HEALTH EDUCATION: CZECH-SLOVAK EXPERIENCES

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SCHOOL AND HEALTH FOR THE 21ST CENTURY

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INTRODUCTION

The modern school system increasingly specializes in individual educational goals intended to build up competence in certain areas of life. One of the current and relatively new trends of that kind is health education and the related effort to improve health literacy and promote health awareness in general. A number of institutions in the world are working on these issues and various research programs are dedicated to their resolution.

This book is devoted to the same issues. It combines the work of educators at the *Faculty of Social Sciences and Healthcare, University of Constantine the Philosopher in Nitra* and the *Faculty of Education, Masaryk University in Brno*. In 2005–2011, the Faculty of Education of MU worked on a research project called *SCHOOL AND HEALTH FOR THE 21ST CENTURY* (MSM0021622421), which explored the relationship of schools and the level of health awareness in the population. It was inspired especially by the materials of the *World Health Organization* and documents entitled General Educational Programs, which, for the first time in the history of Czech scholastic education, explicitly recognize health education as a subject of study.

Very important in health education are the approaches that develop health-related disciplines on a platform of social sciences. Significant progress in this direction has been achieved at *University of Constantine the Philosopher in Nitra, Faculty of Social Sciences and Healthcare,* where a number of psychologists focus on medical specialties such as nursing, physiotherapy and rescue medicine. The main objective of a socially oriented healthcare is prevention, particularly primary prevention, based on a well-structured health education. The development of prevention, which relies on health education or applied health behavior research, is the starting point of a good health education program. It is also the subject of a number of studies that originated at the institutions in Nitra and Brno.

The investigations were done in different contexts, depending on the researches' professional orientation and work commitments. There are articles on teaching, nursing, environmental sciences, personality development, prevention of behavioral disorders, presentations on experiences with health education design in school environments, prevailing opinions on adolescent health, and prevention of risky behavior. The relatively broad range of insights compiled in this publication enriches the discussion on current health education in an interesting way, be it by showing the roots of this activity or offering a variety of possible solutions.

Much has been done in the field of health education, but, at the same time, more tasks are looming on the horizon. Health education transcends the definition of healthcare by embracing new tasks, which are often absorbed by a qualitatively novel and modern patient care. As the health education is being incorporated into instruction, curriculum analyses may find difficulties due to discrepancies between the curriculum as designed and as practiced in the classroom. In general, citizens do believe that schools have a positive influence on young people's health, yet a notion persists that, in many cases, the students are overloaded with schoolwork. This point alone makes it very

timely to pay attention to mental health and take advantage of the existing psychological programs that monitor the quality of life and the personality profile.

Health education, and the promotion of health literacy, is a great social and political challenge of modern society. This publication looks at these issues from different angles, it reviews current information, and it points to the programs and knowledge leading to an effective health education. The Czech and the Slovak experiences are very similar given the cultural and historical tradition, but in a contemporary sense sometimes divergent, therefore perhaps beneficial for both parties. It is the authors' wish that this book, which publicizes their findings and their views, would not only showcase their work but stimulate a discussion and ignite interest in learning about health from a multi-disciplinary perspective.

November 2011   Evžen Řehulka a Eva Sollárová
                                                              for the Team of Authors

HEALTH EDUCATION IN THE ENVIRONMENTAL CONTEXT

Hana HORKÁ

Abstract: *The author points to the overlap of health promotion and environmental protection in the system of education. She specifies it on the aims and focus of the content of both environmental education and health education. The health motives of environment protection have become inspiration for investigations focused on the issue of "putting one´s health at risk as a consequence of environmental influences".*[1] *The chosen phenomena (nature vs. recreation, nature vs. transport, nature vs. physical or sports activities) are illustrated on examples of results of the investigations. Finally, the contribution for the theory and practice of health education and environmental education is described with an emphasis on the transformation of education towards biophile focus.*

Key words: *environment, biophile education, environmental education, quality of life, health care, nature, culture, health education, health*

The quality of the environment as a significant aspect of health

Environmental education represents a basic strategy for the accomplishment of positive changes in the environment as well as a tool for securing sustainability of the world. Environmental protection is an integral part of environmental education and adverse changes in environmental protection limit the quality of life. As implies from a number of studies, the quality of the environment represents a basic determinant and regulation device of health. The fact is that leading a healthy lifestyle does not mean only elimination of health risks for humans, but contribution to the health of the environment as well. These claims are supported by the ecological-social model of health, which follows the conditionality of health by the natural and social environment, or, in the integrated conception of health, dealing with the consequences between human health and the health of the physical environment and nature.

It is indisputable nowadays that the environmental crises lies not only in endangered plant and animal species, but is *"an external symptom of the crises of mind and soul"* (Koger; Winter 2009), or *"the great crises of perception"* (Abram 2008), which means a certain inability of an "overcivilised human" to perceive nature in an adequately clear way.

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[1] Results of investigations are a part of studies conducted in the research project School and health 21 between 2008 and 2010.

Therefore, the questions related to education, or building a relationship towards nature, are raised again, especially as regards the nature component, threatened by the development of civilisation and contemporary lifestyle. It is expected that these questions may help restore the disturbed reciprocity between humans and nature, whose consequence is according to D. Abram (2008, p. 139) *"the inability of humans not only to give back what they have taken, but in many cases also the inability to perceive and decipher what nature is trying to convey"*. What are the implications for education? Primarily it is the respect for the fact that genetic dispositions of humans come from the natural environment and nature provides mental and physical health to humans. Consequently, education regulates the surplus of artificial cultural information a person is exposed to. It teaches individuals to recognise significant information, work with it, it allows to bring in new forms (to in-form), or, as said by D. Abram (2008, p.139), "to leave an echo in a person".

In our investigation we relate two important subsystems to the system of education and these are environmental education and health education.

The overlap of health promotion and environmental protection in education

The overlap of health promotion and environmental protection arises from the characteristic features of environmental education, which stresses adequate **understanding of relationships and connections among the components of the environment,** complex expression of mutual conditionality of organic and inorganic nature, amongst organisms themselves, relationships between human activity and its products and nature, including the **identification of undesired consequences of human transformational activities**, leading to devastation and endangering of natural qualities of water, air, soil, plants and animals resulting in **risks** not only for human **health** but for the existence of life on Earth as such. Learning about and understanding this context is reflected in a responsible relationship towards the environment, in ecologically-friendly **lifestyle** and behaviour which supports health (Horká 2005, p. 26).

By means of content analysis of the aims of environmental education we draw a conclusion that they are in many aspects compatible with the intentions of health promotion. In the cognitive area there are common key units: understanding the relationships between humans and nature, consequences of human activity on the environment including the possibilities of lessening, restricting or even eliminating the consequences, or possible risk factors for health; understanding one´s responsibility in environmental protection related to the care for one´s own and other people´s health; reduction of unnecessary human needs and unjustified demands based on the complex understanding of the value of nature.

On the cognitive-emotional level it concerns the acquisition of ethical principles of action and behaviour (as superficial, consumer and unethical way of life encourages human selfishness and hinders emotional, theoretical and value rehabilitation of nature etc.); understanding the aesthetic value of nature; striving for thriftiness, frugality, consideration, responsibility. In the cognitive-motor area there are skills and habits necessary for everyday desirable conduct of a citizen with an

emphasis on healthy lifestyle and decision-making in favour of health promotion and sustainable development.

The development of a competence of a "cultural protector of health and the environment" (Švec 2004, p. 29), requires the skill to understand the existing mutually causal, spontaneously operating relationships in the environment and influencing the quality of care for the environment and health as well. Based on it an individual can evaluate, consider risks and benefits and act according to that and also accept responsibility for the consequences of their behaviour in the relationship to the environment. For this it is necessary that the reception and delivery of artificial information should be adequate and that the space for the reception and delivery of natural information should open up (Abram 2008. p. 139). It implies that information about nature which is out of context, mediated only by words can not be sufficient for adequate orientation in life situations.[2]

The overlap of environmental education and health education is apparent from the content curriculum of environmental education for basic schools, which we present as an overview of key topics:

THE ENVIRONMENT AS A SIGNIFICANT ASPECT OF HEALTH choice of key topics	
Cognitive aspect	Cognitive-emotional aspect
Natural environment (ecosystems – forest, field, water resources, sea, tropical rainforest), Basic conditions of life – water, air, soil. Ecosystems – biodiversity, energy and life, natural resources.	Ethical principles of behaviour. Ecological ethics. Ethical norms. Prosocial behaviour.
The value of nature. Use / exploitation of nature and the environment/ protection of the environment and cultural artefacts.	Overcoming of primitive egocentric opinions and values. The offer of values for the change of manipulative viewing of nature and human society. Aesthetic perception of nature. Nature and the environment as a source of inspiration for creation of cultural and artistic values.

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[2] D. Abram speaks about stories narrated *"face to face, not through reading to children from books"* stories about what *happened at full moon on a forest edge, or whose track is winding through this dried riverbed. What are the stories of your place? Why is there a strangely formed stone protruding from the slope? Or the story of that street corner where a streetlamp is buzzing intermittently – what might be the reason?* Children need stories happening in the country, physical world, which we *render habitable by our physical imagination.* First we need to experience language physically. Let us prefer improvised narration for *"the child to grow up in the land full of legends to comprehend language as something belonging not only to people, but to the whole world".* A child growing amid the world of stories experiences a feeling of being submerged into the world in which *meanings emerge from every branch and blade of grass and beak, opened accidentally.* The mentioned fundament is necessary also for the acceptance of a certain type of ethical limit, acquired only those who realize how rooted they are in the world *"habituated not only by humans, but by other beings and bodies."*

Culture as an artificial system. The essence of culture. Culture as a source of different views and relationships towards nature and the environment, cultural landscape, human settlement – town-village (artificial ecosystem).	Questions of human needs, values. Materialistic consumerism. Reflection and self-reflection of behaviour. Anthropological questions – humanisation, alienation. Human rights concerning survival, development, protection of individuals, rights/responsibilities, violence/peace in interpersonal relationships.
Asymmetry in life on Earth (different environmental conditions and different social development on Earth, consequences of globalisation, principles of sustainable development.	Relationship between a human and a society, wealth and poverty.
Relationship of a human towards the environment The development of the relationship of a human towards the environment Human activities (transport, agriculture, industry, waste and environmental problems	Civic activity and democracy, social control and public interest. Involvement in solving environmental problems.
Environmental aspects of health (human and nature, nature and health, human interventions into nature, their impact on health).	

Table 1: The environment as a significant aspect of health

The interdisciplinary and multidisciplinary conception of environmental education and interactive conception of health (on the biological, environmental, psychological, interpersonal and socio-cultural level) evokes the need to link logically the problems of natural science (medicine) and social science.

The overlap of health care and environment protection in research investigations

A whole range of reasons for environment protection is reflected in the conception of environmental education (cp. Novotná 1997, p. 180–181): from utilitarian economic (to protect unrenewable natural resources as economic wealth and wildlife as natural wealth, which can be useful in the future), ethical, aesthetic to reasons related to health care (protection of the environment that would not threaten human health and nature as a place for physical and mental recreation).

Health motivation for environmental protection became inspiration for research investigations within the research project School of health 21, through which we attempted to find the overlap of "health care" and "environmental protection". Acting for the benefit of nature and the environment as the key imperative of the outcome of environmental education became an impulse for investigations focused on the issue of "health", or rather "putting one´s health at risk as a consequence of environmental influences". We chose the following areas of influence: recreation, car transport and physical or sports activities.

The situations where health care comes into a conflict with environmental or nature protection are considered in educational context, especially as regards the educational process. After the description of the chosen phenomenon (nature vs. recreation, nature vs. transport, nature vs. physical or sports activities) we offer selected

results of investigations[3], whose summary may influence theory and practice of health education and environmental education, or stimulate an upgrade of the educational curriculum.

Environmental and health impact of recreation (nature vs. recreation)

The curative effect of nature on humans in the therapeutic, relaxation and recreation area, so-called non-productive functions of nature is sometimes overrated to the detriment of its function for the provision of integrity and spiritual, mental reproduction. J. Šmajs (2005, p. 93) describes it as a nature´s concern about not only "*healthy body, healthy mind*", but also "*about a biologically determined humanity with adequately extensive culture*".

Relaxation in nature minimizes the adverse effects of constant physical and mental tension brought about by the busy life in a civilised society. The recognition of the beauty of nature as a therapeutic means and application of outdoor stays is a basis of ecotherapy. It is performed through a relatively solitary contact of a client with the natural landscape (ranging from hikes to places "off the beaten track" to more strenuous outdoor trips), gardening, painting, photography or looking after plants and animals. A suitable way of relaxation is growing vegetables, flowers or fruit, which allows, especially to young children " *without abstract concepts point to what has been overlooked by anti-natural culture against their will: creativity, mystery, superiority and beauty of earthly life*" (Šmajs 2000, p. 330).

From results of investigations on the topic How respondents – student teachers view relaxation in nature.

A pilot study revealed that natural environment is from the point of view of human health interesting mainly as a platform for relaxation. Therefore we attempted to find out whether the students of the Faculty of Education Masaryk University Brno (N = 104, 98 women, 6 men) consider relaxation a significant activity in the context of health care – diagram No. 1:

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[3] Results of investigations are a part of studies conducted in the research project School and health 21 between 2008 and 2010.
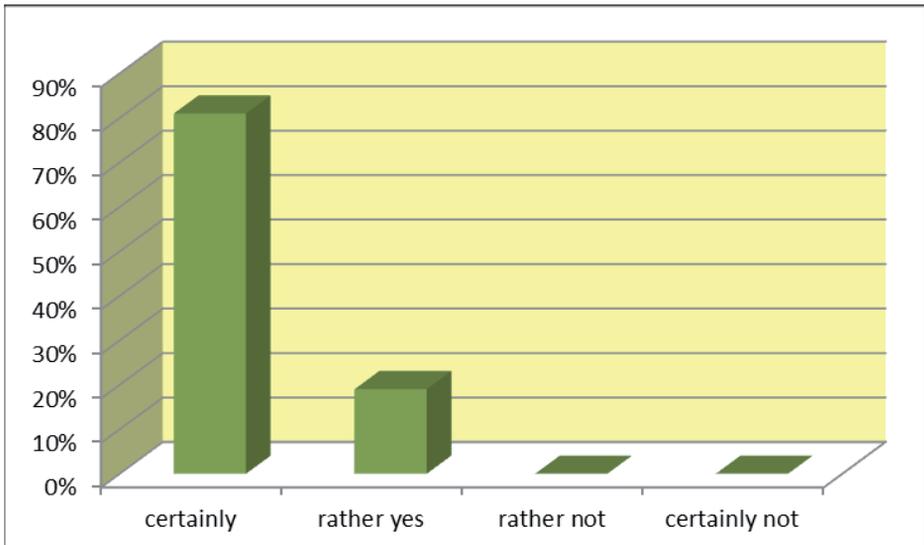
Diagram No. 1: "To what extent do you agree with the statement: Being able to relax properly is extremely important for human health".

As illustrated in diagram No. 1 relaxation is definitely considered an important activity. Subsequently, we asked whether the natural environment represents an interesting place for relaxation. In our questionnaire we formulated an open item: "Imagine a place (or places) where you would most like to relax and describe the place briefly". The relative frequencies of the categories based on the answers are illustrated in diagram No. 2:
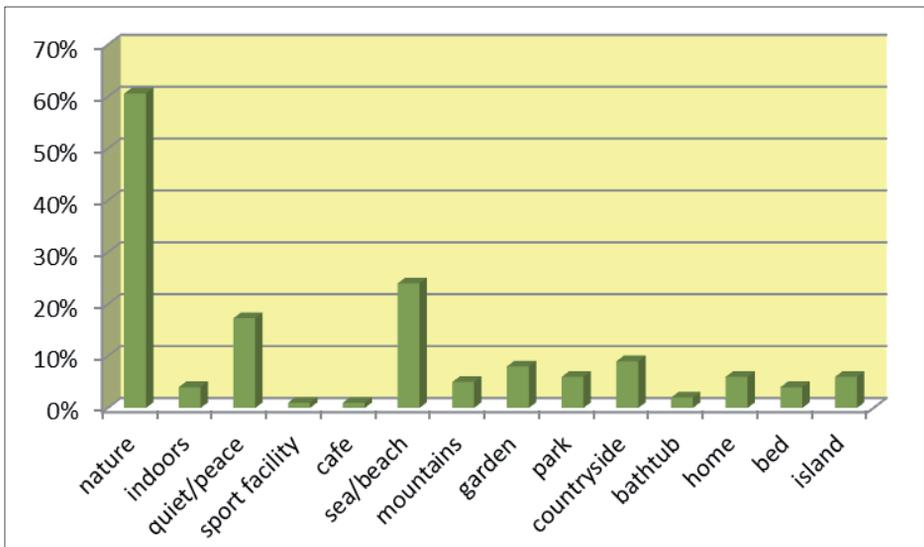
Diagram No. 2

The most frequent category is *nature* with 60.6%. Other significant categories are: *sea/beach* (24%) and *silence/peace* (17.3%). Although the term "nature" is rather general and we for certain can not say what exactly respondents mean by the term, we assume that our research hypothesis that majority of students consider nature a suitable place for relaxation. To specify we used the following closed item, whose evaluation is illustrated in diagram No.3:
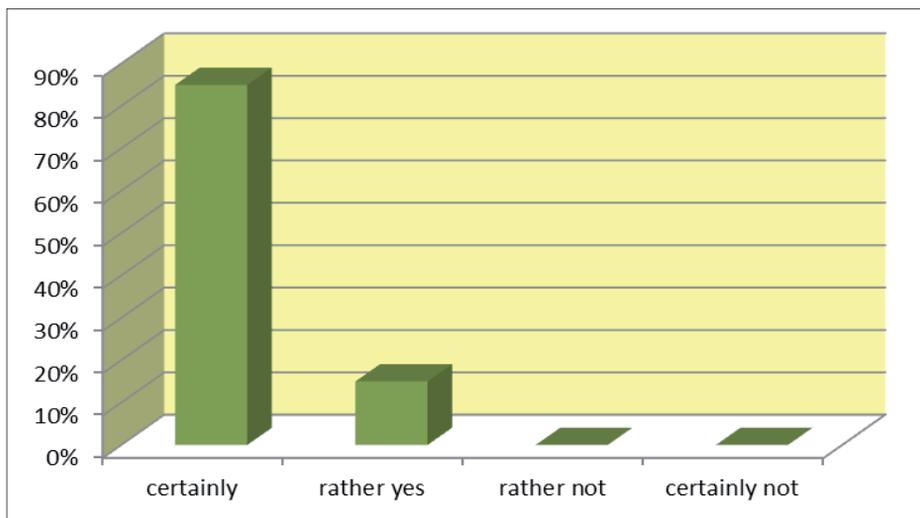
Diagram No. 3: "To what extent do you agree with the following statement: Nature (green areas, park, forest, etc.) is a suitable place for good relaxation."

In our research probe we were attempting to find out whether respondents experience any obstacles to good relaxation and whether these have environmental context – see diagram No.4:
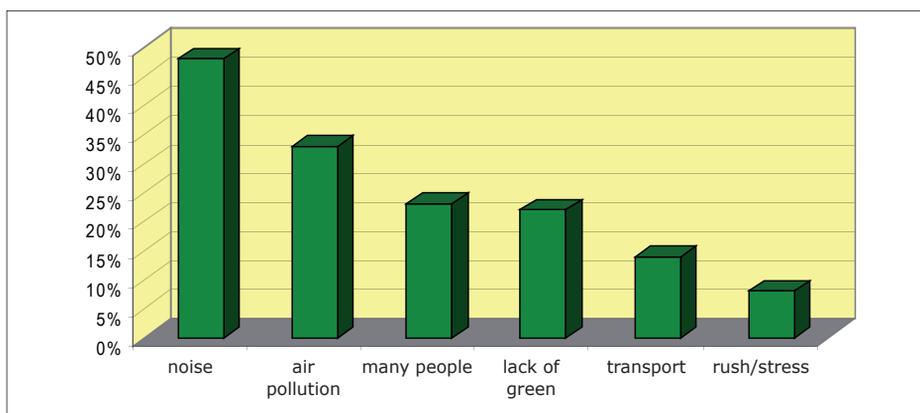
Diagram No. 4: "If you think that life in a city hinders good relaxation, write down which obstacles you find".

It seems that obstacles to good relaxation often have environmental context – in the first place it is *noise* (47.6%), then *polluted air* (33%), next there is a category with social context *too many people* (23.3%), followed by *lack of green areas* (22.3%).

Good relaxation is seen as an important component of health care and it is also often associated by the respondents with relaxation in the natural environment. The obstacles to good relaxation are often attributes of the damaged environment (Horká; Hromádka 2010).

Ideas for the upgrade of the educational curriculum

In the context of the ecotherapeutical potential of the nature we can not overlook information on the negative reactions of some children and young people to the physical environment. They avoid practical contact with nature and they are basically afraid of it; they fear an encounter with certain objects or situations; the susceptibility of rejection of the physical environment and expectation of a certain degree of comfort provided by life in a modern and comfortable environment (Bixler; Floyd 1997 in Franěk 2001). Research in the Czech Republic (e.g. Strejčková et al. 2005), focused on the alienation of children from nature brought interesting and inspiring information, such as that it is very important for environmental education and health education to overcome the negative view of the physical environment.

It is associated with the procedures of familiarizing children with nature, based on direct experience, experiences with observations in nature, not with conveying isolated facts in an abstract form[4]. The information about nature conveyed by words only and without a context can not be sufficient for adequate orientation in life situations. The practice of the consumption of second-hand information facilitates manipulation of human crowds (Strejčková 2005). The preference of vicarious to real activities can even reduce empathy towards other forms of life. Presentation of different views on nature, from the natural science, aesthetic and spiritual standpoint on its value and real threats, possibilities of contact with nature is influenced by professional competences of a teacher. It is relevant in this place to mention again the significance of the balance between natural and cultural information as a means for the solution of the crises of perception (Abram 2008).

Environmental and health consequences of sports activities

Quality physical environment with cultural monuments represents a source of various opportunities for movement and sports activities of a person, performed usually "for health". Adequate physical activity together with the effects of the environment, nutrition and lifestyle represent interfering agents to health, absolutely irreplaceable.

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[4] J. Šmajs warns that there is a hidden dominance of abstracts of mathematics and physics, etc. promoting the transformation of nature and he suggests that they should be balanced by abstracts of biology and culture, which are more humble towards the natural structures.

The significance of sports activities for human health is indisputable; however, the impact on the environment is increasingly visible[5]. The damage of the environment is a consequence of long-term *"ignorance of biological factors in cultural life, missing argumentation against a dangerous trend in lifestyle"* Šmajsová-Buchtová 2009, p. 80), ignorance of real natural values, etc., which underlines the need of a differently focused education.

