the Experience Inventory questionnaire for the whole survey set was acquired by the arithmetic average method from the raw scores. The following table lists average raw scores for the set of elementary schools and for the Scout clubs¹⁰.

¹⁰ Results of the survey performed by Krajhanzl et al. (2004) do not imply any significant differences among the schools in the average raw scores of the experience volumes.

Table 4: Comparison of the average raw score for the Experience Inventory questionnaire - Scout clubs and schools

	Scouts	Stand. Dev.	Schools	Stand. Dev.	M-W test (p)	Effect size (Cohen d)
Average HS Inventory	48.95	10.5	43.89	9.15	0.00	0.53

Note: N(Scouts)=56, N(schools)=286; $\alpha = 0.05$;

Statement:

An analysis of the average raw scores implies that there is a five-point difference between Scout club and elementary school children. This difference was statistically corroborated by the non-parametric test (p -value < 0.05).

Interpretation:

Just like in case of the Trip average raw score, even here the Scouts achieved higher scores. For a more detailed analysis of these differences see the results by the individual determinants (age, gender, period of the Scout club attendance). The results could also point to the mutual influence between emotional reactions and the volumes of experience (the more experience the more positive emotional reaction and vice versa - for details see the correlation analysis).

The survey also included an analysis of the determinants of the emotional reaction and the volume of experience; respondent's age, gender and period of attending a Scout club were selected to be such determinants. Correlation analysis was also performed. Results of this part are summarized in the following discussion. For more detailed analysis see the complete text of the report¹¹

4. Discussion

4.1. Emotional Reaction to the Nature

Hypothesis 1: Children that regularly attend a Scout club react emotionally more positively to the natural environment than children that do not attend such a club.

A comparison of average scores for the individual items implies that considering the emotional reaction there are certain differences between the Scout club children and the elementary school children. These are statistically significant but they do not achieve high values and could be considered to be a consequence of a non-systematic influence (selection error). The significant results imply that Scouts are less concerned about "dirty" outdoor activities and this could be related to their more frequent stays outdoors. A proposition to go to a department store instead of going outdoors was a different value with the highest difference value. For children from Scout clubs this idea was

¹¹ For complete text see: http://is.muni.cz/th/42121/fss_b/BP_Kulhavy_2008_psy_vychodiska.pdf

less attractive, on average. It is also worth noting that scores of the most positively and the least positively evaluated items were identical for both groups - Scout club children don't seem to have radically different preferences.

The difference of the *average raw score* of the Trip questionnaire, measuring the emotional reaction, was found to be 5 points (i.e. about 6.5 percent) between the Scouts and the schoolchildren - it is possible to say, therefore, that this value is slightly higher for the Scouts.

The analysis of the determinants of the emotional reactions to the Nature, for which the child age, gender and, in case of the Scout clubs, also the period of attendance, were selected, brought rather interesting results.

Considering the *age* the results pointed to a possible positive trend in the development of emotional reactions in children from the Scout clubs. The emotional score hardly changed with age in case of the schoolchildren. This result is to be considered a key point confirming the first hypothesis. The emotional reaction is not only higher in children from the Scout clubs of the same age, but it slightly increases with age. This relationship is also confirmed by a statistically significant correlation which didn't appear for the elementary-school respondents. It should also be possible to verify a hypothesis that positive emotional reactions to the Nature by the Scouts increase along with their skills providing for their outdoor activities. Another hypothesis, which could be verified in connection with age, is the Kellert's (1996a) concept of the growing biocentric thinking between the second and fifth grade of the elementary school and its integration with homocentric thinking. It seems that Scout clubs could specifically support this process.

An analysis of the relationship between the *period of attending a club* and children's emotional reactions didn't bring any results that could be reliably interpreted. It might also confirm the positive trend but the low degree of saturation of the club attendance categories doesn't make it possible to make any precise conclusions. Even though a correlation calculation resulted in statistically significant findings, we suppose that the age variable interferes here.

More significant differences were found when analyzing *gender*; when comparing boys from both samples the Scouts score by about 10 points higher (about 14 percent). For example Scouts found it much more unappealing if they couldn't go outdoors, when a "wild" piece of country would be cultivated and they also reacted more negatively to throwing out garbage outdoors and to a possibility of going to a department store instead of a trip outdoors.

The final findings about the *correlation* between emotional reactions and experience volumes didn't bring results different from those of the elementary school children sample. The relationship between these variables is identical but Scouts have larger experience and they react to the Nature in a slightly more positive way.

From the fact stated above it is possible to conclude that Scout club children really react to the natural environment emotionally more positively than children that do not attend these clubs. Therefore, the first hypothesis is not denied and it is supported by the acquired data.

4.2. Experience Volume

Hypothesis 2: Children that regularly attend a Scout club have more experience with the outdoors than children that do not attend such a club.

When comparing the scores of the individual items between Scout club children and elementary school children, it seems that the Scout club children's experience volume is higher for most items. Besides higher numbers of contacts with common animals living in the open the Scouts achieved higher scores in activities developing their skills for surviving outdoors (cooking on open fire, cutting and chipping wood, spending a night outdoors in a tent or under the open sky) and in environmentally-educational activities (participation in collecting garbage outdoors, hikes in protected areas, herb gathering).

The same feature of Scouting is noted also in Palmberg and Kuru (2002), who, in their survey, draw attention to the fact that Scout clubs use the so-called learning-by-doing methods and purposeful stays outdoors as educational methods (Kulhavý, 2006). It seems that the results could confirm the significance of these approaches. It is necessary to note here, though, that despite the fact that these approaches are parts of the Scout method, they are used in various ways in the individual Scout clubs. The "New Educational Program" currently strives for a certain methodological anchoring of the outdoors education. It is based on a competence model that includes also competences developing a child's relationship to the Nature (Klápště, 2008). It is also necessary to draw attention to the personalities of leaders working with the children in the clubs and to the functions of educational courses for Scout leaders. It would be also worth discussing how the Scout leaders perceive the natural environment - is it a place where they escape from the city, is it a background for the Scout program, or is it perceived as an environment where it is possible to purposefully develop a child's personality? Personally I suppose that the significance of the outdoors for the emotional and cognitive development of a child is still underestimated.

It also seems that the Scouts are better experienced in moving outdoors (forcing one's way through the bushes, walking across a ploughed field, walking barefoot on fir-needles, resting in the moss). This could be explained by the fact that moving outdoors (both at day and at night) is a common activity at the Scout summer camps and trips.

A vast majority of children from the surveyed clubs (93 percent) have experience with sorting garbage - this could be a consequence of the requirement to sort garbage at the summer camps or of the common sorting of garbage in the Scout club rooms and also of the growing environmental awareness of the wider society.

A comparison of the *average raw scores* between the Scout club children and the elementary school children points to a statistically significantly higher volume of experience of the Scouts (by about 11 percent).

Additional findings were revealed by an analysis of the experience volume determinants - age, gender and the club attendance period.

Considering the *age*, a growth of the experience volume between the younger and the older is an important finding. There is not only a growth of the experience volume from younger to older children from the clubs (i.e. inside the group), and this could be connected with the maturing process, but also a comparison with the corresponding

age group of the elementary school students points to a significant difference. It seems, then, that the Scout club children have larger experience with the outdoors and this relationship is not caused by the age only.

In connection with the growing outdoors experience along with growing age there has been proposed a hypothesis that an immediate contact with the outdoors makes it possible for children to adjust their images of the Nature acquired through mediated experiences. As described in Kellert (2002), a child acquires simplified representations of the natural world by means of symbolic, metaphoric or stylized information. In a similar way Pyle (2002) writes about the natural literacy, which had been inherent in people since it was necessary for their survival in the natural environment. If the program of the Scout clubs includes purposeful stays outdoors, it is possible to assume that the children will be exposed to a larger volume of direct experience and that they will establish more realistic images of the Nature. I expand the proposed hypothesis in the sense that the Scout club children tend to be more positive towards the Nature (they improve their emotional reactions) as they learn new outdoor survival skills. Putting it simply, if a child doesn't have to care whether he/she gets dirty or lost, he/she can better perceive the surroundings (environmental sensitivity) and connect the stay outdoors with pleasant feelings. The results are not unambiguous about this relationship, though, because it wasn't possible to reliably interpret the relationship between the Scout club attendance period and the scores in the questionnaires.

For this discussion it is interesting to mention the Kahn's (1997) idea stated in his concept of the environmental generation amnesia. He emphasizes that children should be introduced to undamaged natural environments - i.e. that children should get a chance to compare damaged and undamaged environments. This could be an important task for the Scout clubs - use the natural environment not only as a place for developing cognitive and emotional characteristics but also as an educational means in a globalized world with declining natural environment.

An analysis of the relationship between the *period of attending a club* and the experience volume didn't bring any results that could be reliably interpreted just like the children's emotional reactions. For more precise results it would be necessary to acquire more relevant data concerning the periods of the Scout club attendance.

Considering *gender*, there was discovered a statistically significant difference in the volume of experience - especially between boys from the clubs and from the elementary schools (about 10 percent) - these differences consisted especially in their outdoor skills and contacts with wild animals. This difference appeared also between girls but it was smaller (about 8 percent) - differences were identified especially in items related to closer physical contacts with the outdoors and also to practical outdoor skills.

Correlation analysis found a correlation between the number of months of the club attendance and the volume of experience but this could be also interpreted as a result of the age. This doesn't confirm a correlation between the age and the average raw scores in the Inventory, though. The correlation found for the Scout club children wasn't found for the schoolchildren. It seems therefore that when considering the volume of experience, the connection with the period of the club attendance is confirmed.

In harmony with the fact stated above it is possible to state that even the second hypothesis cannot be denied and that it is confirmed by data. The volume of experience with the outdoors was higher for children from the Scout clubs.

The above-described relationships cannot be separated from the influence of the family proper. It is possible that children acquire some of the habits in their home environment, other influences could penetrate the family from the outside along with the growing environmental awareness of the society (for example the above-mentioned garbage sorting). It is necessary to note, though, that a Scout club (or any other organization) has only very limited time options to develop a child's relationship with the Nature. It would be apparently ideal to influence this relationship with the Nature in all five specified dimensions (Krajhanzl, 2008). Here we come across a problem how to apply such a complex and systematic approach. It would be interesting to cooperate, as a part of such a program, with schools, as formal educational institutions, and with the child's family. Scout clubs seem to be a good means for acquiring direct experience with the outdoors and outdoor skills. Let's return now to the model of a relationship between humans and nature presented in the theoretical section - the Scout clubs can support this development especially in the dimensions of contacts with the outdoors, outdoor skills and environmental sensitivity. On the other hand, schools can take an advantage of their ability to expand environmental literacy and global thinking (see the dimension of the environmental awareness). The role of the family is then cross-sectional and it is connected, for example, with the lifestyle, free-time spending, attitudes and values conveyed to the child. Pyle (2002) draws attention to one of the barriers hindering outdoor education. Families are currently rather worried about the children's safety when away from home. A child could be threatened either by the dangers of the street (traffic, social-pathological phenomena, gangs) or by the dangers of the "wild" forest. Here it rather depends on the relationship between the parents and the outdoors and whether the parents consider the forest to be an environment potentially more dangerous than city streets.

If Peter Kahn (2002) is right and humanity faces the problem of environmental generation amnesia, I can see the significance of the Scout (or similarly oriented) clubs for the development of a relationship to the Nature in the following:

- they provide children with physical contacts with the natural environment - acquisition of direct experience with the outdoors (Kellert, 2002) and they help to create a more realistic image of the Nature
- they introduce children to natural environments less affected by humans and provide for a comparison with the natural environment where the children commonly stay
- from an environmental-educational viewpoint they support systematic thinking and orientation of children in complex eco-systematic relations
- they equip children with skills and knowledge necessary for staying outdoors
- they use natural environments rich with challenges to educationally affect the children, providing them with space for experimenting, investigating, learning by doing and creating
- they help, especially at the junior school age, to establish moral thinking in children and thus integrate homocentric and biocentric elements (Kahn, 1997);
- they make it possible to experience a stay outdoors as safe and interesting

Conclusion

Eco-psychological concepts listed as theoretical solutions refer to a current trend in limiting direct contacts between children and the outdoors and possible distortions of the Nature's image resulting in the lack of interest in the protection of the environment. And still the significance of the natural environment for the emotional and cognitive development of a child and, in general, for the sustainability of human activities on this planet, is of decisive importance. Educational activities are frequently focused on partial components of our relationship with the Nature without analyzing what these components represent. A more complex understanding of the development of our relationship with the Nature is a challenge for the future of the environmental education. One of the contributions of psychology, which could help to achieve this goal, could be an establishment of a general model of the relationship between an individual and the Nature, with a special focus on establishing this relationship at an early age. Using knowledge from development psychology, social psychology and personality psychology, which would be integrated into the general model, we could better focus the education and subsequently cover fields that are beyond the scope of the traditional environmental education. Such theoretical solutions could be useful also in the out-of-school environment for processing methodical materials applicable in the development of children's relationship with the Nature.

An analysis of data from the Scout clubs and data from elementary schools yielded results that support the hypotheses about the existence of differences between these groups of children. If we accept the assumption that the used survey tools really measure emotional reactions and experience volumes, then we could declare, under the above-listed limitations, that children from the Scout clubs have generally larger experience with the natural environment and that they also demonstrate more positive reactions to this environment. I consider important the finding that the volume of acquired experience with the Nature increases faster in children from the Scout clubs than in children from elementary schools. The main differences were found in the numbers of contacts with wild animals, acquiring outdoor skills and participation in environmentally-educational activities. It has been also demonstrated that the emotional reactions of the Scout club children become more positive in the course of time while the trend for schoolchildren seems to be quite opposite - this could be connected with the above-mentioned increasing numbers of contacts with the natural environment.

At the end I present a quote from Stephen Kellert summarizing the significance of similar surveys in the future: *"Human society, established on plundering Nature, cannot maintain its economic and cultural prosperity continually... We have to realize the mistake of the modern times that human society doesn't need diversified and satisfying connections with non-human world anymore."* (Kellert 1996a, page 216-217 quote in Kahn, 1997, page 11)

PSYCHOLOGICKÁ VÝCHODISKA ENVIRONMENTÁLNÍ VÝCHOVY

Abstrakt: Práce se zabývá oblastí environmentální psychologie, nověji tzv. conservation psychology, jejíž koncepty nejsou zatím v českém prostředí rozšířeny. Studie

vychází z teze, že psychologie má významný potenciál přispět k řešení globálního problému neudržitelosti lidských aktivit. Z pozice conservation psychology, která hledá způsoby, jak působit na environmentální chování člověka, se práce zabývá některými složkami vztahu dětí školního věku k přírodě. Je stručně nastíněn vývoj zkoumání vztahu člověka a životního prostředí v psychologii a jsou uvedeny vybrané teoretické koncepty, kterými se zabývá současný výzkum v conservation psychology. Vztah člověka k přírodě je konceptualizován pětidimenzionálním modelem J. Krajhanzla (2006). Práce se dále zabývá dvěma složkami vztahu člověka k přírodě – jeho emoční reakcí na přírodu a množstvím zkušeností s přírodou. Jsou ověřovány hypotézy o odlišnosti těchto dvou charakteristik u dětí školního věku, které pravidelně navštěvují skautské oddíly, a dětí, které tuto možnost nevyužívají. Práce využívá srovnávacích dat získaných v rámci „Výzkumu odcizování člověka přírodě“ z let 2004-2005 (Národní program výzkumu MŽP: Krajina a sídla budoucnosti, číslo projektu IC/4/40/04). Výsledky podporují stanovené hypotézy. Byly zjištěny odlišnosti jak v pozitivnější emoční reakci, tak v množství zkušeností s přírodou u dětí ze skautských oddílů. Skauti mají více zkušeností zejména s aktivitami rozvíjejícími schopnosti pro pobyt v přírodě, častěji přicházejí do kontaktu s volně žijícími zvířaty a častěji se účastní environmentálně-výchovných aktivit. Práce uvádí, jakým způsobem mohou skautské oddíly přispívat k rozvíjení vztahu dětí k přírodě, a zároveň upozorňuje na omezení, kterým čelí.

Klíčová slova: conservation psychology, environmentální vzdělávání, vztah člověka k přírodě, skauting

ENVIRONMENTAL EDUCATION AND HEALTH (HEALTH EDUCATION)

Boris RYCHNOVSKÝ

Abstract: *Environmental education also deals with rules and phenomena with a significant impact on human health. The theoretical basis for healthy living, the natural phenomena and happenings in the ecosystem, are altered by anthropogenic effects differing by region. The most important of them are introduced to the students in the form of compulsory environmental education. The Pedagogical Faculty of Masaryk University provides environmental education as a compulsory subject for all future teachers at junior and secondary level. The lectures mainly focus on anthropogenic changes of circulation of macro-biogenic elements with subsequent effects on human health.*

Keywords: *ecological-environmental education, health education, sustainable development, quality of environment effect on life*

1. Introduction

The Czech law and order has established the principles of sustainable development (SD) and its statement – Agenda 21 – by the following definition: „**Sustainable development of a society is a development allowing the present and the future generations to satisfy their basic living needs and keeping the versatility of the nature and the natural functions of its ecosystems**“. For that purpose environmental education, upbringing and enlightenment are defined as follows: *Education, upbringing and enlightenment are to lead to thinking complying with the principle of sustainable development, awareness of responsibility for maintenance of quality of the environment and its individual components and respect for life in all its forms.* The inter-ministerial group within the Ministry of the Environment of the Czech Republic has prepared the “State programme for environmental education, upbringing and enlightenment (EEUE) in the Czech Republic“. Subsequently the Government of the Czech Republic passed a resolution (1048/2000) by which it authorised the Ministry of Education, Youth and Physical Training (MoEY&PT) of the Czech Republic to be the guarantor of environmental education, upbringing and enlightenment within the State Programme. EEUE has been included in the primary curricula and provided though family upbringing, school education, lifelong education, personal experience and sense.

Environmental education and upbringing have become an integral part of primary and secondary education of the whole population of the Czech Republic. The liability to establish environmental education as an integrated whole is stipulated in the so called White Book of 2001 Kotásek, 2001 and further deepened in the Framework Educational Programme of Primary Education. The Programme defines Environmental Education as one of the six *interdisciplinary themes*.

Interdisciplinary themes represent in primary education RVP the current issues of the contemporary world. They represent a major formative element of elementary education, create opportunities for individual assertion of the pupils and their mutual cooperation and help develop the pupil's personality mainly in the area of attitudes and values. The interdisciplinary themes represent the *compulsory part of primary education*. The school must include all the interdisciplinary themes to its curricula for elementary as well as junior level education. However, not all themes need to be present within a single form. In the course of primary education the school is liable to offer to its pupils all thematic circuits of the individual interdisciplinary themes, their scope and method being specified by the SEP.

Environmental education is divided into thematic areas allowing for complex understanding of the issue of human relationship to the environment, the basic living conditions and responsibilities of the current generation for future life.

Thematic areas:

- **Ecosystems** – forest (forest in our environment, productive and non-productive functions of the forest); field (purpose, anthropogenic changes of surrounding landscape, methods of cultivation, fields and their surroundings); water sources (anthropogenic activities related to water management, relevance for landscape ecology); sea (type difference, relevance for the biosphere, algae and oxygen, carbon dioxide cycle) and tropic rain forest (comparison, type variety, threatening, global relevance and relevance for us); human settlement – city – village (artificial ecosystem, its function and relationships to the surroundings, adaptation to local conditions); cultural landscape (understanding of the deep influence on the nature in the course of civilisation history until the present days)

- **Basic living conditions** – water (relationships between water properties and life, relevance of water for anthropogenic activities, protection of water purity, drinking water in our country and abroad, solution methods); air (relevance for life on the Earth, threats to the air and climatic changes, links of the world, air purity and pollution in our country); soil (environmental links, source of nutrition, soil threatening, re-cultivation and surrounding situation, changes in the need for agricultural soil, new functions of agriculture in the landscape; protection of biological species (reasons for protection and methods of protection of individual species); ecosystems – biodiversity (functions of ecosystems, role of biodiversity, levels of biodiversity, threats and protection in our country and abroad); energy (energy and life, effects of energy resources on social progress, use of energy, options and methods of solution, local conditions); natural resources (raw material resources and energy resources, their sustainability, effects on the environment, principles of natural resource management, importance and methods of acquisition and use of natural resources in the surroundings)

• **Anthropogenic activities and environmental issues** – agriculture and the environment, ecological agriculture; *transport and the environment (relevance and development, energy resources for transport and effects of transport on the environment, modes of transport and environmental burden, transport and globalisation)*; industry and the environment (industrial revolution and demographic development, effects of industry on the environment, processed materials and their effects, effects of legal and economic instrument on the relationship of industry to environment protection, industry and sustainable development of the society); waste and waste disposal (waste and the nature, principles and methods of waste disposal, recycled waste); nature protection and monument conservation (importance of mature protection and cultural monument conservation; legal solutions in our country, in the EU and in the world, examples from the environment, principle of preliminary carefulness; nature protection in the course of mass sporting events – MOV principles), changes in the landscape (landscape in the past and now, effects of anthropogenic activities, their reflections and perspectives); long-term programmes focused on development of environmental awareness of the public (State programme EEUE, Agenda 21 EU) and events (Day of the Environment of the UNO, Day of the Earth etc.)

• **Relationship of man to the environment** – our municipality (natural resources, their origin, methods of exploitation and waste disposal solutions, nature and culture of the municipality and its protection, environment protection in the municipality – institutions, non-governmental organisations, people); our lifestyle (consumption of things, energy, waste, ways of conduct and effects on the environment); current (local) ecological issue (example of the issue, its cause, consequences, circumstances, ways and methods of solution, evaluation, own opinion, its justification and presentation); health and the environment (diversity of effects of the environment on health, their complex and synergic effects, ways and methods of health protection); inequality of life on the Earth (diverse environment conditions and diverse social development on the Earth, causes and consequences of increased differences in globalisation and principles of sustainable development, examples of their application in our country and abroad)

Every school uses RVP to prepare its School education programme (SEP), including compulsory environmental education. This interdisciplinary theme is to be implemented at primary and secondary schools by the liability of teachers of all subjects to resolve environmental issues in the context of their respective subjects. Practical implementation slowly approaches this objective.

To achieve the ideal state there are various auxiliary educational activities of not only specialised sites (environmental education centres – such as Lipka, Chaloupky, Sluňákov etc. the Pavučina association) but also professional organisations (such as KEV, with some employees of the Pedagogical Faculty of Masaryk University as its members) providing further education of teachers in this area (specialisation studies of school coordinators of environmental education and upbringing, as well as partial educational units in the form of various seminars, educational events in various environments including open air activities).

The State programme of environmental education, upbringing and enlightenment (the EEUE) in the Czech Republic focuses on increased environment awareness and

knowledge of the population. It assumes (among other things) “*assurance of systematic and complex implementation of environmental aspects in educational programmes on all levels of education, including university level*”.

The framework educational programme for junior schools “...helps pupils obtain knowledge, skills and habits that will allow their independent learning and adoption of values and attitudes leading to considerate and cultivated conduct, responsible decision making and respecting rights and liabilities of the citizens of our state ...“ by means of continuous learning of the key competences. All educational content of basic education is divided into **educational areas**. They are implemented by the individual educational subjects (sometimes singular).

One of the educational areas for junior level of primary schools is “**Man and health**“ with the subjects of health education and Physical training. In addition another educational area “Man and the world“ (only conceived for the elementary level of primary education) also defines the educational content of the health for the individual ages and levels.

The educational content of the educational area “Health education” includes themes which widely overlap, follow and cross the themes of the interdisciplinary theme of Environmental education. For the basic comparison of the two themes see Horká, 2006.

2. Overlaps of Man and Health and Interdisciplinary Environmental Education

Environmental education leads the individual to understanding of the complexity of the relationships between man and the environment, i.e. understanding of the necessity of continuous transition to sustainable development of the society and understanding of the importance of responsibility for conduct of the individual and the society as a whole. Environmental education allows for following and realising the dynamically developing relationships between man and the environment in the context of direct cognition of the current environmental, economic, scientific and technological, political and civic aspects, temporary aspects (relationships to the future) and spatial aspects (relationships between local, regional and global issues), and the optional solution variants of environmental issues. Environmental education leads individual to active involvement in environment creation and protection and affects lifestyle and value orientation of the pupils towards sustainable development of human civilisation. The interdisciplinary theme is implemented through most educational areas. Continuous links, extensions, fixations and systemisation of knowledge and skills obtained in these areas allow for development of an integrated environmental view. Each area has its specific relevance for affecting the rational side of human personality as well as the emotional and will part. In particular in the educational area of **Man and health** the theme touches the issue of effects of the environment on individual health and health of other people. In relation to the issues of the contemporary world environmental education leads to understanding of the importance of care of the nature in the context of organisation of mass sporting events. The curriculum definition lists the following themes related to the environmental education issue:

- Effects of living conditions
- Relevance of physical activity for health
- Safe conduct in sport and transport
- Health risks of civilisation diseases
- Health and social risks of computer work
- Movements in risk environments
- Forms of health support – effects on changes of environment quality and individual behaviour
- Stress management skills
- Value attitudes

3. Environmental Education at Pedagogical Faculty of Masaryk University

Environmental education is a compulsory subject at the Pedagogical Faculty of Masaryk university for all students preparing for the career of teacher at junior level of primary education and secondary education level:

Environmental education *SZ7BP(K)_BiEV* – 1st year 1/0/0 Ko, interdisciplinary approach (cat. Bi, Ch, Phy, Ge) for circa 800 (250) students of teaching of general education subjects at junior primary and secondary level.

Similar but briefer *ZS1BP(K)_IVZA* – 2nd year, 1/0/0 Ko, interdisciplinary approach (cat. Bi, Ch, Phy, Ge, Pd) for circa 150(100) students of teaching at elementary level of primary education.

In addition to the abovementioned basic subjects environmental education is part of other compulsory, compulsory optional and optional subjects extending knowledge of the basic subjects and deepening the transferred knowledge, supporting development of skills, formulation of attitudes and acquisition of key skills, of course on different levels (OP3BP/K/_BEEV/P,S/, SC4BK_ZEEV, SC4MK_REEV, SC4MK_KTUR etc.).

Objective of subject:

On the basis of functioning of the ecosystems and the biosphere to get to understand the basic issues of the relationships between the environment and anthropogenic activities in harmony with the principles of existence of the living matter and thus environmental principles (the man and the whole human population is a highly organised living matter with the ability and now also with the options of a strong environmental agent) with the necessity of respect for sustainable development. To understand changes as past changes (processes of the relationships of the human society and the nature including natural resources), as well as coming changes with the threatening dominant of an ecological-environmental crisis. Search for methods of remedy in sustainability of life.

In harmony with the RVP it is possible to define objectives of environmental education and upbringing anew:

Knowledge and skills: on the basis of the acquired knowledge and understanding of the functioning of the relationships within the ecosystem to apply the knowledge to the relationship between the society and the environment, their overlaps, to explain how and why, assumptions of further development and possible ways of minimisation of impacts on the nature, realisation of the negatives and the positives of the measures.

Attitudes: to adoption of the principles of environment protection (including nature protection) and sustainable development

KK: project teaching strategies with regard to the regional principle, modern teaching strategies with the aim to apply the acquired (knowledge, attitudes and skills) in practical life.

Environmental education at the Pedagogical Faculty of Masaryk University first presents to the students the **ecological aspect:**

- *Basic premise:* a suitable environment is a diversified ecosystem (full value) as the functional framework and the necessary prerequisite for existence of all organisms. The differing ecological functions of primary and secondary ecosystems reveal the fundamental contradiction of ecology and environmental studies: **the inputs of the cultural evolution.** Even though the submitted view is “heretic” and impracticable, it is based on the necessity of maximum respect for and seek of approaches to the “functional fully diversified ecosystem of the respective biome with minimum disturbances by environmental conditions as the prerequisite of the ideal relationship between the biotic conditions on the one side and the organisms represented here by the man and his health on the other side“.

Briefly speaking: **For “healthy life” and “healthy” environment.** Of course the premise is unfeasible and represents the ideal objective with the effort for maximum approximation, i.e. the effort to achieve the properties and the quality of the environment with minimum damage to human health. Many remedial procedures follow from that (Tab. 1).

Environmental aspect: Increasing effects of progressing changes and disturbances of the environment on the health state of the human population and individual humans.

- Primary starting point of the subject: Accumulation of data on the environment condition of the selected region, whether the place of permanent residence or workplace, in the context of a tutorial work as the basis for knowledge

Tab 1: Overlaps of environmental themes in subjects taught at Pedagogical Faculty of Masaryk University and health education

Themes of environmental education	Environmental lectures with significant effects on health	Subject allocation
Introduction, tasks and goals of environmental education, legal standards	General issues of the relationships between environment quality and health	12346789
Basic ecological notions (population, communities, ecosystem, factors)	- <i>Basic premise</i> : a suitable environment is a diversified fully functional ecosystem with minimum anthropogenic changes (relevance of semi-natural and natural ecosystems in the landscape)	12345789
Substance and energy flows, anthropogenic changes, global environmental issues, sustainable development (assumptions)	- Anthropogenic changes of circulation of macro-biogenic elements – for further overlaps see below	12345789
	N: - Point and flat increase of input (including P) of soluble salts to surface water (water eutrophisation) with increased poisoning of water (unsuitable for water management and recreation purposes) and other anaerobic processes with accumulation of toxins (botulotoxin etc.)	12345789
	- Air oxygen in combustion processes at high temperatures (> 1000 °C) as acid forming source with interactions harming breathing processes	1378
	S: Acid forming source reducing healthiness of the air, water and soil including quality of food	123478
	- Development of smog in relation to the abovementioned negative effects of NO ₂ , ground ozone with significant impact of transport on health especially of urban citizens	12345789
	- Global and local water pollution with	12345789
	● Toxic and mutagenic substances	138
	● Inorganic substances (nutrients) – water eutrophisation ● Organic substances – water saprobity (extreme increase of content)	123456789 135789
C: Global warming as a predisposition of climatic changes and thus spread of the area of occurrence of many pathological invasion species with negative health effects (spread of tick to the mountains, <i>Anopheles</i> mosquito to Central Europe, hogweed to Bohemia etc.)	123456789	
O: Double effect of ozone (O ₃) – necessary sufficient level as protection against UV radiation (UV radiation mediated diseases) in connection with Freon – the issue of ozone gap versus toxicity of ground ozone	89	
- Further negativisation of surface waters with regard life and water circulation in the organisms (pollution with biologically active substances – mutagens, antibiotics, contraception etc.)	123456789	
134689		
Pollutants, toxicity, prevention environmental education at school, “ecology” of the household	- Soil pollution and degradation with subsequent production of food harmful to health - Effects of pollutants on human health - Ground ozone toxicity - Toxic substances at school and in the household	12345678
Waste	- Health risks of accumulation and disposal of communal waste and waste of breeding of farm animals	123456789
Energy	- different risks of energy generation Noise negatives: direct x indirect damage (slow damage to mental health leading in extreme cases to disintegration of personality)	123456789
environment in general – introduction	See the basic premise in confrontation with particular effects	12345678

Environment in the Czech Republic	- Light pollution as a negative of ecosystem	178
	- Abovementioned issue of water pollution in fresh water and marine bicycle	12345678
	- Abovementioned changes in quantitative proportions of macro-biogenic circulation	12345678
	- Abovementioned introduction of foreign substances	12345678
	● General contaminants	1358
	● Toxins such as pesticides, herbicides, industrial, agricultural and food processing waste	13578
	● Mutagens such as PCB as well as biologically active contraceptives, antibiotics etc.	
Landscape	- See the basic premise in confrontation with anthropogenic changes	123456789
	- Regional devastation of the environment – exploitation of sources up to the level of health risks	
	- Direct relevance of off-production functions of the forest for health, indirect effect as agent of psychic health and work performance.	123456789

SZ7BP_BiEV – 1

OP3BP_BEEP – 4

SC4BK_ZEEV – 7

SZ7BK_BiEV – 2

OP3BP_BEES – 5

SC4MK_REEV – 8

ZS1BP_IVZ4 – 3

OP3BK_BEEV – 6

SC4MK_KTUR – 9

ZS1BK_IVZ4 – 4

... positive and negative evaluation of the regional environmental situation. This will be used as the basis for potential SWOT analysis. All knowledge quantifies effects of the environment on individual health and health of the population in the region in general.

- Secondary materials: theoretical lectures are presented both as environmental phenomena and as significant agents affecting human health. They clarify, illustrate and put in context various **environmental agents as determinants of human health**.

Considerable attention is paid to functional principles of the relationships between organisms and the environment, anthropogenic changes of macro-biogenic element circulation, their effects and health risks. Subsequently other phenomena and processes are presented as agents harmful for human health (see Tab. 1).

All these and other effects are manifested by worsening of the quality of the environment and deepening of the indirect effect on human health. This is assessed in the theory of environmental education, upbringing and enlightenment as global issues as well as regional issues. The regional relationships and principles are emphasized by seeking environmental information about the region with potential health risk specifications. Many conclusions and principles of friendly approach to the environment, and principles of sustainability are presented as principles supporting **healthy lifestyle** and as such as **accepted and adopted** by many students.

The tabular survey documents considerable presence of many of the themes in lectures in not only the compulsory subjects. Just some are reserved for optional subjects with more detailed extension of the issue. When comparing the lectured themes of Environmental education at the Pedagogical Faculty of Masaryk University and the papers presented at the workshop “School, Health and the Environment” (see the programme of 16 December 2008) all the themes discussed at the workshop are included in

the subject syllabus and lectured on. The subject syllabus is extended with new findings and knowledge. Despite that event the already overcome issues must be paid attention (the continuing idea of the students about toxicity of the additive anti-detonators in petrol as a consequence of lead content etc.).

4. Conclusion

Enumeration of the basic health negatives presented in Environmental education points to deep relations and overlaps between the standards and quality of the environment and health state of the human population. The correct orientation of environmental education provided by the Pedagogical Faculty of Masaryk University is documented by the conference presented confrontations of various environmental phenomena and human health. A large majority of the presented phenomena are included in the syllabus of the subject of Environmental education SZ7BP(K)_BiEV and other similarly generally conceived subjects.

ENVIRONMENTÁLNÍ VZDĚLÁVÁNÍ A ZDRAVÍ (VÝCHOVA KE ZDRAVÍ)

Abstrakt: Environmentální vzdělávání se zabývá rovněž zákonitostmi a jevy s výrazným dopadem na lidské zdraví. Jako základní teoretické východisko zdravého života jsou prezentovány přirozené jevy a děje v ekosystému, které jsou antropogenními vlivy regionálně rozdílně pozměňované. O nejdůležitějších a nejvýznamnějších z nich jsou studenti informováni formou povinného environmentálního vzdělávání. Na Pedagogické fakultě MU je realizováno jako povinný předmět pro všechny studenty učitelství 2. stupně ZŠ i SŠ. Obsah přednášek je tematicky zaměřen především na otázky antropogenních změn koloběhů makrobiogenních prvků s následnými vlivy na zdravotní stav člověka.

Klíčová slova: ekologicko-environmentální vzdělávání, výchova a osvěta, výchova ke zdraví, TUR – (trvale) udržitelný rozvoj

ENVIRONMENTAL ASPECTS OF EDUCATION FOR THE HEALTH IN CURRICULUM OF PREGRADUAL PREPARATION OF TEACHERS

Hana HORKÁ

Abstract: *Author determines and reasons current structure of environmental competence at three levels: factual, skills and personal. Her work focuses on student's capability to undergo preparation and to understand ecological and / or environmental education interrelated with education for human health. The targets pertaining to the above noted area of education devoted to teacher's education have been summarized and a proposal of standardized pregradual ecological / environmental preparation of teachers has been taken into account. The results of scientific examinations mapping student's considerations and thoughts of environmental problems/issues as well as description of perception of the health among the students of the faculty of pedagogy, Masaryk University, Brno related to environmental issues have been discussed. Regarding the interdisciplinary character of ecological/environmental preparation, some proposals aiming at teacher's preparation are shown.*

Keywords: *ecological/environmental education, education for the health, eco-pedagogical competence, environmental competence, value-ecosocial life oriented competence, targets of ecological/environmental teacher's preparation*

Teacher's competence as a source of transformation of professional preparation

Physical, social, economical and cultural attributes of environment, in which the individual lives, are crucial determinants of behaviour suitable for the health. The domains of the education supporting the health also refer to environmental aspects of the health, analysis and search for relation – man and the nature as well as the nature and the human health. To address the versatility of the problem and to cultivate the decision making process in favour of healthy alternatives can be only achieved by the teacher, who is properly prepared especially comprising the facts and methods. Our aim is to provide theoretical and empirical basis for the reformation of pregradual teacher's education in the frame of partial objective titled „Environmental aspects of education for the health“. The starting point is being the question: What should the teacher dispose of in order to

be able to build successfully the relation of pupils to the environment, attract them and acquire their attention to take care of environmental issues, cultivate their action and opinions and build up their awareness of the new value system...?”

The concept of professional preparation including the environmental competence focused on the area of saving environment, active attempt to protect the environment, logically interrelated with Delors aim „to teach in order to deal“ and with integrative function of school (VAŠUTOVÁ, 2001, s. 33) has been transformed under the actual needs of the society. The justification of systematical formation of teacher’s competence reflecting healthy life style and competence of universal scope/ of personal cultivation influencing the value system of pupils has already been confirmed. The influence of teacher’s competences of value-ecosocial-life-oriented (HORKÁ, 2005, s. 98) including the features of personality, concept of teaching attitude, life orientation, the world-consideration, the life conception and the values is undeniable. Such qualities are very important as they are reflected in teacher’s ability to develop pupil’s empathy and awareness of value of human life, to cultivate the respect to value of the nature, to carry on active cooperation and tolerance, to form constructive attitude towards urgent questions of the care for the environment. Overlap of the education for the care for the environment (ecological/environmental education-EE) and the education for the health is obvious especially if the teacher forms the relation of the pupil towards himself and then the adequate care of the health ensues, in other words the art of being himself/herself is then achieved. Regarding the relation to other people , the aim is to guide the pupil to be able to cope with others and to be responsible, not only fulfilling the role of a good housekeeper with all economical and spiritual values of human life and the world. The cultivation of the relations to the nature connected with the skills to live naturally in harmony with the nature (against apathy, annihilation), accentuating the care for healthy air, tap water and livable earth (against the noise, the disorder, the wastes etc.....).

Based on the theoretical resources and our educative and research activities we come to the conclusion that the ecological /environmental preparation of teachers requires determination of precise targets and standards in order to form teacher’s qualification for implementation of ecological education , in other words so called ecopedagogical competence. We insist on our previous research works (HORKÁ, 1996, 2001, 2005) describing teacher’s activity at cognitive, cognitive-affective and cognitive – motor levels and subsequently they lead to:

- Gradual and reasonable acquirement of elementary knowledge about the environment which is closer to the pupil and seems to be meaningful, beneficial, interesting and understandable as well as useful for the ongoing learning and the practical for future life.
- The acquaintance with common danger surrounding the child, the prevention and the safety means, the standards of adequate and safe behaviour at home as well as in community.
- Providing information about the existence of other nations and cultures in different countries as well as about the Earth, the universe etc.
- Following up the changes and the course of events in the nearest surroundings. Leading to understanding that the changes are natural and obvious (everything is changing, developing, moving and transforming and those changes are inherent

part of human life). Helping to adapt to variable circumstances at home as well as at school.

- Explanation of the meaning of the environment (the nature and the society) for man, being aware of the fact that the behavior influences his own health and the environment.
- To understand the order of the world, the nature and the human world, it is versatile and remarkable, indefinitely various and heterogenous.
- To acquire awareness of the broader social, factual, natural, cultural and technical environment and the events accompanied by practical experiences and available practical exhibitions in the child's surroundings.
- To distinguish activities which may support the health of surrounding environment as well as those which may be harmful with a special focus on the disorders, damage and make a notice of them.
- To participate actively in the care of the environment (to be particular about tidiness, follow up the rules regarding the wastes, take care of plants, contribute to the wellness, protect the nature, the living things in the neighbourhood etc.).

It has been shown that the ecological / environmental preparation at the faculty of pedagogy should lead to the below noted targets concerning the education and learning:

The students should be able to:

- To clarify the basic ecological and environmental terms and the relationships as well as to characterize the relations of man and the nature, the position of humans in the nature, current status and the problems related to the environment in Czech republic, global issues, the instruments of the care for the environment.
- To mediate the understanding of the above noted topics by means of the interdisciplinary active teaching.
- To be able to orientate themselves in the historical context of the evolution of the environment and to clarify recent trends in environmental education.
- To be familiar with the fundamental documents as well as the most important institutions in the area of environmental education.
- To take responsible views (e.g. in discussion about the thrifty life style, value orientation and human needs), moreover to be able to argue for their justification.
- To reflect personal dealing and educative action, to evaluate critically the activities of others concerning the environment, to make conclusions and implement them in the praxis, to support the active engagement in the care of the environment.
- To implement spontaneously the ecological-educative contents into the educational curriculum and into the real tuition.
- To project strategy of teaching, theoretically as well as practically manage the teaching methods, to introduce effectively unconventional training methods, by means of creative dramatics, simulation, games and authentic activities supporting the building up of ecological culture of personality, to diagnose the pupil's conception of curriculum regarding the environmental issues and the ability to deal with them.

- To prepare a long term program for the pedagogical activity reflecting the real situation.
- To focus on the local needs and update the curriculum depending upon the environmental issues (creative activity involving the local elements), to provide a tailor made minimal curriculum for certain pupils reflecting the regional/local demands in regard to the environment and providing adequate educational and training value.
- To organize sight-seeing tours, excursions, camps, practical course for pupils and teachers.
- To revive and develop traditions of good achievements and concrete targets.
- To guide the pupils to recognize, to improve and to protect their home (to start off at their doorstep), the environment of the school, the village/hometown and finally the homeland.
- To motivate pupils to search for their ancestors, to learn more from their experiences, their failures and their advantages.
- To organize practical activities (outdoor, activity with tools, observation, analysis, experimental work, decoration of classroom, care for the environment at school).
- To form the widest possible opportunities for application of the curriculum in the real everyday life.
- To encourage skills and habits ecologically positive actions. To guide the kids to be responsible for their behaviour, to create positive atmosphere at school, in classrooms and to build up pro – social features and attitudes.

Research probes as a corrective for the teachers' preparation

In order to correct the preparation of teachers, we have introduced research probes that help us to identify typical experiences regarding the environmental issues, mapping the consideration and thinking about the problems about which the teachers and the students communicate most frequently (HORKÁ, BUBELINIOVÁ 2003; HORKÁ, 2007).

For example we refer to categorization of social discourse of the sample studied including teachers and students of pedagogy of infant school, and the topics and the areas that should become a part of the professional preparation of teachers.

Based on the recent data, the results show that the respondents:

- refuse the superiority of man in relation to the environment (so called hard anthropocentrism);
- realize current bad status of the environment, they point out the human ignorance as a major cause;
- stress clear cut dependence of the status of the environment and human health status;
- confirm very important role of the family and the example of parents;
- understand the school as a critical element influencing the relationship to the environment, on the other hand they refuse an immense responsibility of teacher for the pupils' behaviour in the environment and they agree upon the view that the

knowledge about the environmental issues does not guarantee positive attitude towards the nature;

- refer to current status of environment as beyond sustainability, it is no more considered to be without problems and the only solution is to change the attitude toward the environment qualitatively;
- disagree with the opinion that the current generation is less sensitive to the environment and less understandable as well as more utilitary and thus brings about a higher risk;
- that they are not absolutely convinced about the determination of human activities and behaviour concerning the nature, considering the existing behavioral patterns. The only exception is the family. The parents having a strong influence on the future action of their kids and attitude to the environment and the value orientation.

Respondent are not able to comment on certain thesis, thus we conclude that the education in the ecological and environmental area should be focused on the below noted range of problems:

- Ecological ethics. Ethics of sustainable development.
- Value orientation and a variety of aspects of the attitude toward the world of recent man- alternative value to assure sustainability.
- Relation – the individuum and the society (responsibility, decision making, solution of conflicts).
- Social determination of human behaviour in respect to the environment.
- Quality of life, the active interest of the health.
- Values of sustainable development. Voluntary humility.
- Life style. Life-demands. Pro-material and post-material orientation. Dubiousness of strategy of consumer society.
- Social and economical roots of ecological crisis. Economical growth and quality of life.
- Public participation in decision making process regarding the environmental matters (resolution of contentions).
- Personality culture incorporating ecological aspects. Ecosocial competence. Ecological literacy as a complex of competences.
- Ways and limits of ecological education (sphere of school, family, afterschool).
- The influence of family on the development of the relationship to the nature (environment). Generation gap and its influence on the attitude towards the environment.

The correlation between the perception of the health and the protection of the environment has not been confirmed in our further research (HORKÁ, H.; HROMÁDKA, Z., 2008) devoted to the description of perception of the health (students of the Pd F MU have been involved) and the context of environmental issues. A weak association has been shown between the attitude to the protection of the environment and some activities pertaining to the protection of the environment. Most of the students actively participate in assorting the wastes involving three main categories: the glass, the paper

and PET bottles- such a behaviour is referred as so called modest category of the care of the environment. It is not surprising that the students point to the popular waste sorting as a means of care of the environment. The second largest relative frequency is the passive activity including “not making mess”. The third place is occupied by “economical means of transport”, the respondents note their voluntary self- limitation regarding the use of cars. Such an activity pertains to so called “difficult task“ providing the benefits for the environment.

It has been shown that the students highly appreciate their health. Almost half of the respondents have pushed the value of their own health at the top. Healthy nutrition and motion have been shown to be the core activity supporting the healthy life style. The degree of resistance to the smoking has been surprisingly high. The students relate their worries about their own health with the environmental problems (automobile traffic, smog-air pollution, wastes, industry, lack of green zones, noise).

Summary

The ecological/environmental preparation has interdisciplinary character. Integration and synthesis of the knowledge derived from a variety of research areas and passing the barriers in between them require understanding, cooperation coordination and a high standard of ecological culture of personality of university teachers. The responsibility of university teachers comprises the fundamental commitment to implement standards for preparation for ecological education and education for the health.

For the improvement of theory and praxis of education for the health related to the environmental issues we intend to:

- Reconsider the proportions between the education for the health and the ecological/environmental education, concentrate on the theory and methods
- To prepare in cooperation with others a new concept of integrated subject reflecting the question of the health in the full sense of word
- To make the strategy of comprising the activities supporting the health more effective and make them more suitable for everyday life
- To continue research, projects comprising the area of the care for the health and the care for the environment.

ENVIRONMENTÁLNÍ ASPEKTY VÝCHOVY KE ZDRAVÍ V KURIKULU PREGRADUÁLNÍ PŘÍPRAVY UČITELŮ

Abstrakt: Autorka vymezuje a zdůvodňuje strukturu environmentální kompetence v rovině věcné, dovednostní a osobnostní. Vychází z obsahového zaměření způsobilosti k ekologické/environmentální výchově v kontextu výchovy ke zdraví. V dané oblasti výchovy vyvozuje cíle pro přípravné učitelské vzdělávání a opírá se o návrh standardu pregraduální ekologické/environmentální přípravy učitelů. Uvádí výsledky výzkumných šetření, které mapují jednak uvažování a přemýšlení o environmentálních problémech, jednak popisují vnímání zdraví mezi studenty PdF MU v Brně v kontextu problematiky životního prostředí. S ohledem na interdisciplinár-

ní charakter ekologické/environmentální přípravy jsou prezentovány některé návrhy směřující do přípravy učitelů.

Klíčová slova: ekologická/environmentální výchova, výchova ke zdraví, ekopedagogická kompetence, kompetenci environmentální, kompetence hodnotová - ekosociální – životně orientační, cíle ekologické/ environmentální učitelské přípravy

PERCEPTION OF HEALTH IN THE CONTEXT OF ENVIRONMENTAL ISSUES AS A BASIS FOR TRANSFORMATION OF PROFESSIONAL TRAINING OF TEACHERS

Hana HORKÁ

Abstract: *The results of our research of environmental issues including the undergraduate students of primary school are presented. The questions of thrifty life style connected to the support of individual health are discussed. The results presented in our study will create the basis for the formation of a new system of teachers' preparation. It is clear that students perceive the damage to the environment and feel the need to protect it and contribute to the care of the environment. Their interest in the environment as well as the personal engagement are considered as determining factors of optimal health. Mapping of ideation, opinions, attitudes and values can influence the content of curriculum for preparatory and follow – up education of teachers.*

Keywords: *health, environmental education, ecopedagogical/environmental competence, preparation of teachers, curriculum of preparatory education of teachers*

The Staring Points

Competence of a teacher and the ecological /environmental education

Under the influence of ecological / environmental tendencies, which are associated with the fulfilling of the vision of „life in accord with the nature“ and „services in the area of survival“ (for comparison Rýdl, 1999, p. 12), the need of a high quality of complex capability of teachers to carry out ecological/environmental education (ee), referred to ecopedagogical/environmental competence. The subjective dimension of such a competence forms an engaged style of thinking of the world, concept of life, values, attitudes, and live orientation, empathy, interest, cultivated action. It is very close to the competences of values-ecosocial-life-oriented (Horká, 2005, p. 98), which should be the basis of all teachers competences. It is based on a positive conception of correspondence of internal and external world, man and nature, the humans, the nature, the society and the culture and the understanding of reality that any change of the external system (complexion and status of global society) depends on the nature and the existence of individuals. The individuum should comprise the world in order to actively

and creatively participate on its development. Regarding such a ecosocial competence partial elements are derived.

Thus the teacher should be capable to:

- to educate man who has hitherto paradoxically acquired status of creator, guardian and/or destructor
- to contribute to a change of value orientation nowadays, unilaterally and self-destructively focused on prosperity and achievement
- to satisfy more and more obvious human need of spiritual dimension of life
- to influence some unwanted manifestation of the action and behaviour in the context of changing conditions of life (to prevent superficiality, pretences, utilitarianism, tendencies leading to intolerance, irresponsibility, aggressiveness, egoism, indifference, cynism, guide to care for cultural values in contrast to contradictory influences, lures and temptations, to influence the life style, sensitive perception of beauty, growing compliancy of human race to doctrines, including the effect of advertisement, fashion and publicity campaign etc.)

Comprising the above noted facts and in subsequent change of the structure and content of teachers education, our target is to contribute to analysis of problems of teachers preparation based on the concept of health support and sustainable development. (08)

Research examination

The aims of reaserch examination: to carry out description of ideation of students of pedagogy concerning the environmental issues in context of health support with a speacial focus on the below noted areas:

- I. to trace the opinions and thoughts of respondents, related to the relation and behaviour to nature / environment in context of health support, in other words the conceptual apparatus, the respondents dispose of and their ability to apply it in consideration regarding the topics noted, to identify divergent views, or disent angles of views of respondents (for comparison Horká; Bubeliniová, 2004)
- II. attitudes and values regarded by respondent critical for the protection of environment as a basis of the decision making process concerning the matters of the care for the environment, the forms of participation in its protections and ways of decisions and actions in accord with the active support of health.

Methods:

method of analysis of content of students work (essay called Values and environment comprising my life style)

questionary with closed and open points¹

¹ We chose quantitative investigation in which the final information is substantiably reduced. From the questionnaire we choose only several items.

Sample of respondents

46 students of second year-class of pedagogy of primary school of combined study (school year 2004/2005)

163 students of faculty of pedagogy of Masaryk University in Brno (school year 2006/2007)

The results and their interpretation:

Ad I. A significant unit of **the content analysis of students work** is the practice of the care for the environment. The incidence of certain factors are source of recommendations. The content units are referred to analytical categories. Following categories concerning the topic have become crucial for the students: **the protection of environment, childhood and education, future – regarding the next generations, use of nature (positively and critically), values and attitudes to the problems comprising the health and the environment.**

Our interpretation and conclusions oertaining to individual analytical categories are accompanied by authentic comments of respondents in order to make a complex comprehension of their thinking.

Category of environment protection

It refers to the actions the respondents consider to be beneficial for environment/nature. The waste sorting and recycling are dominant activities. The 34 of 46 students states in their essays the importance of the waste sorting (they either sort and recycle the waste on their own or they point out the importance). Saving of energy and water is also a significant sign of the students' sample (24 students of 46).

Examples: „I am learning to spare energy at home, I also pay my attention to waste sorting, even with a significant delay.“ „I am not spending extra half an hour in shower, I don't brush my teeth and keep the tap water running, I sort the wastes partially, I walk, I bike, I go by car sometimes. I pick up paper lying on the street, I don't damage the environment.“

„I try not to waste the energy by reducing excessive lightening at home, I buy the energy saving bulbs.“

„I stick to strict rules regarding the right choice of utensil when making food at home.“

„I placed a paper bag for collection of waste paper in our staff room.“

„I have been trained to put on my plate adequate amount of food since I was small.“

18 of 46 students write in their essays about direct protection of the nature, regarding the care for forest, green zones and landscape (plant saplings, cleaning forest etc, e.g.:

„We started to clean up the forest, and make a pound and a variety of passage ways.“

„...kids take care of the tideness of the forest.“ „I helped to plant saplings...“

„I don't use any poisons and herbicide to liquidate weed. I keep a frog in my sun house, I always bring a small frog in spring and make a small pound. The frog helps to destroy insects. When the autumn is on, the frog leaves for a nearby brook.“

Almost one third of respondents points to the problems related to the use of cars. For example: *„I like to walk, I prefer biking or means of public transport...“ „I use*

public transport and bike.“ „I go to work by bike.“ “It is nowadays impossible to live without car; we have got a car with catalyser.“

The analysis of the above noted life style documents that the selected group of respondents belongs to population with a limited understanding of ecological issues.

Category - childhood and education

24 of 46 respondent appreciate education of their own children or those given to keep **supporting devotion to protect the environment**. 22 respondent remember their first experiences associated with emotional enjoyments during childhood, e.g.:

„My parents has trained me to protect environment since I was a child. The parents were a very good example in this regard.“

„My parents showed me how to love and appreciate the nature in order to enjoy every single plant or animal.“

„...If you dont get the knowledge from adults, it will not come to your mind to try it on your own....“

I teach my daughter not to waste food and water, I try not to waste energy...“

„My three year old son takes for granted waste sorting.“

Category - future – regard on next generations

21 of 46 students noted worries about the future of their own children and (next generation), they also propose possible solutions, e.g.:

„We have just realized that our selfish way of life brought about the damage to environment for generation of our children“.

„Right now while spending beautiful moments in the nature I start to think of the importance of the fact that my son could spend the same moments in the nature as I do.“

„Will there remain a piece of intact nature in a few years?“

Is there any way to sort out this problem? The students propose e.g.:

„Think globally, act locally, change yourself!“

„We could live less consumer life and think more about the future of our children.“

„I have just comprised the value of the above noted and thus I have an uneasy conscience toward my son.“

„In year 1980, region Bile karpaty was declared as protected landscape area. It is very important to save such a landscape for generations to come. We have to start to learn again what we have already forgotten. Namely, it is time to appreciate the nature again and to live in harmony.“

„My friend is an orthodox ecologist.He has not got family and does not wish to set up one. It is no way to load up the Earth which has already become overloaded. There aint point to have children while the air is poisoned by smog and other toxins while tap water is undrinkable. No point....“

Category - friendly use of the nature (in the positive sense of word)

18 of 46 students assesses the significance of the nature from their personal point of view, pointing out the recreational, aesthetic as well as recognition value.

„Regarding the nature we are equal, there aint foreigners or natives, the nature is our

home-place. ““We often spend time in nature, we travel to our cottage, to mountains, rivers... ““we enjoy wandering, sleeping under canvas, camping..... “

„Is there anything more beautiful in comparison to what the nature brings to us? It is enough to slow down and notice the sun sets, the water loquacious in a small brook, such a peaceful and silent evening today?... “

Category health

Following up the context of ecologically sensible, thrifty life style and health support we have concluded that 12 of 46 students explicitly notice the health in their essays. The major feature of their work is the relation of the health and devastated environment and the worries about their own health and the health of their children.

E.g.: „Our health and the health of our relatives are the highest value we possess. Moreover the word association- environment and life style are very closely connected. “

„And I also think that someone who is able to live healthy life and simultaneously sticks to the rules of the environmental protection has approached eco friendly and /or healthy life style. “

....,as we know that every little helps especially concerning the environmental issues and we would stick to such a rule, then there would not be plastic bags and papers flying over our heads instead of kites, there would surely be less allergic persons in our home land. “

It has been shown that our respondents associate „healthy life style“ with „ecological activities“ and thus we can assess their attitude to the health only depending on the frequency of the conception „Health“ expressed in their essays. The threat appearing oftenly in their writings appears to become a style of life damaging to the environment (especially consumption life style).

E.g.: „Most of the developed countries seem to set up the fundamental values including the health, the love and the happiness. “

„Healthy nutrition and food are the milestones of acceptable standard life style. I can't say that I only eat the low calories diet but I am trying to eat regularly, avoid overfeeding and prefer fruits, vegetables, fish and dairy products. “

„I really enjoy sports. “

„I like walking and biking (especially in the nature). “

„I don't smoke. “

„It is a bright idea to develop so called eco-farms. “

Taking into account the answers of our respondents, it is obvious that their life style gradually develops. We can also note the influence of cultural stereotypes especially regarding the family. Our respondents believe that proper education is critical for sensitive and responsible attitude towards the nature. The essential element of the declared qualitative change is not only the perception of our commitments to the nature as we are considered to be a part of it but also the choice of life style compatible with the needs of the environment.

E.g. „Today I can see things I have not seen yet. The birds singing from the spring till the autumn, a green forest, the animals living in there, the mountains, the colourfulne-

ss of the nature and the landscape, the beneficial sun. It is beautiful to be here and to perceive evything around us.“

„I am an outsider regarding the environmental issues, I have never had a chance to encounter it but I love the nature and I am deeply hurt seeing its devastation.“

„I say that people we really are the most stupid living things occupying the Earth. Our action is unbelievable and perplexing. I can notice it not only concerning my surroundings but also on me.“

„(regarding the nature), I have a strong feeling that we approach it as we are absolute rulers of the world.“

Ad II. Descriptive analysis of our questionnaire

Esperimental hypotheses (for our group of students of Pdf MU):

P1: Respondents attitudes towards the environment are rather positive.²

P2: Most of the respondents take part in the protection of the environment somehow.

P3: Most of the respondents highly appreciate the value of their own health.

P4: Most of the respondents attempt to care for their health.

P5: Some forms of devastation of the environment are considered by the students as a substantial threat to their health.

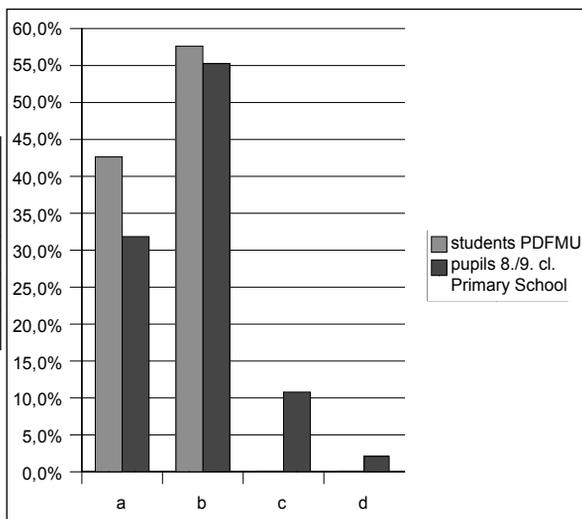
Results

Attitudes towards the protection of the environment

Do You agree upon the below noted statement?

„I want to take part in the protection of the nature“.

Students of Pdf MU; 160 valid respondents		
a	Definitely yes	42,5 %
b	Rather yes	57,5 %
c	Rather no	0,0 %
d	Definitely no	0,0 %



² In this investigation it is fundamental that attitude as a construct “can not by directly observed but we can infer it from the behaviour and expressed opinions“ (Jandourek 2001, p. 189). The construct attitude is explained in the context of evaluation. “Relationship to values is the content of attitudes; attitude to something – and the object of attitude can be anything – expresses the evaluation of the object by the subject which ranges from absolutely positive to absolutely negative relationship, i.e. e.g. a total agreement or disagreement with a statement“ (Nakonečný, 1998, p. 118.).

Do You agree upon the below noted statement?

„I want to live in an environmentally friendly way.“

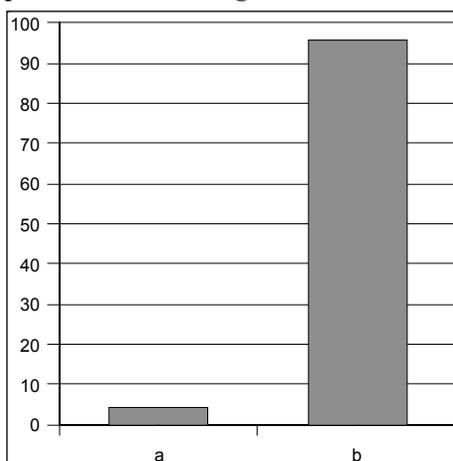
a	Definetely yes	43,6 %
b	Rather yes	55,2 %
c	Rather no	1,2 %
d	Definetely no	0,0 %

It seems that the students involved in our study are capable to protect environment. Their attitude towards the participation in the protection of the environment is positive and more obvious than the group of pupils of basic school.

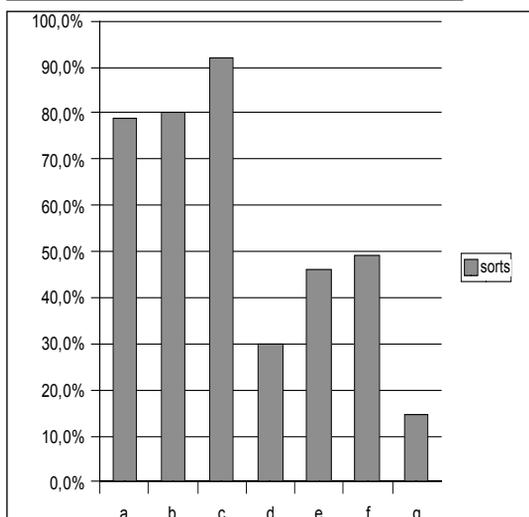
Participation in the protection of environment

It has been inquired whether the respondents are assorting the waste and which type.

Students of Pdf MU; 163 respondents		
a	Non-sorting	4,3 %
b	Sorting	95,7 %



Types of sorted waste		
a	Glass	79,1 %
b	Paper	80,4 %
c	PET – bottles	92,0 %
d	Other material plastic	30,1 %
e	Metals	46,0 %
f	Dangerous waste	49,1 %
g	Miscelaneous waste	14,7 %

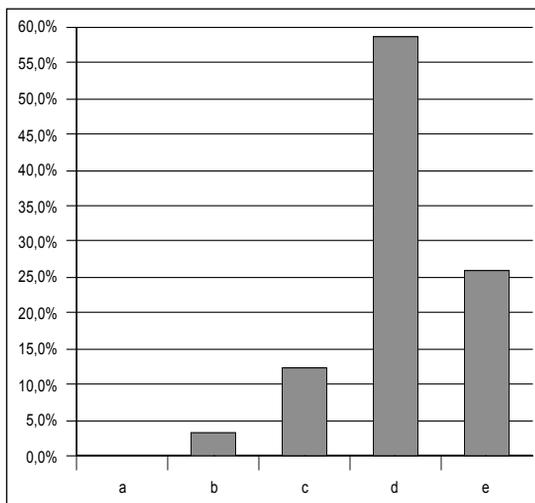


Most of the students actively take part in sorting waste including three main categories: glass sorting, paper sorting and very popular PET-bottles sorting. It corresponds with the trend appearing in Czech Republic wherein the number of people sorting waste steadily increases due to a general awareness of possibilities and reasons for recycling. Waste sorting has gradually become a social standard. Not sorting waste is considered to be embarrassing (it is also due to a mass advertising).

The degree of approval of the statement shown on the interval scale noted below:

„I consciously buy eco - friendly products, especially concerning their economical manufacturing.“

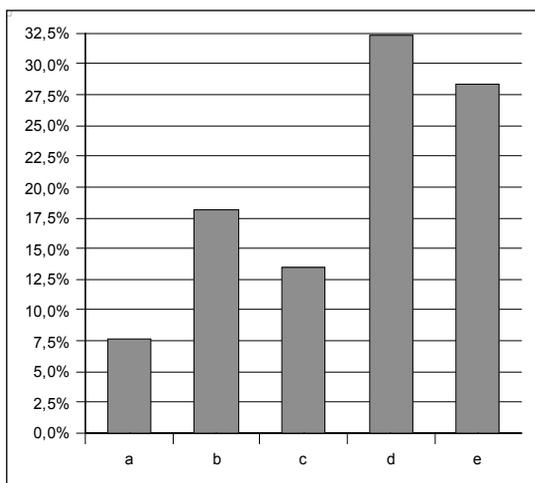
Students of Pdf MU; 162 respondents		
a	Permanently	0,0 %
b	Very often	3,1 %
c	Oftentimes	12,3 %
d	Sometimes	58,6 %
e	Never	25,9 %



The degree of approval with the below noted statement shown on interval scale:

„I consciously use the cosmetics I am sure about that it has not been tested on animals.“

Students of Pdf MU; 162 respondents		
a	Permanently	7,7 %
b	Very often	18,1 %
c	Oftentimes	13,5 %
d	Sometimes	32,3 %
e	Never	28,4 %



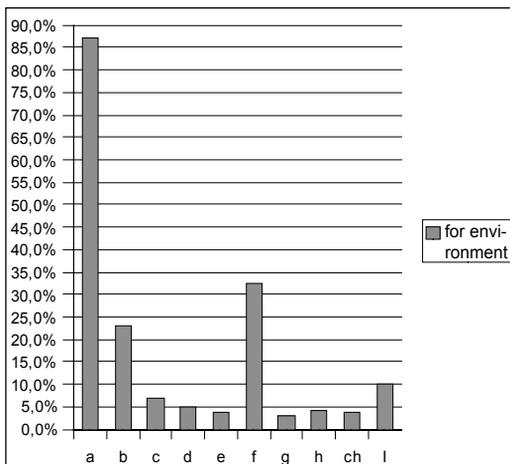
We have also been interested in the status of our students as consumers. Beside waste sorting which belongs to so called „modest category regarding the care for environment“³1, we have also evaluated students' preference and searching products not affecting environment or are thought to bear a lower risk to the environment in comparison to the other ones.

We have been rather interested in the students' views reflecting the degree of their participation in the care for the environment in a particular area. It has been shown that in the case of the preference of eco - friendly products the results obtained are worse than those reflecting the waste sorting.

Students preference for the products declared not to be tested on animals pertains to the matter of ethics rather than the care for the environment. Nevertheless, it is associated with basic value declaring „the respect for life“ thought to be a critical poin of the theory of ecological ethics (for comparison Kohák 1998). In spite of the fact that the students were „lukewarm“ regarding this matter, 7.5 % of them have *permanently* consciously used the cosmetics without being tested on animals. Moreover 18.5 % of them have declared to use such a cosmetics *very often*. There has been one vegetarian involved, the rest of the students have been non-vegetarians. It is an important fact regarding the respect for life.

Open file: “What are you doing for the environment?”

Students of Pdf MU 161 respondents		
a	Waste sorting	87,0 %
b	Economical mode of transport	23,0 %
c	Sparing energy	6,8 %
d	Sparing water	5,0 %
e	Individual activity in nature	3,7 %
f	Not making a mess ⁴	32,3 %
g	Preference for bio-products and food made in an eco-friendly way	3,1 %
h	Preference for products made in a way not damaging environment	4,3 %
ch	Sparing the plastic bags	3,7 %
i	Miscellaneous	9,9 %



Regarding the above noted results it is very important to stress that it is an open point. In other words it has been formed on the basis of authentic answers of our respon-

3 G. Pfligersdorffer (1993) differentiates one area of human behaviour in favour of environment connected with shopping and waste sorting („a modest category“) from another area of behaviour related to transport („a more difficult task“).

4 This category involves a variety of ways of not making a mess comprising- the litter belongs to a dustbin only, I don't wash my car in nature, the litter does not belong to forest ...

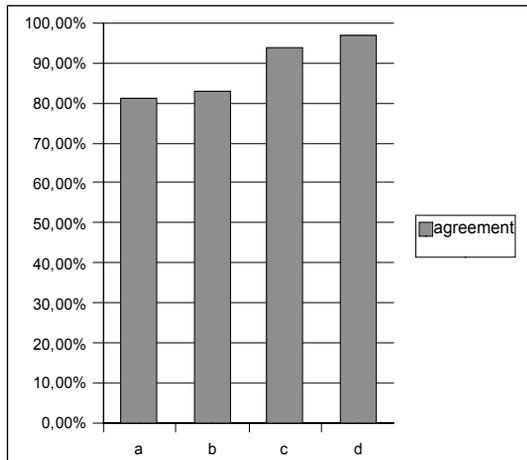
dents. It is not surprising that the students are prone to sort the waste. The second place on our scale belongs to passive activity described as „not making a mess“. The third place is surprisingly devoted to an „eco friendly ways“ of transport comprising intentional limitations of the use of personal cars. Such an activity belongs to so called „more difficult taskŰ in the frame of the care for the environment

Individual care for health

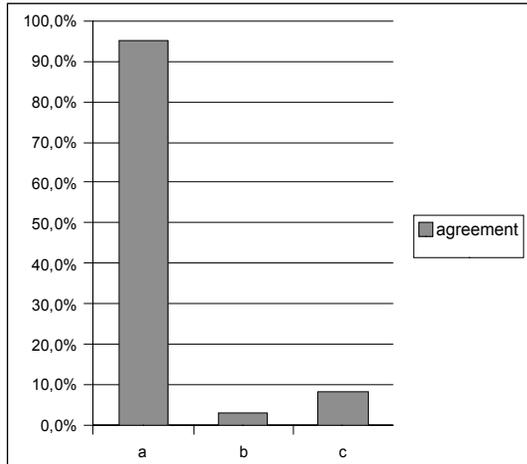
The below noted table (and diagrams) express the relative frequencies of agreement (disagreement) upon the statements. For the sake of clarity, originally ordinal variable were transformed into the dichotomic ones. Particular elements involved in the below noted tables are dealing with possible modes of care for individual health.