Selected results of investigations

In the sample of students of the Faculty of Education Masaryk University (N = 133, 128 women, 5 men) we were initially investigating why they perform sports activity and whether it has connotations with care for one´s own health – diagram No.5:
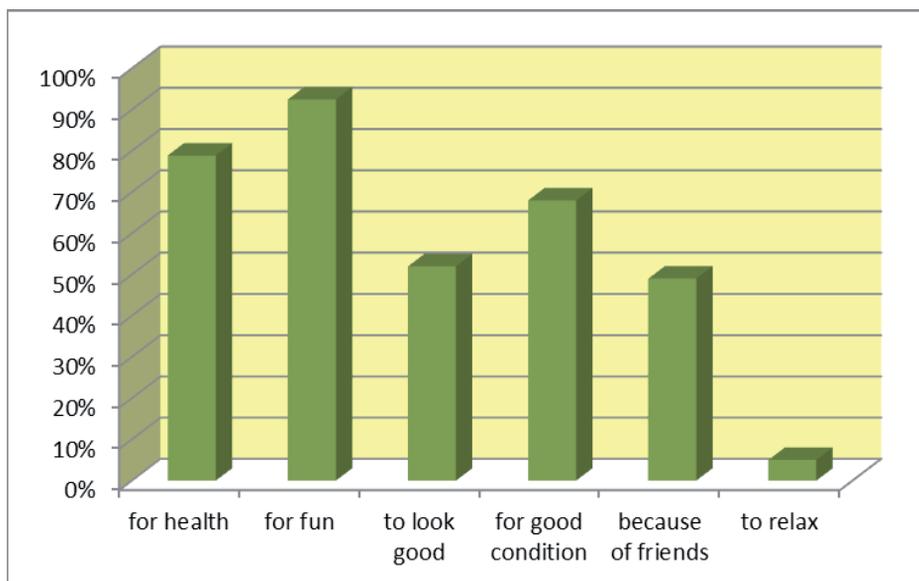
Diagram No.5: "Tick a reason or reasons for doing sports activities relevant for yourself (or add others if missing)."

It was found that respondents most often do sports or sports activities for fun (92.5%), but the second most frequent category is "for health" – 78.9% (Horká, Hromádka 2010).

We were also looking at whether the respondents take into account possible effects on the environment while performing certain sports activities (though we admit that in some cases the question might be quite absurd and validity of the item is problematic).

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[5] Confiscation of agricultural and forest soil, fragmentation of the country and producing obstacles, damage of the aesthetic image of the country and country pollution, chopping trees, killing animals, intentional damage of vegetation etc. There is a great impact of vast sport resorts in the country, skiing slopes on the borders on national parks, energetically demanding maintenance of sports facilities, but also mass overproduction of various sports equipment, or ecological footprint of "travels for sport".

For results see diagram No.6:
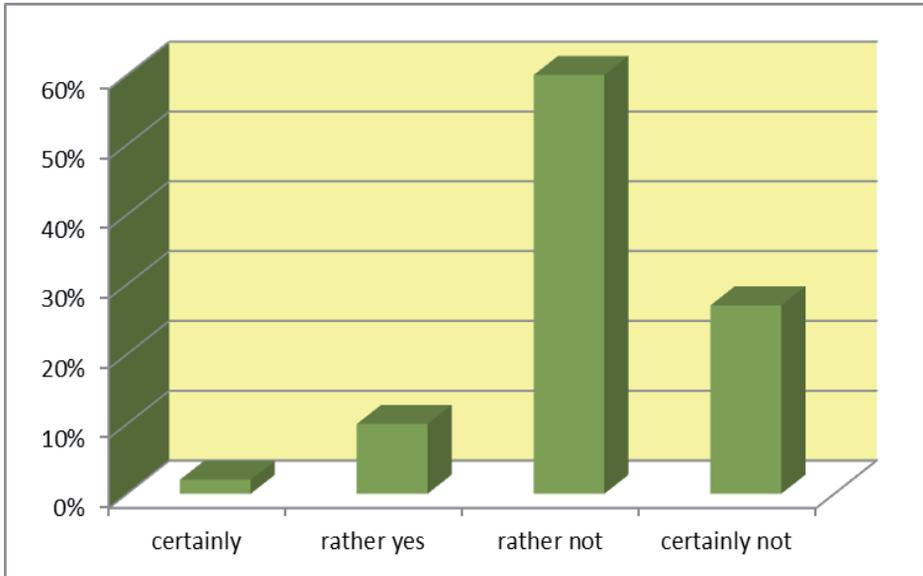
Diagram No.6: the degree of agreement with the statement: "When performing a sports activity I take into account the potential damage of the environment."

Modal category: rather not

Our focus on the potential environmental dimension while performing sports activities was represented also by a variable in the form of the "degree of agreement with the statement: I look after my health in such a way to damage the environment as little as possible". The modal category was: *rather yes* (61.6% of valid cases). This surprising majority thus declares that they look after their health in such a way that damages the environment as little as possible. The results of evaluation of another variable are similar: the degree of agreement with the statement: "Nature should not be an obstacle to projects serving for sports activities.", where the modal category is the variant: *rather not* with 82.7% (Horká, Hromádka 2010).

Concerning the applied indicators different from the indicators of the investigation mentioned above (Horká, Hromádka 2009), in the relational part of the investigation there was found an interesting correlation between "responsible care for one´s own health" and "the effort to act in an environment-friendly way" (correlation Kedal t_b = 0.32). In our research sample there was found a low (but significant) correlation between the care for own health and care for the environment (Horká, Hromádka 2010).

Ideas for the upgrade of the educational curriculum

The lack of sports activities, hypokinetic degradation of a human (Liba 2007, p. 74), wrong dietary habits and psychosocial factors represent risk factors for health. To prevent a conflict between care for one´s health and the environment continuous upgrade of the educational curriculum should be carried out. Education should not be based on simple passing on of information verbally and visually (often deformed and not valuable). The habit of indoor consumer lifestyle of children and young people should be overcome by building a habit of spending time outdoors, moving, and act for the benefit of nature in a creative way. Research findings confirm that the decrease in direct contact with the natural environment negatively influences not only the ability and willingness to help maintain the wealth of the natural environment, but also healthy physical and mental development of an individual (Franěk, Strejčková, Krajhanzl etc.).

Environmental and health consequences of transport

Transport as an integral part of life of the society is a significant factor affecting negatively the environment and human health, but it is apparent that the current society could not exist without the continual transport of goods, products and information.

Therefore, the urgency of problems associated with transport is indisputable concerning health and life (not only of humans). From the point of view of environmental education and health education is particularly alarming the threat for plant and animal species and the irreversibility of some cases of interference into the environment. It was found that those phenomena problematic for humans and their health are often problematic also for nature, animals and plants, and vice versa. Experts claim that the damage of nature "*often indicates in advance and clearly points to some adverse effects of transport, which latently already threaten sensitive groups of the population and are developed in the majority of the population after a longer period of time*" (Bendl 2008, p. 21).

The results of investigations (Horká, Hromádka 2008, p. 21–33; Horká, Hromádka 2009, p. 46), concerning the problem of attitudes of lower secondary school pupils towards individualised car transport (N= 393 pupils of 8th and 9th grades of schools in Brno).

Although we did not discover a relationship between an attitude towards environmental protection and an attitude towards looking after one´s health, we did manage to determine an area where these two topics overlap. In our questionnaire there was an open item: "Write down what you consider a health threat for life in a city." It was found (see diagram No. 7) that respondents associate concerns about their health with environmental problems (*car transport, smog – air pollution, waste – pollution, industry, lack of green areas, noise*). In terms of relative frequencies the most frequent are categories *smog – polluted air* (68.4%) and *car transport* (53.8%). It is apparent that students in cities feel threatened by what we often consider a natural and maybe also inevitable toll to civilisation – that is car transport and associated car exhausts (Horká, Hromádka 2009).
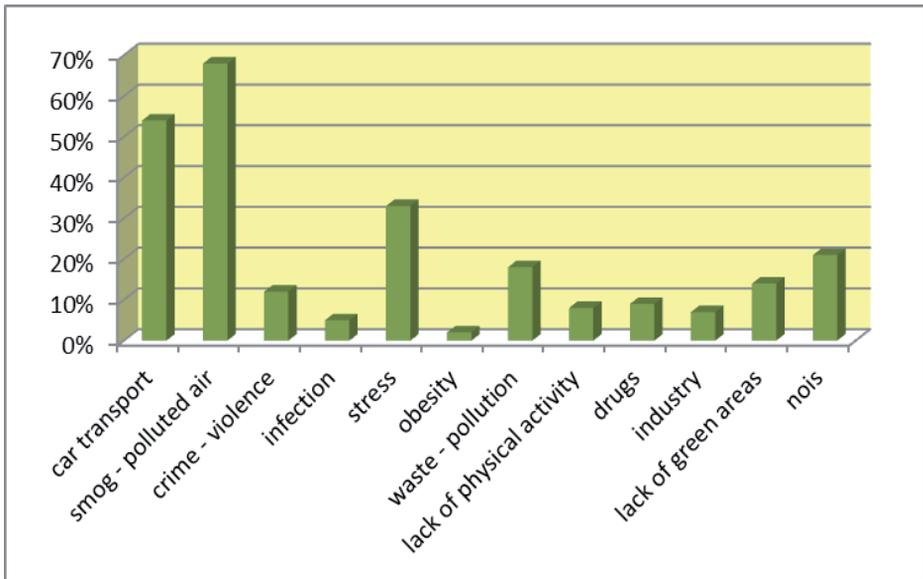
Diagram No. 7

Emissions (especially those caused by road transport) are seen as the greatest health risk for life in a city. So what is the attitude towards car transport, the phenomenon causing such concern? Our study shows that despite its apparent environmental and health harmfulness, car transport is quite popular with the youth. There is a relationship (very weak, but significant on the chosen level of significance) between a negative attitude towards car transport and a positive attitude towards the environment.

Ideas for the upgrade of the educational curriculum

The topic of transport is becoming a subject of education, both in the context of the environment[6] and health education. In the content curriculum for basic schools there are units such as Human activities and the problems of the environment with subtopics about transport and the environment (significance and development, energy sources for transport and its effects on the environment, types of transport and ecological impact, transport and globalisation); our lifestyle; environment and health (diversity of effects on health, their complex and synergic effect, possibilities and ways of health protection); health risks of car exhausts (chemistry), energy consumption of transport (physics).

The task for environmental education is to point to problems and dilemmas that pupils will solve as adults, free and responsible citizens. We assume that pupils will have a chance to contribute to meeting the requirements of transport that is more environment-friendly, which is something that experts already discuss and implement, such as using cars with lower energy consumption and emissions, use of alternative

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[6] The topic is formally integrated into the crosscurricular topic Environmental education and educational areas (e.g. Humans and their world, Humans and nature in the curricular document the Framework Educational Programme for elementary education).

fuels and renewable sources of energy, enforcing stricter emission limits to restrict the production of greenhouse gases (emissions), stricter regulations in the area of production and processing of wastes in transport, implementation of navigation systems to reduce the overload of roads etc. As mentioned above, car transport is very popular with young people and so it is not tactical to dispute the necessity of using cars. Such a radical approach could result in a rather resistant approach in pupils.

Conclusion

The investigations have contributed to the description of relationships between the care for one´s own health and the environment, their overlaps as well as areas where they meet and affect each other. It was found that nature is perceived as a platform for health care and the damaged nature as a significant health threat. Health can thus become an important motivational factor for the demanding process of developing environmental awareness of a person. It is expected that the recognition of the value of human health will influence idleness, which represents one of the obstacles to pro-environmental action. The focus of our attention was educational or instructional description of objective health threats generated by the damaged environment, which can represent good motivation to overview certain behavioural patterns.

Nevertheless, we cannot expect that health concern, just like love for nature, could be sufficient motivation for dramatic changes in behavioural patterns and lifestyle in favour of nature in the majority of population. Some researches ((Franěk 2004, Koger, Winter 2009, Krajhanzl 2009 etc.) show that many people are willing to change their behavioural patterns only if they (or their near relations) directly benefit from that.

Our results confirm the link between the health of nature and general physical, mental and social welfare of a person. From the educational point of view this means that adequate attention should be paid to the transformation of the educational curriculum, that should meet the requirement to "*teach pupils and students how to think[7], motivate them to solve problems that they encounter throughout all their lives, as well as the current conflict of culture and nature*", so that, as J. Šmajs says (2011, p. 79), the curriculum provides "*instruction for health, care for body and mind, and good life*".

Education should develop the abilities of a person to choose, select and process relevant information, perceive natural information as essential, and cultural information as vital for the maintenance of culture, but subordinate to natural information. This should lead towards the biophile (pro-nature) focus, healthier inner life of a person and subsequently their healthier lifestyle, reflected in the provision of healthier environment.

What has to be done while searching for the pro-nature focused system of education? We can start as proposed by D. Abram (2009):

"*... slow down for a moment, calm down the constant twittering in our brain and provide space for eyes and ears to begin to perceive all the other voices that surround*

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[7] As pointed out by J. Šmajs (2011, p. 79), "*where there is no thought, there are dysfunctions and mental problems, which are eventually somatic, i.e. they have adverse effect on human health.*"

us... All these gestures are very important, and still not sufficient, because we also need to communicate with each other. It is essential to come back from the silence to the world of expressions, but at the same time to find such ways of speaking that will be accurate for our direct sensual experience of the world, our animal kinship with the rest of life on earth."

VÝCHOVA KE ZDRAVÍ V ENVIRONMENTÁLNÍCH SOUVISLOSTECH

Abstrakt: Autorka poukazuje na průnik podpory zdraví a péče o životní prostředí v systému výchovy. Konkretizuje jej na cílech a obsahovém zaměření dvou podsystémů, tedy environmentální výchovy a výchovy ke zdraví. Zdravotní důvody péče o životní prostředí se staly inspirací pro výzkumné sondy, zaměřené na problematiku „ohrožení vlastního zdraví v důsledku environmentálních vlivů"[8]. Zvolené fenomény (příroda versus rekreace, příroda versus doprava, příroda versus pohybové či sportovní činnosti) jsou ilustrovány na příkladech výsledků výzkumných sond. V závěru je popsán přínos pro teorii a praxi výchovy ke zdraví a environmentální výchovy s akcentem na proměnu vzdělávání směrem k biofilní orientaci.

Klíčová slova: životní prostředí, biofilní vzdělávání, environmentální výchova, kvalita života, péče o zdraví, příroda, kultura, výchova ke zdraví, zdraví

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[8] Výsledky výzkumných sond jsou součástí studií zpracovaných ve VZ Škola a zdraví 21 v letech 2008–10.

NEW APPROACHES IN THE FIELD OF SUBSTANCE USE PREVENTION IN ADOLESCENCE – INTRODUCTION TO SOCIAL NORM APPROACH

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Abstract: *For a few past decades alcohol and other substances use has become one of the most critical social issues on a national level. A lot of primary and secondary schools involve into their prevention programs aimed at reduction of this phenomenon. Among the most frequently used methods we can mention providing information, peer groups and health education. Unfortunately, the effect of these methods is very limited. In the article we would like to introduce the preventive approach called* Social norm approach *that differs significantly from those aforementioned. Its authors found out that students typically misperceive the number of those students who are engaged in substance use. This phenomenon was named misperception. As many foreign research revealed, the correction of misperception and communicating a message related to the actual norm (number of the students involved in a risky behavior) contributes significantly to the decrease in students´ substance use.*

Key words: social norm approach, substance use, misperception, correction of misperception

Introduction

Within the last decades we have been facing many social changes in our society, which on one hand make the life easier but on the other hand they include risk connected with the growing number of social – pathological phenomena, among which the leading position belong to substance use and abuse. We do not mean just alcohol and cigarettes, but it is necessary to admit that quite a lot of young people have already tried such narcotics that are likely to cause addiction. Primary school children and young people in adolescence belong to groups that are mostly jeopardized by this phenomenon. Research results indicate that the age level of substance users is getting lower in our country. None of us – grown ups has a guarantee that his/her children will have the power to resist and steer clear of drugs. There is a way that enables people to cope with this problem and we call it prevention. In our culture we distinguish three basic levels of prevention. First is primary or universal level which addresses the entire population and the basic aim of it is to protect young people from emergence of various psychological and social problems.

Second level belongs to secondary or selective prevention that focuses on harm reduction caused by the above mentioned problems. The last, tertiary or indicated prevention aims at recurrence of problems connected with substance use. Despite all demands to create and apply such prevention that posses an attribute „effective", providing information on drugs and their dangerous impact on humans still belongs to the most frequently used form of prevention. There is a preventive approach that has got the attribute „effective" and its conceptual basis lies in social norms. The term that for many people belongs to social psychology has recently found his place in other areas of human's social life. In the US from the beginning of the 80th (last century) professionals started spreading and subsequently applying approach, that core idea is found in social norms. The idea of spreading the actual norm related to substance use seems to be a good "instrument" that helps professionals cope with this serious problem. In our country so far unknown approach belong to those preventive strategies that do not preach, do not lecture and never points to those students who drink alcohol, smoke cigarettes or engage in a risk behavior. Its strength is to focus on those students who decided to stay away from the influence of drug addiction.

Wider context of the term *norms*

The life of every single person is more or less influenced by norms. For many people the widely spread meaning of this word is connected with regulations or principles that are related to some particular activity. In „Dictionary of foreign words" (1997) we can find the explanation of this term as „ obligatory rule determined by regulations or habits. According to English psychology dictionary, norms represent commonly accepted standards of behavior within society, community or a group (Colman, 2001). The main distinctive criterion in approaching norms can be one's viewpoint. Accordingly there are norms on several levels: linguistic, legal, moral, technical and definitely on social level. Norms can operate on higher levels that means national, there are even such norms that are universally valid. Each norm is a part and a product of human life and in many situations it can be replaced by synonyms as:

- Rule – regulations developed by government authority. They are formal standards of behavior that might be considered as norms according to whether or not they are respected by people,
- Custom/tradition – they are common and ordinary ways of performing certain activities. Norms are described as customs in situations, that do not require their adoption (Krech, Crutchfield, Ballachey, 1969),
- Habit – refers to the set of attitudes and beliefs that prevail in the group and are inherited from the past. Using other words habits refer to the power that molds our attitudes and beliefs. Different point of view can represent the habit related to culture, that means such element that was formed spontaneously and naturally (Schlicht, 2001).
- Morals – norm or principle of right and wrong in human behavior, it is a specific representation of morality. It determines behavior with strong social importance.
- But there are others such as: directive, convention or principle.

Classification of norms within social psychology

From the aspect of fundamental determination of norms they can be viewed in two ways:
- the first one describes them as commonly accepted and respected rule,
- second one describes them as an individual perception of what people should do and what is allowed (Výrost a Slaměník, 1998).

The above mentioned standpoints do not relate to norms as to rules or regulations, but they emphasize the direction of norms: whether they relate to the group of people or an individual. This classification closely relates to the term social norm and to the difference between this type of norm and a personal norm.

Social norms are described as rules connected to a social subject, for instance a group of people or any kind of community. Homišinová (2001, page 1) defines social norms as „requirements specified by society that are directed at one's activity and his behavior towards other people, community; they are instructions how to behave in specific situations and a means of control over one's behavior". Social norm is not accepted by single individuals but it is a rule or regulation that was accepted by the group of individuals. If a certain rule is to become a norm, it is necessary to be accepted and promoted by all members of the social group. Moreover also individual perception of this norm enters this process – which means how the norm is understood by an individual. In general every single norm is defined on one hand as a rule accepted by the whole group, but on the other hand it is closely connected with its individual perception. What remains important is, what an individual perceive as a norm or what he considers to be a common rule. Also according to Lovaš (1998) in social psychology we underline the distinction of the aforementioned standpoints regarding norms in general. It is specific for social – psychological approach that norms are understood also as expectations. They determine how people should behave under particular conditions and circumstances. Norms are created in the course of repeated interpersonal interactions unless they acquire form of rules or regulations that are valid in a particular group of people or a community. Norms created in this way represent an inevitable element of group functioning. The group controls the adherence to norms among the members. Due to this fact a special system of sanctions was developed for those who do not adhere to norms or violate them.

The term *personal norm* is understood by Baumgartner (2003, s. 226) as „a personal rule accepted by a single individual or it can be a principle of solving a particular situation". The fact that people are holders of both norms – personal and social – makes this distinction quite difficult. Rules and regulations become norms only in case they are accepted by single members of the group not by the group as a whole. There might be a slight difference among the members regarding the reason of norm acceptance: whether they are accepted because the individual really feels it that way or because it is necessary for his membership in the group. Apart from this, each person determines his own rules that do not have any succession to the membership in the group. Origin of group norms is various – it can be the consequence of internalized social norms or it may stem from accepted norms that are related to internalized values.

One of the main reasons of social norms acceptance is the interconnection between a person and a group. The reason of personal norms acceptance is subjective need to respect them and the need to act in accordance with them.

So norms in everyday life include social norms that represent informal obligations that are reinforced by social sanctions or rewards and personal norms that represent duties and obligations reinforced by internalized feelings to act, possibly might be reinforced by feelings of guilt, if we fail in our actions (Vandenbergh, 2005). Norms regulate adapting to social system people live in (Ruiselova, Urbánek 2008).

Research on substance use in adolescent people focuses on two types of social norms (Cialdini a Demaine, 2006; Elek et al., 2006; Borsari a Carey, 2003) and these are descriptive norms and injunctive norms.

- Descriptive norm relates to perception of quantity and frequency of drinking in other people, it is derived from observing people's alcohol consumption in discrete situations (Borsari and Carey, 2003).
- Injunctive norm on the other hand relates to the perception of which behaviors (for instance drinking alcohol, smoking cigarettes) are typically disapproved or approved. In its essence this norm represents perceived moral rules of the peer group. Injunctive norms help an individual in determining what social behavior is acceptable or unacceptable (Cialdini et al., 1990).

In general descriptive norm (defined as the norm IS) is described as the one that relates to what is usually done in certain situations and it motivates people by providing evidence, what kind of behavior will be effective. Descriptive norms provide a picture about what is ordinary, usual, and normal – that means they tell us what is done. Motivational strengths of these norms stems from their informational value. Cialdini et al. (1990) claim that noticing what others do and copying this behavior seems to be a good strategy. It can be considered as the instruction that helps to resolve a problem, the instruction that is available to everyone who notice it. Injunctive norms (defined as the norm OUGHT TO) are concerned with what people feel is right or how people in general ought to behave in various situations and circumstances. As it was already stated, injunctive norms instruct people how to behave by means of social sanctions. Descriptive norms instruct about appropriate behavior by means of examples, injunctive norms do it by means of sanctions.
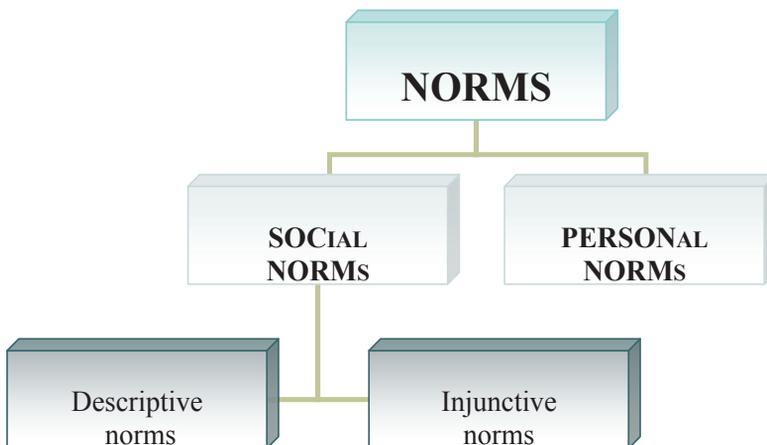
Picture 1: Norm classification in social psychology

Social norms play an important role in young people's decision making concerning substance use (Elek et al., 2006). Terminology used in empirical studies that uses social norms theory is not often unified. We decided to borrow Neighbors et al. (2006) classification of social norms on two levels: first level distinguishes between descriptive and injunctive norms and the second level views these norms from actual and perceived perspective. By using this classification it is clear that both types of social norms (descriptive and injunctive) offer two viewpoints. The first viewpoint focuses on the real behavior of an individual, what he usually does and how people ought to behave. The second viewpoint focuses on what an individual thinks other people do and how they behave in certain circumstances. Oleson (2004) defines actual norm as comprised of actual average attitudes, beliefs and behaviors of all group members. On the other hand perceived norm is defined as a group – wide assumption of extremity in the beliefs, behaviors and attitudes of all people in the group. Perceived norm is different from actual norm since it relates to what people think. Berkowitz (2004) adds that results of his research confirms the assumption that peer influence is mostly based on what we think other people do and what others believe (perceived norm) rather than on people's real actions and beliefs (actual norm).

Descriptive social norms are frequently used in interventions aimed at alcohol consumption in high school students and university students in the US. They are based on two core relations:

a) perceived norm is typically higher than actual norm,
b) perceived norm is positively correlated with alcohol consumption (Neighbors et al., 2006).

Social norm theory is based on the finding that people incorrectly perceive the frequency of how often their peers are involved in a risk behavior (drinking, smoking, using drugs) and this phenomenon has a causal effect on their behavior. Phenomenon of incorrect perception was in a scientific literature called misperception. The term misperception explains the contrast between actual attitudes or actions and what people think is true about behavior and attitudes of other people (Berkowitz, 2004). Misperception occurs when people overestimate or underestimate the prevalence of certain attitudes, beliefs or behaviors in a specific group or population. People can misperceive their social groups in many ways what subsequently influences their own behavior. As an example we can use the majority of people who are engaged in a healthy behavior but they believe that they are in the minority. On the other hand the minority who is engaged in unhealthy behavior incorrectly believe that they are in the majority. Also an individual might think that his behavior is more unique than it really is.

In the context of the above described phenomenon of misperception Perkins (1995) asserts that students typically overestimate the substance use and they have a tendency to overestimate permissiveness of their peers. Misperception fuels or supports problem behavior: students found themselves in an illusion or distorted image of their peers and subsequently adopt such behavior that their personal attitude would never allow them to adopt. The result is that problem substance use becomes widespread; students drink more (quantity and frequency) because they incorrectly perceive that this behavior is in accordance with what they peers really do. The concept of misperception was for

the first time used by Wesley Perkins and Alan Berkowitz in 1986. Based on existing findings in this field Perkins summarized main points related to this phenomenon:

1. Regardless of the drug type, there is a gap between actual and perceived norm.
2. Misperception of peer norms exist in high school and students come to universities with misperceptions of the norm related to substance use that even gets worse after entering university.
3. Misperception exists in both genders regardless of the extracurricular activities. Students are „carriers" of the misperception, they pass it by means of conversations and they reinforce it in the culture.
4. Misperceptions have a potentially significant impact on substance use in students regardless of their own personal beliefs and attitudes and regardless of the actual norm. Misperception helps to activate and reinforce already permissive attitudes of some students. This subsequently create „pressure" on other students with moderate attitudes that leads to heavier alcohol and other drug use.

Misperception of peer norms

One of the social norm approach pioneer Wesley Perkins (1977) in his cross-sectional study revealed that a peer influence (perceived norm related to drinking) seems to be a stronger predictor of alcohol consumption than those factors that include religion and parental attitudes. The strengths of peer influence seems to be crucial in understanding that students are engaged in drinking behavior that is in contrast with their personal attitudes. By the end of adolescence peers are regarded to be one of the most important and influential agents, especially in the field of alcohol and other drug use (Kandel, 1985). Young people in this period of life are prone to accept without any critical thinking most attitudes and behavior of their peers. This influence seems to persist until adulthood, having serious impact on individual use of wide range of substances.

Kopčanová (2001) defines these five main reasons leading to drug use.

- To reach feelings of satisfaction and relaxation. A lot of people use alcohol and other drugs just because they want to feel different, they might like feelings that are elicit by alcohol consumption or using other drugs. There are people who feel „better" when using substances but they never become addicted to them. Despite this it is highly important to realize that once a person decides to use alcohol or other drugs there is a risk that he might become addicted.
- Curiosity. It is very „common" reason of substance use. As it turned out, curiosity belongs to those factors that might have a serious impact on the age of the first use (Romanová, Čavojová, Sollár, 2008).
- Peer influence. A lot of people correctly suppose that during adolescence the individual's behavior is significantly influenced by the peer group. The impact of peers is obvious during the whole lifetime but in the course of adolescence this impact becomes stronger and more significant. For most adults using drugs just because other uses them does not seem to be a good reason for taking them. But for the children this could be the only way how to stay close to friends or remain a member of the peer group.

- External stress. It represents external pressure on the individual – that means all factors that stand outside the individual (for example school, work, family, and friends).
- Internal stress. This includes all problems or troubles that have their origin in the individual's inside world (low self-esteem, depression, moodiness). People are often desperate, helpless or weak to change those feelings or states.

Peer norms that are more permissive in comparison with group norms seem to play more important role in life of young people. Research (Rice, 2006; Schultz a Neighbors, 2007; Scholly et al., 2005; Larimer a Neighbors, 2003; Pollard et al., 2000; Ott a Doyle, 2005 and others) clearly demonstrate the existence of a gap between what is believed to be a group norm and the actual group norm. These findings can be applied to both types of norms: most frequently attitudes related to low – risk behavior and most frequent behaviors related to alcohol consumption.

As it turned out most students are prone to think that their peers are more permissive in their personal attitudes in the area of alcohol consumption and they do believe that their peers drink alcohol more frequently than the actual norm is (Perkins, 2002). This research together with its findings was one of those that focused also on the perception of friends´ or peers´ behavior not just on the actual norm. These findings motivated also other schools (high schools and universities) that adopted the main idea and carried out similar research. In other study based on national data from several institutions it was revealed that every university had documented discrepancy between the perception of alcohol use and its actual norm. Overestimated perception of the norm related to alcohol consumption is deeply rooted in all schools in the US, private and public, regardless the school size or the region the school is situated in (Perkins, 2002). The aforementioned pattern of actual norm overestimation appears in all types of substance use (Perkins, 1995). Beck and Treiman (in Perkins, 2002) claim that norm misperception is not a unique phenomenon in university students but it can be found among high school students as well. Theoretical explanation of potential misperception causes can be found on psychological, social and cultural levels. On cognitive level psychologists demonstrate that there is a human tendency to make false inferences since people attribute behavior and action of another person to his own disposition rather than to the environmental context (Zanden, 1987; Baron et al., 1987; Sollárová, 2007). From the perspective of social norm approach we can illustrate it by using an example of an intoxicated student perceived by his peers who make inferences about his state. They can attribute his state to his typical life style or they might attribute his state to his personal disposition, in case that his behavior can not be explained or described as an atypical incidence. Without having enough information to make a picture related to occasional drinking, such behavior is gradually perceived as typical and relatively frequent what in fact does not correspond with the actual state or reality. Existence of overestimated/exaggerated perception in minds of many students can have a serious impact on their own AOD use (alcohol and other drug use), since they feel the pressure to be conformed with incorrectly perceived peers´ expectations. AOD use increases as the students start to behave in accordance with inaccurate perception of peers´ expectations related to substance use. Subsequently also actual norm increases. Misperceptions of actual norm discourage

the group of responsible students from expressing a public disapproval with substance abuse. Research of Prentice and Miller (in Perkins, 2002) revealed that when students with moderate or conservative attitudes to alcohol use incorrectly believe that their position is different than the norm, they feel alienated from their peers. In fact norm misperception exists in different types of schools, among members of various formal and informal groups, among members of various ethnic groups, among students of all religions and it exists between males and females. There are several studies (for instance Rice, 2006) that focused on gender differences in misperception and they found out that the differences between men and women in misperception of AOD use are statistically significant. As Berkowitz (2004) claims this can be caused by the fact that women are more influenced by environmental factors and they are less involved in the culture of alcohol use and thus their misperception is higher. The phenomenon of misperception has become a base for a new approach in the field of AOD use prevention – so called *social norm approach*, but its significant position can be found in prevention of sexual behavior, gambling, risk driving and other pathological forms of behavior. Social norm approach is not limited for a particular age group; it can be used in universities as well as in secondary schools, having the same or similar effects. In the past decade social norm approach has become frequently discussed issue related to health support. Its increased popularity stems from two facts:

1. Many of commonly used strategies aimed at problem behavior in the period of adolescence were not effective. Due to this finding the professionals have tried to develop and find new, more effective methods to prevent AOD use.
2. There is a real requirement in the field of prevention to focus on evidence based evaluation. In social norm approach the data obtained after its application are really promising.

Within the last decade we can observe a shift in the prevention, in the direction from reactive strategies to proactive ones. Reactive strategies using other words mean that first of all we must face a problem or difficult situation and just after that we start resolving it. In the field of prevention most of the work that was done concentrated on evaluation and diagnostic process and developing of rehab programs for AOD users and addicts. This strategy in fact did not reduce the rate of all above mentioned problems. So the attention started to move towards development of such proactive strategies that would address the problem before it really occurs. Much of this work was and still is based on traditional model of health education by means of health communication campaigns. In case of AOD use, communicated message is entirely focused on health risks and danger related to the substance use. This specific type of prevention that is based on „fear and scaring people" looses its credibility when young people find out that the likelihood of facing depicted negative consequences is quite low.

AOD use

Preventive strategies

Reactive   Proactive

Individual   Environmental

Policy   Social norms
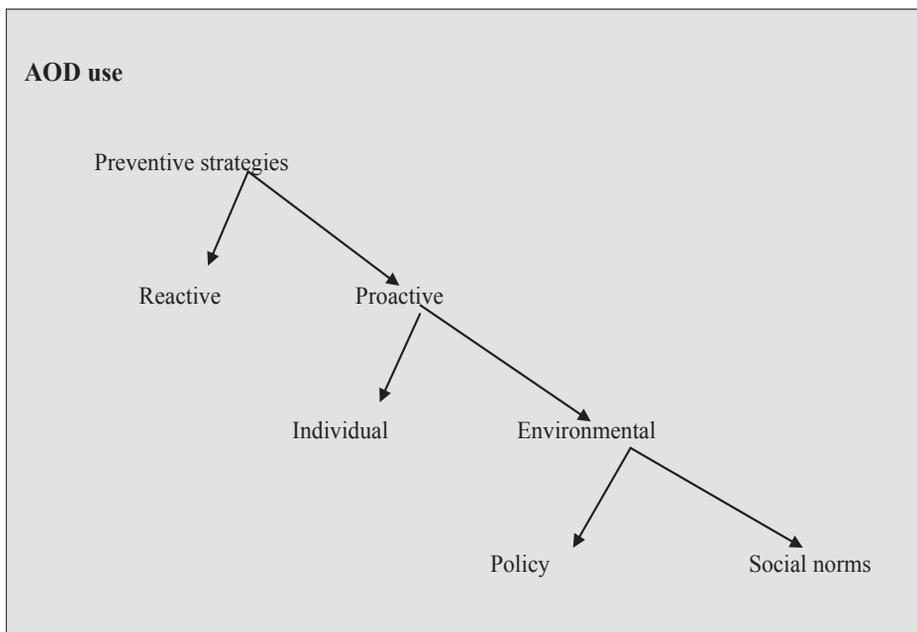
Picture 2: Shifts in Prevention (Source: Perkins, in Haines et al., 2004)

Contrary to reactive strategies, positive proactive strategies focused on changing individual attitudes, using such techniques as values clarification and increasing self – esteem. Many of them are quite demanding and achieved reduction in AOD use is hardly noticeable (Haines et al., 2004). Most of proactive efforts is oriented on individuals, for instance by providing information or by an effort to change personal attitudes and values. The impact of these efforts is low and thus preventive activities began to shift their attention toward the environment. That means being oriented in those elements that stand beyond personality and values of individuals. Environmental approach may take two directions: one is based on strategies searching for a change in institutional and public policy by creating barriers to AOD access or by increasing punishments in order to reduce risk behavior. The second direction represents social norm approach that uses accurate information about the social context in form of positive group norms that lead to behavior change. Linkenbach et al. (2002) propose these key concepts in social norm approach:

a) Misperception strengthens negative behaviors,
b) accurate perception reinforces healthy behavior,
c) social norm approach uses various intervention strategies,
d) social norm approach relates to communities,
e) social norm approach is a scientific method,
f) social norm approach is an environmental strategy.

Social norm approach presents the idea that most of young people´s problems are partially caused by their desire – or social pressure – to be comformed with not accurately perceived group norm (Perkins, 2003). This type of a preventive strategy

proposes "instrument" that can correct misperception → to shift perceived norm closer to actual norm. The basis is formed by gathering credible or reliable data from the target population, then by using various health communication techniques consistently spread the truth about actual norm. Exposing the target group to repeatedly occuring positive messages (data – based messages), misperception (which sustained problem behavior) reduces. Consequently majority of target population starts to behave in accordance with more accurately perceived norm.

Baseline	identification of actual and misperceived norms.
↓	
Intervention	intensive exposure to actual norm
↓	
Predicted results →	correction of misperception
→	reduction of risk behavior
→	increase of health behavior

Tab. 1: Social Norm Model (Haines et al., 2004)

We consider important to emphasize that social norm approach related to alcohol use proposed for adolescents (whether high schools or universities) communicates and spread just the norm related to non use. Social norm approach relates to correction of actual norm misperception and its task is not to induce the change of problem or not healthy norms (Berkowitz, 2005). The assumptions of social norms theory are these:

1.	Our actions are usually based on misperception of attitudes and behaviors of others.
2.	If misperception is defined and perceived as real, it has got real consequences.
3.	People passively accept misperceptions rather than being actively involved in their change, they hide their own feelings and beliefs.
4.	Misperceptions discourage people from expressing their attitudes and ideas that are falsely perceived as noncoformed but on the other hand they encourage problem behavior that is falsely perceived as normative.
5.	Appropriate information about actual norm encourages people to express beliefs that are consistent with true, healthier norm and they suppress such behaviors that are inconsistent with them.
6.	Individual whose behavior is not problematic or risk also contribute to this issue simply by the way he/she talks about it.

Tab. 2: Assumptions of social norm theory (Berkowitz, 2005)

Since we have no evidence that the above mentioned approach is utilized in our culture and environment and we suppose that people do not have enough information

about its positives and strengths we decided to introduce not only to professionals in the field of prevention, but also to teachers and school psychologists the preventive strategy which focuses on providing evidence about the gap between how the risk behavior (its different forms) is perceived by people and what the actual state (actual norm) is.

The method that is frequently used in the process of misperception correction, especially on the level of universal prevention, is *social norm campaign*. It uses all available media that can provide students with accurate information about actual norm of AOD use (DeJong, Langford, 2002). Well designed and prepared campaign is usually implemented in four basic steps:

1. Gathering data – all information related to the pattern of AOD use (smoking cigarettes, alcohol and other substances consumption) from the target population – identification of frequency and persisting perception.
2. Development of intervention strategy – identify what media are most frequently used by the target group, what is considered as credible and worth to remember. Choosing the best way to spread the positive message that was selected out of collected data. Developing a prototype of message that is simple, clear, positive and true.
3. Implementation – carry out the campaign that spreads the message as often and as consistently as possible.
4. Evaluation – find out whether the message really reached the target group, whether the students remember this message, what their reaction was, to gather and analyze obtained findings in order to assess effectiveness and impact of the campaign on problem behavior.

Handbook that resulted from collecting professional experience provides detailed depiction of the third and fourth abovementioned steps (Social marketing handbook, 2008)

▪ Very important step in the initial phase is to recruit a group of students - volunteers, and teachers for your team – interest and input of students is a crucial moment of a social marketing campaign.
▪ In the next step the whole team is actively involved in brainstorming – preparing creative, provoking ideas, themes for posters. The aim of this phase is to produce the most creative ideas – take advantage of everything what can be offered by PC. Over many years of working on campaigns it was revealed that especially students know exactly what is „cool". It is useful to ask your students what are the trends on TV, movies, books, fashion – it means everything that would attract attention of other students. Language used on posters should be in accordance with the language of target population.
▪ Finding out how to use the best data is involved in the next step – look critically on the questionnaire or survey and find positive (good) data. For instance: Though 30% of students have a problem with alcohol, the majority (70%) does not have this problem. Facts like this one are the best and should be used on posters. It is good to choose a couple of key messages and constantly expose the target population to them. While the design of posters can change, it is necessary to keep the message consistent, if we really want our students to internalize it.

- The next step is preparing the posters´ designs. If we already have an idea regarding the theme or slogan and we have already decided what data are going to be used, it is time to start working on posters´ design – what kind of photos, pictures and graphics will be used, the size of posters, their colors. In the beginning quite a lot of projects aimed at social norm marketing use simple graphics, often they try to incorporate pictures of their students into posters. If there is enough money, it is possible to hire a professional photographer who can make the photos. It is highly important to cite on your posters where the data come from (their source) and what organization sponsors the campaign. Placing this important information on your posters helps increase credibility of the project in general.
- Feedback from students is an important element when preparing the posters´ design and this process is crucial so that the stuff or team can learn whether your slogan, design and message about the health norm is in the process of internalization or whether the students accept the message on the posters or not. When the message does not relate to students they will hardly internalize it that naturally leads to lower (if any) impact of the whole campaign
- Assessing the budget and planning steps connected with printing of prepared posters.
- Financial means are not necessarily important to start social norm campaign. In the beginning you can use posters from web since many students are not only PC users; moreover they can do „miracles" on computers. As for the campaign material copies – it is necessary to determine the size of posters. It is useful to prepare a few large posters and many small ones.
- Assessing other marketing ideas that might be effective in target population. It is good to offer to schools and dormitories as many posters as it is possible. If the school principal agrees it would be efficient to create a commercial in the school magazine or local TV. Web site is a good idea to place the marketing message.

The fact that aforementioned way of managing social norm campaign was adopted from a different country (the US) does not decrease its applicability in our culture and settings. It is important to keep in mind possible differences – that can be hardly identified and predicted at the beginning of the project. Belief in the core idea of this specific approach is highly needed.

At the end of this paper let us introduce a couple of practical examples – research and studies aimed at misperception identification and subsequently social norm campaign application that were carried out in universities and high schools all over the US, together with their basic findings.

SOURCE	SAMPLE	METHOD	FINDINGS
„The Report on Social Norms" – December 2003	11 800 high school students	Social norm campaign –three years implementation	a) decrease in perceived norm (closer to actual norm) related to cig. smoking in all grades b) decrease in cigarette smoking in all grades
Source: http://www.socialnorms.org/Resources/NC2003.php			
Ott, Doyle The High School Journal – Feb/March 2005	414 high school students	Interactive model based on social norm approach, called „Small Groups Social Norms" – one session lasting for 2 hours	despite short intervention duration – misperception significantly decreased
Agostinelli (in Perkins, 2002)	Not specified number → experimental vs. control group	Social norm campaign using a feedback about actual norm related to alcohol consumption	Significant decrease in alcohol consumption in the group with a normative feedback and no change in a control group after 6 weeks
Scholly et al. Journal of American College Health, vol. 53, 2005	University students	Social norm marketing	Students consistently overestimated the prevalence of sexually transmitted diseases among their peers
Pollard et al. Journal of College Student, vol. 14, 2000	2642 Art college students	Survey aimed at identification of alcohol and other drug use within 3 years	Significantly higher level of predicted AOD comparing to actual state
Perkins, Craig (in Berkowitz, 2004)	University students – number not specified	Intervention that combined campaign by means of standard posters, electronic media, interactive web site, class projects and teachers trainings	a) 21% reduction in alcohol use b) decrease of risk alcohol consumption from 56% to 46% (two weeks difference) c) successful decrease in crime rate related to alcohol consumption within 4 year period d) reduction in misperception (reducing gap between actual and perceived norm)
DeJong et al. Journal of Studies on Alcohol, vol. 67, 2006	2939 university students	Social norm marketing	Students involved in social norm marketing exhibit less risk behavior related to alcohol use comparing to control group
Stephenson, K. R., Sullivan, K. T. The Canadian Journal of Human Sexuality, 18 (3), 2009	152 university students, specialization: psychology	Intervention based on social norm approach	Students exposed to intervention showed lower level of discrepancy between perceiving themselves and perceiving others in the context of sexual activity and tolerance

Tab. 3: Research in the field of substance use prevention using social norm approach

Aforementioned research studies document that social norm approach application is really an efficient preventive strategy that can operate in two key areas:

Correction of misperception – shift in the perceived norm towards the actual norm, it was revealed that also short-time interventions have a potential to correct misperception, which does not last long. There is evidence that correction of misperception is connected with the duration of intervention: longer period the intervention last, more serious impact it has on perception of risk behavior → students to a lesser extent overestimate the prevalence of AOD use.

Reduction of problem or risk behavior – which is a part of misperception correction, but as it was already mentioned this is possible only if we can guarantee its longer duration.

As a conclusion we would like to express the hope and belief that presented preventive approach will find its supporters who became inspired by its core idea and who in the process of health promotion are not afraid to use innovative and challenging method that does not scare young people and does not teach what is right. We propose and promote the method that points at and supports all those who make healthy decisions and who take responsibility for their lives.

NOVŠIE PRÍSTUPY V OBLASTI PREVENCIE RÔZNYCH FORIEM RIZIKOVÉHO SPRÁVANIA V OBDOBÍ ADOLESCENCIE – PREDSTAVENIE PRÍSTUPU SOCIÁLNYCH NORIEM

Abstrakt: Už niekoľko desaťročí je užívanie alkoholu a iných návykovývh látok u študentov považované za jeden z najzávažnejších sociálnych problémov v celonárodnom meradle. Na takmer všetkých základných aj stredných školách býva realizovaná prevencia a vzdelávanie zacielené na redukciu tohto fenoménu. Medzi najčastejšie metódy ktoré sa využívajú patria poskytovanie informácií, rovesnícke skupiny, zdravotná osveta. Efekt týchto metód je však len minimálny. V príspevku predstavujeme preventívny prístup nazvaný Prístup sociálnych noriem, ktorý sa od tých bežne používaných významne odlišuje. Jeho autori zistili, že študenti typicky chybne vnímajú to, či a koľko ostatní študenti návykové látky užívajú. Tento fenomén bol autormi nazvaný mispercepcia. Ako vyplýva zo zahraničných výskumov, jej korekciou a šírením správy o skutočnej norme vzťahujúcej sa k samotnému užívaniu významne redukujeme počet študentov, ktorí návykové látky konzumujú.