Abbreviation „S“ refers to statement

Students of Pdf MU; 160 respondents		
a	S: I am trying to eat in a healthy way	81,2 %
b	S: I am trying to keep an adequate water intake	82,8 %
c	S: ⁵ Moving is very important for me.	93,7 %
d	S: Adequate sleeping is important for me	96,8 %

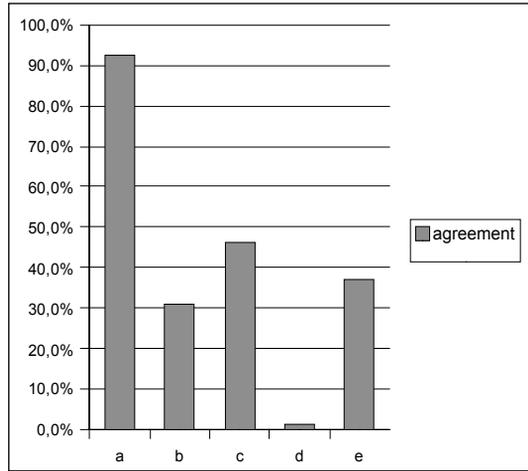


Students of Pdf MU; 135 respondents		
a	S: smoking is dangerous	95,1 %
b	S: cigarette smoking is acceptable	3,1 %
c	S: smokers are more popular than non smokers	8,1 %



⁵ The file body movement comprises – exercises, long distance walking, biking and active sports.

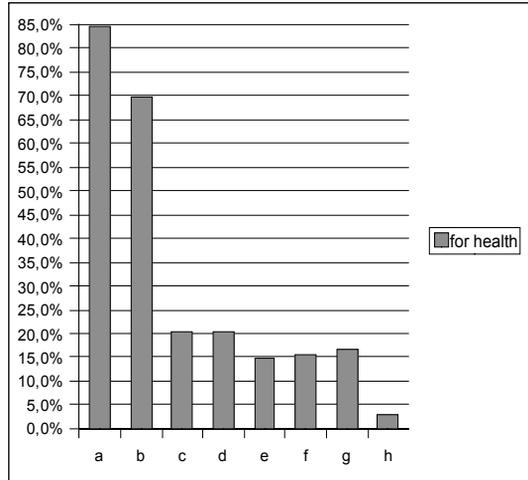
Students of Pdf MU; 153 respondents		
a	S: Occasional alcohol drinking is acceptable	92,6 %
b	S: Regular alcohol drinking is acceptable	30,8 %
c	S: Use of soft drugs is acceptable	43,1 %
d	S: Use of hard drugs is acceptable	1,2 %
e	S: Smoking of grass is nowadays considered normal	37,2 %



We are aware of the fact that the indicators of the care for individual health are not complete. Thus we have made it possible for our respondents to clarify the care for their health by adding an open point to the questionnaire.

What are you doing for your health?

Students of Pdf MU; 161 respondents		
a	Movement	84,5 %
b	Healthy nutrition	69,6 %
c	Resistance to addictive substances	20,5 %
d	Intake of water	20,5 %
e	Psychic wellness	14,9 %
f	Enough sleep	15,5 %
g	Walking in nature	16,5 %
h	Doing nothing for health	3,1 %



It has been shown that students care for their individual health by means of **healthy nutrition and movement**. It has been surprising to find a relatively high resistance to smoking. Aside from the number of the smokers involved in our study, the attitude towards smoking is clearly negative.

„Intersection“ of care for health and environment

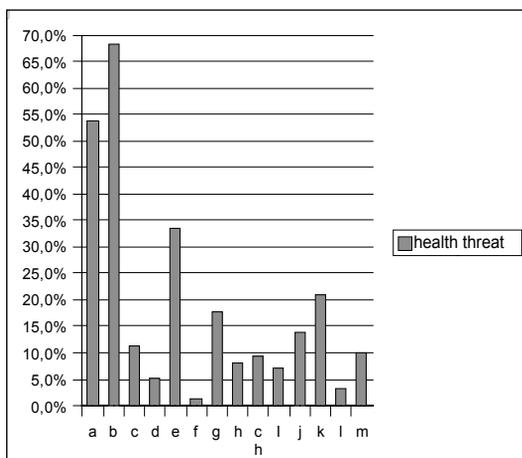
The nutrition represents an interesting construction of thinking about the intersection of the categories „care for health“ and „care for environment“. Regardless of

other ethical dimensions the vegetarian diet represents the safest way of nutrition energetically and environmentally. We did not identify any respondent who could fit such a criterion.

Regarding the global burden on environment the production of food is very troublesome especially due to the fact that the international corporations providing so called fast food services are responsible for wasting of resources, energy, disregarding the environment not only during the production but also during the distribution (srv. Keller 1995). Our results show that even though the selection of a place for food was fully dependent on the student's decision, the choice of Mc Donalds (or KFC) was only acceptable for 0,6 % of respondents (on contrary the above noted choice was supported by 25,3 % of pupils of eight and ninth school year of basic school in Brno). Modal category is simply represented by „eating at home“ (71,6 %). The food originating from the fast food restaurants is actually designated to be a „threat to health“ for 10 % of our respondents who commented on an open point in our questionnaire.

„Comment on a potential health threat to your life in a city“

Students of Pdf MU; 158 respondents		
a	Automobile transport	53,8 %
b	Smog – air pollution	68,4 %
c	Crime – violence	11,4 %
d	Infections	5,1 %
e	stress – flurry	33, 5%
f	Obesity	1,3 %
g	Wastes – contamination	17,7%
h	Lack of movement	8,2 %
ch	Drugs-addictive substances	9,5 %
i	Industry	7,0 %
j	Lack of green zones	13,9 %
k	Noise	20,9 %
l	Xenophobia, racism	3,2 %
m	Fast food	10,1 %



We have made following categories reflecting the answers of our respondents: *automobile transport, smog-air pollution, crime-violence, infection, stress-flurry, obesity, waste – contamination, lack of movement, drugs - addictive substances, industry, lack of green zones, noise, category comprising xenophobic expressions, fast food.*

We conclude that the core of our investigation is the fact that our respondents connect the worries of their own health to the environmental issues (*automobile transport, smog-air pollution, wastes-contamination, industry, lack of green zones, noise*).

The most significant categories regarding the relative frequencies are smog-air contamination (68,4 %) and automobile transport (53,8 %)⁶

It has been shown that our respondents associate the automobile transport and subsequent air pollution as potential threats to human health. It is not surprising that the emission arising from the public transport (especially microscopic particles of pollution enriched by exhaust gas) represents a real and serious threat to human health. Thus the natural human need to breathe a fresh air has become very troublesome in urban areas.

Relational analysis of questionnaire examination

Hypotheses: (related to our group of students of PdF MU)

H1: There is a relationship between the attitude to individual health and the attitude to the protection of environment

H2: Our respondents who highly appreciate their own health intend to participate in the protection of the environment.

H3: Our respondents stressing the threat to the health arising from automobile transport intentionally choose a more economical way of transport

H4: There is a relationship between the attitude to the protection of environment and authentic activity in favour of the environment

h1⁷: There is a relationship between the attitude to the protection of environment and „a variety of ways of waste sorting“⁸.

h2: There is a relationship between the attitude to the protection of environment and the preference of economical mode of transport.

h3: There is a relationship between the attitude to the protection of environment and the preference of products which are considered to be eco friendly.

h4: There is a relationship between the attitude to the protection of environment and the preference of the cosmetics without animal testing.

H5: There is a relationship between the preference of cosmetics which has not been tested on animals and the products made in an eco friendly way

For determining the avidity between the variables while testing the hypothesis we have chosen appropriate summarising statistical methods (association and correlation coefficients) depending on the type of a variable (ordinal, nominal) and on the number of variants of variables.

Regarding the hypothesis H1, H2, H3 and the partial hypotheses h1, h2 pertaining to the hypothesis H4 we have not proved that any relationships between the variables.

⁶ For comparison we present results belonging to a study made on pupils of basic schools –eight and ninth school year“: smog and air pollution perceived as a health threat by 53,3 % (of 246 respondents), cars (automobile transport) is considered to be a health threat by 43,3 % (of 246 respondents).

⁷ In accord with a recommendation (Pelikán 2004) we formally divided the hypotheses into two categories: the main (e.g. H1) and the accessory (e.g. h1).

⁸ Nowadays separating waste seems to be a social norm as shown by the result of the descriptive investigation in the item 7 (“Do you separate waste?”) - 95.7 % answered yes. In this sample, however, there are differences in the number and sort of waste the respondents separate.

There is a weak correlation ($T_c^9 = 0,31$) concerning *the relationships between the attitude to the protection of environment and the preference of the products which are considered to be friendly to the environment*. (partial hypothesis h3 pertaining to hypothesis H4). A weak correlation ($T_c = 0,22$) has also been found in the case of *relationship between the attitude comprising the protection of environment and the preference of the cosmetics declared not to be tested on animals and preference of the products made in an eco friendly way* (partial hypothesis h4 of the hypothesis H4). Almost a 50 percent correlation ($T_b = 0,47$) has been shown between variables: *the cosmetics declared not to be tested on animals and the preference of the products which are produced in an economical way protecting the environment* (hypothesis H5).

In the frame of the relation part of our study we have not proved any relation between the attitude regarding individual health and the attitude towards environmental issues. A weak relation has been shown between the attitude to the protection of the environment and some forms of action comprising the environmental issues.

Summary

The results presented in our study will be used for the formation of systematical preparation of teachers. It is obvious that students perceive the damage of the environment and are in the need of its protection and active participation in the care for the environment. The interest in the environment and the personal engagement are considered to be determining factors of optimal health. The worries of our respondents about the health potentially becomes a strong motivation for the change of the behaviour in favour of the environment.

Identification of the content unit, analytical categories and their comparison with professional discourse of environmental issues reflecting the context of the health support reveal possibilities of influencing curriculum of preparatory education of teachers. The validity of systematical formation of teachers competence of healthy life style and competence of universal view/ cultivating personality which influences the value system of students has been confirmed. Thus, it is necessary to harmonize the system of teachers' preparation and the concept of health support and sustainable development in order to create a multidisciplinary and complex conception enabling the understanding of the knowledge and its application in a complex framework, systematically, supporting the knowledge of relationships and providing a deeper spiritual ankering.

In accord with the fact that the ecological education pertains to cross-curricular topic, it affects the work of teachers of all subjects. The need to make their professional preparation (either undergraduate or postgraduate) more effective is obvious. Similarly, overcoming the informative, non appelling concepts as well as those isolated from receivers and their local or regional possibilities and needs. We cannot manage without properly prepared teachers who are able to train others how to learn properly.

9 This symbol refers to correlation coefficient Kendall tau-c used to measure the avidity of relation between ordinal variables for rectangular table (Kendall tau-b for square table).

VNÍMÁNÍ ZDRAVÍ V KONTEXTU ENVIRONMENTÁLNÍCH TÉMAT JAKO VÝCHODISKO PRO ZMĚNU PROFESNÍ PŘÍPRAVY UČITELŮ

Abstrakt: Stat' prezentuje výsledky výzkumu se studenty učitelství 1. stupně ZŠ o environmentální problematice – konkrétně o otázkách ekologicky šetrného životního stylu v kontextu podpory zdraví. Prezentované výsledky šetření budou použity k vytváření systému učitelské přípravy. Lze počítat s tím, že studenti vnímají poškození životního prostředí, mají potřebu jej ochraňovat a podílet se na péči o životní prostředí. Zájem o životní prostředí a osobní angažovanost jsou považovány za určující činitele optimálního zdraví. Zmapování myšlení, názorů, postojů a hodnot může ovlivnit obsahové kurikulum přípravného i dalšího vzdělávání učitelů.

Klíčová slova: zdraví, environmentální výchova, ekopedagogická/environmentální kompetence, příprava učitel, kurikulum přípravného vzdělávání učitelů

BIOLOGY AND HEALTH EDUCATION

Boris RYCHNOVSKÝ

***Abstract:** The present contribution specifies the share of biological disciplines in health education. Anthropology and Physiology of Animals are considered most supportive in that context. The other subjects (Zoology, Botany and Microbiology) are assessed with regard to their positive and negative effects. In the work wide author's pedagogice experience from university lecturing are used.*

***Keywords:** school, biology, health education, physical training*

1. Introduction

Health has generally been understood as the highest value of human being – the more so in the elderly age when the people realise its relevance (and “value”) on the basis of personal experience. On the contrary, the younger population does not take the notion of responsibility for own health as so important. Young people take health for granted, as something possessed by most. Despite that health of the society, of the individuals, may be disintegrated by the many social, environmental and other impacts. For that reason countries with advanced human culture have taken increased care of human health recently, taking various forms, whether health support, health education or other.

The fact is that the modern lifestyle accentuates human health concerns. This is largely contributed to by child upbringing and education both at home and at school, too. And as a consequence of his focus people often fail to recognise or often even deny procedures aimed at achievement of the goal.

2. Health Education at School

The framework curriculum for primary schools is divided into various **areas of education**.

One of them, applied on the junior level, is “**Man and Health**“, with subjects Health Education and Physical Training. In addition another area of education, “Man and the World” (only conceived for the elementary level) defines the educational content of health for the relevant age and on the relevant level. Education in this area focuses on creation and development of key competences of the pupils (Jeřábek, Tupý, 2004). Some of them are supported and developed further by the taught subjects included in other areas of education.

One such subject is represented by **Biology** on the junior level of primary schools or in the lower forms of grammar schools, i.e. on the level of secondary education. The biological disciplines are included in the educational area called “Man and Nature”. The direct relationships between the biological disciplines of Biology and the target of the educational area “Man and Health” concern

- Cognition of man as a biological individual dependent in the individual periods of life on the way of conduct and decision making, on the standards of human relationships and on the quality of the environment
- Acquisition of basic orientation in the opinions on what is healthy and what can contribute to good health and what on the other hand damages or directly threatens health

In addition to direct relationships other targets of this educational area may be supported, including:

- Understanding of health as a balanced state of physical, mental and social well-being and perception of the positive experiences of activities supported with physical exercise, nice environment and the atmosphere of positive relationships
- Links between human health and healthy human relationships and basic ethical and moral positions, will, efforts etc.

3. Biological Disciplines at Pedagogical Faculty of Masaryk University and Health Education

Likewise teaching of biological disciplines at the Pedagogical Faculty of Masaryk University develops and supports the target orientation and the defined and expected outputs. Students meet with the relationships between organisms and their effects on human health throughout the teaching process in the context of different theoretical and practical biological disciplines. Yet other subjects deal with the issue of optimisation of condition for human life functions and human evolution. They support awareness and optimisation of life processes, physiological normalities, thus codifying the health state as such. The last area is represented by subjects using and supporting health and healthy lifestyle by one of their attributes. The attribute need not always be emphasized, but its going without saying and its acceptance by the students may cause further deepening in the teaching process at primary schools.

Taking the above defined point of view the overlaps between biological disciplines and health education and healthy lifestyle can be classified as follows:

- A) Essence of health** – subjects describing natural features, phenomena and functions of the human organism with an emphasis on risks (Anthropology, Physiology of animals and humans).
- B) Negative and positive effects on health** – subjects dealing with descriptions of organisms, their features and bionomics (way of life in relation to the environ-

ment) with an emphasis on their overlaps with and potential effects on human health (Rudiments of biological studies, Botany, Zoology, Ecology, Physiology of plants, Microbiology, Integrated scientific basis for elementary teaching, Basics of biology). The list indicates various problem interactions with health issues.

C) Support activities for healthy lifestyle – subjects of biological and integrated orientation with elements of stay and exercise under natural conditions of the studied ecosystems of various biological orientations – field exercise with professional and combined contents (Field exercise – botany, zoology, Complex field exercise, Complex international field exercise, Integrated field basics /field exercise/, Integrated field education, Integrated international field practice, Nature protection). These subjects are generally related to stay in the open air.

Add A) Subjects dealing with essence of health

The issue of study of man as a biological being is represented by the biological subject of Pedagogical studies at Masaryk University called **Anthropology**. The subject provides a morphological and anatomical image of the whole and the individual anatomies and their functions and deficiencies. Most functional phenomena with substantiation of their progress and pathological deviations are pre-studied generally in the summary **Animal physiology**. The general studies pay great attention to human themes. Students get knowledge of physiology of nutrition, immunity of the organism, ideal functions of systems and their effects on health. It may be said that like both the biological disciplines and the teaching subjects deal with the issues of optimum functioning of the human as a whole. They also point to various disorders connected with pathological conditions. This makes them very relevant for building solid professional theoretical foundations further affecting the study of individual and population health.

Add B) Subjects dealing with effects on human health

The obtained basic orientation in the processes supporting optimum functions of the human anatomical systems and the human organism as a whole is further extended with studies of the positive and negative effects of other organisms or the environment on human health.

Primary knowledge of the essence of the existence of different organisms and their biological and environmental diversity is obtained in the context of the subject called **Rudiments of biological studies**. The purpose of the subject is unification of the level of knowledge and provision of the basic idea of the living matter, its evolution and organisation with an emphasis on practically positively and negatively relevant organisms subsequently being only subject of secondary interest (for the reason of the practical needs of primary education). These include non-cellular organisms – viruses and prions as major pathogens relevant for human health. The subsequent domain of Bacteria is characterised not only with regard to its pathogenic representatives but also with regard to the useful bacteria used in practice. The bacteria relevant from the practical point of view include the “green” Cyanobacteria whose life is supported by waste produced by advanced human civilisations which they use as their nutrition. The consequences of the resulting eutrophication of water reservoirs on rivers may be documented by the exam-

ple of the Brno dam lake. The evaluation of cost intensity and success of the remedial measures is the question of the future.

Health aspects of human population are also tackled by other biological disciplines taught at the Pedagogical Faculty of Masaryk University, such as **Botany** and **Zoology**. Each of them deals with the issue of dangerous and poisonous organisms from a different point of view. A significant view of the possibility of damage to human health is represented by poisonous plants and fungi consumed by humans. Both primary and university education pays great attention to poisonous plants and fungi with the aim to reduce or eliminate poisoning by poisonous substance intake. Plants damaging human health by ways other than nutrition are paid much less attention. And yet this area also includes very significant health effects, for example represented by the widely discussed invasive plants (such as hogweed). As for animals the issue of damage to health is not that specific – their dangerousness is assessed with regard to intake, pathogenic vectors (diseases) and last but not least with regard to mechanical damage to health by physical attack. Regarding the future low practical relevance for primary teaching information about protozoan in general and pathogenic protozoan in particular are part of Zoology of the invertebrates.

In addition some attention is also paid to the positive effects of plants on human health – production of needed substances defined either as necessary, such as vitamins, or beneficial, such as healing plants – dealt with by **Plant physiology** with overlaps to medicine. Production of directly beneficial substances by animals is again obscure. The issue of positive and negative effects on human health is also emphasized in the context of the subject of **Microbiology**. Partial issues are also defined with regard to the target organisms (mostly human) in the above subjects. Even though the issues of pathogenic viruses and bacteria are more generally known and presented, the positives of the opposing production of medicines (such as antibiotics) cannot be neglected.

The issues of the health of human population in general and individuals in particular are also subject of secondary interest of many other biological disciplines such as **Ecology**. In this area the main health concern is represented by spread of organisms, especially those dangerous for human health. These and many other concerns, including pollution, are generally encountered by all students of the Pedagogical Faculty of Masaryk University in the context of the subject of **Environmental studies**. The effects of the environment on human health are dealt with by another contribution (Rychnovský, *ibid.*).

The teachers of the department of biology also teach students of other subjects. Preparation of teachers at primary schools includes the theme of organisms and health and the issue of hazardous plant relationships in the **Integrated rudiments of science** (IVZ 1 – 3) and the related **breeding** disciplines. Considerable attention is paid to various categories of dangerous domestic plants and plants introduced to the nature and to the households (household plants): there are injuring plants (with thorns etc.), allergenic plants in the nature, in the household and in schools as well, which are introduced to the students with the aim to minimise their negative impact on the health of school children. The group of allergenic plants mainly includes contact and inhalation allergens, and secondarily also oral (food) allergens and phototoxic allergens. Detailed attention is paid to poisonous plants, fruits and fungi in our nature. The necessity of this focus is supported by the frequent poisoning of non-knowledgeable mushroom pickers with poi-

sonous mushrooms every year. Despite all the declarations encouraging people to pick only mushroom they know all school and off-school education seems insufficient.

The subject **Basics of biology** includes comparable issues to the Rudiments of biology. The main difference lies in the classification: This subject is included in the curriculum “Teaching of professional subjects at primary and secondary schools – specialisation commerce and services” in the context of the combined studies (with the former more fitting title “masters of vocational training”). Basic information about pathogenic non-cellular and procaryotic organisms as disease vectors continues with characteristics of poisonous animals with an emphasis on those commonly occurring in our country. The subject also includes assessment of hazardous plants both in the nature and in the school buildings. Education about poisonous mushrooms goes without saying.

Add C)

Another aspect of health education is represented by the hereditary necessity of physical activity. This is addressed by instructions for physical activities outside biological studies. Despite that our and other subjects focusing on natural sciences can contribute by application and deepening of field activities. Field activities deepen, test and extend theoretical knowledge. They are particularly fitting for the modern use of untraditional teaching means and methods. In addition to the abovementioned main aims they also have secondary effects, which may be defined as health effects: Normalisation of body functions in the context of physical activities opposed to theoretical teaching connected with still sitting in the classroom, improvement of fitness of the students and teachers and thus support for overall health state. Practical field activities are included not only in the subject of Biology for primary schools but also in other programmes such as Geography for primary schools.

Selection of teaching aids should be based on the assessment of their purposefulness – the current trend of the modern society consisting in introduction of electronic devices and virtualisation of teaching aids must also be assessed in this context. When conceiving teaching procedures of the virtual textbook for field activities at the Integrated Field Activity Centre at Jedovnice we in a particular moment gave preference to traditional methods of field work in the form of various methods of material acquisition and subsequent determination with the help of a book, abandoning the concept of the virtual textbook containing images of organisms of the individual ecosystems. The clear objective is to support a positive approach to the nature connected with physical activities and not the physically inactive studies of computer images (Rychnovský 2008). The trends of field studies in the nature connected with physical activity are also introduced to our students of other subjects traditionally taught in the classroom (such as Zoology, Botany). And as we have found out, our students then further take this experience with them to schools and apply it to their own teaching practice at primary schools. The abovementioned concept of practical teaching in the nature has also been applied to the optional subject of Nature protection.

This is the question of further education and offer of alternative teaching methods – although physical activity is strenuous and sometimes hurts, later pains caused by health problems resulting from lack of physical activity may be even worse. Blahut-

ková, Höfer (2006) document that the change of the approach to physical activity may motivate the youth to take physical activity as a lifestyle phenomenon. To that effect untraditional teaching methods must include elements of physical activity for healthy lifestyle. The involvement of and emphasis on physical activities and knowledge of proportionate and healthy nutrition in the abovementioned subjects (Physiology of human) is another contribution to the educational area of “Man and health”. Our assumed intention (emphasis on field biological activities connected with physical activity of our students transferred by them to their own teaching practice at primary schools) has already been tested successfully. It has been confirmed that our students educated in this way have been keener to organize field activities for their pupils at primary schools. In this way we indirectly support healthy lifestyle not only of students of Pedagogical Faculty of Masaryk University but also of pupils of primary schools. And yet we are aware that only supportive effect is possible - we also consider our negative experience in organisation of many other field practices (including international) in attractive environments: the minimum participation of students can be explained both by their lack of professional interest and by their unwillingness to take the physical strain and discomfort.

The subject of Teaching at elementary level of primary schools awakes interest in natural phenomena by integrated field activities focusing, like in the case of professional subject students, on professional work with the secondary aim defined for field activities of professional studies.

4. Conclusion

Biological disciplines show an undisputed effect on formation of a professionally correct view of health education. They directly deal with the basic physiological and pathological progress of functions of the anatomical systems resulting in the overall manifestations of the human organisms as a whole. Another focus of the individual professional disciplines is the clashes of life manifestations of living organisms with human life functions and their effects on humans and the options of utilisation of other properties. Alternative teaching methods help build a positive relationship to physical activity.

BIOLOGIE (PŘÍRODOPIS) A VÝCHOVA KE ZDRAVÍ

Abstrakt: Příspěvek specifikuje podíl biologických disciplín na výchově ke zdraví. Jako výrazně podpůrné hodnotí předměty Antropologie a Fyziologie živočichů. U ostatních (Zoologie, Botanika a Mikrobiologie) hodnotí pozitivní i negativní vlivy. Ve studii autor využívá svých zkušeností z práce vysokoškolského učitele.

Klíčová slova: škola, Přírodopis (Biologie), výchova ke zdraví, tělesná výchova

THE ECOTHERAPEUTIC POTENTIAL OF NATURE AND TAKING CARE OF ONE'S HEALTH

Hana HORKÁ, Zdeněk HROMÁDKA

Abstract: *The authors focus on improving the quality of life by renewing the relationship between humans and nature in terms of its ecotherapeutic potential. The positive influence of nature on physical and mental health is examined in the context of environmental education and health education. The authors relate the individual components of ecotherapy to the development of ecological feeling, ecological thinking and learning to search for the meaning of life. To illustrate, they present the results of a study exploring how students studying to become teachers of the first five years of primary school associate taking care of one's health with relaxation in a natural environment.*

Keywords: *quality of life, environmental education, ecotherapy, forms of ecotherapy, ecotherapeutic potential of nature, perception of nature, relaxation in nature, taking care of one's health, health education*

About the quality of human life

Quality of life is the fundamental dimension of human existence. It is the right and responsibility of every civilized person; their everyday behaviour shows the quality of his/her life. According to the World Health Organization quality of life means “*an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.*” (WHO QoL Group, Geneva 1993). This concept is comprehensively influenced by the physical health and mental state of a person, the level of his independence and relationships to significant features of the environment. Quality of life is threatened by the modern way of life and the conditions in which a person lives. Among reasons, we find not only the ecological dangers of the world, but also “*the inability to relax, regenerate mental and physical powers (we sleep about 20% less than at the beginning of the 20th century)*” (ZELINA, 2001, pg. 41). Technological progress, various telecommunication and information technologies certainly make human life easier to a certain extent, but on the other hand they also cause stress. The busy life of civilized society is

a source of constant mental and physical tension. It is possible to minimize the harmful effects of stress, mental and muscular tension by relaxing.¹

The subject of our interest is relaxation in nature, or the therapeutic potential of nature as a current and timeless topic, which is connected to and, to a certain extent, conditioned by the relationship a person has to nature and the environment. We would like to contribute to the ongoing discussion about the change of the man–nature relationship in ecopedagogical publications, which is mostly referred to in the context of the goal of “contributing to considerate and economical behaviour towards the environment”. In our case we would like to point out that it is necessary to renew a relationship to nature as a therapeutic factor.

According to J. Krajhanzl the so-called “personal characteristics of one’s relationship to nature” illustrates what relationship to nature a person has. It reflects the way in which people deal with nature and the environment (environmental needs and attitudes) while also taking into account their spiritual potential (capabilities). The author clearly defines the characteristics in the five following areas: 1. the need to connect with nature; 2. certain abilities to connect with nature – performance focused and connected with proficiency and resistance; 3. environmental sensitivity representing the difference of how “deeply” people experience their contact with nature, their observation and responsiveness to nature; 4. ecological awareness²; 5. a person’s attitude to nature (master, steward, partner, religious, hostile and the like. (see e.g. Franěk); whose core characterizes the subdimension of dominance and submission towards nature, kinship (affiliation) and enmity (hostility) towards nature. These areas correspond to environmental education and its contents on the cognitive, affective and psychomotor levels. From a pedagogical point of view, it is important to take into consideration that environmental behaviour also influences a person’s other mental processes, features, characters and states that are directly focused on nature (extra-human world) and environment (e.g. “*adaptation to the environment, proficiency to cultivate potatoes, existential anxiety in the face of the ecological crisis, an animistic perception of nature at the pre-school age, anger with the architects of forest clear cuttings...*”)“ (cp. KRAJHANZL).

Nature as a recreational environment or the (eco)therapeutic potential of nature

The personal characteristics of one’s relationship towards nature is reflected in the approach to taking care of his/her health, in our case in the approach to the acceptance of the extra-productive function of nature; that is, of its curative effect on

1 Most of all, this concerns relaxing the striated skeletal muscles, which contract and shrink under our voluntary control. Thanks to perfect relaxation we contribute to higher and more effective working productivity of not only the individual muscles, but also the psychological side and, in fact, the whole body. Conscious relaxation initiates regeneration processes that take place in the muscles and that, aside from renewing energy, remove toxic waste substances formed during metabolism. Regular relaxation stalls and slows down aging of the whole organism and positively strengthens a person’s state of mind.

2 According to J. Krajhanzl, a person with a low ecological awareness to the protection of nature is “*indifferent and uninterested*”. In worse cases he can actually be sharply opposed to environmentalism. What is certain though is that he does not think twice when doing activities that damage and destroy the environment.”

a person at the therapeutic, relaxation and recreational level. Our surveys of children and young people have shown that nature is perceived as a place for various activities (from excursions into nature to taking care of plants and animals); as a place with beneficial effects (there one can find quiet, calm, comfort, fresh air, greenery, etc.), and we therefore rest, relax and gather strength there. It is commendable that respondents are aware of nature's function in ensuring not only the biological, but also the spiritual and psychological integrity and reproduction of a person, and that nature takes care of not only "a healthy body but also healthy soul, and along with an adequately extensive culture it also develops one's biologically given humanity." (ŠMAJS, 2005, pg. 93)

The ecotherapeutic potential of nature

Nature fulfils a visual quality that is typical for a recreative environment. Kaplan and Kaplan (1989) mention *fascination* (through natural appeal and attractiveness), *complexity* and *coherence* (composed of many diverse elements that match one another) and *extent* (making it possible to conceive space and its continuation). Nature is able to awaken the imagination and feelings that can strengthen and cleanse us. They discuss the ecotherapeutic potential of nature, because the natural environment can positively support the therapeutic process.³

Ecotherapy aids in elevating a person's quality of life by actualising his relationship to nature "not only in the sense of the object outside the person, but also as an actual 'source' of his own biological existence, involving, thus, even his 'psychological and social existence'" (VALENTA, 2008). According to Jordán (ROE, 2008), ecotherapy is established on the awareness of the beauty and spirituality of nature as a therapeutic resource; on using the time spent outdoors and activities done in wide-open spaces also in the area of environmental protection or cultivation for therapeutic purposes; overcoming the anxiety caused by environmental threats.

Ecotherapy happens in various forms – from a client's relatively solitary contact with the natural countryside (from their walks to deserted places, to challenging 'outdoor' types of visiting the outdoors) to 'gardening', painting, taking photographs or tending plants and animals. Cultivating vegetables, flowers, and certain types of fruit is not only a suitable way to relax after some stressful work in today's informatized society, but it is also possibly the only certain way to show (without using abstract concepts and patterns) especially small children "what has been hidden against their will by an anti-natural society: creativity, mystery, dominance and beauty of terrestrial life" (ŠMAJS, 2008, pg. 33).

Ecotherapy works with the senses and feelings in relation to nature and with how we approach and interpret the world, i.e. with the personal 'ecological story' of every individual. What is important for such therapy is the understanding of the wider connections of one's existence as it pursues change of 'oneself' as a necessary part of changing

³ Ecotherapy represents the unification of the ideas of ecopsychology and psychotherapy. It makes use of methods that help clients better connect with nature in the world around them and then, consequently, with nature inside themselves. Ecotherapy takes advantage of psychotherapeutic principles as well as the therapeutic potential of nature (in more detail see Kulhavý, 2009).

the ecological balance. J. Valenta (2008) defines this as ecotherapy; *“here it perhaps approaches a kind of ‘ecological logoeducation’, i.e. fostering a search for the meaning of life – and for ‘things’ – in natural equilibrium.”*

It has been shown that though a society of prosperity is capable of satisfying practically all of a person’s needs, one need is not met. This is “the desire for meaning”⁴, i.e. the need to find meaning in one’s life, in each of life’s situations – and devote one’s self to fulfilling that meaning. Frustration caused by this loss of meaning leads to the search for a substitute (drugs, extremism, consumption) and thus deepens the false circle of problems of a consumer society. Even an addiction to bad environment is a possible cause of some of civilization’s problems: an increasing incidence of neurosis, a pervasive sense of boredom, alienation and ‘lostness’ of young people in cities, high crime rate, aggressiveness, addiction of young people to drugs, gambling, etc.

There are studies carried out in hospitals, dentist offices and prisons (e.g. KAHN, 1997) which have shown the positive effects of the natural environment on a person’s physiological and emotional well-being. The positive influence of nature and natural scenery on human physical, psychological and social health has also been confirmed by a series of studies (ULRICH and colleagues, 1991; FRANĚK, 2001; KULHAVÝ, 2009). Pedagogues cannot fail to see the information showing that some children and young people avoid practical contact with nature and are basically afraid of it. Three main factors have been indicated to cause a negative reaction to the outdoors: 1. Fear of coming into contact with feared objects or situations; 2. A predisposition to an aversion of the outdoors and 3. Expecting certain degrees of comfort thanks to life in a modern and comfortable environment. (Franěk 2001 according to Bixler; Floyd, 1997). Understanding negative perceptions of the outdoors is very important for environmental education and education for a healthy life, especially in the context of changing conditions to fulfil their goals. Even our teachers have noticed that some children experience noticeably negative feelings on excursions into the outdoors – especially fear of the forest, fear of wild animals, insects and spiders, they loathe many things and they complain that they are cold or hot, they grumble about the rain and hardly tolerate the wind. In other words, nature for them is “terrifying, disgusting and uncomfortable”. Research indicates that those who have the least direct experience with nature have the greatest fear of the outdoors. The responsibility for their anxiety lies mostly in the way that snakes, insects and spiders are depicted in children’s books, horror films, etc. (Koucká, 2006). While fear is caused by anxiety from things in the outdoors, a reaction of aversion may be based on the fact that we perceive the outdoor environment as something unclean. One huge influence on the formation of such an aversion to the outdoors environment is lectures on the invisible “bacteria”. Several studies have given a very bizarre image of bacteria – on where they come from and what they look like. These images

4 See Frankl’s studies that proved the highest occurrence of the so-called “existential neurosis” (caused by the loss of the meaning of life),

5 Why don’t we compare it to the leaflets on display at Czech medical institutions? Do they show visits to the outdoors as desirable or do they mostly warn people about “ticks, algae, ultraviolet rays, mushrooms, germs that can stick to forest fruits from the saliva and fecal matter wild animals leave, etc.”?? (STREJĚKOVÁ, 2005)

have been formed mostly through commercials⁵ for pesticides and cleaning products (FRANĚK, 2001).

It is true that neither the nature “out of doors” nor our own internal nature, or naturalness, completely tell us how to live in harmony with the environment. Cultural bearings play an important role – for example in the form of accepted behavioural norms and manners. It is the words and actions of parents, teachers, and pedagogical aid workers and what is shown in the media (children’s books and on television) that make nature worth loving and protecting (HAAN, 1993, pgs. 18-20). Therefore, it is evident that the process of personality development does not happen without a solid emotional bond between children and their mothers, nor does it happen without the formative influence of the natural environment, that is, without the “second mother” – nature, but also not without the sociocultural collective as the “third mother”. (ŠMAJS, 2005, pg. 94) Among this collective are teachers, or educators, in the role of guides, partners, facilitators and the like, who are able to find the ethical dimension of environmentalism, cultivate respect for other forms of life and show that nature is, in its own inimitable way, beautiful and interesting as an object of study and is a sought-after object for the most diverse of free-time activities (VIŠŇÁK, 2009). They can cope with the impending problems of “virtual reality” and environmental isolation that are leading to an inability to see life in a real context.

What do students of Education think about relaxation in the outdoors – a survey of students of Education for Primary School at Pedagogical Faculty of Masaryk University

1. Sample population

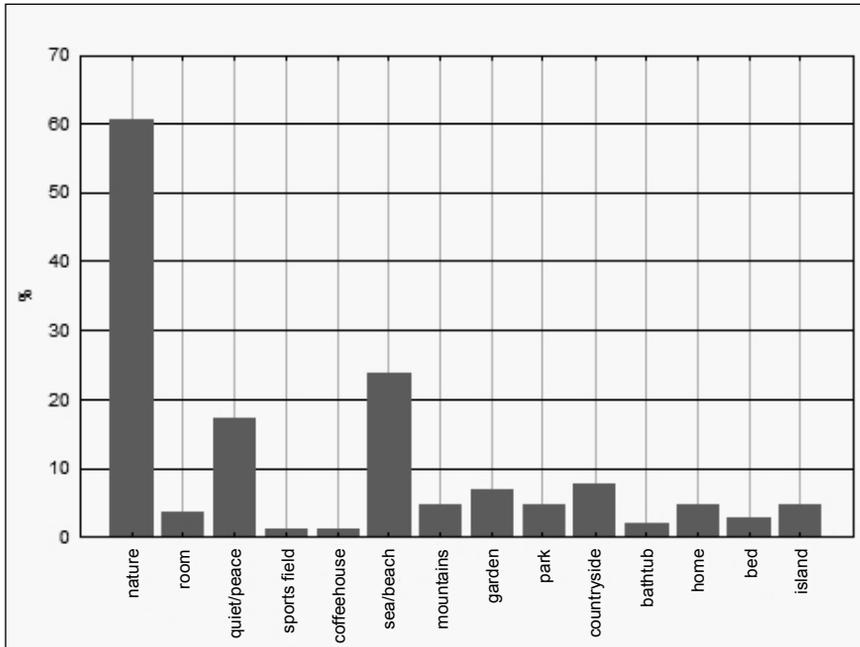
The sample population is composed of the judgement sample of students of the first, second and third year of Education for Primary School Population N = 104 (98 women, 6 men). In regard to the nature of the sample (judgement, not random) and size of the population, its representativeness makes it considerably limited.

2. Descriptive part of the analysis of the survey results

We present the results of the descriptive survey. We assumed that respondents would associate health with relaxation, relaxation with the natural environment, and that they consider a damaged environment as an obstacle to good relaxation.

In item number 3 in the survey we attempted to determine at which kind of place our respondents would most like to relax (the exact wording of the item: “Try to imagine a place (or places) where you would most like to relax and briefly describe this place”). We phrased this as an open item and we placed it at the beginning of the survey so that respondents were not influenced by anything. We then categorized the given answers and thus obtained the following variants: *nature* (natural environment, forest, meadow, etc.); *room*; *quiet/peace*; *sports field*; *coffeehouse*; *sea/beach*; *mountains*; *garden*; *park*; *countryside*; *bathtub*; *home*; *bed*; *island*.

We show the relative frequency for preference of the individual categories in the following graph no. 1:

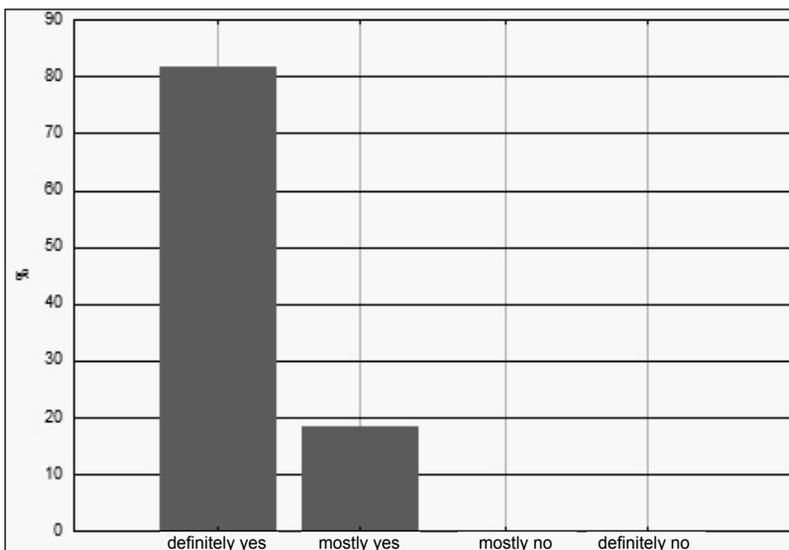


graph no. 1.

At first glance the most significant category is *nature* with 60.6%. The two most significant categories after nature are: *sea/beach* (24 %) and *quiet/peace* (17.3 %). Among our respondents nature is the most popular place for relaxation. Nevertheless, the *nature* category is essentially unspecific. We included in this category a natural environment, forest, meadow and the word nature itself, though we cannot determine exactly what the respondents imagined by these concepts.⁶

By the following item (no. 4) we determined to what extent the respondents associate relaxation with caring for their health (the exact wording of the item: “Do you agree with the statement: Knowing how to properly relax is extremely important for human health.”). The relative frequency of the extent of agreement with the statement can be seen in the following graph no. 2:

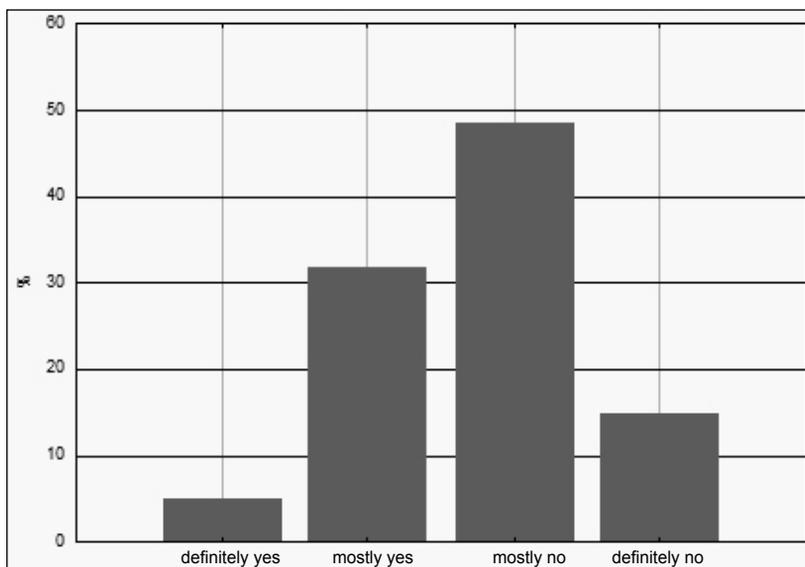
⁶ A stereotypical vacation at the sea can have a dimension that is completely unnatural and of consumer entertainment; mountains can be places for considerate hiking or for skiing in over-technicized mountain centers built at the expense of protected landscape areas and national parks.



graph no. 2

The respondents are unambiguously inclined to the opinion that “knowing how to relax” is connected with human health (definitely yes 81.7 %; mostly yes 18.3 %).

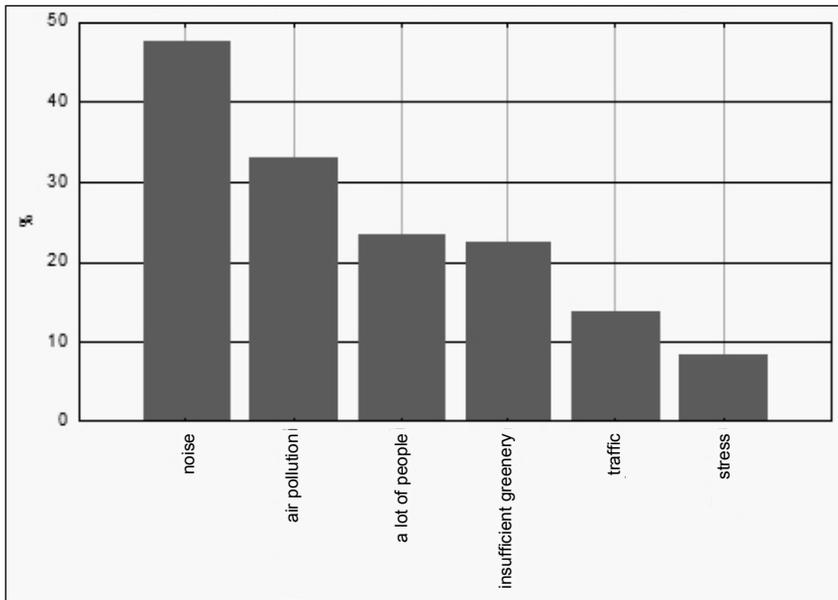
We were also interested in whether respondents saw life in the town as an obstacle to relaxation (the exact wording of item no. 6: “Do you agree with the statement: There aren’t suitable conditions for relaxation in a town). The relative frequency of the extent of agreement with the statement can be seen in the following graph no. 3:



graph no. 3

From this graph it can be seen that more than half of the respondents do not agree with the statement (definitely yes 5.0 %; mostly yes 31.7 %; mostly no 48.5 %; definitely no 14.8 %). For most of the respondents a town does not present a barrier to good relaxation.

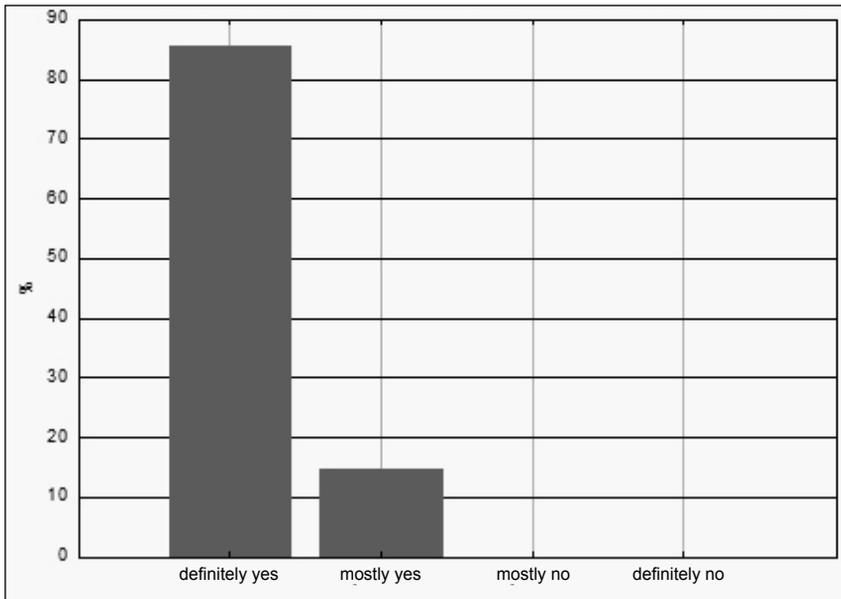
But if respondents do see any obstacles to relaxation in a town, we are interested in what kind. We identified it with the help of an open item (the exact wording of item no. 9: “If you think that life in a town presents obstacles to good relaxation, write down what obstacles you encounter”). We then categorized the given answers and thus obtained the following variants: *air pollution*; *noise*; *insufficient greenery*; *a lot of people*; *rush/stress*; *traffic*. If any of the obstacles that appeared among the answers were unable to be classified among these categories, their frequency was insignificant. We show the relative frequency of the “obstacles” in the defined categories in the following graph no. 4:



graph no. 4

Most of the obstacles given to good relaxation are closely connected to problems of a spoiled living environment in a town. In first place is *noise* with 47.6 %, and in second place is *air pollution* with 33 %; third place is concerned more with the social category *a lot of people* with 23.3 %, followed by *insufficient greenery* with 22.3 %.

In the last item dealt with in the descriptive analysis we determined to what extent respondents regard nature as a suitable place for relaxation. The exact wording of item no. 9: “Do you agree with this statement: Nature (greenery, park, forest, etc.) is an appropriate place for good relaxation.”



graph no. 5

Respondents, as is seen in graph no. 5 (definitely yes 85.4 %; mostly yes 14.6 %), are unambiguously inclined to the opinion that a natural environment is an appropriate place for “good relaxation”.

Conclusion of the descriptive analysis of the survey’s results

It is evident that relaxation represents an important component for respondents in caring for one’s health. Respondents often associate relaxation with nature and the outdoors. They often state that, to a significant extent, attributes of a damaged living environment are a threat to good relaxation. As it has been shown that nature and a natural environment present, aside from the value they have in and of themselves, also a value in the form of a service for people and their health. From this pragmatic, anthropocentric point of view, taking care of nature and the natural environment appears to be the most meaningful, without regard to the biocentric and ecocentric ideas and ideology looked at with doubt by technocrats.

3. Relational part of the analysis of the survey’s results

Our inquiry originates from a survey question whose wording for our population group is:

What is the connection like between a place of residence, the value of relaxation conditions in a town and the choice of the form of relaxation; between the subjective value of one’s relaxation and the subjective value of caring for one’s health; between the choice of relaxation environment and the choice of the form of relaxation and between the choice of relaxation environment and an attitude to environmental protection?

Definition of concepts:

Relaxation: “the process or state of easing mental and physical tension” (Linhart 2003 pg. 319).

Place of residence: not the actual place of residence, but the place the respondent spends most of his life (a variable *place of residence* is dichotomic and gathers value: *town/village*)

Choice in the form of relaxation: type of relaxation (e.g. a walk, television, trip on a bike, etc.).

Choice of relaxation environment: we are interested in whether this is a natural environment (forest, meadow, etc.) or another environment.

Attitude to environmental protection: in this case we understand attitude to be a “learned disposition to react positively or negatively to any object” (Jandourek 2001 pg. 189). It is not possible to observe “attitudes” directly, but it is possible to judge them indirectly from stated opinions. In our case we judge an attitude from the extent of agreement (disagreement) with a statement representing the object.

Pragmatic (working) hypotheses for our population:

h1: There is a relationship between the place of residence and the evaluation of the relaxation conditions in a town.

h2: There is a relationship between the place of residence and the choice of relaxation environment.

h3: There is a relationship between the choice of relaxation environment and one’s attitude to environmental protection.

h4: There is a positive relationship between the subjective evaluation of one’s relaxation and the subjective evaluation of caring for one’s health.

h5: There is a positive relationship between a fondness for bike rides as relaxation and a fondness for relaxing in nature.

To test hypothesis h1 we tried to find an association between the two variables represented in the survey by the following items:

1. You have spent most of your life: a) in a town; b) in a village.
6. “How much do you agree with the statement: There aren’t suitable conditions for relaxation in a town.”

The correlation analysis did not establish a relationship between the variables *place of residence* and the value of *conditions for relaxation in town*, and we have therefore accepted a null hypothesis.

To test hypothesis h2 we tried to find an association between the two variables represented in the survey by the following items:

1. You have spent most of your life: a) in a town; b) in a village.
7. Decide on a scale of how popular the given form of relaxation is for you (in this case *staying in the forest*).

We looked for the strength of a relationship between the dichotomic variable and

the ordinal scale variable. If the nominal scale variable has a dichotomic character, we can use a correlation coefficient for the ordinal scale. We used the Kendall's T correlation coefficient for a rectangular table; $t = -0.29$. This association is low⁷, but significant, we therefore refuse the null hypothesis and accept the alternative statistical hypothesis:

There is a correlation between the variables *place of residence* and the *extent of preference of a forest for the purpose of relaxation*. The minus sign indicates the direction of correlation: it is more probable that a respondent from a village will prefer a forest as an environment for relaxation.

To test hypothesis h3 we tried to find an association between the two variables represented in the survey by the following items:

3. "Try to imagine a place (or places) where you would like to relax and briefly describe this place".
14. "Do you agree with the statement: I would like to take part in environmental protection."

A correlation analysis did not establish a relationship between the variables *choice of relaxation environment* and the *extent of agreement with the statement: "I would like to take part in environmental protection"*, and we therefore accept the null hypothesis.

To test hypothesis h4 we tried to find an association between the two variables represented in the survey by the following items:

4. "Do you agree with this statement: I try to relax sufficiently."
5. "Do you agree with this statement: I try to take care of my health responsibly."

We looked for the strength of the relationship between two variables of ordinal scale with the same number of variants. We used the Kendall's T correlation coefficient for a square table: $t = 0.30$. This association is low, but significant. We therefore reject the null hypothesis and accept the alternative statistical hypothesis:

There is a positive correlation between the ordinal variables *extent of agreement with the statement: "I try to relax sufficiently"* and the *extent of agreement with the statement: "I try to take care of my health responsibly."*

To test hypothesis h5 we tried to find an association between the two variables represented in the survey by the following items:

7. Decide on a scale of how popular the given form of relaxation is for you (in this case *a trip to the outdoors*).
7. Decide on a scale of how popular the given form of relaxation is for you (in this case *a bicycle ride*).

We looked for the strength of the relationship between two variables of ordinal scale with the same number of variants. We used the Kendall's T correlation coefficient

7 Chráska (2007) separates the interpretation of values of the correlation's coefficients (in absolute values) in the following method: 1 - absolute association; $<1 - 0.90>$ - very high association; $<0.90 - 0.70>$ - high association; $<0.70 - 0.40>$ medium (considerable) association; $<0.40 - 0.20>$ - low association; $<0.20 - 0>$ - very weak association; 0 - absolute non-associative.

for a square table: $t = 0.39$. This association is (nearly) medium and significant. We therefore reject the null hypothesis and accept the alternative statistical hypothesis:

There is a positive correlation between variables the *extent of preference for a trip to the outdoors for the purpose of relaxation* and the *extent of preference for a bicycle ride for the purpose of relaxation*.

Conclusion of the relational part of the analysis of the survey's results

It has been shown that the place of residence can have an influence on the choice of relaxation environment. It is also evident that the extent of relaxation is connected to the extent of caring for one's health. It has not been confirmed that the place of residence has an influence on the evaluation of conditions for relaxation in a town. A relationship between the choice of relaxation environment and attitude to environmental protection has also not been established, which means that if someone prefers the outdoors for the purpose of relaxation, that does not mean that he has a more positive attitude toward environmental protection than someone who does not prefer the outdoors for the purpose of relaxation. The popularity of active forms of relaxation (specifically bicycle rides) is connected to the popularity of the outdoors for relaxation.

EKOTERAPEUTICKÝ POTENCIÁL PŘÍRODY A PÉČE O ZDRAVÍ

Abstrakt: Autoři se zabývají zvyšováním kvality lidského života aktualizací vztahu člověka k přírodě z hlediska jejího ekoterapeutického potenciálu. Pozitivní vliv přírody na fyzické i psychické zdraví sledují v kontextu environmentální výchovy a výchovy ke zdraví. Jednotlivé úrovně ekoterapie dávají do souvislostí s rozvojem ekologického cítění, ekologického myšlení a výchovou k hledání smyslu života. Pro ilustraci uvádějí výsledky šetření ke zjištění toho, jak studenti oboru učitelství pro 1. stupeň základní školy spojují péči o zdraví s relaxací v přírodním prostředí.

Klíčová slova: Kvalita života, environmentální výchova, ekoterapie, formy ekoterapie, ekoterapeutický potenciál přírody, vnímání přírody, relaxace v přírodě, péče o zdraví, výchova ke zdraví

THE PERCEPTION OF THREAT TO HEALTH ARISING FROM ENVIRONMENTAL ISSUES BY STUDENTS OF PDF MU BRNO

Zdeněk HROMÁDKA

Abstract: *The nature of environmental issues is not only reflected by damage to original wild nature somewhere far away or a decimated population of remote countries but also by the real health threats affecting every single individuals. Human health - representing value¹ for people regardless of their attitude to the nature- can be seen as a strong motivation for the prevention and reparation. A particular line of partial research examination arising from the answers of respondents comprising categories of health threats is presented by the author. The categories related to environmental issues are significant as confirmed by our analytical data.*

Keywords: *environmental education, protection of environment, education to health, threat to health, individual health, motorism*

The cross-curricular form is a common feature of recent czech *environmental education*. It is being carried out across the areas of education. On the other hand, *the education to health* takes on an educational form in czech curriculum. *Environmental education* - in accord with the recommendation of the *Framework Educational Programme (original czech abbreviation: RVP ZV)* - has become an integral part of the *Education to health* (as well as a part of other educational areas).

We very often encounter certain warnings arising from the research of the environmental education which are indicating that the environmental education as well as further education comprising the care for environment is ineffective in many cases because the highly sophisticated requirements are only accepted by conscious and altruistic individuals and are of no use for conformed personalities tending to turn to their own ego.

For instance, the tendency to give up the comfort of consumer way of life in favour of nature or in favour of other unknown people living in other part of the World is more or less not acceptable for a vast majority of population. It is also obvious that the education itself is not capable to change such a trend.

¹ The value is defined as a positive significance of an object for an individual. (Nakonečný 1998, p. 118)

The nature of environmental issues is not only reflected by damage to original wild nature somewhere far away or a decimated population of remote countries but also by the real health threats affecting every single individuals. It is also obvious that every man is interested to live in such an environment that is considered not to be obnoxious regarding our current hygienic norms for the noise, moreover the environment should also be aesthetically sound, the water should not be spoilt by nitrates, the exposure to the sun should not bring about an extremely high risk of cancer, the fish meat should not be contaminated with mercury, cadmium and finally there is also demand to breathe air without being polluted. It is not only the case of exotic countries wherein the damage to their environment is remarkable but it is also the Czech republic exhibiting a certain degree of damage to the environment.

Thus the phenomenon of the threat to individual health is one of the objectively perceived consequence of the damage to environment. The protection of environment is not only the platform for a certain part of population- philosophically complying with biocentrism² and/or ecocentrism³ but also for those who perceive the world from the anthropocentric point of view. The motivation arising from anthropocentrism is probably the most dominant in the area of protection of environment-stressing the fact that targeted protection of environment is indispensable for the man and the damage to environment can substantially influence the quality of life. The above noted is the base for so called sustainable development.

Human health - representing value⁴ for people regardless of their attitude to the nature- can be seen as a strong motivation for a conscious interest in the environmental issues and in prevention and reparation in that area not only for altruistic individuals but also for egocentric ones.

A partial research investigation carried out by the author of this article along with Hana Horka (2008) including a group of 163 students of PdF Masaryk University, was intended to reveal some relationships of students' attitude towards the protection of environment and the attitude towards the care of individual health. This article deals with a particular line of our research comprising the relationship of the environmental issues and the threat to individual health. This part of our research was represented by the below noted point:

„What are the threats to your health when living in a city?“ (three possibilities at least).

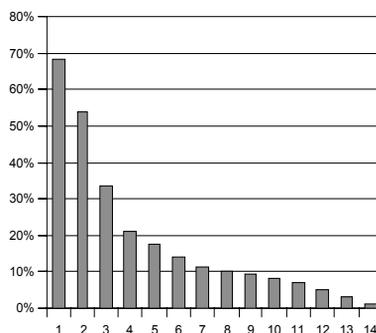
It was an open file wherein there were not any pre-defined options which could possibly influence and distort the content of the real opinions of our respondents. The written answers of the students involved were divided into the categories of „health threats“. The most frequent categories are listed below in the table:

² Biocentrism refers to the fact that living things have their own value, their value exists regardless of human existence and man is equal to all other living things (Kohák 1998).

³ Ecocentrism offers a broader view on nature, living things are understood as a part of a system (ecosystem) and individual fates, joys and pains of living things are submitted to the integrity of komplex (Kohák 1998).

⁴ The value is defined as a positive significance of an object for an individuum.(Nakonečný 1998, p. 118)

Students of Pdf MU; 158 respondents		
1	Smog – air pollution	68,4%
2	Automobile transport	53,8%
3	Stress – flurry	33,5%
4	Noise	20,9%
5	Wastes – contamination	17,7%
6	Lack of green zones	13,9%
7	Crime – violence	11,4%
8	Fast food	10,1%
9	Drogs – addictive substances	9,5%
10	Lack of body movements	8,2%
11	Industry	7,0%
12	Infections	5,1%
13	Xenophobic expressions or other crude expressions	3,2%
14	Obesity	1,3%



The most frequent qualitative variable is the category „ **the smog- air pollution**“– the second most frequent category is the **automobile transport** (crucially involved in the air contamination). Regarding all possible threats to the health , the students have selected as the most serious ones considering the urban life those categories which are inextricably coupled to environmental issues.

The category – **smog⁵ – air pollution** selected by 64,8 % of our respondents represent so called modal category. To breathe a fresh air is a legitimate requirement, but it is almost impossible to achieve it especially in so called „civilized“ cities due to industry, conventional ways of heating (solid fuels), illegal burning off the wastes, increased pollution and substantially due to heavy automobile transport.

The category – **automobile transport** – reached the frequency of 53,8 %. The negative influences of the automobile transport on human health can be divided into a few categories. The exceptional threat is represented by fatal injuries. In this regard the automobile transport is the most risky mode of transport. Regarding the pedagogical context, it is fruitful to note that almost one third of the victims of car accidents is represented by pedestrians and cyclists (almost one quarter of them are children!). It would be worth of trying to change this situation. It would mean to make such a kind of transport disadvantageous-e.g. rising the prices- and to invest the money into a more safer mode of transport e. g. railways (Keller 1998, p. 91).

Motorism is also one of the causes of wrong habits- just another health threat-leading to obesity and other health problems, especially in such cases when the owner has no other option to move from one place to the other.

Motoring (in spite of all good fates including catalysers) still comprises a serious health risk especially concerning the dangerous exhaust-gas emissions. The danger of the exhaust – gas emissions is inevitable, we cannot bypass them at all. They are present

⁵ Smog is classified as reductive (typical for winter season with inversions, carbon monoxide, sulphure dioxide, oxides of nitrogen, pollution etc.) and photochemical (typical for summer season especially in places with a frequent motoring), the sun is capable to split nitrogen dioxide and the free oxygen radicals having a toxic effect are subsequently formed.

in every street of cities and even in villages. We are endangered while moving outside, while on holiday, moreover they also penetrate into our houses (Horák 2000 p. 173).

There are several dangerous components of the exhaust gas e.g: nitric oxide (irritating respiratory system), carbon monoxide (avidly binding hemoglobin and decreasing the capacity of the blood to transfer oxygen), aldehydes and their derivatives (irritating mucous membranes of the eyes and the respiratory system-causing respiratory problems, moreover formaldehyde is a suspected carcinogen), partially burnt organic compounds-derived from carbon- may contain condensed aromatic hydrocarbons, so called PAH-polyaromatic hydrocarbons (toxic and carcinogenic substances), some acids, etc. (for comparison Horak 2000).

It seems rational to choose air pollution and automobile transport as the most serious health threats related to urban life especially regarding the nature of such a danger. On the other hand there is no active resistance related to the above noted threats especially considering individual motoring and polluted air in urban areas⁶.

Certainly, there are many cases concerning the activists as well as ordinary citizens, civil initiatives showing disagreement with the growth of motorism nevertheless there is no massive civil resistance against such a controversial phenomenon as the individual motorism presents.

Personal motor-car has been integrated into the society not only for providing a comfortable and fast means of transport (in larger permanently jammed urban areas it would lose such an advantage) but also for other qualities. The possession of a personal vehicle means a certain social status (for comparison Keller 1998). The effect of permanent advertisement devoted to fantastic cars but also respectful authorities behind the wheel lead us to conclusion that the possession and the use of a car is not only trouble free but also desirable. For young generations, the possession of a car means a certain target on the way to the adulthood and the independence. The demand to review such a mode of transport is perceived as a dangerous radicalism intended to dispute inalienable civil right to use a car up to an unlimited extent.

Environmental education (it is necessary to note that the transport as one of the topics has been introduced into the cross curricular theme of Environmental Education Of Curricular Documents RVP ZV) has an arduous task ahead comprising the transport. Some experiments devoted to the influence of environmental education on human behaviour have shown that certain piece of knowledge of environmental issues can influence the behaviour of people in so called „modest area“ (Young, A. Duncin, J. Frank, N. Gill, S. Rotham, J. Shenot, A Shotkin a M. Zweizig, 1993). Such an area is also characterized by sorting wastes and purchase of ecofriendly products. On the other hand, in so called „arduous area“ especially concerning the transport, the experience reflecting the knowledge of environmental issues has not been demonstrated (Diekmann, Preisendörfer 1992 In Pfligersdorffer 1993).

In spite of a lot of good cases it is hard to expect that people will give up personal vehicles which are considered valuable for them. In the other words, the cars represent some negatives (especially in global dimension) but also the positives (especially in

⁶ It can only be considered hypothetically as the group of students involved in our investigation cannot be described as a representative sample of population and the trials to infer the data on population would be troublesome.

local dimension). It is not easy to condemn individual motoring taking into account existence of necessary/forced mobility referring to such situations when the public transport is not available and the personal vehicle is the only option. Such problems related to a lack of public transport are often caused by a highly active automobile lobby (srv. Sanne 2002, s. 277).

It has been shown that the knowledge of environmental education and proenvironmental attitude are not directly linked to their action (this fact is not very optimistic for environmental education⁷). The research conducted by D. Scott a F. Willits (1994) was aimed at relationship between proenvironmental attitude and behaviour in Pennsylvania. It was shown the respondents proved to have solid proenvironmental attitudes but insufficient proenvironmental behaviour. Other studies have shown that the positive attitude may have a positive influence on the behaviour in the area of the care for environment but it can only take place under special conditions: disappearance of significant barriers (Gardner, Stern 2002, p. 76). The motoring as a social phenomenon certainly represents significant barriers. The judgement of „restrained“ (especially american) experts on environmental issues seems to be correct: it is naive to demand on society to limit individual transport voluntarily. It is necessary to focus on technologies providing the cars more ecofriendly, less damaging to health and securing sustainable development in global dimension. Nevertheless even ecofriendly cars will still need to utilize more dense network of highways and will cross the landscape.

Beside the solutions based on advanced technologies there are certain social mechanisms influencing man. In other words the teacher would not conform with the view that education in the area of care for the environment would be gummy and therefore useless and the only solution would be based upon new technologies and legislative. A positive significance for proenvironmental behaviour can undoubtedly have construct of social norm (for comparison Franěk 2002) and social support (for comparison Claxton 1994). The society forms certain norms (undergoing changes historically and are also different depending on a given culture or subculture). The norms are socially significant if the are generally accepted and form a frame wherein the human behaviour takes place. The behaviour in accord with the norms is accepted by the society positively whilst refusal or breach of the norm is criticised. In order to obey social norms it is necessary to convert them into personal ones (so called internalisation, for comparison Franěk 2002)..

If the environmental education is aimed at proenvironmental behaviour then one of the partial target of environmental education is to form specific proenvironmentally oriented norms and subsequent internalisation.

Bearing in mind the structural functionalism of sociologist Talcott Parsonse, the individuum is determined by the norms. „The individuum can refuse the values and the norms but it is unlikely because they have already been internalised by him during the process of socialisation.“ (Montoussé, Renuard 2005, p. 68). Breach of social norms may lead to a variety of forms of „social ostracism“ while the society chastens individuals refusing the norms. Regarding the environment it would be beneficial to introduce

⁷ If we recognize the thesis that the paradigm of environmental education rests in focusing on a target and the target of environmental education is proenvironmental behaviour. Environmental education is focused on the targets represents a dominant stream of environmental education. (srv. Činčera 2009).

certain forms of ostracism for some ways of behaviour in the environmental area e, g, ignoring the requirements for waste sortings (some TV spots clearly shows that not sorting waste is awkward), use of unsuitable fuels for household heating or overuse of individual transport for purposes inadequate to the burden on environment.

As so called „environmental categories“ the following terms were selected by students : **noise** (20,9 %), **wastes-contamination** (17,7 %), **lack of green zones** (13,9 %) and **industry** (7 %).

It is obvious that our respondents still perceive danger arising from environmental issues. Environmental education is undoubtedly one of potential instruments for a long term resolution of environmental problems. It is fairly interesting (but also very positive) to notice that in spite of the fact that the protection of environment is in conflict with influential social as well as economical interests recently, the environmental education has meanwhile become a solid part of curriculum of all levels of education in our country. Thus while there is a rush to build up the motorways and to advertise exceptionally advantageous production and purchase of vehicles the pupils are learning according to the curriculum about more economical ways of transportation and the insecurity of personal vehicles influencing human health, landscape and global climate.

Evident advisability of existence of environmental education in curriculum is apparent in the case of those indicators of damaged environment which cannot be overseen. It is obvious that those indicators we suppose to present an acute or a direct threat.

In order to achieve our original goal – to contribute to health issues in relation to environment, it is necessary to note one point in our questionnaire wherein the students were asked to select from a scale of twenty suggested values the five of the most important values (possession, money, good studying results, good friends, good relationship, individual health , clean environment, a lot of holiday, no stress, good relation in the family, feeling of security, good results in sport, quaranteed accommodation, career, acceptable political situation, spiritual balance, individual look) and to align them according to their importance. The modal category is represented by individual health (50 % of all students placed the individual health on the top among the other values). For our experimental sample the category of individual health is very important (other researches also show that people highly appreciate their own health).