Kľúčové slová: prístup sociálnych noriem, užívanie, mispercepcia, korekcia mispercepcie

THE FACILITATION OF PSYCHOLOGICALLY HEALTHY FUNCTIONING OF A PERSON

Eva SOLLÁROVÁ

Abstract: *The intent of this paper is to point out the wide range of applications that a human-oriented approach, or applied positive psychology, provides to explore and promote psychologically healthy functioning in people. Within the psychology of health, positive psychology offers applications beneficial to human health and well-being. According to one modern definition (Linley, Joseph, 2004), the applied positive psychology is also concerned with helping people attain optimum functionality. In terms of positive psychology, this means to transcend the realm of psychopathology in pursuit of an optimally functional (healthy) personality. It is in the sense of such "positive health" (Seligman, 2008), that we introduced the concept of an optimally functioning individual as conceived by humanistic psychology, particularly by the human-centered approach evident in the contributions of Rogers and Seeman. We further presented the applications of their concepts and research into the structure of an optimally functional person within a non-therapeutic context (Sollárová, Sollár, 2010), as well the possibilities in optimizing man's functionality in that context, especially in adult education and in (people-focused) coaching.*

Key words: *client oriented psychological approach, humanistic psychology, positive psychology, facilitation of development of optimum functioning personality, positive health, extra-therapeutic relationships*

1. The concept of psychologically healthy person in positive psychology vs. optimum functioning person in the person centred approach

Martin Seligman (2008) as one of the founders of positive psychology movement criticized traditional applied psychology in its basic focus on the treatment of deficiencies or psychopathology. Since 2000 the interest in positive psychology, as the psychology focused on the development of strengths and competencies of an individual and the psychology that reinforces health, wellbeing and achievement of optimum functioning of the individual, has increased.

Linley a Joseph (2006, p. 7, 8) in their new definition of positive psychology, on the pragmatic level view specify the processes of interest to positive psychology as those psychological ingredients that lead to the good life. According to them „positive

psychology should seek to understand the factors that facilitate optimal functioning as much as those that prevent it". They then define positive psychology as „the scientific study of optimal human functioning...." Among important historical antecedents of positive psychology we would like to revisit earlier humanistic ideas related to optimal functioning.

Humanistic psychology, specifically a client oriented therapy and person centred approach, is an inspiration to understand the optimum functioning of a person in the perspective how the concept has been defined as well as how such level of personality development can be achieved.

Client-centred therapy and later person centred approach accentuates the focus on the whole personality and therefore has been shaped as the exploration of the optimum functioning of a personality. This interest corresponds with the more general interest in human potential and with a positive view of a person's character. The focus on positive qualities outshined the focus on dysfunctionality and psychopatology and it is represented by Roger's description of the "fully functioning person" (Rogers, 1961) and Seeman's research of positive health (Seeman, 1983, 2008), while the above mentioned sources illustrate consistently the sustained **focus on the optimum functioning of a personality**.

Synonyms of an optimum psychological adjustment or optimum psychological maturity and full congruence, optimum functioning of a person, and the ultimate goal of the actualization of a human organism is for Carl Rogers the concept of "**fully functioning person**" and for Julius Seeman "**psychologically integrated person**."

The idea of the fully functioning person by Carl Rogers (1959, 1962, 1997) represents the most complex description of the optimum personal organization and bridges his theory of personality and the theory of psychotherapy. It represents personal qualities of an individual, who went through theoretically ideal process of psychotherapy, which is at the same time [the concept of] the ultimate goal of the actualization of a human organism. Dominant, mutually linked qualities, according to Rogers, are: openness to one's own experience, living in an existential way and understanding of one's own organism as a trustworthy source of experience to achieve satisfactory decisions and performance. The person with the above mentioned characteristics is according to Rogers a person functioning in a richer way. Several implications follow, he stresses integration, creativity and trustworthiness of the nature of human being.

Rogers understands the *integrated* person as unified within the Self on all levels as if of "one piece", he diminishes the difference between a "role Self" and a "real Self", between defensive façade and real feelings. The experience of one's own organism is more and more accessible to the conscious Self.

These concepts are a synonym of psychological adjustment, optimum psychological maturity and complete congruence, optimum functioning of a person, the ultimate goal of the actualization of a human organism.

The theory of fully functioning person, the concept developed by Carl Rogers (1959, 1962) represents the most complex description of the optimum personal organization. It bridges Roger's theory of personality and theory of psychotherapy. It represents the characteristics of the individual who went through theoretically ideal process of psychotherapy and is at the same time the ultimate goal to actualize human organism.

Dominant mutually linked characteristics of a fully functioning person:

1. *the growing openness to the experience*
   Every impulse from the organism or environment is freely and without distortion, open to full awareness; free experience is not blocked by any barriers

2. *the road to a process, how to become a process*
   It is a movement of the individual to the process, fluidity, change, to a more existential way of life, full experience of every moment. It is derived from the openness to live, which enables the perception of every moment as a new one. Such experience represents the adaptability, the discovery of the structure in experience, fluid, changeable organization of the Self and personality.

3. *the growing trust to one's own organism*
   The individual regulates his/her behaviour on the basis of meanings which he/she discover in the actual experience happening right now.

Julius Seeman (2008) when constructing his model of effective functioning of a person defines the concept of **„organismic integation"**. The human model he perceives as a structure of behavioral subsystems (biochemical, physiological, perceptual, cognitive and interpesonal). These subsystems funcion in mutual harmony at a pschologically integrated person. Within individual subsystems as well as on the contact boundary between a person and the environment there exists a free flow of information.

This model of psychological integration leads to some specific consequences: free flowing system of communication will be more open to experiencing. As a result, a person will gain more data from reality through sensoric and perceptual processes. The amount of data that a person is able to generate is in direct relation to the effectiveness of his/her reaction. The more data as a basic for evaluation and decision-making will a person generate, the more effective his/her reaction will be.

The elements of personal effectiveness as specified by Seeman are as follows:

1. The ability to experience and perceive the Self

The ability to experience as a process is linked to such important and derived qualities as active awareness of the environment, high ability to accept and develop new information, the ability to deal with the complexity and ambiguity, adaptability to direct the stress and conflict. The parallel block of qualities included self-regarding attitudes while the self-confidence, the clarity to define the Self and the feeling of identity, coherent self-definition and the feeling of autonomy derived from the trust in oneself and the differentiation of relations between the Self and others are the qualities high personal integration. Regarding the relations between the Self and others the topical themes are the ability to overcome one's Self, awareness of others and interest in others. Intimacy, devoutness and empathy are accompanying elements of this type of relations. Energy, vitality and good physical health are consistent with the described characteristics.

On the basis of research findings of his team Seeman (2008) synthesizes the portrait of a psychologically integrated person as such who accepts the Self has the vision of his/her Self, which he/she likes, respects and believes in. The ability of integrated person to accept and develop the data of his/her actual experience leads to optimum quantitative but also qualitative reception of information – quantitative in the

way that he/she is able to accept more information thanks to the open communication system without conflicts and such a quality that he/she is able to develop and integrate this information more fully because his/her behavioral systems function in a congruent way, harmonically and without misrepresentations/distortions.

To accept and assert the Self, the willingness to trust in and use one's own organism, consequently the accessibility of data from the experience – all this makes the man fully functioning. Such person on the physiological level regulates his/her level of excitability relevantly to a situation. His/her openness to impulses animalizes his ability to use the signals from the environment to improve his/her own physiological functioning.

Integrated person on a level of perception and cognition shows flexibility and productivity. He/she use the sources in a broad way so that he/she function in an effective way. His/her self-trust is transformed into the internal centre of control, the feeling that he/she participates in and creates his/her own destiny. Similarly the internal centre of evaluation is typical for him, the feeling that he has the central role to develop the values which govern his behaviour.

On the interpersonal level, the acceptance and self-trust allows for the relationships which are accepting, equal, and not oriented on status or hierarchy. Because interpersonal relations lack the element of self-threat and danger, the intimacy and lasting relationships are more possible. From the perspective of other people the integrated person is more visible, he/she is accepted in a more positive way and is more evaluated.

Seeman evaluates the above stated picture as the beginning to set empirically defined integrated person.

Seeman (2008) understands the communication as a consistent and decisive element in the description of Roger's fully functioning person or his own organizmic integrated person as a healthy organism. He accentuated the key role of an open, fluid, and non-threatening communication system while the effective functioning of a person is maximized.

2a) The development of optimum functioning personality in the context of psycho-therapy

Rogers and Maslow can be linked together with the idea that the main moving force of human personality and life is the tendency to actualize the Self, i.e. the accomplishment of oneself, of one's possibilities and abilities, the accomplishment of one's Self. The Self-actualization is not necessarily the result of the optimum functioning of a person because his/her development is accomplished in a limiting environment. The Self is developed through the integration with the environment mainly other important people, with who we need to form relationships. Because the Self is fluid and open to change through the experience, there is a possibility to achieve the change of the Self under certain conditions. Rogers on the basis of specific results from his work with his clients found out that if he gives people the freedom to develop in any direction they will move in a positive way.

The answer to the question what the conditions are when the person can become fully functioning or if there are negative types of relationships what deform the process of actualization, and what types of relationships can serve to repair the consequences of negative conditioning, is expressed in the central hypothesis of client oriented therapy

according to which the person has enormous potential inside himself/herself to understand oneself or for the change of the self-image of one's attitudes and self-managing behavior and that it is possible to get to these sources only when a certain definable atmosphere is provided to facilitate psychological attitudes or qualities – emphatic understanding, congruence and unconditional positive acceptance (Rogers, 1951). These conditions are applicable not only for the relationship between therapist and a client but according to Rogers (1997) between a parent and a child, a leader and a group, a teacher and a pupil or the superior and the subordinate. These conditions are applicable for every situation where the development of personality is involved. The characteristics valid for the psychotherapy according to Rogers are applicable also for the all above mentioned relationships.

The relationship belongs to key aspects of humanistic psychotherapy because through the relationship the therapist is connected to the process of the whole personality in a way as it is disclosed by the client. The therapist pays attention to manifold ways in which the client communicates his/her Self to the therapist (not only in verbal communication but also in nonverbal).

The key element of the relationship between the client and the therapist and the communication of the whole personality is the therapist's focus on the immediacy, actuality of the relationship in every moment therefore the therapy is referred to as experiential. The focus on the experiencing in the client oriented therapy consists of an element of content and a process, where the content is defined through the topic of narration and the process is related to the way of interaction. The humanistic psychotherapies stress the importance of the process, the interactive actual experiencing. Therefore it is possible to perceive the humanistic psychotherapy as a therapy focused on the process, because it is exactly the process that facilitates the personal development of the client.

Seeman (2008) characterizes the therapeutic process by significant sequential elements in the direction towards the client's integration:

1. *the capacity/ability to explore own feelings even though the client faces anxiety*:
   The reorganization of the Self includes the exploration of feelings which are often unknown to the client and threatening in their essence. The tendency of a person is to avoid the pain and therefore to avoid the confrontation with threatening feelings. The clients in therapy learn to explore their feelings in the state of anxiety because they also learn that the self-exploration can be freeing and rewarding.
2. *the capacity/ability to experience fully the whole range of attitudes*
   This ability is linked to the ability mentioned above and it is its development. The client allows himself/herself to experience their own feelings connected with himself or herself fully. The opposite tendency, the denial, is disturbing and is linked with tension.
3. *the capacity/ability to symbolize one's own actual experience correctly*
   It is the process when an individual gives meaning to the experience in words or behavior. It is the process of "labeling", it is naming what the client has realized, so called "ha" experience.
4. *the ability to assimilate the new experience of the Self*
   The individuals who are able to experience and symbolize their own attitudes and not to suppress them are also able to evaluate their meaning. They can evaluate

and revise their own self-image on the basis of new experience. It implies that a certain degree of flexibility or fluidity in self-organisation of the individual belongs to an integrated person.

5. *the ability to develop internal center for evaluation*
   It is the ability of the individual to use his/her own experience as the basis of Self-evaluation and the development of the Self-image. The clients then move from the initial distrust in their own internal centre of evaluation as a consequence of denial/suppression or distrust in their own experience as a source of evaluation because they had used the evaluation of others, i.e. the external centre of evaluation.

6. *the ability to accept one's own Self and the Self of others*
   The individuals who have the ability to experience their own feelings and use them to develop their own self-image are at the same time people who trust, feel self-confidence and accept themselves. It does not mean that the integrated person is fully satisfied with himself/herself or that he/she does not have conflicts. It means that Self-accepting person does not have to suppress his/her own feelings but that he/she can see them as a part of his/her own Self. Then only he/she can accept other people.

7. *to understand one's own limitations*
   Therapy is not only the process of self-exploration but also of self-definition. People can learn not only what they are like but they also learn to identify more clearly their own limitations they learn to differentiate between themselves and others what markedly affects interpersonal relationships. If for example the client as a parent cannot differentiate between himself/herself as a parent and his/her child he/she can hardly enable the autonomous development of his/her child.

Seeman (2008) defines the result of therapy as a return to "the organic order" while he uses the concept "organic order" in two meanings: with the concept "organic" he wants to stress that the result of therapy deals with the individual's personality as a whole and with the concept "order" he stresses that therapy strengthens integrative process of personality.

2b) The development of optimum functioning personality beyond the psychotherapeutic context

Studying optimally functioning person was primarily focused on the context of therapeutic changes. Shifting the focus on nontherapeutic context in one of our studies (Sollárová, Sollár, 2010) we wanted to contribute to an increasing interest in positive psychology as represented by Seligman´s accent on developing strengths and competences of a person, on supporting well-being and reaching a high quality of functioning of a person (Seligman, Csikszentmihalyi, 2000; Seligman, 2008).

An integrated person is by Rogers defined as unified withing him/herslef on all levels and within whom the discrepancy between a present self and a desired self is decreased. Optimal functioning of a person occcurs when various aspects of a person are integrated into a relatively harmonious organization. The paper presents a research study where relationships between the level of personality psychological integration and proactive coping, selfesteem, neurotism and openness to experience in nontherapeutic

settings (N = 55 social workers) were studied. We found that those high-integration persons are more proactive, have more positive selfesteem and are less neurotic. The relationship between psychological integration and opennes was not confirmed.

The study presented the relationships between the integraton of an individual understood as a level of congruence between the ideal self and the ideal self, and the specified parameters of optimal functioning – proactive coping, selfevaluation, neurotism and openness to experience.

Proactive coping as defined by Greenglass stresses the aspect of future orientation in solving everyday situations. The result found supports Rogers´ (1962) finding that a fully functioning person will make more satisfactory decisions and actions thanks to his/her trust in his/her own organism as the source of experiential data.

Higher and more positive selfesteem of high-integrated persons corresponds with those parts of changed selfconcept that Rogers (1951) states as changes of an organised configuration of perceptions of a person´s own characteristics and abilities and images of him/herself in relation to other people and the environment, as a consequence of increased selfacceptance as a valuable person.

The relationship between integration and neurotism (in the direction of lower level of neurotism at more integrated persons) corresponds with the character of changes in the basal structure of personality that Rogers (1951) states as characteristics of a changed personality as a consequence of a successful therapy – decreased neurotic tendency and decreased level of anxiety.

Rogers (1951) understands the openness to experience as the opposite to defensivity, t.j. reaction of an organism to experience that is perceived or anticipated as incongruent with the structure of its own self. Openness to experience as a characteristics of a more fully functioning client after the effective therapy relates to the change of the localisation of the centre of evaluation that changes from the external to the internal one and derives from the experience of the client. Seeman (2008) understands an integrated client as such who is able to develop the internal centre of evaluation, t.j. who is able to use his/her own experience as a basis for selfevaluation and selfconcept. Openness as a dimension of personality in the NEO FFI consists of various facets: fantasy, aesthetics, feelings, actions, ideas, values. Only one facet – openness to one´s feelings, corresponds with Rogers´ concept of the openness to experience. This fact might explain low correlation found in our research.

We based the study on the personality integration model that is based on theoretical perspectives of humanistic psychology. Potential of conceptions of the fully functioning person and integrated person in a nontherapeutic context was studied by verifying relationships between integration of an individual represented by the level of congruence between real self and ideal self and specified parameters of optimal functioning – proactive coping, selfevaluation, neurotism and openness.

Rogers himself (1951, p. 50) understands the potential of the person centred approach in "almost universal applications" and suggests it can be remodelled in the usage in "almost infinite range of human situations". We are interested in the application of the concept on a person in working relationships, in which we understand the portrait of an optimum functioning personality as a relevant picture of a psychologically healthy, mature person who is able to create and sustain effective working relationships in the view

of the above mentioned representatives of the person centred approach. The presented picture of the fully functioning person or psychologically integrated person provides us with a range of qualities which intertwine with the concept of social competence, whose elements (Vyrost, 2002) show marked connectedness with the presented qualities of the optimum functioning personality from the point of view of the person centred approach.

Research focused on the exploration of qualities of a fully functioning person document the relevancy for the optimum functioning personality also in the context of working relationships. For example the openness to experience as a quality of fully functioning person was supported by the research conducted by Chodorkoff as a quality of people who effectively manage their lives (in Rogers, 1962). In the above quoted work Rogers also mentions the research of Crutchfield who points out that the belief in one's experience as another of characteristics of fully functioning person is the attribute of a healthy personality. Seeman (1983), inspired by the concept of psychologically integrated person, accomplished with his colleagues a number of research activities out of which we mention e.g. results, according to which highly integrated people show higher cognitive effectiveness. They have more concepts to understand and describe their world as equally intelligent but less integrated people.

Seeman and his colleagues accentuated in their research (in Seeman, 2008) the focus on two processes, which form the essence of people's functioning. These processes are *connection* and *communication*, the processes which define our functioning on every level of our existence. When these two processes function fully and in a smooth harmony, when communication freely and smoothly flows and when the smooth connection is preserved then a person functions with the use of his/her total potential. He/she is in the closest connection with himself/herself and others. From a psychological point of view such processes feed fully our psychological being. Seeman compares that to the role of food for our biological being.

Following the results of his research aimed to describe interpersonal relationships of people with different level of integration Seeman concludes that more integrated people build up relationships which are with their character horizontal while less integrated people build up vertical, hierarchically oriented relationships.

We think that the layer of working relationships is exactly the space where a person in the context of work or organisation shows dominantly his/her degree of optimum functioning therefore we perceive the potential of the person centred approach as significant in particular for the working relationships realm.

There is a large applicability of findings about the way how one's own capacities can be released to change one's personality and the way how relationships (mainly) can reinforce such a Self-oriented change.

One of the applications is also **education**, which has been in a theoretical and practical ways dealt with by Rogers (e.g. Rogers, 1951, 1983). He promoted the shift in the focus in education from education to learning and from a teacher to a facilitator of learning including the whole personality. His approach is fully relevant for the many ways of effective education of adults. The role of a facilitator – trainer is not to decide what participants should learn but to identify and create main qualities of psychological climate, which can help the participants to feel freedom in learning and development.

The external conditions, which facilitate learning and development contain
- unconditional acceptance of a participant
- authentic presence and expression of a facilitator
- emphatic understanding
- a climate without critical judgment
- the support of psychological freedom

The process of learning in the group of encounter type but also during the training of PCA skills contains analogical elements to what Rogers and Seeman state as the elements in the process of therapy toward the integration of the client:
- *exploration of own feelings and experience in the state of anxiety*
  When the participants select and deal with their authentic situations, which they perceive as problematic, stressful, conflicting, the reexperiencing them during their exploration is negatively charged, what is also typical for an explored situation in a real context; the facilitation of exploration, e.g. the support by emphatic understanding strengthens the ability of participants to explore this experience also in the state of anxiety;
- *the experience of the whole range of own attitudes*
  In situations when role play participants play out their situations which are the causes of their discomfort they also experience attitudes to other participant of a situation as it is typical for the real situation
- *to symbolize one's own actual experience*
  When a participant for example during the self-exploration supported by the emphatic understanding of a facilitator names what his/her experience is about (*"…I am angry and terrified, when I imagine that my clients will think about me that I am the same…"*)
- *the assimilation of the new experience into one's own Self-image*
  To acknowledge and accept so far unacknowledged or unaccepted content of one's Self (*"… It is important for me to be perceived as a polite and competent social worker…"*)
- *the development of an internal centre of evaluation and the acceptance of the Self and others*
  In situations when the participant is not able to accept that a person significant for him/her evaluates him/her negatively (*"…I know that my mother is not satisfies with what my husband is like; I feel that in spite of that I can be satisfied with my husband…"*)

In our view the general parameters of PCA skills in a group correspond with the characteristics of the development of the fully functioning person and come out of the persuasion that the PCA skills can be learnt and have their function to achieve competences in relationships, specifically in working relationships.

The author of the article together with her team has carried out developmental programmes and trainings with the person-centred approach with two general types of adult participants – people working as professionals who help and who are in managerial positions, with two main types of training programmes – mainly experience oriented with the respect of encounter groups guidelines and experience-oriented training with cognitive elements focused on the training of PCA skills to create and manage

working relations. The direct results when participants acquire PCA skills in working interpersonal interactions are mainly
- skills of clear and congruent communication
- skills to understand communication of the other person in interaction
- skills to facilitate the clarity of communication with a man with different standpoints
- skills to improve team communication when its members differ in their understanding and experience
- skills to understand the other
- skills to manage stressful, conflicting and emotionally charged situations.

The verification of change in personal variables, interpersonal variables in behavior through the research (e.g. Sollarova, Sollar, 2007) can be evaluated as compatible with changes which research of changes as a part of client oriented therapy state in the direction to reinforce optimum functioning of personality. For the author and her team it is the justification of the relevancy and effectiveness to use the principles of the person-centred approach in education of adults, in developmental programmes and training programmes focused to make the functioning of the individual more effective, in particular in working relations.

Another area of facilitating the development of healthy functioning of a person beyond the psychotherapeutic context is represented by **coaching.**

The person-centred coaching psychology is according to Joseph and Bryant-Jefferies (2009) and Stober (2006) the way of work with people based on a metatheoretical supposition that people have a potential to develop and grow and that when the internal potential is released they can move and become more autonomous, socially constructive and optimally functioning. It does not happen automatically. Without proper social environment the internal motivation toward optimum functioning leads to distress and dysfunctionality. Therefore it is the role of a person-centred coaching psychologist to provide a client with the social environment, where the internal motivation of the client will be facilitated. The person-centred coaching psychologist is persuaded that the client is the best expert for himself/herself and if the therapist is able to provide him/her with an accepting and authentic relationship where he/she does not feel to be judged, and pressed. Then the client will be determined by his/her Self and motivated toward the optimum functioning. According to Joseph (2009) the essence of the person-centred psychologist regardless the fact where the client is situated from a perspective of psychological functioning, is to facilitate the self-determination of the client in such a way so that he/she would move toward a more optimum functioning. The person-centred approach is a metatheoretical approach of work with people and the application of the person-centred approach is not only therapy but also the education, education of children, group learning, solution of conflicts and peace processes; all these applications have the same philosophical standpoint (more in Sollarova, 2005).

Necessary and adequate conditions presented by Rogers (1957) describe the attitude qualities of a person-centred therapist and describe his/her practice as an effort to be congruent and emphatic and experience unconditional positive acceptance towards the client. The basic idea of the person-centred therapy is that these central attitude

qualities are such a social environment that facilitates constructive experience of the actualized tendency. It is exactly this aspect of theory, which makes sense of the theory of central conditions. In the environment where a person does not feel to be judged and pressed, he/she does not feel the need to defend oneself and a congruent self-actualization can happen. The application of above mentioned attitude qualities in the coaching work represents according to Stober (2006) key conditions for the effective coaching practice. The recognition of key conditions as necessary for a change of the person coached is applicable for the coaching similarly to psychotherapy. In the author's view the main difference how these two qualities are demonstrated by the coach (in comparison with the psychotherapy) is that the coach applies them with the aim to build up a rapport in such a way that clients are able to be engaged actively in the selection of their behaviour in the process of their development.

The person-centred approach provides genuinely positive psychological perspective on mental health because it is holistically focused on both negative as well as positive aspects of one's functioning. The psychology of coaching is the same activity requiring the same theoretical background and the same practical skills as the work with people, who are in distress and are dysfunctional, requires. The person-centred coaching psychology understands the understanding and improvement of the optimum functioning and relieving the maladaptive distress and dysfunctionality as one role. The person-centred approach is not about the relief of distress and dysfunctionality per se, it is about facilitation of ease and optimum functioning. It holds for truth that in a person-centred perspective it is in practice unified and identical role not two different separable roles. Therefore within a person-centred perspective there is no theoretical difference between consultancy and coaching. It is not important where one starts. Joseph and Bryatt-Jefferies quote the interview with John Schlien, one of the founders of the person-centred approach from 1956:

If skills developed in psychological consultancy are able to release constructive capacity of malfunctioning people so that they become healthier the same assistance should be accessible to healthy people who are less than fully functioning. Whenever we focus on positive aims of health we will be less focused on where one started and more on how to achieve the desired ultimate goal of positive aims.

In practice of the person-centred psychology of coaching the role of a coach is to "feed" the social relationship which is experienced by the coached person as authentic and where he/she feels to be accepted and understood. The understanding of the psychotherapy/consultancy focused on a client is that consultancy is about the view of life from the perspective of the past, what failed while coaching is about the vision to the future of what can be accomplished. If we offer consultancy we get clients who want to look back and if we offer coaching we have clients what want to see to the future. The role of person-centred therapist or a coach is the same in both cases, to stay with the client and facilitate his/her self-determination. Therefore on the theoretical level of the process the role of the person-centred psychologist is always the same although he/she works as a coach or a consultant or clinical psychologist but on the practical level the content of sessions will be different because clients usually bring different material to consultancy than to coaching (more in Sollárová, 2011).

Conclusion

Positive psychology offers applications for health psychology that is interested in supporting health and well-being of a person. According to one of contemporary definitions (Linley, Joseph, 2004) it is also an issue how to facilitate optimum functioning of a person while in the context of positive psychology it exceeds the territory of psychopathology and seeks ways of supporting and developing optimum functioning of a (healthy) person. In the meaning of the concept of "positive health" (Seligman, 2008) we presented the concept of optimum functioning of a person as it was specified by humanistic psychology, especially the person-centred approach in the work of Rogers and Seeman. Then we introduced the application of the concepts and research of the structure of optimum functioning of a person beyond the psychotherapeutic context (Sollarova, Sollar, 2010) as well as ways of facilitating optimum functioning of a person beyond psychotherapeutic context, especially in adult education and (person-centred) coaching. The aim of the paper was to show wide application potential of the person-centred approach and applied positive psychology for studying and supporting psychologically healthy functioning of a person.

FACILITOVANIE PSYCHOLOGICKY ZDRAVÉHO FUNGOVANIA OSOBNOSTI

Abstrakt: Zámerom príspevku je poukázať na široké aplikačné možnosti prístupu zameraného na človeka, resp. aplikačnej pozitívnej psychológie pre skúmanie a podporu psychologicky zdravého fungovania človeka. Pozitívna psychológia ponúka aplikácie pre psychológiu zdravia, ktorá sa zaujíma o podporu zdravia a pohody človeka. Podľa jednej zo súčasných definícií (Linley, Joseph, 2004) je v záujme aplikovanej pozitívnej psychológie aj téma facilitovania optimálneho fungovania osobnosti, pričom v rámci pozitívnej psychológie ide o prekročenie teritória psychopatológie a ide o podporu rozvoja optimálneho fungovania (zdravej) osobnosti. V zmysle takto koncipovaného „pozitívneho zdravia" (Seligman, 2008) sme predstavili pojem optimálne fungujúceho človeka tak, ako ho koncipovala humanistická psychológia, osobitne prístup zameraný na človeka v príspevkoch Rogersa a Seemana, ďalej sme predstavili aplikáciu ich konceptov a výskumu štruktúry optimálne fungujúceho človeka v mimoterapeutickom kontexte (Sollárová, Sollár, 2010), ako aj možnosti facilitovania optimálneho fungovania človeka v mimoterapeutickom kontexte, konkrétne vo vzdelávaní dospelých a koučingu (zameranom na človeka).

Kľúčové slová: psychologický prístup zameraný na klienta, humanistická psychológia, pozitívna psychológia, facilitácia optimálneho rozvoja osobnosti, pozitívne zdravie, mimoterapeutický vzťah

MENTAL HEALTH PROMOTION IN NURSING CONTEXT

Dana ZRUBCOVÁ

Abstract: The chapter focuses on mental health promotion and the nurses´ roles in primary, secondary and tertiary prevention of mental illnesses. We also present the results of the research on the opinions and attitudes of lay people on the issues of mental health promotion. Our objective was to find out if lay people consider mental health promotion and mental illnesses prevention to be important, and how their personal experiences with the mentally ill influence their attitudes to the issues and integration of the mentally ill into society. The analyses of the results indicate that the closer the interpersonal relationship between the subject and the mentally ill person is, the bigger interest in the information related to mental health promotion and mental illnesses is. The close contact also influences selection of the relevant information sources. Lay people more and more agree with the need of early integration of the mentally ill into society and their return back to home environment. Most of the subjects were interested in the psychiatric nurse roles in community.

Key words: mental health, mental illness, prevention, nurse, approach, lay people

Health and mental health

Health is of an immeasurable value for individuals and their families. Every health improvement as well as deterioration is of a social significance. As Rovný et al (1995) present, health can be seen as a specific immediate status but also as a process with its dynamics. Very often there are differences in understanding health that can change by the influence of the previous experiences, self-expectations, perceptions of self-identity, self-reflexions and social status. Křivohlavý (2001) organises the theories of health in accordance with the fact if health is understood as a means to a specific goal or as a goal itself. Health is a source for everyday life, not a goal of life. It is a positive concept emphasising social and personal resources as well as physical capability. Keller (1997) defines a person as a social being whose nature is formed as a result of interactions with people in their presence.

Health is a basic, continually changing and developing issue; it includes complexly all physical, mental, social, spiritual, intellectual and environmental elements. Understanding health depends on the society and the level of its development. Farkašová et al (2005) quote the best-known definition of health proposed by the World Health Organisation (WHO) of 1974 that defines health as *"a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity"*.

Kozier et al (1995) quote Pender who, related to the presented WHO definition of health, speaks about three basic characteristics of the positive health conception:

- It reflects concern for the individual as a whole person, not as a simple summary of various parts,
- It places health in the context of environment,
- It equates health with productive and creative living.

The majority of definitions of health also suggest the need of mental health, mental well-being, and the ability of a person to cope with stress, to live in mutual social interaction with environment and communicate effectively. Many of them mention psychosocial scope of health.

Alons White, the American psychiatrist, in the period between the world wars emphasised the connection between the physiologic and psychological factors affecting health and the onset of the disease. His works led to realisation that mental and physiologic disorders can present the response to stresses, their understanding must be in connection with social factors (Janosik, Davies, 1996).

The definitions of mental health have extensive cultural, social and political consequences. There are historical evidences of the fact that the prevailing norms and approaches influenced the definitions of mental health already in the past.

The WHO characterises mental health "*a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community*".

Mental health allows accomplishing the mental, emotional powers, finding and fulfilling the roles in social, school and work life. Good mental health supports prosperity, solidarity and social justice in the society.

Mental health promotion

Lehtinen (2004) describes several basic but very relevant reasons why it is inevitable to pay attention to mental health:

1. **Mental illnesses are common.** It is estimated that in the present approximately 20% of the adult population in the EU have problems with mental health. This number includes all the problems, not only the specifically diagnosed mental illnesses. In the adolescents, this percentage is estimated approximately at the same level. The incidence of mental problems in children aged 8-9 years is alarming in many European studies.
2. **Impaired mental health causes large economic burden.** It is related to high prevalence and initial onset in young age, combined with frequent chronic course of mental illness. These diseases were estimated to cost the EU approximately 3–4% GDP. Specifically as a result of productivity loss. Mental illnesses are the principal reason for invalidity retirement in many EU Member States.
3. **Mental illnesses are connected with increased mortality.** The risk of mortality in the patients with mental illness is several times higher than in population in general. The main reasons are suicides or violent death. Suicidal attempts exceed the deaths rates in car accidents. Apart from suicides, mortality is increased also

by the presence of somatic diseases intercurrent to mental illnesses. Impaired mental health affects physical health and vice versa.

4. **Mental illnesses are the source of enormous human suffering.** Anxiety, fear, desperation, depression and the feelings of guilt and shame can be subjectively experienced more intensively than any more serious physical pain.

5. **Mental illnesses easily lead to social marginalisation.** Mental illnesses often evoke the feelings of otherness in people, which cause consecutive stigmatisation and other negative attitudes leading to frequent discrimination. In many EU Member States, the services focused on mental health are of a second rate, especially in the area of financial resources. People suffering from mental illnesses are often socially marginalised. The resulting problems such as poverty, homelessness, criminality, alcoholism and drug addiction often lead to a very low standard of living and consequently to low quality of life.

6. **Mental illnesses negatively affect future generations.** Impaired mental health is not only the question of responsibility of the individuals but of the whole society. Special attention should be paid to children of parents suffering from mental illnesses. In their lives, they are exposed to the risk of the onset of mental illness much more frequently. Special attention should be also paid to children of parents who are addicted to drugs and alcohol because one of the frequent side effects of functioning of those families is child neglect or child abuse.

Role of nursing in mental health promotion

One of the specifics of nursing is the fact that it accompanies the individuals from their birth to death. Nursing should help the sick and the healthy to carry out activities for the benefit of health, recovery or peaceful death, which would be carried out by the individuals without assistance if they had sufficient strength and knowledge (Farkašová et al, 2005).

The World Health Organisation, the European Union, the International Council of Nurses and also the Slovak state, educational and professional organisations intensively address the position of nursing and nurses in care for health of the citizens. The determining principle of policy formation that is based on the new thought streams, is following the complex vision on facilitation of better health and quality of life of the European citizens and on contribution of nurses to its implementation (Farkašová, 2006).

The way of life, lifestyle of the individuals has a key position among the determinants of health. Alimentation, appetite, movement activities, smoking, alcohol drinking, sex life, stress, home and work environment are considered to be the critical elements of lifestyle. These attributes can positively but also negatively affect mental health. As Ondriášová (2005) suggests, the individuals are affected by psychological factors such as stress, conflict, frustration, various losses and life events for all their lives.

In mental health promotion, the role of nursing is to act as a role model by correct approach and action; to encourage and challenge people to spontaneously join their own mental health promotion; to advise them on how they can cope with stressful situations and to enhance the common social relationships; how to solve their emotional problems effectively; to teach them how to use health care in the scope of mental health effectively.

The changes in the society, the social issues, the risks resulting from specific lifestyles and the use of modern technologies in nursing process considerably influence the requirements for nurses in mental health promotion. Their role is extensive. It intervenes in every human development stage of life. However, the priority interventions are the early identification of the risk factors that can cause violation of mental health in any social environment, at home, work, school, and in community, and educational activities on how to eliminate these factors or reduce their effects. Five million nurses working in the European Region play the important role in improving health of the individuals, families and communities. They are the largest unified group of healthcare professionals, and often they provide the first contact with healthcare and social system, focused on the continual care and support of vulnerable and marginal groups in the population (Farkašová, 2006).

The role of nursing is also to become responsible and helpful in promotion and protection of mental health for the clients if those are not able, cannot or do not want to be responsible themselves. *The psychiatric nurses working in communities* should play the important role in mental health promotion. In the Slovak Republic, in the present, the nurses with specialisation in psychiatry work mainly in inpatient institutions. For the patients and their families, counselling rendered by the psychiatric nurses is the irreplaceable element of nursing interventions.

Nurses´ roles in mental health promotion in children and youth

As Pasquali et al (1989) present, the Joint Commission on Mental Health of Children already in 1969 defined several problems and factors that seem to act as the sources or precipitants for the development of emotional problems in children and youth:
1. Faulty life experiences and training.
2. Surface conflicts between children and their parents, problematic relationships between siblings, and adjustment difficulties in the areas of school, social relations, and sexuality.
3. Internalised conflicts of a deeper nature leading to neurotic responses.
4. Adjustment difficulties related to somatic diseases or handicaps.
5. Adjustment difficulties related to severe mental disorders such as psychotic behaviours and mental retardation.

Pasquali et al (1989) present that the first or the second of the above mentioned categories were the triggers in 80% children who need help. Diagnosis and acceptance of mental illness in children and youth is difficult. In the past, society ignored the fact that children could have problems related to mental health. Pasquali et al (1989) quotes Long (1980) who presents that the statistics show the rapid increase in the number of children who need immediate care related to the problems of mental health. Significantly low number of them receives necessary treatment.

Primary prevention in children and youth

In mental health of children and youth, the primary prevention focuses on identifying the possible risk factors. Pasquali et al (1989) quote Bumbal and Siemon

(1981) who define three risk areas the nurse should assess within the measurements of primary prevention:
  a) Environmental factors,
  b) Influence of parents,
  c) Characteristic indicators of vulnerability.

Even in the adequate environment, children live with their internal world of uncertainty and worries which can be increased by sudden developmental tasks. The needs of children are met by their parents therefore parents education on child development can act as primary prevention. *"Many altered maturational patterns are created or worsened by unrealistic parental expectations. When parents do not recognize the time frame of development and growth in children, they either hasten or impede processes that may already be within normal range"* (Janosik, Davies, 1996). The nurse must focus on parent education on normal growth and development of children. She must try to minimise the factors leading to the outset of impairment of mental health, or mental illnesses in children and youth. It is important to identify the groups which represent a big risk from the perspective of parental and family system. There is a close relation between the psychological environment of a child and the child´s psyche because the child's psyche is a product of strength in and out of the child (Hanzlíková et al, 2004). It is important to assess the reactions and responses of the child to the environmental stimuli, adequacy of parents´ expectations, the way of parenting, and the children-parent relationship. As Gabert and Kniebe (1993) say, the parents´ behaviour educates children. Dosick (1998) emphasises that education to values starts in early childhood, and includes everyday simple and seemingly automatic ways of behaviour.

The significant phenomena which affect modern children and adolescents include boredom. It is based on a lack of emotions, inability to sense the stimuli, and a lack of resilience. Bagio (1996), and Janosik and Davies (1996) present several ways of strengthening self-esteem and resilience in children:
  1. Encourage positive benefits of interaction out of family and classroom regardless of its size.
  2. Encourage decision making by offering appropriate options rather than ultimatums.
  3. Give feedback in positive, not negative, term; never intimidate or humiliate when giving feedback.
  4. Re-examine rules that children challenge or consider unfair. Even when rules are unchanged, re-examination confers feelings of dignity and self worth.
  5. Remember that self-esteem and resilience in children are easily impaired, but are restored by consistent intervention that counteracts damage.

It is inevitable to estimate the effects of various factors of social environment. Hanzlíková et al (2004) quote Stanhope and Lancaster who describe the influence of family culture on child´s mental health. Pasquali et al (1989) are of the opinion that the nurses in schools and communities should have the key positions in observing children in social environment and family relationships. The children do not have to manifest only the obvious symptoms but they can be functioning in violated environment which is dangerous. The socioeconomic status of a family and interest in children are precedence. The inadequate diet, neglected appearance of the child, bad school results

and also aggression and bullying classmates often signal the problems of impaired stability in the family.

Low standard of living of the family is usually connected with alcoholism of one or, often, both of the parents. Children grow up with the feeling that nobody loves them. Quite often they are battered and consequently they become emotionally numb.

On the other hand, excessively commanding or hyperactive parents cause that children doubt of their own value. Commanding by parents causes that children start to perceive themselves and their own bodies incorrectly. In the period of adolescence, losing weight and self-control of eating are an attractive way how to enhance self-confidence. Strict diets, excessive exercising, or vomiting can lead to the impression that the person can control oneself and come closer to the dreamed-of ideal. For the short period of time, the adolescents enhance their self-confidence and create the illusion of success but it can lead to the serious illness – mental anorexia. Krch et al (1999) suggest that aversion to food is a manifestation of implacable and impaired attitude to body weight, proportions and obesity.

The big problem in children is abuse of alcohol and drugs along with the use of medicaments. Hanzlíková et al (2004) mention the fact that 5% of older school-aged children drink alcohol. This addiction is accompanied by gambling and criminality as well. Preventive measures are more effective if more institutions, including school, family, free-time activities organisations, healthcare services as well as media, influence children. As Vácha (2005) presents, a very frequent mistake of primary prevention is that it does not perceive drugs as a multidisciplinary problem. The nurses´ role should include organisation and coordination of preventive programmes in young school-aged children. They are only slightly effective if the target group belongs to endangered people with already present symptoms of risk behaviours (Okruhlica et al, 1998).

In mental health promotion, the nurses should focus on detection of suspect symptoms which signal the presented changes in child´s behaviours; they should suggest measurements and seek solutions for mutual cooperation with the families of problematic children; and try to eliminate inadequate behaviours.

In many countries, adolescents perceive the nurses as a reputable source of information and adequate advice. The nurses educated in the field of mental health can provide sufficient information on physical and mental changes which are normal in the period of adolescence.

Secondary prevention in children and youth

According to Pasquali et al (1989), the nurses´ role in secondary prevention in the scope of mental health includes the following:
1. Early identification of mental disorders in children and youth.
2. Seeking prompt and effective treatment to restore individuals and their families to optimum levels of functioning.
3. Assessment of negative community resources.
4. Expansion of appropriate community resources.

Stress in parents´ life can considerably limit providing permanent love to children. Small children can respond in various ways. In the scope of mental health very often they are anxiety, anger, fear, or problems with sleep, eating and elimination. The nurses´ role in secondary prevention in the scope of mental health is to provide the parents with the information on natural sleeping and eating patterns and on individual differences in their children. *"Shame tactics should be strictly avoided"* (Janosik, Davies, 1996). In secondary prevention, shaming and humiliating are unlikely to be effective; on the contrary, they can intensify the identified emotional problems. It is important for the nurses to show the parents the achievements of positive approach in improving the changes in child´s habits and behaviours. For many parents it is much more difficult to praise children than to lecture them. The nurses must be sure that the praise will not jeopardise parental authority or child discipline. Höschl et al (2004) consider solving the relationships and social problems within the families to be of great importance.

When solving the problems, for the adolescents it is important to meet the peers who have the same or similar problems. *"Programs for adolescents that are available include alcohol education in schools, counselling of youths in legal difficulties, and attention to adolescent drunk drivers"* (Janosik, Davies, 1996).

Tertiary prevention in children and youth

In tertiary prevention in children, Hanzlíková et al (2004) present three aspects:
1. Prevention from recurring incidence of health problems.
2. Prevention from health status deterioration.
3. Assistance and promotion in the adaptation process, in chronic illnesses.

Tertiary prevention should include the stimuli for continuing the interventions for children and youth that did not result in complete recovery within secondary prevention. The illnesses related to the behavioural disorders require special follow-up actions after hospital discharge. Within tertiary prevention, children with self-mutilation, eating disorders and drug or alcohol abuse need support in day-care centres. The adolescents should have the possibility to use assistance of the centres if their behaviour disrupts family life. The role of the assistance centres should be to prevent the recurring problems, possible return to drug abuse and committing minor offences or crimes.

Therefore, there are various nurses´ roles in tertiary prevention. According to Pasquali et al (1989), the nurses should continue in the individual, group and family therapy in the clients who suffer from the chronic behavioural disorder or mental illness. The nurses also have to identify the children, youths and families who demonstrate chronically impaired family relationships.

The objectives of tertiary prevention in mental health care for children and youth are to reduce the remains of long-term negative influence of inadequate family upbringing and the surroundings, and to prevent their recurring influence. In mental health promotion in children and youth, the activities of the nurses should focus on recovery of optimal functioning of families and their individual members.

Nurses´ roles in mental health promotion in adults

Kozier et al (1995) present that a family includes emotionally involved people. Emotional relationship is expressed also by mutual efforts in everyday activities. In many cases, the value system is influenced by family culture. The family value system determines also the perception of health promotion, especially mental health promotion.

A family can be an agent of health hazards. Many diseases are based on impaired family relationships.

In mental health promotion, the nurses´ roles should include promotion and improvement of healthy models of family relationships, and identifying what the individual family members think, what they say, and how they respond in various life situations. Pasquali et al (1989) quote Jones and Dimond who say that the nurses should focus on:

1. Potential sources of family stress.
2. Effective coping patterns for dealing with stress.
3. Lifestyle changes that can positively affect family vulnerability to stressors.
4. Changes in family roles. The roles need to be adjusted to the inevitable lifestyle changes.
5. Family strengths which may support family functioning.
6. Family weaknesses which may jeopardise functioning of the individual family members.

The most frequent sources of stress include: divorce, family violence, alcoholism, unemployment, homelessness, and genetic predispositions to disease, loss of a family member, excessive work requirements, and also workaholism. Lenczová (2005) states that the entrepreneurs spend up to 85% of their time at work. Their families suffer from bigger stress and orientation to consumptive way of life. Mental health can be negatively influenced also by bad eating habits, physical activities, or sexual life. To focus the activities of mental health promotion accurately, the nurses should see the family and its individual members holistically and in the context of all the levels. They also must know the potential factors endangering mental health and family functions in the individual periods of life.