If the health has become priority of vast majority of population and simultaneously the environmental issues have been perceived as the cardinal threats to health then the environmental education has a great potential. Nevertheless we cannot suppose that people confronted with their own interests in individual health will give up comfort and certain consumption patterns of behaviour in favour of the environment. Such an assumption would be very naive (for comparison Librová 2003, p. 20). The submission of behaviour to the health threats may have psychological influence on the principle of rational selection, showing human tendency to act only in an individual interest. If the context of the education to the health will point to health risks related to a steadily progressing ecological crisis then the arduous task to provide environmental and economical and sustainable way of life and could look advisably for all.

Some media, representative of political life, marketing and other social and power structure time to time attempts to doubt the significance of the care for environment as there is not enough empirical data available which could support the advisability

of the care for the environment. It does not seem that the facts have been manipulated. On the other hand there is a lack of arguments in case of a direct threat on individual health which is perceived as a priority.

ENVIRONMENTÁLNÍ PROBLÉMY JAKO ZDRAVOTNÍ HROZBA Z POHLEDU STUDENTŮ PDF MU V BRNĚ

Abstrakt: Povaha environmentálních problémů má nejen tvář vzdálené zdevastované divoké přírody a zdecimovaného obyvatelstva ve vzdálených státech, ale i tvář v podobě zcela reálných zdravotních hrozeb, které se týkají každého jedince. Na lidské zdraví jako hodnotu¹ pro lidi bez ohledu na jejich postoje k přírodě, můžeme nahlížet jako na silnou motivaci k prevenci a nápravě. Autor v článku představuje jednu linii dílčího výzkumného šetření, která se vztahuje ke kategorii zdravotních hrozeb, které byly vytvořeny z odpovědí respondentů. Z analýzy pak vyplývá, že významné jsou zejména kategorie, které souvisí s problematikou životního prostředí.

Klíčová slova: environmentální výchova, ochrana životního prostředí, výchova ke zdraví, zdravotní hrozba, vlastní zdraví, automobilismus.

TITLE: STUDENTS OF PdF MU AND THEIR FIRST AID ACQUIREMENTS AND SKILLS (RESEARCH IN PROGRESS)

*Jitka REISSMANNOVÁ, Alice PROKOPOVÁ, Marie HAVELKOVÁ,
Jarmila KELNAROVÁ*

Abstract: *It is assumed that every adult, especially a teacher, is able to apply first aid. This article describes research, which was realized by authors and its aim is to find out the information about first aid requirements and skills by students of PdF MU. And also if students are prepared sufficiently during undergraduate studium. Some of concrete activities realized (or planned) by Family education and Health education department for increasing competency of first aid treatment of prospective teachers.*

Keywords: *competency, acquirement, first aid, Faculty of Education*

There are many claims and demands on teachers, one of this skills is also an acquirement to apply the first aid. Every teacher should be able to apply first aid in case of need. This assumption should be reflected during the study of future teachers.

In Kubikova (2008) is „first aid very important, its knowledge can be crucial for death or life salvation of human being.“ There is a problem in Czech republic, that many pedagogues are not well-educated in the case of first aid, it was not compulsory object during their studies, but they should teach it their students now. By Skovajsová is this stadium very unsettling. Education is mostly theoretical and irrelevant. By Budský and Matoušek is a knowledge of first aid by people of Czech republic very poor, there does not exist any unitary first-aid education system. By Kubiková it is very important to teach the first aid with an accent on modern and simple advances, the practical education is most important above all (Kubíková, Zuchová a kol. 2008)

We were interested in how future teachers and our faculty students are expert in this acquirements. So we realized research aimed at ascertainingm knowledge and skills of students, which dealt with first aid treatment in various situations. This investigation proceeded in a number of phases.

- **The first part** of the research work was in progress during spring time 2008. It was a question form amongst PdF MU students – 2. university grade (623 respondents), administration passed during the subject „Health education“. There were questions testing some of basic knowledge of first aid in this questionnaire (telephone numbers, first aid treatment by unconsciousness, intoxication, fractures, apneusis, stasis...). Next questions were about first aid course negotiating and about first aid education during studies at the Faculty of Education. Outcomes are in process.

As an example:

„If you would like to write anything about first-aid and its education, we would like to know it.“

And here are some of most frequent answers:

- *„...first aid course should be obligatory...“*
- *„...the most important is to know first aid by epileptical, asthmatic and anaphylactic shock and attack...“*
- *„...especially practical training and video should be perfect...“*
- *„...it is very important to prepare future teachers for critical situations...“*
- *„...there is not enough of first aid education anywhere...!“*
- *„...by my opinion there should be enough of first aid treatment since primary school...“*
- *„...needless monkeybusiness...“*
- *„...first aid education at schools is absolutely insufficient...“*
- *„...I think, that there should be some courses of first aid. I would like to take a part and I think, that I am not the only one...“*

- **The other two parts** of this research were in progress during spring school term 2009. We were examining respondents reactions for stimuli in first aid context. These situations were presented by short video expositions. This form of testing is innovative, it is a new methodology.
 - 20 respondents who passed first aid course were addressed. **9 situations** were chosen: syncope, epileptic attack, nose hemorrhage, medicament intoxication, infarct, brain episode, hemorrhage – incised wound, electric current accident and inspiratory. Recording form was divided into a structured and non-structured part.
 - Non – structured part was a question *„Imagine, that you are a witness of this situation, what would you do and what do you think is happening?“*
 - Structured part was divided into more questions:
 - *Situation evaluation. Type of injury. Symptoms*
 - *Necessary of help*
 - *How would you extend first aid. Practice*
 - *How do you feel about this situation? (optional answer)*

Outcomes are in process. As an example you can read now some of interesting ascertainings.

How do you feel about this situation?

Most often were this answers

- *nervousness, stress, anxiety, chaos, frightening*
- *help efforts, compassion*
- *nothing (video) – chaos (reality)*
- *blood fear, nausea*
- *fear, blame*
- *disturbance, helplessness, panic*
- *terrible, horrible*
- *„be quick!“*

There were also some interesting answers. One respondent answered, that electric injury does not bring any special feelings to him, but he would faint by incised wound. The biggest problem was with the situation of brain episode, which was classified mostly as biliary colic, epileptic attack or syncope. As we found out - 9 situations were quite much and for respondents it was very exhausting, so we have chosen only **4 situations** then. It were syncope, epileptic attack, infarct, electric injury. These situations were exposed to PdF MU students – 2. university grade during spring term 2009.

Question form comprehended this items:

- *What is your idea, if you can hear the words „first aid“?*
- *Next questions were the same as in antecedent one (1)-(4)*
- *Did you feel stress during this situation? (answers – absolutely not – mild – strong – very strong)*
- *Which of these situations would be for you most problematic probably? (syncope, epileptic attack, nose hemorrhage, medicine intoxication, infarct, apoplexy, incised wound, electric injury, asphyxia)*

Next questions were aimed at respondents experiences with first aid treatment in his or her life and passing through first aid course, or an interest for passing such a course.

- *Did you ever extend first aid treatment ? Where was it? (at home, by car accident, elsewhere)*
- *Did you ever pass first aid course?*
- *If yes, did you get any certificate?*
- *Would you like to go through first aid course?*
- *Would you like to write anything about this issue?*

This research is in a phase of encoding and data handling.

At this time, there is not enough of first aid education at the Faculty of Education MU. We followed contact with Health highschool Jaselská and organized a course for students and pedagogues, who were interested in it. It was 18 hours lasting course, its part was a demonstration and also practical drill (10 hours)

This course was about:

1. Uniform method of first aid treatment
 - premedical first aid, technical first aid
 - integrated rescue system (specialized help, penal law, first aid help and its principles)
 - an exploration of the wounded
 - handleable first aid kit
2. Transfer of wounded
3. Basic life functions and resuscitation
 - clearness of the air passages
 - adult resuscitation
 - children resuscitation
 - cardiopulmonar resuscitation
4. Syncope
5. Hemorrhage
6. Fractures
7. Wounds
8. Hot shock, Cold shock, Electric shock
 - ambustion
 - heatstroke
 - frostbite
 - first aid
9. Sudden estates
 - myocardium infarct
 - status epilepticus
 - diabetes
 - acute intoxication

Informations and knowledge could be used in civil life, by first aid patrols etc. Presently 76 students and 4 pedagogues absoluated this course. This course is paid (1000 Kč), after final exams, you get certificate.

Here are some of efficient schoolbooks;

- JANOŠKOVÁ, Dagmar, ONDRÁČKOVÁ, Monika, ČÁBALOVÁ, Dagmar, ŠEBKOVÁ Jitka, MARKOVÁ, Hana. *Občanská výchova 7, Rodinná výchova 7*. 1. vyd. Plzeň: Fraus, 2004. 128 s. ISBN 80-7238-325-6.
- JANOŠKOVÁ, Dagmar, ONDRÁČKOVÁ, Monika, ČEČILOVÁ, Anna. *Občanská výchova 6 s blokem Rodinná výchova*. 1. vyd. Plzeň: Fraus, 2003. 136 s. ISBN 80-7238-207-1.

- MARÁDOVÁ, Eva. *Zdravý životní styl – Výchova ke zdraví*. 1. vyd. Praha: Fortuna, 2004. 64 s. ISBN 80-7168-914-9.
- MARÁDOVÁ, Eva. *Rodinná výchova – Zdravý životní styl 1*. 2. vyd. Praha: Fortuna, 2000. 144 s. ISBN 80-7168-712-X.
- MARÁDOVÁ, Eva. *Rodinná výchova – Zdravý životní styl 2*. 1. vyd. Praha: Fortuna, 1999. 120 s. ISBN 80-7168-643-3. Učebnice neobsahuje žádnou zmínku o tématu první pomoci.
- MALENINSKÝ, Miroslav, VACKOVÁ, Blanka. *Přírodopis pro 8. ročník*. 1. vyd. Praha: Nakladatelství České geografické společnosti, 2005. 76 s. ISBN 80-86034-41-0.
- KVASNIČKOVÁ, Danuše, FAIERAJZLOVÁ, Věra, FRONĚK, Jiří, PECINA, Pavel. *Ekologický přírodopis pro 8. Ročník ZŠ*, 2. vyd. Praha: Fortuna, 1997. 128 s. ISBN 80-7168-477-5..
- KANTOREK, Jan, JURČÁK, Jaroslav, FRONĚK, Jiří, *Přírodopis 8*, 1. vyd. Olomouc: Prodos, 1999. 128 s. ISBN 80-7230-040-7.
- ČERNÍK, Jan, BIČÍK, Vítězslav, MARTINEC, Zdeněk. *Přírodopis 3*, 1. vyd. Praha: SPN, 1998. 80 s. ISBN 80-85937-97-2.
- DOBRORUKA, Luděk J., VACKOVÁ, Blanka, BARTOŠ Pavel, KRÁLOVÁ Regina, *Přírodopis 3*, 1. vyd. Praha: Scientia s.r.o., 1999. 160 s. ISBN 80-7183-167-0
- VANEČKOVÁ, Ivana, MARKVARTOVÁ, Drahuše, SKÝBOVÁ, Jana, HEJDA, Tomáš, *Přírodopis 8 učebnice pro ZŠ a víceletá gymnázia*, 1. vyd. Plzeň: Fraus, 2006. 128 s. ISBN 80-7238-428-7..
- KOČÁREK, Eduard, *Přírodopis pro 8. ročník ZŠ*, 1. vyd. Praha: Jinan, 2000. 94 s. ISBN 80-238-6068-2.

Except schoolbooks is also very useful first-aid handbook.

- DVOŘÁČEK, Ivan. *Průručka první pomoci*. 3. vyd. Bratislava: Příroda, s.r.o., 2001. 224 s. ISBN 80-07-00691-5.

In first-aid education (by future pedagogues) is very alarming disproportion between a need – which comes out from school reality and real estate.

Solution is a conception of systematic build-up of the level of education (by students of PdF MU) in first-aid treatment. One of realized steps is – elective subject „First-aid“ which will be realized during autumn term 2009. Subject will be guaranteed by Health education department and realized by the help of instructors of SZŠ Jaselská (www.szs-jaselska.cz)

E-learning course + practical skills.

The next variation is a seminary „First-aid by experience“ which is based on modern pedagogy directions – experience pedagogy and active teaching methods. www.zdrsem.cz – first aid courses by experience are a big inspiration for subject creation. Some of methodic materials are also available from <http://www.fsps.muni.cz/pp/> and is.muni.cz/elportal/fsps/js08/prvniplomoc/index.html. Informations about first-aid you can also find at <http://www.fsps.muni.cz/pp/> a is.muni.cz/elportal/fsps/js08/prvniplomoc/index.html. and www.zzsjsmk.cz/aktuality/.

The main organiser of first-aid courses in Czech republic is Czech red cross, (www.cck.cz), its agency is republic-wide. But more and more often we can find some other companies, organizations or natural persons organising first-aid courses as well.

<http://prvnipomoc.iprostor.cz/nabidka-kurzu-prvni-pomoc.htm>

<http://www.kurz-prvni-pomoc.cz/>

<http://lifesupport.cz/>

<http://www.abc-prvnipomoc.cz/>

ZNALOSTI A DOVEDNOSTI STUDENTŮ PDF MU V OBLASTI PRVNÍ POMOCI (ZPRÁVA Z PROBÍHAJÍCÍHO VÝZKUMU)

Abstrakt: Všeobecně se předpokládá, že každý dospělý člověk, tím spíše učitel, je schopen v situaci, která to vyžaduje, poskytnout první pomoc. Příspěvek popisuje výzkumné šetření, které autorky realizovaly. Jeho cílem bylo zjistit, zda jsou adeпти učitelství, studenti Pedagogické fakulty Masarykovy univerzity, dostatečně připraveni v této oblasti a jsou-li adekvátně připravováni v pregraduálním studiu. Dále jsou v příspěvku uvedeny některé konkrétní kroky, realizované (popř. plánované) katedrou rodinné výchovy a výchovy ke zdraví PdF MU v rámci zvyšování kompetence adeptů učitelství v oblasti první pomoci.

Klíčová slova: kompetence, dovednost, první pomoc, pedagogická fakulta

TEACHER – PREVENTION METHODIST IN PRIMARY SCHOOLS

Jana VESELÁ

Abstract: *The paper deals with the role of a teacher methodology prevention in elementary school. Trying to assess the status of prevention methods in teaching staff, his teaching load and the possibility of further professional education. Reconnaissance section is based on qualitative research, where research sample consisted of 5 teachers of methodology prevention at age 27-35, from Brno and Vyškov schools with 2-5-year experience. Interviews were in January to March 2009 recorded voice recorder and analyzed. The probe into this area has shown the motivation of teachers, methods of prevention, for work in school, the lack of preparedness for prevention work methodology while studying teaching at university, in a small space to write their own prevention programs in elementary school.*

Keywords: *teacher, prevention, primary prevention, communication, decree, socio-pathological phenomena, prevention programmes, values, guidelines, laws, Framework Education Programme*

The Czech educational system is currently undergoing important transformations which are reflecting socio-political changes of the country, especially concerning more democratic education. Nevertheless, these transformations are not conceptual from the long-term point of view, the reason of which is a changing political directing of the country. The main reason of such political changes is in the reflection of last election results. Mainly the education is bearing the marks of personnel changes at the Ministry of Education of the Czech republic. The impact of these conceptual and personnel changes at the ministry represents a great strain for teachers who are missing a long-term conception of education. They are in the situation where neither clear limits of teachers' authority nor clear measure of demands on curriculum that need to be acquired exist. The teaching profession is changing at this time of media expansion. Teacher is a guide in the information field where he or she expounds data to the children but it is his educational function which is more and more foregrounded. The school is an important socialization factor in the life of a child and its function should not be underestimated on no account. School attendance is obligatory for all ethnic groups living in the Czech republic. Respective

ethnic groups bring their own norms into the school environment, and these norms are subsequently confronted with the majority society. Pupils from the majority society familiarise themselves with different lifestyle and different norms. One of the possible solutions to school issues is the ability of the school to satisfy „the need to express one`s ideas and feelings and communicate.“

Communication between the teacher and the pupil is an important part of this mutual relationship, it helps to promote relations and common activity between actors. The ability to communicate forms an integral part of teacher`s personality. The above mentioned relationship is influenced both by verbal and nonverbal communication and by communication by acts. The verbal communication is represented by a spoken word - in teacher`s profession it is primarily by explanation and dialog; nonverbal communication is represented by facial expressions, eyes, body language, touches and acts and it reflects teacher`s attitude to pupils as well as to diverse situations in education. (Nelešovská, 2005).

Kolář and Šikulová (2007) accent the need for communication as well. Effective communication exists under some conditions and one of them is the systematic creation of favourable social climate and convenient atmosphere in class based mainly on building of mutual confidence and on a natural unforced respect for a teacher. It can be proved that a good communication is fundamental not only to creation of a relation between teacher and pupil but also to friendly atmosphere in class and to winning pupil`s confidence.

It is very hard to satisfy the need to communicate during lessons because at that time communication is very limited and it usually concerns only teaching process. However, pupils can have opportunity to express themselves and communicate outside class, for example in the form of „pupils` autonomy“ (Bendl, 2003).

In the first place, it is school that should prevent the formation of socio-pathological phenomena in children by providing pupils with stimulating environment and by realizing activities that would support children`s attitude of refusal to socio-pathological phenomena. Among protective factors on the school level we could firstly name clearly defined rules about socio-pathological behaviour which are embodied in a school code, secondly the active involvement of pupils and their parents in school activities, thirdly a forthcoming atmosphere at school, and finally an effective preventive programme and school activities following quality ways of spending free time.

The first school pupils are the easiest to educate and influence and that is why it is necessary to pay a particular attention to the prevention at this age. If they grow in the environment where socio-pathological phenomena are missing and strictly refused, children will more easily develop an attitude of refusal to these phenomena. The prevention in children should be first of all the task for parents, secondly for school. The optimal situation is when family and school are cooperating in the field of prevention. For effective prevention, it is necessary that family and school have an unanimous attitude to socio-pathological phenomena. In the development of preventive activities in pupils, school conditions are advantaged mainly thanks to the possibility of a long-term and intensive educational influence on children.

Possibilities of prevention in school environment

Prevention of socio-pathological phenomena in school environment is first of all in a scope of Ministry of Education of the Czech republic in cooperation with other departments, for example Ministry of the Interior, Ministry of Labour and Social Affairs, Ministry of Health. Ministry of Education creates a legislative framework for the realization of prevention in school environment, passes ordinances, guidelines and laws for provision of prevention of socio-pathological phenomena in school environment. The ministry imposes on schools a duty to create Minimum preventive programmes and to establish posts of school prevention methodists at schools. Prevention of socio-pathological phenomena should make part of schooling according to Framework Education Programme.

Framework Education Programme

FEP (Framework Education Programme, 2007) is a basic document concerning curriculum, defining the content and aims of education and schooling. It also defines binding frameworks of education for its particular periods – preschool, primary and secondary education. Framework Education Programme is a base for creation of School Education Programme for every school.

The cross-section topics which are part of FEP reflect actual requirements and issues of contemporary society. Thematic scopes are going through educational spheres and enable the interconnection between educational contents of different domains. Thus they contribute to the complexity in pupils' education and influence the process of formation and development of key competences¹ of pupils in a positive way.

FEP tries to integrate topics supporting the formation of right life attitudes into education. According to efficiency principles of primary prevention, adoption of the above stated values and skills should lead to an attitude of refusal to socio-pathological phenomena. FEP is a document specifying the correct ways of realization of schooling and thus it is not primarily focused on prevention of socio-pathological phenomena. The document directly covering the realization of primary prevention in school environment is called Minimum preventive programme.

Minimum preventive programme

Ministry of Education passed² a guideline for prevention of socio-pathological phenomena in children and youth that incorporates a realization of Minimum preventive programmes at schools and school institutions. MPP is a concrete school document focusing on pupils education for a healthy lifestyle, on their personality and social deve-

¹ Key competences represent a complex of knowledge, skills, abilities, attitudes and values which are important for a personal development and self-realization of each member of a society. The key competences in the period of primary education are the following: competences for learning, competences for problem solving, communication competences, social and personal competences, civil competences, working competences (FEP, 2007).

² Actual guideline for prevention of socio-pathological phenomena was passed 16th October 2007 and came into effect 7th November 2007.

lopment and on a development of their social communication skills. Realization of MPP is binding for every school and every educational institution and it is under control of Czech school inspection (Minimum, 2007).

MPP ordains schools the obligation to create posts for school prevention methodists³. The basic duty of school prevention methodist is a systematic and coordination activity, providing information and counselling. MPP assigns to every school the duty to ensure education for school prevention methodist as well as for other pedagogical workers in the sphere of prevention of socio-pathological phenomena.

Decree n° 72/2005 Sb., about providing of counselling services at schools and educational counselling institutions delimits, among others, what does the work of school prevention methodist consist in (Decree, 2005).

Decree n° 72/2005 Sb., about providing of counselling services at schools and educational counselling institutions delimits, among others, what does the work of school prevention methodist consist in (Decree, 2005). The methodist is occupied with:

- creation and realization of preventive programme;
- coordination of pedagogical workers' education in the domain of prevention of socio-pathological phenomena;
- cooperation with institutions working in the domain of prevention of socio-pathological phenomena;
- collection of expert information on problems and prevention of socio-pathological phenomena and their handing over to pedagogical workers of the school;
- providing consultancy to pupils with risk or manifestation of socio-pathological behaviour as well as to their legal representatives;
- cooperation with class teachers.

During the creation and evaluation of MPP, the school prevention methodist cooperates, if necessary, with a school psychologist, counsellor for education or prevention methodist in Pedagogical-psychological counselling services. The creation and realization of MPP should be ensured by all pedagogical workers of the school. MPP is usually formed for one school year, it is regularly evaluated and another procedures for prevention of socio-pathological phenomena are suggested following obtained results. (Minimum, 2007).

Possibilities of preventive work of school prevention methodist

The offer of school subjects is varied and some subjects come into consideration for being used in prevention teaching. This is executed by a prevention methodist who, in the cooperation with his colleagues, incorporates into education items like respect for a human being, tolerance and solidarity. Obviously, the first to be taken into consideration are subjects having a direct relation to the prevention of socio-pathological phe-

³ Occupation of school prevention methodist is delimited by annexe n° 3 of decree n° 72/2005 Sb., about providing of counselling services at schools and educational counselling institutions

nomena like civics, family education, basics of social sciences, art lessons or physical education. Some schools are introducing a subject called dramatic education which has a great potential.

Class teachers' lessons

In class teachers' lessons, there is a space for class teachers to work with group dynamics of the class which means an intentional dealing with forces that emerge among pupils in their life in a group. If the prevention methodist is present in a school, teachers have a possibility to profit from his professionalism when they are implementing activities in teachers' lessons. In case of bullying, aggressors subconsciously and without reflection use group dynamics to destruct positive relations in the group. That is why the teacher should understand these relations, support the growth of positive bonds in the class and to fix them in cooperation with a prevention methodist.

Techniques or games focusing on self-examination and class reflection should be in the content of class teachers' lessons. Similarly the development of competences to realize a co-responsibility for the character of the class, to unify the group, to realize oneself, and to strengthen self-confidence should be the part of these lessons. A good management of the class gives an opportunity to diagnose relationships and monitor problematic behaviour during various activities. In his publications, Kolář (2001) focuses on the rules of school teams meetings.

Campaign

It is possible and very efficient to employ the method of campaign for a preventive work. The campaign can include different activities, children can for example make posters or come up with a slogan. Pupils' activity can be used also for making leaflets or information brochures. (Bendl, 2003). Pupils should be informed from different types of sources and if the leaflet is on the right place at the right time, it can do a great turn.

Games

Respected author Kolář (2001) decidedly refers to the benefit of games in a preventive work. Games represent a many-sided diagnostic and therapeutic potential. Therefore it is necessary to have a good practical knowledge of ways to use concrete games. Games are inestimable especially for the practice of a new behaviour because their strategy is based on fun and interestingness. The uninitiated can not see different theories of learning that are hidden behind. It is not convenient to include games leading to victory or defeat, neither games sorting children into strong and weak. He emphasizes games with cooperative rules and games supporting mutuality and cohesion. Thus a class teacher and a prevention methodist can strengthen in pupils desirable patterns of social behaviour like togetherness or teach them to avoid aggression, relax, etc. Another respected author of gaming activities Hermochová (2005) speaks about their influence on the dynamics of team. The reason for this claim is that games are important means of overcoming stagnation of team development, they accelerate and intensify the process of mutual discovering, forming of deeper understanding among team members and conflict solving. Alternatively they can give the team some preventive tools and techniques to forestall conflicts.

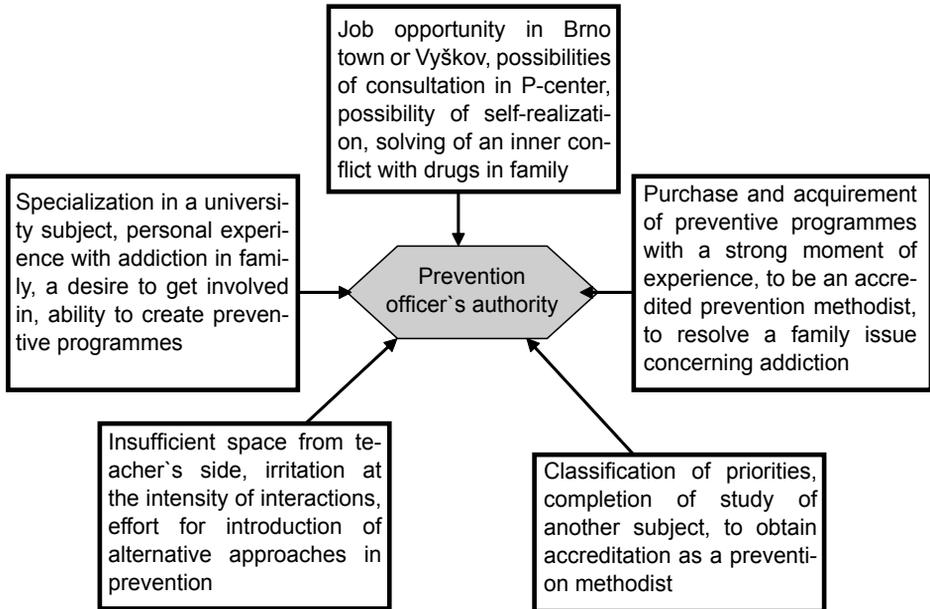
Probe into personality of prevention methodists

There were many thesis, contributions in anthologies and chapters in monographs written on the topic of „the teacher“. That is why I focused my research on prevention methodists, on their perception of the profession and on their appraisal of acquired professional skills and competences.

The form of a qualitative research seemed to be the most appropriate for this study. Stratified sample was represented by 5 prevention methodists at the age 27-35 years. They came from schools in Brno town and Vyškov town and their experience in prevention was between 2-5 years. Semi-structured dialogs took place from January to March 2009, they were recorded on a Dictaphone and analysed subsequently.

Factor	Description
Phenomenon	Prevention officer's authority
Causal conditions	Specialization in a university subject, personal experience with addiction in family, a desire to get involved in, ability to create preventive programmes
Context	Job opportunity in Brno town or Vyškov town, possibilities of consultation in P-center, possibility of self-realization, solving of an inner conflict with drugs in family
Intervening conditions	Insufficient space from teacher's side, irritation at the intensity of interactions, effort for introduction of alternative approaches in prevention
Actions, strategies, processes	Classification of priorities, completion of study of another subject, to obtain accreditation as a prevention methodist
Consequences	Purchase and acquirement of preventive programmes with a strong moment of experience, to be an accredited prevention methodist, to resolve a family issue concerning addiction

Axial model



From the analysis of dialogs it is clear that the work of prevention methodist is not financially rated at schools and only some schools appraise this work by a position in teaching staff. Prevention methodists, mostly women, are performing their work from their conviction that prevention is needed and useful or because they are motivated by some experience from their own family. The key phenomenon of prevention methodist's authority was, during the dialogs, overlapping with verbalized feelings of hopelessness and futility. The principal of „hot potato“ appears. Parents are defending family autonomy even at the cost of denial of the problem and if they cooperate, it is only on a formal basis. Prevention methodists need compiled strategies how to react in certain situation to support their authorities. This is a challenge for further education of pedagogical workers.

Annexe n°3/II of decree of Ministry of Education n° 72/2005 Sb., O poskytování poradenských služeb ve školách a školských poradenských zařízeních. Praha: MŠMT, 2005, s. 2

Internet sources

KOLÁŘ, Pavel. *Školní program proti šikanování*. Reduced final report from the project of Ministry of Education. [online] Accessible from: <<http://aplikace.msmt.cz/HTM/KTSkolniprogramprotisikanovani.htm>>

Annexe n°1 Dialog with a teacher - prevention methodist

At the beginning of this work I had an impression that I knew what I was taking up - clear drug problems. It was a clear image, because I used to work in Podanéruce („Given hands“ - a citizen association).

Till now I have problems with solving the bullying, especially concerning other than class teachers in sixth and seventh years.

It is easier with class teachers, they organise special lessons, so called „little houses“ where they discuss, besides other things, the atmosphere in the class, the cohesion and ability to cooperate.

It depends on class teacher a lot, how much is he or she engaged in the issue.

Help can be found in seminars, in courses for prevention methodists... it is paid..

Seminars of Mgr. Michaela Veselá seems to be well designed, the issue is defined and she answers.

From my position, the cooperation with class teachers who organise „little houses“ is important for the prevention.

The content of „little houses“ is important though - mere concentration on written excuses and general class paperwork is undesired.

Time demands depend on how much you are engaged in this work. I am finishing master's degree studies of English this year so I can not go in for it too much, .. it demands significantly more.. about 1 hour a week.

Some packages compiled for prevention would be very helpful for me, they represent created programmes and contain among others working possibilities like for example to try testing for alcohol, drugs... Methodology of prevention methodist's work is also well elaborated, it says how to make a record, when to contact,.. who to contact.

Accredited prevention methodist has a supplement 1000-2000 CZK..... at the moment I have personal supplement 400-500 CZK.

After 2 years of work I am annoyed that I can not influence it, a feeling of vainness is coming upon me, I can not discuss it with parents, they usually keep denying, children are not doing it at home.

I have to watch the bullying, prevention is quite all right.

I can not influence alcohol, smoking, pot - it's helplessness.

„Our class doesn't smoke“ was a great project.....pupils were describing that odd are

both - the one who smokes as well as the one who doesn't...
Pot smoking worries me the most, it is a fashion, smokers are cool.

The event in culture center Rubin helped my work the most, it was a meeting with a former junkie, there were 500 people, when she was talking it was a total silence, they combined authentic evidence with a movie.. very impressive.

I am annoyed because of the lack of experiences, I am often at my wits' end
I do not like the feeling of being lost, not knowing what to do.

The change is needed.

More sophisticated system....to specify everyone's authority, but clearly, concretely, not theoretical abstract conceptions of current academic educationalists.

I have an idea what is my scope of activity

- what about class teachers
- what about school management
- what about parents.

With parents it should be rather on informative basis, then I would like to go around the classes with somebody who had an experience, to focus on ninth years who are leaving school, for instance even via P- center for parents on Sládkova street and of course detect the sixth classes straight away.

On a social evening, there were some drunk pupils; there is no respect for school from parent's side, let alone pupils.

Practical seminars at a faculty, project formulation and creation of facultative seminars would be helpful.

Involvement of the family in the cooperation, not their control, but mutual and equal cooperation.

Extract from a work of prevention methodist in a school year 2008/2009

Adaptation course classes 6.A, 6.B

- **Date:**

Class 6.A experienced its adaptation course from the 10th to 12th of September and class 6.B from the 17th to 19th of September 2008.

- **Purpose of adaptation course:**

The purpose of this course was not only to introduce new classmates in a group of children but also to try to weld a new team together; help children to feel comfortable and safe in this team and show them that they can experience nice and unforgettable moments at school if they will be supportive of each other.

- **Programme:**

The programme was very tight. The get-together games helped new children get to know their classmates, during active motion games they let off steam, psycho-social and moral games helped them to think of themselves as well as of people around them. One of the parts of this course was a night at school promised in advance thus it was impossible to miss out sausages roasting, night game and discotheque.

Children were mostly interested in baseball, the spirit of which went through the whole course. This sport game helped children to realize that some rules have to be observed and also that they are part of the team. It was not only the game itself what facilitated to experience togetherness with the team but also the common team shout, flag and other unifying factors.

- **Particular items of the study and their scale:**

- ▶ **Psychological environment**

- mutual respect among participants
- cooperation among participants
- possibility to rely on each other
- reciprocal support and aid
- frankness and authenticity
- pleasure and joy of being the part of the community
- humanity in actions and behaviour

- ▶ **Pupil's involvement in a collective plan creation**

- ▶ **Pupil's involvement in diagnostics of his/her own needs**

- ▶ **Pupil's involvement in goals defining**

- ▶ **Pupil's involvement in procedure proposition during problem solving**

- ▶ **Pupils' help to realize suggested learning method**

- ▶ **Pupil's involvement in evaluation of the course and results of his own learning**

- ▶ **Autoregulation**

- ability to take in the assignment
- ability to take a decision about the type of task solving
- ability to meet the task finishing
- ability to accept teacher's authority
- ability to keep time standards
- ability to observe the rules
- ability to reflect the quality of task fulfilment

never	sometimes	always
-------	-----------	--------

Assessment of particular pupils from 6.A class

Name	Field	Scale		
		never	sometimes	always
Veselá Jana	Psychological environment			
	mutual respect among participants			X
	cooperation among participants			X
	possibility to rely on each other			X
	reciprocal support and aid			X
	frankness and authenticity			X
	pleasure and joy of being the part of the community			X
	humanity in actions and behaviour			X
	Pupil's involvement			
	Pupil's involvement in a collective plan creation			X
	Pupil's involvement in procedure proposition during problem solving			X
	Pupil's involvement in diagnostics of his/her own needs			X
	Pupil's involvement in goals defining			X
	Pupil's involvement in evaluation of the course and results of his own learning			X
	Autoregulation			
	ability to take in the assignment		X	
	ability to take a decision about the type of task solving		X	
	ability to meet the task finishing			X
	ability to keep time standards			X
	ability to reflect the quality of task fulfilment			X
	ability to accept teacher's authority			X
	ability to observe the rules			X

Jana is a friendly girl who has no problem to express her feelings, she is open, sincere. In front of the whole class she apologized to her classmate for not wanting to be in friendship in the past and she told her that she would be happy to set it right.

We recommend: put the accent on concentration. It is possible to rely on Aneta in the team.

Class	Field	Scale		
		never	sometimes	always
6.A				
	Psychological environment			
	mutual respect among participants	0%	47%	53%
	cooperation among participants	5%	47%	47%
	possibility to rely on each other	0%	37%	63%
	reciprocal support and aid	0%	37%	63%
	frankness and authenticity	5%	26%	68%
	pleasure and joy of being the part of the community	0%	26%	74%
	humanity in actions and behaviour	5%	26%	68%
	Pupil's involvement			
	Pupil's involvement in a collective plan creation	16%	21%	63%
	Pupil's involvement in procedure proposition during problem solving	21%	42%	37%
	Pupil's involvement in diagnostics of his/her own needs	11%	26%	63%
	Pupil's involvement in goals defining	11%	32%	58%
	Pupil's involvement in evaluation of the course and results of his own learning	0%	58%	42%
	Autoregulation			
	ability to take in the assignment	11%	68%	21%
	ability to take a decision about the type of task solving	5%	68%	26%
	ability to meet the task finishing	0%	26%	74%
	ability to keep time standards	0%	26%	74%
	ability to reflect the quality of task fulfilment	0%	47%	53%
	ability to accept teacher's authority	0%	32%	68%
	ability to observe the rules	0%	37%	63%

Class	Field	Scale		
		never	sometimes	always
6.B	Psychological environment			
	mutual respect among participants	16%	37%	47%
	cooperation among participants	0%	42%	58%
	possibility to rely on each other	11%	26%	63%
	reciprocal support and aid	11%	26%	63%
	frankness and authenticity	5%	37%	58%
	pleasure and joy of being the part of the community	0%	32%	68%
	humanity in actions and behaviour	11%	37%	52%
	Pupil's involvement			
	Pupil's involvement in a collective plan creation	5%	52%	42%
	Pupil's involvement in procedure proposition during problem solving	0%	58%	42%
	Pupil's involvement in diagnostics of his/her own needs	5%	47%	47%
	Pupil's involvement in goals defining	5%	37%	58%
	Pupil's involvement in evaluation of the course and results of his own learning	5%	37%	58%
	Autoregulation			
	ability to take in the assignment	5%	47%	47%
	ability to take a decision about the type of task solving	0%	52%	47%
	ability to meet the task finishing	0%	21%	79%
	ability to keep time standards	0%	21%	79%
	ability to reflect the quality of task fulfilment	5%	37%	58%
	ability to accept teacher's authority	16%	21%	63%
	ability to observe the rules	16%	32%	52%

UČITEL – PREVENTISTA

Abstrakt: Příspěvek se zabývá postavením učitele metodika prevence na základní škole. Snaží se posoudit postavení metodika prevence v pedagogickém sboru, jeho výukovou zátěž a možnost dalšího profesního vzdělávání. Průzkumná část vychází z kvalitativního průzkumu, kdy výzkumný vzorek tvořilo 5 učitelek preventistek ve věku 27-35 let z brněnských a vyškovských škol s 2-5letou praxí preventisty. Polostrukturované rozhovory byly v lednu až březnu 2009 nahrávány na diktafon a analyzovány. Sonda do této oblasti ukázala na motivaci učitelů, metodiků prevence, pro práci ve škole, na nedostatečnou připravenost pro práci metodika prevence během studia učitelství na VŠ, na malý prostor pro tvorbu vlastních programů prevence na základní škole.

Klíčová slova: učitel, prevence, primární prevence, komunikace, vyhlášky, sociálně-patologické jevy, preventivní programy, hodnoty, metodické pokyny, zákony, rámcově vzdělávací program

APPLICATION OF SOCIAL NORM CAMPAIGN IN HIGH SCHOOLS

Martina ROMANOVÁ, Tomáš SOLLÁR

Abstract: *The paper deals with the prevention strategy that was used in different types of high schools. The Social Norm campaign was chosen as a health promotion strategy and its aim was the correction of not accurately perceived peer norms related to substance use. The campaign was a part of the project and the cooperation of city Nitra and University of Illinois. The project consisted of two phases. Students of seven high schools (n=638) took part in the first phase and they completed the survey assessing substance use and perceived norms. For the second phase students (n=219) from four high schools were chosen. The sample consisted of three groups of students in every school: two experimental and one control group. They differed in the degree of intervention. After four weeks of campaign implementation no significant differences were found among the groups. One possible explanation of this finding is that the length of the campaign (four weeks) was not sufficient if we want to change students' misperception.*

Keywords: *norms, actual norm, perceived norm, misperception, correction of misperception*

In recent years the teachers have been frequently talking about the ways which would improve the quality of life, with paying much attention to coping with stressful situations. The necessity to search for more effective strategies which could reduce or even eliminate using alcohol, cigarettes and other substances has become one of the priorities not just in schools, but also in public policy.

In our country not used prevention strategy which uses the social norm approach, has been widely used in the US. The core idea is the finding that there is a tendency in young people to perceive the substance use as more frequent than it actually is (Berkowitz 2004; Perkins, Berkowitz 1986). The social norm approach belongs to the prevention strategies aimed at preventing substance abuse which can be confirmed by many studies and researches (Schultz, Neighbors, 2007; Thombs et al., 2007; Berkowitz, 2005; Lintonen, Konu, 2004; Perkins, 2002). The basic idea of this approach is to communicate actual student norm in terms of what most of the students do concerning substance use. In comparison with other strategies social norm approach is oriented on healthy decisions, using creative potential of the target group.

Due to the differences in terminology used in empirical investigations we shall pay attention to the classification of norms (Cialdini, Demaine, 2006; Elek et al., 2006; Borsari, Carey, 2003). There are two types of norms that are used in the literature dealing with prevention efforts:

- ⇒ Descriptive norms – refer to the perception of frequency and quantity of alcohol consumption or other substance use within some population.
- ⇒ Injunctive norm – refer to the extent to which students approve or disapprove of substance use.

Oleson (2004) distinguishes two dimensions of these two norms: actual norm and perceived norm. Actual norm consists of the actual average attitudes, beliefs and behaviors of people in the group. On the other hand the perceived norm consists of assumption within the group related to the extremity in the attitudes, beliefs and behavior of other people within the group. A perceived norm is different from actual norm because it relates to what people think a norm is. Neighbors et al. (2006) directs attention to the following findings:

- a. perceived norm is typically higher than actual norm,
- b. perceived norm positively correlates with alcohol consumption.

The phenomenon of not accurate actual norm perception was called misperception and it refers to the differences between the actual attitudes or behaviors and perceived attitudes and behaviors (Berkowitz, 2004). Berkowitz (2004) confirms that results of many researches indicate that peer influence is more based on what we think other people do and what they believe to rather than on their actual behaviors and beliefs. Beck and Treiman (in Perkins, 2002) affirm, that misperception can be found in high schools and universities as well. Theoretical explanation can be found on psychological, social and cultural level. In terms of cognitive level the psychologists demonstrate the tendency of people to attribute actions of other people to their dispositions rather than to environmental context (Zanden, 1987; Sollárová, 2004, 2008).

Social norm approach

Perkins (1995) claims that most of the students typically overestimate substance use and the permissiveness of their schoolmates or peers. He formulates basic points regarding the misperception:

1. The difference between actual and perceived norm exist in all types of drugs.
2. Misperceptions of peer norms exist in high schools, not just in universities.
3. Misperception exists in males and females, so it extends across gender.
4. Misperceptions affect the students' personal substance use.

Social norm approach is widely used strategy in various areas, not just in prevention efforts aimed at reduction of smoking, alcohol consumption or other substances use. Researchers in the social norm area focused mostly on alcohol consumption and other substance use, but in recent years they are paying attention also to risky sexual behavior, gambling or driving a vehicle when intoxicated.

This approach seems to be very popular because:

- Most of the strategies that are still used in our schools are not effective. The professionals keep searching for new, more effective ones. In many articles they draw attention to the mistakes and weaknesses of the programs and strategies used in our schools. They criticize weak effectiveness and no changes in attitudes and behaviors.
- There is a tendency in the prevention field toward evidence – based evaluations.

The social norm approach explains that most of the problems in young people are caused by their desire to conform to group norms, group patterns and expectations which are erroneously perceived (Perkins, 2003). This type of prevention strategy suggests the way to correct the misperceived norms: to shift the perceived norm closer to the actual norm. The basic idea is to gather credible data from the target population and then spread and expose this population to positive, data – based messages using health communication strategies. When we repeatedly expose the target population to these messages, people begin to behave in accordance with the more accurately perceived norm (Figure 1).

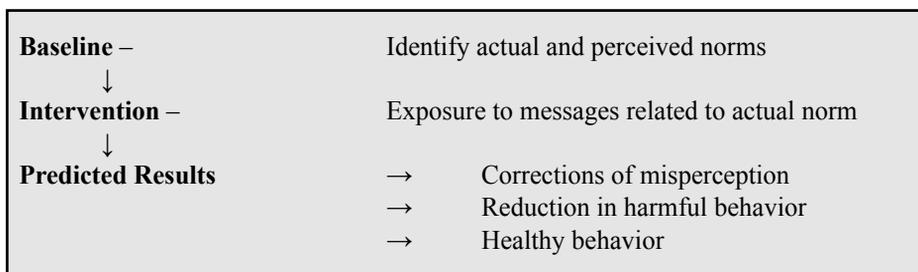


Figure 1. Model of Social Norm Approach (Haines et al., 2004)

It is important to emphasize that social norm approach focuses on the positive and the healthy decisions of the majority and it communicates only norms of non-use (Berkowitz, 2005).

In the research we focus on the universal level of prevention and the norm we used in campaign was descriptive on both levels: actual and perceived. We used Social norm campaign – the survey results contrasting misperceptions with actual norms were publicized in students posters. They provided others students the correct information about alcohol and other drug use and correct their erroneous perception (DeJong, Langford, 2002).

In planning the research design we followed this sequence: first we needed the data related to the level of actual and perceived norm, then we could identify the misperception. We investigate whether different extent of intervention will have impact on the perception of peer norms related to substance (alcohol, cigarettes and marijuana) use.



Figure 2. Sequence of misperception identification

Methods

Sample - participants

The research sample consisted of high school students who participated in the project. The project was conducted with the support of City of Nitra and University of Illinois. It consisted of two phases. The first phase was aimed at data collection from which we obtained the data regarding the actual norm, perceived norm and misperceptions related to substance use. Within the second phase we cooperated with four high schools and the focus of the work was placed on correction of misperceptions.

Table 1. High schools participating in the project and numbers of students

SCHOOL	1. phase		2. phase	
	n	%	n	%
1. Business Academy	165	25.9%	43	19.6%
2. Health Care High School	118	18.5%	52	23.7%
3. Electrotechnic High School.	69	10.8	40	18.3%
4. High School (“gymnasium”)	135	21.2%	84	38.4%
5. Sport High School	42	6.6%	-	-
6. Hotel Academy	96	15.0%	-	-
7. Technical Training High School	13	2.0%	-	-
TOTAL	638	100%	219	100%

Method- measures

To detect the actual norms, perceived norms, attitudes, preferences and parental behavior „Drug Use and Perception Survey“ was used. English version of the survey was provided by University of Illinois. The adapted Slovak version differs just slightly from the original - items that were irrelevant in our sample were left out. Administration of the survey takes approximately 20 minutes.

The answers regarding substance use in students were divided according the following key:

- a) If the students perceive themselves or others as using alcohol, marihuana or smoking cigarette at least three times a week and more often they were considered as users,
- b) If the students perceive themselves or others as using alcohol, marihuana or smoking cigarette never or once a year they were considered as non- users.

Research plan

The second phase aimed at Social Norm Campaign was carried out with cooperation of four high schools. Three classes were asked to participate in every school. Students consent was obtained and participation in the project was voluntary. Three

classes represented two experimental and one control group (Table 2). The first experimental group consisted of students who were enrolled in the Social Norm Campaign. The campaign began with the brief explanation of the project, we introduced the findings from the survey that was administered a year ago and finally the phenomenon called misperception was introduced in terms of information how misperception develop and what the causes and consequences of this phenomenon are. The students asked questions related to this issue; talk very openly about actual substance use, prevention programs they have already participated in. Within this first session we introduced the main idea to communicate normative message to large number of students. Students' task was to develop and prepare in the form of posters a number of normative messages that are simple, truthful and positive – simply defining what the healthy population does. The duration of the campaign was four weeks, we were in touch with students almost every day and once a week we had a session that was accompanied by discussions and conversation. At the end of this 4-week campaign students were asked to complete the „Drug Use and Perception Survey“. The sample in experimental group 2 consisted of the students who did not know anything about the project. Their involvement lasted one lesson (45 minutes) - the core idea of the project was introduced and their task was to see and assess the posters prepared by the students from experimental group 1 and write the feedback regarding their opinions about the posters and the messages on them. At the end of the lesson they were asked to complete the same survey as group 1.

Control group consisted of the students, who did not know anything about the project, nor they were asked to evaluate the posters – they just completed the same survey that was administered in previous two experimental groups.

Table 2 Division of males and females within the groups

GROUP	Gender		Total
	male	female	
Experimental group 1	42	27	69
Experimental group 2	31	51	82
Control group	28	40	68
Total	101	117	219

In the experiment, the baseline data was retrieved from the „Drug Use and Perception Survey“ that was administered to 638 high school students the previous academic year. Intentionally the test-retest design was not used in order to avoid retaking the same test in a relatively short time. At the same time due to precise clarification of the approach we tried to avoid such answers that could be labeled as socially desirable (Ott, Doyle, 2005; Ferjenčik 2000; Disman 2002). Different procedure was chosen: misperception in control group (2008) was compared with misperception that was obtained from the survey administered a year before (2007).

Results

Findings are analyzed in the following sequence: actual vs. perceived norm (indicator of misperception) and correction of misperception.

Actual vs. perceived norm – indicator of misperception

Table 3. Differences between actual norm (AN) and perceived norm (PN) in four high schools students - 2007

2007–Drug Use and Perception Survey	Substance	AN VN	N	AM (%)	SD	t	df	p
4 schools	cigarettes	AN	454	33	.471	27.798	453	< .001
		PN	454	98	.147			
4 schools	alcohol	AN	389	41	.492	22.133	388	< .001
		PN	389	98	.151			
4 schools	marihuana	AN	440	02	.142	16.468	439	< .001
		PN	440	41	.492			

Legend: AN – actual norm, PN – perceived norm

Findings indicate that actual substance use (cigarettes, alcohol and marihuana) is not identical with the perceived norm according to the results from „Drug Use and Perception Survey“ administered in 2007. Students were prone to overestimate the prevalence of these substances use in their schoolmates and students in general. This finding is valid for all four types of high schools and the difference between these two norms is considered as statistically significant.

The next step was to find out whether misperception of actual norms regarding the same substance use is observed in these schools a year later (2008). This finding will serve as a base or precondition for the campaign.

Table 4. Differences between actual norm (AN) and perceived norm (PN) in four high schools students - control groups (2008)

2008–Social Norm Campaign	Substance	AN PN	N	AM (%)	SD	t	df	p
Control group	cigarettes	AN	62	47	.503	7.350	61	< .001
		PN	62	97	.178			
Control group	alcohol	AN	55	16	.373	13.266	54	< .001
		PN	55	96	.189			
Control group	marihuana	AN	63	0	.000	6.601	62	< .001
		PN	63	41	.496			

Legend: AN – actual norm, PN – perceived norm

Statistically significant differences were found between actual norms and perceived norms of substance (alcohol, cigarettes and marihuana) use in all control groups after the survey administration. Students' greatest area of overestimation was in their perception of prevalence of alcohol consumption (at least 3 times a week). Ninety – six percent of the students in control groups estimated that their peers drink alcohol at least three times a week. This response is considered as overestimation when compared to the actual norm of 16%.

The findings regarding the misperception in high schools students in a year interval provide the precondition for Social Norm Campaign implementation. The perceived norm in all chosen substances was significantly higher than the actual norm was.

Correction of misperception

Used prevention strategy did not have an ambition to reduce the prevalence of those students who consume alcohol or marihuana, smoke cigarettes on a daily basis. Due to the duration of the campaign – four weeks – the aim was defined as correction of erroneously perceived norms of substance use. The indicator is the level of a perceived norm. Therefore in further interpretation we focus only on this norm related to perception.

Table 5. Differences in perceived norms among two experimental groups and one

Perceived norm	Substance	Exp. 1 Exp. 2 Control	N	AM (%)	SD	F	p
PN	Cigarettes smoking	E1	69	90	.304	2.218	.111
		E2	81	98	.156		
		C	67	96	.208		
PN	Alcohol consumption	E1	70	90	.302	1.545	.216
		E2	80	95	.219		
		C	65	97	.174		
PN	Marihuana use	E1	70	29	.455	1.236	.293
		E2	78	37	.486		
		C	63	41	.496		

Legend: PN – perceived norm, E1 – experimental group 1 (Social Norm Campaign), E2 – experimental group 2 (posters presentation), C – control group (without campaign, without seeing posters)

After four weeks of Social Norm Campaign no significant differences were found in perceived norms among the participants from two experimental and one control group. Students of all groups did not estimate the prevalence of cigarette smoking, alcohol and marihuana use accurately, since they still have a tendency to overestimate the prevalence of substance use. What is notable is the finding that the level of perceived norm is not identical in experimental and control groups. The lowest level can be observed in experimental group 1, where the Social Norm Campaign was implemented.

Discussion

Actual vs. perceived norm – indicator of misperception

Discrepancies between actual and perceived norm were discovered in high school students. Perceived norm was similar in all four types of high schools; they frequently overestimated the prevalence of cigarette smoking, alcohol, and marihuana consumption. The estimated percentage of those students who are involved in a risky behavior was in alcohol and cigarettes close to 100%. Misperception was discovered in the sample of Slovak students, therefore we can suppose that this phenomenon exists regardless the

type of a high school, or the country the students live in. Perkins (2003) summed up the factors influencing misperceptions into the following areas:

- a. attribution theory
- b. public behavior of young people
- c. conversations
- d. advertisements.

Attribution theory is a cover term for all approaches that account for the causes of people behavior. There is a tendency to attribute behavior of other people to their dispositions and to think erroneously that such behavior is typical for that particular person. We frequently consider the situation when evaluating or judging our own behavior. Attribution theory is focused on the process of causal explanation of a given behavior and various situations in our lives (Perkins, 1997; Sabini, 1992).

Public behavior means that not just young people but people in general are prone to remember the extremes of behavior. Conversation is another factor, in some aspects similar to the previous one, because we all use more than often the quantifiers “everybody or nobody”. So if some people were at the party, later on when talking about it, young people would probably say that *everybody* was there. That of course does not have to be true in all cases.

In the context of social norm approach, attribution theory help in explanation how people make judgments regarding their own as well as other people substance use.

Correction of misperception

The main intention of this experiment was the correction of not accurately perceived norms regarding alcohol and marijuana use, and cigarette smoking. We found out, that four week implementation of Social Norm Campaign did not result in a dramatic change in the perceived norm. The number of students who misperceived use of the substances mentioned above did not decrease - neither in the experimental group 1 (where the students were actively involved), nor in the experimental group 2 and control group change. What is considered as highly positive is the feedback of the students. Their positive comments indicate that this type of prevention is something different in comparison to the strategies they are used to. They were given the opportunity to see substance use from a different perspective. They did admit that we should not believe everything what we hear. Improving the campaign and making it more effective can be achieved by its combination with other strategies, for example peer programs.

The limitations of the project can account for results:

1. Number of students in classes and the type of a high school
2. The time of sessions or meetings with students.
3. The nature of questions regarding the actual norm – the students’ responses may not be honest. However, studies have demonstrated high degree of reliability of young people self-report of substance use in the case when responses are anonymous (Ott and Doyle, 2005).

Conclusion

The prevention strategy that was used in the experiment was kind of a challenge for us because a lot of scientific articles (Sollárová, 1999, 2000) emphasize and point to low effectiveness of those programs and strategies that are presented in our schools. This fact resulted in the process of searching for such prevention work which uses completely different methods. Despite our findings we think that Social Norm Campaign has great potential, because it does not point to negative consequences of substance use but gives support to the majority of students who prefer healthy choices in their lives. Presenting positive aspects of healthy decisions and choices together with enthusiastic people who really care about the future of the next generation can help young people not just to become more responsible, but to fully respect their lives.

APLIKÁCIA KAMPANE SOCIÁLNYCH NORIEM AKO PREVENTÍVNEJ STRATÉGIE UŽÍVANIA NÁVYKOVÝCH LÁTOK U ŠTUDENTOV SŠ

Abstrakt: Príspevok sa zaoberá problematikou prevencie závislostí u študentov stredných škôl. Na vybraných školách bola aplikovaná Kampaň sociálnych noriem, ktorej cieľom bola korekcia nesprávne vnímaných rovesníckych noriem užívania a ktorá bola súčasťou projektu realizovaného v spolupráci mesta Nitra a Illinoiskej univerzity. Projekt mal dve fázy. V prvej fáze, ktorej sa zúčastnili študenti siedmich škôl (n=638) bol administrovaný dotazník, ktorý tvoril podklad k samotnej Kampani sociálnych noriem. V druhej fáze, v ktorej sa vybrali štyri stredné školy (n=219) výskumnú vzorku tvorili tri triedy na každej škole: dve experimentálne a jedna kontrolná, ktoré sa medzi sebou líšili v intenzite intervencie. Po 4 – týždňovej implementácii Kampane sociálnych noriem neboli zistené významné posuny vo vnímaní. Vysvetlením zistenia môže byť skutočnosť, že štyri týždne je pomerne krátky čas na to, aby študenti zmenili nesprávne vnímané rovesnícke normy užívania, čo zodpovedá aj zisteniam zahraničných výskumov.

Kľúčová slová: normy, aktuálna norma, vnímaná norma, mispercepcia, korekcia mispercepce

TRAFFIC EDUCATION AS A COMPLEMENT OF HEALTH EDUCATION

Mojmír STOJAN

Abstract: *Traffic education as an organic complement of harmonic and universal education is an important phenomenon of the present school system. Its objective is to adapt the individual to successful co-existence with the increasingly heavier mobility. The level of traffic education considerably differs among countries. While in some countries where traffic is highly developed it has a long tradition, in some countries they are still wrestling with elementary problems. In the present study the results of investigations carried out in some European countries are evaluated and the results achieved in 2006 and 2009 are compared.*

Keywords: *traffic education; forms and methods of traffic education in various European countries; comparison*

Situation research anamnesis

According to the majority of international statistical investigations, including results published by the World Health Organisation WHO in Geneva, in developed countries traffic accidents are at the top of the list of causes of fatal accidents of children and young people. As a consequence of traffic accidents the psycho-social, economic and particularly the traumatic burden for the society is frightening and at the same time, as some present exclusive investigations of accident-free traffic indicate (much to our regret only of limited extent), they are completely pointless.

From all humane aspects the most highly-priced and the most unrecoverable casualties of traffic accidents are injuries of children and adolescents and their deaths due to traffic collisions.

Only top managing state bodies are capable of assuming responsibility for the prevention of traffic accidents and their consequences as a global multi-dimensional problem; they have the powers to systematise all basic measures, among which is the conception of building new and safer roads of all kinds, upgrading traffic legislation in terms of traffic rules, traffic engineering and intensification of transport, consistent systematic care of ethicising the traffic environment by creating conditions for an effective control of the drivers' behaviour, suppressing aggression, the dominance of consideration, especially for the children, pedestrians, cyclists and seniors, giving

priority to foot traffic in densely populated residential agglomerations and specific urban localities where housing is predominating. In other words to rationally influence all aspects of mobility towards harmony with a friendly environment for all categories of traffic users.

Side by side with the above it is necessary to establish top-notch police service seeing its purpose not only in unquestionable repression and strict call for respect of traffic regulations, but above all in its educational and preventive mission in the area of traffic control, specifically at critical places of accidents, organising publicity and educational campaigns, and in the capacity of competent traffic consultancy. In this respect we often see that the scope of activities of the police aimed at initiating and support of activities of related traffic-connected social organisations remains partly or completely idle, whether they are various motor organisations, automobile clubs, tourist associations, combat sports etc.

With regard to the increasing and transforming demands of health care in terms of traffic accidents, only the state can make strategic investments in the equipment of mobile medical emergency means and static trauma centres, become involved in the level of prevention of traffic accidents, in health care of victims of traffic accidents and, finally, in the co-ordination of health service with other components of integrated aid.

Last but not least, a unique opportunity and on it based duty for the top managing bodies of the state is to coordinate co-operation of all the traffic-related ministries: Ministry of Transport, Ministry of Health, Ministry of Justice and Ministry of Education, to name at least the most important ones. Even though education is at the bottom of the list, in the system of prevention of traffic accidents it is far from playing a minor role. Without exaggeration we can say that its dominant nationwide educational influence on the population is of key importance provided that in this activity it finds support and harmony with the other measures. Apart from the practical implementation of traffic education beginning at the lowest school grade, at the level of specifically-oriented university education it has a significant share in investigations into sustainable mobility and as safe as possible co-existence of all traffic participants; naturally that the focus of its attention is primarily on children and school-age adolescents, and is not taken out or isolated from the entire complex system of the issue.

As mentioned above the most tragic and irreplaceable victims of traffic accidents are children and young people of school age of secondary schools who were injured or lost their lives in the accident. The system of institutional education bears this fact in mind and is instituting a hierarchic system of instruction and training in schools. Beginning in pre-school institutions at the level of kindergartens, where on the basis of the majority of investigations this education is most consistent and is performed using adequate methods and forms, to both grades of elementary schools, where especially at the first grade the traffic education is an integrated evolution programme the purpose of which is to provide the pupil with skills that will help him/her to find their way in the traffic and behave in a responsible and independent manner, down to incomplete, fragmented and, at the very most, specific pre-driving or even driving preparation at various career profiled secondary schools.

Specific preliminary investigations

Within the research project “School and Health 21” (MSM0021622421) in the Czech Republic we investigated the situation in several steps, frequently using results from abroad in order to compare our situation with situations in other countries; we also carried out our own investigations and we used our own research and retrievals and generalised the results published in available sources.

The objective of the first study of this type was to map the conditions, forms and methods of traffic education in schools for children and school-age young people in the EU countries, incl. training teachers in the area of traffic education; the favourable indicators of traffic injuries of children and young people in these countries could be an inspiration for us when organising institutional traffic-educational systems and when training qualified and competent teachers.

We used data provided by 12 European countries (Austria, Belgium, Denmark, Finland, France, Italy, Germany – Bavaria, Great Britain, the Netherlands, Spain, Sweden and Switzerland) which were willing to co-operate and to pass on the required information.

In this stage of comparative analysis of traffic education systems in the individual countries the focus was on parameters of an organisational and teaching character:

- introduction of traffic education into educational and training programmes of schools, date of implementation of traffic education into the curriculum;
- existence of regulations or rules for traffic education, their origin, date of implementation;
- existence of curricula for traffic education, their origin, date of implementation;
- minimal extent of traffic education taught in school lessons in the prescribed curricula;
- method of organisation of TE: binding effect: - compulsory
- facultative
type of approach: - TE as an independent subject
- TE integrated into other subjects
type of training: - theoretical
- practical: - simulation of reality
- traffic playground
- real traffic
- method of acquiring teacher qualification for conducting teaching and training in traffic education;
- other subjects participating in traffic education in schools;
- statistical data on the traffic accident rate of age groups of 3-6 years, 6-11 years, 11-15 years, 15-18 years, year, number of injured persons, number of casualties.

For publication purposes the original study elaborated in this stage of evaluation of the provided data was reduced from the full extent of 57 pages to 12 pages, reduced down to the most important and most schematic results and was used in the following contribution:

STOJAN, M. *Prevence účasti dětí na dopravních nehodách v zrcadle rozsahu a forem dopravní výchovy dětí a mládeže ve vybraných zemích EU, část 1. (Preventing the involvement of children in traffic accidents in the mirror of the extent and form of traffic education of children and young persons in some EU countries, part 1.)* In Škola a zdraví 21. Monografický sborník výzkumného záměru MSM0021622421. Brno: Masaryk University 2006.

For evaluation in the second stage we used data which illustrated the material and evaluation aspects of the individual systems:

- effectiveness of the individual types of teaching material (media)
- popularity and user comfort of the individual types of teaching material
- conceptual character and systematic nature of the teaching material
- economic availability of the teaching material (free/paid), and/or financial aid from subjects outside of the school
- objective adequacy of the content and extent of traffic education in schools
- importance and method of periodic evaluations of the effect of traffic education and reflection of the results in curricula
- applicability of regional curricula of traffic education for transfer into other countries, and/or reasons preventing such co-operation.

Results of the second part of the evaluations were also reduced, i.e. from 21 original pages to 10 pages and are available in the following study:

STOJAN, M *Prevence účasti dětí na dopravních nehodách v zrcadle rozsahu a forem dopravní výchovy dětí a mládeže ve vybraných zemích EU, část 2. (Preventing the involvement of children in traffic accidents in the mirror of the extent and form of traffic education of children and young persons in some EU countries, part 2)* In Škola a zdraví 21. Monografický sborník výzkumného záměru MSM0021622421. Brno: Masaryk University 2007. 10 s. ISBN 80-900915-3-9

Current verification investigation

In October 2009, five years after the previous research, repeated investigations were carried out; at the suggestion of the office in Brussels and on the basis of its prestigious status the Fédération Internationale de l'Automobile (FIA) based in Paris became the guarantor (assumed patronage). The entry of FIA into the area of traffic education being aware of its importance as a tool for the cultivation of the present standard and of traffic security is more than significant. Making use of its own national organisations and clubs FIA distributed a questionnaire to 27 countries canvassing the standard and conditions of traffic education and won an above-the-standard number of participating respondents: 21 countries from the European Union and outside of it and 23 reports on the situation in traffic education. Owing to the kindness of the office in Brussels and co-operation with our national representative in this organisation, the Autoklub České republiky (Automobile Club of the Czech Republic), the basic data were placed at our disposal and enabled us to evaluate all the information they provided which complemented, partly identically, partly differently, information acquired during similar canvassing in 2006.

The following countries participated in the present investigations:

Austria, Bulgaria, Czech Republic, Germany, Great Britain, Greece, Hungary, Iceland, Italy, Luxembourg, Moldavia, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.

All these countries obtained the same five questions: Is traffic education in your country part of the compulsory curriculum of primary schools? If it is:

- 1) In which school grades is traffic education incorporated in the curricula? What age range of the pupils does it represent?
- 2) Is there a definition of the traffic education programme or listing of compulsory subjects which includes traffic education?
- 3) Who is in charge of traffic education? Is it the teacher of the subject or is it an expert in road traffic safety?
- 4) Is the number of lessons which should be devoted to traffic education specified? How many lessons is that?
- 5) Does the automobile club in your country participate in these activities?

More than three quarters of the responding countries (76%) answered that traffic education is taught in schools. Regrettably, out of this number traffic education is compulsory in less than one half of the questioned countries. The outcome of an analysis of data obtained from automobile clubs of the questioned countries was even worse: only 35% reported that traffic education is compulsory in schools. In this context some respondents stated that it was very difficult to trace back how effective was the implementation of the Act on Traffic Education at primary schools, if at all such an Act at a national level exists.

The data sent by the respondents imply that traffic education in primary schools still suffers one great drawback and that is that at an international level it lacks a concept, co-ordination and interconnection of its level and quality with the respective national educational systems. Attention was drawn to this fact by 33% of the respondents who pointed out that even though pupils in some countries attended traffic education, it did not inform about the method and acceptability. For instance in Sweden it is the subjective choice of the headmaster if traffic education is implemented at his school. (Notwithstanding, the responsibility of the school staff is high and that is the reason why the traffic accident rate in this country is the lowest ever, including adequately low morbidity or mortality of children). In countries strongly structured regionally (e.g. Austria) the rules for traffic education may even differ among the respective regions. In some countries, for instance in Spain, the safety of road traffic is a component of a wider educational issue which includes more extensive social skills in the sense of civics. (This conception is also close to us because coupling traffic education with more general principles of ethical education, cultivation of the moral principle, respect for the law and social interpretation of how to comprehend democracy, freedom and discipline is the foundation stone of the behaviour of road traffic participants). And finally in this direction of analysis of the issue we discovered that traffic education in some countries was formally not compulsory but that it was incorporated into the so-called school packages (e.g. Netherlands).

In their reports the remaining 24 % of respondents expressed their regret that no form of traffic education in their country was compulsory. National automobile clubs have imposed pressure upon the top school institutions and required the introduction of compulsory traffic education at primary schools, but negotiations were mostly unsuccessful. Some participating parties informed that they were seeking an innovative method of argumentation to answer the negative attitude of the ministries and to prove that educating pupils towards a safe co-existence with road traffic in the present mobile society is a component of the education programme just as important as other unchallenged elements of literacy acquired by means of classical disciplines – mathematics, natural science and languages.

The next part of evaluations of the investigations concerned answers sent by organisations from countries where traffic education is compulsory, either in the form of a special course or implemented in suitable school subjects: Germany, Italy, Czech Republic, Slovakia, Switzerland, Slovenia, Bulgaria, Norway, Hungary and Island.

Here is at least a brief survey of results of evaluations of the individual questions:

In most countries where traffic education is taught at primary schools it has been compulsory in curricula for several to dozens of years. Most of these “courses” begin at 6 years of age (i.e. from first class) and generally continue up to the last grade. In this respect the situation in our country is exemplary and is of high-quality because traffic education is a standard programme as early as the kindergarten. Italy and Portugal intend to follow in our “footprints”; in addition they intend to include one year of pre-school preparation. Traffic education in primary schools lasts at least 3 years, as reported by three quarters of the countries.

In details the individual countries considerably differ, for instance in Italy and Portugal compulsory traffic education lasts only one year, from the age of 6 years. However in some countries it takes 3 to 4 years; in extreme cases the respondents reported 4 to 10 years, even more than 10 years. In German schools traffic education is taught for 5 years (6-10 years of age), in Slovenia 3 years (6-8) plus one year more during school attendance, in Bulgaria 7 years (9-15), in Island and Norway 10 years (6-15) and in Switzerland even 15 years, evidently as soon as pre-school facilities and is still taught in secondary schools (4-18).

When inquired if the programme of traffic education or the list of compulsory subjects into which traffic education is incorporated is defined exactly, more than one half of the questioned countries where traffic education is part of the education system, reported that the objectives are given only very generally. In these countries the regions are charged with working out their own proposal for educational programmes, for instance in Switzerland and Germany, and so the situation may differ among regions. No common objectives at a national level have been specified. In support of this system we can argue that the difference in character and density of traffic can indeed differ among regions to such an extent that working out a specific system and content of instruction, analogous to the situation, appears to be rational. The opposite of this system is the system introduced for instance in Norway and Island where the level of powers associated with traffic education in the educational programme for primary schools is relatively uniform and well defined. In Norway they proceed using a very sophisticated programme where they distinguish three stages of power:

- powers achieved in the 1st stage: Pupils have a command of traffic regulations for pedestrians and cyclists;
- powers achieved in the 2nd stage: Pupils have a command of rules of safe behaviour in traffic as cyclists;
- powers achieved in the 3rd stage: Pupils are able to find personal, situation methods and means for efficient prevention of accidents which occur in road traffic.

In Island the objectives of traffic education contained in the educational programme are specified even more precisely and they distinguish running and final objectives. After achieving the final objectives the pupils are:

- able to react correctly to all kinds of traffic;
- able to behave in accordance with traffic rules;
- able to behave responsibly in traffic;
- able to anticipate any danger and to avoid the danger according to the character of the environment;
- able to understand the necessity of traffic culture and take an active part (literally: with pleasure) in its improvement.

On being asked who is in charge of traffic education of pupils at primary schools less than one half of the respondents said that teachers played the dominant role. They are teachers who themselves implement traffic education in the 40% of countries where traffic education exists in whatever form. Reports from 6 countries stated that during studies at university faculties the teachers acquired sufficient qualification for this specific educational role. Slovenia and the Czech Republic provide various postgraduate courses for teachers who are not sufficiently qualified to teach traffic education; here they have the opportunity to upgrade their skills.

Reports of 60 % of the respondents stated that in their countries traffic education in schools was taught by teachers in co-operation with an expert. The expert is usually an external expert in road safety, a policeman, experienced professional driver etc. who motivates pupils on the basis of practical and personal experience. In Slovakia they expect to introduce the system; the first part of traffic education, basic theory, would be taught by a competent teacher and the second, more demanding training for the upper grades, by an expert in road safety.

The fewest significant data were obtained when we investigated if and how the automobile clubs in the individual countries participate in activities connected with traffic education. The Polish automobile club (PZM) reported that although traffic education is not compulsory at primary schools they organise traffic-oriented competitions for the children. In co-operation with schools the attendance is about 100,000 pupils every year; in written tests the pupils have to show their knowledge in principles of road safety and in the form of practical bicycle riding they demonstrate their practical skills, knowledge and ability to participate in the traffic on a bicycle.

In Austria the national automobile club ÖAMTC organises a very successful and popular programme for primary school pupils of the age of 6-7 years called “Blick and

Klick” where traffic experts teach the children correct and safe behaviour in road traffic. The pillar topics of this course are for instance the use of fastening systems (how the children should be properly buckled up in their car seats during the drive), safe crossing of the road, how the same traffic situation is different when viewed by the driver differs and viewed by the pedestrian, how to behave at places controlled by traffic lights and many others. The programme is usually held in the most easily accessible buildings, most frequently in the school gymnasium. For better illustration inflatable traffic objects are used for demonstrations of the situations (cars, motorbikes, dummies of policemen etc.) or electronic drive simulators. The whole programme is provided for schools free of charge and registration of the school at the ÖAMTC is sufficient for the programme to be applied at the school.

Conclusion:

Similar research and comparative investigations and their implementation in practice may help to considerably reduce damage to health caused by traffic. A typical example is Finland. In the past 30 years the traffic volume increased by 200%, but the number of fatal traffic accidents dropped by 50% thanks to rational measures based on research information. This positive trend can be expected to continue. Countries such as Sweden, Great Britain, Northern Ireland and others are successfully solving the situation in a similar way. In 1997 the Swedish parliament adapted the so-called “Zero Vision” (zero accident rate), a completely new policy based on four principles:

- a) ethical principle – human life and health are of supreme importance and are given preference over mobility and other aspects of the road traffic system;
- b) principle of responsibility – anyone who organises, controls and watches over the road traffic system shares responsibility just like the users of the system;
- c) safety principle – if it is natural and not quite eradicable in the behaviour of human beings to make mistakes and errors, then the traffic system should bear this in mind and try to minimise both the opportunity to make mistakes and all damages which they cause as a consequence;
- d) principle of reflection – repressive bodies must do everything in order that all participants in traffic and those who share in it be equal.

Zero Vision offers a model fitting to be followed in other countries.

Periodic probes mapping the objectives, content, form, methods, material means and other conditions and aspects of practical effectiveness of traffic education in the individual countries evaluated in correlation with the intensity of traffic and the subsequent comparative analysis are the compass when looking for ways to effective programmes of “Sustainable mobility”, “Safe way to school” and others.

DOPRAVNÍ VÝCHOVA JAKO KOMPLEMENT VÝCHOVY KE ZDRAVÍ

Abstrakt: Dopravní výchova jako organický komplement harmonické a všestranné výchovy je významným fenoménem současného školství. Jejím cílem je adaptovat člověka na úspěšnou koexistenci se stále intenzivnější mobilitou. V jednotlivých zemích se její úroveň podstatně liší. Zatím co v některých dopravně rozvinutých zemích má již dlouholetou tradici a vynikající úroveň, v některých zemích se dosud potýká s elementárními problémy. Studie představuje vyhodnocení výsledků šetření ve vybraných evropských zemích a srovnává výsledky dosažené v roce 2006 a 2009.

Klíčová slova: dopravní výchova; formy a metody dopravní výchovy v různých evropských zemích; srovnání

TRAFFIC EDUCATION - ACTIVE PREVENTION

Jitka HEINRICOVÁ

Abstract: *The main objective of traffic education activities is to raise awareness of pupils, parents and teachers about the need of primary prevention in road safety. Various forms and different topics for such events need to be used to ensure reaching of a wide range of target groups. Pupils gain important basic knowledge of the risks in the transport environment through individual and group work. They gain knowledge through their own self-teaching and exploration. The personally obtained knowledge provides influences the children's behaviour and risk perception.*

Keywords: *traffic education, primary prevention, project teaching, competition, self-reflection*

Introduction

Traffic education has been neglected in the long term on all school levels. Traffic education is best covered in pre-school education. Children in kindergartens are motivated to traffic accident prevention during regular outdoor activities in the vicinity of the school. Kindergartens also lay a lot of stress on the development of senses which are very important for health and life protection in the traffic environment.

The situation is much worse at primary schools. Here, schools often appoint a counsellor for traffic education, but their work often begins and ends with organization of visits to the nearest traffic playground. We cannot objectively include all pedagogues into this category, but from personal contacts with TE co-ordinators, we can confirm that this is a common and frequent practice.

Therefore, educational activities of our organization focus precisely on the age category of pupils and on pedagogues of the first and second stage of primary schools. We have been looking for suitable forms of approaching them and we selected two alternatives: project days and various types of competitions in which pupils gladly participate. The topics of competitions are chosen to make pupils think during task fulfilment and to have their gradual work on given task bring about feedback in the form of self-teaching.

Objectives of Traffic Education Events

The objective of these activities is:

- to teach pupils perceive various risks in the traffic and to perceive potential risks
- to make parents and pedagogues aware of the necessity of primary prevention
- to show that traffic education may be done in an entertaining way
- to show that information which pupils obtain through their work and experience is more valuable than information passed on by adults

Project Day

A project day can have various forms. One option is Dalton's teaching. This system is very beneficial both to pupils and pedagogues. During a Dalton's day, pupils acquire a lot of information of great importance for them and such knowledge is long lasting. But it is still classwork. We opted for a day of games, experiments, discussions and experience for the project day.

Pupils started with their preparation for the project day in preceding days. They prepared a map of school neighbourhood and maps of pupils' routes to school with risks and dangerous places. They became aware how important and necessary prevention is and how important it is to get as much as possible from the project day. Pupils prepared the maps in groups. While in other schools, each pupil prepared his or her independent map, here pupils always worked on maps together. First-grade pupils always created one map together and they described all risks on each pupil's route in it. In higher grades, three to four pupils joined in a group from various places of the municipality and they also draw and described all risks. Thanks to this, pupils learned about dangers they might encounter in the municipality while going to see a friend, etc. Thus they were not directed to one route to school only.



Figure 1 Map of route to school - 1st grade



Figure 2 Map of route to school (cutout) - 4th grade

The project day focused on learning about risks and prevention. Pupils experimented to find out how certain physical laws work and which risks must be taken into account in this connection. They got acquainted with the principle of stopping distances, response times, tow line, inertia force and light reflection. They understood why it is important to use a helmet, restraints, retroreflective materials.

Tow Line

Vehicles of different sizes need different area for cornering. We meet this law on roads often while very dangerous situations occur, many times ending with a death of a biker or a pedestrian. Therefore it is very important to inform pupils in time.



Figure 3 Tow line experiment

Response time

Even though pupils are sometimes informed timely of the risks of suddenly running in the road, many are not able to estimate a safe distance, the vehicle's speed and they completely forget to take into account a varying response time which a driver needs to evaluate the situation and to respond quickly. During an experiment, pupils could compare varying response times among themselves.



Figure 4 Response time experiment

Visibility of retroreflective material

Children commute to school from neighbouring villages, which sometimes lack pavements. A very busy road runs through the municipality and children must cross it every day. Therefore it is very important for them not to be invisible for drivers, but to be well identifiable in the traffic even under reduced visibility. Children did not decorate their painted schoolmates in a very aesthetic way, but it was definitely very functional. They could immediately see the result after switching off the lights in the room, when only a dim light from the outside was falling on the figures.

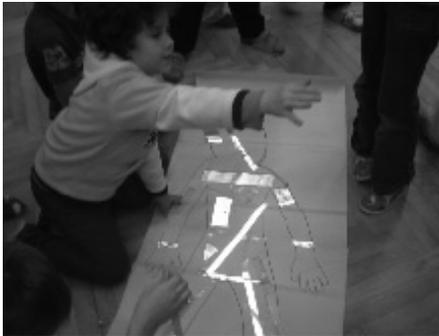


Figure 5a, b Work with retroreflective materials

Stopping distance

Pupils meet with various conditions of braking track every day. It always depends on many factors, which influence the stopping distance. Quality of tyres, speed of the vehicle, condition of the road, condition of the car's braking system, but also the driver's response time. During an experiment, pupils discovered differences of a stopping distance on a smooth and rough surface and differences with various speeds of the toy.



Figure 6 Stopping distance experiment

Dead angle and rear-view mirror

Children often assume that when they can see the car, the driver must also see them. Such a mistake can sometimes be tragic. Drivers in a parking lot, bus drivers at a bus stop and truck drivers only have a limited view from the vehicle and they cannot see everything even with rear-view mirrors. Children found out about the dead angle using mirrors when they tried to look for various pictures and objects.



Figure 7a, b Dead angle experiment

The project day was completed with further experiments, educational tests, interviews and a demonstration of police work. While playing, children got acquainted with important risk factors. They were discovering and evaluating the risks by themselves.

Competitions

The goal of the competitions is to encourage children to express themselves on the issues of traffic accidents and to obtain valuable information by their own studies.

The topics and contest goals must always be easy to understand and process. They should not be a burden for pedagogues and even in the event of lack of interest the tasks must be easy for children's independent work.

The evaluation criteria must be easily and objectively assessable.

We do not expect competitions focusing on accident prevention to be highly professional and of high quality, but our interest is to "convey" vital information.

Advantages of competitions

- children approach "class" actively without perceiving that they are actually being taught
- pedagogues can incorporate a competition into classes
- children can compare the results of their work group with others
- children can get a glimpse of problems of other classes, schools, regions

Competition "Step by step on the way to school"

The task for groups of children was to find dangerous places, risk situations and eventual dangers they encounter (or may encounter) in traffic on their everyday journeys. Children were to create a list and to append a simple and brief explanation why given situation was dangerous. Children had to discover the threat and think about what might happen. Children thus learned to be aware of their surroundings and predict potential risks. They could also note risks for handicapped friends, seniors, small children, etc. We required children to work in groups to make them co-operate again after holidays and make prevention of accidents their common goal.

Results of the competition

- Children documented *risk situations*, phenomena and problems they meet
- They developed the ability to *predict* danger
- They became aware of the *context* and relations involved in the traffic
- They *co-operated* in groups, they learned to communicate and co-operate on a common goal
- They *empathised* with problems of others
- The first three classes joined their prizes and went together for a trip to Prague. The original rivalry from the competition transformed into a joint experience.

1st place – 226 risk factors

- Calling while driving

- Drunkenness
- Biker without lights
- Throwing cigarette butts from a car
- Smoking while driving
- Going to red
- Not adhering to road signs
- Crossing solid line (overtaking)
- Biker without helmet
- Wet road
- Not fastening seat belts
- Small distance between cars
- Shards on the road
- Too loud mp3
- Do not touch a moving tram
- Rashness
- Crazy Margaret as a passenger

2nd place - 102

- Slipping on ice
- Faulty track
- Sand on the road
- Gravel on the road
- Ice on the road
- Water on the road
- Brake failure
- Snow falling off roof
- Sudden stop of a tram
- Unmarked cargo
- Poorly fastened kid's car seat
- Microsleep
- Driver's too loud music
- Aggressive overtaking
- Wild dogs
- Poor road surface
- Homeless people

Risks were classified in an interesting way by pupils on the 7th place. They prepared their contribution to the competition with good thought and wit.

7th place – 48 risk factors

- Topics:
- Riding the school bus
- Riding tram and trolleybus
- Crossroads - I am afraid, afraid
- Pedestrian crossings - children's and senior citizens' lives in danger

- We walk or go on a scooter
- We have to repair it - we understand, but please do it fast
- In front of the school
- What else came to our minds - even the unbelievable can happen

The results were announced in the town hall. Prizes were handed over in a ceremony by: **MUDr. Daniel Rychnovský**, 1st Deputy Mayor of the Town of Brno, **PhDr. Marie Klusoňová**, Head of Pedagogical and Organization Section of Education and Youth Department of the Town Council of Brno, **Mgr. Ivana Draholová**, Head of Kancelář Brno – Zdravé město, **Ing. Libor Sobotka**, PIS Police CR – Brno; and for the organizers by the sponsor **Ing. Ivan Budík**, Financial Manager of HBH Projekt spol. s r. o.



Figure 8a, b, c, d Rewarding the winning groups

Event “Step by step without accident”



The events for 2009 started in March with a competition

“Step by step without accident”



The task of children's groups was to create a draft of a traffic-educational campaign and try to influence the target group's behaviour for whom the campaign was intended. Pupils could select a topic and a target group according to their interest. The objective of the competition was to lead pupils in the form of self-reflection to safe behaviour in traffic. At the same time, pupils noticed dangerous behaviour of other traffic participants.

Teachers received instructions on the competition as well as methodological notes how to use the competition in classes, in media education, in Czech and foreign language classes, citizenship education, art education, health education, personal and social education, etc.

Results of the competition

- Children handed over visuals on various topics
- First aid
- Drink driving
- Suitable and unsuitable place for playing
- Protective aids
- Recommendations and warnings for bikers - bike equipment, crossing a road with a bike, visibility, etc.
- Recommendations and warnings for pedestrians - retroreflective and colourful clothing
- Behaviour in public transport - tram is not a ZOO, not a buffet; consideration to the elderly
- Recommendations for drivers - fast and reckless driving, car distance from bikers



Figure 9 Protective elements and recommendations for skateboarders

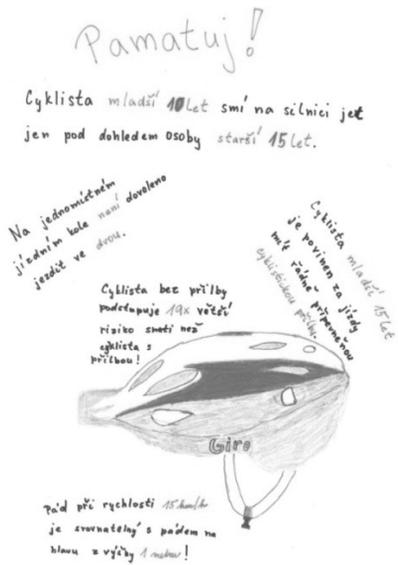


Figure 10a, b Recommendations for bikers

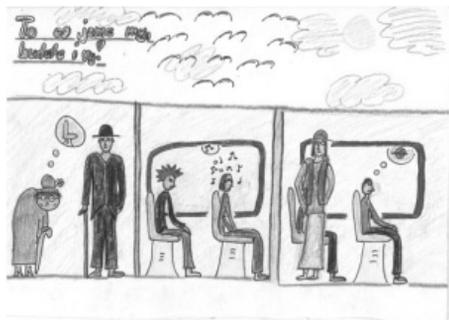


Figure 11a, b, c, d Behaviour in tram

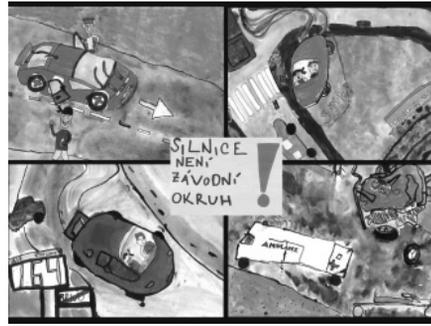
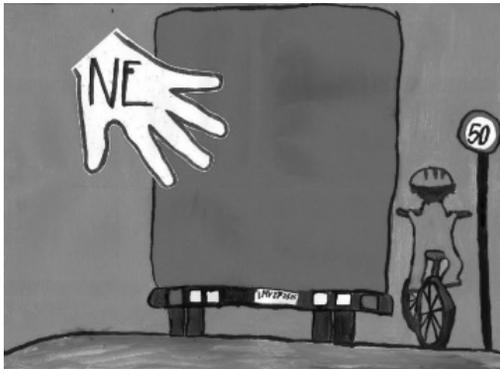


Figure 12a, b Fast driving



- NO – to drivers' recklessness towards bikers
- NO – to cars in town
- NO – to speed over 50 km/h
- NO – to holding to a car while cycling

Figure 13 Winning visual

The first place won ŽŠ Vedlejší. The winning visual focused on drivers' recklessness towards bikers. It was bringing attention to safe distance while taking over and not observing speed limits in town. Some could see also other thoughts in this visual – promoting cycling in town and suppression of car traffic; warning for bikers that they should not catch on trucks while riding.

Krok za krokem v dopravě

Evaluation of the competition and presentation of awards took place in the town hall within Brno Days without Accidents. In September, on the first day of the European Week of Mobility, a launching ceremony of a tram “**Step by step in traffic**” took place, putting into operation a tram which was decorated with visuals from the competition. The winning visual was placed on the sides of the tram. The tram was running in Brno not only during the EWM, but for another month. Pupils participated in this festivity and had a chance to meet their tram throughout the month. Thus they saw that the results of their work were utilised, that they had a meaning and that their work in accident prevention was important.



Figure 14 Festive opening - with children's champagne



Figure 15 Cutting "retroreflective" band



Figure 16 Opening day



Figure 17 Tram in operation - interest of passengers was big



Figure 18 Tram in the streets of Brno

Conclusion

Educational events about traffic can have long-term educational influence if children during those events can promote their talents, ideas and examine and explore by themselves. It is too early to assess whether our events brought about the expected result. But it is certain that children carried out all tasks with big enthusiasm and interest. During the last event, they also saw the results of their work in the public. Furthermore, the tram was riding in Brno for a month, which addressed passengers. And objectively, they were quite amused in their tram. They read the visuals and we often heard them talking about those topics. The topics were mostly attractive for young people who always are included in our target group.

So far, only very few classes participated, but we hope that it will be better and better in the following years. Regular events usually have a growing number of partici-

pants and we want to continue with our competition and finance it in the forthcoming years.

DOPRAVNÍ VÝCHOVA – AKTIVNÍ PREVENCE

Abstrakt: Cílem dopravně výchovných akcí je upozornit žáky, rodiče a pedagogy na nutnost primární prevence v oblasti bezpečnosti silničního provozu. Pro zajištění oslovení co nejširší cílové skupiny je nutné volit různé formy a různá témata těchto akcí. Prostřednictvím individuální i kolektivní práce získávají žáci základní důležité poznatky o rizicích v dopravním prostředí. Tyto poznatky získávají vlastním zkoumáním a vlastní prací. Výsledky osobního poznání mají zpětnou vazbu na chování dětí a vnímání rizika.

Klíčová slova: dopravní výchova, primární prevence, projektová výuka, soutěž, sebereflexe

THE IMPACT OF SELECTED DETERMINANTS ON OUR HEALTH

Tatiana KIMÁKOVÁ

Abstract: *Determinants of health are characteristics and indicators, which affect the presence and development of risk-factor diseases. The presence of a risk factor, however, doesn't mean that the illness will certainly develop. Current prevalence of multiple risk factors increases the likelihood that the illness will break out. The majority of civilization diseases have several risk factors. The group of the most significant determinants includes demographic, biologic and social-economic determinants, environment and healthcare. These factors affect our physical shape to a large extent, they add to the quality of our lives, its length and early mortality.*

Keywords: *determinants of health, civilization diseases, health state, risk-factor*

Introduction

Term “health” has been recently referred to quite frequently. We use it in different forms and contexts, it's a subject of many studies and research papers, of the conversations between friends and doctors. Therefore an obvious question emerges, what exactly health is and what affects it.

World Health Organization WHO defines health as a condition of complete physical, mental and social comfort of an individual, not only the absence of an illness or disorder (Kimáková, 2008).

Even the definition itself states that our health is affected by various inner and outer aspects and factors. Another expression closely related to our health is its determinant.

The word determinant is derived from Latin and means a deciding element or factor.

What kinds of factors affect human's health, results in a present health condition of each and every one of us. Someone might think of a genetic predisposition, other social and psychological factors, nutrition or an organization and financing of the healthcare. Our health shape is an outcome of all the already mentioned, but also of the following factors such as education, economy, culture, safety, housing, technology, habits but most importantly individual behavior in a relation to our health.

The health determinants

Difference in the life-span and the early mortality due to cardiovascular and oncological diseases between Slovakia and the European Union can't be accounted only for a different quality of healthcare. The fact is, that in the past, the financial resources were insufficient for the financially demanding devices, technologies and drugs, necessary for an early diagnosis and treatment of cardiovascular and oncological conditions. Various impacts are crucial to prevent these diseases as well as to improve the health in general. The inception of the majority of diseases is necessary to be looked for in the decline of the connection between the human organism and the environment in which it lives.

Determinants of health are characteristics and indicators, which affect the presence and development of risk-factor diseases. They vary (genetics, diet, housing, economy, culture, safety, organization and financing of the healthcare, individual health approach, habits, technology etc.) (Rovný and Hegyi, 2003). The presence of a risk factor, however, doesn't mean that the illness will certainly develop. Current prevalence of multiple risk factors increases the likelihood that the illness will break out. The majority of civilization diseases have several risk factors.

The group of the most significant determinants includes demographic, biologic and social-economic determinants, environment and healthcare.

These factors affect our physical shape to a large extent, they add to the quality of our lives, its length and early mortality.

1. Demographic determinants

From the point of demographic indicators the most important ones, concerning health, are the age structure of the population, index of aging and population growth. Accessible information point at the decrease of young generation and a current low percentage of older generation (the percentage of men and women in SVK older than 65 is the lowest among the neighboring countries) regarding the commonly known high rate of sickness and mortality among the middle-aged in Slovakia. A high decrease in natality together with a low natural growth of population and high mortality in the productive age can negatively affect future development of a life-span in Slovakia (Hegyi, 2005). The average life-span at birth is an important indicator which determines the chances of survival. In our male population it reaches low numbers. In the healthiest European country, Sweden, the men live 8 years longer than our. In France, the women have the longest life expectancy in the world (83,5 years), our live 5 years less.

Among the countries of former Soviet Union the position of Slovakia is more optimistic, our women and men live longer than in Hungary, Romania, Bulgaria, Baltic republics, Ukraine, Belarus and Russia.

The difference between the life expectancy in specific Slovak regions is remarkable. The results from 1996 to 2000 prove that the life-span of men older than 70 was dominant in the counties of Bratislava-towns, Piešťany, Bánovce nad Bebravou, Trenčín, Prievidza, Partizánske, Martin, Tvrdošín, Žilina, Košice, Svidník a Bardejov. The shortest life-span of men younger than 67 is in the counties Čadca, Banská Štiavnica, Detva,

Krupina, Rimavská Sobota, Sobrance and Trebišov. The area with the shortest life-span of women is stretching from Dunajská Streda to Trebišov. (Rovný and Hegyi, 2003).

Ethnic heterogeneity of Slovakia

Being in the opposite situation as the rest of the EU countries Slovakia has a large population of a minority whose health situation is much worse than that of majority. The Roma, minority the number of which is not exactly known, has a considerably shorter life expectancy. The life-span of Rom males is around 62 years. In comparison to the national average, it's about seven years shorter. The Roma shorten the country's life expectancy.

The causes of a short life-expectancy in SVK

Mortality of the newborns (e.g. the number of deaths of newly born babies in one thousand) significantly affects the average life-span. The mortality of the newborns is gradually decreasing, currently it's 6,2/1000. This value is still slightly higher than in the rest of the EU.

The untimely mortality of men and women due to oncological and cardiovascular diseases

Five most common causes of death are: cardiovascular diseases, malignant tumors, outer causes (injuries, poisonings, homicides, suicides). The respiratory and digesting system diseases cause 95 % of all of them. A noteworthy portion of the young population is threatened by cardiovascular and oncological diseases. The average life-span of men and women is linked to the cardiovascular and oncological mortality at a rather young age. Slovakia is quite behind the western Europe as far as the above mentioned illnesses (Národná správa, 2007).

2. Biological determinants

This group consists of age, sex and race.

Age

Age is a very strong and neutral risk factor - for example the risk of cardiovascular illnesses increases with a higher age (as risky is considered the age of 55 and over in men and 65 and over in women).

Sex

Sex plays a crucial role regarding some illnesses. The general risk of developing cardiovascular illnesses (especially the ischemic disease of heart) is higher in men than in women. Hormonal contraception used by women, especially smokers, can significantly increase the risk of the ischemic heart disease (ICHS) in younger age groups.

Race

The highest mortality of ICHS is among the blacks (in the USA), it is due to the

high occurrence of risk factors (artery hypertension, diabetes mellitus, smoking, obesity, etc.) which is higher than it is among the whites (Jurkovičová, 2005).

3. Socially economic determinants

Are among the most important, crucial health related factors. Their portion of the overall health fitness is estimated to be 60 % to 70 % (Ághová et al., 1993). The unhealthy lifestyle influences the untimely death, caused mainly by cardiovascular and oncological diseases.

We consider these most important factors to be a part of lifestyle, (influenceable) risk factors:

- diet and eating habits
- physical activity
- smoking
- alcohol consumption
- an increased level of an overall cholesterol, LDL - cholesterol, troalglycerols and an increased level of HDL cholesterol

Diet and eating habits

One of the serious risk factors is a chronically low intake of protective factors, antioxidants, that exist mostly in vegetables and fruit, and protect the organism against the free oxygen radicals. These extremely reactive substances play an important part in pathogenesis of arterial and cancerous conditions (Kimáková, 2003). Their harmful effects on organism is augmented by a high alcohol consumption and cigarettes as well as the polluted environment, the factors the occurrence of which was and is high in the region of Slovakia.

Physical activity

WHO states in its recommendations the suitability of a daily exercise. If it's thoroughly incorporated into lifestyle, it contributes to improvement of man's physical and physiological fitness, even for the smokers and obese people (Výživová doporučení, 2000).

Smoking

Smoking of cigarettes is understood as a nicotine addiction. Nicotine is currently the only legal psychoactive substance, which doesn't have any beneficial effects on health and it is the most common cause of death among its consumers. Smoking is a risk factor especially related to the cardiovascular and cancerous diseases, the respiratory system diseases, stomach boils and Alzheimer's disease (Ševčíková et al., 2006).

Alcohol consumption

Alcohol is the most commonly used legal psychoactive substance in our country. The consumption of it is usually highly tolerated in society (integrated into many social rituals) and can lead into a development of an addiction (mental and physical) with an

increased risk of sickness and mortality and is also linked to a higher chance of accidents, injuries, felonies, suicides and domestic violence.

If consumed moderately it can be consumed for a long period of time without any serious complications or addiction.

An excessive alcohol consumption (abusus) has significant negative effects on physical, psychic and social soundness of an individual, as well as the family and the entire society. Direct and indirect consequences of alcoholism are enormous and economically challenging and are not focused merely on the smaller portion of identified alcoholics, but affect the whole population. Alcohol has toxic effects particularly on the nerve system, liver, heart, it negatively affects the kidney function, digestive system, sexual, reproductive and mental health. Alcoholics suffer from tumorous diseases more frequently as well as the degenerative changes of brain, hypertension, and they live to a younger age. The women give birth to babies with a fetal alcoholic syndrome.

According to the WHO data, alcohol is responsible for 9% of all diseases in Europe and 40–60 % of deaths are due to injuries. Alcohol consumption linked with the decline of health and social problems is becoming more common among teenagers and young people. A decrease in alcohol consumption has been recorded over the last twenty years in developed countries, on the contrary in the developing countries (including the countries of former Soviet Union) it's on the rise. Slovakia has the top standing in the refined alcohol consumption per person. In 2000 it was more than 14 liters. The high consumption of distillates is widely known. The number of alcohol addicted women is rising in Slovakia. The number of treated and addicted is only the tip of the iceberg. The real numbers of alcohol addicts are inaccessible (Ševčíková et al., 2006).

Drinking of beer, wine and distillates in Slovakia

In the surveilled period between 1996 and 2006, the trend of beer consumption of adults has not changed dramatically in 2006, according to the Statistics Bureau of Slovak rep. (Názory občanov, 2006). Beer is drunk by 8 % of the population of Slovakia on a daily basis, at the same time it is occasionally drunk by 40 % of adults. As much as 37 % of the population, however, doesn't drink beer at all. As far as the wine consumption is concerned in adult population the trend is stabilized, and the decrease of the wine consumption doesn't occur. Wine is drunk by the largest number of respondents, occasionally it's 69 %, wine is not drunk whatsoever by 24 % of respondents. In the field of spirits no significant changes took place. A complete spirits' abstinence is admitted by 33 % of adult population respondents (Ochaba et al., 2009).

Education

Is one of the most important long-term determinants of health. Investment into education is an investment into health. The higher is the number of students who attend secondary schools and graduate, the higher is the likelihood of a healthy population.

In the case of an epidemiological study of a connection between the psychosocial risk factors and cardiovascular diseases, the specialists found a significantly higher risk of cardiovascular diseases among people with primary education in comparison with those educated at secondary schools and universities (Národná správa, 2007).

Alcohol and education

Observed by the surveys that compared the alcohol consumption among university graduates and those who acquired basic education the following was found: beer is daily drunk by 12 % of university graduates and 35 % of their counterparts, wine is consumed by 7% of graduates and 20 % of people with a lower level of education while the spirits are drunk by 2 % of graduates and 18 % of respondents with primary education.

Diet and education

Diet of people with a lower level of education contains more animal fat, less fruit, vegetables and milk (presented fact cannot be associated exclusively with a lower consumer confidence of the surveyed group).

Social contacts

Insufficiently researched factor of health in Slovakia, are the social contacts of an individual with their environment - family, friends, colleagues, community, etc. The feeling of connectedness with other people is extremely important for physical and mental health. Numerous foreign studies have confirmed that people with limited or missing social contacts (loners) have had, during their life a manifoldly increased rate of sickness. The representative studies in the USA found a two to three times higher rate of mortality and up to nine year differences in the life-span between individuals with very poor and very sound social bonds (*Social Ties and Good Health, 2009*). We can assume that people with poor contacts with the environment cumulate more of the negative social factors such as unemployment, family problems and the exclusion from the friend circle. Suicides, alcoholism and mental disorders occur substantially more often in people who live alone.

4. Environment

One of the basic definitions of environment is the one passed by the UNESCO Conference in 1967, which states: Environment of man is the part of the world, with which he interacts, e.g. which he uses, affects and adapts to. From the medical point of view it's defined more comprehensively - as a pool of physical, chemical, biological and social phenomena and processes, which are directly or indirectly linked to health and comfort of people, individuals and population (Ševčíková et al., 2006). The influence of a hazardous environment with various levels of devastation and danger in regions is negatively reflected on health and life-span of humans, gene fund of economically important and independently living kinds of plants and animals, in the ecosystem and the overall economy.

High concentration of heavy metals in atmosphere, soil, water and sediments represent a serious ecological issue (Poráčová et al., 2008; Koréneková et al., 2009).

They enter the food chain and penetrate the human organism where they cumulate. Specific heavy metals show various and multifold activity on living organisms. Closely watched xenobiotics, with their frequent carcinogenic, mutagenic or teratogenic effects, belong to a group of substances that negatively affect living organism (Poráčová et al., 2005; Koréneková et al., 2007).

5. Healthcare

The biggest advancement of twenty-first century is a discovery of the fact that majority of noncommunicable diseases are caused by lifestyle and can be prevented.

Intervention programs

With an increasing rate of gravity of the integrated noncommunicable diseases, which are greatly related to a wrong lifestyle - smoking, nutrition, physical activity and alcohol consumption the various long-term, studies, projects, social and social intervention programs were started in all developed countries, that were aimed at discovering the contribution of risk factors in population, their connection with mortality and eventually to improve the health of population.

Framingham study

(USA, 1948) town of Framingham. The study contributed to identifying the risk factors of cardiovascular diseases.

Project Northern Karelia

(Finland, since 1972). Owing to a preventive intervention strategy, a long-term decrease of cardiovascular mortality was achieved.

MONICA

(**MONI**toring of **CARDIO**vascular diseases) - a huge international project, organized and coordinated by WHO, with an objective to continually survey the state of sickness and mortality of cardiovascular system in a relationship with the prevalence of the most important risk factors at the same time among the same population.

CINDI - (Countrywide Integrated Noncommunicable Diseases Intervention)

The “WHO Intervention program of integrated noncommunicable diseases” has been operating in Slovakia since 1993. Its goal is to decrease the rate of sickness and untimely mortality due to integrated noncommunicable diseases, especially the cardiovascular and oncological ones. It points out the possibility of decreasing the occurrence of such diseases by means of limiting or even eliminating the risk factors such as smoking, excessive alcohol consumption, psychosocial stress combined with the lack of physical activity and unhealthy diet. (Ševčíková, 2006; Výživová doporučení CINDI, 2000).

Conclusion

The population of Slovakia inhabits the environment which is a continual source of substances that initiate the origin of free radicals. The others are produced by an unwise lifestyle: the high consumption of cigarettes, distillates, medications and burnt fats. Fact that the average life-span of people living in Slovakia, Czech republic, Poland, Hungary and other, mostly former USSR countries, is the shortest in Europe, is closely linked to the predicament. The ideal solution how to decrease the high rate of cardiovascular and oncological related mortality and other civilization diseases in Slo-

vakia and neighboring post communistic countries, is a dramatic change in the structure of nutrition with a substantially increased consumption of the main sources of natural antioxidants (fruit, vegetables, organic oils, cereals, nuts, beans, mushrooms, etc.), a lifestyle change as well as revitalization of the environment. Whether we'll be healthy or succumb to one of the civilization diseases depends largely upon us. Especially in regard to our diet and lifestyle.

VPLYV VYBRANÝCH DETERMINANTOV NA NAŠE ZDRAVIE

Abstrakt: Determinanty zdravia sú vlastnosti a ukazovatele, ktoré ovplyvňujú prítomnosť a rozvoj rizikových faktorov ochorení. Prítomnosť rizikového faktora ale neznamená, že sa choroba určite prejaví. Súčasný výskyt viacerých rizikových faktorov zvyšuje možnosť prepuknutia choroby. Prevažná väčšina civilizačných chorôb má niekoľko rizikových faktorov. Do skupiny najvýznamnejších determinantov patria demografické, biologické, sociálno-ekonomické determinanty, životné prostredie i zdravotníctvo. Tieto činitele veľmi výrazne ovplyvňujú náš zdravotný stav, podpisujú sa pod kvalitu nášho života, jeho dĺžku i včasnú úmrtnosť.

Kľúčová slova: determinanty zdravia, civilizačná choroba, zdravotný stav, rizikové faktory

HOW LIFESTYLE AFFECTS HEALTH

Viera PETERKOVÁ, Ivona PAVELEKOVÁ

Abstract: *In this study we are appraisal the life style of respondents, with bearing on their nutrition habits, smoking, consummation alcohol, moving activity, effect of stress, as well as their family anamnesis. Respondents were 100 patients, cardholder of health hard-hit on base of chronic disease of internal character, oncology disease, sclerosis multiplex, cerebral event or cardiac infarction. We found out, that negative health state of respondents affect particularly nutrition habits, frequent wield of alcoholic drinks and smoking. Important part on this negative influence gets also antecedent employment od respondents, because of stress situation or detrimental effect of air.*

Keywords: *nutrition, smoking, alcohol, stress, movements*

Theoretical bases

Modern day brings bustling lifestyle, which is not involved in the rate of change in lifestyle, which may negatively impact on the incidence of diseases of civilization. Medical science, with all means, warns against consequences of such a lifestyle, but nevertheless flourished in a sedentary way of life, little movement, poor dietary habits, smoking, alcohol, stress. Direct negative impact of such a lifestyle on the health of the man show several scientific studies (Johansson, Sundquist, 1999; Kanehisa, 2000; Ventegodt, Merrick, 2003; Contoyannis, Jones, 2004; Jousilahti et al., 2006, De Backer, Bacquer, 2004).

Hypothesis

Based on the findings of other authors, we have set the following assumptions.

1. Assuming that the wrong diet will affect the overall morbidity and duration of disease.
2. Assuming that the respondent's smoking will affect the overall morbidity and duration of disease.
3. Assuming that the consumption of alcohol respondent will affect their overall impact on morbidity and duration of disease.
4. Assuming that the previous respondent's job will have an impact on overall morbidity and duration of disease.
5. Assuming that the movement activity of the respondent will have an impact on overall morbidity and duration of disease.

Methods

To obtain knowledge for the verification of our hypotheses we used a questionnaire designed in conjunction with the interview. The questionnaire was based on the best international studies, we focused on information based on the work of Kanehisa (2000) and Ventegodta and Merrick (2003).

The questionnaire consisted of 31 questions together. The research was focused on the overall lifestyle of the respondents - disabled card holders in the period before their illness. The questionnaire included the following:

- 1) general information about the respondent (sex, age, residence, length and type of disease)
- 2) questions relating to diet (diet regularity, frequency of consumption of vegetables and fruits, and whole white bread, flour products, sweets, sausages, meat and meat products, the method of preparing a meal, use vegetable or animal fats)
- 3) issues relating to the consumption of tobacco products (number of smoked cigarettes per day, number of years during which respondents smoked and the age at which started smoking)
- 4) questions relating to the consumption of alcoholic beverages (here we distinguish the consumption of beer and wine from the "hard" alcohol and we have examined the frequency of consumption),
- 5) issues relating to the movement and sporting activities (sport, movement, use of means of transport)
- 6) questions relating to the burden of stress in personal and professional lives.

We've also led to an open interview respondents in order to identify possible causes of stress and disease while we are called to answer the following questions: What do you think is the main cause of your illness (or ill-health)? What factors can accelerate (worsen) the course of your illness?

Research sample

Respondents of the study were eligible disabled holders granted by the letter h) item No. 2 of Annex 2 of Decree 182 / 1991 Coll., Implementing the Law on the Social Security Act and the CNR of the authorities in Social Security, as applicable laws of the administrative district Valasske Klobouky.

There were respondents who suffer from various types of tumor illness, respondents in Central strokes - the heavier form, suffering from kidney disease, requiring regular dialysis, respondents with chronic lung disease, the heavier form of heart attacks and suffering from multiple sclerosis.

Age structure of respondents ranged from 27 to 65 years, of which 56 % were women and 44 % men.

The average age for men was 44.5 years, of whom the youngest was 27 years old and the oldest 60 years. The average duration of disease among men was 5.7 years.

The shortest duration of disease response was 5 months, the longest duration of disease among men was 11 years. The frequency of occurrence of various diseases are in Table No. 1.

Table 1: Frequency of disease in men and women

	Men	Women
Heart disease	2	3
Central brain episode	14	10
Chronic digestive diseases	2	0
Kidney diseases	4	5
Oncological diseases	19	31
Multiple sclerosis	2	7
Lung diseases	1	0
Total	44	56

Research we have given the health status of the respondents made in their homes, and we distributed a questionnaire to them and we have talked to them. Total length of the implementation of research, with one respondent lasted about 1 hour, while some respondents, we had to assist in completing the questionnaire. We complete the questionnaire together with interview. The results obtained, we have undergone positive scoring, while we assign values to each question from 0 to 3 and we have evaluated using ANOVA analysis of variance in the statistical program Statistica.

Results and discussion

The results obtained on the basis of analysis of the impact of the various monitored parameters on a patient's illness in the table. 2. Table. 3 presents the impact of monitored parameters of the duration of the disease. We found that disease in a selected sample of men longer than women with the same disability. In men, the disease also showed an earlier age than women with the same disabilities.

Women in the research sample, suffered from health problems, almost half of shorter duration in comparison with men, and disease are not apparent in a later age than men ($p = 0.04137$).

Table 2 : Effect of parameters on the pursued disease patients

	SS	MS	F	P
Nutrition	30,927	30,9273	1,44387	0,232702
Alcohol	113,477	113,4774	5,29780	0,127008
Workplace	12,937	12,9374	0,60400	0,023687
Movement	95,829	95,8286	4,47385	0,261917
Smoking	183,772	61,2573	2,85986	0,037212
Gender	94,444	94,444	4,0641	0,041373

Table 3: Effect of monitored parameters of the duration of the disease

	Wilks ^λ	Partial	F-remove	p-level	Toler.	1-Toler.
	Lambda	Lambda				(R-Sqr.)
Nutrition	0,607483	0,903711	2,344058	0,060865	0,734839	0,265161
Smoking	0,601026	0,913419	2,085330	0,089452	0,426556	0,573444
Alcohol	0,619841	0,885693	2,839313	0,028889	0,760519	0,239481
Workplace	0,597265	0,919172	1,934590	0,111707	0,671960	0,328040
Movement	0,562116	0,976647	0,526063	0,716833	0,957586	0,042414

Based on these results, we verify these hypotheses.

The hypothesis No. 1 We assume that the wrong diet respondents will have an impact on overall morbidity and duration of disease. This hypothesis has not been confirmed, because the value demonstrativeness impact of diet on the duration of disease was 0.060865, which is on the border of demonstrativeness (diagram. 1). Probable cause that the impact of diet is not shown in full is the relatively small difference of the disease in the individual respondents or insufficiently large sample of respondents.

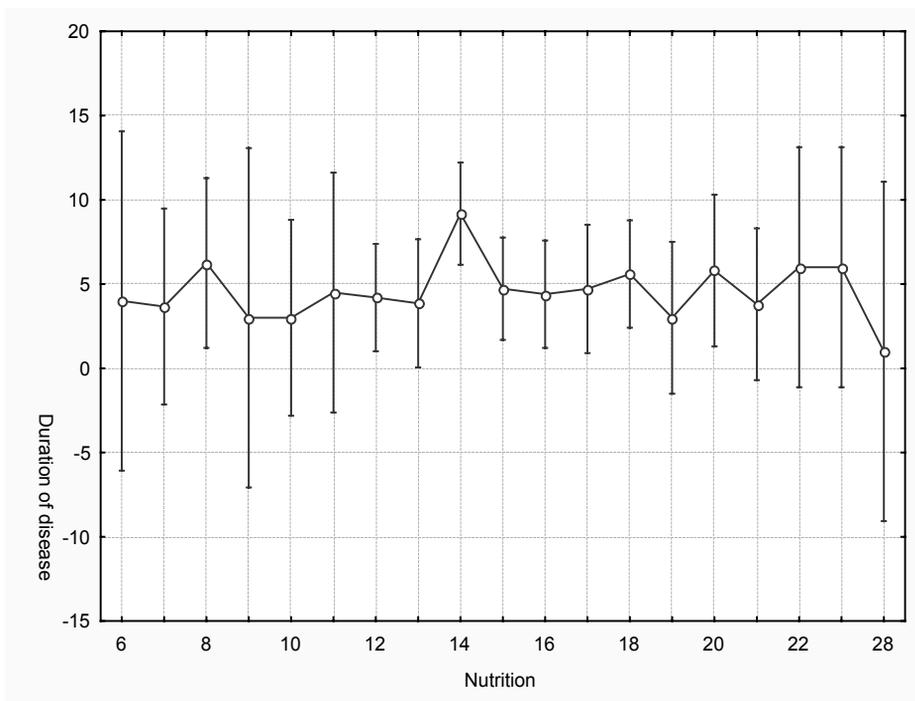


Figure. 1: Effect of diet on the response duration of illness

Studies from which we drew in the development of a questionnaire (Kanehisa, 2000 and Ventegodt and Merrick, 2003) show that the diet has a very significant impact

on the overall health of organism. Even in the work of Diamond (1994) states that a person during his life eats averaged about 50 to 90 tons of food. It is against this amount of diet plays a key role for long-term health and overall age people. This was also confirmed in Valešková (2006), which shows that in terms of food, people are naturally full of unique creatures. All animals receive food only if they are hungry. No wild animal „don't full up to rupture“ simply because it has food available. A man eats, although he is not hungry. Some studies indicate that not quite suitable diet may have on the human organism significant impact unless the individual is in equilibrium with movement activity. Such an individual has received all spare energy in the diet changes for heat and energy they consumed in movement activity. The second hypothesis we assume that the smoking of respondents will have an impact on overall morbidity, as well as the duration of the disease. When monitoring the impact of smoking on morbidity, our hypothesis is confirmed, they had demonstrativeness value 0.037212 (Table. 2). It was confirmed that smoking had an impact on the overall morbidity of respondents - smokers. When monitoring the impact of smoking on the duration of disease, it was a significant factor in smokers, the duration during which a quantity of smoked cigarettes per day. Less important factor was the period in which respondents started smoking. The overall impact of the disease according to smoking went to the border of demonstrativeness, which corresponds to the value of 0.089452 (Figure. 2).

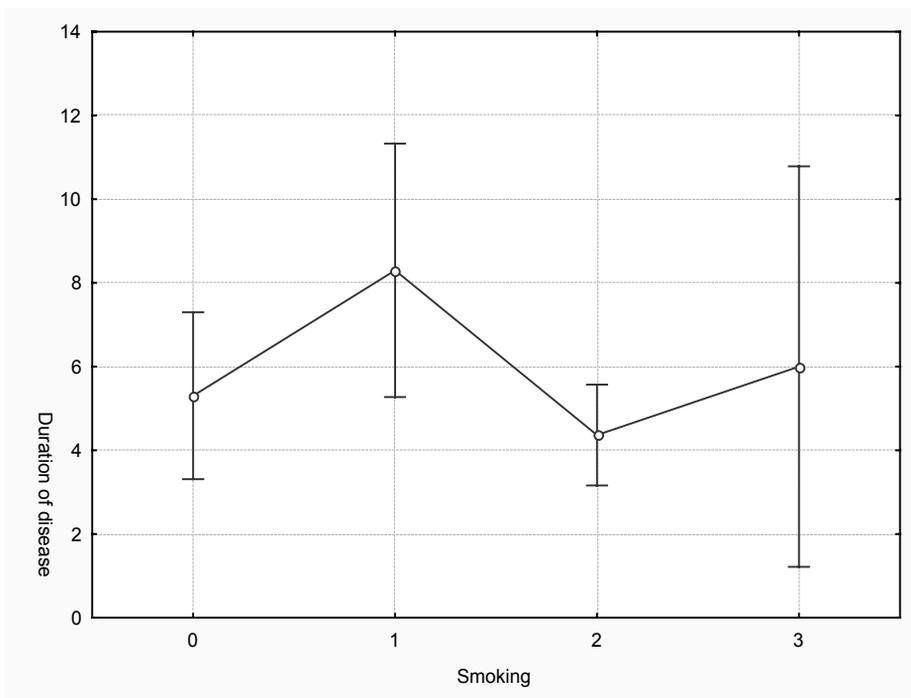


Figure. 2: Effect of smoking on the response duration of illness

Smoking cigarettes is the whole, a very undesirable effect on the human organism. While nicotine itself has a encourage properties, tar, carbon monoxide and other residues have on oragnism very negative impact. Residues are gradually deposited in the body of the smoker causing various diseases especially in the areas of bowel, stomach, liver and lungs. In combination with the overall lifestyle, it is unsuitable then one more move to different civilization diseases such as cancer, myocardial infarction or stroke central. The third hypothesis we attempted to demonstrate that alcohol consumption respondent will have an impact on overall morbidity and duration of disease. Part of hypotheses about the impact of alcohol consumption on overall morbidity has not been confirmed, because the value demonstrativeness the impact of alcohol on morbidity was 0.127008 (Table. 2). In the next section of this hypothesis, we assume that the consumption of alcoholic beverages will have an impact on the overall duration of disease response. This part hypothesis was confirmed, reached demonstrativeness was 0.028889 (Table. 3). Ther can be seen graphically link the duration of the disease and consumption of alcoholic beverages in the diagram. 3.

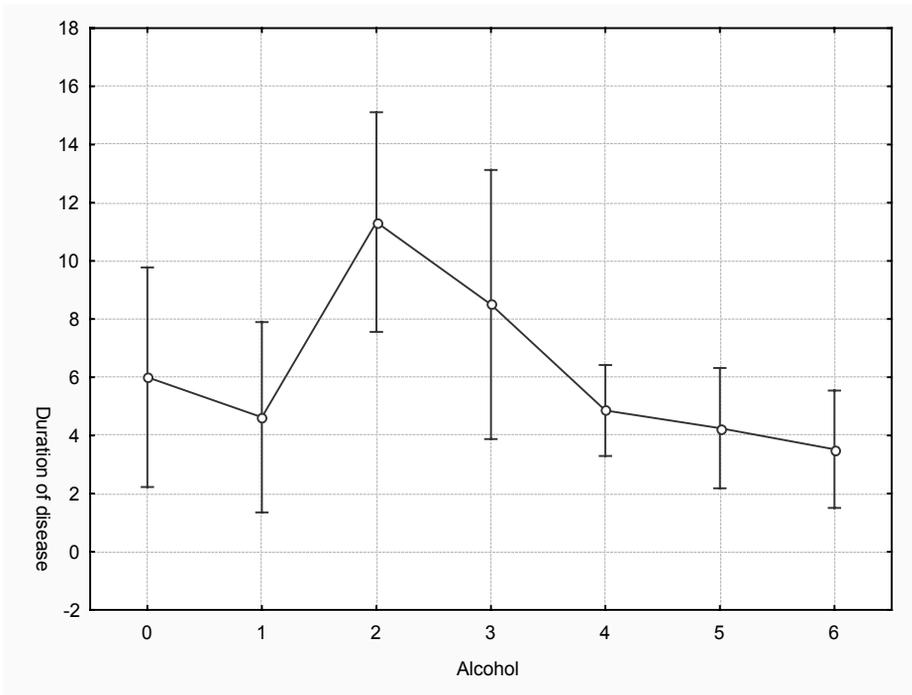


Figure. 3: Effect of alcohol consumption of respondents in the duration of the disease

Consumption of alcoholic beverages to a greater extent, and especially in the short space of time, means for human oragnism several adverse consequences. Frequent consumption of alcoholic beverages to a greater extent - particularly „hard“ alcohol may ultimately cause the failure of liver function, kidney or significantly contribute to myocardial infarction or stroke central. The fourth hypothesis, we assume that the previous respondent’s department will have an impact on overall morbidity and duration of

disease. This hypothesis was confirmed only partially. Figure. 4 showing the effect of length of employment for the duration of the disease, while suggesting some dependency, but under demonstrativeness value of 0.111707 (Table 3) it is seen that this effect is in our research sample not confirmed. In contrast, the hypothesis was confirmed in the pursuit of the overall impact of workplace illness, demonstrativeness value is 0.023687 (Table C.4).

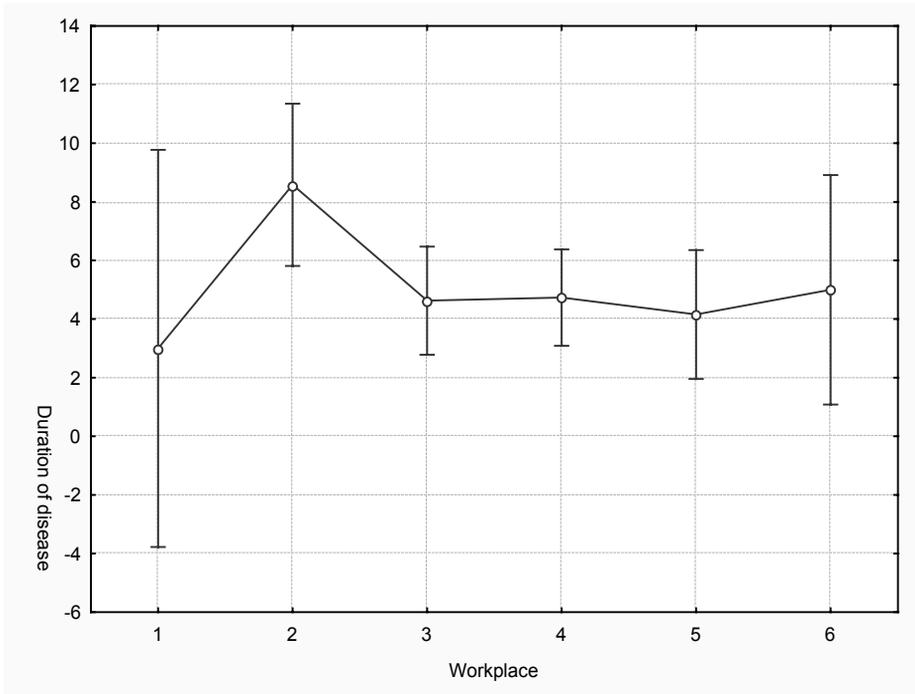


Figure. 4: Effect of initial respondents work for the duration of the disease

People in the workplace typically spend the largest part of the day and week and in fact largest part of life. Environment that surrounds man is reflected in some way also to its overall health. In our research, we focused mainly on the quality of the laid work, where we distinguish between the environment with clean air environment from pollution, environment of rubber factory, paint shop and other environmental nuisance. Another factor has been observed and possible stressful situations in the workplace, which could contribute significantly to the overall state of health. While completing the questionnaire, we asked respondents two supplementary questions. At first we wanted to find out what respondents as a major cause of his illness and other factors which prompted them most of their course of disease. From the responses of individual respondents showed that up to 86 % respondents as the main cause of the emergence and outbreak of the disease, as well as aggravation or acceleration of the course, considered an excessive amount of stress situations in the course of life. This finding, we also linked to the previous place of work of respondents, which could also be a source of stress situations, as many respondents answer in the debate with them suggested.

The last hypothesis we assume that the movement activity of the respondents will have an impact on overall morbidity and duration of disease. This hypothesis has not been confirmed. In assessing the impact of motion activities of respondents on their overall morbidity, the value of demonstrativeness matches the number 0.261917 (Table 2). In assessing the impact of motion activities of respondents in total duration of the disease have also failed to demonstrate a link, because the value of demonstrativeness matches the number 0.716833 (Table 3). Curve No. 5 in the chart, while suggesting a link with a total duration of illness movement activity, but the evaluation of the questionnaire shows that most respondents to our research sample was given to the movement very rarely, which may also be a cause of inconclusive impact of this factor. Many studies demonstrate the positive impact of motion activities to healthy subjects, and it is positively affected in particular the incidence of cardiovascular disease, diabetes, obesity and so forth. (Barengo et al., 2004, Matthews et al., 2007, Hu et al., 2005, 2006, De Backer and Bacquer, 2004).

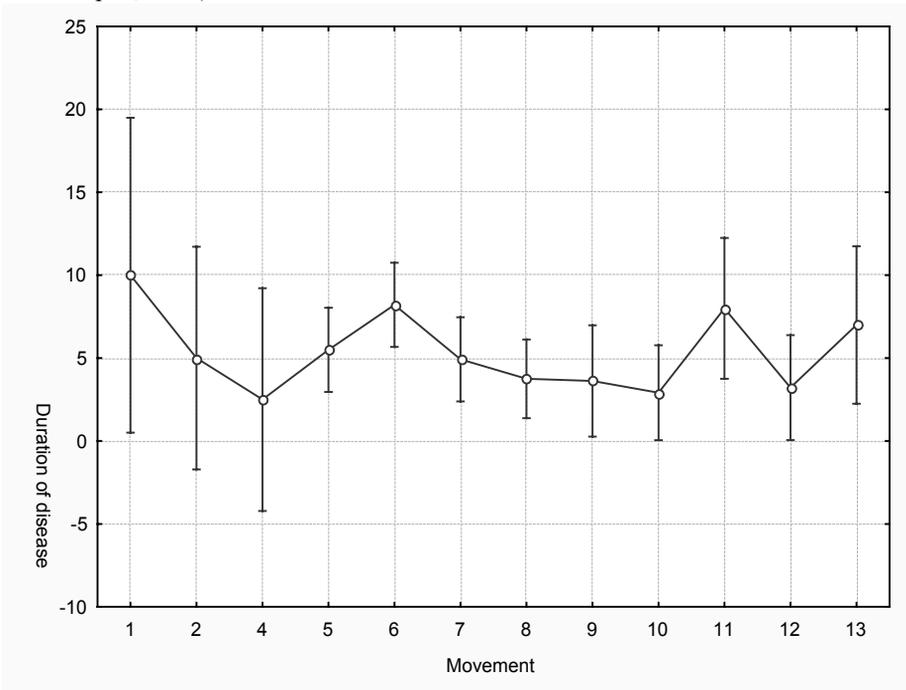


Figure. 5: Effect of movement of the respondents for the duration of the disease

Conclusion

In the present study, we focused on assessing the impact of lifestyle on the health of individuals, we focused on the impact of respondents eating, smoking, alcohol consumption, previous work and movement activities for the duration of the disease and overall morbidity of respondents. Respondents of this study were disabled license holders of the administrative district Valasske Klobouky. On the basis of these results can

be stated that for the ill health of our respondents the survey factors mainly their diet, smoking, consumption of alcoholic beverages. Important role played by their previous place of employment, both directly, through air pollution (rubber factory, paint shop), as well as in conjunction with the stressors in the workplace situations, what the respondents reported themselves as one of the main causes.

AKO OVPLYVŇUJE ŽIVOTNÝ ŠTÝL ZDRAVIE ĽUDÍ

Abstrakt: V uvedenej štúdii sme posudzovali životný štýl respondentov so zameraním na ich stravovacie návyky, fajčenie, konzumáciu alkoholu, pohybovú aktivitu, pôsobenie stresu, ako aj ich rodinnú anamnézu. Respondentov tvorila skupina 100 pacientov, ktorí sú držiteľmi preukazu Zdravotne ťažko postihnutý (ZŤP), ktorým bol tento preukaz pridelený na základe chronických ochorení interného charakteru, onkologických ochorení, sklerózy multiplex, centrálnej mozgovej príhody alebo infarktu myokardu. Z výsledkov nášho výskumu vyplýva, že nepriaznivý zdravotný stav respondentov ovplyvňuje najmä spôsob stravovania, časté požívanie alkoholických nápojov a fajčenie. Významnú rolu v nepriaznivom zdravotnom stave zohralo aj predchádzajúce zamestnanie respondentov, či už z hľadiska výskytu stresových situácií alebo vplyvu nezdravého ovzdušia.

Kľúčové slová: stravovanie, fajčenie, alkohol, stres

LIFESTYLE SELECTED SAMPLE OF HIGH SCHOOL YOUTH

Ivona PAVELEKOVÁ, Viera PETERKOVÁ

Abstract: *In the present study, we present the results of questionnaire research on the lifestyle of selected secondary schools with an aim to ascertaining their physical activity (active, passive), diet (fruit and vegetables, dairy products, white and dark bread, meat and sausages, fish, poultry, chocolate and sweets, snacks, pasta, method of preparing food etc.), medical history, consumption of legal and illegal drugs, getting over stressful situations and duration of sleep. We measured the impact of gender, age and type of school attended in their lifestyle. The research sample consisted of 200 respondents aged 17–18 years. We concluded that more students are older, the less deal with motion and sport. Their eating habits are, except of a few exceptions, quite good. Most students reported that school is a stressful environment for them, and more than half of students have experience with illegal drugs. The most commonly reported illegal drug is marijuana.*

Keywords: *lifestyle, eating habits, exercise, BMI, young secondary*

Theoretical background

Lifestyle is more or less constant, repeated ritual during the day, week, year. It can be characterized as a conscious design of various forms and sites of life and the environment in a harmonious, aesthetically and ethically active unit. This represents a relatively stable form of physical and mental activity and the environment that man creates and transforms. In the deepest sense, it is picked to individual way of adapting to the world. Our health and well-being is affected by many factors. A significant proportion of it is genetics, environment, health and way of life. It is easy to estimate the impact of these factors on our health. It is assumed for example, that we can thank to ordinary care for the health of only about ten percent, while genetic factors are probably involved in it about twenty percent (Briffa, 2000). Many studies show the negative consequences of the improper way of life reflected in health (Johansson, Sundquist, 1999; Kanehisa, 2000; Ventegodt, Merrick, 2003; Contoyannis, Jones, 2004, De Backer, Bacquer, 2004).

Reports say that the health of the worst ingredients are excessive energy and inappropriate nutrition composition of foods, smoking and low physical activity (Pamplona, Roger, 1995).

Research Hypotheses

We tried to verify some hypotheses by using a questionnaire.

Hypothesis H1:

We assume, that the chosen lifestyle younger respondents (in numerical terms) will reach higher levels than older respondents.

Hypothesis H2:

We assume, that the chosen lifestyle of the respondents from medical high school will deliver better value than respondents from high school.

Hypothesis H3:

We assume, that the selected lifestyle factors are achieving better value in girls than in boys.

Research sample

We realise the research in two secondary schools with different specializations. Respondents were students in the third class, aged 17-18 years. We distributed 100 questionnaires within each school. 50 questionnaires filled girls and 50 boys from the high school and 80 girls and 20 boys from the associated secondary school. Overall, we distributed 200 questionnaires (130 girls and 70 boys in both schools), the return was 100 %.

Research methods

Research was focused on life style information of the respondents, which we studied the theoretical background to include physical activity, dietary habits, health status, stress and substance use.

The results we have obtained from the questionnaire were processed by multiple regression in the program Statistica. The questionnaire includes:

- a) general information about the student (age, sex, residence, height, weight).
- b) physical activity, sport (active, passive).
- c) eating habits (fruit and vegetables, dairy products, white and dark bread, meat and sausages, fish, poultry, chocolate and sweets, snacks, pasta, method of preparing food etc.).
- d) medical records (health assessments, frequency of occurrence of disease in individuals, knowledge of civilization diseases).
- e) the consumption of legal and illegal drugs, coping with stressful situations, the length of sleep.

Conduct of research

The research was conducted in January 2007. The results we have obtained an evaluation obtained from questionnaires were processed in Excel, which served as the basis for statistical evaluation of the program Statistica. We calculate BMI to each respondent by his height and weight,.

Results and discussion

We found that, after calculating the correlation coefficients among the factors, the components of lifestyle were BMI, diet, exercise, health, stress and drugs interact (Table 1).

Table 1: Cross-correlations of the components of lifestyle

	BMI	Eating	Movement	Healthy conditions	Stress	Drugs
BMI	1	0,0148 p=,837	0,1197 p=,095	0,0828 p=,250	0,0147 p=,838	-0,1737 p=,015*
Nutrition		1	0,2018 p=,005*	-0,0515 p=,474	0,0036 p=,960	0,099 p=,169
Movement			1	0,0548 p=,447	-0,058 p=,421	-0,0784 p=,276
Healthy condition				1	0,0097 p=,893	0,1204 p=,094
Stress					1	0,2358 p=,001**
Drugs						1 p= ---

The table shows, that BMI is positively correlated with the consumption of drugs. Their relationship is statistically significant p-value < 0.05. Students, who use drugs regularly, don't eat regularly or don't eat at all. They are lethargic, fatigued, their weight decreases. Another statistically significant correlation is the relationship between diet and movement. Statistically significant level of correlation is also reflected in the relationship of stress response and consumption of drugs. Some effects are not expressed strongly enough, but the statistical values are at the border of provement. Such a relationship was found between physical activity and BMI of the respondents, as well as health conditions and drug response.

Figure 1 shows the effects of age, students at the particular components of life style. Based on the chart, as well as evidence supporting the values that are listed in Table 2, we found that the age does not affect particular individual components lifestyle. One exception is the one component - the movement that is related to age is statistically significant. The graph shows that more older students are, the less they deal with sports or even sports at all. Based on the results, we found that a hypothesis 1 is not confirmed.

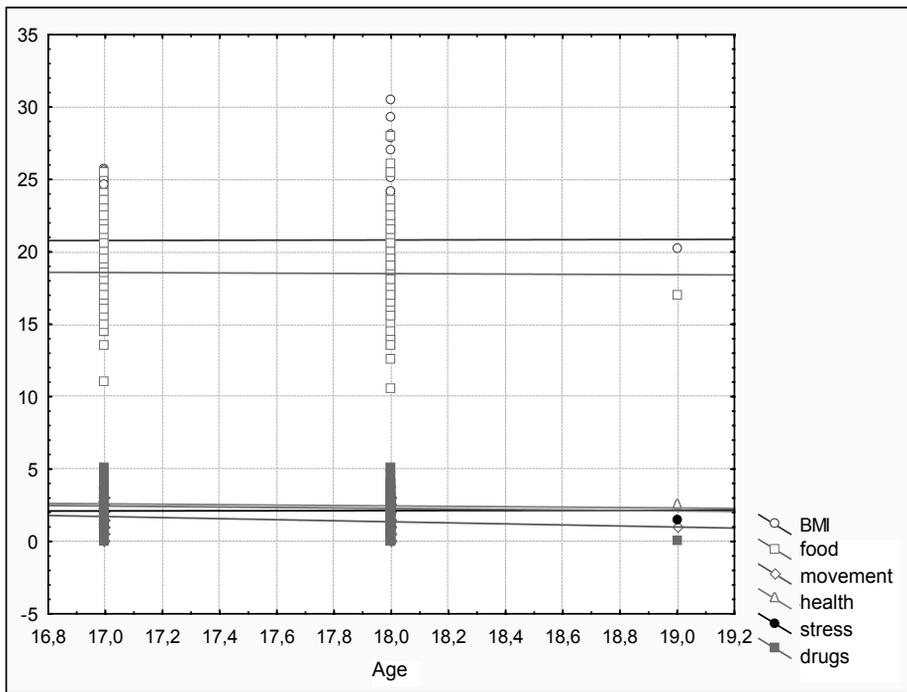


Figure 1: Effect of age on the individual components of students' lifestyles

Table 2: Effect of age on the reference component lifestyle

Searched components	Age SS	Age MS	Age F	Age p
Nutrition	0,957	0,95665	0,11694	0,732768
Movement	2,5074	2,50736	4,04661	0,045711
Health condition	1,5402	1,540166	2,671037	0,103890
Stress	0,03519	0,035187	0,096119	0,756886
Drugs	2,4287	2,428699	1,601401	0,207296

The second hypothesis, we assumed that the lifestyle of the respondents will be affected by type of school attended, as we assess the students at the general school (high school) and vocational schools with a focus on health (medical secondary school). The results of our assumptions are shown in Figure 2 and Table 3.

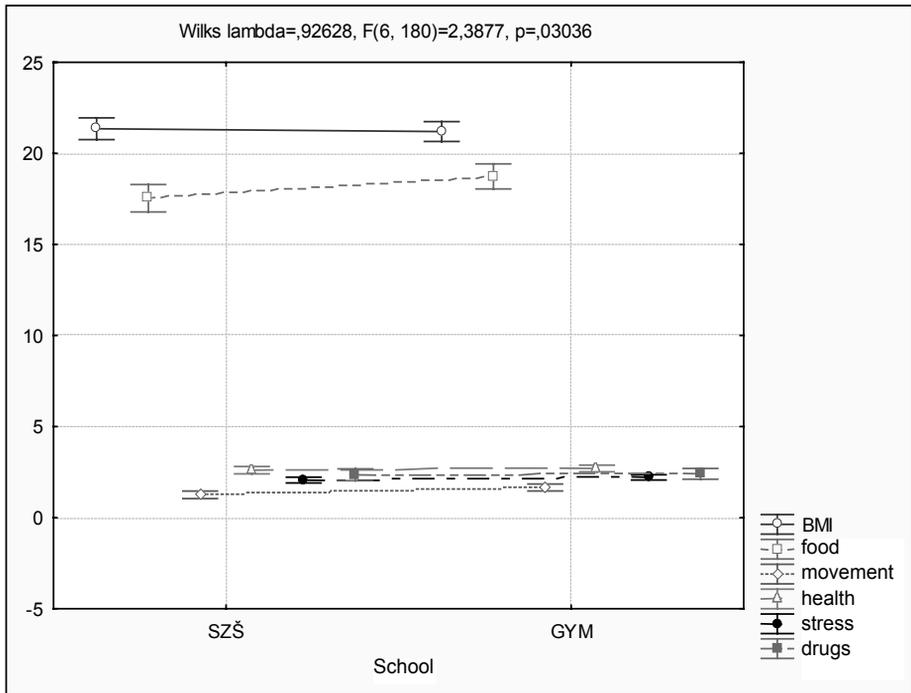


Figure 2: Effect of type of school attended to the individual components of lifestyles of the respondents

Table 3: Effect of type of school attended to the individual components of lifestyles of the respondents

Searched component	School	School	School	School
	SS	MS	F	p
Nutrition	43,356	43,35620	5,29972	0,022442
Movement	4,9116	4,91164	7,92686	0,005399
Health condition	0,2617	0,261700	0,453853	0,501351
Stress	0,64913	0,649132	1,773214	0,184623
Drugs	0,0801	0,080108	0,052820	0,818480

The table and graph shows, that the type of school attended affects two components of lifestyle: nutrition and movement. The chart also clearly shows, that high school students have better nutrition habits than students in secondary medical schools. Another statistically significant component which is influenced by by the type of school is movement. Students of high school also achieve better scores than students in secondary medical schools in this factor.