Education, as one of the most important aspects of nursing, is a significant way of improvement of mental health and quality of life of the families and their individual members. The significance of educational activities of nurses can be emphasised by the fact that the present status of population in our country is not satisfactory (Závodná, 2005). The number of people addicted to drugs and alcohol is constantly increasing.

Primary prevention in adults

The age in which the person is considered to be adult is individual and it depends on evaluation of personality maturity. In general, the mature individuals are able to think realistically about their possibilities, tolerate opinions of the others, and adapt to the changes. They are responsible for all their decisions.

Especially in the young adults, the individuals tend to ignore the need of mental health promotion. They completely focus on the family and work.

As Pasquali et al (1989) present, the nurses´ roles in mental health promotion are to:

- Minimise the factors which may be predispositions for mental illness.
- Identify the risk individuals.
- Encourage young people to talk about their work-related problems and stress.
- Help identify the work plans and specify the strategies for their implementation.
- Help define the value of time for mental health of the individuals and their families.

Divorce is a strong emotional stressor and a rather common phenomenon in our modern society. The involved individuals usually become emotionally hurt, angry, anxious and depressive. As Křivohlavý (2002) presents, people can get to difficult situations if their self-esteem is threatened, if they fail to do something that they considered to be important.

The problems with physical battering and mental abuse, especially in women, are reported in all the social classes. As this problem is presented in the media, the battered persons, especially women seek protection and help from the professionals more and more often. The nurses´ roles are, through mutual open communication, to encourage the battered individuals to be able to talk about their problems, and to assist them in enhancing their self-esteem to be able to leave the stressful environment and to start new meaningful life.

The serious result of impaired mental health and emotional crisis is a suicide. *"In general, suicide results from the young adult´s inability to cope with the pressures, responsibilities, and expectations of adulthood"* (Kozier et al, 1995).

Ivanová et al (2005) quote the WHO that presents that about 1 per mille of population die every year as a result of suicide. The more serious is the estimation of suicidal attempts which is 15 times higher than the number of successful suicides. In suicide prevention, the nurses´ role includes detection of the problems which may lead to depressions, social isolation and decreased interest in social activities.

In middle-aged adults, altruism becomes more and more common. Kozier et al (1995) quote Robert Peck who believes that social and mental capacities tend to increase with age. People become interested in new hobbies and activities. Kozier et al (1995) present the opinion of Sheehy who says that middle life is as critical as adolescence. She describes the "midlife crisis" as the crises of "authenticity" in which the person realises the differences between the ambitions of young age and the real achievements. To promote mental health during midlife, the nurse should perform the following activities in the middle-aged adults:

1. Encourage them to do some of the activities they never had time to do previously.
2. Support them in accepting the changes of the period and adjusting to them.
3. Encourage them to pay attention to their appearance and to feel attractive.
4. Discuss their changing roles as parents. Many problems occur when their children leave home.
5. Emphasise the positive outcomes of maintaining old friendships and seeking new ones.
6. Discuss their role in the care of aging parents. Allow them to discuss the frustrations and concerns inherent in this role reversal.

7. Discuss their plans for retirement, and the need to have new hobbies and to spend their leisure time actively (Kozier et al, 1995).

The role of these activities is to assist in achieving realistic and achievable goals which affect mental health positively.

The period over 65 years of age is called late adulthood. The lifestyle and mental health of the elderly are to a large degree formulated in youth. *"Those who learned early in life to live well-balanced and fulfilling lives are generally more successful in retirement"* (Kozier et al, 1995). In many aspects, retirement is the change which can negatively affect mental health. These aspects include a loss of identity, a loss of power and privileges, and very often a loss of income. *"Another loss associated with retirement is the disruption or severing of friendships or associations with colleagues and fellow workers"* (Janosik, Davies, 1996). The changes can cause the feelings of anxiety, loneliness, refusal, anger, uselessness and sadness, or depression.

One of the most serious diseases affecting the elderly is the Alzheimer´s disease. Nowadays, the estimated 17–25 million people in the world are affected. In the European Union, the prevalence is 5.6–7.2% in adults aged 65 years and over, i.e. 3–4 million affected (Höschl et al, 1999). In mental health promotion, the nurses´ responsibility is to encourage the elderly to maintain their self-care and independence as long as possible while maintaining the maximal safety. The nurses´ role is to educate the caregivers of the elderly on the need of accepting their own values and beliefs.

In primary prevention, the nurse can explain the individual critical adaptation tasks related to aging to the elderly. Janosik and Davies (1996) describe five tasks:
1. Recognition of aging and its consequent limitations.
2. Redefinition of their physical and social life space.
3. Substitution of alternative sources of satisfaction.
4. Readjustment of criteria for self-evaluation.
5. Registration of life goals and values.

Reintegration of life expectations and goals necessitates revision of the aspirations and values of the elderly so that they can find meaning and purpose in their present life.

Addiction to alcohol or drugs is the serious problem which seriously impairs mental health in all the periods. It seriously influences morbidity, accident rates, disability rates, preterm mortality, suicidality and transmission of sexually transmitted diseases (Hanzlíková et al, 2004). Lenczová (2005) states that the number of the drug addicted patients up to the age of 24 years increased by 36% in men and by 28.8% in women between 1994 and 2003. The priority nurses´ roles in primary prevention of addictions are healthy lifestyle promotion, and educational activities with the goal of protection from substance abuse and complications resulting from the addictions.

Secondary prevention in adults

Secondary prevention includes early identification of the problems related to impaired mental health and possible mental illness.

During the interventions of secondary prevention, the nurse has to be aware of inadequate reactions of the relatives to mental illnesses. The family members seem not

to want to see the behaviours of their relative. Often they react only after warning from the co-workers, neighbours or friends. The closer relationship to the affected person is, the smaller readiness to interpretation of the person´s behaviour related to mental illness is. The most likely explanation is the depth of familiarity with the close person (Chromý, 1994). The family is often worried because of the shame that can occur after disclosing the mental illness of its member. They try to "cope with" the developed illness at home. This kind of reaction of the family is not adequate and it is dangerous for the mentally ill person and his or her environment. To prevent such negative reactions of the family members, it is inevitable for the nurse to obtain the necessary information on how the families perceive mental illnesses of their members.

The nurses´ role is to use the activities to promote effective functioning of the individual family members. In cases of occurrence of mental illness, the nurse should use the professional interventions to allow the fastest possible integration of the mentally ill back in the society. The practical and very effective approach to achieve this goal includes empowerment which can be used especially by the nurses working with the mentally ill in the in-patient facilities, but also in the surgeries or communities.

The mentally ill are not only the passive objects of the diagnostic, therapeutic and nursing efforts, but they are the partners of the nurse. However, the quality of nursing care cannot be based only on the good will, good temper or likes of the nurse. The patients must have adequate and reasonable information so that they can participate in decision-making. This new understanding of the patient-caregiver interaction is called empowerment; it can be characterised as a mutually beneficial process (Janosik, Davies, 1996).

Communicative interaction between the patient and the nurse must be open and it should serve the needs of the patient. In the past in nursing care for the sick, the attention was paid to subordination to the medical profession and to the control over many aspects of care. The rule was that the professional knew always best about everything. Empowerment destroys this traditional way of thinking. It requires equality and reciprocity in dealing with the patients and their families. The basis of the relationship is not in control and subordination, but in interactivity and mutual cooperation. The effective use of such a relationship can result in the bio-psycho-social change which enhances self-esteem and reduces negative reactions to stress. Empowerment develops if understanding is seen in the same way, and if the patient is offered the interventions which reduce his or her labelling and stigma resulting from the fact that it is a psychiatric disorder. Almost in every individual, the empowerment in social relationships is critical (Janosik, Davies, 1996).

Tertiary prevention in adults

Tertiary prevention should be focused on minimising the consequences of mental disorders and possible disablement. It provides adequate inclusion of the individuals, their families, friends, social groups, and communities in all the fields of health care, and thus promotes self-esteem and self-care (Salvageová, 1995). The nurse should use the educational programmes helping reduce the effects of chronic stressors on the family and its individual members and on the stability of the family system. The nurses should pay attention to the effective use of the potential of the risk groups of

patients, their family members and significant others; they should provide support in solving the problems which can occur after return from the in-patient facilities. Patient education must include promotion of the whole personality. According to Škrla and Škrlová (2003) it means that the nurse should be interested in the patient´s concerns, thoughts and feelings, i.e. not only in the physical dimension but also the mental, social and spiritual ones. The nurse supports the patients by assisting them to accept their new image, to find new meaning of life, and the right way.

Assistance and mental health promotion for caregivers who look after people affected by dementia are of great importance. They are focused on providing the information on how to facilitate care in home environment so that the process of progression is slowed, and the self-care and sufficient quality of life of their relative are maintained as long as possible. Adamczyk (2002) suggests that hope and trust provide mental energy to caregivers so that they are able and willing to persist in providing care. The nurse should prepare the caregivers for possible loss of their relative. The natural emotional response to the loss is sorrow which is inevitable for mental health. However, it can affect health negatively therefore the nurse should pay attention to the accompanying difficulties: anxiety, depression, dizziness, tiredness, headache, excessive sweating, sleep disorder; these can result in impaired mental health.

Providing information thoroughly is an inevitable part of tertiary prevention. It allows and helps identify the pathological and specific personal needs correctly. In education of the family members of the mentally ill, it is very important to emphasise that any mental illness is not the manifestation of weakness or a lack of will, but that it is a disease. Education plays the important role in improvement and promotion of mental health in the families, and it helps provide optimal functioning of the family members within the limits of the disease. As Janosik and Davies (1996) present, many professionals mention the fact that little emphasis is put on psychoeducation. It may be based on the opinion that the mentally ill cannot understand psychoeducational conception, and that they are not willing or capable to become responsible for themselves. *"However, some investigators using psychoeducation report greater compliance, reduced defensiveness, and greater self-esteem among clients who received formal instruction about the nature of their disability"* (Janosik, Davies, 1996). Španiel (2005) presents the fact that only the informed individual can make decisions completely and cooperate fully. The role of psychoeducation is to inform the ill on the nature of the disease, treatment, relapse and its prevention (Heretik, 2005).

Motlová et al (2002) present that the goal of psychoeducation is to provide the patients with the extensive and relevant information, to teach them the skills and to provide them with support. Praško et al (2005) emphasise the detailed information on inevitable medication use. Psychoeducation has been used in approximately a thousand patients and the hundreds of family members in Slovakia since 1997. The main objective is to help the families become responsible for their own health (Korcsog, 2005). The global strategy leads to improvement of mental health and well-being of the individuals, families and the whole society. The nurse should be aware of the fact that a family is always the first and significant place of the activities related to the mental disorder or impaired mental health. To function well, the family needs to have adequate information on the disease and adequate skills on how to manage the disease (Motlová et al, 2005).

The mentally ill patients are often neglected by their closest relatives. It is not only about external isolation, but also the internal one. They are denied the human approach especially in the mental level because it is seen, even before any attempt of deeper understanding, as ill and impaired, thus with distance and caution. Usually, everyone around imposes the condition: ´when you are normal as we are´. This approach forces the ill to stay the patient for the rest of life. On the contrary, to help the ill, it is to understand that the ill will be ´normal´, if they are understood and get really human attitude (Černoušek, 1994).

In tertiary prevention, the obtained data are the basis for planning and providing nursing care to the family as the whole. The main objective is reintegration of the patient into society or maintenance of self-care. This activity depends on the existence of rehabilitation workshops, day care centres, night care centres, sheltered housing, and community housing (Hašto et al, 1999). As Eikelmann (1999) states, occupational therapy plays a special role in the system of psychiatric rehabilitation. The community nurses should be significantly involved in the care in those facilities and they would spend most of time with the patients.

Mental health and community care

In the present, the community psychiatric care is the modern trend in the field of care for mental health and the mentally ill. Höschl (2006), and Breier (2005) present the community psychiatric care is the balanced, mutually linked hospital and non-hospital care which includes all the biological and psychosocial approaches. It is provided in the patients´ natural communities, as close to their homes as possible, without disturbing the original social ties, with the possibility of integration into the original community with the handicap resulting from the mental illness. As Hanzlíková et al (2004) present, the definitions of communities vary, but they also have the common elements: people, relationships, area, and basic ties. Křička (2006) defines the community care as the focus on all the basic needs of the client, not only the symptoms of the disorder; the support provided in the community care focuses on development of the patient´s capabilities. Based on this, the role of the community care is to positively affect the quality of life of the patients and their families. Janosik and Davies (1996) characterise the community as any group of people who live close to each other, have special interests regardless of the distance, work on the special common goal, or maintain the special values.

People with the serious mental illnesses require the continual and long-term care. The legislation changes in providing health care in the Slovak Republic aim to move the core of help for the patients affected by the mental illnesses to non-hospital care. Thus, the non-institutionalised care complements the pharmacologic care. It can help create the conditions for occupational and social rehabilitation, and decrease the negative effects of the disease. It is helpful in recovery of the social competences, facilitates the return of the patients to society, reduces the risk of relapse of the disease, and generally helps decrease the costs of treatment. The concept of the community which links the institutional with non-institutional care has its historical roots in the 1930s in the Netherlands. It was developed significantly in the 1960s in the USA and Great Britain (Dušek, Večeřová-Procházková, 2005). There is the developed network of

the community centres in Great Britain. The nurses are involved in independent work, provide nursing services and counselling, and receive the social reputation and prestige (Höschl, 2006).

The traditional elements of the psychiatric care which include the psychiatric clinics and inpatient departments are complemented by the new services in the community care.

- **Crisis services** are for the clients who require the acute psychiatric or psychosocial assistance. Marková et al (2006) define three groups of the clients who need it:
  – The patients with the acute mental disorder,
  – The clients without the mental disorder in the acute psychosocial crises,
  – The long-term mentally ill with the decompensation of mental condition.

These centres are able to perform the tasks of the psychiatric first aid and the initial intensive psychiatric care (Dušek, Večeřová-Procházková, 2005).

- **Mobile crisis centres** – the helpers act in the home environment of the patients who suffer from serious behavioural anomalies. As Marková et al (2006) present, the clients do not perceive their own mental condition and are not willing to seek help spontaneously. During home visits by the mobile centre workers there is hope that the situation is not as dramatic as it can be during the interventions with police assistance.
- **Partial hospitalisation programme** – the day and night care centres provide the therapeutic and rehabilitation services. They try to be the alternation of the psychiatric hospitalisation. They support active inclusion of the clients in the whole-day activities, and they are used as the rehabilitation programmes for the patients for easier and fluent transition back to ordinary life. The night care centres provide the services in the afternoons and evenings (Marková et al, 2006; Kafka et al, 1998).
- **Housing support** focuses on establishment and improvement of self-care activities, assistance with budgeting and paying bills, communication with the flatmates and neighbours, setting goals and their support, and support of the independence and the ability to manage the difficult situations. It focuses on the long-term interaction with the clients. The most common ways of housing support include: half-way homes, care at home, sheltered housing, and social housing (Marková et al, 2006).
- **Helplines** – the Slovak League for Mental Health has been active in the Slovak Republic for several years; it provides free telephone counselling about mental health, and help for people in the difficult life situations.

The non-traditional forms of care include the non-governmental organisations focusing on assistance for the mentally ill and their families. Their goal is to help the ill to cope with their disease, to provide the emotional and social support, and to improve their social status.

There are often differences in perceiving mental health, which can be changed by the influence of the previous experiences, self-expectancy, and perceiving the self-identity, self-reflexion and social status. The ability of the individual to join the society and to adapt to its requirements depends significantly on mental health. The interest

in the issues of mental health and mental illnesses is absent in many people. This fact is determined by a lack of the relevant information as well as the prejudices and stigmatisation of the mentally ill which still last in our society. As Höschl (2006) and Kafka (2004) suggest, the mental health care becomes the political priority in most of the developed Member States.

Attitudes of lay people to mental health promotion

We were interested in the opinions and attitudes of lay people towards the issues of mental health promotion. We surveyed the situation if lay people consider mental health promotion and mental illness prevention to be important. We monitored if the personal experiences with the mentally ill affect their attitudes to the issues and the integration of the mentally ill into society.

Material and Methods

We developed the *Questionnaire for Lay People* which included 20 items. Four of the attributes representing the questions were identification. The *gender* and *residence* attributes were alternative, and the *age* and *education* attributes were ordinally measured on the 4 and 5-point nominal scales. From the other 16 attributes corresponding with the base questions of the questionnaire, three attributes were measured on the nominal scale and 13 attributes were measured on the ordinal scale.

The cohort included the citizens of the Slovak towns.
The inclusion criteria: age over 18; gender: male, female; willingness to cooperate.
The exclusion criterion: healthcare education.
We distributed 1050 questionnaires; 95.9% questionnaires returned; $n_1 = 1007$ subjects participated in the research.

We evaluated the obtained data quantitatively and qualitatively with the use of the statistical methods. The psychometric analysis of the data was performed by the statistical methods with the use of the application programmes. The statistical processing was carried out by the algorithms used in STATISTICA Cz. v. 6, STATGRAPHICS centurion v. XV, and with the use of the statistical functions from MS Excel.
The dependence of the selected attributes was tested with the use of χ^2-*test*, and the *coefficients of association* – the Cramer´s coefficient of association (strength – relative intensity between the qualitative attributes; min = 0, max = 1) were calculated.

Results

We present the selected findings on the issues of mental health promotion and mental illness prevention related to the personal experiences with the mentally ill.
Gender: The cohort included n = 558 (55.41%) males and n = 449 (44.59%) females.

Age: The age group 18–29 years included n = 231 (22.94%) subjects, the age group 30–39 years included n = 188 (18.67%) subjects, the age group 40–49 years included n = 344 (34.16%) subjects, the age group 50–59 years included n = 205 (20.36%) subjects, and the age group 60 years and over included n = 39 (3.87%) subjects.

Education: The highest education obtained in the subjects was as follows: n = 22 (2.18%) basic, n = 300 (29.79%) apprenticeship, n = 313 (31.08%) secondary education finished by the school-leaving examination, and n = 372 (36.94%) university education.

Residence: The cohort included n = 654 (64.95%) subjects from towns, and n = 353 (35.05%) subjects from villages.

| Descriptive characteristics	Attribute			
	Age	Education	Gender	Residence
Minimum value	1	1	1	1
Maximum value	5	4	2	2
Modus	3	4	1	1
Empirical entropy	1.436	1.175	0.687	0.648
Maximum entropy	1.609	1.386	0.693	0.693

Table 1: Descriptive characteristics for identification attributes

Descriptive characteristics	Questions – ordinal scale								
	Q1	Q2	Q3	Q5	Q6	Q7	Q8	Q9	Q10
Minimum value	1	1	1	1	1	1	1	1	1
Maximum value	5	5	5	5	5	5	5	5	5
Modus	5	5	1	4	4	5	4	1	5
Median	5	4	3	4	4	4	4	2	5
Lower quartile	4.00	1.50	1.00	3.00	2.00	2.00	2.00	1.00	4.00
Upper quartile	5.00	5.00	4.00	5.00	5.00	5.00	5.00	3.00	5.00
Distance	1.27	1.73	1.61	1.39	1.57	1.45	1.49	1.29	1.27
Herfindhal index	0.35	0.22	0.25	0.27	0.25	0.26	0.24	0.29	0.35
Redundancy	5.65	5.36	5.42	5.47	5.44	5.48	5.39	5.54	5.65
Minimum and maximum values	**Minimum**				**Maximum**				
Distance	0				1.998				
Herfindhal index	0				1				
Redundancy [nit]	0.000				6.915				

Table 2: Descriptive characteristics – the ordinal scale

Descriptive characteristics	Question Q4 – nominal scale
Minimum value	1
Maximum value	5
Modus	2
Empirical entropy [nit]	1.473
Maximum empirical entropy	1.609

Table 3: Descriptive characteristics – the nominal scale
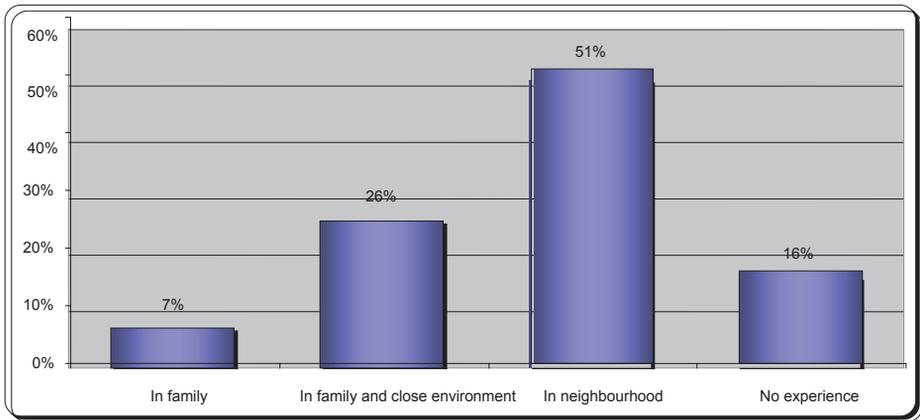
Graph 1: Personal experience with the mentally ill

The personal experience with the mentally ill was reported as follows: in family: n = 67 (7%) subjects; in family and close environment: n = 261 (26%) subjects; and in neighbourhood n = 516 (51%) subjects. No experience with the mentally ill was reported by n = 163 (16%) subjects.
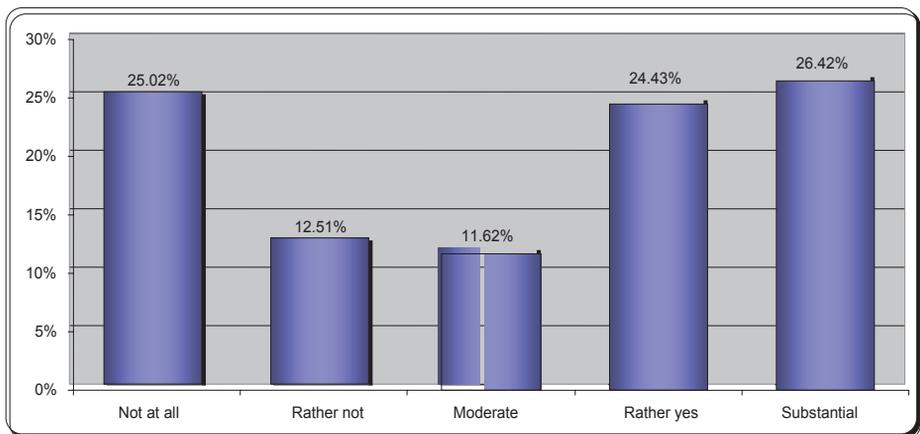

Graph 2: Interest in the issues of mental health

The interest in the issues of mental health was reported as follows: not at all n = 252 (25.02%) subjects; rather not n = 126 (12.51%) subjects; moderate n = 117 (11.62%) subjects; rather yes n = 246 (24.43%) subjects; and substantial interest was reported by n = 266 (26.42%) subjects.
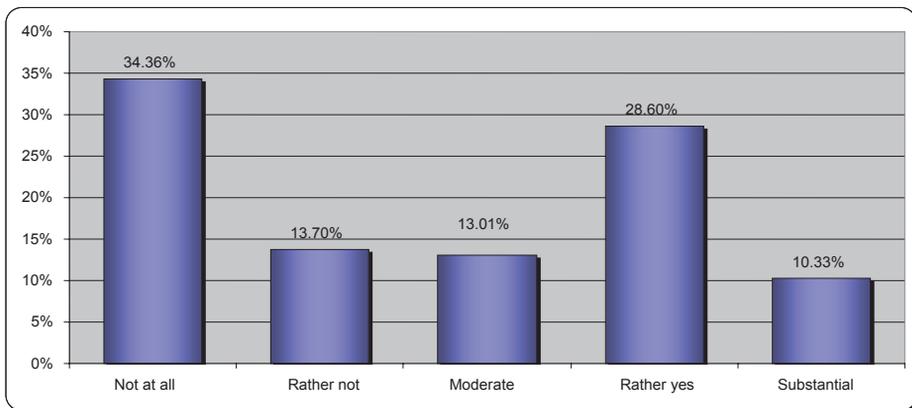

Graph 3: Interest in the issues of mental illnesses

The interest in the issues of mental illnesses was reported as follows: not at all n = 346 (34.36%) subjects; rather not n = 138 (13.70%) subjects; moderate n = 131 (13.01%) subjects; rather yes n = 288 (28.60%) subjects; and substantial interest was reported by n = 104 (10.33%) subjects.
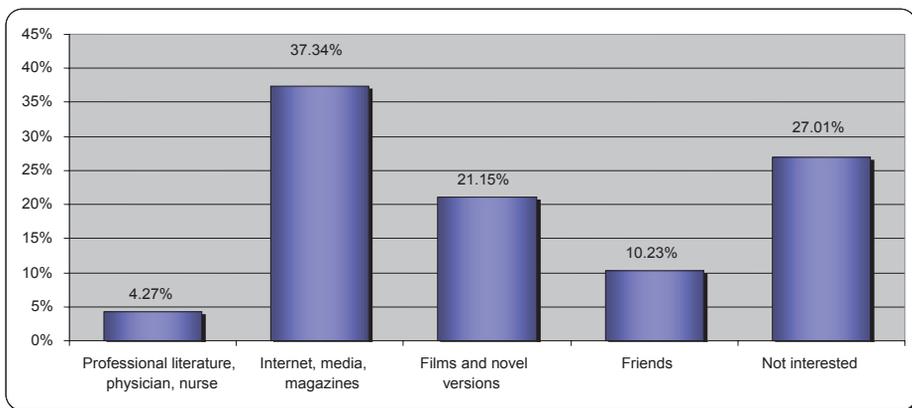

Graph 4: Sources of the information on the issues of mental health and mental illnesses

The sources of the information on the issues of mental health and mental illnesses included: professional literature, a physician and a nurse in n = 43 (4.27%) subjects; the Internet, media and magazines in n = 376 (37.34%) subjects; the films and novel versions in n = 213 (21.15%) subjects; and friends in n = 103 (10.23%) subjects. n = 272 (27.01%) subjects were not interested in the issues.
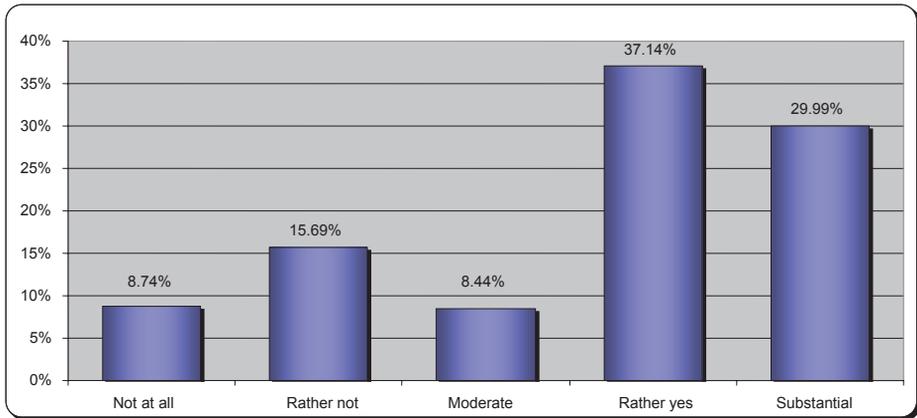
Graph 5: Importance of care for mental health

The subjects stated the importance of care for mental health as follows: not at all n = 88 (8.74%) subjects; rather not n = 158 (15.69%) subjects; moderate n = 85 (8.44%) subjects; rather yes n = 374 (37.14%) subjects; and substantial n = 302 (29.99%) subjects.
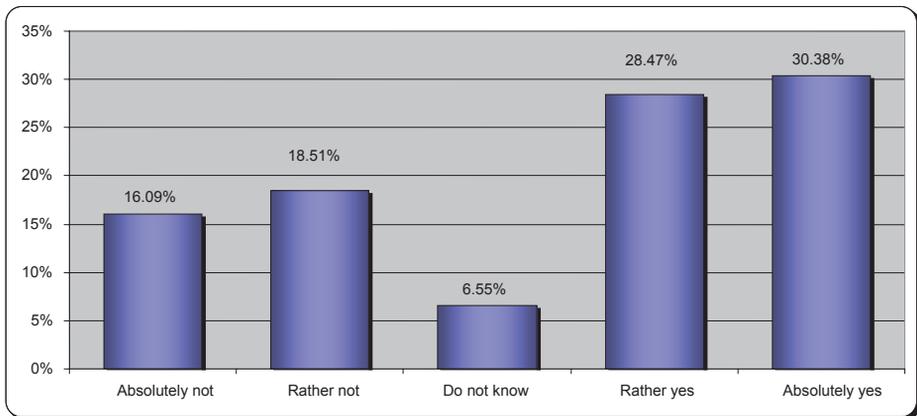

Graph 6: Seeking help of psychiatrist in case of mental problems

In case of mental problems, the subjects reported seeking help as follows: absolutely not n = 162 (16.09%); rather not n = 186 (18.51%) subjects; do not know n = 66 (6.55%) subjects; rather yes n = 287 (28.47%) subjects; and absolutely yes n = 306 (30.38%) subjects.
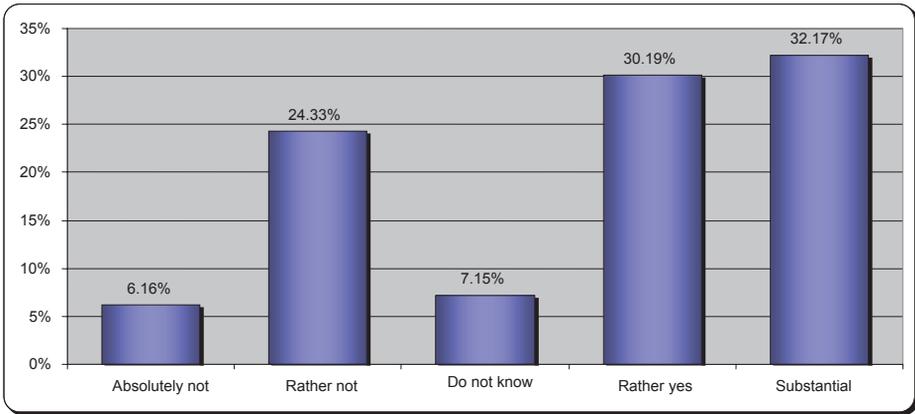
Graph 7: Effects of impaired mental health on incidence of physical symptoms

The subjects stated the possibility of the effects of impaired mental health on incidence of physical symptoms as follows: absolutely not n = 62 (6.16%) subjects; rather not n = 245 (24.33%) subjects; do not know n = 72 (7.15%) subjects; rather yes n = 304 (30.19%) subjects; and substantial n = 324 (32.17%) subjects.
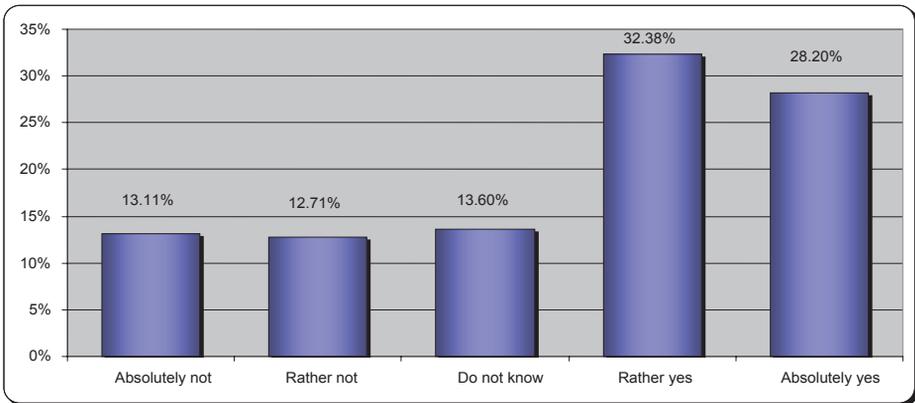

Graph 8: Integration of the mentally ill into social life

The subjects agreed with integration of the mentally ill into social life as follows: absolutely not n = 132 (13.11%) subjects; rather not n = 128 (12.71%) subjects; do not know n = 137 (13.60%) subjects; rather yes n = 326 (32.38%) subjects; and absolutely yes n = 284 (28.20%) subjects.
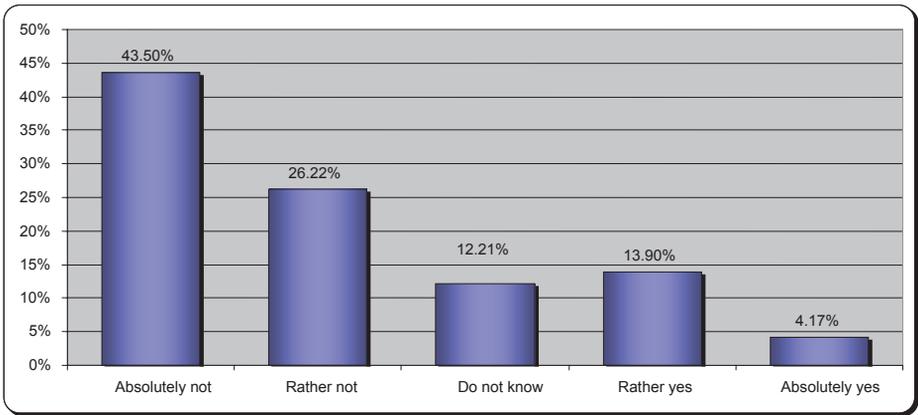
Graph 9: Long-term care placements of the mentally ill in psychiatric clinics

The opinions of the subjects on long-term care placements of the mentally ill in psychiatric clinics are as follows: absolutely not n = 438 (43.50%) subjects; rather not n = 264 (26.22%) subjects; do not know n = 123 (12.21%) subjects; rather yes n = 140 (13.90%) subjects; and absolutely yes n = 42 (4.17%) subjects.
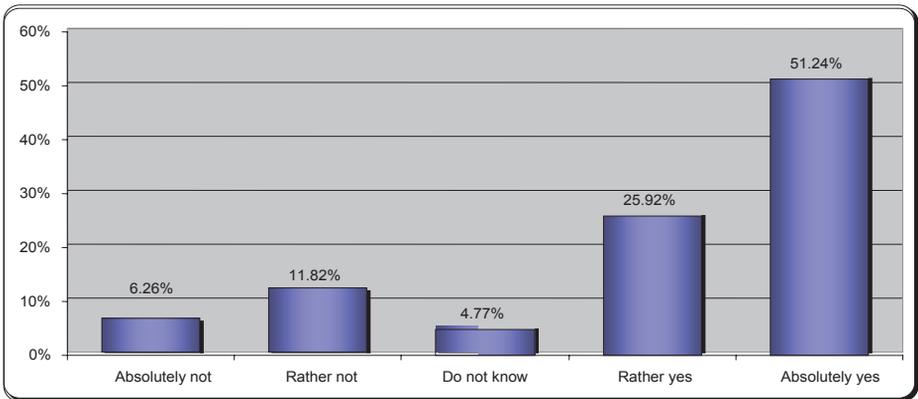
Graph 10: Interest in community psychiatric nurses´ role

The subjects reported the interest in community psychiatric nurses´ roles as follows: absolutely not n = 63 (6.26%) subjects; rather not n = 119 (11.82 %) subjects; do not know n = 48 (4.77%) subjects; rather yes n = 261 (25.92%) subjects; and absolutely yes n = 516 (51.24%) subjects.

Question	Cramer´s association coefficient	χ^2	P
2	0.2673	287.83	< .001
3	0.3089	384.32	< .001
4	0.3233	420.93	< .001
5	0.3619	395.57	< .001
6	0.3297	328.45	< .001
7	0.3046	280.28	< .001
8	0.2751	304.75	< .001
9	0.3290	436.01	< .001
10	0.1912	147.32	< .001

Table 4: Cramer´s association coefficients and results of χ^2 test

We analysed the data obtained by the questionnaire for lay people using the attributes 2, 3, 4, 5, 6, 7, 8, 9 and 10 as the tested attributes; and the attribute 1 – *personal experience with the mentally ill* was used as a categorisation criterion.

Dependence of the tested attributes is highly significant at α = 0.05 level of significance. The values of the Cramer´s association coefficient indicate a medium dependence between the tested variables. There is a weak dependence between the variables in the question 10.

The presented results suggest: the closer the interpersonal relationship between the subject and the mentally ill person, the bigger interest in the information related to mental health promotion and mental illnesses. The close contact also influences selection of the relevant information sources. The subjects who had not been confronted with the mentally ill reported only the minimal interest despite the fact that the care for mental health may act as the factor of prevention.

As Höschl et al (2004), and Marková et al (2006) present, lay people usually classify mental illnesses as "nervous breakdown" or "complete madness", and feel they have enough information about mental disorders. However, when they face a mental illness in their families or close environment, they usually become interested in the information. Motlová et al (2005), Korcsog (2005), Španiel (2005), and Preiss et al (2007), who focus their works on the issues of influence of the interest and knowledge of the families on quality of life of patients, present unambiguous benefits of the information for improvement of quality of life of both the patients and their families. The families need to have adequate information and sufficient abilities to manage the disease to function well (Motlová et al, 2005; Praško et al, 2008). The subjects reported the programmes in media and the articles in the magazines as the sources of the information. We assume that this information is a popular science; it provides the information of preventive character, and it is focused on mental health, healthy sleep, relaxation, and stress prevention. The subjects also reported the films and novel versions about the issues as the sources of the information. Nowadays, in our opinion, media deepen the stereotypes and the stigma of the mentally ill. Fiction most often depicts the mentally ill as dangerous and violent persons. The subjects only minimally reported the

physicians and nurses as the sources of the information despite the fact that education is included in the list of the activities in the statement of work. The information by the physicians and nurses was common in the subjects who had the mentally ill person in their families; therefore we assume it was targeted education.

Höschl et al (2004), Pečeňák (2005), Marková et al (2006), and Fričová (2008) present that mental illnesses are stigmatised in the society. Admitting mental problem can cause the feelings of shame and the risk of rejection by people. Most people keep mental problems to themselves. Fear of being labelled by mental illness, being excluded from the society, or losing the job prevent many of the affected from seeing the psychiatrists or psychologists. We assume that the answers of the subjects were affected by these facts. However, we noticed significant differences in opinions of the subjects who had personal experiences with the mentally ill in their families or close environment who would seek help of the psychiatrist in case of mental problems. On the other hand, only 30% of the subjects without the personal experience with the mentally ill admitted the possibility they would actively seek help of the psychiatrist. Acceptance of the relation between the impaired mental health and the onset of the physical symptoms of diseases was significantly higher in the subjects with personal contacts with the mentally ill. The opinions on inclusion of the mentally ill in social life were also determined by personal experiences. The stereotypes of stigmatization persist significantly in the subjects with no experience with the mentally ill. More than 47% of them do not consider inclusion of the mentally ill in social life to be suitable, even though they had never had negative experiences with the mentally ill. More than 64% of the subjects with the personal experiences in their families considered inclusion of the mentally ill in social life to be suitable.

More and more, the society prefers the need of early reintegration of the mentally ill in society and their return to home environment. Even the subjects without personal experiences with the mentally ill consider the long-term placement of the mentally ill in the psychiatric facilities to be unsuitable.

In spite of the fact that the subjects obtained the information on the issues of mental health and mental diseases from the physicians and nurses only minimally, up to 75% of all the subjects expressed their interest in community psychiatric nurse activities. We consider the community psychiatric nurse activities to be important in mental health promotion and in prevention of mental illness. In our opinion, the community psychiatric nurses can significantly positively influence the opinions of lay people on the need of mental health promotion by their educational activities. Transferring the part of care for the mentally ill to the natural social environment would allow lay people to experience personal confrontation with the mentally ill in the community. As the findings in the study show, the personal experiences with the mentally ill change the attitudes, eliminate stigmatisation of the mentally ill, and increase the interest of lay people in mental health.

Conclusion

The National Programme for Mental Health (2002) creates and improves the system of care which allows effective enhancement of mental health, prevention of mental problems and freeing people with mental problems from isolation in the form

of social exclusion from community or deepening the dependence on the institutions, and thus creates the conditions for dignified life of people with mental problems as it is in the rest of population in community. The educated psychiatric nurses play the irreplaceable role in such the system of care.

PODPORA DUŠEVNÉHO ZDRAVIA V KONTEXTE OŠETROVATEĽSTVA

Abstrakt: Kapitola sa zaoberá problematikou podpory duševného zdravia, úlohami sestry v rámci primárnej, sekundárnej a terciárnej prevencie duševných ochorení. Prezentujeme tiež výsledky výskumu, cieľom ktorého bolo zmapovať názory a postoje laickej verejnosti na problematiku podpory duševného zdravia. Zisťovali sme, či považuje laická verejnosť podporu duševného zdravia a prevenciu duševných ochorení za dôležitú a ako ovplyvňuje ich postoje k danej problematike a k integrácii duševne chorých do spoločnosti osobná skúsenosť s duševne chorým. Analýzy výsledkov svedčia o tom, že čím je užší interpersonálny vzťah medzi respondentom a duševne chorým, tým je väčší záujem o informácie týkajúce sa problematiky podpory duševného zdravia a duševných ochorení. Tento úzky kontakt má vplyv aj na výber relevantných informačných zdrojov. Laická verejnosť sa stále častejšie prikláňa k potrebe skorej reintegrácie duševne chorých do spoločnosti a návratu do domáceho prostredia. Väčšina respondentov prejavila záujem o pôsobenie psychiatrických sestier v komunite.

Kľúčové slová: duševné zdravie, duševné ochorenie, prevencia, sestra, postoje, laická verejnosť

HEALTH IN NURSING CONTEXT

Gabriela VÖRÖSOVÁ

Abstract: Nowadays, in accordance with the dominant consensus of the authors of the nursing science, the meta-paradigmatic definition of the scope of the study has been developed mainly through four basic terms including a person, environment, nursing care, and health. Health is defined as a state of well-being of a person as a receiver of nursing care in the time of treatment. The condition can occur in a person in the range from its highest level to the presence of a terminal illness. Nursing as a theoretical-practical discipline regards the theoretical-research goals as well as the practical-clinical goals, i.e. to maintain health and quality of life, or eliminate the patient′s disease in nursing process. Specification of these aspects belongs to the competences of the conceptual models and related nursing theories. In the cognitive structure of nursing we find its language and activity aspects. They are the horizontal and vertical aspects of the science reflecting in the professional terminology. The standardized language of nursing includes all the aspects of health and solves them through the classification systems such as NANDA, NIC, NOC, and POP.

Key words: health, nursing, metaparadigm, conceptual model, classification systems

Health is one of the basic concepts for nursing. It includes numerous components such as physical, mental, spiritual, social, intellectual and environmental. In the present, there is not a unity in the definition of the concept of health (Farkašová et al, 2005). We know how to achieve a level of health but still we are not able to measure health (Kozier et al, 1995). As Bártlová (2005) presents, some authors even say that it is not possible to define health. The World Health Organisation (WHO) defined health in 1947 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Kozier et al, 1995; Farkašová et al, 2005). The concept of health is understood variously; it depends on the society in which people live, on education, the value system of people, and what they understand under the concept of health and what health means for them. As there are problems with defining health, so-called operational definitions of health that are oriented on those characteristics of health, or diseases that are relevant for the aims of the specific study are created for research purposes. Health consists of the objective and subjective components. The deeper it is studied, the more striking its complex and value character is. The value element of health has been dominant mainly in the recent years; but historically, it is not a completely new aspect (Kozier et al, 1995; Farkašová et al, 2005).

Health in metaparadigm of nursing

Kubicová, Musilová (2005) present the opinions of some authors on the metaparadigm in nursing:

1. Donaldson and Crowley state that "nursing studies the wholeness or health of humans, recognizing that humans are in continuous interaction with their environments".

2. Meleis states that "a nurse interacts (interaction) with a human being in a health/illness situation (nursing client), who is in an integral part of his socio-cultural context and who is in some sort of transition or is anticipating a transition. The nurse-patient interactions are organised around some purpose (nursing process), and the nurse uses some actions (nursing therapeutics) to enhance, bring about or facilitate health".

3. Kim states four scopes of nursing:
   a) The scope of a person focuses on his development, problems and experiences with health care.
   b) The scope of a person and a nurse focuses on meeting a patient and the interaction between them in the process of provision of nursing care.
   c) The scope of practice emphasises cognitive, behavioural and social aspects of the professional actions of nurses.
   d) The scope of environment focuses on time, space and qualitative changes in the person´s environment.

The basis of the metaparadigm of nursing was created by Florence Nightingale in her pioneering works (1858–1874) where she identified and described the most of her basic concepts. Its systematic elaboration was not done sooner than after 1950s. Nowadays, in accordance with the dominant consensus of the authors of nursing science, the paradigmatic definition of the scope of the study has been developed mainly with the use of four basic concepts – (1) person, **(2) health**, (3) environment, (4) nursing care; they are followed by four non-relational (analytical, definition) and relational (synthetic) statements which define them constitutively or describe their mutual relations (Palečár, 2003; Palečár, 2010; Kubicová, Musilová, 2005; Kozier et al, 1995; Krišková, Willardová, Culp, 2003; Pavlíková, 2006). Kozier et al (1995) state there is no unity in the definition of health. Florence Nightingale (1969), the founder of professional nursing described health as a state of being well and using one´s powers to the fullest extent. Almost every nurse theorist defines health in their works. Kozier et al (1995) quote some nursing theorists, e.g. Dorothy E. Johnson (1980) who describes "health as an elusive, dynamic state influenced by biologic, psychological, and social factors. Health is reflected by the organisation, interaction, interdependence, and integration of the subsystems of the behavioural system. Humans attempt to achieve a balance in this system; this balance leads to functional behaviour. A lack of balance in the structural or functional requirements of the subsystems leads to poor health". According to Dorothea E. Orem (1985), "health is a state that is characterised by soundness or wholeness of developed human structures and of bodily and mental functioning. Well-being is used in the sense of individuals´ perceived condition of existence. Well-being is a state characterised by experiences

of contentment, pleasure, and certain kinds of happiness; by spiritual experiences; by movement toward fulfilment of one´s self-ideal; and by continuing personalisation. Well-being is associated with health, with success in personal endeavours, and with sufficiency of resources". Callista Roy (1984) describes health as "a state and a process of being and becoming an integrated and whole person".