Against this background, we found that the hypothesis 2 is not confirmed, our assumption was the opposite. Movement is very important factor affecting the health status of individuals significantly involved in the treatment of diabetes, cardiovascular disease, obesity and so on. (De Backer and Bacquer, 2004, Matthews et al., 2007, Hu et Al., 2006).

In the last hypothesis, we assumed that the chosen lifestyle of girls achieve better value than boys.

Table 4: Effect of gender on particular components of lifestyles of the respondents

Searched component	Gender	Gender	Gender	Gender
	SS	MS	F	P
Nutrition	82,701	82,70137	10,10914	0,001730
Movement	1,1375	1,13748	1,83578	0,177099
Health condition	2,1697	2,169710	3,762826	0,053925
Stress	0,17130	0,171297	0,467927	0,494798
Drugs	5,5058	5,505826	3,630352	0,058286

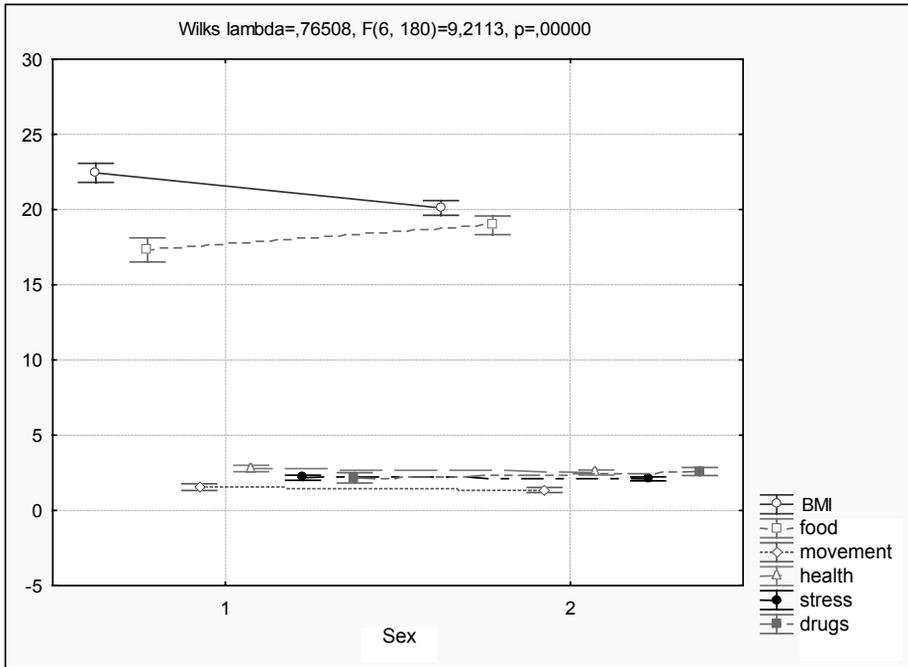


Figure 3: Effect of gender on the individual components of lifestyle respondents

Based on the results presented in Table 4 and Figure 3, we found that gender affects the nutrition habits of the respondents, their health and drug consumption. The chart also shows that girls have better eating habits than boys. Nutrition habits are taking one of the major factors influencing health condition (eg, Kanehisa, 2000 and Ventegodt and Merrick, 2003). The individual responses to the questionnaire, we found that they prefer meat cooked in the state of asphyxiation, eat more fruits and vegetables, whole-meal bread and yogurt. On the other hand the boys reported that they like more baked and fried meat. Only the minimum number of respondents said, they consumed no fruits and vegetables.

Another significantly affected factor is the health status. Respondents most frequently reported illness was flu, back problems, allergies and toothache. Gender is significantly influenced by the experience of respondents with drugs. Respondents referred as the most common illegal drug experience, experience with marijuana. The most frequent legal drugs that students are taking regularly are nicotine and caffeine. Occasionally consumed drug in the majority of students was also alcohol and medicaments. The questionnaire also contained questions about stressful situations. Comparison of the incidence according to gender in the schools under consideration are set out in Figure 5.

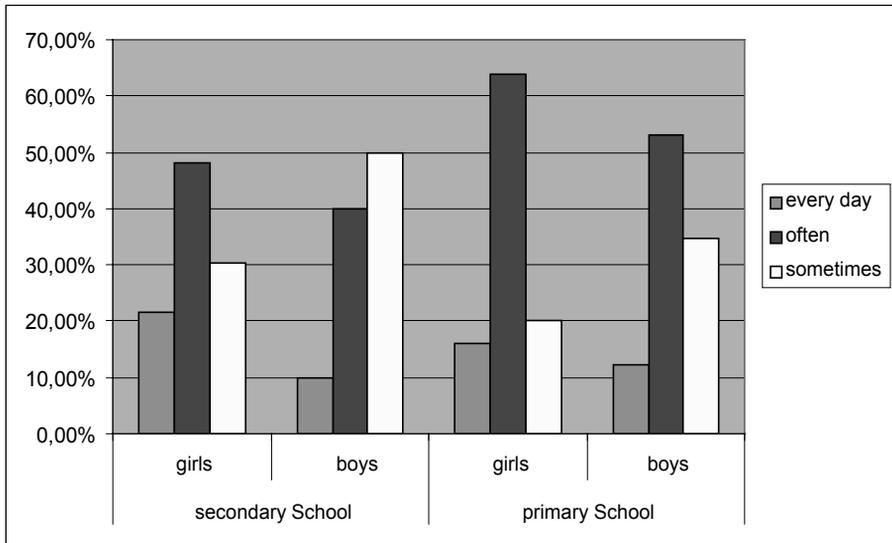


Figure 5: Frequency of survival stress situation in%

We found that most respondents are often exposed to stressful situations. For this reason, we tried to find out what are the most common causes of stress. The results of these findings are shown in Figure 6.

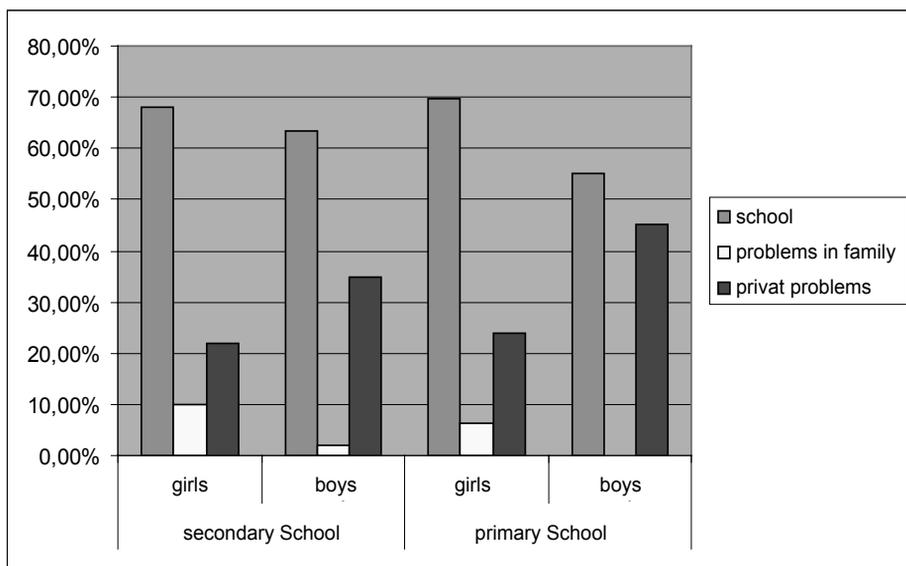


Figure 6 The most common causes of stress among students in %

The most common source of stress reported by respondents is the school environment. There are largely involved in stress personal problems for both sexes. There are more frequent family problems cause stress in female respondents than male respondents. When respondents were asked how they prevent stress, the most frequent response was relax and hobbies, but also cigarettes and alcohol.

Conclusion

In the presented work, we detect what is the lifestyle of selected secondary school students, whether its various components interact, and we ascertain that they are influenced by gender, age, respectively type of school attended.

We found that more students are older, thus worsening their lifestyle and lose their particular interest in the movement. Significantly negative finding is that more than half of high school students with experience of illicit drugs. Almost all respondents indicate that stress experienced and very often the most stressful environment for them is school.

ŽIVOTNÝ ŠTÝL VYBRANEJ VZORKY STREDOŠKOLSKEJ MLÁDEŽE

Abstrakt: V uvedenej štúdií prezentujeme výsledky dotazníkového výskumu o životnom štýle vybraných stredných škôl so zameraním na zistenie ich pohybovej aktivity (aktívnej, pasívnej), stravovacích návykov (konzumácia ovocia a zeleniny, mliečnych výrobkov, bieleho a tmavého pečiva, mäsa a údenín, rýb, hydiny, čokolá-

dy a sladkosti, rýchleho občerstvenia, cestovín, spôsob prípravy jedla atď.), zdravotnej anamnézy, konzumácie legálnych a nelegálnych návykových látok, vyrovnávania sa so stresovými situáciami a dĺžky spánku. Zisťovali sme vplyv pohlavia, veku a typu navštevovanej školy na ich životný štýl. Výskumnú vzorku tvorilo 200 respondentov vo veku 17–18 rokov.

Dospeli sme k záveru, že čím sú študenti starší, tým menej sa venujú pohybu, športu. Ich stravovacie návyky sú až na niekoľko výnimiek celkom dobré. Väčšina študentov uviedlo, že škola je pre nich stresujúce prostredie, a viac ako polovica študentov má skúsenosti s nelegálnymi drogami. Najčastejšie uvádzaná nelegálna droga je marihuana.

Kľúčové slová: životný štýl, stravovacie návyky, pohyb, BMI, stredoškolská mládež

CHANGE OF LIFESTYLE THROUGH A CONCRETE CHOSEN EXAMPLE OF EDUCATION

Miroslav JANDA, Jana TOMEČKOVÁ, Gabriela VĚCHTOVÁ

Abstract: *The authors designed the article to discuss the teacher's possibilities of influencing the students' awareness of lifestyle. According to these changes people should prefer health values. Emphasised health values in contrast to drug addiction. Searching of possibilities and forms how the chosen literature and way of realisation can inspire and initiate change of living style and forming of value spectra is presented. Motivation by enjoyment and entering into the spirit of the role lead to active attachment and applying own creativity impulse of students to the thought so on shape of role as on resulting negative their own health effect.*

Keywords: *upbringing; smoking; health; prevalence; process; motivation*

Introduction

School should not be just a tool for transmitting information and obtaining knowledge, qualifications and skills. It should also be able to influence the perception of an individual, it should be a life-guide and not just a thread showing one's way; it should be a helping hand giving support at the managing of difficult challenges. Many may object saying that this is mainly a task of the parents, as the parents are responsible for the entrusted child and the education is their obligation. It may not be surprising to say that parents and teachers toss their educators' roles like a hot potato. No optimum solution has been found so far and it is not possible to explicitly determine if children are more influenced by the authority of the school or the family. There are neither winners nor losers in this struggle. If in a class there is a couple of fidgety troublesome "scoundrels", the teacher must make more efforts to discipline these, wasting thus time of those classmates who show interest and desire to learn something new. In many situations the parents do not even realise that they should educate their children, as this is "the task of the school". Is this a vicious circle? Where this problem really begins? Does it begin with the parents, who are with their child since s/he takes her/his first breath? Or does it begin with the teachers who should do it, as this is a part of their job description? Not all children's dreams are permissible, which is why there should be at least one person who

would be interested in the way the children have decided to turn, correcting reasonably their wishes. It has been proven that if a person does not begin to smoke at a young age, s/he will not succumb to this bad habit at older age. We should make effort at discouraging young people from smoking. The best thing for them is never to try and begin to smoke. This is a very difficult task, as in this period of life, one feels an urge to discover new things, oppose authorities in a rebel-like manner, and become adult soon...

The objective of this work is to present a proposal of how to make use of biology lessons to discourage students from smoking, how to make them think of the negative effects of smoking. Cigarettes, water pipes and tobacco do not match with a healthy lifestyle.

1. Lifestyle

1.1 Situation in the Czech Republic

Many people still think that human health is mostly influenced by health care, environment and inherent dispositions or diseases. They try to reassure themselves with such thinking, transferring the responsibility to others: to doctors, hospitals, health care system and pharmacies and medicine and other preparations available. Studies have been performed demonstrating the fact that the state of health is most seriously influenced by nourishment, physical exercise, smoking, alcoholic drink consumption and stress overload. Such lifestyle factors cause especially cardiovascular, oncogenous and metabolic diseases. According to the Institute of Health Information and Statistics of the Czech Republic, the highest number of inhabitants of the Czech Republic die from circulatory diseases (approximately 51%). This number is quite high as compared to other European states (approximately 35%). Among cardiovascular diseases, such diseases belong as ischaemic heart disease, arterial lipoidosis, acute myocardial infarction or cerebrovascular accidents. During the nineties, positive changes occurred. An important role is played by the individual approach towards one's health, values and attitudes of the individual, and what is interesting, also education. It has been proven that people with university education live longer and healthier lives. Such people do sports and they do not suffer from overweight or obesity, they smoke less, eat healthier food, consume less alcohol. It can be said that their approach towards their health is more responsible. Diet composition is important for health, and to a certain grade, it is influenced by climate characteristics, geographical location and eating habits of the population of the individual countries. The Czech Republic belongs among countries with a high number of obese people; such a problem is related to a sedentary lifestyle. In this country, there is also a large prevalence of hypertension and cholesterolaemia.

2. The Importance of a Play in Teaching

2.1. What is a Reality?

Nowadays, young people are surrounded by a world of "illusions"; we have been living in a secondary world of intermediated impressions. Do our personal experiences fade out? How much are we influenced by media devices? Do I have to really leave my home to survive? After all, the whole world will come to me through the Internet. If I immerse myself in a world of virtual reality, I can communicate with people from

almost all parts of the world in real time, being thus able to get and arrange all necessary things. If I exaggerate a little, I may say that a person could be able to live a completely “normal“ life from her/his living room. For such a purpose, s/he would need just a computer with the Internet connection, a cell phone and financial means. For how long can we feel happy with such a passive entertainment? It depends on each individual. What is the reason for the fact that people have shifted their focus of interest to be closer to a consumption-oriented way of life, getting away from the Nature with which they have been bound since time immemorial? Are large towns to be blamed, full of housing estates with their temptations? Tower buildings become physical and especially mental barriers preventing from natural contacts with one’s peers. A child thus grows up in a social isolation. It is emotionally burnt out, apathic without any interest; it is unable to socialise with people and it shows aggression, trying to attract attention to itself, etc. The development of science and technology brings about not only progress but also certain negative phenomena reflected in the world of experiences. We experience the majority of feelings only mediated by movies. The view of the death has also changed. We have been used to see that in action movies, a loss of one life is absolutely unimportant. A violent death is perceived as something completely common, painless and natural. Computer games create an illusion of several attempts (Do I fall down from a rock due to my clumsiness? Never mind... I still have another chance; maybe I will succeed in my second attempt...).

2.2. What is a Play?

According to the definition of the Dutch historian Johan Huizinga, which is given in his book *Homo Ludens*¹, play is a free behaviour and occupation which, within an exactly limited time and space and performed in compliance with freely accepted, but unconditionally binding rules, is the objective of itself, bringing about a feeling of thrill and joy and also an awareness of its difference from a common life. A play may be played by an individual or also by a group of people. Its objective is relaxing and entertaining, and such an activity is usually associated with leisure time. Even children try to discover and explore not just the world but also themselves through playing, making thus the human socialisation easier. Every play has its own rules, which make it thrilling. Due to the complexity of rules, the play may evolve; its difficulty increases and the play becomes interesting not only for the small but also for the big ones, and also for those of a superior intelligence. Everybody loves to play, but it is difficult to find time for playing due to other obligations.

The role of the play may be the following:

- Entertainment and instruction (it is used in education in order to enrich traditional lessons);
- Playing of roles (even if we play our role only “as if“, we sometimes let ourselves carry away so much that the borderline between the reality and the play fades away; we stop perceiving the surrounding world, becoming completely immersed in the play. Such behaviour is then justifiable. Although the rules are defined unambiguously, everybody understands them in her/his own manner – this is used in simulation games);
- Experience (the participant becomes a co-creator of a new story by means of the

- accepting the rules of the play; many activities are then experienced directly and without mediation);
- Objective (at the pre-school and younger school age, the play is natural);
 - Simulation (the creation of a certain model of reality – it also brings about a possible danger);
 - Knowledge and self-knowledge (for a good teacher, not the outcome but the course of the play should be important, as through observing her/his pupils the teacher may learn lots of new information and compare it with the pupils' behaviour in the real life);
 - Moral challenge (this is related to observing and non-observing of rules; sometimes, situations arise which force the players to negotiate, trade-off, subordinate, etc., demonstrating their real self without realising);
 - Freedom and discipline (the play has its own limitations in a form of rules, duration, space and selection of players, but the players participate voluntarily).

3. School in the Process of Education of an Individual towards Health

The education towards health can be understood as one of the dominant target categories of the educative process. If we agree with the WHO definition which says that the health is a complete status of physical, mental and social wellness and not just an absence of illness or defect, then it is important to shape people in all such areas. The objective is the creation of an educated, responsible, tolerant and co-operative individual with positive-value preferences and interests, who considers health to be the highest value of the human existence. The pupil's abilities and capacity, her/his own activity, self-knowledge, personal self-fulfilment, self-presentation and self-reflection are the pillars of the endeavour for the education of such an individual. Although schools try to emphasise the education towards health, they do not succeed in convincing the pupils to transfer such knowledge in their lives and to live by such recommendations. The basic objective of the education is to teach the pupils to be able to sort through information and issues related to the state of health, to adopt a positive way of thinking, to make the right choices beneficial for their health, to use skills enabling an active influence upon the physical and mental condition of the pupils as well as their habits and experience obtained and verified in practical situations of their everyday life.

Health should be an evidence of the quality of life; it is necessary to develop all its components, no matter whether it is biomental, sociocultural or spiritual system. Support and co-operation of the family is also important. The process of education towards health should be a long-term, continuous and systematic activity of all the society component levels. It is impossible to charge such a responsibility only to the school and family; instruction for a healthy lifestyle should be given through media, legislation, health centres, religious movements, youth organisations, insurance companies, citizens' associations, etc.

In the education process, the school should focus on the following:

- Current local and regional conditions and specifics;
- Support of positive social interaction among pupils – teachers – family – community;
- Positive motivation, support of positive values, self-confidence of pupils and their positive thinking;
- Motivation of pupils towards their school and out-of-school activities supporting health;
- Providing of information related not just to health but also prevention, using for such a purpose all the forms of education and learning;
- Careful selection of suitable teachers and educators, who will be enabled further studies in this area; such teachers and educators should become and set examples of the observance of principles of healthy lifestyle;
- Innovation, support and updating of quality methodology materials, didactic and teaching texts, handbooks, etc.

The teachers should do the following:

- Endeavour after the harmonisation of the development of all the dimensions of health;
- Include education towards health in their lesson preparations;
- Provide information in a reasonable and non-directive manner related to health and drug-abuse prevention; accept and support existing projects related to such a topic, or create new projects and concepts suitable for the conditions of the school;
- Focus on interests and preferences of pupils and use common school or out-of-school activities in a meaningful manner;
- Create favourable environment for teaching, interaction and communication with pupils, applying active approach-based methods, such as brainstorming and physical, didactic, simulation and stimulation games;
- Respect pupils' personalities, taking into account their experience, interests, necessities and values; differentiate and adapt teaching according to the pupils;
- Support pupils from socially disadvantaged and educationally less challenging environments;
- Develop responsibilities of pupils for themselves and their social environment, support their self-control, guide them towards co-operation, consideration and tolerance;
- Try to involve the parents in the education towards health; co-operate with other organisations;
- Monitor and evaluate the course and results of education.

Practical Part

4. Guideline to the Manner of Convincing

I have chosen the subject of biology, specifically human biology – respiratory system, to cover the topic of presentation of the risks of smoking and the reduction

of number of smokers among secondary-school students. It may seem that at such an age, students cannot be surprised by anything, as they have usually met with the problems of smoking at the primary school, but my goal is at least to guide them to think about their lifestyle, to warn parents-smokers and to agree on a compromise that nobody will smoke at home, as passive smoking is also harmful for the organism. They should start asking questions, such as: For how long have I been smoking? Why? Don't I want to stop? Do I feel excluded when my friends go smoking? Who is stronger: the one who resists the temptation of a cigarette or the one who stands up against prohibitions imposed either by parents or teachers? Do I really need to try everything? The subject matter and the manner of making the pupils change their lifestyle is so broad that it cannot be taught in 1 or 2 lessons. The objective is to outline the detrimental impact of such a bad habit on the individual organs. What one can see with her/his own eyes, s/he remembers much better than bare facts. For such a purpose I have created a presentation which is available on CD and which is a part of the seminar work. One part of the presentation is focused on students who are occasional smokers. The topic of the presentation is to teach students to say „NO“ to a cigarette. The objective of the other presentation, focused on regular smokers, is the smoking dishabituatio. Students should realise that their decision to smoke or not to smoke does not influence their health only at this very moment, but their misconducts are gradually accumulated, and that within 20 or 30 years, they may be sorry for having taken such a decision. The only thing they need is a strong will and motivation. Waterpipe or hookah smoking is very popular among young people. The majority think that smoke treated in such a way is not detrimental to their health, as the volume of inhaled nicotine is insignificant as compared to a comparable number of cigarettes. Water cools the smoke, however it does not filter off all the toxic substances. It is always recommended to use a filter. In order to prevent the transmission of some infectious diseases (such as herpes or mononucleosis), sanitary mouthpiece should be used. If the students feel I am trying to show them only one point of view, their task will be to find information related to the topic of the hookah, and the beginning of the next lesson will be dedicated to a lively discussion. Lessons will thus become more interesting and also the teacher will get lots of interesting knowledge. Main questions for the discussion:

Do you think that hookah is detrimental to health? Why? Why is it so popular among young people? Tearooms and the hookah? Does it match?

Such a discussion should not make the students feel that the teacher represents a prohibiting and moralising authority. The teacher should rather shed light on their own opinions, which sometimes are biased, drawing attention to important issues related to this topic. In order to make the students open and show their ideas, the best solution could be to select a suitable individual among them who will be in charge of the discussion.

A theatre play may be a very interesting activity not only on a stage. I know from my own experience that children easily enter into the spirit of their respective roles and they enjoy creating a story, costumes, selecting suitable music, preparing

the scene, and finally they show their great work to the audience. My idea is to propose the students to rehearse either in groups or all together a short play related to smoking. The only condition is that such a short theatre play must include clear anti-smoking and anti-cigarette ideas. Only the non-smokers may be the winners. In order to prevent them from straying off topic completely, I have prepared several phrases which must be used in the play, otherwise the task assigned would not be fulfilled. Terms or phrases which must be used are as follows: lungs cancer; passive smoking; smoker's melanosis; 9 out of 10 smokers die because of smoking; in cigarettes, there are approximately 103 carcinogenic substances and each cigarette smoked makes one's life shorter by 5 minutes. The students could become motivated by the fact that when they finish the preparation of their theatre play, they may present it to their classmates, teachers or even to the public. If this is the case, the target is set too high, as it is anticipated that the children should do it in their free time. I am aware of the fact that it is impossible to involve all of them in the collective work. Some of them are not interested, some realise they are too shy to participate. Others lack ideas or are not able to assert them... On the other hand, I do believe that some students will be glad to spend their time in such a manner, as it is fun, diversion, a certain form of exhibitionism for them. What is important here is the organisation and arrangement of such an event. A fictitious story the end of which the students create may be another possibility. The plot is based in the resistance of the temptation of a "joint". Basic line of the story: A group of friends left a discotheque as they did not like it enough and now, they are trying to find another club. As the way seems quite long, they light a joint. They are having a good time, and all of a sudden they meet their favourite class mate. Of course they take an advantage and offer him a cigarette. They try to convince him in many ways, however the main character of the story is strong enough to resist... It is important to choose 2 strong personalities of the class. One role represents the resisting character, who is far from let his classmates influence him; the other is the leader of the group. The other members of the group are trying to support their leader and to convince their classmate to smoke. The rest of the class who do not play any role will closely follow the story and at the end they will make a survey, advising the actors on what should have been done differently and what they did not like, what could be done to make the story better. They should define which reasons pro and contra seem to be perfect, which arguments they would also use in real life, etc.

After seeing such a presentation, the students should form their own judgement about cigarettes, which is why it should not be a problem for them to design their own logos for their cups. Such a sign should be focused on the struggle against smoking; it should promote a healthy lifestyle. My idea is that the cup should admonish them about the fact that the decision not to become a smoker or to stop smoking is correct. The rest is up to the individuals. This idea also brings about another motif. The engagement of one's creativity makes a person think; one does not want to present her/himself in a bad light, which is why s/he will do her/his best to reflect her/his typical ideas and new information in the product. If the student follows the established topic, s/he will not take home just a nice cup but also a guide and motivation.

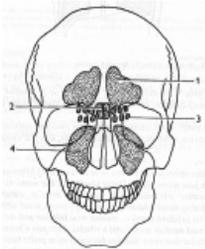
5. Selected Subject Matter

Respiratory System

<u>Function</u>	- supplying the blood with oxygen => release of CO ₂
<u>Anatomy</u>	- airways - upper - nasal cavity, nasopharynx - lower - larynx, trachea, bronchi - lungs

Nasal Cavity (cavum nasi)

It starts with nostrils and it opens into the nasopharynx. The nasal cavity is limited by bones and it is divided by the vertical nasal septum into 2 parts of different sizes. On lateral walls, there are 3 outgrowths called turbinates (conchae) which divide the cavity in 3 air ducts. The complete nasal cavity is covered with mucous. In the upper part, there is an olfactory mucous with olfactory cells, while in the lower part, there is a very vascularised respiratory mucous lined with ciliated pseudostratified columnar epithelium. Mucus produced by glands in the mucous traps and removes dust and bacteria. Air passing through the cavity is warmed up, humidified and analysed. The nasal cavity is connected to the paranasal sinuses lined with mucous which easily becomes infected; they are filled with air. Paranasal sinuses form developmentally in children at a young age, and at an adult age, their capacity is larger than the capacity of the nasal cavity. Paranasal sinuses are cavities in the frontal bone, sphenoid bone, ethmoid bone and maxillary bone (picture 1).



picture 1

1. Frontal sinuses (*sinus frontalis*)
2. Sphenoid sinuses (*sinus sphenoidalis*)
3. Ethmoid sinuses (*sinus ethmoidales*)
4. Maxillary sinuses (*sinus maxillaris*)

Curiosity: The sense of smell distinguishes among 7 basic stimuli (camphoric, muscat, flower, peppermint and ethereal fragrances and ammoniacal and putrefactive odours).

Nasopharynx

In the nasopharynx, respiratory and digestive passages intersect. In the roof of the nasopharynx, nasopharyngeal tonsils are situated. In lateral walls, the Eustachian tube opens which equalises pressures in front of and behind the tympanic membrane.

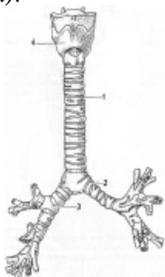
Larynx

Larynx is a 6-cm tubular organ of a sand-glass shape. It consists of a single thyroid cartilage (connected to the hyoid bone by means of ligaments), cricoid cartilage, epiglottic cartilage (during swallowing, it is forced over the glottis opening, preventing thus swallowed

material from entering the airways) and paired arytenoid cartilages (connected by means of ligaments into a moving flexible whole). The laryngeal cavity has an extended upper part and narrowed middle part, where fixed vestibular folds and true vocal cords are situated between the arytenoid cartilages and the thyroid gland. At expiration, the air hits the tense vocal chords at a high speed and makes them oscillate. Such an oscillation makes the air in the upper airways move and a sound is generated which with the help of the tongue, palate, teeth and lips is transformed in articulated speech and singing.

Trachea

It is approximately a 12 cm long tubular airway, held open by 15-20 C-shaped rings of cartilage, which is connected by means of a ligament to the ring-shaped cartilage of the larynx (picture 2). It is divided into right and left bronchi, which connect to the lungs. The mucous of the trachea and bronchi is lined with a ciliated epithelium. The cilia vibrate outwards the airways, eliminating dust and harmful substances. The cilia of the smokers is immovable => higher liability to diseases (one clears one's throat more often).



picture 2

1. Trachea (trachea)
2. Left bronchus (bronchus principalis sinister)
3. Right bronchus (bronchus principalis dexter)
4. Larynx (larynx)

Lungs (pulmo)

The lung is an organ of a spongy texture situated in the thoracic cavity, fitting against the diaphragma. The lungs are separated by fissures into lobes (lobi); the right lung has 3 lobes, the left has 2 lobes. On the surface, there is a thin membrane called visceral pleura, which in the hilum passes into pleura lining the thoracic cavity. Between both membranes, the pleural cavity is situated filled with pleural fluid => it allows the pleurae to slide effortlessly against each other during ventilation. If air penetrates in the pleural cavity due to an injury, the affected lung collapses => pneumothorax.

The colour of children's lungs is pink; in adult people, lungs are black marbled, which is caused by dust particles.

The bronchi entering the lungs are divided into the individual lobar bronchi, segmental and subsegmental bronchi, bronchioles and alveoli.

The alveoli are semicircular canals; their walls are lined with thin epithelial layer surrounded by capillaries. Breathing gases exchange takes place in them.

Physiology of Breathing

Ventilation – exchange of air volume between the external environment and the lungs per time unit;

Inspiration – inhalation – the diaphragm is contracted towards the abdominal cavity;

the external intercostal muscles push the ribs upwards => thoracic cavity extends;

Expiration – exhalation – the diaphragm moves back (working as a piston), the internal intercostal muscles draw the ribs down => the thorax shrinks;

Tidal volume – approximately 0.5 litre of air breathed in or out during normal respiration = breath;

Respiratory rate – number of breaths per 1 minute (adult 14-18 breaths, child 26 breaths, newborn 40 breaths), number of breaths increases with physical strain;

Respiratory minute volume – tidal volume multiplied by respiratory rate (7-9 litres when no extra effort is applied; when extra effort is applied, up to 150 litres);

Vital capacity of lungs – when no extra effort is applied, only a small capacity of lungs is used and there is still a large reserve. It is the maximum amount of air a person can expel from the lungs after a maximum inspiration. The value depends on sex, height, weight, chest structure, physical condition (mean values - women: 3-3.5 litre; men: approximately 5 litres). It is measured by a spirometer.

Residual volume of lungs – volume of air which cannot be breathed out from the lungs (0.5-1 litre)

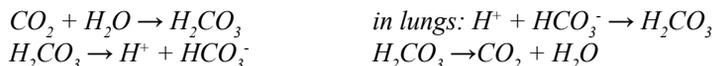
Respiratory Gas Exchange in the Lungs and Tissues

External respiration – the exchange of O₂ and CO₂ between tissues and blood. In the lungs, exchange of O₂ between the alveoli air and the blood takes place, and CO₂ is transferred from blood to the alveoli air. Such an exchange passes in a direction of a pressure gradient.

Internal respiration – exchange of gases between cells and surrounding environment

Expelled air contains 4% of CO₂ and 16% of O₂. Arterial blood enters in the capillaries from tissues. Tissues contain less O₂ and more CO₂. That is why O₂ is transferred from blood in capillaries to tissues and CO₂ from tissues to blood. From tissues, oxygenated blood travels back to the lungs. The solubility of oxygen in fluids is low => in animals, a protein has developed which is able to chemically bind oxygen. It is the blood pigment haemoglobin (in 100 ml of water, 0.5 ml of O₂ can dissolve; in 100 ml of haemolymph, 5 ml of O₂ can dissolve, and in 100 ml of blood, 20 ml of O₂ can dissolve – almost the same quantity as in the air).

For the transmitting of CO₂ there are no carriers in the blood, because it is dissolved in the blood and it is transmitted in a form of hydrogencarbonate bound to blood plasma proteins in blood:



(diffusion to the alveolar air)

Respiration Control

The depth and frequency of respiration is adjusted according to the metabolic necessities of the organism. The action of respiratory muscles is accurately controlled by the central nervous system. It is possible to deliberately hold or accelerate one's respiration; however, it cannot be stopped. The respiratory centre is situated in medulla

oblongata; centripetal respiratory neurons from the lungs and blood vessels enter there; these neurons register the volume of O₂ and CO₂ in blood. From the medulla oblongata, centrifugal neurons pass to respiratory muscles. A superior respiratory centre is situated in grey matter.

Withdrawal reflexes (leading towards the elimination of harmful substances) at the stimulation of

- Nasal mucous membrane => sneezing
- Mucous of the larynx, trachea, bronchi => cough

Diseases of the Respiratory System:

Bacterial and viral diseases:

- Pharyngitis;
- Laryngitis;
- Tonsillitis;

Pneumonia – alveoli are filled with mucus, considerable worsening of the exchange of gases;

Tuberculosis (TBC) – Mycobacterium tuberculosis (Koch's bacillus) is the causal organism; bacilli attack not only the lungs, but also other organs; vaccination is necessary;

Asthma – lumen of the bronchi is reduced.

Conclusion

The objective of this work is to outline a manner of convincing students to change their lifestyle. For such a purpose, I have recommended a play (short theatre play is also possible), lively discussions and creative activities. At the end of the complete "long distance run against smoking", the students could create their own cup with their own logo. No works of art are expected to be produced and displayed in galleries; the purpose of such a picture, sign or a combination of both is the survey of information obtained (mostly from the presentation prepared) and the manifestation of the conclusion that smoking is really detrimental to health. This work should inspire the reader; I am wishing to all the readers to become active, creative and eager when working with their students.

ZMĚNA ŽIVOTNÍHO STYLU NA KONKRÉTNÍM PŘÍKLADU ZVOLENÉHO UČIVA

Abstrakt: Autoři měli záměr metodicky přiblížit možnosti pedagoga působit na povědomí studenta, směřující ke změnám životního stylu v rámci upřednostnění pozitivních hodnot týkajících se zdraví člověka. Zvýraznění hodnoty zdraví na pozadí drogových excesů a získaných návyků. Hledání možností a forem, jak zvolené učivo a způsob realizování může inspirovat a iniciovat ke změně životního stylu a utváření hodnotového spektra vhodnou pozitivní orientací. Motivace prožitkem, vžití se do rolí,

vede k aktivnímu zapojení a uplatnění vlastní kreativity, čímž je donucen jak k zamýšlení nad ztvárněním role, tak nad výsledným pozitivním či negativním efektem pro vlastní zdraví.

Klíčová slova: výchova, kouření, zdraví, prevalence, proces, motivace

STRESSFUL EXPERIENCES IN SCHOOLAGE FROM THE PERSPECTIVE VIEW OF UNIVERSITY STUDENTS

Rudolf KOHOUTEK

Abstract: *The paper deals with the research into stressful experiences and traumas in the past history of university students. In the hierarchy of traumas, the death of a close person has the highest ranking, followed by traumas suffered at school. Other stresses reported by students were related to problems at work, divorces and separations, serious illnesses of close persons, their own diseases, subsistence problems, witnessing of the death of an unknown person, their own car accident, personal failure, problems with friends and family problems. Types were also detected and described of school-related mental traumas (stress) suffered by children, pupils and students in kindergartens, primary and secondary schools and at universities, and prevention and therapy were recommended in order to treat stressful, critical and traumatic experiences.*

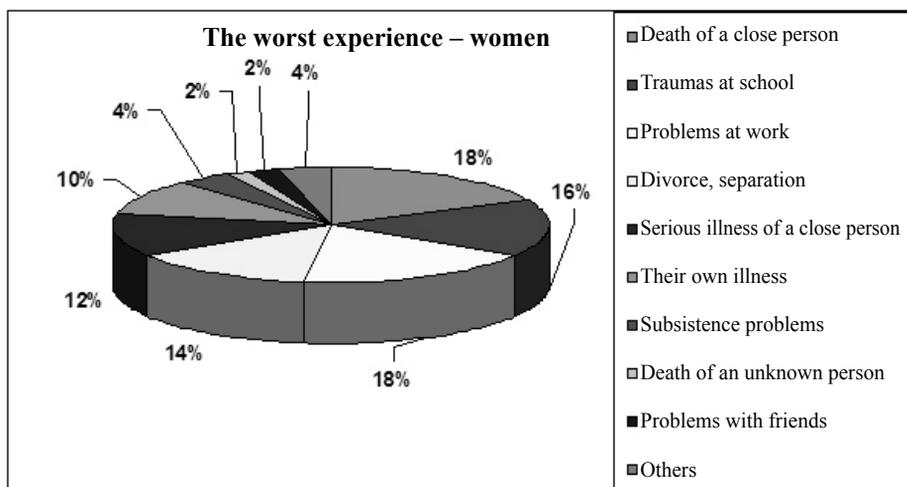
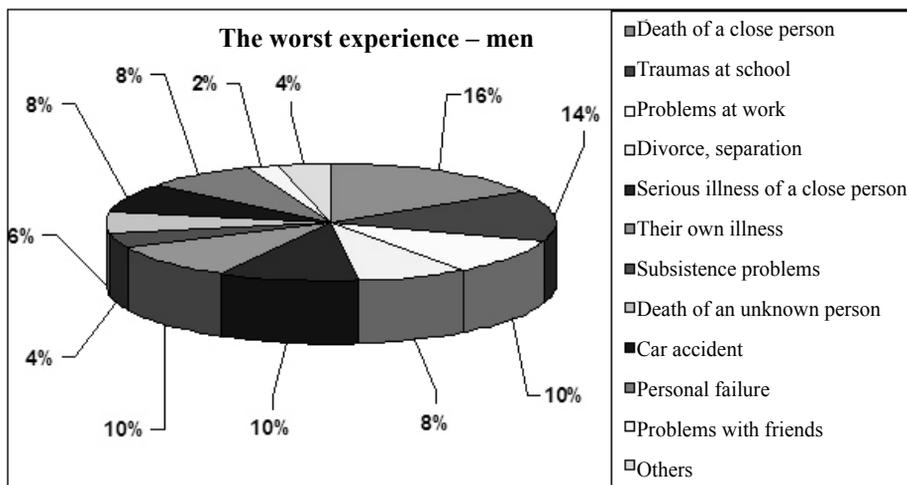
Keywords: *stressful experiences; types of mental traumas; mental discomfort in kindergarten, in primary and secondary schools and at universities; prevention of stress; therapy of stress and mental traumas.*

Introduction

We were interested especially in the order and frequency of the school-related traumas (kindergarten, primary and secondary school, university) in the mental reflection of stressful experiences of university students. Therefore, first we asked 50 men and 50 women studying social pedagogy in combined studies at a private university in Brno to describe their worst ever experience of their lives which could have had an impact on their health. The total result was as follows (men and women):

- **17 % *Death of a close person.***
- **15 % *Stresses and traumas at school.***
- **14 % *Problems at work.***
- **11 % *Divorce, separation from the partner.***
- **11 % *Serious illness of a close person.***

- 10 % *Their own illness.*
- 4 % *Subsistence problems.*
- 4 % *Death of an unknown person.*
- 4 % *Their own car accident.*
- 4 % *Personal failure.*
- 2 % *Problems with friends.*
- 1 % *Family problems.*
- 4 % *Others.*



The list and order of reported traumas shows that traumatic and vulnerability (pessimist) experiences at school occupy a very important place in the hierarchy. They are listed at the second place in the list of all the traumas suffered.

We therefore focused especially on these in our research.

We will not deal with optimal mental stresses but only with pessimal (vulnerability), limit and extreme types of stress.

Frustration or stress on the verge of manageability which requires extraordinary adaptation effort and endeavour from the affected person are considered to be experiences of *limit mental strain*.

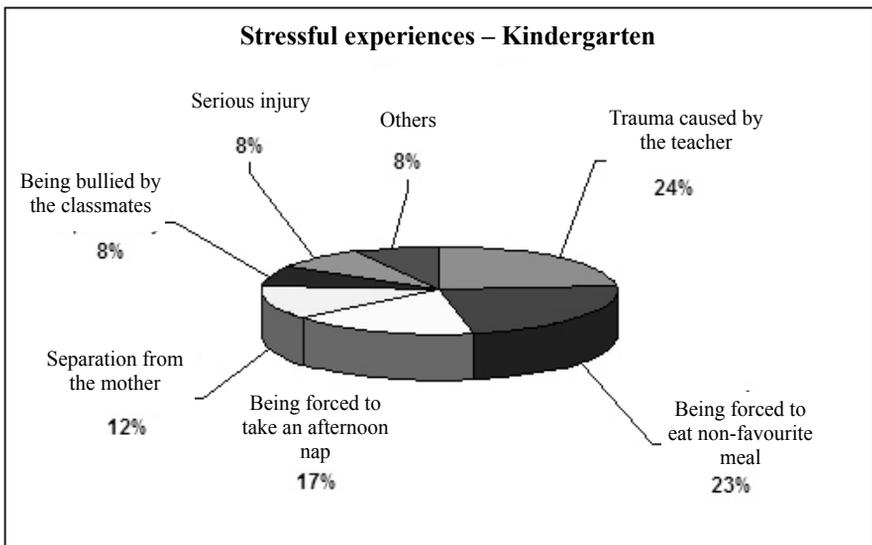
We carried out a research into the problems of psychotraumatic experiences, vulnerability (pessimal), limit and extreme experiences (causing serious mental or somatic problems, failures or disorders) originated at school, co-operating with another (second) group of university students, composed of a total of 151 students.

The continuation of this paper is based upon an action research of the collaborative focus group (n= 151) of university students (57 men and 94 women), who offered us their memories of experiences lived in kindergartens, primary and secondary schools and universities, which might have endangered their mental or social health and healthy development of their respective personalities. We opted for the action research because it is focused on cognition, evaluation and enhancement of the teaching practice (also educative practice in all school types).

Stressful experiences of students in **kindergartens**:

- *Stress generated by the teacher*24 %
- *Being forced to eat non-favourite meal*23 %
- *Being forced to take an afternoon nap*.....17 %
- *Separation from the mother*12 %
- *Being bullied by classmates*8 %
- *Serious injury*8 %
- *Others*8 %

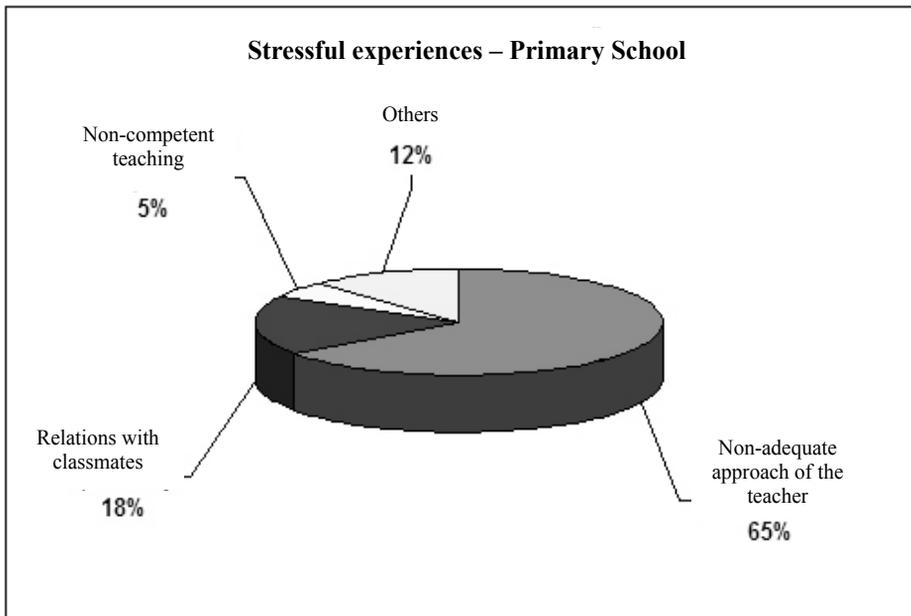
(e.g. change of kindergarten; favourite teacher departure; illness; one extra year in kindergarten)



Among the causes of being under stress caused by the teacher, such things are mentioned as: neurotic behaviour of the teacher; teachers shouting at the children; exaggerated severity and also absence of interest in the children, bullying, inadequate punishments.

Hereinafter we list the distribution of stressful experiences which students lived through at **primary schools**:

- **65 % of the students reported non-adequate (traumatic) approach of teachers towards students** (e.g. unjust evaluation and classification of examinations, motivation through offending, over-authoritative approach of the teacher towards pupils (15 %), unjust punishments (21 %), corporal punishments (8 %), increased neuroticism of teachers, etc.).
- **18 % of the students reported stressful problems (experiences) in social communication among classmates** (e.g. verbal and brachial aggression; destruction of personal belongings; bullying by classmates; bad collective; problematic classmates with behavioural problems and disorders).
- **5 % of the students reported non-competent teaching** (e.g. wrong manner of explaining; exaggerated requirements for the pupils).
- **12 % of the students reported other stressful situations** (e.g. wrong school organisation; departure or death of a favourite teacher or classmate; poor quality of meals at school; changes to the sitting arrangement of pupils in the classroom; non-favourite subject; injury suffered at school; illness; dentist treatment).



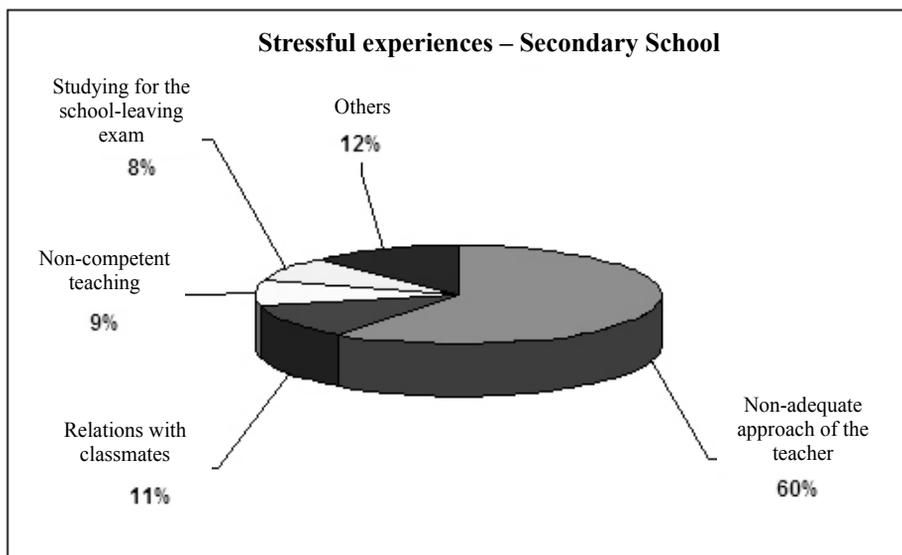
The following story is an example of stress caused by a *classmate*:

“On my way back from the summer holiday camp before my entry to the secondary school, I experienced a feeling of stress, disappointment, helplessness, anger and hatred. I had my favourite book of quotations in the camp with me. It contained short wise messages which I used to read while feeling down or on the contrary, when feeling satisfied and happy. In the summer camp, I met my first childhood love, however I sobered up quite soon.

In the train on our way back home, the boy I was in love with took my beloved book from me and threw it out of the train window.”

Stressful experiences which students lived through at **secondary schools** were as follows:

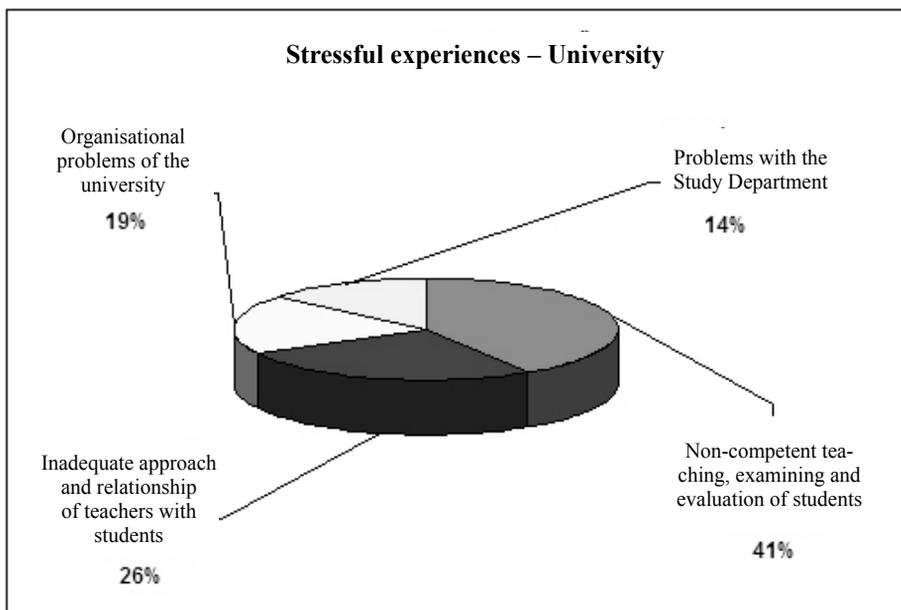
- **60 % of the students reported inadequate (traumatising) approach of some teachers towards students** (e.g. bullying, labelling, dishonesty);
- **11 % of the students reported stressful experiences related to the communication with classmates** (e.g. bullying by classmates; aggression; hostility; bad collective);
- **9 % of the students reported non-competent teaching** (wrong manner of explanation of the subject to the pupils);
- **8 % of the students reported stress suffered during the studying for the school-leaving exam;**
- **12 % of the students reported other types of stress** (e.g. commuting from far-away places; inadequate timetable; departure of a favourite teacher or classmate; fear of dancing lessons).



To conclude, we list stressful experiences suffered at **university**.

These are generalised results of interviews with the third group of university students (5 men and 73 women). Interviews took place in 2008:

- **41 % non-competent teaching, examining and evaluation of students;**
- **26 % inadequate approach and relationship of teachers with students;**
- **19 % organisational problems at the university;**
- **14 % problems with the Study Department.**



Types of Mental Stress

Mental stresses may be of an acute or chronic nature. If these are chronic, they may have an especially negative impact on the evolution and development of the personality, its psychosocial stigmatisation, mental and social and somatic health, especially in mentally labile and predisposed individuals or in individuals with insufficient social supports and pathological self-perception.

Types of stress may also be divided into primary, secondary, tertiary and quaternary. Another type of a classification may be the division into individual and group mental stress, which is quite typical for the educational system.

Not just individuals but also complete classes of pupils suffer from mental stress.

Primary mental-stress experience stands for a situation in which the pupil, student or teacher her/himself becomes a victim of bullying, corporal punishment (which

could have been designated to somebody else), humiliation, e.g. emotional discomfort (e.g. anxiety, fear, panic, humiliation, shame), helplessness, failure, dishonesty, hostility from people around, aversion, feelings of injustice (e.g. rebuke, admonition or negative classification of one's behaviour), scolding, irony, poignancy, ridiculing, power manipulation, persecution). Children in kindergartens are often traumatised because of being forced to eat up non-favourite meals.

Sometimes, a combination of bullying of an individual both by teachers and classmates occurs. Occasionally, some of the affected pupils had to undergo a prolonged psychiatric treatment. Out of all the stressful experiences, the primary stressful experience is usually perceived with the highest intensity. It damages the mental and emotional welfare with the highest intensity.

Such a stress may be caused purposefully, intentionally, or unintentionally. By way of example, we mention a stressful experience from **kindergarten**, which is remembered by a university student as the worst ever experience of his life.

“One morning, I went to kindergarten. My father took me there. He helped me as usually to change into my kindergarten clothes in the morning and left for work. Before leaving, he promised to come back to collect me in the afternoon. However, he never came back.

In the afternoon, the father of my mother came to collect me, saying my father had left somewhere. He also told me that I would live with them for some time. It made me quite happy at first, because I really loved my grandparents. My mother used to come to see me every day, and when I asked about my father, she told me he had not returned yet.

Once during lunch in the kindergarten, a day came which I will never forget. When I did not want to eat up my soup, the headmaster came running from somewhere, saying that if I did not eat, I would end up just like my father and I would die. At first, I did not understand at all what she was telling me, but when the other children began to tell me that I would never see my father again because he had died, I started crying, of course. After such an experience, I ran away from the kindergarten and went to see my mother. My mother, when she realised I knew everything, told me the truth.”

A stressful experience, which evolved into a prolonged mental trauma, was suffered by one of the university students during her studies at the **primary school** in the music education class.

“In the fourth grade of the primary school, I was asked by the teacher to sing the national anthem of the Czech Republic in front of my classmates without any music background. Of course, I could not refuse, so I stood up in front of the blackboard and started singing. Already when singing the first strophe, I began to have problems. My classmates laughed, the teacher frowned, shutting her ears.

When I finished singing the national anthem, I kept standing in front of the blackboard and during several minutes, the teacher was describing in details how horrible my singing had been. Finally I could return to my seat, “good“ being marked in my record book. I can still remember how much I cried at home. Since then, I have been feeling a sort of aversion towards singing. Sometimes, I would like to sing along with

my friends at a campfire, or to hum a melody when I am alone, but, unfortunately, my mental barrier does not allow me to do so. It is surprising how little may do so that a child loses its self-confidence.“

At the **university**, one of the students described her primary stressful experience as follows:

“Professor, a middle-aged woman, makes an impression of a severe and cold person. She provokes feelings of apprehension in others and nobody dares to get too close to her, and I am not referring just to students, boys and girls. She is a type of a person who keeps her distance from the others. Since the very first lesson, she implemented certain rules which had to be observed without any exception, and if somebody was not up to such demands, s/he simply had a bad luck. In her lessons I often felt like at the primary school, where I had to be a nice obedient girl, or else the teacher would become angry and it would be bad.

Recently, a partnership relation between a teacher and pupil has been enforced and I think that especially at a university such a partnership should exist; however, the relationship in the above-mentioned case was very far from being a partnership. If in practical lessons we made a mistake in an exercise, when we failed in something, we had to listen to a rather long speech about how it was possible for somebody with such poor knowledge to be admitted in university and if our performance would not improve, we should better go selling vegetables at the greengrocer’s, as a university was not the right place for us. I was almost shocked by such words. However, everybody was silent. Many times, when we were looking at her aghast, she just asked whether we had any problem, saying it in such a tone that everybody preferred to say there was no problem. She really treated us repeatedly as if we were children whom she tried to re-educate, and not adults who should be respected.“

Secondary stressful experience is a situation in which pupils, students or teachers are not directly exposed to the stress themselves, they are not direct victims, but they have witnessed a *direct* stressing out of somebody whom they feel close, e.g. a classmate, friend, relative or colleague. They perceived socially their stressful experiences which had a negative impact on their own feelings and mental discomfort; they also experienced a mental shock. Such a shock, however, is usually less intense than the primary stressful experience.

*I had one stressful experience at the **secondary school**, when the teacher of physics told in front of the whole class to our classmate, who wanted physics to be part of his school-leaving examination, that he had never ever seen such an idiot. I trembled with fear that he would examine me as well and humiliate me in the same manner as he did with my classmate.*

One of the **university** students described her secondary stressful experience as follows:

“In one of the seminars, we discussed the topics of our bachelor works. Everybody had to explain in which manner s/he prepared the practical part. The first one to speak was a girl whose bachelor-work topic was Dancing Therapy in Physically Handicapped Children. It was one of the most difficult topics, as there is little literature available on such a topic. Our colleague designed and prepared the individual lessons of dancing therapy for her hobby group, the members of which were physically handicapped pupils who decided on their own free will to be part of the group. In her work, our colleague was inspired by an available literature on dancing therapy; she also used her own experience which she had obtained as a member of a dancing group, and the individual lessons were adapted to the individual capabilities of the pupils. In my opinion it was a very time-consuming work and the implementation required courage, creativity, responsibility and good organisational capabilities. Our colleague told us that her dancing lessons were regularly, voluntarily and with quite an enthusiasm attended by several physically handicapped pupils, some of them handicapped quite severally. Our colleague did with her pupils different physical activities to music, free bodily expression of music, group dancing and music relaxation.

When our colleague presented and described her project, the teacher started evaluate very negatively everything what she had done. He told it was very improper to apply dancing therapy to the physically handicapped. He criticised our colleague saying that she surely had frustrated her pupils too much, as the physically handicapped never could dance and move to the music aesthetically, and that it surely had to be a knock to their self-confidence. He refused her project declaring it to be nonsense. He did not react to her arguments that the pupils attended her lessons with enthusiasm and out of their free will, because they enjoyed dancing, it was new to them and it was not about aesthetics but about the joy of moving to music and rhythm, and it was a certain type of relaxation. The teacher kept enforcing his subjective opinion and tried to convince our colleague to accept that her work was a mistake. I think he even did not realise how insensitive his attitude was. All this was quite stressful, sad and demotivating. There was a tension in the classroom, everybody disagreed silently, however, we did not dare to protest. After such an experience, we better did not discuss our bachelor works with that teacher.”

Tertiary stressful experience is such a situation when pupils, students or teachers are direct witnesses of the stress of people they did not know before and did not have any personal relationship with, however, they feel mental discomfort when being witnesses to their stress. The intensity of a tertiary stressful experience is usually less intense than that of the primary and secondary ones.

My task was to take a class-register book to a classroom where a nervous teacher had an art education lesson. When I entered the classroom, the teacher was beating one of the pupils in his head by a metal box of aquarelle paints. The teacher was shouting and calling names the whole class. I got scared of her; I put the class-register book on the table, leaving as fast as I could. I felt happy that such a teacher did not teach the class where I belonged.

Quaternary stressful experience is such a situation when pupils, students or teachers are *post facto* informed verbally or visually (e.g. movie) of a stressful experience of other people. In a sensitive or even hypersensitive individual, such a presentation of a stressful experience of other and unknown people may have a negative impact on her/his mental comfort. However, its intensity is usually lower than that of the primary, secondary and tertiary ones.

My friend at the secondary comprehensive school told me crying that her mathematics teacher invited her parents for a personal meeting, because my friend was to fail the maths. It was a written invitation sent by post and my friend had not known about it before. When she arrived home, there was lots of shouting, investigations and explanations. My friend could not understand at all what was going on, she was shocked and defended herself saying that her resulting mark in maths was good.

I sympathised with my friend; I also felt tense, waiting impatiently for the result of the meeting of her parents with the teacher. The outcome was quite surprising: the teacher told the parents that their daughter's results were not that bad, that she had sent the letter just to scare the girl and make her study more thoroughly.

Symptoms of Stress of Pupils, Students and Teachers

Hyperarousal, hyperexcitation, hypervigility, i.e. overexcitation, hypervigilance and activation to hyperactivation, mental tension, excitement, alarm, bewilderment, continuous expectation of danger, conflict, new stress and frustration are the first and more frequent manifestations of stress, which may be only situational, short-term or also long-term.

It seems that in some teachers, due to their personality or temperament disorders or professional bias, such reactivity is permanent and typical for their behaviour and conduct. Pupils and students usually say that such teachers' behaviour is "choleric" or that they have choleric temperament accompanied by a tendency to shout, insult, ridicule, be ironic, arbitrary, apply corporal punishments and dishonesty of pupils and students whom such a teacher considers problematic.

It might be said that teachers with fixed hyperexcited behaviour consider such a behaviour and conduct to be a useful fear-inducing adapting technique which reduces an important portion of hyperactivity, assertiveness and aggression of active and self-confident pupils and students, because such behaviour produces reactions of anxiety or even fear of the teacher.

Intrusive behaviour and feeling is the second most frequent symptom of a stressful experience; such behaviour is typical of annoying, persistent, obtrusive and obsessively recurrent feelings or tendencies to repeatedly live through such a crisis or stress again. Such a repeated imagining of the stressful situation and thinking about what happened is usually accompanied by so-called *flashbacks*, re-living through the situation, experiencing similar feelings as those which were provoked by the original real situation.

The third most frequent feature of the stress is so-called **psychological constriction**, a certain inner mental contraction, constriction, a sort of a mental immobilising

constriction, narrowing, which may have not only acute but also chronic character. This is a deformed perception of a passive defensive adaptive mechanism. This also has an anaesthetic effect against the stressful situation which is being experienced. It is an avoidance reaction.

Pupils and students often mentioned the following psychosomatic **effects** (symptoms) of the stressful experience:

Reduction of their own self-confidence and self-reliance when they have been exposed to ridiculing of their intelligence or appearance, looks, weight or clothes;
Aversion towards the teacher and her/his subject;
Blocking of logical thinking and reasoning;
Disorders of attention and memory;
Chronic fear of the behaviour of the “choleric” teacher;
Fear up to phobia of examining and unjust evaluation;
Emotional excitement and affective lability;
Subdepression up to depression;
Headache;
Sleep disorders;
Stomachache, vomiting;
Intestinal problems;
General sickness up to unconsciousness;
Generally increased neuroticism.

The Level of Mental Vulnerability in Pupils, Students and Teachers

Neither children nor adults have the same level of mental vulnerability; everybody has her/his own level of and predisposition towards mental vulnerability, being such a vulnerability current, long-term (chronic) or permanent.

Some individuals are well-balanced, more resistant and unassailable, more *resilient* against traumatic stressful experiences.

Others are more sensitive or abnormally hypersensitive and the traumas and stresses have negative impacts and more or less accentuated inner or external effects and isolated or global effects on their mental state and personality.

A sensitive personality lives through a mental trauma her/himself if s/he accidentally and unwillingly stressed somebody.

Especially such people are vulnerable to stress who show increased biological or psychological *vulnerability*, *diathesis*, predisposition to vulnerability, tendency and disposition to suffer stress with such an intensity that it causes psychosomatic problems, mental or somatic failures or disorders (especially functional disorders).

Vulnerability is broken down into *primary vulnerability* (functional, genetically inherent, acquired in an early development phase), and *secondary vulnerability* acquired as late as during the course of life and manifested in a form of disposition, susceptibility,

tendency to the development of psychosomatic disorders, especially functional failures and disorders e.g. due to pessimal mental strain, chronic frustrations or diseases.

Especially in education such a fact should be taken into account. Such people are more prone to suffer stressful experiences who are sensitive up to hypersensitive, exhausted after diseases or injuries and operations, people with reduced self-confidence and self-reliance, little mentally integrated.

To a certain grade, this may be an inherent, genetically conditioned issue.

However, resistance against stress, personal resilience, resistance and hardiness should be trained and developed.

Phases of Experiencing of Stressful Experiences

According to H. Selye (1966), the first phase of the adaptation syndrome is an **alarm**, alert, emergency phase. It is manifested through strong excitation, hyperarousal and arousal.

Resistance is the second phase of the adaptation syndrome (resistance, adapting). The organism wishes to get used to, to become adapted to being traumatised. However, obsessions and intrusions frequently appear in such a phase.

Exhaustion is the third phase of the adaptation syndrome, which stands for a complete, holistic failure of adaptive and regulatory mechanisms of the organism. Such a situation may result in a serious endangering of one's health and life.

Therapy and Prevention of Stressful Experiences at School

Psychosocial and Educational Support and Aid at the Detection of an Acute Stressful Experience

First of all, it is necessary to provide the mentally traumatised person with comprehensive, especially psychosocial **support** and enable the **defusing**, i.e. a possibility to spontaneously unbosom her/himself and release (partially, at least) accumulated and retained explosive emotions in a conversation.

This includes also a non-professional social support from non-professionals, friends, classmates, fellow-workers or relatives. Child or adult who has experienced an acute mental trauma, should have the possibility to cry, shout, complain, swear, vent her/his emotions, relax. It is not advisable to convince such a person that s/he is brave, able to overcome the problem without complaining and crying and without the help of the others.

Further suitable procedure is to assure for the affected individuals a possibility of **debriefing**, i.e. a single official professional consultation (often group consultation) in which immediate professional analysis of the traumatic experience will be performed, verbal and possibly printed information will be provided, and adequate antitraumatic intervention or remedial specialised care, support and aid will be proposed, in order to reduce inner mental tensions in the affected individuals and to raise a subjective feeling of control over the situation. For such a purpose, roles and positions of the individuals in the team of supporters must be clearly defined.

Sometimes it is necessary to provide professional and specialised **intervention**.

This means a prolonged specialised counselling or psychotherapeutic care, provided by school, counselling or clinical psychologists or psychiatrists and specialised and social educators, members of so-called supporting professions (Baštecká, B. aj. 2005; Preis, M.-Vizinová, D. 1999). Such a care includes e.g. gradual reduction of inadequate irrational and dysfunctional strategies of managing a stressful situation and reduction of pathological symptoms.

First, *immediate* impacts and effects of traumatising are being resolved, and then *long-term* impacts and effects are being addressed. The family of the affected individual is usually also included in such a comprehensive therapy.

An intervention in the school and sometimes the change of class or also school may be the right solution for pupils and students.

Primary Prevention of Stress at School

Teachers and parents should be informed in an adequate manner of the possibilities of the prevention and impediment of the occurrence of defects and disorders of mental health of pupils and students and also teachers, and of the manner of developing a healthy lifestyle and social communication skill. Education is important which promotes healthy lifestyle and which reduces negative thinking, feeling and inferiority complexes.

Secondary Prevention of Stress at School

This topic covers a correct diagnose of defects and disorders induced by mental traumas suffered at school and the treatment of these; an in-time detection of already-existing psychosocial problems is a condition for an adequate remedy of these. It is recommended to adequately apply debriefing and crisis intervention, consultancy and psychotherapy. Adequate defensive reaction and mechanisms which are not always fully conscious, may be supported e.g. by compensation, fantasy abreaction, rationalisation, substitution, resignation and sometimes even repression. Non-disturbing support, especially informational, emotional and instrumental support should be provided.

Tertiary Stress Prevention

Worsening of an already developed defect or disorder should be prevented, bearing in mind the fact that a complete recovery is either very difficult or impossible. Self-care should be emphasised (care which non-professionals, non-healthcare professionals, provide in a responsible manner to themselves or to each other, e.g. within family or at work: self-care includes, e.g. first aid, drug administration and psychosocial care), resocialisation and sociotherapy.

Quaternary Stress Prevention

Within such a prevention, a developed and chronic defect or disorder should be identified; such a problem is usually impossible to eliminate completely, however, some of its effects may be at least mitigated. In such a prevention, professionally informed self-regulation, self-education, self-care, relaxation and autosuggestion training and supportive social communication play important roles.

Adaptive methods for mental strain management may be broken down as follows:

General:

- Aggression;
- Escape.

Special:

Active (rather typical of extroverts):

- *Attracting of attention;*
- *Identification;*
- *Substitution;*
- *Rationalisation;*
- *Projection.*

Passive (rather typical of introverts):

- *Isolation;*
- *Negativism;*
- *Regression;*
- *Repression;*
- *Fantasy.*

It is necessary to realise that the individual adaptive techniques overlap and that they do not exclude each other.

The adequate application of adaptive techniques results in the *adaptation*, which is a certain status (level) of coping with effects which a person suffers in the social process. Conditions of *dysadaptation* are the result of an inadequate application of adaptive techniques.

Aggression is an active reaction to difficult situations in life which quickly reduces the existing mental tension.

Aggression may be adequate or inadequate, specific, expressed differentially, accurately focused or non-specific, non-differentiated, "blind". Specific aggression requires a certain amount of feeling of dignity and strength.

We consider important the following list of behavioural signs or symptoms, which may eventuate in aggression and verbal or also brachial aggression. They are described e.g. by M. Šulek (1998).

1. *Overall affection (nervousness) and agitation.*
2. *Often and fast movements of upper limbs.*
3. *Warning gestures.*
4. *Foot tapping.*
5. *Long staring in the eyes.*
6. *Disturbance of the personal space of the manager.*
7. *Bumping in the table or other parts of equipment.*
8. *Taut up to tenacious posture.*
9. *Tense facial muscles.*

10. *Blushing.*
11. *Tics of facial muscles.*
12. *Bumping of fist in the palm.*
13. *Poking.*
14. *Sudden change in behaviour.*
15. *Getting pale in the face.*

If there has already been an *aggressive reaction against some person*, the following approach is recommended:

1. *One should try to make a calm impression, behave with self-control and self-assurance, however not to be disapproving or bossy.*
2. *Speak in a normal tone.*
3. *Make attempts at the distraction and shifting of attention.*
4. *Approach step by step an escape path.*
5. *Avoid being "cornered" in the room.*
6. *If the aggressor has a weapon, s/he should be asked to put it down.*
7. *Eliminate objects (e.g. ash tray) which could be used as weapons by the aggressor.*
8. *People inciting the aggressor should disperse.*
9. *Non-involved people may be asked for help or for help mediation.*
10. *Do not look in a "different direction".*

Aggression may be also broken down into an open (direct) and disguised aggression.

Disguised forms of aggression are, e.g., as follows: raillery, banter on the expense of others, caricaturing of others, ignoring of the pleading of others, derogation, irony, sarcasm, defamation, accusation of others for circumstances and self-accusation.

Open forms of aggression are, e.g., as follows: disapproving mimicking, verbal offences, warning gestures, vulgar words, rebelling, brachial (hand) aggression, anger attacks.

Heteroaggression is an aggression directed to other people.

Auto-aggression is an aggression directed to oneself. It may be *total* (suicide attempt) or *elective* (biting one's lips, ripping one's hair out, etc.). A person punishes oneself for things which s/he considers wrong.

Suppressed aggression often leads towards so-called *somatisation*: a psychosomatic disease, high blood pressure, ulcerous disease, brachial attack, etc.

Transaggression is an aggression transferred to another object or person (also vendetta belongs here).

This is, in a certain way, rather an escape than aggressive reaction. Let's mention one example: In Japan, some large companies had dummies made with faces of managers and other important local civil servants. Every employee may slap such dummies in the face as s/he wishes.

A common example of so-called "*cycling*" is when a subordinate is verbally attacked by his manager and he does not dare to protest; when he comes home, he rebukes

his wife without any reason; his wife vents her tension by slapping her child; the child starts torturing some domestic animal or breaking down her/his toys.

Causes and conditions of *aggression* may be, e.g., as follows: frustration, conflicts, stresses, excess of energy, lack of self-control and discipline, jealousy, rivalry, feeling of not being understood, lack of acceptance feeling, fatigue, hunger, suffering, disorder of the basic life mood, etc.

Human aggression (also aggression in children) was scientifically addressed e.g. by I. Čermák (1999).

Resistance of an individual against **frustration**, so-called *frustration tolerance*, stands for a functional unity of personality, motivation and social characteristics.

A case of a typical frustration, for example, may be a situation when a child's failure in a cognitive demanding school task is made socially public on the background of social acknowledgement of successful pupils (students).

Z. Mlčák (1999) found out that both in a situation of frustration or devaluation and a situation of acknowledgement – *evaluation, introvert children show* in a 1 %-level of significance a markedly higher level of anxiety as compared to extrovert children. In individuals suffering from any form of central nervous system disorder, many impulses, which are indifferent for healthy and well-balanced individuals, play a role of stressors or labilisers.

Stressors (labilisers) together with other negative environmental conditions affect mental and corporal health. Quality and quantity of health problems is closely linked to the adaptability of an individual. Adaptability enables an individual to flexibly react to changes of external and internal environment and to head towards biopsychosocial balance and wellness.

A pre-stress situation stands for such a level of tension which an individual is able to withstand without succumbing to an increased neuroticism or nervousness.

Stress is manifested as tension which influences emotions, thinking, cognitive effort and physical condition of every person. Stressful conditions are caused by so-called *stressful situations*, which may be classified into four groups as follows:

Anticipation stress (e.g. fear of possible failure or ridiculing);

Time stress (too many things must be done in a short period of time);

Event-related stress (we are endangered by acute extraordinary life events and labilisers, e.g. serious illness);

Stress caused by negative *social contact* (misunderstanding in the family, at work, with superior or subordinate people).

Approximately 57 % of stresses originate in the workplace, and around 43 % of stresses originate in family and private life.

It is possible to distinguish *manifestation of stress* in the *somatic* area (e.g. headaches), *emotional* area (e.g. hyperaesthesia) and the *behavioural* area (e.g. compulsive overeating).

A higher resistance against frustration and stress is usually observed in so-called “*strong*” personalities, and a lower resistance is found in “*weaker*” personalities with over-sensitive and maladaptive reactions even to less demanding life situations.

To a large degree, the reaction depends on inherent (constitutional) characteristics of the individual, health condition and age and experience in life, and a learnt manner of coping with demanding situations.

A gradual increase of demands, problems and obstacles makes the organism to cope with them and its resistance grows. On the other hand, an unexpected *sudden collision* with a highly frustrating situation easily causes a condition of frustration or stress, or it may lead towards the occurrence of a neurotic reaction or neurosis or other disorder.

An important role in the creation of *optimistic life attitude* and resistance to frustration and stresses might be played by *experiences* of the individual obtained in early childhood (e.g. refusal of the child; too severe approach to the child; inconsequent education).

The escape is a manner of or attempt at the **reduction of mental tension** in demanding life situations (especially in a strange territory).

Escape and its Types:

Physical

Runaway,
Withdrawal.

Mental:

Purposeful overhearing or overlooking;

Evasion using a verbal excuse;

Unusually adaptive (conformist) behaviour;

Escape to loneliness, isolation, selective interaction;

An individual consciously and subconsciously evades people and situations which could endanger her/his self-consciousness and disturb her/his feeling of her/his own value, and on the contrary, s/he seeks such people and situations who confirm her/his positive self-approach or who even help to increase her/his self-consciousness;

Escape to intense or stereotype activity or work (e.g. washing the floor although it is clean);

Escape to mysticism;

Escape to disease (e.g. in hysterical personalities, such an escape may be conscious, purposeful but also semi-conscious or unconscious);

Escape to alcohol, drug-addiction;

Escape to resignation, to the world of illusions.

Active Adapting Operations

In terms of the first out of two adapting techniques - **aggression**, we may describe five special types of *active* adapting operations:

- *Drawing of attention;*
- *Identification;*
- *Substitution;*
- *Rationalisation;*
- *Projection.*

Drawing of Attention

This means an increased egocentrism and a necessity to reduce the inferiority complex. It often appears in neglected, overlooked, refused and underestimated persons, or persons educated in a too strict manner, and also in people who were exposed to an exaggerated admiration, exaggerated care and often provoked to acting, attraction and “monkey tricks”.

Examples of non-adequate drawing of attention are e.g. too loud speech, boasting, ostentatious behaviour, exaggerating, not letting the others have their say, speaking mostly of her/himself, non-reacting to suggestions of another person, eye-catching hair-do and clothing, effort to attract attention by means of unusually self-contained or undisciplined behaviour.

In young children, so-called “body language“ may be observed: crying, breath-holding, fits of anger, wetting one’s clothes, fouling, sucking one’s thumb, nail biting, pendulous movement, apastia, lingering over one’s meal, vomiting, pulling faces, etc. Some children draw attention of people around also by means of stammering, stuttering or dyslalia in their speech even when they are capable of a correct pronunciation.

Identification (“identifying”)

Identification means that people take over certain manners of expression and characteristics of other people. Not just the content is imitated but also the form: gestures, mimicking, hair-style, clothing, voice melody, voice strength, vigour of speech of people with whom one identifies her/himself.

By means of identification a person achieves socialisation on various levels depending on the level of her/his ideal. By means of identification a person takes self-confidence and self-assurance; s/he stresses the merits of close people or groups to which s/he belongs: e.g. a person boasts of the profession or property of her/his relatives, success of her/his sports club, school or workplace, etc.

A person may identify her/himself with:

Individuals (parents; friend; teacher; actor; excellent, clever, educated individuals but also frustrators);

Reference group (class, school, company, army branch, sports club, one’s own or foreign nation, etc.).

It is also possible to identify oneself with *past values* of a group, e.g. town tradition, family origin;

Things (equipment of a flat, summer house, car). Such people often think of what they have and not who they are;

Ideas (e.g. Comenius, Hus, etc.).

The level and form of one's identification is closely related to the integrity, stability and moral level of the personality. If so-called neurotic (extremely exaggerated) identification occurs, i.e. *introjection*, the person loses her/his own personality and originality. The person does not have her/his own vocabulary, lifestyle, expression, voice, smile, movements and does not express her/his own thoughts. Knowing with what or whom the person identifies her/himself may be the starting point for her/his correct education or re-education.

Substitution

This means alternative adaptive mechanisms (sublimation, compensation and somatisation or conversion).

Sublimation ("refusing", "improvement") means that socially disapproved behaviour is substituted with socially approved behaviour. Sublimation reduces the feeling of guilt. Not every person is capable of sublimation.

Depth psychologists and educators consider the method of sublimation the most efficient method of education. Inner forces of a person are directed (inner instinctive energies) and the energy of these is transformed to socially useful and valuable activity.

The compensation means that a person tries to compensate the impossibility of the achievement of success in one area with a success in another area, no matter if such an area is related or completely different. In such a case, an intellectually less equipped person likes to show off her/his physical qualities and skills (e.g. swimming, wrestling), ownership of material possessions or intake of large quantity of drinks, drugs or food. Somatisation (conversion) means that a person transfers her/his mental strain into the functioning of corporal systems (which leads, e.g. towards the development of high blood pressure, gastric ulcers, inexplicable headaches, allergy problems and other civilisation diseases).

Rationalisation

Rationalisation means explaining and excusing of rather improper and irrational behaviour with socially acceptable rational reasons. Rationalisation protects against feelings of one's guilt, remorse. On the other hand, *alibism* stands for a conscious transfer of facts to different levels of meaning; it is a manifestation of rational constructivism, which of course does not comply with the reality.

The reality is usually rationalised applying a method of "sour grapes" or "sweet lemons". Applying the method of "*sweet lemons*" people make their situation subjectively more bearable. For example, a person who has fallen ill feels happy because s/he will have time for reading. A student, who has not been too successful in exams, may rationalise her/his situation applying the method of "*sour grapes*": "I am not a boring crammer."

So-called *intellectualisation* is a mechanism similar to rationalisation; it is often applied by people suffering from human-relations anxiety – it is an attempt at the protection against emotional content of impressions or situations, an attempt at understanding these exclusively from the rational point of view. However, an attempt at the elimination of pain and other unpleasant emotional experiences often results in the loss of ability to experience pleasant experiences.

Projection

This method reduces feelings of guilt, anxiety, tension, etc. applying the mechanism of “I judge you according to myself”. It is also related to suspicion, to paranoid tendencies.

Projection may be *assimilative* or contrarious, refusing, *negativistic*. In relation to the projection, psychoanalysis and psychotherapy also use terms transmission and counter-transmission. This means blaming another person, blaming so-called “objective causes,” etc.

In an *assimilative* projection, a person attributes to others such characteristics and motives which s/he admits in her/himself but of which s/he knows that they are not correct (“everybody lies, steals, gets drunk, etc.”). Such a person attributes her/his own negative characteristics also to the others.

In a *contrarious* projection, a person attributes her/his guilt, negative characteristics, omission and negligence to others, denying such characteristics in her/himself. (“I think you don’t love me.”) Externally, her/his behaviour is contrary to her/his real motives. (“Everybody except me is inapt here “.) Also excuses such as an existence of objective problems, *extrapunitivity* (“The machine is bad.”) and *impunitivity* (“This is force majeure, nobody can be blamed for this, not even I.”).

Sometimes, in stead of contrarious projection, terms such as contrarious reaction, formed aggression or *reactive formation* are used, (“Women are the cause of all the depravation”, wicked men use to say). A close relation of the projection (transfer) to the repression may be observed in such a case. Sometimes, the negative projection may be observed among the involved (there are pathological transfers and counter-transfers observed).

Passive Adaptive Operations

In terms of the second basic adaptive technique - **escape** – the following five special types of *passive* adaptive operations may be described:

- *Isolation;*
- *Negativism;*
- *Regression;*
- *Repression;*
- *Fantasy.*

Isolation

This means a withdrawal into one's shell, into solitude, due to a fear of failure when resolving a difficult situation, of humiliation, harsh competition.

Isolation may be *short-term*, transitory or *long-term*, chronic. The more difficult the life situation, the more people become reserved. However, sometimes a *paradoxical* reaction appears – some people, under the heavy pressure of fear and fatigue, become spontaneously communicative, and such a communicativeness is discontinued only when the critical situation is overcome.

Isolation reduces the opportunity to acquire manner of behaviour necessary for living in a group, which increases the probability of frustration incidence in the future. Isolation is often connected to *resignation*.

People suffering from some incurable physical handicap are prone to isolation, apathy and solitude (e.g. deaf and hard of hearing people). Sometimes, however, after having overcome the initial distrust or aversion, it is possible to achieve a limitation of such a mechanism and such a resignation may be overcome.

Negativism

This is a behaviour contrarious to what is expected or required, or what is required in a certain situation.

Sometimes this means an exaggerated tendency towards opposition, independence, freedom and originality. It may be either passive or active, disguised or open. Negativism is usually strengthened by concessions of the others. Some people are so-called *opponents on principle*.

Adequately applied negativism strengthens self-consciousness, it helps to develop independence, activity, initiative and stamina. It trains a person for the immunity against undesirable effects, it helps to keep one's opinions also when being under pressure.

At the young age, negativism is manifested, e.g. by holding one's breath, affective respiratory spasm, outbursts of anger, selective mutism, etc. In the teenage phase, *an increase of negativism* may be observed. A young person, in her/his strive for independence, likes to confront her/his opinions with those of the adults. In old people, negativism is a form of a protest against decreased satisfaction with life processes.

Regression (infantilization)

This is a regression to a previous behaviour or reactions which were considered acceptable in the previous phases of development, however, currently they are not adequate.

Regression may be often observed in emotionally disappointed, old, injured and sick people. A person behaves like a little child, or her/his behaviour is loutish or stubborn.

For example, a three-year-old child also wants a pacifier after its younger sibling is born; it starts wetting itself again although it was already able to keep clean, it wants to be cuddled, nursed. Also elderly people's yearning for "good old times" belongs to

this category. In tired people, mechanisms of regression may be observed much more frequently. Such people are e.g. more dependent on good human relations.

So-called *fixation* is also a type of regression (e.g. stereotypification of activities; repetition of the same mistakes; e.g. importance of learning by heart is stressed in self-instruction; fixation on the observance of one's own health condition), it means that one become fixed to a certain object or a manner of meeting one's needs in situations which should require a different behaviour.

Transgression is a contrarious phenomena, i.e. behaviour higher from the developmental point of view than it could be expected at a certain age (e.g. fear of death in a healthy child; exaggerated politeness and austerity, etc.).

Repression

This means a complete or partial suppression, denial of different affect-charged information, impulses, motives and facts. Such situations are suppressed which are painful, burdensome, socially or personally unfavourable, etc.

A person often reacts by means of the repression mechanism to such thoughts and tendencies which are not in compliance with her/his goals, ideals and principles. This is a sort of a *selective perception*.

In such cases, denial is a sort of a symbolic "eyes-shutting" and "ears-shutting" to some adverse information and facts, which one cannot cope with and prefers to create her/his own more optimistic version of the reality.

This includes the overhearing of warning, recommendation, invitation, request, some forms of inattention, such as protection against overload, hysterical inactivation and so-called *segregation*.

For example, a person who most of the time lives a decent life, forgets from time to time her/his principles and goes to "blow off steam", in order to release her/his inner tension and "retune" her/himself. However, segregation may lead towards *disintegration*, a split of personality.

Repression is often connected to pervasive phobia (fear).

Fear is similar to anxiety, but it has an objective character. It also has a protective function and it is based upon a *functional* tension. It is a preparation of the organism for an increased activity, especially its first phase (higher perception selectivity, accelerated reactions, accelerated metabolism). In the second strengthened phase of fear, tension becomes *dysfunctional* and it disturbs the activity.

Fantasy

The mechanism of an escape to fanciful, dream-like satisfaction of frustrated and deprived necessities is sometimes observed also in artistic work (*The Grandmother* by Božena Němcová), but also in non-creative mechanical work, monotonous activity, lack of social participation, and also in an excessive social stimulation immediately after a failure.

Fanciful adaptive mechanism reduces tension and anxiety. It often has a form of *daydreams*. Three *phases* may be experienced during fanciful dreaming: escape, gradual

relaxation and a beginning of a new prospect. There is a certain danger in an exaggerated fanciful dreaming as it may become a bad habit.

The substitute activity is related to fantasy; reading, video, movies, television, tourism, sport, visits to entertainment centres, etc. are means of a temporary “shutting-off” of the external world. Such means are important for the maintaining of mental balance, however they should not substitute the reality in a too one-sided manner. *An increased fanciful activity*, so-called daydreams, is rather typical of the teenage character change.

People should apply the individual adaptive techniques in an adequate manner in order to strive for an improvement of their mental and personal resistance when resolving difficult life situations (including conflicts).

Every person should acquire the widest possible *repertory* of adaptive mechanisms and apply these in the most differential and flexible manner (in compliance with environment, situation, age, time and area of life). This should also be the goal of the educational care.

Preference of the individual types of adaptive techniques and the fixation of these depends on the grade to which a person has applied such a technique for tension reduction in the past, on one’s personality type and temperament. Even in difficult situations, people should be able to keep calm and consider or change their goals and the ways leading towards such goals.

Ethic aspects should be the principal criterion of suitability of the application of adaptive techniques.

However, people do not always act in compliance with a certain objective condition of things and facts, but in compliance with their own opinion, mood, emotion, attitude, according to their subjective attribution, evaluation and interpretation of the situation. An egocentric *tendency of self-protective attribution* is often observed, i.e. a tendency to attribute one’s success to her/himself and the failure to other people or situation factors.

Lazarus’s theory (Křivohlavý, 1994) of four strategies of stress management is also interesting: indifference, avoidance of the effect of noxa (stressor), attacking of noxa and strengthening of one’s own strength sources.

R.S. Lazarus (1999) says that a person assesses every traumatic episode from the point of view of its importance which it has for her/his further life. In the primary assessment, such an episode may mean *threat*, *loss* or *challenge* for a person. In the secondary assessment, a person assesses her/his own possibilities for the solution or management of such a traumatic or stressful situation. Effects of a traumatic episode are usually more serious than a threatening stressful episode.

The strategy of *indifference* means that the individual tries to cope with the strain by means of impassive behaviour and minimisation of her/his interest. However, s/he may succumb to feelings of helplessness, despair, from subdepression to depression.

The strategy of *noxa’s effect avoidance* (stressor) means an attempt at the escape from the situation in which the stressor exists. Fear and anxiety are common in such a strategy.

The strategy of *noxa’s attack* is an active (up to aggressive) attack against the effect of the stressor with the objective to reduce its intensity or to eliminate it completely.

The strategy of *strengthening of one's own force sources* means an increase of resistance of organism against strain, improvement of self-control, self-command and self-motivation, which is a precautionary measure before the stressful situation breakout.

In the case of the strain breakout, there is an effort to manage such a situation in an adequate or optimum manner by means of the application of efficient protective techniques.

Many stresses and traumas could be prevented by the people who work with children and young people, especially in the area of education, if knowledge of psychology of health, psychohygienic, ethic and aesthetic standards were respected in the everyday life (Míček, L. – Zeman,V., 1992; Žilínek, 1997; Řehulka, E.-Řehulková, O.,1998; Jankovský , 2003).

STRESUJÍCÍ ZÁŽITKY VE ŠKOLNÍM VĚKU Z HLEDISKA RETROSPEKTIVY POSLUCHAČŮ VYSOKÉ ŠKOLY

Abstrakt: Příspěvek se výzkumně zabývá stresujícími zážitky a traumaty v dosavadním životě vysokoškolských studentů. Z hlediska pořadí traumat se na první místo dostalo úmrtí blízké osoby a hned na druhé místo traumata prožitá na školách. Další stresy v pořadí se týkaly problémů v práci, rozvodů a rozchodů, vážných nemocí blízkých osob, vlastních nemocí, existenčních potíží, přítomnosti úmrtí neznámého člověka, vlastní autonehody, osobního neúspěchu, problémů s přáteli a rodinných sporů. Byly diferencovány a popsány i druhy (typy) školních psychických traumat (stresů) prožívaných dětmi, žáky i studenty na mateřských, základních, středních i vysokých školách a byla doporučena prevence a terapie stresových, krizových a traumatických zážitků.

Klíčová slova: stresující zážitky, typy psychických traumat, psychická nepohoda v mateřské, základní, střední a vysoké škole, prevence stresů, terapie stresů a psychotraumat.

THE HEALTH-PROMOTING SCHOOL PROJECT AND THE DOMESTIC VIOLENCE PHENOMENON

Martin GRIM

Abstract: *The paper sketches basic outlines of possible uses of the Health-Promoting School project for the elimination and prevention of cases of domestic violence against children. It gives the definition of “domestic violence”, which should be distinguished from corporal punishment with a disciplinary objective, and cannot by definition be considered domestic violence. It then discusses aspects of the Health-Promoting School project that could be used in a campaign against domestic violence against children because that is a relatively wide-spread phenomenon with serious consequences.*

Keywords: *health-promoting school project, domestic violence, consequences of domestic violence, domestic violence prevention.*

Domestic violence is a phenomenon that concerns relatively large numbers of people in our society. It is usually approached from the gender point of view. It is no coincidence, because it was women’s movements that played an important role in stirring discussion about this negative social phenomenon. Later on, measures intended to eliminate domestic violence were adopted thanks to that discussion. The fact remains that domestic violence affects a lot of women (this is, after all, evident from police statistics on domestic violence from 2007 and 2008¹), but it is not less important a problem for senior citizens and, last but not least, also children. It is the latter, i.e. domestic violence against children, that the paper will deal with, emphasizing especially the relation of the topic with the Healthy School project.

A question may arise about the reason for which it is necessary to pay attention to the problem of domestic violence against children. There are at least two very important reasons for paying attention to that phenomenon. One is the finding published by the West European law enforcement officers already in the 1980s to the effect that many young delinquents committed a criminal offence if they themselves had been victims of some of the offences that might fall under the general heading of domestic

¹ See, e.g., VITOUŠOVÁ, P. Evictions in 2008. Comments on the analysis of data on “Evictions / Prohibition of Entry in the CR” in 2008. Date of publishing not given. Online. [quoted on 4 August, 2009]. Available at <http://www.domacinasili.cz/cz/redakce/novinky-nazory/vykazani-v-roce-2008/r17>.

violence committed on children². Although there are no relevant representative surveys yet to support this conclusion we may assume that criminal offences (including those related to domestic violence against children) that target children and adolescents as victims can be considered one of important crime-inducing factors. Another argument in support of increased attention to be paid to domestic violence against children are the consequences that this negative social phenomenon causes every day. It also affects educational processes because the child that is a victim of domestic violence takes the consequences with him to the classes. There are, however, some foreign studies (Bailey et al., 1997, Rivera and Widom, 1990, etc.) that suggest a significantly higher percentage of children – victims of domestic violence among both perpetrators and victims of bullying, as well as among adolescent delinquents.

In view of the extraordinary attention generally given to the phenomenon of domestic violence, it might seem that it would be easy to define it. And defining the notion of “domestic violence” is very important for its identification and any measures taken against it, which is particularly true in the case of children and juveniles. This is because their age group is specific in that a degree of disciplinary violence is permissible and socially tolerated in it (although even this notion is oftentimes disputed), and for that reason it is necessary to differentiate between socially acceptable violence for disciplinary reasons and expressions of domestic violence. The border between them is sometimes very indistinct, which, in combination with the latency of domestic violence, makes domestic violence sometimes rather difficult to expose.

When defining domestic violence, we may decide to use a general definition of violence. The World Health organisation, for instance, defines violence as “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.”

In the case of domestic violence, it may be physical psychological, social and sexual types of violence (and their various combinations) committed by intimate partners in a household (hence the appellative “domestic”) or by people sharing one and the same household. When it comes to domestic violence against children, the victim of such violence is a child, i.e. a person younger than 18 years of age. Domestic violence is characterized by its repetitive and prolonged nature, its tendency to escalate, a clear-cut differentiation of roles of the aggressor (perpetrator, bully) and his victim (endangered person), and that it is violence with the exclusion of the public². From the first characteristic, i.e. the repetitive and prolonged nature, it follows that it is not possible to reliably infer from an aggressor’s single attack if it was a case of domestic violence or not. Of course, it cannot be ruled out, on the other hand, that it was the beginning of a process at whose end there will be domestic violence with all its characteristics. The second characteristic reflects the fact that domestic violence escalates from verbal abuse and belittling human dignity up to physical or other attacks that can be qualified as one of a number of criminal offences. At the same time, the intensity of violent incidents escalates. The clear-cut and unquestionable distinction between parties in domestic violence does not mean that aggression in which individual parties to the conflict attack each other either at the same time or in turns cannot be considered domestic violence. The characteristic of the exclusion of public (latency) in domestic violence cases means that

that domestic violence occurs outside social control in the privacy of one's home, which in many cases makes detection - and thus also effective resolution - impossible. All the above characteristics must be present if a case is to qualify as domestic violence.

When discussing domestic violence against children, we should also mention the so-called Child Abuse and Neglect (CAN) syndrome, which includes all the above types of child mistreatment that can occur as part of domestic violence in this age group. The CAN syndrome can be defined as a negative interference with physical mental and social development and situation of the child, resulting from the behaviour of the parents or some other adult, which is not accidental and which, at the same time, is socially unacceptable. Thus it is a set of negative consequences that mistreatment has on the child's personality and health. The mistreatment can consist either in actively caused harm or in insufficient care, the consequence of which is that the child's essentials of life are neglected.

Based on the recommendation of the Health Committee of the Council of Europe to the member states, CAN cases are usually classified and recorded into the following subgroups (1992):

- corporal (physical) abuse - can take different forms, generally it may be either consciously causing physical harm to a child or not preventing or stopping such a treatment of a child. This may take many different forms in real life situations: slapping across the face, beating (with a hand or various objects), kicking, shaking, throwing, pulling at various parts of the body (mainly ears, hair), causing slashing, stabbing or other wounds, burning with a cigarette, intentional scalding, binding limbs, tying down, forcing to behave or live in an undignified manner, or depriving of some life essentials (food, drink, sleep, etc.);
- psychological abuse - the kind of behaviour on the part of parents or other members of a household that has a negative effect on the child's psychological development manifested in the emotional area, in the areas of self-assessment and self-worth, in the child's behaviour and interpersonal relationships. In ordinary life, it takes the form of name calling, derogatory remarks, putting down, emotional blackmail, tactless comparisons with other (more successful or better) siblings or peers, unrealistic demands on or expectations of the child, emotional deprivation, but also social isolation consisting in preventing or not enabling contacts with relatives or peers. Finally, the types of behaviour of parents who are trying to solve their own relationship problems (e.g., in connection with the divorce, by forbidding their children from communicating with their other parent, forcing them to testify in their favour, setting them against their other parent, etc), should also be considered psychological abuse;
- neglect (sometimes also referred to as passive abuse) - it occurs when a child is not being given adequate care from his or her parents, and the situation leads to deprivation in or harm to the child's physical or mental development. It again includes a relatively broad range of acts, or rather, omissions to act, that can be divided into four groups. The first group consists of omissions that cause physical neglect. This group includes, first and foremost, child neglect cases that as a result from a failure to provide adequate food, drink, clothing or even shelter or medical care (e.g. no preventive health checks, immunizations,...),

etc. The second group are actions of emotional neglect which is caused by an inadequate show of love and affection to a child, which leads to a long-term inadequate satisfaction of his or her emotional needs. The third group is a lack of supervision, i.e. when parents do not have enough information on what their children are doing and where, and not only in their leisure time. The last group of the actions under discussion is a failure to provide for adequate child-rearing and education, which is manifested in the parents' tolerating or even encouraging repeated and unjustified cases of truancy of their children;

- sexual abuse - in this context, the Child Sexual Abuse (CSA) syndrome is often mentioned³. Sexual abuse is identified when a child becomes an object of an appropriate sexual contact or behaviour the aim of which is the gratification of sexual needs of the abuser. Quite often, the perpetrator of sexual abuse is a person that the child knows very well, including the child's parents or other persons who share in the child's education or care. Sexual abuse may take the form of commercial sexual abuse, contact sexual abuse and non-contact sexual abuse behaviour. Commercial sexual abuse includes child prostitution (procurement or solicitation of a child to provide sexual practices for monetary or some other type of reward) and child pornography (production, distribution of use of any visual, audio or textual material using children in a sexual context), also sexual abuse (includes all conceivable sexual practices directly involving a child, irrespective of whether the child is a more or less willing participant in such practices or if his/her participation is unwilling or whether it is a rape case) and non-contact sexual abuse (principally the same applies as in the case of contact sexual abuse, the difference that the abuser's sexual gratification takes place without an active participation of the child, who is then only a passive onlooker, is watched by the abuser, etc.);
- giving alcohol, other intoxicating or psychotropic substances, and a wilful administration of sedating or, on the contrary stimulating, medicinal drugs;
- systemic or institutional abuse, which is most frequently committed by state administration bodies, law enforcement agencies, educational facilities, health-care facilities, etc., in other words institutions that, paradoxically, were primarily designed, among other things, to protect the rights of children and to provide for the satisfaction of their various needs. Typical forms of systemic-institutional abuse include, e.g., secondary victimization of children – victims of criminal offences - in their contacts with law enforcement agencies (during interrogations, identification parades and other stages of the criminal procedure), unnecessary repeated checks in medical establishments, an absence of proper adequate care of children in schools and school facilities, their overburdening with excessive demands in those institutions, etc.

Because harm to a child is usually caused by the insensitiveness and lack of consideration on the part of his or her parents or some other members of the household (siblings, grandparents, other occupants of the flat, etc.), who abuse the child to gratify their own needs, the connection between domestic violence against children discussed here and the CAN syndrome is more than obvious. In the child abuse and neglect syndrome, likewise in domestic violence, greater physical strength or psychological

superiority and power of an adult person are being abused to the detriment of the child in a complementary subordinate and dependent position.

Domestic violence against children may have various consequences that can be divided into abuse-related problems, problems related to insufficient child care, and, finally, problems emanating from emotional deprivation. Abuse and insufficient care of a child may manifest themselves in the form of various psychological symptoms (feelings of anxiety, negative feelings, attention disorders, suicidal tendencies, developmental regression, etc.), psychosomatic symptoms (pain, sleep disorders, excessive morbidity without an overt cause, etc.) and behavioural manifestations (higher incidence of nonconformist types of behaviour, higher aggressiveness, tendency to run away from home, demands attention at all cost, etc.). Child problems related to emotional deprivation are relatively quite varied. The most frequent include developmental retardation, regression, aggressiveness, blunted emotions, emotional lability, growth alterations, obesity, passivity or loss of appetite⁴.

Children's witnessing of domestic violence is a specific domestic violence issue in connection with children. According to available data, about 90 per cent of children living in households where domestic violence occurs witness various manifestations of domestic violence⁵. Because consequences of domestic violence in children who witness it are almost identical to those found when children themselves are the victim (i.e. psychological and psychosomatic consequences and behavioural manifestations), there is no doubt that the issue will also require considerable attention.

In this respect, a question may arise who should be responsible for the monitoring of domestic violence perpetrated against children. By tradition, such issues are part of the "job description" of such agencies and organisations like institutions for social and legal protection of the children, law enforcement bodies, courts and various non-governmental organisations. However, we must emphasize that schools should also play a role in efforts to eliminate domestic violence against children. Schools should do it because children attend them for a large part of the calendar year and also because domestic violence issues are fairly closely related to the Health-Promoting School project (also referred to as a "Healthy School" project).

This project rests on three pillars, i.e. environment of wellbeing, healthy learning and an open partnership. From the point of view of the issues discussed in this paper, the first and the third pillars are the most relevant. While the first pillar, i.e. environment of wellbeing - strives to establish material environment wellbeing, social environment wellbeing and organizational environment wellbeing, the third pillar, i.e. open partnership, strives to shape school as a democratic partnership and to build the concept of school as an educational centre of a community. Principles of the second pillar, i.e. meaningfulness of education, possibility of choice and appropriateness of instruction, participation and cooperation in instruction and motivating child (pupil) assessment, can also be applied by parents on a child learning at home: this would rule out placing excessive demands on the child, which can also be one of the forms of domestic violence.

The Healthy School programme is relevant for domestic violence issues also because parents and the school, or, rather, the teachers, are important actors in the process of promoting health of children and teenagers. It is clear that the objectives of the Healthy School programme cannot be achieved without mutual cooperation between

the two actors. After all, it is very difficult to imagine that, e.g., a parent or some other person committing domestic violence against a child could give multifaceted support to that child in his physical and psychological development, not excepting mental and physical health.

The relationship between the Healthy School programme and domestic violence can also be found in that the programme is to some extent a preventive measure against future domestic violence (against children or anybody else). Implementation of the programme establishes habits and attitudes in children that enhance desired (i.e. healthy) personal lifestyles. That also includes the management of negative emotions, which are one of the main causes of domestic violence.

The basic condition for school quality is the establishment of a safe and stimulating social environment. The introduction of such an environment to schools may significantly help alleviate the effects of domestic violence on especially the child's psyche because it contributes, among others, towards the child's positive experiencing and thus helps eliminate the immediate stress and anxiety states, reduce effects of still unabated negative experiences and it thus contributes, over a period of time, towards strengthening the child's self-confidence and self-assurance. Moreover, such an environment has a preventive effect against domestic violence in the future because it moulds pupils' personality by establishing desirable patterns of behaviour in them that will positively influence their social and pro-healthy behaviour in any community, including the family. Another significantly positive feature of this environment is the fact it improves mutual cooperation between teachers, parents and pupils of the school, both inside and outside their school, which may have a major role in helping detect cases of domestic violence against children.

Also stimulating from the point of view of issues discussed here are integrating principles of health-promoting school activities. The first of such principles is to respect natural needs of an individual. When adopted, this stance helps promote health by all the interested parties of the project (i.e. pupils, parents and teachers), and it also facilitates the adoption of more general attitudes, such as respect for the human being, human communities and for nature on the Earth. Such a stance is a significant instrument acting against domestic violence by its positive formative influence on the personality of the potential aggressor and the child, thus reducing the risk that problems in a household will be tackled by aggression. The second principle, i.e. development of communication and cooperation, can have similar effects. Thanks to the implementation of this principle at health-promoting schools, pupils acquire important skills that make it possible for individuals to satisfy their needs within the context of their environment. The implementation of the above principle at health-promoting schools guarantees that schools become a model manifesting desirable patterns in communication and cooperation.

PROJEKT ŠKOLA PODPORUJÍCÍ ZDRAVÍ A FENOMÉN DOMÁCÍHO NÁSILÍ

Abstrakt: Stať pojednává v základních rysech o možnostech využití projektu Škola podporující zdraví při eliminaci a prevenci projevů domácího násilí vůči dětem.

Vymezuje samotný pojem „domácí násilí“, které je zapotřebí odlišovat od fyzických trestů, které mají výchovný cíl, a domácím násilím tak nemohou být. Dále se zabývá tím, které aspekty projektu Škola podporující zdraví je možné využít v působení proti domácímu násilí na dětech, poněvadž se jedná o poměrně rozšířený fenomén se závažnými následky.

Klíčová slova: Projekt škola podporující zdraví, domácí násilí, důsledky domácího násilí, prevence domácího násilí.

MOBBING IN PRIMARY SCHOOLS – EFFECTS ON INTERPERSONAL RELATIONSHIPS AND SCHOOL CLIMATE, OPTIONS FOR PROTECTION AND PREVENTION

Tomáš ČECH

Abstract: *The chapter deals with mobbing, i.e. bullying at workplaces, with a special focus on school environment. It draws on an extensive survey in Czech primary schools that not only mapped this undesirable phenomenon but also investigated possible consequences of mobbing on interpersonal relationships among teachers, and on school climate. An important part of the chapter is an outline of possible defence against mobbing and of the basic prevention strategy.*

Keywords: *school, social climate of a school, interpersonal relationships, mobbing, bossing, experience, intervention, prevention*

Mobbing as a negative social phenomenon and its influence on school climate

With the development of the society and pressures of career advancement and an individual's performance in the labour market, the issue of *mobbing* - bullying at workplaces - is discussed more and more often. It can be assumed that similar problems will also exist in schools, and will be reflected naturally in the school's overall climate and operation. According to available sources, no broad-based surveys of issues relating to mobbing have ever been conducted in Czech schools and for that reason the author has made these issues the centre of his current professional and research interest.

Mobbing as a technical English term is gradually finding its way to Czech terminology because the Czech language does not have a fitting one-word name for that phenomenon. The problem is that the term *šikana*, which is closest in meaning to it, does not express the essence of mobbing in its entirety, and the two cannot be interchanged. *Šikana* occurs in rather primitive communities such as schools and the military environment, and it represents the simpler forms of aggression consisting in an absolute majority in physical attacks. In mobbing, on the other hand, the psychological form of attacks predominates, with mainly psychological and psychosoma-

tic damage. It is shrewder, more insidious, and long-term psychological terror that is often very inconspicuous and, compared with physical violence, more difficult to prove (Kantor, 2009, p. 37). To make it more comprehensible for the general public, the phrase *šikana na pracovišti* (bullying at workplace) is used as a possible Czech equivalent, in the narrow sense of the word mobbing is then used to describe emotional abuse among people at relatively the same or similar position at work. A specific form of mobbing in the work team is the so-called *bossing*, where the perpetrator is the boss, hence *bossing*. Bossing should be perceived as a more dangerous form of work psychological terror because the manager's duty is, first and foremost, to create favourable working conditions for people reporting to him, and because his position gives him a degree of power over the staff and under these circumstances he is abusing it, which, given his position and expectations about that position, is unacceptable (see Beňo, 2003, pp. 10 and 126). Another type of mobbing, albeit less frequent, that we may come across in technical literature, is the so-called *staffing*. Staffing is used to describe attacks of staff members against their managers or company managers with the objective of completely discrediting or destroying them or the entire human resources or corporate policies (Kraft, 2005, p. 16).

Effects of mobbing on school climate

After we have explained the fundamental characteristics of mobbing, the obvious next question is how the spread of this phenomenon in the workplace, whatever its modification, affects the work climate, interpersonal relationships and, last but not least, the job performance of individual employees. If we apply these considerations to the school environment, the problem becomes even more acute if we take into account the fact that the school is a place where we propose to mould young generations, which cannot be adequately done in a socially defective environment. Havlínová et al. (1994, pp 29–30) suggest that *quality of the environment*, as applied to the school, is determined by four factors:

- *ecological environment of the school*, which includes the material, physical and aesthetic qualities of the school as the living and working environment for all the people and groups operating there;
- *social environment of the school* - the quality and competence of individual and groups making up the organization (students, teachers, school administration, local municipal council, etc.);
- *social system in the school* - methods of communication, relationships and patterns of behaviour inside groups and between them;
- *school culture* - the system of beliefs, value priorities and cognitive and evaluative approaches and public opinion that exist, prevail or are required as target ones in the school.

It is obvious that mobbing in any shape and form will negatively affect all of the above constituent parts of the school environment and will negatively influence the overall *school climate*, which we define similarly as Spilková (2003, p. 342) as an overall

quality of interpersonal relationships and social processes in the given school, as the level of communication and interaction between all of the actors in the school educational processes including the school's social partners, long-term social and emotional set-up and relatively established patterns of behaviour that are founded on implicit or explicit values and rules of life in the school.

Research into mobbing in the Czech primary schools

We were confronted with several fundamental questions. What is the real situation in Czech schools? Does that phenomenon exist there? And if it does, to what extent does it exist there if we expect certain personality traits from our teachers where tendency toward mobbing should have no place? D. Kantor and I tried to find answers to these and many other questions in an extensive survey conducted in the school year 2008/2009 among teachers from primary schools in the Czech Republic. A quantitative research strategy was used, with a questionnaire as a research tool. Because the research was planned as representative, the questionnaire was verified several times and triangulated by independent specialists before it was posted in the electronic form on the Internet. From the database of Czech primary schools containing 4,194 schools we got teachers' addresses and contacted them directly with a request for their participation in the survey. The reason for this less-than-standard approach was to get our questionnaires directly to rank-and-file teachers and thus to evade the risk of school management preventing teachers from participating in the survey. A total of 1,135 teachers participated in the survey and, after the questionnaires were processed, the final research sample was made up of 1,103 respondents.

From a large body research data some of which are still being evaluated, we offer to the readers of this publication some intermediate results that map, at a descriptive level, the incidence of mobbing in Czech primary school.

Primary school teachers as victims of mobbing

What is the real situation in Czech primary schools? Does mobbing exist there, and if it does, how widespread is it? The diagram below shows how many teachers claim to have been victims of psychological aggression of mobbers during their professional career, both from among their peers and school management.

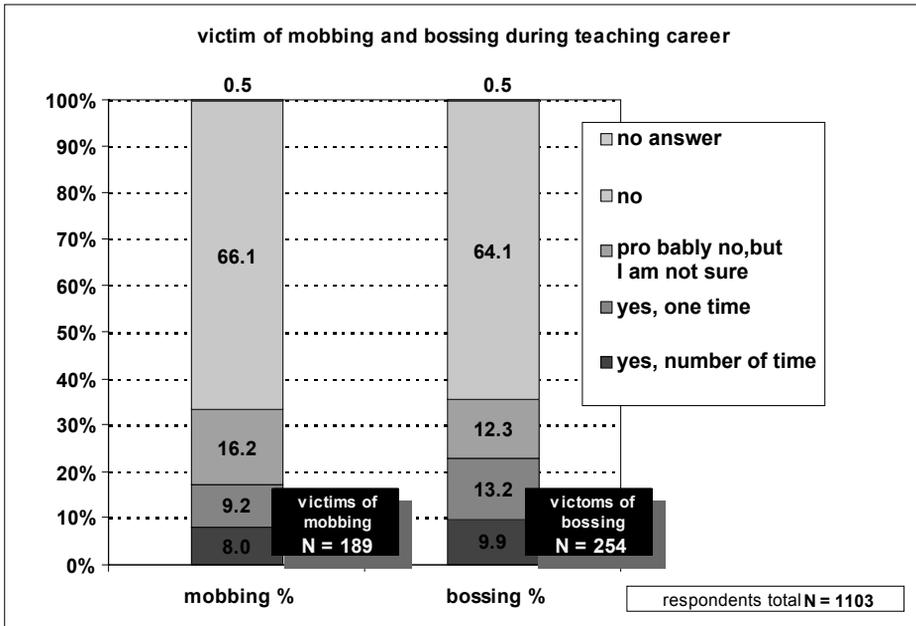


Fig. 1: Victims of mobbing and bossing during the teaching career

It follows from the diagram that at least 17.2 % of the teachers inquired considered themselves mobbing victims at some time during their teaching career (of which 8 % repeatedly), and 23.1 % were subject to psychological pressure from their superiors (9.9 % repeatedly).

Of the groups of respondents who experienced mobbing in the school, the largest group were teachers who were bullied for more than a year (of all the respondents, 33.9 % teachers suffered mobbing and 43.3 % bossing). This is demonstrated in Fig. 2.

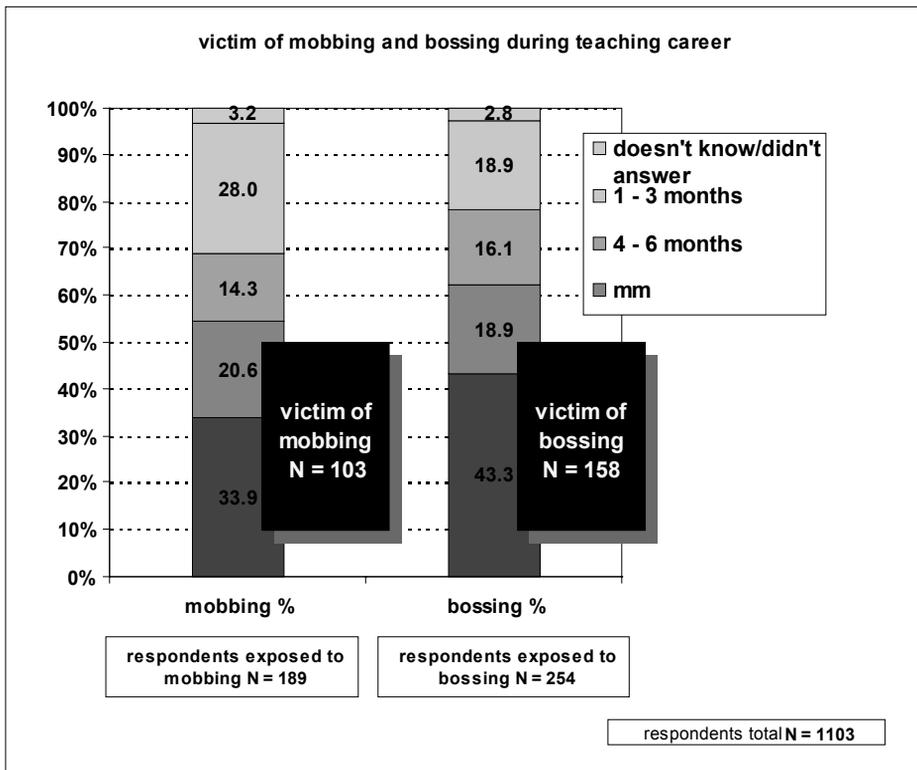


Fig. 2: Victims of mobbing and bossing during their teaching career by duration

Numbers of respondents who stated that they had been victims of mobbing and bossing need to be related to the definition of mobbing, which says that mobbing (bossing) in a professional setting occurred if that kind of behaviour was very frequent and took place over a long period of time. The diagram thus also gives a true numbers of respondents subjected to mobbing (N=103, i.e. 9.3 % of all respondents) and bossing (N=158; 14.3 %) if we apply the definition of mobbing and defined long-term attacks as attacks over a period of at least 6 months. These data give a more realistic view of the incidence of mobbing in schools and at least partly eliminate subjectivity and an incorrect understanding of the true nature of mobbing.

Of the teachers who considered themselves subjected to mobbing during their professional career, 46 % were subjected to mobbing and 62.6 % to bossing in the school year 2008/2009 (Fig. 3). In the overall context of teacher population included in our research sample, the same numbers of teachers (i.e. 7.1 %, N = 78) consider themselves at present victims of mobbing or bossing in their schools.

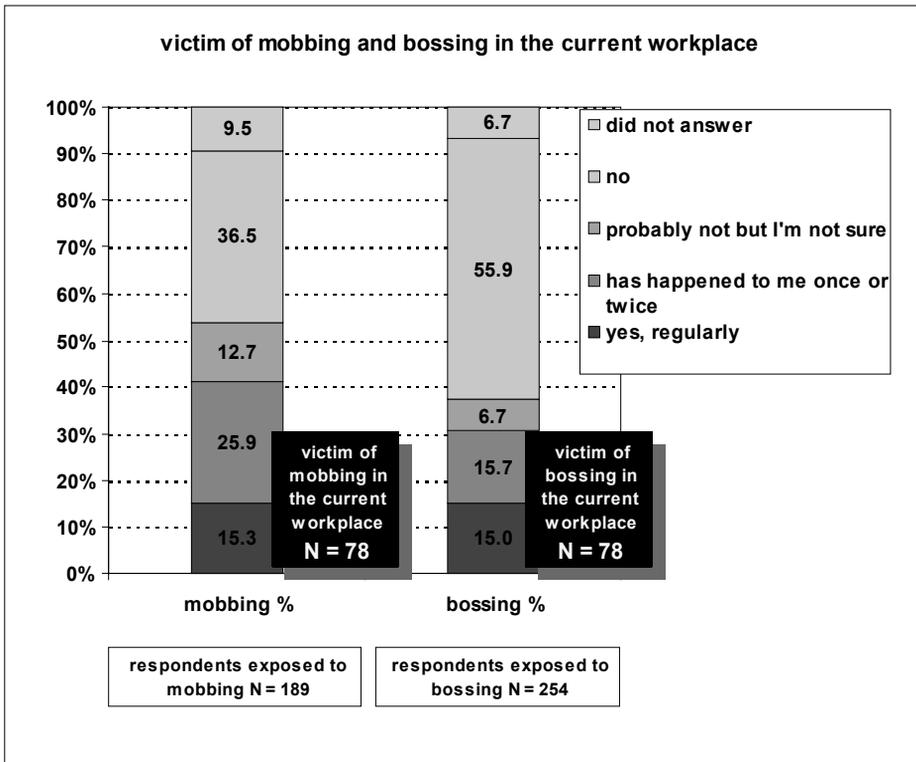


Fig. 3: Victims of mobbing and bossing at their current workplace

If we take another look at the time span for which the respondents were subjected to bullying in the school year 2008/2009 (Fig. 4), we may conclude that 52 % of respondents (N = 41; i.e. 3.7 % of all respondents) were subjected to genuine mobbing (closely corresponding to the definition of mobbing from the duration point of view) in that school year, and 57.6 % (N = 45; i.e. 4.1 % of all respondents in the survey) were subjected to bossing.

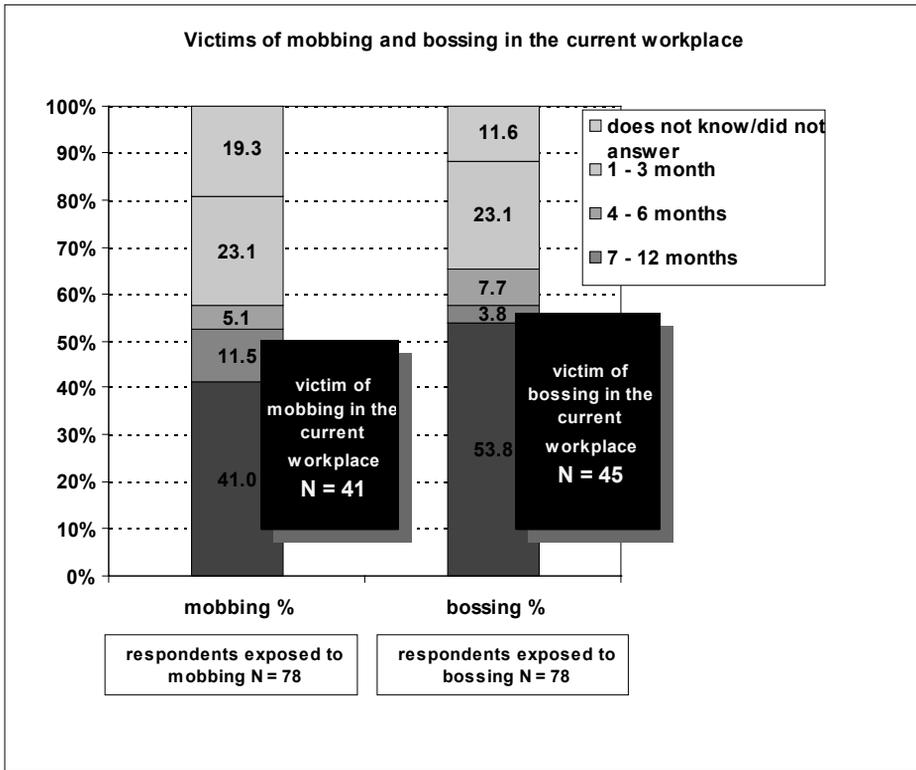


Fig. 4: Victims of mobbing and bossing at their current workplace by duration

Protection against mobbing

If we have demonstrated in the paragraphs above that mobbing is not an unknown phenomenon for many primary school teachers and showed what fundamental and many times fatal consequences it may have for its victims, for relationships in the school and thus for the overall school climate, it would be appropriate, also in view of the target group of this publication, to outline the ways how to defend oneself against mobbing.

As a rule, mobbing is triggered by some unresolved or inadequately settled conflict, and for that reason resilience largely depends on one's self-confidence, self-assurance, the ability to withstand stress and, very importantly, on one's skills for the resolution of conflicts and problems. In this respect, tougher characters have more than only a negligible advantage in that they are capable of facing the problem at hand and they do not run away from it. Also important is a sound family background, whether the victim has friends and whether he is a part of a social network because loneliness and the feelings of inferiority and uselessness are extremely dangerous and destructive factors for the start of mobbing. Good financial situation may help - if the victim is financially secured then he does not need to stay in the job where he is subjected to mobbing and enjoys a degree of independence and freedom to leave that job. Resilience also de-

depends on the employee's qualifications and his value on labour market. If he has a high and much sought-after qualification, he is less likely to be threatened by mobbing than a person who is dependent on a narrowly specialized job (see Janoušek, 2004).

However, generally speaking, it is not an easy thing to defend oneself effectively against mobbing, particularly in poorly managed workplaces. This is manifested e.g. by the fact that employees do not know their exact job definitions, and that tasks, responsibilities and rights of every member of the group are not clearly defined. Neither are information flows clearly defined, i.e. who from the school staff should give information to, or receive information from, whom. If, moreover, the prevailing feeling in the workplace is that whatever one does always ends up in a mess that somebody will be punished for in one way or another, the chances of running against a mobbing trap are very high.

Borská (2005, p. 9) says that mobbing "can be either parried with a counter-attack, or evaded. Both strategies are basically effective because their purpose is to prevent the destruction of the victim. If the victim does not feel strong enough, it is not a defeat to leave such an environment. On the other hand, it will bolster the mobber's self-confidence and brazenness to behave the same in the future because his manipulative tactics proved effective." Huberová (1995, p. 114) believes that it is important to start by answering a question whether there is still any chance of an amicable settlement. In spite of doubts, it makes sense to at least try it - in these attempts, we should set ourselves clearly defined deadlines and if the matter is not settled by the previously set deadline, we should promptly draw the conclusions to make sure that the psychological terror does not become a nightmare that will destroy us.

How can we help ourselves?

- a) *Use well thought-out conflict resolution tactics* - define the conflict (who, with whom and the cause), process the conflict (discuss the problem and present proposals for its resolution), conflict settlement (decision, usually a compromise, everybody will be informed about).
- b) *Reconciliation* – the conflict can be completely eliminated only after the two parties have made peace with each other.
- c) *Family and friends* – to speak about one's problems in one's family, to confine to a suitable partner, not to forget other people's problems and to accentuate the positive.
- d) *Relaxation* – who is tense all the time is more liable to make all kinds of mistakes.
- e) *Illusory help* – neither alcohol, drugs nor medications will solve problems.

If it can be done, it is useful to **contact the employer**. Every employee has the right to file a complaint with his employer and the employer has the duty to deal with the complaint if the employee considers himself a victim of mobbing. If the complaint is justified, it is the employer's duty to rectify the situation.

Another option can be to **ask colleagues for help** - mobbing cannot go unnoticed and usually the victim's closest co-workers will be first to notice it. Colleagues who

see the aggressor's behaviour and remain silent, irrespective of what reason they may have, become in a way his accomplices. It is important to pluck up one's courage and, for instance:

- a) send a signal of help to the victim
- b) break through the wall of silence step by step
- c) point out to the basic problem - name the underlying conflict
- d) together choose the person to act as a mediator
- e) stay active even after the conflict was settled (Huberová, 1995, pp. 114–122).

P. Beňo (2003, pp. 86–87) defines and recommends five principles that victims should bear in mind when they decide to defend themselves against mobbing:

1. “Keep in mind that the decision whether “to go or to stay” is always your choice.
2. Don't take things lying down and “grab the bull by the horns”.
3. You won't be able to cope with it on your own - find an ally.
4. Make it clear in your mind what you want to achieve and what strategy you will choose, but then do not hesitate any more and “go at it”. Keep a log of your grievances. Do not forget “documents” that can help. And do not forget the importance of effective communication and the art of asserting oneself.
5. Even a defeat can be the beginning of a victory.”

If the victim decides to defend himself against mobbing, it is important that he does it as soon as possible, preferably immediately when the mobbing begins. The problem is, of course, that the victim may not even know that the first stage of mobbing has begun. In case one's own solution fails, the victim should seek help from a specialist, which may, however, take a lot of time. Unfortunately we have to admit that very often the most effective defence left for the victim is to leave the workplace.

Possibilities for prevention

A big problem from the prevention-of-mobbing point of view is that so far little is known about it and that mobbing is little is talked about, which is confirmed by other intermediate results of present research into teachers' awareness of mobbing (Čech, 2009, pp. 221–223). In cases of mobbing, early prevention and awareness are more effective than necessary protection and intervention. First, it is important to increase general awareness of the phenomenon of mobbing - it is necessary to talk about it, organize workshops on mobbing and conflict resolution by both trade unions, school specialists (prevention method advisors, school psychologists) and, first of all, by the school management. The optimum situation would be to include anti-mobbing measures to internal school regulations, or to appoint somebody to deal with mobbing and, first and foremost, to develop legal awareness as a pillar of prevention.

In many countries of western and northern Europe, companies adopt the so-called anti-mobbing measures, which mean that every newcomer to the company is explained the agreement between the unions and the management and should know what to do in the case of mobbing. Anti-mobbing agreements and a “BossWatch” should become

a primary objective of trade unions, and money should come only second. In this country, it is unfortunately the other way round and mobbing or bossing are unknown words for many a trade union representatives (see Kantor, 2007, p. 37).

Work and interpersonal relationships and work climate differ from one organisation, team, group, or even office or school laboratory to another. For a man to feel good at work as much as possible, it is important that all people behave to each other as he wants others to behave to him. One should never have the feeling of being afraid of somebody at work. Unfortunately, the phenomenon of mobbing in a workplace is getting more and more frequent, creating an awkward climate there, full of tension, stress and fear. Acts of personal courage against psychological terror in the workplace will not only help its victims but will also make sure that the word mobbing will lose some of its fearsome connotations. Democracy will work only where the community shows enough courage and ordinary citizens are brave enough. Bullying, mobbing, bossing, harassment, discrimination, or the furthering of one's egoistic interest at the expense of others must not be put up with in a democratic state. Neither in the workplace, nor in the family, at school, in the office, politics, in public or in the private. Sometimes very little is needed - just some understanding, sympathy, compassion and respect for others.

MOBBING V PROSTŘEDÍ ZÁKLADNÍCH ŠKOL – VLIV NA INTERPERSONÁLNÍ VZTAHY A KLIMA ŠKOLY, MOŽNOSTI OBRANY A PREVENCE

Abstrakt: Kapitola se zabývá problematikou mobbingu, tedy šikany na pracovišti, a to se zaměřením na prostředí školy. Vychází z rozsáhlého výzkumného šetření v českých základních školách zaměřeného, zaměřuje se nejen na mapování tohoto nežádoucího fenoménu, ale také na možné důsledky jeho výskytu na interpersonální vztahy mezi pedagogy a klima školy. Zásadní součástí kapitoly je nastínit možné obrany před mobbingem a základní strategie prevence.

Klíčová slova: škola, školní klima, mezilidské vztahy, mobbing, bossing, zkušenosti, výskyt, obrana, prevence

COMPETENCY OF PRIMARY SCHOOL TEACHERS FOR THE PRIMARY PREVENTION OF DRUG ABUSE WITH A VIEW OF THE ATTITUDES TOWARDS THE TOPICS OF DRUGS ABUSE PREVENTION

Tomáš ČECH

Abstract: *The paper deals with the topic of drug-abuse prevention in primary schools and it is based on the research into the attitudes of primary-school teachers towards the topic of drug abuse, as the attitudes are the prerequisites for teachers' competency for the preventive – educative work at school. It may be said that in general, the attitude of teachers from the first grade of primary school towards drugs is representative from the social point of view; teachers show good general awareness of such problems, which is a very positive finding. However, it is rather serious that teachers lack deeper information and they do not know how to present the seriousness of such topics to the children by way of prevention. Generally, teachers do not accept drugs; they perceive drugs as something negative in the society. They correctly understand the connection of drug – wrong lifestyle; sport – correct lifestyle (i.e. without drugs). However, their attitude towards the influence of mass media in the area of motivation towards drug abuse is not well defined.*

Keywords: *teacher; drug abuse; dangerous behaviour; primary drug prevention and primary prevention of dangerous behaviour; anti-drug education; attitudes; competency.*

Introduction to the Topic

The transformation of Czech education reacts, in a way, to the necessity of adaptation of the educational – instructive process in schools of all types to the social evolution and current requirements of the era we live in. As compared to the past, nowadays the basic stress is placed especially on *key competencies* of the adolescent (against knowledge and skills) and her/his total preparedness “for life“. One of the crucial competencies which could be expected of the teenage generation is the competency in drug abuse and drug addiction topics; the principle of such

a competency consists in a timely creation and formation of correct attitudes towards drugs, health, etc. (more details by Čech, 2005a). Together with the family, school, as an educative – instructive institution, should play the key role in the child's life in terms of the timely prevention of drug abuse and other forms of dangerous behaviour. Positive transformation efforts can be seen, such as the legal obligation of the school to create Minimum Prevention Programmes, which should be monitored by the Czech School Inspection, and the creation of the position of a school prevention methodologist in every school, and last but not least, the implementation of the Framework Educational Programme and the creation of school educational programmes, as in such areas there is an enormous hidden potential for systematic preventive work in schools. The question of usage of such a potential is not addressed in this paper; however, the author addresses such a topic in other specialised articles (e.g. Čech, 2008).

We will focus on the teacher; there are lots of changes necessary to be implemented in the education system, which brings many new obligations for the teachers, such as their participation in the creation of educational programme of her/his school, capability to work according to such a programme, and also a competency for preventive-educative activities focused on all the forms of dangerous behaviour including drug abuse. In such activities, support should be provided by school prevention methodologist in the areas of methodology, information co-ordination and consultancy (see *Decree 72/2005 Col. on the provision of consultancy services in schools and school consultancy institutions*); however, in lots of schools, such a service is not provided in an adequate manner for various reasons (ad. Čech, 2008 et al.), and the competencies of the methodologist cover the first school grade to the minimum, which is why the form teacher's primary-preventive role is crucial there.

At this point, we get to the heart of this paper, because if we want the first school grade teacher to influence in a positive way the health and anti-drug attitudes of young school-aged children, such a teacher her/himself should have correct and positive attitudes towards this topic. The partial, but also crucial, objective of the wide research implemented in primary schools in 2005 was to investigate the attitudes of first school grade teachers towards issues of health and drug abuse, such attitudes being the base for the preventive - educational work in the first school grade. The research group was composed of 387 teachers from Brno and Bratislava (in certain aspects, this was a comparative research, for more details see Čech, 2005b).

Methodology and Course of Research

In order to investigate attitudes of first school grade teachers who are the implementors of anti-drug education in the first school grade, so-called *Likert scale* was selected to be a survey research tool, as such a scale is considered to be one of the most reliable techniques for the measurement of attitudes (see Mareš, 1998, p. 112). Š. Švec (1998) denominates the set of items used for the measurement of attitudes by means of the Likert scales the *rating-scale questionnaire* (hereinafter the questionnaire). As the attitude theories distinguish among three principal dimensions – cognitive, affective and conative – it was necessary to prepare the questionnaire in such a manner so that items

corresponding to such dimension were evenly represented. The final survey research tool was called *The Questionnaire for the Evaluation of Attitudes of First School Grade Teachers towards the Topic of Health and Drugs*.

During the first phase of the creation of the questionnaire, so-called topic domains were established (key topic areas), on which the research focused, such as: *smoking (cigarettes, marijuana)*; *alcohol, caffeine (coffee, caffeine drinks)*; *drugs, drug-abuse topic in general*; *addiction, relations towards the drug addicts*. At the establishing of the domains and also at the creation and formulation of scales for the individual domains, the following issues were taken into consideration: *research focus* (attitudes of teachers towards topics of drugs and health); *target group* (first school grade teachers); *psycho-social and ontogenetic features of young school-aged children*, who are taught by the researched teachers and who should be the target of the anti-drug education; *habit-forming substances by which young school-aged children are mostly endangered* (alcohol, nicotine, marijuana, caffeine, medicaments). There were 85 items selected and included in the rating-scale questionnaire.

In order to verify the reliability and consistency of the questionnaire, i.e. whether the individual attitudes were interconnected and if they were a consistent research tool, it was necessary to determine so-called Cronbach's coefficient α , the objective of which is the determination of the attitude credibility. In the preliminary research (carried out in 25 respondents), there were 85 items included in the questionnaire; after processing, Cronbach's coefficient α was calculated for the whole questionnaire and the individual scales. Correlative values of the individual items were from 0.7348 to 0.8523 (max. difference 0.0739), Cronbach's coefficient α for the complete questionnaire was 0.8047, which proved quite a solid consistency of the research tool and its correct content composition. In spite of such a result, analysis of items with rather low values (below 0.75) was carried out, and these were eliminated from the questionnaire for the purposes of the research (11 items in total; the final version of the scale for the attitude measurement contained 74 items). The methodological processing of the questionnaire was also verified by means of triangulation by two independent specialists who assessed the preparation of the questionnaire.

Evaluation and Interpretation of the Research Results

In the first phase of the research results evaluation, respondents' answers to the items from the individual domains were evaluated and arithmetic mean values and standard deviations of the items were calculated in the following order: *smoking (cigarettes, marijuana)*, *alcohol, caffeine (coffee, caffeine drinks)*, *drugs, drug-abuse topic and addiction in general*. The scope of this paper does not enable us to present all the determined values and graphic representations of these, which is why we will focus only on the analysis of the results valuable in relation to the researched relations, i.e. teachers' attitudes towards the topic as a certain prerequisite for preventive-educative work.

Analysis of the SMOKING Domain and Selected Scales:

Generally, according to the individual attitudes of teachers towards smoking, it may be assumed that the vast majority of teachers in the first school grade are non-

smokers. Their attitude towards smoking as such is rather negative, which is a certain condition for the teachers, who should teach the children about the negative effects of cigarette smoking, in order to be able to set (in the majority of the cases) positive examples for young school-age children, as such teachers do not smoke, they are not negative examples and they do not smell of cigarette smoke. It is not necessary to say that a teacher of such an age-group should be a distinctive example with whom the children identify themselves in many aspects, adopting many opinions, behavioural patterns, etc.

More specific explanations confirm, e.g. that teachers perceive smoking rather as a social anachronism, smokers' company and the cigarette smoke bother them. They perceive neither cigarettes nor marijuana as stimulants or calming agents or aids for establishing friendship. They consider the nicotine effect on the organism more serious as compared to the effect of alcohol, which is very interesting in view of another finding (which follows from the Cluster's analysis of domains) that teachers view smoking as less related to addiction as compared to alcohol. They prefer the teacher's positive example and they strictly refuse teacher's smoking in front of pupils. They are rather tolerant of smokers; however, the same tolerance cannot be observed in connection with friends and members of their own families even if they themselves are smokers.

Analysis of the ALCOHOL Domain and Selected Scales:

It is possible to state that the results of the teachers' attitudes towards alcohol are rather positive in view of the fact that they should become potential implementors of anti-drug education. Their attitude towards alcohol is from neutral to disapproving. They do not attach special importance to alcohol in making friends; they realise that alcohol may be a cause of serious problems in human relations. The vast majority of them think that a child should not try alcohol, as they do not consider that natural.

The perception of alcohol as a tolerated drug is controversial – teachers have not a well-defined opinion of the availability of alcohol in current shops. From the health point of view, they perceive alcohol in little quantities as rather harmless; they often think it has curative action (e.g. red wine and the support of red blood cells formation). More than a half of the teachers consider daily consumption of beer to be a drug addiction, which is interesting from the point of view of the perception of alcohol (even beer) as a drug.

Generally it may be understood that teachers perceive alcohol as a common part of human life, however on principle, they do not agree with regular consumption of alcohol (although in small quantities), they rather agree with occasional consumption (at parties, after meals, partly for health-preventive reasons). They do not view alcohol as a natural part of a child's life.

Analysis of the CAFFEINE Domain and Selected Scales:

Coffee is viewed as a stimulating drink without which the majority of the teachers cannot imagine their everyday life. It is possible to say that this is an analogy with the situation in the society where coffee is also a natural part of everyday life. Different attitudes may be observed in terms of the quantity and harmfulness of coffee consumed during a day – one cup a day is not harmful, but it is harmful in large quantities. Approximately half of the respondents need coffee in their lives; however, more than a half of them list coffee among addictive substances, i.e. drugs. Attitudes towards coffee with

milk as being suitable for children or not are not well defined, which is the same result as when deciding whether milk in coffee reduces the effects of caffeine.

Coke-type drinks (also in the light version) are considered stimulants both with stimulating and negative effects (addiction may be created). This may be considered as positive, as coke-type drinks are quite popular with children (also young school-aged children) and parents often do not– or do not want to - realise the inconvenience of such drinks for children. It is important that teachers do realise this!

Teachers strictly disapprove of the connection coffee – cigarette, which in many aspects corresponds to the attitude of teachers towards smoking (see the analysis of the SMOKING domain).

Analysis of the DRUGS Domain and Selected Scales:

It is possible to state that general attitudes of teachers in the first school grade towards drugs correspond to those of the society; teachers have good general knowledge of this topic, which is a very positive finding. However, rather serious (as indicated by further research phases) is the fact that teachers lack deeper information and knowledge and capability of the presentation of such a serious topic to children from the prevention point of view.

Drugs are not generally accepted by teachers; drugs are perceived as negative in the society (being considered a threat to the humanity), a serious problem. Teachers do not find any positive impacts of drugs (drugs are not any enrichment of life and parties; drugs do not support self-conscious behaviour); half of the respondents recognise drugs as a part of the society, as a certain social ritual equal to the intake of legalised soft drugs (coffee, cigarettes, alcohol). They realise correctly the interconnection of *drug – wrong lifestyle; sport – correct lifestyle* (which means without drugs). Teachers do not have well-defined attitudes towards the influence of mass media as motivators for drug abuse.

The majority of teachers do not list medicine among drugs (habit-forming substances) and they do not consider the possibility of addiction forming in children in cases of ill-considered and excessive medication treatment. Attitudes towards this topic (drugs in general) are stricter as compared to those towards smoking, alcohol and most of all caffeine, which confirms the fact that such substances, even when perceived as drugs, are not considered that much harmful by teachers. It may be of interest to mention that in the Likert's scales, in this domain it was not defined which drugs are being addressed – this confirms the fact that the word 'drug' is naturally associated with a hard illegal drug.

Analysis of the ADDICTION, RELATIONS Domain and Selected Scales:

The analysis of this domain brings about maybe the most interesting data. Although the majority of teachers have never met a drug addict, the respondents are more tolerant with them as compared to e.g. alcoholics, however, alcoholism is also a drug addiction. More than a half of the teachers would not have a problem with having such a person for a friend, however the majority of them would not tolerate a partner-alcoholic. A drug addict causes apprehension – more than half of the respondents consider drug addicts dangerous and aggressive.

Teachers perceive addiction as an illness which the addict cannot cure her/himself (s/he needs help of other people). Without any doubt, it is interesting that teachers feel

they are competent for helping a drug addict (we may assume this is a matter of certain knowledge and also social feeling). An individual is always to be blamed her/himself for her/his addiction, as this may be a certain manifestation of responsibility avoidance.

School is rather not perceived as a possible place of risk for the formation of drug addiction; teachers rather do not feel that a drug-abusing child in their class could be a failure of their education (this means they would see the cause in a different social environment – in young school-aged children, such a cause would be probably seen in the family).

Attitudes towards an excessive medication as a possible source of addiction formation are not strictly defined; in any case, medication, for the majority of the respondents, is not a means of diseases prevention.

Linear Distance of Domains

To conclude this paper, we will focus on interesting data following from the results of the evaluation of linear distances (dependencies) of the individual domains (see chart 1 and table 1) and from the Cluster’s analysis of domains (see chart 2).

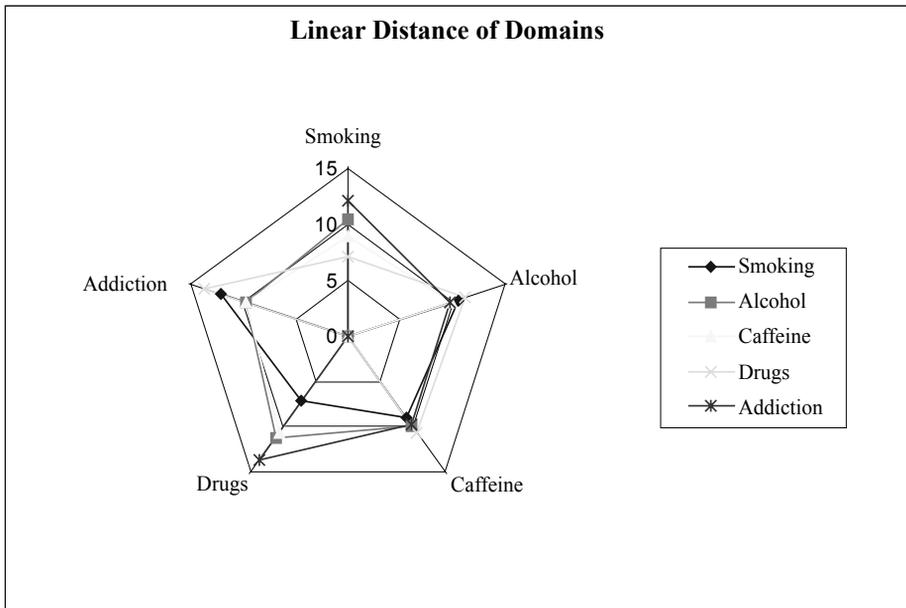


Chart 1: Linear Distance of Domains

Table 1: Linear Distance of Domains

LVP	Smoking	Alcohol	Caffeine	Drugs	Addiction
Smoking	0	10,40	8,84	7,02	11,95
Alcohol	10,40	0	9,73	11,11	9,57
Caffeine	8,84	9,73	0	10,56	9,62
Drugs	7,02	11,11	10,56	0	13,57
Addiction	11,95	9,57	9,62	13,57	0

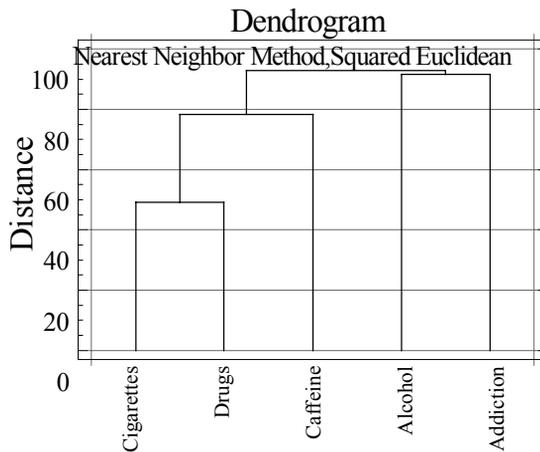


Chart 2: Cluster's Analysis of Domains

The graphic chart shows – and the dendrogram shows it even more clearly – that the **strongest relation** exists between the domains of alcohol and addiction; it is possible to come to a conclusion that teachers mostly connect addiction with alcohol. There may be several reasons for that:

- Cultural tradition (alcohol is a currently available and socially tolerated drug in the Czech and Slovak Republics);
- Respondents mostly know and see the effects of alcohol and they do not have much information on behaviour of people addicted to other drugs (this may be observed in the graphic chart – research results show a weak relation between addiction and drugs);
- Teachers do not have a direct experience (or only minimum experience) with people addicted to drugs different than alcohol.

A **weak perception of the relation** (the weakest among all the habit-forming substances) between addiction and smoking is equally interesting. The reasons may be as follows:

- Cultural tradition (cigarettes as well as alcohol belong to the current life of the society and they are tolerated drugs; many people do not perceive cigarettes as drugs at all);
- Effects of the addiction to smoking become evident much later as compared to e.g. alcohol and also other drugs;
- Health risk for an individual is a long-term risk, which means a person neither dies from the effect of smoking several cigarettes nor addiction is necessarily formed at low doses;
- Having strong will, a person may quit smoking her/himself (in the majority of the cases, treatment of the other addictions requires professional aid);

- In advertisements and mass media, smoking is presented as a certain lifestyle which may be strongly appealing for the young generation in many aspects; the effect is even stronger than the presentation of negative effects of smoking and for example the warning of the Ministry of Health printed on cigarette packages (for more details see Wiegerová, 2004).

KOMPETENTNOST UČITELŮ ZÁKLADNÍCH ŠKOL K PRIMÁRNÍ PREVENCI DROGOVÝCH ZÁVISLOSTÍ S OHLEDEM NA POSTOJE K PROBLEMATICE

Abstrakt: Příspěvek se zabývá problematikou prevence drogových závislostí v základních školách a vychází z výzkumu postojů učitelů primárního stupně k drogové problematice jako předpokladu jejich kompetentnosti v preventivně-výchovné práci ve škole. Dá se konstatovat, že postoje učitelů 1. stupně k drogám obecně jsou z hlediska společnosti reprezentativní a dávají najevo dobré obecné povědomí o této problematice, což je velmi pozitivní zjištění. Závažnější je, že chybí hlubší informace a především učitelé neumějí a nevědí, jak vážnost problematiky z preventivního hlediska dětem prezentovat. Obecně drogy učitelé nepřijímají, vnímají je jako něco negativního ve společnosti. Správně si uvědomují propojení droga – špatný životní styl; sport – správný životní styl (tzn. bez drog). Nevyhranění jsou k působení sdělovacích prostředků z hlediska motivace k užívání drog.

Klíčová slova: učitel; drogová závislost; rizikové chování; primární prevence drogových závislostí a rizikového chování; protidrogová výchova; postoje; kompetence

TOPIC FOR “HEALTHY” MORAL EDUCATION

Petra LAJČIAKOVÁ

Abstract: *Social development demonstrates that the contemporary moral education is the critical point of the school of today. Teaching practice confirms the fact that in education, space is missing for the formation of positive moral features of the pupil's personality. This work presents one of the possibilities of the stimulation of the moral growth, development of moral competence of those who are being educated by means of a specific method called analytic discussion. We were interested in knowing in which manner an analysis of a specific moral problem influences in the moral reasoning of the individuals. Research in which 44 university students participated ($AM_{(age)}=21.18$), was carried out in the course on the psychology of moral development. Results obtained indicate important differences in the moral reasoning of the students, both at the beginning and the end of the above-mentioned course, and as compared to a control group of students (who did not participate in the course); in both cases, the difference manifested itself in an increased tendency towards the application of higher moral principles and values. This may lead us to a conclusion that moral reasoning may be influenced, and at the same time we think that the analytic discussion method could be one of the possible tools for moral education.*

Keywords: *moral education; school; analytic discussion method; moral reasoning; pre-conventional, conventional and post-conventional levels.*

Theoretical Bases

In recent years, due to wider social contexts, the topic of the moral has been discussed more frequently; education towards values has been addressed and the character of one's personality has been stressed. Such topics are related to moral education, which every time more frequently becomes a key issue not only for theorists but also practitioners. Several professionals (Bendl, 2001; Piššová, 1991; Prunner, 2002; Vacek, 1996 a i.) agree that the contemporary school has given up activities focused on the development of moral characteristics of pupils and students. Education in school does not pay enough attention to a systematic positive formation of the moral. Such activities are absent which would offer pupils the possibility to co-operate, discuss, justify, argument, promote and confront their own opinions with opinions of the others. The status of the development of moral consciousness, moral education, is alarming.

When evaluating the traditional moral education in schools, Bull (1973) identifies its multiple critical points. He says that moral education is based on abstract principles which completely neglect specific experience of the pupils and students. It is reduced just to abstract schemes and structures of ideas, which are so abstract that they divert from real, common, everyday life.

According to Bull, another problem is the fact that the emphasised values, stressed principles and accentuated standards are implemented in practical application by means of deduction, which means in the direction from the general to the specific. As a consequence, principles, standards and rules are strongly perceived as something external, strange and irregular.

Bull's critic also points out to the passivity of the individual who is being educated. In the educational process, a space is absent in which the pupil or student could assert her/himself – participate actively in her/his own moral development.

On the basis of the above-mentioned declarations, it is possible to resume that moral education is based on abstract principles, ignoring conflicts existing in specific moral situations.

Moral education focuses on the development of moral consciousness, which according to Lickon (1992) includes moral knowledge – this means the learning of standards, laws and rules – which should help to distinguish between the correct and the incorrect. The angle of view is another important part of the moral consciousness – ability to view events with eyes of other people, to acquire their point of view of the given situation. Moral reasoning as a subsequent component of moral consciousness includes knowledge of moral standards and a manner of thinking about moral problems – the manner in which an individual perceives moral problems and attempts to solve them.¹ Finally, moral consciousness includes its last component – moral decision-making – an ability to make a decision taking into account the existing possibilities and also considering possible impacts following from such a decision.

Considering a broad definition of the moral education, it also covers the issue of moral attitudes, which mostly stands for a critical relationship reflecting a partial rational cognition, but mainly a subjective emotional evaluation of moral problems.

Moral education motivates an individual towards a moral behaviour – a behaviour which is in compliance with moral standards and values. Moral behaviour is reflected in our real actions and in the manner in which we present ourselves externally.²

In the educational practice, objectives of moral education should be identified. Its content should focus on the creation of positive moral features of the personality different from its current focus – searching for and finding of defects, negative deviations from what is permitted and prescribed.

Critical judging and evaluation of standards and principles in relationship to specific experience are the basic conditions of moral development.

¹ Moral reasoning and its development was addressed especially by J. Piaget (1932), whose concept was further developed by L. Kohlberg (1978), who created the theory of the development of moral decisions.

² However, harmony may not necessarily exist between moral behaviour and moral reasoning. Moral behaviour is influenced by the level of moral reasoning and situation factors.

The Analytic Discussion Method

The analytic discussion method creates an environment for the discussion and confrontation of contradictory standpoints and attitudes – analysis of a moral problem, solution of a moral dilemma. This may be one of the possible ways towards a positive influencing in the moral character of individuals.

The analytic discussion method may focus on different topics with a moral content. After an introductory presentation of a moral dilemma (dilemmatic story; conflict micro-story; moral problem), the discussion starts; it should take place in an environment of freedom and creativity. During the discussion, the key approach should be: no moralising, no showing displeasure, no criticising and no offering of solutions. This is followed by a final reflection and a certain summary of pros and contras, and the confrontation of the acquired view of the problem with the opinion formulated at the beginning of the discussion.

The Objective of the Research and Research Hypothesis

Our objective was to research moral reasoning of university students. We were interested in the difference in moral reasoning in two types of situations – before and after the completion of a course on the psychology of moral development. We observed the impact of the analytic discussion method applied in the course on the psychology of moral development on the moral reasoning of students.

We anticipated that the moral reasoning of students would be different at the beginning of the term, before the completion of the course on the psychology of moral development, and at the end of the term, after an active participation in the course.

In terms of the moral reasoning, the students who have completed the course on the psychology of moral development will differ from those who have not completed such a course.

Research Tool

As a research-method tool, we used a questionnaire of the solution of moral dilemmas representing always some personal or social problem (see Rest, 1997).³ (Ráčzová, Babinčák, 2009). The focal respondents were to express their respective opinions on eight justifications of different solutions of the given problem, using for such a purpose a five-point scale, ranging from “I generally agree“ to “I generally disagree“. Four out of the given arguments were in favour of the solution of the described conflict, and four expressed a disagreement with the presented solution to the problem. Justifications of the moral dilemma solution corresponded to three levels of moral reasoning. Such levels represented the basic criterion for the evaluation of the solution of moral dilemmas by the students:

Level 1 – pre-conventional level: egocentric orientation, pragmatic moral; individual immediate interests are the priority; the behaviour is focused

³ A more detailed analysis of such a methodology is performed by two authors, Ráčzová a Babinčák (2009), in their work *Foundations of the Psychology of the moral*.

on the satisfaction of one's needs and its goal is the obtaining of maximum advantages or minimum negative impacts;

Level 2 – conventional level: individual requirements are adapted to the requirements of a social group; attitude of loyalty to social expectations; conformity with standard social behaviour; observance of order;

Level 3 – post-conventional level: one's conscience is the criterion of the moral reasoning; respect for others; responsibility of an individual to universal moral principles; loyalty to one's moral principles.

Data obtained from the research have been statistically processed by means of the SPSS program, version 15.0.

The Course of the Research

The research was carried out in one term during the course on the psychology of moral development. The course included 11 regular weekly group sessions, approximately 80 minutes each.

Research Group

24 university students participated in the research; they studied in the second year of the bachelor studies of psychology. This was an experimental group of an average age of 21.18 years. There were 6 men and 18 women in the group.

A control group was composed of 20 university students of the second year of teaching studies of academic subjects; their average age was also 21.18 years. There were 8 men in the group, the rest were women.

Research Results

Both at the beginning and at the end of the term, all three levels of moral reasoning were observed in the experimental group; the situation is shown in Table 1:

Tab. 1 Levels of moral reasoning observed at the beginning and at the end of the course on the psychology of moral development in the experimental group (N = 24)

Moral reasoning Levels	Beginning (AM)	End (AM)	t-test
Pre-conventional	5.00	2.16	3.32***
Conventional	1.76	1.00	1.20*
Post-conventional	1.02	3.62	- 12.10***

Explanations: * p < .05; *** p < .001

At the beginning of the course, the pre-conventional level of moral reasoning was markedly preferred in the experimental group when solving moral dilemmas. After an active participation in the regular meetings in which the analytic discussion method was applied, a significant drop could be observed in the preference of individual necessities of the students ($t_{(22)} = 3.32$; $p < 0.001$), as well as there was a decrease in the interest in reasoning according to rules and necessities of the group or authority, which is reflected

in the conventional level of moral reasoning ($t_{(22)} = 1.20$; $p < 0.05$). It should be noted that after the completion of the course on the psychology of moral development, the students showed a significant and important tendency towards reasoning in compliance with their own freely chosen moral principles when solving a moral dilemma. At the end of the term, the post-conventional level of moral reasoning became markedly dominant ($t_{(22)} = -12.10$; $p < 0.001$).

It may be stated that moral reasoning of university students is different before and after the completion of the course on the psychology of moral development in which the analytical discussion method is applied. The difference could be seen in a decreased tendency towards reasoning on the pre-conventional and conventional levels and in an increased orientation towards the post-conventional level of reasoning.

Tab. 2 Levels of moral reasoning observed in the control group (N = 20)

Moral reasoning Levels	Beginning (AM)	End (AM)	t-test
Pre-conventional	3.34	3.18	0.75
Conventional	2.36	2.60	- 0.64
Post-conventional	1.77	2.00	- 0.41

In the control group, no statistically important change was observed in the solving of moral dilemmas (see tab. 2). If comparison is made of the mean values of both measurements, it is evident that in terms of moral reasoning, the students of teaching of academic subjects preferred mostly their respective individual necessities and interests (pre-conventional level). The fulfilment of social expectations and loyal attitude towards the others (conventional level) were the second criteria in the solution of moral dilemma; the tendency towards the evaluation of moral dilemmas according to one's inner moral principles was the least frequently applied approach (post-conventional level).

Tab. 3 Comparison of the observed levels of moral reasoning in the experimental (N = 24) and control groups (N = 20)

Moral reasoning Levels	Experimental Group (AM)	Control Group (AM)	F-test
Pre-conventional	2.74	1.62	0.75
Conventional	1.87	0.76	- 0.64
Post-conventional	2.50	1.75	- 0.41***

Explanations: *** $p < .001$

Table 3 shows that as to the post-conventional level of moral reasoning, there is a statistically important difference between the experimental and control groups. The students who completed the course on the psychology of moral development differ from students who did not attend the course. The difference shows an increased tendency of the students who completed the course on the psychology of moral development towards the resolving of moral dilemmas on the post-conventional level ($F_{(2,42)} = - 0.41$; $p < .001$).

Conclusion

Our objective was to observe the impact of a special method – the analytic discussion – on the development of moral reasoning. Results obtained confirmed what we had anticipated: the analytic discussion method may contribute to the development of moral reasoning and judgement. After the completion of the course on the psychology of moral development, the students used the post-conventional moral point of view when resolving moral dilemmas, which corresponds to the highest level of moral reasoning.

The principle of the analytic discussion method is the fact that the solution of hypothetical dilemmas in the “sheltered“ school environment stimulates the same capabilities which are necessary for the managing of real dilemmas encountered in the everyday life. The method of the solution of moral dilemmas may be compared to a vaccine – it stimulates the capability of the organism (individual) to protect itself from the virus due to a previous vaccination with an attenuated-virus doses (Lind, 2002). Many research studies with psychological and educational topics prove its efficiency (see Enright et al., 1983; Higgins, 1980; Leming, 1985; Lockwood, 1978; Schläfli et al., 1985; Lind, 2002), because individuals who have been taught how to solve conflicts of controversial values and principles were capable of finding more efficient solutions to everyday-life dilemmas.

Due to a limited number of participants, it is impossible to come to generally valid conclusions. However, on the basis of the research results we may assume that the analytic discussion method appears to be one of the possible ways towards moral development.

Efficient moral education requires thorough training; it is an art of the creation of a productive teaching environment (Lind, 2002). The analytic discussion method, the method of solution of moral dilemmas, is applicable at primary and secondary schools, at universities and also in adult people education. It has a strong impact on moral development, it stimulates moral reasoning and also moral behaviour, and, as Vacek (1996) affirms, “it continuously inspires to moral self-reflection and contemplation on moral self-perfection“.⁴

NÁMET PRE „ZDRAVÚ“ MORÁLNU EDUKÁCIU

Abstrakt: Spoločenský vývoj ukazuje, že súčasná morálna výchova je kritickým miestom dnešných škôl. Pedagogická prax potvrdzuje, že v edukácii chýba priestor pre formovanie pozitívnych morálnych stránok osobnosti žiaka. Príspevok prezentuje jednu z možností, ako stimulovať morálny rast, rozvíjať morálnu kompetenciu vychovávaných prostredníctvom špecifickej metódy, analytickej diskusie. Zaujímalo nás, akým spôsobom ovplyvňuje rozbor konkrétneho morálneho problému morálne usudzovanie jednotlivcov. Výskum, ktorého sa zúčastnilo 44 vysokoškolských študentov (AM(vek)=21,18), prebiehal počas kurzu psychológie morálneho vývinu. Získané výsledky naznačujú významné rozdiely v morálnom usudzovaní študentov, jednak na

⁴ An interesting solution based on philosophical reflection on such a topic is offered by Kondrla and Blaščiková (2006).

začiatku a konci uvedenej výučby, jednak v porovnaní s kontrolnou skupinou študentov (neabsolvovali daný kurz), pričom v oboch prípadoch sa diferencie prejavili vo zvýšenej tendencii uplatňovať vyššie morálne princípy a hodnoty. Môžeme sa tak domnievať, že morálne usudzovanie je možné ovplyvňovať a zároveň sa nazdávame, že analytická diskusná metóda sa eventuálne ukazuje ako jedna z možných spôsobov morálnej výchovy.

Kľúčové slová: morálna výchova, škola, analytická diskusná metóda, morálne usudzovanie, predkonvenčná, konvenčná a postkonvenčná rovina

AESTHETIC PERCEPTION OF ARTWORKS BY ADOLESCENTS AND ITS IMPACT ON MENTAL HEALTH

Michaela LUKAČIKOVÁ

Abstract: *This study deals with aesthetic perception of artworks by adolescents and its impact on mental health. It is characterized aesthetic perception, the course of aesthetic perception and the factors that influence the overall perception. Through Semantic Differential (dimension: evaluation), we examined the selection and evaluation of two works of art: Annunciation from Leonardo da Vinci and Annunciation from Andy Warhol. The results show that adolescents perceive more positively artwork from Andy Warhol.*

Keywords: *art, warhol, leonardo da vinci, annunciation, aesthetic perception.*

The fact, that every day rolls deluge of images for us; it is a fact. The fact is also that we see and without deeper penetrated into the interior of the actual image. Our vision and perception is strongly influenced by socio-cultural environment and of course by our experience, too. The view of hell or battle for people in renaissance had different meaning as for us when we see a picture of later centuries, whether in museums or galleries. In any case, our perception is subject of change. Otherwise we see now, otherwise it will be maybe even in a few seconds later.

Professor of theology, psychology and art history I. Riedel (2002) says that artistic images are major landmarks of the human soul, created from the collective unconscious, the symbols of religious and socio-cultural attitudes and the evaluation of a time. Paintings are like symbols, or combination of symbols. We simply look at them as symbols, and thus also we interpret them. What is the symbol, it applies to images, too.

When talking about the work of art as such, we mean the artefact, which has the status of an artistic work for nothing. According to R. Schusterman (2003) nothing is artwork without the interpretations. Even Warhol Brillo box as a work of art requires interpretation from the author himself, as well as from the audience, too. The artwork is evidence of the period in which the artist lived and worked, but also tells about his emotional and thought world. The real work of art will never leave disclose its total secrecy, it will be no longer a work of art, it always attracts the reader something different,

exciting and mysterious. However, if the image is meaningful, it should be “read” by whom it is intended, therefore, by observers, and that’s according to J. Amounta (2005) the whole problem of interpretation.

R. Horáček (1998) says that the artwork is a unique type of communication. It speaks equally about internal positions of the artist as well as the external world around us, and can communicate with the mental world of the viewer. The main functions of art are always more highlighting just aesthetic function (*ibid.*).

Aesthetic perception (and actual aesthetic experience) relates to sensory evaluation and assessment of the perceived object. One senses, while perceived object, but it will be judged by aesthetic, based on their ideas and their own perception. For instance, we see all aspects of work, size, shape, technique, composition, colour, content, theme, etc. by the perception of the artwork but we perceive thus what there is no clearly presented, which cannot be captured or analysed. It is inside all of us.

Often, for the aesthetic perception is considered not only the perception of the artistic work, but also any other perception, observation, listening, viewing, or just plain “breathing” of climate related with the work in museums, galleries or churches. It is enough to someone if he takes only the part from the perception, if he understands what the work about, other is satisfied by any other moral lesson of his visual needs etc. All this may be, but not necessarily in aesthetic perception, which is fundamentally different from person to person and even from work to work.

Perception of art must make a comprehensive, emotional idea about the work as a coherent organism, where they are closely related means of expression and subject content. To the conditions of the overall, emotional and deep perception of the image are external conditions and orientation of the viewer’s mood and overall readiness, and aesthetic understanding (Kuric, 1986).

E. Mistrík (1994) states that the ideal is, if aesthetic perception takes place in three layers of the human psyche. The first layer is the sensory level, where we enjoy e.g. melody, which flatters our ear or the colour of our eyes where it meets the sentiments of colour combinations and variations. It is better if we pass in the perception of the sensory to the emotions, so we feel happiness, enjoyment, desire, or fear, anxiety and so on. After the perception; whether watching the film or looking fine art, we can have such dominant feelings from now on. We can absorb the perceived, or to evaluate and calculate our profits and losses. This way we evaluate what is happening in us, what is in the work and what is in us? And here we have the highest level of aesthetic perception, because here has already been working our entire psyche, our needs, desires, experiences, passions, emotions but also common sense. By the three layers of aesthetic perception are getting deeper and deeper into the work.

For full aesthetic perception and the perception of involvement in work is necessary to make the viewer felt a certain mental distance from what happens on the canvas, and what in itself. If there is no such kind of gap may be the case where negative work can be presented to engulf the entire personality of percipient, for example, if in the picture is the underground scene - hell, it is important to recognize the reality from the work, to understand the reality of his own self.

The overall perception is influenced by several factors, from the work itself, human attention, present state and mood to the viewer engagement, personal assistant,

the total exposure, the colour, aural harmony etc. We see that aesthetic perception is a complex process that proceeds in several stages, the order may vary in individual cases. According to E. Mistrik (1994) the aesthetic perceptions begin preliminary, entrance emotion, a condition of more or less excitement. It acts as a trigger mechanism, “begin to perceive a work of art.” The second phase begins by comparing the subconscious thoughts, ideas, feelings expressed in the living work of percipient’s experience with his own desires, enjoyment and the like. If we should have a real aesthetic experience of art, full of feeling, and feeling “the way”, we must find a surprise in that work the moment of abruptness, something that does not match with our expectations, our experiences; the artwork should be “above” us; Otherwise, the aesthetic experience is stopping and stalling. If the artwork suits us, it can come next phase, catharsis, and after it (sometimes even without the presence of catharsis, because it comes very rarely) we express the aesthetic appearance - positive or negative emotion. It’s the last phase of aesthetic perception, when we assess ourselves artwork, and so show that we have something to say. According to J. Kulka (2008), these factors may be present if there is a man training to the full perception of art in aesthetic education.

Research goal

This year, in March 2010 was established in collaboration with the Experimental Centre of Art Education of Andy Warhol Society near Andy Warhol Museum of Modern Art, in Medzilaborce and Secondary school of Andy Warhol in Medzilaborce Club Youth Friends of Fine Arts, in which we performed the survey of artwork selection that respondents would imagine to have hanging in their room. The goal which we have chosen was to evaluate the selection of artwork and its impact on the individual. 50 female adolescents (N = 50) participated in the survey (third year of secondary school).

Methodology

We have chosen the artworks deliberately to be confronted the art of old masters and contemporary art, and the idea of art has been preserved. We selected artwork Annunciation from y Leonardo da Vinci and Andy Warhol.

We have used Semantic Differential to the analysis of art perception, as in the analysis of aesthetic perception of painting artworks made by J. Kuric and V. Smékal (Kuric, in 1986). The Semantic Differential is often used to solve the problems of psychology of art. This technique was developed in the fifties and published in the monograph of Osgood, Suci and Tannenbaum *The measurement of meaning* in 1957 as a method of measuring the importance of concepts. Its essence lies in the evaluation of responses to the scales of adjectives by which are concepts (objects, works of art) considered. These are pairs of bipolar adjectives, such as little-big, strong-weak, etc. on seven range scale of graphic or numeric type. Those authors created 76 scales, which were selected from 289 antonyms of Roger Thesaurus of English language. J. Kuric and V. Smékal have put together 64 scales late seventies, 30 of which corresponds to the classical range of the dimensions identified by Osgood et al. – activity, evaluation

and strength. In our study we have used a range of evaluation, which gives a positive or negative aesthetic experiences in the perception of the artwork

Dimension Scale ASSESSMENT:

- I like - I do not like
- bad - good
- superficial - deep
- outline - strong, sophisticated
- upbeat - grim
- oppressive, uneasy - uplifting
- repellent - attractive, captivating
- pleasant - unpleasant
- ugly - perfect
- beautiful, graceful - imperfect, done for

Results

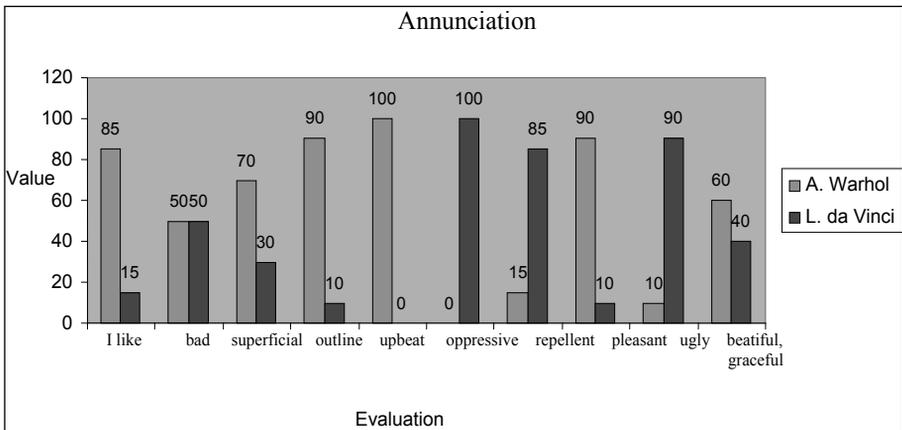


Chart 1 Evaluation of artworks

Chart 1 provides a comparison of the evaluation of the perception of artworks by adolescents. There are compared two works of art with the same theme.

Conclusion and discussion

The aesthetic perception is currently relatively little examined topic, as well as the impact of art on the mental health of individuals, where in Art therapy is art interpretation used as of one of the Art therapy techniques. The results show that modern art, namely the Annunciation of Andy Warhol, was compared with the Annunciation by Leonardo da Vinci and was more positive assessed. Warhol’s work is a beautiful work

for adolescents, they have a greater sense of joy, it is not daunting or forbidding work of art, but pleasant and enjoyable. After processing the results and after discussion with respondents, we found that for adolescents was well-being and property of associating a work of art in their room very important. The colour played not small role which is by H. Leder (2004) considered for nuclear in the process of visual stimulation and the positive leverage on the aesthetic experience of the individual what has affirmed us by our research.

ESTETICKÉ VNÍMANIE UMELECKÝCH DIEL ADOLESCENTOM A JEHO VPLYV NA DUŠEVNÉ ZDRAVIE

Abstrakt: Štúdia sa zaoberá estetickým vnímaním umeleckých diel adolescentov a jeho vplyv na duševné zdravie. Je charakterizované estetické vnímanie, priebeh estetického vnímania a faktory, ktoré vplývajú na celkové vnímanie. Prostredníctvom sémantického diferenciálu (dimenzia: hodnotenie) sme skúmali výber a hodnotenie dvoch umeleckých diel: Zvestovanie od Leonarda da Vinciho a Zvestovanie od Andyho Warhola. Z výsledkov vyplýva, že adolescenti pozitívnejšie vnímajú umelecké dielo od Andyho Warhola.

Kľúčové slová: umenie, warhol, leonardo da vinci, zvestovanie, estetické vnímanie.

BIBLIOGRAPHY

A

- ÁGHOVÁ, L., BAJAN, A., BAJUŽÍKOVÁ, A. et al. 1993. *Hygiena*. Banská Bystrica : Osveta, 1993. 268 s. ISBN 80-217-0515-9.
- Annexe n°3/II of decree of Ministry of Education n° 72/2005 Sb., O poskytování poradenských služeb ve školách a školských poradenských zařízeních. Praha: MŠMT, 2005, s. 2
- AUGER, Marie-Therese, BOUCHARLAT, Christiane. *Učitel a problémový žák. Strategie pro řešení problémů s kázní a učením*. Praha: Portál. 2005. 121 s. ISBN 80-7178-907-0
- AUMONT, Jacques. 2005. *Obraz*. Praha :Akademie múzických umění, 2005. 327 s. ISBN 80-7331-045-7.

B

- BALÁŽ, O. *Sociálne aspekty výchovy*. Bratislava: Veda, 1981.
- BARENGO, N.C., HU, G., LAKKA, T.A., PEKKARINEN, H., NISSINEN, A., TUOMILEHTO, J., 2004 Low physical activity as a predictor for total and cardiovascular disease mortality in middle-aged men and women in Finland *European Heart Journal* 2004 25(24):2204-2211
- BAŠTECKÁ, B. aj. *Terénní krizová práce – psychosociální intervenční týmy*. Praha: Grada, 2005.
- BĚLIČKOVÁ, E. *Realizace výchovy ke zdraví na 1. stupni ZŠ : diplomová práce*. Brno: Masarykova univerzita, Pedagogická fakulta, 2008.
- BENDL, Stanislav. *Prevence a řešení šikany ve škole*. Praha: ISV nakladatelství. 2003. 197 s.
- BENDL, S. *Školní kázeň. Metody a strategie*. Prague: ISV, 2001.
- BEŇO, P. *Můj šéf, můj nepřítel?* Šlapanice: Era, 2003. 181 s. ISBN 80-86517-34-9.
- BERKOWITZ, A. D. 2004. The Social Norms Approach: Theory, Research and Annotated Bibliography. [online]. [citované 17.2.2007]. Dostupné na: <http://www.alanberkowitz.com/articles/social_norms.pdf>
- BERKOWITZ, A. D. 2005. An Overview of Social Norm Approach. chap. 13. [online]. In: Lederman, L. et. al.: *Changing the Culture of College Drinking: A Socially Situated Prevention Campaign*. Cresskill NJ: Hampton Press. [citované 6.3.2007].
- BIXLER, R. D.; FLOYD, M. F. (1999). Hands on or hands off? Disgust sensitivity and preference for environmental education activities. *Journal of Environmental Education*, 30(3), str. 4-11.
- BLAHUTKOVÁ, M., HÖFER, L. Školní tělesná výchova vedoucí ke zdraví na 2. stupni základní školy [Physical training at school leading to health at junior level of primary education]. *Škola a zdraví* 21(1) vol. 2, 810-814

- BORSARI, B., CAREY, K. B. 2003. Descriptive and Injunctive Norms in College Drinking: A Meta – Analytic Integration. *Journal of Studies on Alcohol*. 64(3), 331-341.
- BORSKÁ, I. Mobbing a bossing – jak se bránit? *Personální a sociálně právní kartotéka*. 2005, roč. 8, č. 11, s. 8-10. ISSN 1211-9482.
- BRIFFA, J.: *Jedlom k zdraviu*. Bratislava: Ikar, a.s., 2000. 115 s. ISBN 80-7118-837-9.
- BROWNER, C. M. *Why Environmental Education? It is critical to mainting our quality of life*. EPA (Environmental Protection Agency) Journal, 1995, s. 6.
- BUBELINIOVÁ, M. Niekoľko úvodných poznámok k analýze projektov, zastrešujúcich environmentálnu výchovu na slovenských školách v súčasnosti. In *Cesty demokracie vo výchove a vzdelávaní. Zborník príspevkov z konferencie. V. ročník*. Bratislava : IUVENTA, 2001, s. 61-66.
- BUDSKÝ, R., MATOUŠEK, R. Návrh nových zásad přípravy obyvatel v oblasti poskytování první pomoci. *Urgentní medicína*, 2008, č.2, s.18. České Budějovice: MEDIPRAX CB, ISSN 1212-1924.
- BULL, N. J. *Moral Education*. Trowbridge: Redwood Press, 1973.

C

- CIALDINI, R. B., DEMAINE, L. J. Managing Social Norms for Persuasive Impact. *Social Influence*. 1(1), 3-15. 2006.
- CIALDINI, R. B., RENO, R. R., KALLGREN, C. A. 1990. A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*. 58(6), 1015-1026.
- CLAXTON, G. Involuntary Simplicity: Changing Dysfunctional Habits of Consumption. *Environmental Values*, 1994, vol. 3, p. 71-78. ISSN 0964-2719.
- Co je program Škola podporující zdraví. Datum publikace nevedeno. Online. [citováno 1. srpna 2009]. Dostupné z: <http://www.program-spz.cz/cs/co-je-program-spz>
- COL. State Programme EEUE. In Černá, M., Křížová, M. *Státní program environmentálního vzdělávání, výchovy a osvěty (EVVO) v ČR*. [State programme of environmental education, upbringing and enlightenment – EEUE], Ministry of the Environment, Prague, 2000. ISBN 80-7212-151-0
- COLE, M., WALKER, S. I. (eds.) *Teaching and stress*. Philadelphia: Milton Keynes, Open University Press 1989.
- CONTOYANNIS, P., JONES, A.M., *Socio-economic status, health and lifestyle*. *Journal of Health Economics*, Vol 23, Issue 5, 2004, s. 965-995. DE BACKER, G.G., BACQUER, D.D., 2004. *Be physically active: the best buy in promoting heart health*. *Eur. Heart J.*, 2004; 25(24): 2183 - 2184.
- CONTOYANNIS, P., JONES, A.M., *Socio-economic status, health and lifestyle*. *Journal of Health Economics*, Vol 23, Issue 5, 2004, s. 965-995

Č

- ČECH, T. Elementary school teachers awareness of mobbing and their experience from the environment of Czech schools. In *Řehulka, E. et al. School and Health 21: Topical Issues in Health Education*. Brno : Masarykova univerzita, 2009, s. 219-226. ISBN 978-80-210-4930-7.
- ČECH, T. Evaluace preventivě-výchovných činností na základních školách s vizí možných inovací. *Komenský*, 132, 2008, 4, p. 23-27. ISSN 0323-0449.
- ČECH, T. Primární drogová prevence a protidrogová výchova ve školách. In *Sřelec, S. (ed.) Studie z teorie a metodiky výchovy II*. Brno : MU, 2005, s. 140-152. ISBN 80-210-3687-7.
- ČECH, T. *Protidrogová výchova e její realizace v podmínkách primárního stupně základních škol*. Disertační práce. Brno : Masarykova univerzita, 2005, 166 p.
- ČERMÁK, I. *Lidská agrese a její souvislosti*. Žďár nad Sázavou: Fakta, 1999..
- ČINČERA, J. Výstupy či procesy paradigmatický (kvazi)spor environmentalní výchovy *Envigogika*. [online], 2009, roč. 4, č. 2. [cit. 5. 1. 2010]. Dostupné na [www: <http://envigogika.cuni.cz/envigogika-2009-iv-2/blog-3_cs>](http://envigogika.cuni.cz/envigogika-2009-iv-2/blog-3_cs). ISSN 1802-3061.

D

- DANIEL, J.: Zátěž a jej zvládnání v profesi učitel'a. *Pedagogická revue*, 2002, 1, 33-46.
- DE BACKER, G.G., BACQUER, D.D., 2004. *Be physically active: the best buy in promoting heart health*. *Eur. Heart J.*, 2004; 25(24): 2183 - 2184.
- De HAAN, G. *Umweltbewusstsein und Massenmedien Perspektiven ökologische Kommunikation*. Berlin : Akademie Verlag, 1995, s. 308.
- De HAAN, G. Umweltbildung im Kontext von Umweltwissen, Umweltbewusstsein, Umweltverhalten. In ROSOVÁ, V.; BIANCHI, G.: *Umwelterziehung in Familie und Schule*. Human Communication Studies, 1993, Vol. 1, pgs. 11 - 12.
- DE YOUNG, R.; DUNCIN, A.; FRANK, J.; GILL, N.; ROTHMAN, S.; SHENOT, J.; SHOTKIN, A.; ZWEIZIG, M. Promoting source reduction behavior the role of motivation information. *Environmental and Behavior*, 1993, vol. 25, no. 1, p. 70-85. ISSN 0013-9165.
- DEJONG, W., LANGFORD, L. M. 2002. A Typology for Campus – Based Alcohol Prevention: Moving toward Environmental Management Strategies. *Jornal of Sudies on Alcohol*. supplement 14, 140-147.
- Děti svědci domácího násilí. Datum publikace neuvedeno. Online. [citováno 1. srpna 2009]. Dostupné z: <http://www.stopnasili.cz/verejnost/deti-svedci-domaciho-nasili.html>
- DIAMON, H. 1994. *Fit pro život II*. Praha: Pragma, 1994. 265 s. ISBN 80-85213-42-7
- DITTRICH, Pavel. *Pedagogicko-psychologická diagnostika*. Jinočany: H & H. 1993. 121 s. ISBN: 80-85467-06-2
- Dlouhodobý programu zlepšování zdravotního stavu obyvatelstva ČR Zdraví pro všechny ve 21. století*. Praha : ÚV ČR 2002.

E

- ELEK, E., MILLER-DAY, M., HECHT, M. L. Influences of Personal, Injunctive, and Descriptive Norms on Early Adolescents Substance Use. *Journal of Drug Issues*. 36(1), 147-172. 2006.
- EMCDDA- Evropské monitorovací centrum pro drogy a drogové závislosti: *Stav drogové problematiky v EU a Norsku*. Lucemburk: Úřad pro úřední tisky Evropských společenství, 2004. 113 s. ISBN 92-9168-206-3.
- ENRIGHT, R.D., LAPSLEY, D.K., HARRIS, D.J., SCHAWVER, D.J. Moral Development Interventions in Early Adolescence. *Theory into Practice*, 1983, 22, 134-144.

F

- FAIT, T. VRABLÍK, M. ČEŠKA, R. *Preventivní medicína*. 1st edition. Prague: Maxdorf s.r.o., 2008. 551 p. ISBN 978-80-7345-160-8
- FELDMAN, Frayda, SHELLMANN, Jörg. 2003. *Andy Warhol Prints*. New York :The Andy Warhol Foundation for Visual Arts, 2003. 385 s. ISBN 1-891024-63-9.
- FERJENČÍK, J. *Úvod do metodologie psychologického výzkumu*. Praha: Portál. 2000. *Framework Education Program for Elementary Education*. Prague: VÚP 2005. ISBN 80-87000-02-1
- FRANĚK, M. *Psychosociální faktory ovlivňující úspěšnost environmentální výchovy*. Praha: Český ekologický ústav, oddělení environmentálního vzdělávání, výchovy a osvěty, 2000. <http://www.ceu.cz/edu/vyzkum/vyzkum.html>
- FRANĚK, M. *Psychosociální faktory ovlivňující úspěšnost environmentální výchovy*. Prague Český ekologický ústav, oddělení environmentálního vzdělávání, výchovy a osvěty. Accessible at www: < <http://www.ceu.cz/edu/vyzkum/vyzkum.html> > (quot. 2 August 2009)
- FRANĚK, M. *Vliv městské zeleně na chování lidí*. *Envigogika 2001*.
- FRITZ, J.: *Interaktionspädagogik. Methoden und Modelle*. München, Juventa 1975.
- FROSTOVÁ, J.: *A Rehabilitation System and Recommended Exercises for Teachers with Voice Disorders*. In *School and Health 21*. (2). 1. vyd. Brno : Masarykova univerzita, 2007. s. 417-426., ISBN 978-80-7315-138-6.

G

- GAJDOŠOVÁ, Eva, HERÉNYIOVÁ, Gabriela. *Rozvíjení emoční inteligence žáků. Prevence šikanování, intolerance a násilí mezi dospívajícími*. Praha: Portál. 2006. 324 s. ISBN: 80-7367-115-8
- GARDNER, G., T.; STERN, P., C. *Environmental Problems and Human Behaviour*. Boston : Pearson Custom Publishing, 2002. ISBN 0-536-68633-5.
- General Programme for Primary Education
- GILLERNOVÁ, Hana, HERMOCHOVÁ, Soňa, ŠUBRT, Richard. *Sociální dovednosti učitele. Cvičení z metod aplikované sociální psychologie*. Praha: SPN. 1990. 109 s. ISBN 80-7066-039-2

H

- HAINES, M. P., PERKINS, H. W., RICE, R. M., BARKER, G. A Guide to Marketing Social Norms for Health Promotion in Schools and Communities. [online]. Illinois: National Social Norms Resource Center. p. 2-92. [citované 11.5.2007]. Dostupné na: <<http://www.youthcreatingchange.com/Guidebook.pdf>> 2004.
- HAJEROVÁ-MÜLLEROVÁ, L., DOULÍK, P., ŠKODA, J. Vyhodnocení změn dětského pojetí drogy. In DOULÍK, P. *Geneze dětských pojetí vybraných fenoménů*. Ústí nad Labem : UJEP, 2005, s. 46-54.
- HANUŠOVÁ, J. *Sexuální zneužívání*. Praha: Vzdělávací institut ochrany dětí, 2006.
- HAVLÍNOVÁ, M, VENCÁLKOVÁ, E. (eds.) a kol. *Program podpory zdraví ve škole*. Praha : Portál, 2006. ISBN 80-7367-061-5.
- HAVLÍNOVÁ, M. *Program podpory zdraví ve škole*. Praha: Portál, 1998.
- HAVLÍNOVÁ, M. aj. *Jak měnit a rozvíjet vlastní školu? O individuálních projektech škol*. Praha : Agentura Strom, 1994. 130 s. ISBN 80-901662-2-9.
- HAVLÍNOVÁ, M., VENCÁLKOVÁ, E. (eds.), HAVLOVÁ, J., LACINOVÁ, I., PETRASOVÁ, N., SEDLÁČKOVÁ, H., SYSLOVÁ, Z., ŠPRACHTOVÁ, L. a kol.: *Kurikulum podpory zdraví v mateřské škole*. Praha: Portál, 2006.
- HEGYI, L. *Lexikón civilizačných ochorení*. [online]. [Cit. 2007-01-14]. Dostupné na: <<http://www.bedekezdravia.sk/slovakindex.php?id=110lexikoncivlizacnychochoreni2005>>
- HERMOCHOVÁ, Soňa. *Skupinová dynamika ve školní třídě*. Kladno: AISIS. 2005. 169 s. ISBN: 80-239-5612-4
- HIGGINS, A. *Research and Measurement Issues in Moral Education Interventions*. In: LEMING, J.S. *School Curriculum and Social Development in Early Adolescence*. *Childhood Education*, 1985, 61, 257-262.
- HLOUCALOVÁ, H. *Názory ředitelů škol na výchovu ke zdraví na I. stupni ZŠ : diplomová práce*. Brno : Masarykova univerzita, Pedagogická fakulta, 2008.
- HOLČÍK, J. *Zdraví 21. Výklad základních pojmů*. Praha : Ministerstvo zdravotnictví ČR. 2004.
- HOLČÍK, J. *Zdraví 21. Výklad základních pojmů. Úvod do evropské zdravotní strategie Zdraví pro všechny v 21. století*. Praha : Ministerstvo zdravotnictví ČR, 2004.
- HOLČÍK, J. *Zdravotní gramotnost a její role v péči o zdraví*. Brno: MSD 2009, 149 pages ISBN 978-80-7392-089.
- HOLČÍK, J. *Zdravotní gramotnost a její role v péči o zdraví*. Brno: MSD, 2009. ISBN 978- 80-7392-089-0.
- HOLČÍK, J., ŘEHULKA, E. *Potřeba a poslání zdravotní výchovy*. *Časopis lékařů českých*, Prague, Česká lékařská společnost J.E. Purkyně. ISSN 0008-7335, 2007, Vol. 146, No. 1, p. 3-8.
- HOLIBKOVÁ, A. LEICHMAN, S. *Přehled anatomie člověka*. 3rd edition Olomouc: University of Palacký of Olomouc, 2004. 140 p. ISBN 80-244-0495-8
- HORÁČEK, Radek. *Galerijní animace a zprostředkování umění*. Olumučany :Akademické nakladatelství CERM, 1998. 142 s. ISBN 80-7204-084-7.

- HORÁK, J.; LINHART, I.; KLUSOŇ, P. *Úvod do toxikologie a ekologie pro chemiky. Praha : Vysoká škola chemicko-technologická, 2007. ISBN 978-80-7080-548-0.*
- HORKÁ, H. Ecological/Environmental Education across the Curriculum of Undergraduate Teacher Training for Lower Classes of Elementary School. In *Die Qualität von Lehre und Unterricht vor neuen Herausforderungen. Kompetenzen - Standards-Module*. Baltmannsweiler : Schneider Verlag Hohengehren GmbH, 2007. od s. 263-269, 6 s. ISBN 978-3-8340-0285-3.
- HORKÁ, H. *Ekologická dimenze výchovy a vzdělávání ve škole 21. století*. Brno : MSD, 2005. ISBN 80-210-3750-4.
- HORKÁ, H. Ekologická kultura osobnosti studenta oboru učitelství 1. stupně základní školy. *Pedagogika*, 1996, č. 3, s. 224 -230.
- HORKÁ, H. Ekologická příprava učitelů 1. stupně ZŠ na Pedagogické fakultě MU v Brně. In *Proceedings of International Workshop on Environmental Education in Central and Eastern European Universities: Experience and challenge*. Praha : UK, 1996, s. 15-18.
- HORKÁ, H. Environmental Issues in the Context of Health Support in the Thinking of Students Teacher. In *School and health 21/2*. první. Brno : PAIDO, 2007. od s. 239 - 548, 10 s. ISBN 978-80-7315-138-6.
- HORKÁ, H. Environmental Issues in the Context of Health Support in the Thinking of Students Teacher. *COMMUNICATIONS*, Žilina : EDIS Vydavatelstvo Žilinskej Univerzity, 2007, roč. 9, č. 2, s. 17-20, ISSN 1335-4205. 2007.
- HORKÁ, H. Environmentální aspekty v kurikulu české základní školy. In *Fórum o premenách školy v 21. storočí*. první. Bratislava : OZ V4 a UK, 2007. od s. 244-252, 9 s. ISBN 978-80-969146-7-8.
- HORKÁ, H. Environmentální aspekty výchovy ke zdraví. In ŘEHULKA, E (ed.) *Škola a zdraví 21*. Brno : Paido, 2006. s. 711-728, ISBN 80-7315-119-7.
- HORKÁ, H. Kompetence budoucích učitelů k ekologické (environmentální) výchově se zvláštním zřetelem ke složce osobnostní. In *Environmentální výchova jako součást všeobecného základu v přípravě budoucích učitelů*. Sborník z česko- slovenské konference. Práce katedry biologie a ekologické výchovy Univerzity Karlovy v Praze - SVAZEK č. 4. Praha : UK, 2001, s. 17-23.
- HORKÁ, H., HROMÁDKA, Z. Health Care and the Environment from the Viewpoint of Primary School Pupils. In sborník *School and Health 21 (Social and Health Aspects of Health Education)*. Brno: MSD. 2009. ISBN 978-7392-043-2.
- HORKÁ, H., KULICH, J., LIŠKOVÁ, E., MÁCHAL, A. Ekologické/environmentální minimum pro studenty oboru učitelství. In *Minimální všeobecný základ znalostí a dovedností studentů učitelství o životním prostředí, udržitelném rozvoji a environmentální výchově*. Sborník prací katedry biologie a ekologické výchovy Univerzita Karlovy v Praze – Pedagogické fakulty. Praha: UK, 2003, s. 9-13. ISBN 80-7290-123-0

- HORKÁ, H.; BUBELINIOVÁ, M. Environmentální problematika v řeči učitelů a studentů učitelství. In *Příprava učitelů pro primární vzdělávání v ČR a budoucí plánování scénářů v Evropě. Sborník Výzkumného záměru organizace VZO: msm 174500001*. Ostrava : Ostravská univerzita v Ostravě, Pedagogická fakulta, 2004, s.223-240. ISBN 80-7042-376-5
- HORKÁ, H.; HROMÁDKA, Z. Obsah vzdělání – vztahy mezi cíli, požadavky a realitou z pohledu ekologické/environmentální výchovy. In Maňák, J.; Janík, T. (ed.) *Problémy kurikula základní školy. Sborník z pracovního semináře z 22.6.2006*. Brno : MU, 2006, s. 148-160, ISBN 80-210-4125-0.
- HROMÁDKA, Z. Proč učit o automobilismu? In Sborník *Environmentální výchova: nové cesty*. Liberec : Technická univerzita Olomouc v Liberci, 2007, s. 4 - 47. ISBN 978-80-7372-164-0.
- HU, G., JOUSILAHTI, P., BARENGO, N. C., QIAO, Q., LAKKA, T.A., TUOMILEHTO, J., 2005. *Physical Activity, Cardiovascular Risk Factors, and Mortality Among Finnish Adults With Diabetes*. *Diabetes Care*, 2005; 28(4): 799 - 805.
- HU, G., JOUSILAHTI, P., NISSINEN, A., ANTIKAINEN, R., KIVIPELTO, M., TUOMILEHTO, J., 2006. *Body mass index and the risk of Parkinson disease* *Neurology*, 2006; 67(11): 1955 – 1959
- HU, G., JOUSILAHTI, P., NISSINEN, A., ANTIKAINEN, R., KIVIPELTO, M., TUOMILEHTO, J., 2006. *Body mass index and the risk of Parkinson disease* *Neurology*, 2006; 67(11): 1955 - 1959
- HUBEROVÁ, B. *Psychický teror na pracovišti*. Martin: Neografia, 1995. 144 s. ISBN: 80-85186-62-4.
- HUCKLE, J.; STERLING, S. *Education for sustainability*. London : Earthscan, 1996.
- HUNDT, R. *Zur fachübergreifenden, interdisziplinären Gestaltung der Umwelterziehung an den allgemeinbildende*. Hale-Wittenberg: Martin Luter universität, 1988. ISBN 3-86010-182-X.

CH

- CHRÁSKA, M. *Metody pedagogického výzkumu*. Prague Grada, 2007. ISBN 978-80-247-1369-4.

I

- ISEROVÁ, L. *Český červený kříž očima žáků 5. a 9. ročníků základních škol na Litoměřicku*. - Ms. (Dipl. práce, depon. in Ústí nad Labem: knihovna PF UJEP, 2009.)

J

- JACENKO, T.S.: *Aktivnaja socialno-psichologičeskaja podgotovka učitelja k obšččeniju s učaščimisja*. OSVITA, Kijev 1993.
- JANDOUREK, J. *Sociologický slovník*. Prague Paido, 2001. ISBN 80-7178-535-0.
- JANÍKOVÁ, M., JANÍK, T., MUŽÍK, V., KUNDERA, V. *CPV videostudie tělesné výchovy: sběr dat a zamýšlené analýzy*. *Orbis scholae*, 2008, vol. 2, no. 1, s. 93-114.

- JANKOVSKÝ, J. *Etika pro pomáhající profese*. Praha: Triton, 2003.
- JANOŠKOVÁ, Dagmar, aj. *Občanská výchova. Rodinná výchova. Učebnice pro základní školy a víceletá gymnázia 7*. Plzeň: Fraus, 2004. 128 s. ISBN 80-7238-325-6
- JANOŠKOVÁ, Dagmar, aj. *Občanská výchova. Rodinná výchova. Učebnice pro základní školy a víceletá gymnázia 8*. Plzeň: Fraus, 2005. 144 s. ISBN 80-7238-393-0
- JANOŠKOVÁ, Dagmar, aj. *Občanská výchova. Rodinná výchova. Učebnice pro základní školy a víceletá gymnázia 9*. Plzeň: Fraus, 2006. 152 s. ISBN 80-7238-528-3
- JANOUSEK, V. *Mobbing, aktuální problém...* [online]. 2004 [cit. 27.12.2008]. Dostupné na www: <<http://www.zena-in.cz/rubrika.asp?idc=8431&id=2>>.
- JEŘÁBEK, J., TUPÝ, J. a kol. *Rámcový vzdělávací program ZV [Framework educational programme of Health Education]*. VÚP research institute and Ministry of Education, Youth and Physical Training, Prague, (2004) 2007, ISSN 1802-4785
- JOHANSSON, S.E., SUNDQUIST, J., 1999. *Change in lifestyle factors and their influence on health status and all-cause mortality* International Journal of Epidemiology, Vol 28, s. 1073-1080.
- JOHANSSON, S.E., SUNDQUIST, J., 1999. *Change in lifestyle factors and their influence on health status and all-cause mortality* International Journal of Epidemiology, Vol 28, s. 1073-1080.
- JORDÁN, M. (2008) Ecotherapy – personal healing and healing for the earth [online]. Accessible at www: < <http://www.ecotherapy.org.uk> > (quot. 2 August 2009)
- JURKOVIČOVÁ, J. 2005. *Vieme zdravo žiť?* Bratislava : Univerzita Komenského, 2005, 166 s. ISBN 80-223-2132-X.

K

- KAHN, Jr., P. H. Developmental psychology and the biophilia hypothesis: Children's affiliation with nature. *Development Review*, 1997, 17 (1), 1-61.
- KAHN, JR., P.H. Developmental psychology and the biophilia hypothesis: Children's affiliation with nature. *Developmental Review*, 17(1), 1-61. 1997.
- KAHN, P. H., Jr. Children's Affiliations with Nature: Structure, Development, and the Problem of Environmental Generational Amnesia. In Kahn., P. H., Jr.; Kellert, S. R. (Eds.) *Children and nature: Psychological, sociocultural and evolutionary investigations* (str. 93-116). Cambridge, Massachusetts: MIT Press. 2002.
- KAHN, P. H., JR., KELLERT, S. R. (Eds.). *Children and Nature : Psychological, Sociocultural and Evolutionary Investigations*. Cambridge (Massachusetts), London (England): The MIT Press, 348 s. 2002.
- KALHOUS, Z., OBST, O. a kol. *Školní didaktika*. Praha: Portál, 2002. 447 s. ISBN 80-7178-253-X.
- KANEHISA, M., *Lifestyle and Health*. Japanese Journal of Hygiene. Vol 54, No 4, 2000, s. 572 – 591. 2000.

- KANEHISA, M., *Lifestyle and Health*. Japanese Journal of Hygiene. Vol 54, No 4, 2000, s. 572 – 591. 2000.
- KANTOR, D. *Mobbing a bossing ve školním prostředí*. Diplomová práce. Brno : Pedagogická fakulta MU, 2009, 158 s. Vedoucí práce: Tomáš Čech.
- KANTOR, D. *Mobbing jako patologický jev, jeho výskyt a projevy*. Bakalářská práce. Brno : Pedagogická fakulta MU, 2007. Vedoucí práce: Tomáš Čech.
- KATE MCMAHON: *Keeping Children Safe in Traffic*, 2004
- KELLER, J. *Naše první cesta do prvohor (o povaze automobilové kultury)*. Praha : Sociologické nakladatelství, 1998. ISBN 80-85850-64-8.
- KELLER, J.; GÁL, F.; FRÍČ, J. *Hodnoty pro budoucnost*. Praha : G plus G, 1996.
- KELLERT, S. R. Experiencing Nature: Affective, Cognitive and Evaluative Development in Children. In Kahn., P. H., Jr.; Kellert, S. R. (Eds.) *Children and nature: Psychological, sociocultural and evolutionary investigations* (str. 117-151). Cambridge, Massachusetts: MIT Press. 2002.
- KELLERT, S.R. *The Value of Life. Biological Diversity and Human Society*, Island Press. 1996.
- KELNAROVÁ, J. a kol. *První pomoc I. Pro studenty zdravotnických oborů*. 1.vyd. Praha: Grada, 2007. 121 s. ISBN 978-80-247-2182-8.
- KELNAROVÁ, J. a kol. *První pomoc II. Pro studenty zdravotnických oborů*. 1.vyd. Praha: Grada, 2007. 184 s. ISBN 978-80-247-2183-5
- KIMÁKOVÁ, T. Úloha antioxidantů - vitamínů . In: *Životné podmienky a zdravie* : zborník vedeckých prác. -- Bratislava, 2003. -- ISBN 80-7159-138-6. -- S. 172-174.
- KIMÁKOVÁ, T. Čo ovplyvňuje naše zdravie? In: *Bedeker zdravia: sprievodca svetom zdravia*. -- ISSN 1337-2734. -- Roč. IV, č. 6 2008, s. 120-121.
- KLÁPŠTĚ, P. *Příroda kolem nás*. Praha: Tiskové a distribuční centrum. 2008.
- KLUCKHOHN, F.; STRODTBECK, F. L. *Variations in Value Orientations*. Westport: CT Greenwood, 1961.
- KOHÁK, E. *Zelená svatozář (Kapitoly z ekologické etiky)*. Praha: Sociologické nakladatelství, 1998.
- KOHÁK, E. *Zelená svatozář: kapitoly z ekologické etiky*. Praha : Sociologické nakladatelství, 1998. ISBN 80-85850-63-X.
- KOHLBERG, L. *The Cognitive-Developmental Approach to Moral Education*. In: SCHARF, P. (Ed.) *Readings in Moral Education*. Minneapolis: Winston Press, 1978, s. 36-51.
- KOHOUTEK, R. *Poznávání a utváření osobnosti*. Brno: Akademické nakladatelství CERM, 2001 - 275 s. ISBN 80-7204-200-9 .
- KOHOUTEK, R. *Sebezpoznaní, sebehodnocení a sebevýchova*. Brno : CERM akademické nakladatelství, 1997 - 32 s. ISBN 80-7204-039-1
- KOLÁŘ, Michal. *Bolest šikanování*. Praha: Portál, 2001. 256 s. ISBN 80-7367-014-3
- KOLÁŘ, Zdeněk, ŠIKULOVÁ, Renata. *Vyučování jako dialog*. Praha: Grada Publishing, a.s., 2007. 131 s. ISBN 978-80-247-1541-4
- KÖLTZE, H. red.: *Lehrertraining. Theorie und Praxis verschiedener Modelle*. Bad Heilbrunn, J. Klinkhard Verlag 1990. ISBN 3-7815-0650-9
- KOMENSKÝ, J. A. *Didaktika velká*. Brno: Komenium, 1948.

- KONDRLA, P., BLAŠČÍKOVÁ, A. Výchova k občianstvu v dimenzii axiologizácie a tolerancie. In: *Výzvy dneška pro výchovu k občianství II*. Zborník z prednáškového cyklu. České Budějovice: JU, 2006, 90-102.
- KOPECKÁ, I. *Minimální preventivní program a jeho efektivita*. - Ms. (Dipl. práce, depon. in Ústí nad Labem: knihovna PF UJEP, 2009.)
- KORÉNEKOVÁ, B. et al. Occurrence of selected trace elements in cattle meat. In *MESO*, 2007, vol. 9, p. 328-331. 2007.
- KORÉNEKOVÁ, B., SKALICKÁ, M., KOŽÁROVÁ, I. et al. Sledovanie rizikových chemických prvkov u Kačíc divých (ANAS PLATYNRHYNCHOS) In *Potravinárstvo*. roč. 3, č. 2, 2009, s. 35-37. ISSN 1337-0960.
- KOTÁSEK, J. a kol. *Národní program rozvoje vzdělávání v České republice, Bílá kniha*. [National programme of development of education in the Czech Republic. The White Book], Ministry of Education, Youth and Physical Training, Prague 2001. ISBN 80-211-0372-8
- KOUCKÁ, P. Lásky ke krajine autor. *Psychologie dnes*, 2006, issue no. 11.
- KRAJHANZL, J. Psychologické pojmosloví charakteristiky vztahu jedinca k přírodě. Anotace disertační práce. Katedra psychologie Filosofické fakulty Univerzity Karlovy v Praze. 2006.
- KRAJHANZL, J. Psychologie ve službách Země. Praha : FF UK. [on line]. [cit. 23. 2. 2008]. Dostupné na: <<http://www.vztahkprirode.cz/soubory/Psychologie%20ve%20sluzbach%20Zeme.pdf>> 2006.
- KRAJHANZL, J. Jak popisovat vztah člověka k přírodě? 18. 3. 2008 [ústní sdělení]. 2008.
- KRAJHANZL, J. Úvodem k pěti charakteristikám vztahu k přírodě. Nepublikovaný text. 2008.
- KRAJHANZL, J. a kol. Děti a příroda. Prožívání a zkušenosti. Studie v rámci projektu VaV Výzkum odcizení člověka přírodě. [on line]. [cit. 23. 2. 2008]. Dostupné na: <<http://www.vztahkprirode.cz/soubory/Deti%20a%20pripriroda.pdf>> 2004.
- KRAJHANZL, J. O odcizování člověka přírodě. In Kolektiv *Děti, aby byly a žily*. Praha: MŽP, 2005, s. 37 – 44. ISBN 80-7212-382-3.
- KRAJHANZL, J. Vztah k přírodě. Internetový portál ekopsychologie [online]. Accessible at: www: < <http://www.vztahkprirode.cz/>>. (quot. 2 August 2009).
- KRAJHANZL, J. ed. (2008). Vztah k přírodě. Internetový portál ekopsychologie [on line]. Dostupné na: <<http://www.vztahkprirode.cz/>>.
- KRÁTKÁ, J. *Činnosti třídního učitele v současných podmínkách českého školství*. Brno: PdF MU, 2007. Disertační práce.
- KRATOCHVÍL, Stanislav. *Skupinová psychoterapie v praxi*. Praha: Galén, 2005. 297 s. ISBN: 80-7262-347-8
- KRATZ, H. J. *Mobbing, jak ho rozpoznat a jak mu čelit*. Praha : Management Press, 2005. 131 s. ISBN 80-7261-127-5.
- KŘIVOHLAVÝ, J. *Jak zvládat stres*. Praha: Grada, 1994.
- KUBÁTOVÁ, D. Protidrogová prevence a postoje učitelů ZŠ a ZvŠ k protidrogové výchově v prostředí školy. In: *Primární prevence soc.-patol. jevů v pe-*

- dagogické praxi 7* (ed. D. Kubátová), Ústí n.L., 2004:37-44. ISBN 80-7044-583-1
- KUBÍKOVÁ, Z., ZUCHOVÁ, B. a kol. *Metodický materiál k výuce první pomoci na gymnáziích v Jihomoravském kraji*. Brno : Masarykova univerzita, 2008. 43 s. 1. vydání. ISBN 978-80-210-4746-4.
- KUBÍKOVÁ, Z., ZUCHOVÁ, B. Metodický materiál k výuce první pomoci na gymnáziích Jihomoravského kraje. In Bernaciková, Martina - Šrůtek, Jan - Cvejnová, Barbora - Turin, Radek. *Sport a kvalita života 2008*. Brno : Masarykova univerzita, 2008. 181 s. ISBN 978-80-210-4716-7.
- KULHAVÝ, V. (2006). Skauting - výchova v přírodě, výchova k přírodě. *Životné prostredie*, Bratislava : Ústav krajinnej ekológie SAV, XL, 1/2006, od s. 49-50
- KULHAVÝ, V. Ekoterapie – léčba přírodou (?) *Psychoterapie*. Brno Fakulta sociálních studií. 2009, issue no. 1.
- KULKA, Jirí. 2008. *Psychologie umění*. Praha :Grada, 2008. 435 s. ISBN 978-80-247-2329-7.
- KURIC, Jozef. 1986. *Psychologie vnímání malířských výtvarných děl v ontogenezi*. Brno :UJEP, 1986. 260 s.
- KYRIACOU, C., SUTCLIFFE, J.: Teacher stress and satisfaction. *Educ. Res.* 21, 1979, 2, 89 - 96.
- KYRIACOU, Chris. *Řešení výchovných problémů ve škole*. Praha: Portál, 2005. 151 s. ISBN 80-7178-945-3

L

- LAZARUS, R. S. *Stress and emotion: a new syntesis*. London: Springer Publishing, 1999.
- LEDER, Helmut et al. 2004. *A model of aesthetic appreciation and aesthetic judgments*. In: *British Journal of Psychology*, 2004. 95, 489 – 508.
- LESLIE, A. Hart: Human brain and human learning, *Lidský mozek a jeho učení* 1983
- LIBA, J. Výchova k zdraví ako súčasť výchovného komplexu vo školách. *Pedagogická orientace*, 2008, year 18, no. 3, p. 53–62.
- LIBA, J. *Výchova k zdraviu a škola*. Prešov: Pedagogická fakulta Prešovskej univerzity, 2005. ISBN 80-8068-336-0.
- LIBROVÁ, H. *Vlažní a váhaví (kapitoly o ekologickém luxusu)*. Brno : Doplněk, 2003. ISBN 80-7239-149-6.
- LICKONA, T. *Educating for Character. How our School Teaches Respect and Responsibility*. New York: Bantam Books, 1992.
- LIND, G. *Ist Moral lehrbar? Ergebnisse der modernen moralpsychologischen Forschung*. Berlin: Logos, 2002.
- LINHART, J. *Slovník cizích slov*. Litvínov : Dialog, 2003.
- LINTONEN, T. P., KONU, A. I. 2004. The misperceived social norms of drunkenness among early adolescents in Finland. *Health Education Research*. 19(1), 64-70.
- LOCKWOOD, A.L. The Effects of Value Clarification and Moral Development Curricula on School-age Subjects: A Critical Review of Recent Research. *Review of Educational Research*, 1978, 48, 325-364.

LUKEŠOVÁ, J., WOLESKÁ, J. Osobnost dítěte v náhradní rodinné péči a její specifi-
ka. 11. srpna 2005. Online. [citováno 25. července 2009]. Dostupné z:
https://www.zdravcentra.cz/cps/rde/xchg/zc/xsl/3141_1571.html

M

MACHOVÁ, J., KUBÁTOVÁ, D. et al. *Výchova ke zdraví*. Prague: GRADA 2009.
ISBN 978-80-247-2715-8.

MAŇÁK, J., JANÍK, T., ŠVEC, V. *Kurikulum v současné škole*. Brno : Paido, 2008.

MARÁDOVÁ, E. Perspektivy výchovy ke zdraví v transformované škole. WIEGERO-
VÁ, A. (ed.). *Fórum o premenách školy v 21. storočí*. Bratislava : Katedra
predškolnej a elementárnej pedagogiky PdF UK v Bratislavě, 2007, s.
234-243.

MARÁDOVÁ, E. To the Current Issues of Transformation of Primary and Lower Se-
condary Education in the Health Promotion Field In Řehulka, E. et al.
School and Health 21 (2). Brno : MU, 2007. ISBN 978-80-210-4374-9,
s. 71-82.

MARADOVÁ, E. *Výchova ke zdraví. Školní vzdělávací program*. Praha : Fortuna, 2006.
48 s. ISBN 80-7168-973-4

MAREŠ, J. KŘIVOHLAVÝ, J. *Komunikace ve škole*. MU Brno 1995. ISBN 80-210-
1070-3

MAREŠ, J. *Styly učení žáků a studentů*. Praha : Portál, 1998.

MAREŠ, J.: Zamyšlení nad čs. výzkumy pedagogické interakce a komunikace. In: So-
učasný stav a perspektivy pedagogického výzkumu. Bratislava, Ústav ex-
perimentální pedagogiky SAV 1990, s. 85-104.

MATTHEWS, C.E., JURJ, A.L., SHU, X.O., LI, H., YANG, G., LI, Q., GAO, Y.T.,
ZHENG W., 2007. *Influence of Exercise, Walking, Cycling, and Overall
Nonexercise Physical Activity on Mortality in Chinese Women* Am. Jour-
nal Epidemiol., 2007; 165(12): 1343 - 1350.

MATTHEWS, C.E., JURJ, A.L., SHU, X.O., LI, H., YANG, G., LI, Q., GAO, Y.T.,
ZHENG W., 2007. *Influence of Exercise, Walking, Cycling, and Overall
Nonexercise Physical Activity on Mortality in Chinese Women* Am. Jour-
nal Epidemiol., 2007; 165(12): 1343 - 1350.

Metodický pokyn MŠMT č.j. 10194/2002-14 k jednotnému postupu při omlouvání
a uvolňování žáků z vyučování, prevenci a postihu záškoláctví.

Metodický pokyn MŠMT č.j. 28275/2000-22 k prevenci a řešení šikanování mezi žáky
škol a školských zařízení.

Metodický pokyn k primární prevenci sociálně patologických jevů u dětí, žáků a stu-
dentů ve školách a školských zařízeních, č.j. 20 006/2007-51 (Věstník
MŠMT sešit 11/2007).

Metodický pokyn k zajištění bezpečnosti ochrany zdraví dětí, žáků a studentů ve ško-
lách a školských zařízeních zřizovaných MŠMT, č.j. 37 014/2005 (Věst-
ník MŠMT sešit 2/2006).

Metodický pokyn MŠMT č.j. 10007/98-26 k zajištění bezpečnosti a ochrany zdraví při
práci v regionálním školství.

Metodický pokyn MŠMT k výchově proti projevům rasismu, xenofobie a intolerance,

- MÍČEK, L.- ZEMAN, V. *Učitel a stres*. Brno: MU, 1992.
- MISTRÍK, Erich. 1994. *Vstup do umenia*. Nitra :Enigma, Jr, 1994. 98 s. ISBN 80-85471-18-3.
- MLČÁK, Z. *Psychická zátěž u dětí základní školy*. Ostrava OU, 1999.
- MOUTOUSSÉ, M.; RENOARD, G. *Přehled sociologie*. Praha : Portál, 2005. ISBN 80-7178-976-3.
- MUŽÍK, V., JANÍK, T. Tělesná výchova z pohledu absolventa základní školy. In Maňák, J., Janík, T. (Eds.). *Absolvent základní školy*. Brno : MU, 2007, s. 197-214.
- MUŽÍK, V., TRÁVNÍČEK, M. Koncepce a realizace tělesné výchovy na české základní škole. *Pedagogická revue*, 2006, vol. 58, no. 4, s. 386-398.
- MUŽÍK, V. The Czech Public's Opinions on Physical Education in Primary Schools. In ŘEHULKA, E. et al. *School and Health 21 Topical Issues in Health Education*. Brno : Masarykova univerzita, 2009, s. 19-31.
- MUŽÍKOVÁ, L. Health Education from the Primary School Head Teachers' Perspective. In Řehulka, E. et al. *School and Health 21 (2)*. Brno : MU, 2007. ISBN 978-80-210-4374-9, s. 103-110.
- MUŽÍKOVÁ, L. Health Education from the Primary School Head Teachers' Perspective. In Řehulka, E. et al. *School and Health 21 (2)*. Vyd. 1. Brno : Masarykova univerzita, 2007, s. 103-110.
- MUŽÍKOVÁ, L. Health Education from the Primary School Head Teachers' Perspective. In ŘEHULKA, E. et al. *School and Health 21 (2)*. Vyd. 1. Brno : Masarykova univerzita, 2007, s. 103-110.
- MUŽÍKOVÁ, L. K realizaci výchovy ke zdraví na základní škole. In KNECHT, P. (ed.) *Výzkum aktuálních problémů pedagogiky a oborových didaktik*. Brno : Masarykova univerzita, 2006b, s. 88-101.
- MUŽÍKOVÁ, L. *Výchova ke zdraví v současném základním školství: rigorózní práce*. Brno : Masarykova univerzita, Pedagogická fakulta MU, 2006a.
- MUŽÍKOVÁ, L. The Czech Public's Opinions on Health Education in Primary Schools. In Řehulka, E. et al. *School and Health 21 Topical Issues in Health Education*. Vyd. 1. Brno : Masarykova univerzita, 2009, s. 9-18.

N

- NAKONEČNÝ, M. *Psychologie osobnosti*. Praha : Academia, 1998. ISBN80-200-0628-1.
- NAKONEČNÝ, M. *Psychologie osobnosti*. Praha : Akademia, 1998. ISBN80-200-0628-1.
- Národná správa o ľudskom rozvoji SR 2001-2002. Determinanty zdravia. [online]. [Cit. 2007-09-03]. Dostupné na: <http://www.cphr.sk/undp2002sl_09.pdf>
- Názory občanov na problémy spojené s rozšírenosťou drog*. 2006. Bratislava : ŠÚ SR, 2006, 110 s.
- NEIGHBORS, C., DILLARD, A., LEWIS, M., BERGSTROM, R. L., NEIL, T. A. Normative Misperceptions and Temporal Precedence of Perceived Norms and Drinking. *Journal of Studies on Alcohol*. 67(2), 290-299. 2006.

NELEŠOVSKÁ, Alena. *Pedagogická komunikace v teorii a praxi*. Praha: Grada Publishing, a.s., 2005. 170 s. ISBN 80-247-0738-1

O

OCHABA, R., ROVNÝ, I., BIELIK, I. 2009. *Ochrana dětí a mládeže. Tabak, alkohol a drogy*. Bratislava, Úrad verejného zdravotníctva Slovenskej republiky. 2009, 184 s. ISBN 978-80-7159-175-7.

OLESON, K. 2004. Pluralistic Ignorance Project. [online]. [citované 6.4.2007]. Dostupné na: <<http://oleson.socialpsychology.org/>>

ORR, D. Školy pro 21. století. *Příloha zpravodaje ekologické výchovy Sisyfos* 1995, č. 10.

OTT, C. H., DOYLE, L. H. An Evaluation of the Small Group Norms Challenging Model: Changing Substance Use Misperceptions in Five Urban High Schools. *The High School Journal*. 88(3), 45-55. 2005.

P

PALMBERG, I.; KURU, J. Outdoor activities as a basis for environmental responsibility. *Journal of Environmental Education*, 31(4), 32. 2000.

PALMER, J. A. *Environmental education in the 21st Century*. London: New York, 2003.

PALMER, J. A. *Environmental education in the 21st Century*. London: New York, 2003.

PAMPLONA ROGER, J. D., *New Start*. Martin: Advent-Orion, 1995. 214s. ISBN 80-88719-51-8.

PAULÍK, K. Tachers' work load and appraisal of their health. In Řehulka, E. (ed.): *Teacher and health*. Brno: MU a Paido, 2004. 71-90.

PAULÍK, K. Učitel'ský stres a potřeba změny. In Sarmány –Schuller, I (Ed.) *Metanoia harmónia človeka.25. Psychologické dni*. Zborník príspevkov. 249-253. Bratislava: Stimul, 2007

PAULÍK, K. Pracovní spokojenost a subjektivní zdraví učitelů. In Řehulka, E., Řehulková, O. (red.): *Učitelé a zdraví 2*. 1. vydání Brno, 1999, 99-106.

PAULÍK, K., GAJDA, V. Délka výkonu profese jako jako činitel ovlivňující percepci pracovní zátěže. In Lovaš, L., Gajdošová, B. Kováčová Holevová, B. (eds.) *Psychológia Cassoviensis*. Zborník z konferencie. Košice: UPJŠ, FF 2010, 241-244.

PAULÍK, K.: Subjektivní hodnocení vlastního zdraví učitelů. In Řehulka, E., Řehulková, O. (red.): *Učitelé a zdraví 3*. Brno, 2001, 41-50.

PAULÍK, K. et al., Moderátory a mediátory zátěžové odolnosti. FF OU, Ostrava. 2009.

PAYNE, J. et al.: *Kvalita života a zdraví*. Praha: TRITON, 2005, 629 pages. ISBN 80-7254-657-0.

PELIKÁN, J. *Základy empirického výzkumu pedagogických jevů*. Praha: Karolinum, 2004. ISBN 80-7184-569-8.

PERKINS, H. W. Scope of the Problem: Misperceptions of Alcohol and Drugs. *Catalyst*, 1(3), 1-2. 1995.

PERKINS, H. W. College Student Misperceptions of Alcohol and Other Drug Norms Among Peers: Exploring Causes, Consequences and Implications for

- Prevention Programs. In: *Designing Alcohol and Other Drug Prevention Programs in Higher Education: Bringing Theory into Practice*. p. 177-206. 1997.
- PERKINS, H. W. Social Norms and the Prevention of Alcohol Misuse in Collegiate Contexts. In: Perkins, H. W.: *Journal of Studies on Alcohol*. supplement no. 14. 2002.
- PERKINS, H. W. The Emergence and Evolution of the Social Norm Approach. In: Perkins, H. W.: *The Social Norm Approach to Preventing School and Alcohol Age Substance Abuse*. San Francisco, CA: Jossey-Bass. p. 3-17. 2003.
- PERKINS, H., BERKOWITZ, A. D. Perceiving the Community Norms of Alcohol Use among Students: Some Research Implications for Campus Alcohol Education Programming. *International Journal of the Addictions*. 21(9&10), 961-976. 1998.
- PETRLÍKOVÁ, K. *Postoje učitelů k výuce sexuální výchovy na I. st. ZŠ*. - Ms. (Dipl. práce, depon. in Ústí nad Labem: knihovna PF UJEP, 1999.)
- PFLIGERSDORFFER, G. Relativnost ekologického poznání pro jednání, které je v souladu s životním prostředím. In *Výchova v rodině a škole*. Bratislava : Slovak Academy of Science, 1993.
- PFLIGERSDORFFER, G. Relativnost ekologického poznání pro jednání, které je v souladu s životním prostředím. In *Sborník Výchova v rodině a škole*. Bratislava : Slovak Academy of Science, 1993.
- PFLIGERSDORFFER, G. Relativnost ekologického poznání pro jednání, které je v souladu s životním prostředím. In *Sborník Výchova v rodině a škole*. Bratislava : Slovak Academy of Science, 1993, 67 - 77.
- PIAGET, J. *The Moral Judgment of the Child*. London: Kegan & Paul, 1932.
- PIŇOS, M. *Trauma a stres*. Internet www.pinos.
- PÍŠŠOVÁ, M. Niekoľko poznámok k stavu mravnej výchovy v súčasnej škole. *Pedagogická revue*, XLIII, 1991, 6, 411-418.
- POPELKOVÁ, M., ŠIŠKOVÁ, A., ZAŤKOVÁ, M. Životná spokojnosť a vybrané osobnostné premenné učiteľov. *Psychologie a její kontexty*, 1, 2010, 1, 15-31.
- PORÁČOVÁ, J. et al. 2008. The influence of a plant extract on the quality of Hisex braun layers eggs he influence of a plant extract. In *Planta Medica*, 2008, vol. 74, iss. 9, p. 1138
- PORÁČOVÁ, J., ŠUTIÁKOVÁ, I., NEMCOVÁ, R. et al. 2005: Fytoaditívne prípravky z hľadiska kvality potravín. *Aktuální otázky pěstování, zpracování a využití léčivých aromatických a kořeninových rostlin*. Brno: ÚPŠRA RL, AF, MZLU, Česká republika, s. 72-75
- Pravidla pro rodiče a děti k bezpečnějšímu užívání internetu, č.j.: 11691/2004-24 (Věstník MŠMT sešit 6/20004).
- PREIS, M.- VIZINOVÁ, D. *Psychické trauma a jeho terapie*. Praha: Portál, 1999.
- Program podpory zdraví ve škole: rukověť projektu Zdravá škola. Edited by Miluše Havlíková. 2nd, ext.issue, Praha: Portál, 2006. 311 pages. ISBN 80-7367-059-3.
- PRŮCHA, J. *Moderní pedagogika*. Praha : Portál, 2002.
- PRŮCHA, J. Učitel. Současné poznatky o profesi. Praha: Portál 2002.

- PRŮCHA, J. Výzkum kurikula: aplikované přístupy. In MAŇÁK, J., JANÍK, T. (Eds.) *Problémy kurikula základní školy*. Brno : Masarykova univerzita, 2006, s. 113-127.
- PRŮCHA, Jan. *Pedagogický slovník*. Praha : Portál . 1998. 328 s.ISBN 80-7178-252-1.
- PRUNNER, P. *Výzkum hodnot*. Plzeň: Euroverlag, 2002.
- PYLE, R. M. (2000b). Walking the high ride: Life as a field trip. Minneapolis: Milkweed.
- PYLE, R. M. (2002). Eden in a Vacant Lot: Special Places, Species and Kids in the Neighborhood of Life. In Kahn., P. H., Jr.; Kellert, S. R. (Eds.) *Children and nature: Psychological, sociocultural and evolutionary investigations* (str. 305-327). Cambridge, Massachusetts: MIT Press.

Q

- QUESNELL, M. *Co si myslíme, čemu věříme a kdo jsme*. Praha : Amphora, 2002. ISBN 80-200-1078.

R

- RÁ CZOVÁ, B., BABINČÁK, P. *Základy psychologie morálky*. Košice: UPJŠ, 2009.
- Rámcový vzdělávací program pro základní vzdělávání (se změnami provedenými k 1.9.2005). *Výzkumný ústav pedagogický v Praze [online]*. c2004-2005 [cit. 8.srpna 2006]. Dostupný z World Wide Web: <<http://www.vuppraha.cz/index.php?op=sections&sid=367>>
- Rámcový vzdělávací program pro základní vzdělávání*. Praha: INFRA, 2005. ISBN 80-86666-24-7.
- Resolution of the Government of the Czech Republic no 1048/2000
- REST, J.: Designing and Validating a Measure of Moral reasoning: Stage Preference and Stage Consistency Approaches. *Journal of Educational Psychology*, 1997, 89, 5-29.
- RIEDEL, Ingrid. 2002. *Obrazy v terapii, umění a náboženství*. Praha :Portál, 2002. 174 s. ISBN 80-7178-531-8.
- ROE, J. Ecotherapy – a talk to Sussex Counselling by Martin Jordan. [online]. Accessible at [www<http://www.ecotherapy.org.uk/files/ecotherapy/home/report_on_ecotherapy_talk_final_doc >](http://www.ecotherapy.org.uk/files/ecotherapy/home/report_on_ecotherapy_talk_final_doc) (cit. 2.8. 2009)
- ROSA, V., Učitel a jeho profesia – problémy a perspektívy. *Pedagogická revue*, 2003, 3, s. 216–230.
- ROVNÝ, I., HEGYI, L. *Národná správa o ľudskom rozvoji SR 2001–2002. 3. Zdravie na Slovensku*. [online]. [Cit. 2010-03-28].
- RYBÁŘ, R.: Úvodní poznámka k filozofii zdraví. In *School and Health 21* (1), Volume 1. (Ed.) Řehulka, E., MU Brno, 2006. ISBN: 80-210-4071-8.
- RÝDL, K. Škola jako místo změny. *Učitel'ské listy*, 1999/2000, č. 4, s. 8-12.
- RYCHNOVSKÝ, B. Environmentální vzdělávání a výchova ke zdraví [Environmental education and health education] Ibid
- RYCHNOVSKÝ, B. Problematika biologie ve virtuální učebnici pro terénní výuku v Jedovnicích [Issue of biology in virtual textbook for field teaching at

Jedovnice]. In Kvítek, L. et al. (eds.) *Možnosti motivace mládeže ke studiu přírodních věd* [Options of motivation of youth to natural science studies]. Miscellany, Palacký University in Olomouc, 60-66, ISBN 978-80-244-2206-0

Ř

- ŘEHULKA, E. Předmluva. In HOLČÍK, J. *Zdravotní gramotnost a její role v péči o zdraví*. Brno: MSD, 2009. ISBN 978- 80-7392-089-0.
- ŘEHULKA, E. Psychohygienu vysokoškolských učitelů. In: *Sborník XI. Mezinárodní vědecká konference ČVUT*. Brno, Faculty of Civil Engineering, Social sciences, Section No. 14, 1999, p. 43-47. ISBN 80-214-1444-8.
- ŘEHULKA, E. Sebereflexe náročných životních a profesionálních situací u učitelek ZŠ. *Pedagogická orientace*, Brno, Konvoj, 1997, No. 4, p. 7-12. ISSN 1211-4669.
- ŘEHULKA, E. Vrachuvannja profesijných navantažen včyteliv v koncepciji jich psychologičenoi osvity. *Psychologie* č. 4, Kiev University, 1999, p. 149-153
- ŘEHULKA, E., ŘEHULKOVÁ, O. Problematika tělesné a psychické zátěže při výkonu učitelského povolání. In: *Učitelé a zdraví 1*. Brno, Publisher Pavel Křepela, 1998, p. 99-105.
- ŘEHULKA, E., ŘEHULKOVÁ, O. Problematika tělesné a psychické zátěže při výkonu učitelského povolání. In.: sb. ed. E.Řehulka, O. Řehulková: *Učitelé a zdraví*. PÚ AV ČR Brno 1998. s.99-104. ISBN 80-902653-0-8
- ŘEHULKA, E., ŘEHULKOVÁ, O. Učitelky a učitelé. In: Řehulka, E., Řehulková, O. (Eds.): *Učitelé a zdraví 3*. Brno, Publisher Pavel Křepela, 2001, p.143-152.
- ŘEHULKA, E., ŘEHULKOVÁ, O. Učitelky ZŠ a zdraví. In *Človek na počiatku nového tisícročia*. Bratislava, SAV, 1998, p. 80-83. ISBN 80-967228-9-1.
- ŘEHULKA, E. Das Programm Gesundheit im 21. Jahrhundert der WHO und das gegenwärtige tschechische Schulsystem. In *Neue Herausforderungen im Gesundheitsbereich an der Schule*. Brno: Masaryk University, Brno, 2006, p. 66-74. ISBN 80-210-4191-9.
- ŘEHULKA, E. Zdraví jako hodnota v pojetí učitelek základních škol. In *Hodnoty a výchova*. Brno: MSD, spol. s.r.o., 2007, p. 73-79. ISBN 978-80-86633-78-7.
- ŘEHULKOVÁ, O., ŘEHULKA, E. Zvládání zátěžových situací a některé jejich důsledky u učitelek. In: *Učitelé a zdraví 1*. Brno, Publisher: P. Křepela, 1998, p. 105-113.
- ŘEZÁČ, J. *Sociální psychologie*. Brno: Paido, 1998. ISBN 80-85931-48-6.
- ŘÍČAN, Pavel. *Agresivita a šikana mezi dětmi. Jak dát dětem ve škole pocit bezpečí*. Praha: Portál, 1995. 95 s. ISBN 80-7178-049-9

S

- SABINI, J. *Social Psychology*. London: W. W. Norton & Company, Inc. ISBN 0-393-96201-6. 1992.

- SANNE, Ch. Willing consumers-or locked-in? Policies for a sustainable consumption. *Ecological Economics*, 2002, vol. 42, no. 3, p. 273-287. ISSN 0921-8009.
- SAUNDERS, C. The emerging field of conservation psychology. *Human Ecology Review*, 10(2), 137-149. 2003.
- SCOTT, D.; WILLITS, F. Environmental Attitudes and Behavior a Pennsylvania Survey. *Environmental and Behavior*, 1994, vol. 26, no. 2, p. 239-260. ISSN 0013-9165.
- Sdělení MŠMT k učebním plánům vzdělávacích programů ZÁKLADNÍ ŠKOLA, OBECNÁ ŠKOLA a NÁRODNÍ ŠKOLA (od 1. 9.2006). *Ministerstvo školství, mládeže a tělovýchovy ČR [online]*. 2006-04-18 [cit. 1.srpna.2006]. Dostupný z World Wide Web: <http://www.msmt.cz/_DOMEK/default.asp?ARI=104043&CAI=2701>
- SELYE, H. *Život a stres*. Bratislava: Obzor, 1966.
- SCHLÄFLI, A., REST, J.R., THOMA, S.J. Does Moral Education Improve Moral Judgment? A Meta-analysis of Intervention Studies Using the Defining Issues Test. *Review of Educational Research*, 1985, 55, 319-352.
- SCHULTZ, C. G., Neighbors, C. 2007. Perceived Norms and Alcohol Consumption: Differences Between College Students From Rural and Urban High Schools. *Journal of American College Health*. 56(3), 261-265.
- SCHUSTERMAN, Richard. 2003. *Eстетika pragmatizmu*. Bratislava :Kaligram, 2003. 424 s. ISBN 80-7149-528-X.
- SKOVAJSOVÁ, P. Znalost první pomoci u absolventů pedagogické fakulty MU. Brno: MU, 2008. Bakalářská práce. 43 s.
- SKULA, P. první pomoc ve výuce na ZŠ. Brno: MU, 2010. Diplomová práce. 99 s. *Social Ties and Good Health*. [online]. [Cit. 2009-09-15].
- SOLLÁROVÁ, E. 1999. Ostatné protidrogové programy, ich metódy a hodnotenie účinnosti. In: Protidrogová výchova. Nitra: UKF. 236-244.
- SOLLÁROVÁ, E. 2000. Primárna drogová prevencia v podmienkach školy. In: Pedagogické a psychologické otázky výchovy k drogovej prevencii. Nitra: UKF. 129-183.
- SOLLÁROVÁ, E. 2004. Socializácia. In: Sociálna psychológia. Bratislava: UK. s. 168-180.
- SOLLÁROVÁ, E. 2008. Socializace. In: Sociální psychologie. Praha: Grada. s. 49-64.
- Souhrnné poznatky z inspekce bezpečnosti a ochrany zdraví ve školním roce 2008/2009*. ČŠI, 2009. Dostupné na: <http://www.csicr.cz/cz/85281-souhrnne-poznatky-z-inspekce-bezpecnosti-a-ochrany-zdravi-ve-skolnim-roce-20082009>
- SPIPKOVÁ, V. Tvorba kvalitního klimatu (školy, třídy) – výzva pro učitelské vzdělávání. In *Chráška, M., Tomanová, D., Holoušová, D. (eds.) Klima současné české školy*. Brno : Konvoj, 2003, s. 341-349. ISBN 80-7203-064-5.
- Spolupráce předškolních zařízení, škol a školských zařízení s Policií ČR při prevenci a při vyšetřování kriminality dětí a mládeže a kriminality na dětech a mládeži páchané, čj.: 25 884/2003-24 (Věstník MŠMT sešit 11/2003).
- Standard základního vzdělávání, čj. 20819/95-26, ze dne 22. 8. 1995. *Ministerstvo školství, mládeže a tělovýchovy ČR [online]*. 1995-08-22 [cit. 6. října 2005]. Dostupný z World Wide Web: <http://www.msmt.cz/Files/HTML/Standard_ZV.htm>

- Standard základního vzdělávání, čj. 20819/95-26, ze dne 22. 8. 1995. *Ministerstvo školství, mládeže a tělovýchovy ČR [online]*. 1995-08-22 [cit. 15. 7. 2007]. Dostupný z World Wide Web: <http://www.msmt.cz/Files/HTM/Standard_ZV.htm>
- STOJAN, M. *Prevence účasti dětí na dopravních nehodách v zrcadle rozsahu a forem dopravní výchovy dětí a mládeže ve vybraných zemích EU, část 2*. In Škola a zdraví 21. Monografický sborník výzkumného záměru MSM0021622421. Brno: Masarykova univerzita 2007. 10 s. ISBN 80-900915-3-9
- STOJAN, M. *Prevence účasti dětí na dopravních nehodách v zrcadle rozsahu a forem dopravní výchovy dětí a mládeže ve vybraných zemích EU, část 1*. In Škola a zdraví 21. Monografický sborník výzkumného záměru MSM0021622421. Brno: Masarykova univerzita 2006. 12 s.
- STOJAN, M. *Srovnání forem a rozsahu dopravní výchovy dětí a mládeže v mezinárodních výzkumných projektech*. In XXVIII. mezinárodní kolokvium o řízení vzdělávacího procesu. Brno: Univerzita obrany 2010. 6 s. ISBN 978-80-7231-722-6.
- STRAPÁČ, I., SOKOL, J., KORÉNEKOVÁ, B. et al. 2008. Obsah selénu v potravinách denní spotřeby. The content of selenium in daily consumption food. XXXVIII. LENFELDOVY A HÖKLOVY DNY konference o hygieně a technologiích potravin při příležitosti 90. Výročí založení VFU Brno; Sborník Brno 12. A 13. Listopad 2008, s. 195-198.
- STREJČKOVÁ a kol. (2005). Děti, aby byly a žily. Doplněk výzkumného úkolu „Odcizování člověka přírodě“, uspořádala Emilie Strejčková. Praha: Ministerstvo životního prostředí.
- STREJČKOVÁ, E. (2006). Výzkum odcizování člověka přírodě : Závěrečná zpráva [online]. Praha: Toulcův dvůr. [cit. 17. 2. 2008]. Dostupný na: <<http://www.detiamesto.cz>>
- STŘELEČ, S. *Studie z teorie metodiky výchovy*. 1st edition Brno: MSD, spol. s.r.o., 2002. 155 p. ISBN 80-86633-00-4
- STŘELEČ, S., KRÁTKÁ, J. Faktory ovlivňující náročnost práce třídního učitele na základní a střední škole. In DANEK, J.- SIROTOVÁ, M. A KOL. *Učitel'ské povolanie v podmienkach súčasnej spoločnosti*. 1. vyd. Trnava : Univerzita sv. Cyrila a Metoda v Trnave, 2009. pp. 248-269. ISBN 978-80-8105-106-7.
- STŘELEČ, S., KRÁTKÁ, J. Podpora zdraví žáků prostřednictvím činností třídního učitele. In ŘEHULKA, E. (ed.) *Škola a zdraví pro 21. století I (School and Health 21.)* Brno: Paido, 2006, pp. 383-393. ISBN 80-7315-119-7. Strategie prevence sociálně patologických jevů u dětí a mládeže v působnosti resortu školství, mládeže a tělovýchovy na období 2005-2008, č.j.: 10 844/2005-24.
- STŘELEČ, S.; KRÁTKÁ, J. Socio-health aspects in class teachers' activities and their appreciation by pupils. In ŘEHULKA, ET AL. *School and health 21 – Social and Health Aspects of Health Education*. Brno: MSD, 2008, s. 35-44. ISBN 978-80-7392-043-2.

SVATOŠ, T. Sociálně komunikativní příprava budoucích učitelů. *Pedagogika*, 1999, roč. 49, č.3, s.249-260).

Š

ŠEVČÍKOVÁ, L. et al. 2006. *Hygiena*. Bratislava, Univerzita Komenského, 2006, 328 s. ISBN 80-223-2103-6.

ŠIMEK, J. – ŠPALEK, V. *Filozofické základy lékařské etiky*. 1st issue. Praha: Grada Publishing a.s., 2003, 112 pages. ISBN 80-247-0440-4.

ŠIMÍČEK, J., ŠIMÍČKOVÁ-ČÍŽKOVÁ, J., ZAVADILOVÁ, V. (2008). Znalosti vysokoškoláků o civilizačních onemocněních. *Agel Academy*, roč. 2, s. 155 – 155.

ŠIMÍČKOVÁ-ČÍŽKOVÁ, J., VAŠINA, B. (2005). Životní cíle a kvalita života učitelek základní školy. *Acta humanica*, s. 161 – 168.

ŠIMÍČKOVÁ-ČÍŽKOVÁ, J., VAŠINA, B., ŠIŠÁK, P. (2007). Výchova ke zdraví a téma zdraví jako aspekt kvality života univerzitních studentů. *Psychická odolnosť a psychológia zdravia*. Bratislava: Sekcia psychologie zdravia SPS pri SAV vo Vydavateľstve MAURO Slovana s.r.o., s. 153 – 159.

ŠIŠÁK, P., ŠIMÍČKOVÁ-ČÍŽKOVÁ, J., VAŠINA, B. (2009). Výchova ke zdraví – nová profesní příprava učitelů. *Nová role učitele – budoucnost učitelů ve světě práce v Moravskoslezském kraji*. Ostrava: Ostravská univerzita v Ostravě, s. 265 – 271.

Škola podporující zdraví. Dostupné na: <http://www.program-spz.cz/cs>

ŠMAJS, J. *Kultura proti přírodě*. Brno Publisher “Zvláštní vydání...”, 1994. ISBN 80 86202-77-1

ŠMAJS, J. *Potřebujeme filosofii přežít? Úvahy o filosofii, kultuře, poznání, vzděláním řeči a popularizaci vědy*. Brno Doplněk, 2008. ISBN 978-80-7239-221-6.

ŠMAJS, J. Výzkum odcizování člověka přírodě (oponentický posudek). In STREJČKOVÁ, E. A KOL. *Děti, aby byly a žily*. Prague Ministerstvo životního prostředí, 2005, s. 93 – 95. ISBN 80-7212-382-3

ŠOLCÖVÁ, I., KEBZA, V. Stres, jeho zvládání, psychologické faktory a imunitní faktory. In Selko, D. (ed.) *Psychická odolnosť a psychológia zdravia*. Bratislava: MAURO Slovakia, 2007, 27-44.

ŠULEK, M. *Výkonnosť a mentálne zdravie manažera*. Banská Bystrica:UMB, 1998.

ŠVEC, Š. aj. *Metodológia vied o výchove*. Bratislava : IRIS, 1998. ISBN 80-88778-73-5.

ŠVEC, Š. Taxomická štruktúra spôsobilostí a spôsobilostí. *Pedagogická revue*, 56, 2004, 1, s. 16-35.

T

TERJENČÍKOVÁ, M., OROSOVÁ, O. K sociálnopsychologickým výcvikom učiteľov ZŠ. *Školský psychológ*, č. 3/4, 1994.

THOMBS, D. L., Olds, R. S., OSBORN, C. J., CASSEDAY, S., GLAVION, K., BERKOWITZ, A. Outcomes of a Technology – Based Social Norms Intervention to Deter Alcohol Use in Freshman Residence Halls. In: *Journal of American College Health*. 55(6), 225-333. 2007.

- TRAVERS, C. J., COOPER, C. L. *Teachers pressure. Stress in teaching profession.* London: Routledge, 1996.
- TŮMA, J. *Vyučování prvouce na školách venkovských.* Praha: Česká grafická unie, 1920.

U

- ULRICH, R.; SIMONS, R.; LOSITO, B.; FIORITO, E.; Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology*, 1991, 1, 201-230.
- URBÁNEK, T. (2008). K prezentaci výsledků statistických analýz I.. *Československá psychologie*, 51, 6, str. 601-609.

V

- VACEK, P. *Morální vývoj v mladším školním věku.* In: BLÁHOVÁ, K. *Uvedení do systému školní dramatiky.* Prague: IPOS, 1996, 15-19.
- VÁGNEROVÁ, Marie. *Školní poradenská psychologie pro pedagogy.* Praha: Karolinum, 2005. 430 s. ISBN 80-246-1074-4
- VALENTA, J. *Scénologie krajiny.* Prague Publisher KANT – Karel Kerlický, 2008.
- VALENTA, J. Učit se být (Soubor témat pro osobnostní a sociální výchovu s ukázkami metod). ASIS STROM 2003. ISBN 80-86106-10-1
- VALEŠKOVÁ S., 2006. Ovládá nás jídlo. In: *Meduňka, roč. 3, 2006, č. 2, s. 20*
- VALÍČEK, P., et al. Rostlinné omamné drogy. Benešov: Start, 2000, s. 162.
- VANÍČKOVÁ, E., PROVAZNÍK, K., HADJ-MOUSSOVÁ, Z. *Sexuální násilí na dětech.* Praha: Portál, 1999, s. 82-83. ISBN 80-7178-286-6.
- VAŠINA, B. VALOŠKOVÁ, M. Učitel-pracovní zátěž-zdraví. In In Řehulka, E., Řehulková, O. (red.): *Učitelé a zdraví.* Brno: PSÚ AV ČR, P. Křepela, 1998, 7-26.
- VAŠUTOVÁ, J. Kvalifikační předpoklady pro nové role učitelů. In *Učitelé jako profesní skupina, jejich vzdělávání a podpůrný systém. I. díl.* Sborník z celostátní konference. Praha : UK, 2001, s. 19 - 46.
- VAŠUTOVÁ, J. *Profese učitele v českém vzdělávacím kontextu.* Brno: Paido 2004. ISBN 80-7315-082-4
- VAVROUŠEK, J. Lidské hodnoty slučitelné s trvale udržitelným způsobem života. In *Lidské hodnoty a trvale udržitelný způsob života.* Sborník. Olomouc : Univerzita Palackého, 1993, s. 91 - 100.
- VENTEGODT, S., MERRICK, J., 2003. *Lifestyle, Quality of Life, and Health* The Scientific World Journal, Vol. 3, 2003, s. 811-825
- VIŠŇÁK, R. „Příroda — no a?“ In *Sedmá generace*, 2009, issue no. 2.
- VITOUŠOVÁ, P. Vykázání za rok 2008. Komentář k analýze dat „Vykázání / zákaz vstupu v ČR“ v roce 2008. Datum publikace neuváděno. Online. [citováno 4. srpna 2009]. Dostupné z: <http://www.domacinasil.cz/cz/redakce/novinky-nazory/vykazani-v-roce-2008/r17>.
- Vyhlaška 72/2005 Sb. o poskytování poradenských služeb ve školách a školských poradenských zařízeních.* 2005. Available at: <<http://www.msmt.cz>>.
- Vyhlaška MŠMT č. 48/2005 Sb., o základním vzdělávání a některých záležitostech plnění povinné školní docházky.*

Vyhláška MŠMT č. 72/2005 Sb., o poskytování poradenských služeb ve školách a školských poradenských zařízeních.

Výživová doporučení CINDI. 2000. Praha – Kodaň, Státní zdravotní ústav, 2000, 41 s.

W

WALSCH, NEALE DONALD: *Hovory s bohem II*. Praha: Pragma, 1999, 232, ISBN: 80-7205-645-X.

WALTEROVÁ, E. Učitelé: Proměny profese a rekonstrukce jejich profese. *Pedagogická revue*, 54, 2002, 3, 220-239.

WIEGEROVÁ, A. Separovat' alebo integrovat' zdravotnú výchovu a protidrogovú výchovu na základných školách? In Wiegerová, A. (ed.) *Cesty demokracie vo výchove a vzdelávaní VIII*. Bratislava : PdF UK, 2004. ISBN 80-969146-0-X.

WIEGEROVÁ, A. *Učiteľ – škola – zdravie alebo pohľad na cieľový program zdravotnej výchovy cez názory a postoje učiteľov I. stupňa základných škôl*. Bratislava : REGENT, 2005. ISBN 80-88904-37-4.

WILHELM, Z. *Stručný přehled fyziologie člověka pro bakalářské studijní programy*. 3rd modified edition, Brno: Masaryk University of Brno, 2005. 114 p. ISBN 80-210-2837-8

WROCZYŃSKI, R. *Sociálna pedagogika*. Bratislava: SPN, 1968.

Y

YOUNG, I., WILIAMS, T. *Zdravá škola (správa škotskej skupiny zdravotnej výchovy a SZO)*. Bratislava: ÚZV, 1993.

Z

Základní informace. Datum publikace neuvedeno. Online. [citováno 30. července 2009]. Dostupné z: http://donalinka.cz/redaction.php?action=showRedaction&id_categoryNode=355

Zákon č. 140/1961 Sb., trestní zákon, ve znění pozdějších předpisů.

ZANDEN, J. W. *Social psychology*. New York: McGraw-Hill, Inc. 1987.

ZELINA M. Kvalita života. In Sborník *Kvantita verzus kvalita?* Bratislava generálny sekretariát Výboru ministrov pre drogové závislosti a kontrolu drog, Úrad vlády SR, 2001, pgs. 40-49. ISBN 80-968650-6-4.

Ž

ŽALOUĐÍKOVÁ, I. Analýza stavu informovanosti a postojů žáků, studentů a učitelů k hlavním zdravotním rizikům se zvláštním zřetelem k onkologické problematice - pilotní studie. In *Sociální a kulturní souvislosti výchovy. II. výroční konference ČAPV s mezinárodní účastí*. [CD-ROM]. Brno: Paido, 2003.

ŽALOUĐÍKOVÁ, I. Informovanost žáků, studentů a učitelů o hlavních zdravotních rizicích jako součást výchovy ke zdraví na ZŠ. *Pedagogická orientace*, 2004, vol. 14, no. 2, s. 50-57.

ŽILÍNEK, M. *Étos a utváranie mravnej identity osobnosti*. Bratislava: IRIS, 1997.

LIST OF AUTHORS

Prof. PhDr. Bohumír BLÍŽKOVSKÝ, CSc.

Masarykova univerzita
Pedagogická fakulta
Brno

PhDr. Tomáš ČECH, Ph.D.

Masarykova univerzita
Pedagogická fakulta
Katedra sociální pedagogiky
Poříčí 31, 603 00 Brno
Tel.: 549 49 3645
E-mail: cech@jumbo.ped.muni.cz

Prof. dr. Maria S. GONCHARENKO

V. N. Karazin Kharkov National University,
School of Philosophy
The Department of valeology
Svobody sq. 4, Kharkov, 610 77 UA
Tel.: 700 38 36 707 56 33
E-mail: valeolog@univer.kharkov.ua

PhDr. Martin GRIM

Masarykova univerzita
Pedagogická fakulta
katedra pedagogiky
Poříčí 31, 60300 Brno
Tel.: 00420 776 759 366
E-mail: mgrim@nbox.cz

Doc. MUDr. Marie HAVELKOVÁ, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra rodinné výchovy a výchovy ke zdraví
Poříčí 31, 603 00 Brno
Tel.: 549 494 257
E-mail: havelkova@ped.muni.cz

Ing. Jitka HEINRICHOVÁ

HBH Projekt, spol. s r. o.,
Projektová kancelář pro dopravní
a inženýrské stavby,
ateliér dopravního inženýrství
Hrnčířská 3
60200 Brno
E-mail: j.heinrichova@hbh.cz

Doc. PaedDr. Hana HORKÁ, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra pedagogiky
Poříčí 31, 603 00 Brno
Tel.: 549 49 4496
E-mail: horka@ped.muni.cz

Mgr. Zdeněk HROMÁDKA

Masarykova univerzita
Pedagogická fakulta
Katedra pedagogiky
Poříčí 31, 603 00 Brno
Tel.: 549 49 4496

Mgr. Miroslav JANDA

Masarykova univerzita
Pedagogická fakulta
Katedra pedagogiky
Poříčí 31, 602 00 Brno
Tel: 549 49 4720
E-mail: janda@ped.muni.cz

Doc. MVDr. Tatiana KIMÁKOVÁ, Ph.D.

Ústav verejného zdravotníctva
Univerzita Pavla Jozefa Šafárika
Lekárska fakulta,
Šrobárova 2, 04180 Košice, Slovenská
republika
E-mail: tatiana.kimakova@upjs.sk

Prof. PhDr. Rudolf KOHOUTEK, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra psychologie
Poříčí 31, 603 00 Brno
Tel.: 549 49 6671
E-mail: kohoutek@jumbo.ped.muni.cz

Mgr. Jana KRÁTKÁ, Ph.D.

Masarykova univerzita
Pedagogická fakulta
Katedra pedagogiky
Poříčí 31, 603 00 Brno
E-mail: j.m.kratka@seznam.cz

Mgr. Dagmar KUBÁTOVÁ, Ph.D.

Univerzita J. Ev. Purkyně v Ústí nad Labem
Pedagogická fakulta
Katedra primárního vzdělávání
Hoření 13, 400 96 - Ústí nad Labem,
Tel.: 475282150
E-mail: dagmar.kubatova@ujep.cz

Bc. Ing. Viktor KULHAVÝ, MSLS

Katedra podnikového hospodářství
Ekonomicko-správní fakulta Masarykovy
univerzity
Lipová 41a
Brno, 602 00
E-mail: kulhavy@econ.muni.cz

PaedDr. Petra LAJČIAKOVÁ, Ph.D.

Katedra psychologie FF KU
Hrabovská cesta 1
034 01 Ružomberok, SR
E-mail: lajciakova@ff.ku.sk

Mgr. Michaela LUKAČIKOVÁ, Ph.D.

Komenského 672/27
068 01 Medzilaborce
Slovensko

PaedDr. Eva MARÁDOVÁ, CSc.

Univerzita Karlova v Praze,
Pedagogická fakulta
M. D. Rettigové 4, 116 39 Praha 1
tel.: 00420 221 900 186
E-mail: eva.maradova@pedf.cuni.cz

Doc. PaedDr. Vladislav MUŽÍK, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra tělesné výchovy
Poříčí 31, 603 00 Brno
Tel.: 549 49 5702
E-mail: muzik@ped.muni.cz

PhDr. Leona MUŽÍKOVÁ, Ph.D.

Masarykova univerzita
Pedagogická fakulta
Katedra rodinné výchovy a výchovy ke zdraví
Poříčí 31, 603 00 Brno
tel.: 549 49 5737
E-mail: muzikova@ped.muni.cz

Prof. PhDr. Karel PAULÍK, CSc.

Ostravská univerzita v Ostravě
Filozofická fakulta
Reální 5
701 03 Ostrava
E-mail: paulik@osu.cz

Ing. Ivona PAVELEKOVÁ, CSc.

Trnavská univerzita
Pedagogická fakulta
Katedra chémie
Priemyselná 4, Trnava
Slovenská republika
E-mail: ipavelek@truni.sk

Ing. Viera PETERKOVÁ

Trnavská univerzita
Pedagogická fakulta
Katedra biológie
Priemyselná 4, Trnava
Slovenská republika
E-mail: vpeterka@truni.sk

**PhDr. et RNDr. Alice PROKOPOVÁ,
Ph.D.**

Masarykova univerzita
Pedagogická fakulta
Katedra rodinné výchovy a výchovy ke zdraví
Poříčí 31, 603 00 Brno
tel. 549 496397
E-mail: prokopova@ped.muni.cz

PhDr. Mgr. Jitka REISSMANNOVÁ

Masarykova univerzita
Pedagogická fakulta
Katedra rodinné výchovy a výchovy ke zdraví
Poříčí 31, 603 00 Brno
Tel: 549 49 8212
E-mail: reissmannova@ped.muni.cz

PaedDr. Martina ROMANOVÁ, PhD.

Univerzita Konštantína Filozofa v Nitre
Ústav aplikovanej psychológie
Fakulta sociálnych vied a zdravotníctva UKF
Piaristická 10, 949 74 Nitra
E-mail: mromanova@ukf.sk

PhDr. Radovan RYBÁŘ, Ph.D.

Masarykova univerzita
Pedagogická fakulta
Katedra občanské výchovy
Poříčí 31, 603 00 Brno
Tel.: 549 49 6552
E-mail: Rybar@jumbo.ped.muni.cz

doc. RNDr. Boris RYCHNOVSKÝ, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra biologie
Poříčí 7, 603 00 Brno
Tel: 549 49 6586
E-mail: rychnovsky@ped.muni.cz

Doc. PhDr. Evžen ŘEHULKA, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra psychologie
Poříčí 31, 603 00 Brno
Tel.: 549 49 6671
E-mail: rehulka@jumbo.ped.muni.cz

PhDr. Jaroslav ŘEZÁČ, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra psychologie
Poříčí 31, 603 00 Brno
Tel.: 549 49 6688
E-mail: rezac@jumbo.ped.muni.cz

PhDr. Tomáš SOLLÁR, PhD.

Univerzita Konštantína Filozofa v Nitre
Ústav aplikovanej psychológie
Fakulta sociálnych vied a zdravotníctva UKF
Piaristická 10, 949 74 Nitra
Tel:421 377 728 051
E-mail: tsollar@ukf.sk

Doc. RNDr. PhDr. Mojmír STOJAN, CSc.

Masarykova univerzita
Pedagogická fakulta
Poříčí 31, 603 00 Brno
Tel.: 549 49 6943
E-mail: stojan@ped.muni.cz

Doc. PhDr. Stanislav STŘELEČEK, CSc.

Masarykova univerzita
Pedagogická fakulta
Katedra pedagogiky
Poříčí 31, 603 00 Brno
Tel.: 549 49 7028
E-mail: strelec@ped.muni.cz

MUDr. Jaroslav ŠIMÍČEK, CSc.

Ostravská univerzita v Ostravě
Fakulta sociálních studií
Ostrava

**Doc. PhDr. Jitka ŠIMÍČKOVÁ – ČÍŽ-
KOVÁ, CSc.**

Ostravská univerzita v Ostravě
Pedagogická fakulta
Katedra pedagogické a školní psychologie
Fr. Šrámka 3, 709 00 Ostrava-Mariánské Hory
Tel.: 597 092 685
E-mail: jitka_cizkova@osu.cz

A. N. TYMCHENKO, Ph.D.

V. N. Karazin Kharkov National University,
School of Philosophy
The Department of valeology
Kharkov, (Ukraina)

PhDr. Jana VESELÁ, Ph.D.

Masarykova univerzita
Pedagogická fakulta
Poříčí 31, 603 00 Brno

NAME INDEX

A

ÁGHOVÁ, L. 278, 379
ANTIKAINEN, R. 385
AUGER, M. T. 379
AUMONT, J. 379

B

BABINČÁK, P. 367, 394
BACQUER, D. D. 283, 290, 293, 297, 380, 381
BAJAN, A. 379
BAJUŽÍKOVÁ, A. 379
BALÁŽ, O. 86, 379
BARENGO, N. C. 290, 379, 385
BARKER, G. 383
BAŠTECKÁ, B. 327, 379
BĚLIČKOVÁ, E. 33, 379
BENDL, S. 228, 231, 365, 379
BEŇO, P. 348, 355, 379
BERGSTROM, R. L. 391
BERKOWITZ, A. D. 241-243, 379, 393, 398
BIELIK, I. 392
BIXLER, R. D. 144, 204, 379
BLAHUTKOVÁ, M. 379
BLAŠČÍKOVÁ, A. 370, 388
BORSARI, B. 242, 380
BORSKÁ, I. 354, 380
BOUCHARLAT, Ch 379
BRIFFA, J. 293, 380
BROWNER, C. M. 380
BUBELINIOVÁ, M. 131, 174, 180, 380, 385
BUDSKÝ, R. 221, 380
BULL, N. J. 366, 380

C

CAREY, K. B. 242, 380
CIALDINI, R. B. 242, 380
CLAXTON, G. 217, 380

COLE, M.	124, 380
CONTOYANNIS, P.	283, 293, 380
COOPER, C. L.	123, 399
Č	
ČECH, T.	5, 6, 33, 347, 355, 357, 358, 381, 387, 401
ČERMÁK, I.	330, 381
ČEŠKA, R.	382
ČINČERA, J.	217, 381
D	
DANIEL, J.	124, 381
DE BACKER, G. G.	283, 290, 293, 297, 380, 381
DE HAAN, G.	381
DE YOUNG, R.	381
DEJONG, W.	243, 381
DEMAINE, L. J.	242, 380
DIAMON, H.	287, 381
DILLARD, A.	391
DITTRICH, P.	381
DOULÍK, P.	383
DOYLE, L. H.	245, 248, 392
DUNCIN, A.	216, 381
E	
ELEK, E.	242, 382
ENRIGHT, R. D.	370, 382
FAIT, T.	382
FELDMAN, F.	382
FERJENČÍK, J.	245, 382
FIORITO, E.	399
FLOYD, M. F.	144, 204, 379
FRANĚK, M.	202, 204, 205, 217, 382
FRANK, J.	216, 381
FRIČ, J.	387
FRITZ, J.	382
FROSTOVÁ, J.	108, 382
G	
GAJDA, V.	130, 392
GAJDOŠOVÁ, E.	382, 392
GÁL, F.	387
GAO, Y. T.	390
GARDNER, G. T.	217, 382

GILL, N. 216, 381
GILLERNOVÁ, H. 382

H

HADJ-MOUSSOVÁ, Z. 399
HAINES, M. P. 243, 383
HAJEROVÁ-MÜLLEROVÁ, L. 383
HANUŠOVÁ, J. 383
HARRIS, D.J. 382
HAVLÍNOVÁ, M. 18, 90, 131, 134, 348, 383, 393
HAVLOVÁ, J. 383
HEGYI, L. 276, 277, 383, 394
HECHT, M. L. 382
HERÉNYIOVÁ, G. 382
HERMOCHOVÁ, S. 231, 382, 383
HIGGINS, A. 370, 383
HLOUCALOVÁ, H. 33, 383
HÖFER, L. 200, 379
HOLČÍK, J. 31, 58, 85, 86, 383, 395
HOLIBKOVÁ, A. 383
HORÁČEK, R. 374, 383
HORÁK, J. 216, 384
HORKÁ, H. 4, 131-134, 164, 171, 172, 174, 175,
179, 180, 201, 214, 384, 385, 401
HU, G. 290, 297, 379, 385
HUBEROVÁ, B. 354, 355, 385
HUCKLE, J. 131, 385
HUNDT, R. 385

CH

CHRÁSKA, M. 211, 385, 396

I

ISEROVÁ, L. 49, 385

J

JACENKO, T. S. 385
JANDOUREK, J. 184, 210, 385
JANÍK, T. 32, 74, 385, 390, 391, 394
JANÍKOVÁ, M. 74, 385
JANKOVSKÝ, J. 338, 386
JANOŠKOVÁ, D. 224, 386
JANOUSEK, V. 354, 386
JEŘÁBEK, J. 195, 386
JOHANSSON, S. E. 283, 293, 386

JONES, A. M.	283, 293, 380
JORDÁN, M.	203, 386, 394
JOUSILAHTI, P.	283, 385
JURJ, A. L.	390
JURKOVIČOVÁ, J.	278, 386
K	
KAHN, Jr., P. H.	140, 144, 157, 158, 204, 386, 387, 394
KALHOUS, Z.	386
KALLGREN, C. A.	380
KANEHISA, M.	283, 284, 286, 293, 298, 386, 387
KANTOR, D.	348, 349, 356, 387
KEBZA, V.	124, 125, 398
KELLER, J.	190, 215, 216, 387
KELLERT, S. R.	140, 144, 145, 156-158, 386, 387, 394
KELNAROVÁ, J.	5, 221, 387
KIMÁKOVÁ, T.	5, 275, 278, 387, 401
KIVIPELTO, M.	385
KLÁPŠTĚ, P.	155, 387
KLUCKHOHN, F.	387
KLUSOŇ, P.	384
KOHÁK, E.	187, 214, 387
KOHLBERG, L.	142, 366, 387
KOHOUTEK, R.	5, 315, 387, 402
KOLÁŘ, M.	228, 231, 234, 387
KOLÁŘ, Z.	228, 231, 235, 387
KÖLTZE, H.	387
KOMENSKÝ, J. A.	10, 11, 94, 118, 387
KONDRLA, P.	370, 388
KONU, A. I.	241, 389
KOPECKÁ, I.	45, 46, 388
KORÉNEKOVÁ, B.	280, 388, 397
KOTÁSEK, J.	162, 388
KOUCKÁ, P.	204, 388
KOŽÁROVÁ, I.	388
KRAJHANZL, J.	139-141, 143, 144, 146, 147, 149, 150, 152, 157, 202, 388
KRÁTKÁ, J.	3, 88, 93, 94, 99, 388, 397
KRATOCHVÍL, S.	388
KRATZ, H. J.	388
KŘIVOHLAVÝ, J.	337, 388, 390
KUBÁTOVÁ, D.	3, 41, 44, 48, 58, 388-390, 404
KUBÍKOVÁ, Z.	221, 389

KULHAVÝ, V.	4, 139, 153, 155, 203, 204, 389, 402
KULICH, J.	384
KULKA, J.	375, 389
KUNDERA, V	74, 385
KURIC, J.	2, 374, 375, 389
KURU, J.	155, 392
KYRIACOU, C.	124, 125, 389

L

LACINOVÁ, I.	383
LAKKA, T. A.	379, 385
LANGFORD, L. M.	243, 381
LAPSLEY, D. K.	382
LAZARUS, R. S.	337, 389
LEDER, H.	377, 379, 389
LEICHMAN, S.	383
LEMING, J. S.	370, 383
LESLIE, A.	389
LEWIS, M.	391
LI, H.	390
LI, Q.	390
LIBA, J.	31, 131, 132, 134, 389
LIBROVÁ, H.	218, 389
LICKONA, T.	389
LIND, G.	370, 389
LINHART, J.	210, 384, 389
LINTONEN, T. P.	241, 389
LIŠKOVÁ, E.	384
LOCKWOOD, A. L.	370, 389
LOSITO, B	399
LUKEŠOVÁ, J.	390

M

MÁCHAL, A.	384
MACHOVÁ, J.	58, 390
MAŇÁK, J.	32, 385, 390, 391, 394
MARÁDOVÁ, E.	3, 23, 24, 33, 58, 225, 390, 402
MAREŠ, J.	93, 358, 390
MATOUŠEK, R.	221, 380
MATTHEWS, C. E.	290, 297, 390
MCCMAHON, K.	387
MERRICK, J.	283, 284, 286, 293, 298, 399
MÍČEK, L.	338, 391
MILLER-DAY, M.	382

MISTRÍK, E. 374, 375, 391
 MLČÁK, Z. 330, 391
 MOUTOUSSE, M. 391
 MUŽÍK, V. 3, 33, 73, 74, 385, 391, 402
 MUŽÍKOVÁ, L. 3, 24, 31, 33, 39, 74, 391, 392, 402

N

NAKONEČNÝ, M. 184, 213, 214, 391
 NEIGHBORS, C. 241, 242, 391, 396
 NEIL, T. A. 391
 NELEŠOVSKÁ, A. 228, 392
 NEMCOVÁ, R. 336, 393
 NISSINEN, A. 379, 385
 NIXON, W. 144

O

OBST, O. 386
 OCHABA, R. 279, 392
 OLESON, K. 242, 392
 OROSOVÁ, O. K. 398
 ORR, D. 392
 OTT, C. H. 245, 248, 392

P

PALMBERG, I. 155, 392
 PALMER, J. A. 131, 392
 PAMPLONA ROGER, J. D. 293, 392
 PAULÍK, K. 4, 123, 124, 129, 130, 392, 402
 PAYNE, J. 392
 PEKKARINEN, H. 379
 PELIKÁN, J. 191, 392
 PERKINS, H. W. 241-243, 248, 383, 392, 393
 PETRASOVÁ, N. 383
 PETRLÍKOVÁ, K. 393
 PFLIGERSDORFFER, G. 393
 PIAGET, J. 142, 366, 393
 PIŇOS, M. 393
 PÍŠŠOVÁ, M. 365, 393
 POPELKOVÁ, M. 123, 124, 393
 PORÁČOVÁ, J. 280, 393
 PREIS, M. 327, 393
 PROVAZNÍK, K. 48, 399
 PRŮCHA, J. 55, 58, 74, 93, 123-125, 393
 PRUNNER, P. 365, 394
 PYLE, R. M. 144, 156, 157, 394

Q

QIAO, Q. 385
QUESNELL, M. 394

R

RÁCZOVÁ, B. 367, 394
RENO, R. R. 380
RENOUARD, G. 391
REST, J. 367, 394
REST, J. R. 367, 396
RICE, R. M. 383
RIEDEL, I. 373, 394
ROE, J. 203, 394
ROSA, V. 123, 394
ROTHMAN, S. 381
ROVNÝ, I. 276, 277, 392, 394
RYBÁŘ, R. 3, 13, 20, 394, 403
RÝDL, K. 179, 394
RYCHNOVSKÝ, B. 4, 161, 195, 198, 199, 268, 394, 403
ŘEHULKA, E. 3, 20, 55, 58, 71, 85, 338, 381, 383, 384, 390-392, 394, 395, 397, 399, 403
ŘEHULKOVÁ, O. 58, 71, 338, 392, 395, 399
ŘEZÁČ, J. 4, 88, 103, 104, 108, 395, 403
ŘÍČAN, P. 395

S

SABINI, J. 248, 395
SANNE, Ch. 217, 396
SAUNDERS, C. 141, 396
SCOTT, D. 217, 396
SEDLÁČKOVÁ, H. 383
SELYE, H. 326, 396
SHELLMANN, J. 382
SHENOT, J. 216, 381
SHOTKIN, A. 216, 381
SHU, X. O. 390
SCHAWVER, D. J. 382
SCHLÄFLI, A. 396
SCHULTZ, C. G. 241, 396
SCHUSTERMAN, R. 373, 396
SIMONS, R. 399
SKALICKÁ, M. 388

SKOVAJSOVÁ, P.	221, 396
SKULA, P.	396
SOKOL, J.	397
SOLLÁROVÁ, E.	2, 242, 249, 396
SPILKOVÁ, V.	348, 396
STERLING, S.	131, 385
STERN, P., C.	217, 382
STOJAN, M.	5, 251, 254, 397, 403
STRAPÁČ, I.	397
STREJČKOVÁ, E.	140, 141, 147, 397, 398
STRODTBECK, F. L.	387
STŘELEČ, S.	3, 85, 88, 93, 94, 99, 381, 397, 403
SUNDQUIST, J.	283, 293, 386
SUTCLIFFE, J.	124, 125, 389
SVATOŠ, T.	398
SYSLOVÁ, Z.	383
ŠEVČÍKOVÁ	278-281, 398
ŠIKULOVÁ, R.	228, 387
ŠIMEK, J.	398
ŠIMÍČEK, J.	4, 117, 398, 403
ŠIMÍČKOVÁ-ČÍŽKOVÁ, J.	4, 117, 398
ŠIŠÁK, P.	398
ŠIŠKOVÁ, A.	123, 124, 393
ŠKODA, J.	383
ŠMAJS, J.	2, 133, 203, 205, 398
ŠOLCÖVÁ, I.	125, 398
ŠPALEK, V.	398
ŠPRACHTOVÁ, L.	383
ŠUBRT, R.	382
ŠULEK, M.	328, 398
ŠUTIAKOVÁ, I.	393
ŠVEC, Š.	32, 134, 358, 398
ŠVEC, V.	32, 134, 359, 390

T

TERJENČÍKOVÁ, M.	398
THOMA, S. J.	396
THOMBS, D. L.	241, 398
TRAVERS, C. J.	123, 399
TRÁVNÍČEK, M.	74, 391
TŮMA, J.	42, 399
TUOMILEHTO, J.	379, 385
TUPÝ, J.	195, 386

U

ULRICH, R.	204, 399
URBÁNEK, T.	147, 399
V	
VACEK, P.	365, 370, 399
VÁGNEROVÁ, M.	399
VALENTA, J.	203, 204, 399
VALEŠKOVÁ, S.	287, 399
VALÍČEK, P.	399
VALOŠKOVÁ, M.	124, 129, 399
VANÍČKOVÁ, E.	48, 399
VAŠINA, B.	124, 129, 398, 399
VAŠUTOVÁ, J.	55, 56, 172, 399
VAVROUŠEK, J.	399
VENCÁLKOVÁ, E.	383
VENTEGODT, S.	283, 286, 293, 298, 399
VIŠŇÁK, R.	205, 399
VITOUŠOVÁ, P.	339, 399
VIZINOVÁ, D.	327, 393
VRABLÍK, M.	382
W	
WALKER, S. I.	124, 380
WALSCH, N. D.	14, 400
WALTEROVÁ, E.	93, 123, 400
WIEGEROVÁ, A.	131, 134, 390, 400
WILHELM, Z.	400
WILIAMS, T.	131, 400
WILLITS, F.	217, 396
WOLESKÁ, J.	390
WROCZYŃSKI, R.	86, 400
Y	
YANG, G.	390
YOUNG, I.	131, 216, 400
Z	
ZANDEN, J. W.	242, 400
ZATKOVÁ, M.	123, 124, 393
ZAVADILOVÁ, V.	398
ZELINA M.	201, 400
ZEMAN, V.	338, 391
ZUCHOVÁ, B.	221, 389
ZWEIZIG, M.	216, 381
ŽALOUĐÍKOVÁ, I.	33, 400

SUBJECT INDEX

A

- acquirement 5, 172, 221, 232, 233
- activating techniques 4, 103, 106
- actual norm 241-244, 246-248
- aesthetic perception 6, 373-376
- analytic discussion method 365, 367, 368, 370
- annunciation 373, 375, 376
- anti-drug education 357-360

B

- biology 4, 27, 29, 58, 63, 140, 195-199, 304, 307, 395
- bmi 24, 132, 133, 142, 166, 202, 214, 218, 293-298, 301
- bossing 347, 348, 350-353, 356, 380, 387

C

- care for the environment 131, 133-136, 172-174, 176, 180, 181, 187, 188, 192, 217, 219
- care for the health 131, 133, 134, 176, 293
- cerebral activity 113
- civilization diseases 275, 276, 281, 282, 288, 294
- class teacher 3, 90-101, 230, 231, 234, 235, 397
- communication 13, 17, 41, 50, 52, 53, 63, 90, 95, 97-99, 103, 106-111, 201, 227-230, 243, 307, 318, 319, 327, 344, 348, 349, 355, 374, 381, 384
- comparison 14, 28, 41, 50, 96, 117, 121, 126, 132, 134, 139, 147-151, 153, 155, 157, 162, 164, 179, 180, 183, 187, 191, 192, 216-218, 241, 248, 251, 277, 279, 285, 299, 341, 369, 376
- consequences of domestic violence 339, 343
- conservation psychology 139, 140, 158, 159, 396
- correction of misperception 241, 244, 246-248
- cross-curricular theme 131
- curriculum of preparatory education of teachers 179, 192

D

dangerous behaviour	269, 357, 358
decree	227, 230, 234, 284, 358, 379
degree of educational strenuousness	93
determinants of health	275, 276, 279
domestic violence	5, 279, 339-344
domestic violence prevention	339
drug abuse	6, 36, 42, 121, 307, 357-359, 361
drug prevention education	41, 43-45, 48, 51, 52

E

eating habits	278, 293, 294, 298, 304
ecological/environmental education	131, 132, 134, 136, 171, 172, 176, 179, 384
ecological-environmental education	161
ecopedagogical competence	171, 172
ecopedagogical/environmental competence	179
ecotherapeutic potential of nature	201, 203
ecotherapy	201, 203, 204, 386, 394
education for health	131, 133
education for the health	4, 133-136, 171, 172, 176
education of teachers	55, 71, 122, 163, 179, 192
education to health	20, 213
educational content	3, 31, 32, 39, 73-78, 82, 164 195, 229
educational means	85, 86, 156
educational needs	3, 25, 55, 56, 59, 72
environmental education	4, 20, 42, 131, 132, 134, 136, 139, 157, 158, 161-169, 171-173, 176, 179, 201, 202, 204, 213, 216-218, 379, 380, 384, 392, 394
environmental competence	171
exercise	27, 43, 51, 73, 77-79, 81, 83, 90, 103-105, 108, 119, 122, 134, 188, 196, 197, 278, 293, 295, 304, 322, 382, 390

F

faculty of Education	2, 7, 8, 23, 26, 29, 42, 46, 58, 85, 93, 221, 222, 224
financial reward	93, 95, 100, 101
first aid	24, 36, 41, 42, 49-53, 59, 65, 221-226, 327
forms and methods of traffic education in various European countries	251, 253

forms of ecotherapy	201
framework education programme	41, 45, 48, 51-53, 55, 56, 227, 229
G	
genders aspect of teacher profession	123
guidelines	94, 227, 229
H	
health indicators	117
health literacy	23, 25, 29, 31, 55, 58, 60, 69, 70, 72, 85, 86
health state	58, 169, 196, 199, 275, 283
health-promoting school project	5, 339, 343
healthy development factors	93
healthy life style	37,115, 131, 172, 176, 183, 192
I	
individual health	115, 164, 168, 179, 188, 189, 191, 192, 213, 214, 218, 219, 276, 331
instruction in medical skills and first aid	41
interactive exercises	103-105, 108
interpersonal relationships	5, 32, 57, 135, 341, 347-349, 356
intervention	104, 241, 243, 281, 326, 327, 347, 355, 382, 383, 396, 398
K	
knowledge of health	117
L	
laws	89, 227, 229, 263, 284, 366
legislative sources	93
leonardo da vinci	373, 375-377
M	
mental discomfort in kindergarten, in primary and secondary schools and at universities	315
mental types	113-115
misperception	241-248, 391, 392
mobbing	5, 347-356, 380, 381, 386, 387, 388
moral education	6, 365, 366, 370, 380, 383, 387, 396
moral reasoning	365-370, 394
motivation	56, 78, 105, 135, 140, 142, 192, 213, 214, 227, 303, 307-309, 318,

motorism	330, 338, 357, 381, 395
movements	213, 215, 216 165, 215, 283, 306, 328, 333, 339
N	
norms	78-80, 83, 110, 205, 214, 217, 228, 241-244, 246-248, 379, 380, 382, 383, 389, 391-393, 396, 398
nutrition	13, 24, 27, 32, 36, 43, 90, 115, 121, 135, 162, 176, 183, 189, 190, 197, 198, 200, 275, 281-283, 285, 286, 293, 295-298
P	
pedagogy after the november	9, 10
pedagogy after the november 1989	9, 10
perceived norm	241-244, 246-248, 391, 396
perception of nature	201, 202
philosophy	3, 13, 15-17, 20, 114, 140, 401, 404
physical education	3, 27, 29, 32, 33, 57, 58, 73-83, 231, 391
physical training	161, 164, 195, 379, 386, 388
pre-conventional, conventional and post-conventional levels	365
preparation of teachers	4, 135, 171, 172, 174, 179, 198
prevalence	58, 246, 247, 275, 276, 281, 303, 304, 314
prevention of stress	315, 326, 327
prevention programmes	45, 227, 358
primary drug prevention and primary prevention of dangerous behaviour	357
primary education	3, 24, 31-33, 35, 36, 39, 41-45, 48, 49, 51-53, 73-76, 82, 83, 85, 89, 90, 94, 118, 162, 164, 165, 197, 229, 279, 280, 379, 382, 386
primary prevention	6, 52, 57, 69, 227, 229, 261, 262, 327, 357
project teaching	166, 261
protection of environment	180, 181, 185, 191, 192, 213, 214, 218
Q	
quality of environment effect on life	161
quality of life	7, 31, 117, 131, 163, 175, 201, 203,

	214, 241, 306, 380, 399
R	
realization of the educational content	31
reflection on social skills and features	103
relationship between humans and the Nature	139-141, 143, 144
relaxation in nature	201, 202
risk-factor	275, 276
S	
scout clubs	139, 145-158
self-assessed health status	4, 123, 126
self-reflection	15, 55, 56, 58, 70-72, 103, 107, 108, 111, 261, 269, 306, 370
sex education	41, 43, 48, 49, 52, 121
school educational programmes	23, 24, 26, 32, 358
smoking	33,44-46, 48, 52, 121, 135, 136, 176, 188, 189, 234, 235, 242, 244, 247, 248, 267, 278, 281, 283-288, 290, 291, 293, 303, 304, 307-309, 313, 359-364
social climate of a school	347
social crisis	9
social health	59-63, 70, 85-89, 97, 135, 204
socio-pathological phenomena	45, 51, 227-230
specific dimensions	85
spirituality	113, 203
stress	5, 42, 59, 65, 66, 71, 78, 79, 123-125, 129, 165, 174, 187, 190, 191, 201-203, 208, 214, 215, 218, 223, 241, 261, 281, 283, 284, 289, 291, 293-300, 304, 315, 317-327, 330-332, 336-338, 344, 353, 356, 357, 365, 366, 380, 389, 390, 399
stressful experiences	5, 315, 317-322, 325, 326
sustainable development	9, 90, 131, 134, 135, 140, 161, 163-167, 175, 180, 192, 214, 217
systemic conception	13, 16, 17
T	
taking care of one's health	4, 201
targets of ecological/environmental	
teacher's preparation	171
teacher profession	123
teacher stress	123-125, 389
teacher's educational performance	73, 75

the attitudes	3, 6, 41, 45, 52, 131-133, 144, 242, 357, 358
therapy of stress and mental traumas	315
threat to health	4, 190, 213
traffic education	7, 251-258, 261, 262, 269
training	4, 29, 31, 39, 41, 49, 50, 55, 59, 61, 63, 65-67, 73, 80, 83, 103-107, 110, 111, 118, 161, 164, 173, 174, 179, 195, 199, 222, 244, 252, 253, 257, 327, 370, 375, 379, 384, 386-388
types of mental traumas	315
U	
upbringing	7, 11, 88, 89, 93, 105, 161-163, 165, 168, 195, 303, 380
V	
valeology	113, 115, 401, 404
value-ecosocial life oriented competence	171
values	9-11, 20, 86, 88, 89, 96, 98, 113, 117, 127, 129, 131, 134, 135, 147-149, 153, 157, 162, 164, 172, 175, 179-181, 183, 184, 211, 217, 218, 227, 229, 285, 295, 303, 304, 307, 312, 333, 349, 359, 365, 366, 369, 370, 380
video – computer analysis	113
W	
warhol	373, 375-377, 382
Y	
young secondary	293

SCHOOL AND HEALTH 21, 2010
PAPERS ON HEALTH EDUCATION

Editor: Evžen Řehulka

Published by Masaryk University with collaboration by MSD.

1st edition, 2010

400 copies

Printed by MSD, spol. s r.o., Lidická 23, 602 00 Brno, www.msdbрно.cz

ISBN 978-80-210-5260-4 (Masarykova univerzita. Brno)

ISBN 978-80-7392-133-0 (MSD. Brno)