Pender (1996) defines the health promotion model. It is based on the social theory which emphasises the importance of the thinking process leading to behavioural changes in favour of health (Farkašová, 2005; Krišková et al., 2003; Skokňová, 2004, Nemcová, Hlinková et al. 2010). Nola Pender has created a model which is based on information from medicine, psychology, pedagogy and sociology. A major assumption is that the individual is naturally disposed to be healthy. The individual´s definition of health is for them of more importance than a general statement about health. The model focuses on persons who present themselves uniquely in accordance with their cognitive-perceptual and modifying factors which in their mutual relation affect health-promoting behaviours. The model consists of:

1. Cognitive-perceptual factors defined as primary motivating mechanisms of behaviours:
   a) Importance of health for the individual – health is a priority for the individuals who make the most of it, and thus their behaviours lead to protection of their own health.
   b) Perceived control of health – the individuals motivated by their own desire for health focus their behaviours on increased control of health.
   c) Positive influence on own health – the individuals capable to positively influence their own health demonstrate this ability in their behaviours.
   d) Individual´s definition of health – the individuals´ behavioural changes related to their health are affected by their own definitions of health on the scale from absence of a disease to high level of well-being.
   e) Self-perception of health – the individuals who feel ill usually start to use health-promoting behaviours.
   f) Advantages of health-promoting behaviours – advantages motivate the individuals to start or continue in such behaviours.
   g) Barriers to health-promoting behaviours – barriers occur when the individuals are convinced that activities or behaviours are difficult or impossible, which can have negative effects on initiation of or involvement in health-promoting changes.
2. The modifying factors for behaviours oriented on health promotion are the individual´s age, race, education, income, body weight and family patterns. Cognitive-perceptual factors affect health-promoting behaviours directly while modifying factors affect them indirectly. When using the model, it is inevitable to identify cognitive-perceptual factors in the individuals which are modified by the situational, personal and interpersonal characteristics. The factors are together involved in health-promoting behaviours and they motivate to actions presented in behaviours. The influence is related to the activity, the activity plan processing, the requirement raising and the preferences oriented on health promotion.

The model assumes the following behavioural conceptions integrating the presented factors:

1) Previous behaviours affect health-promoting behaviour directly and indirectly. It focuses on perception of one´s ability to direct positively one´s behaviour affected also by previous experiences.

2) The effect related to activities assumes positive and negative feelings connected with some behaviour that directly affect behaviour and indirectly affect individual´s abilities to positively influence one´s healthy behaviour.

3) Participation in action plan includes a stimulus towards the planned strategy to participate in health-promotion behaviour.

4) Motives for behaviour and preferences contain the improved concept of "benefits and barriers"; it is a planned behaviour that is present prior to initiation of activities.

While using the model in the community, the nurse assesses the presented factors, their mutual interaction and influence on individual behavioural conceptions. Based on the assessment and analysis of the condition, the nurse plans activities for changes in individual´s behaviour oriented on health promotion. The model can be used for adult population and children older than 10 years of age. Pender identified health promotion as the goal for the 21st century as disease prevention was the task for the 20th century (Skokňová, 2002).

Koňošová (2005) presents the model of functional health patterns by Marjory Gordon. Gordon served as the first president of the North American Nursing Diagnosis Association (NANDA) until 2004 and has been a fellow of American Academy of Nurses. The area of her contribution is in the research of nursing diagnoses and nursing care planning. The Gordon´s functional health patterns is a method based on the idea that all people have some behavioural patterns in common, and the patterns are related to their health, quality of life, development of their abilities and achievement of human potential. Description and assessment of health patterns enables the nurse to recognise functional and dysfunctional behaviours, or to determine nursing diagnoses. The method is based on the person—environment interactions. Individual´s health condition shows bio-psycho-social interaction. In contact with the client, the nurse identifies functional or dysfunctional health patterns.

Basic concepts of the model:

Health, functional, dysfunctional health pattern, holistic needs, basic human reactions, interactions with environment. The pattern is defined as a stage of behaviour in specific time. A dysfunctional pattern may later induce a disease. In the model of the functional health patterns, the first part of nursing process (data collection – assessment) is based on eleven functional health patterns. Those represent the scope of the basic nursing data.

Nursing history includes:

1) Subjective data obtained by interviewing a client.

2) Objective data obtained by observation and examination.

Gordon defines every pattern, and nursing history is based on this definition. Questions, examinations and observations are used for screening. If the information

suggests the presence of a problem or dysfunction, further questions, examinations and observations are inevitable.

Gordon´s functional health patterns include (Koňošová, 2005; Mastiliaková, 2002; Krišková et al, 2003):

1) **Health perception and health management**. The pattern focuses on the person's perceived level of health and well-being, and on practices for maintaining health. It contains the information on health perception, how the health perception corresponds with common activities and future plans, general level of health care, following mental and physical preventive measures, nursing and medical instructions, and other care.

2) **Nutritional metabolic pattern**. The pattern focuses on food and fluid consumption related to metabolic needs. It includes individual´s eating habits, eating schedule, types and quality of food, food preferences, and the use of dietary and vitamin supplements. It includes the information on damaged skin, healing ability, and quality of skin, hair, nails, mucous membranes, and teeth, body temperature, body weight and height.

3) **Elimination**. The pattern describes excretory function of bowels, urinary bladder and skin. It includes the information on individual´s perception of regularity of elimination, the use of laxatives inducing elimination, other changes and difficulties in time and way of elimination, and quality and quantity of elimination. It may also include the information on removing excretions (family, community).

4) **Activity and exercise**. The pattern describes activities, exercises and free-time activities. It includes the information on everyday activities, adequacy of energetic output, hygiene maintenance, food preparation, shopping, alimentation, housework and home maintenance. It presents the information on types, quality and quantity of exercises including doing sports, and on spending free time, i.e. relaxation activities, and if the person performs them alone or with other people.

5) **Sleep and rest pattern**. The pattern describes sleep, rest and relaxation and gives the information about them through 24 hours. The data identify quality and length of sleep, rest and energy sufficiency. It provides the information on means of sleep promotion (medicaments, habits, etc.).

6) **Cognitive-perceptual pattern**. The pattern contains the information on adequacy of sensory perceptions (sight, hearing, smell, taste, touch) and how the specific senses are compensated or replaced in case of difficulties. It gives the information on pain perception and how to relieve it, and on cognitive abilities (speech, memory, ability to make decisions).

7) **Self-perception and self-concept pattern.** The pattern describes how the person perceives oneself and what one´s self-concepts are. It includes the approach to oneself, perception of one´s mental, emotional or physical abilities, self-image, identity, body posture, eye contact, voice, and speech patterns.

8) **Role and relationship pattern**. The information describes the patterns of relationships and the client´s roles. It includes perception of main roles in everyday life situations; satisfaction or dissatisfaction with family, work or social relationships and responsibilities related to them.

9) **Reproduction and sexuality pattern**. The information describes the pattern of reproduction and sexuality, satisfaction, changes in sexuality or sexual relationships and in reproduction. It includes the information on reproductive ability of females (fertility, menopause, postmenopause) and problems in this area.

10) **Coping and stress tolerance pattern**. The information presents the pattern of general coping and effectiveness of stress tolerance, reserves or capacity of ability to face the changes and keep the integrity, and the ways of coping with stress, family, and other similar systems, and experiencing the ability to control and manage the situations.

11) **Value and belief pattern**. The information presents the pattern of values, goals or beliefs including spiritual ones which manage selection and decision making. It presents the information on situations that are seen as important by the person, as well as on the conflicts in values, religious beliefs, or expectations related to health.

Gordon´s functional health patterns are a very practical model. It can be used in hospitals and also in community care. An individual, a family or a community can be a client. The model produces the conceptual frameworks for systematic nursing assessment of patient´s health condition in any care setting – outpatient, secondary or tertiary. It creates the space for systematic communication within the multidisciplinary teams, and common nursing language with the use of nursing terminology.

Gordon´s nursing model offers the advantages from various perspectives:
a) The Gordon´s approach is in compliance with orientation of modern nursing;
b) it focuses on health, health promotion, and thus it presents mainly the functional health patterns;
c) it may be used in community, family-oriented nursing care;
d) it is suitable for hospital care for the sick; depending on wards, nursing history can be worked out in details and can be focused on dysfunctional health patterns;
e) it respects and meets holistic approach to health;
f) eleven patterns include the information on physical, mental and spiritual aspects of health, as well as on the relationships of the client, the ability to adapt oneself;
g) by the model, Gordon contributes to the development of nursing theory and implementation of the theoretical knowledge in practice;
h) it has been useful in nursing diagnosis in the taxonomy of nursing diagnoses (Koňošová, 2005).

Health perception is highly individual; therefore its definitions and descriptions vary a lot. An individual´s definition of health does not have to fit the definition of healthcare professionals. Various factors affect individual definitions of health:
1. Developmental stage: health is often related to the stage of development of the person; the ability to react to changes in health is directly related to the age.
2. Social-cultural influences: every culture has its own views on health, which are often transferred to children.
3. Previous experiences: knowledge that is based on the previous experiences helps people define the definitions of health.

4. Self-expectations: some people expect that if they are healthy all their lives, they will function effectively physically and also psychosocially. Others expect the changes of functions, and adapt their definitions of health to those changes.

5. Self-perception: how the individual perceives oneself in general; those perceptions are related to such aspects as self-esteem, self-image, needs, roles and abilities (Kozier et al, 1995; Caldwell et al, 2002).

The nurses should be aware of their own personal definitions of health and should appreciate that other people have their own definitions as well. The nurses must know and have their own understanding of the concept of health, and regardless of it, they must be interested in client´s perception of health (Farkašová et al, 2005). The views of health express the present belief of the individual in the scope of health, which may or may not be based on reality. Health trends suggest that the nurses play the primary role in helping people change their way of life and environment to prevent accidents, illnesses and occupational hazards (Matney, 2007).

Models of Health

Models of health (Kozier et al, 1995; Koňošová, 2005) are:

a) Clinical model sees people as physiological systems with related functions. Health is identified by the absence of signs and symptoms of disease. The narrowest interpretation of health occurs in this model. To laypersons, it is the state of not being "sick". Many medical practitioners use the clinical model. The focus of many medical practitioners is the relief from signs and symptoms of disease, and elimination of pain. The absence of the signs and symptoms in a person means the individual´s health is considered to be restored. For efficient and economic management of health problems of population, it is necessary to go behind the framework of biomedical knowledge and to enrich it by knowledge of the study of health as a social phenomenon.

b) Ecologic model (Koňošová, 2005; Kozier et al, 1995) is based on the relation of people to the environment. It presents that health is conditioned by natural and social environments, and it would be a mistake to separate oneself from specific people throughout the lifespan including their personality, work, family relations, emotions, feelings, opinions, and social roles. The model focuses on the whole personality of the individual as a member of the family and community, belonging to a specific culture and performing related civic and social roles. In this situation it includes the perception of positive health, health damage and also subjective relation to individual determinants of health. People as members of society try to understand the action towards health in the context of everyday life. It is inevitable to emphasise that ecologic health model is not an antipole to the biomedical approach but it is its significant enhancement. Ecologic model includes three interactive elements: 1. Host: person(s) who may or may not be at risk of acquiring a disease; 2. Agent: any environmental factor that, by its presence or absence, can lead to illness or disease; and 3. Environment: may or may not predispose the person to the development of disease. Each of the elements dynamically interacts with the others, and health is an ever-changing state.

c) Role performance model (Kozier et al, 1995; Farkašová et al, 2001) defines health in terms of the individual´s ability to fulfil societal roles, that is, to perform work. According to this model, people who can fulfil their roles are healthy even if they appear clinically ill. Emphasis is paid to the individual´s capacity rather than on the individual´s obligation to complete the tasks and responsibilities. In this model it is assumed that sickness is the inability to perform one´s work. A problem with this model is that a person´s most important role is the work role. People usually fulfil several roles, e.g. mother, daughter, friend, and certain individuals may consider nonwork roles paramount in their lives.

d) Adaptive model (Kozier et al, 1995; Farkašová et al, 2001) describes health as a creative process. In this model of health, disease is a failure in adaptation, or maladaptation. Individuals adapt to the changing environment constantly and actively. The focus of this model is stability, although there is also an element of growth and change. Individuals must have sufficient knowledge, income and sources to be able to perform their health-related choice. The highest level of health can be achieved by flexible adaptation to the environment.

e) Eudemonistic model incorporates the most comprehensive view of health. Health is seen as a condition of actualisation or realisation of a person´s potential. Actualisation is the apex of the fully developed personality. The highest aspiration of people is fulfilment and complete development, i.e. actualisation. It involves development of personal potential as well as person´s acquired abilities. According to this, disease is seen as a state that inhibits self-realisation and use of person´s own abilities. In a case of absence or disorder, disease is also a reparative process of nature. The model is based on the idealistic philosophy of eudaimonism which emphasises person´s effort to achieve flourishing and considers it a source of morality (Kozier et al, 1995; Farkašová et al, 2005; Farkašová et al, 2001).

Kozier et al (1995) and Farkašová et al (2001; 2005) describe the following concepts to assess the state of health:

1. **Wellness** as a state of optimal health is characterised by self-responsibility, balance and development of physical, mental and spiritual health. This choice is influenced by the individual´s culture and environment as well as by the self-conception. There are six dimensions of wellness: physical (the ability to achieve regular physical activity, obtain knowledge, and use healthcare system appropriately); emotional (the ability to recognise and accept feelings, and maintain appropriate relationships); social (development of family harmony); intellectual (creativity for development of the individual´s mental activities and knowledge); work (preparation for work); and spiritual (seeking meaning and purpose of human life). In the environment, wellness is related to the premise that people should live in peace and protect their environment. Social wellness is of a great importance too, as the situation in a bigger social group influences the situation of smaller groups. Even the ill persons can experience wellness if they enjoy their life and have a reason to live for.

2. **Well-being** is a subjective perception of balance, harmony and vitality. It occurs in levels; on the highest level the person recognises positive contribution and experiences satisfaction while on the lowest level the person feels unhealthy.

3. **Illness** may or may not be related to disease. It is a highly personal state in which the person feels unhealthy.
4. **Uneasiness** can occur independently of disease but it can also be associated with it.
5. **Disease** is a medical term. It is described as an alteration of the physical and mental functions resulting in a reduction of capacities or a shortening of the normal life span. The situations or other phenomena which increase the individual´s vulnerability to disease are called risk factors. They are structured in five related areas: genetic complement, age, physiologic factors, lifestyle, and environment (Kozier et al, 1995).

Nowadays, nursing emphasises holistic approach to health as a whole, not as the analysis and separation of individual areas of health (Farkašová et al, 2005).

Nursing focuses not only on the sick but also on healthy individuals therefore it is important to strengthen the roles of nursing and develop the theories in the area of healthy lifestyle and work, health promotion and protection, education of individuals, families, groups and communities towards health. The focus is on the person as a whole bio-psycho-social being who is in the specific environment and the specific state of health. The objectives of nursing are preservation, maintenance of optimal state of health and improvement of quality of life, providing nursing care focused on achieving independence and self-care, alleviation of suffering as well as providing information focused on changes in lifestyle.

The "concept of nursing" (2006) presents main tasks of nursing:
1. to preserve and maintain the optimal state of health of the individual, family and community in various life situations,
2. to encourage the individual, family and community to active participation in care for their own health,
3. to perform disease prevention and reduce negative effects of diseases on the state of health of population,
4. to provide active and individualised nursing care by the method of nursing process,
5. to provide nursing rehabilitation,
6. to monitor and meet the needs of the individual, family and community related to the change of health status and impaired health,
7. to provide counselling in care for the individuals of each age group,
8. to recognise the nursing problems that can be the subject of research,
9. to work in the research in nursing and health education,
10. to implement nursing knowledge obtained by the research which is in accordance with the ethical principles and the patients´ rights in nursing,
11. to manage and provide nursing care with emphasis on maximal quality and effectiveness,
12. to educate and train nurses for the nursing profession.

Nowadays, health promotion as the process of active approach to one´s health, and thus also the process of life enhancement, is the significant trend of modern health care and the whole society (Farkašová, 2005).

Issues of health in standardised nursing terminology

The nurses can use worldwide well-known nursing classification systems to solve the needs, problems, or deficits in the patients in the scope of health. The standard terminology and development of the nursing classification systems are the condition for international nursing to work in the same way in the phases of nursing process. **Thus, nursing as a science provides its contents, defines the scope of nursing practice, what nurses do for the benefit of health of the individual, family and community.** The development and use of the standard terminology is one of the essential signs of the nursing profession in the 21st century. The best known basic classification system is the NANDA-International (the North American Nursing Diagnosis Association International). This system has been followed by further classification systems: NIC (the Nursing Interventions Classification), NOC (the Nursing Outcomes Classification), the NNN Alliance (NANDA, NIC, and NOC), ICNP (the International Classification of Nursing Practice), the Omaha System, POP® (Praxis Orientierte Pflegediagnostik), and others. These terminology projects clearly define the profession, and its scope, they support the usage of the information technologies, they are the condition for the quality of care, research, and education, and encourage common communication between the nurses and other healthcare professionals. The nursing terminology is an open, alive and developing issue. The systematic development of the classification systems started in the 1970s. The development and promotion of their introduction into practice in the present has been done on the international level under coordination of ACENDIO (the Association for Common European Nursing Diagnosis, Interventions and Outcomes), WENR (the Workgroup of European Nurse Researchers) and ICN (the International Council of Nurses) (Mastiliaková, 2002; Marečková, 2006; Krišková et al, 2006). In 2001, the first NNN Alliance conference was held; it was supported by a grant from the National Library of Medicine, the USA; the common taxonomic structure of NANDA, NIC and NOC was created there. In 2009 in Austria, the team of authors, Stefan et al, submitted the POP classification. Kukurová, Vlček et al (2009) present that systematisation of nursing terminology happens through information communication standards, e.g. the Health Level 7 reference information model, the reference terminology model for nursing – ISO 18104 F Health Informatics, the MDS (the Minimum Data Set), SNOMED (the Systematised Nomenclature of Medicine), CINAHL (the Cumulative Index to Nursing and Allied Health Literature), etc..

NANDA Classification System

Marečková (2006) presents the social and historical situations important for development of nursing. In the period after the World War 2 in the United States of America, the optimal conditions were created for historical changes in understanding of the profession of nursing. The theoretical elements were improved, the know-how of the field was developed and cultivated by the scientific approach, and thus the road to the development of nursing science was open. In 1973, the American nurses could provide the initiatives and specific suggestions for formulation of nursing diagnoses to the Diagnostic Review Committee. The development of the events resulted in the First

National Conference on Nursing Diagnoses Classification in 1973. The first official definition of nursing diagnosis, and the first taxonomy with 31 diagnoses organised in alphabetical order (non-hierarchic structure of taxonomy) were accepted (Kozier et al, 1995). The Clearinghouse for Nursing Diagnoses, the database of the information sources, was established at Saint Louis University; it served as a depository for nursing diagnosis materials. It published a newsletter, maintained a speakers bureau, coordinated plans for national conferences and distributed bibliographies on each diagnostic category and concept developed. In 1978, the proposal of hierarchic framework according to the **"Nine Patterns of Unitary Man"** was accepted. In 1982, the Taxonomy I was established using this proposal. In 1982 Callista Roy, Margaret Newman, Martha Rogers, Dorothea Orem and Imogene King presented the new organisation of the framework of taxonomy (frame, structure or system) of nursing diagnosis called the Patterns of Unitary Man (Humans) to the NANDA and the Taxonomy Committee. Later it was re-named the Patterns of Unitary Human Beings, and then replaced by the Human Response Patterns. In 1986, the nursing diagnoses of Taxonomy I were organised according to the **"Nine Patterns of Basic Human Responses"**. In 1986, the important event was inclusion of nursing diagnosis concepts in the Minimum Data Set (MDS) of medical statistics in the USA (Marečková, 2006). The Diagnostic Review Committee was established in1986; Lynda Carpenito chaired the committee, and the formal guidelines for review and inclusion of nursing diagnoses in Taxonomy I were established. In the same year, the NANDA´s nursing language and classification was forwarded to the World Health Organization, for possible inclusion in the International Classification of Diseases (ICD). In 1987, the NANDA Taxonomy I was published, with help of Phyllis Kritek, and was known as the "Orange Book" by the professionals. The publication of the official journal of the NANDA – Nursing Diagnoses – started in 1990; in 1997 the journal title changed to the *International Journal of Nursing Terminologies and Classifications. In 1988, the Taxonomy I was revised and corrected, and the new nursing diagnostic elements were accepted and approved. The nursing diagnoses accepted by the NANDA were included in the Taxonomy I in 1994, and the diagnoses approved in 1998 were added. In 1998, the proposal of the Taxonomy II was submitted; it focused on the complexity of the framework classification organised in accordance with the* **"11 functional health patterns"***, grammatical and lexical formulation of nursing diagnoses (Marečková, 2006; Holmanová, 2008). The Taxonomy II was formally presented to the participants of the 14th NANDA Conference in Orlando in 2000. The new structure was in accordance with the present terminology which is based on the relational and specifically oriented database.* **The basis consists of the multiaxial framework of health of the individual, family and community.** *It is suitable for development of clinical terminology and has a more effective structure for inclusion in a computer database. It includes six bases for formulating nursing diagnoses (1 – diagnostic term, 2 – intensity, 3 – care unit, 4 – developmental stage, 5 – latency, potentiality, 6 – characteristics). The organisational principle of the hierarchic structure of the Taxonomy II nursing diagnoses is related to the Gordon´s health patterns (Marečková, 2006; Holmanová, 2008). In 2002, the NANDA becomes the NANDA International after twenty years of existence. The conferences in 2002 and 2004 created the conditions for presentation, wide discussion and revision of the project to provide the feedback, formulation of the research questions*

and practical activities including the presentations for the users. The current structure of the NANDA International Taxonomy II nursing diagnoses has three levels: 13 domains, 47 classes, and 206 nursing diagnoses, e.g. Domain 1 – Health Promotion, Class 2 – Health Management, Nursing diagnosis 00099 Ineffective Health Maintenance; Domain 4 – Activity/Rest, Class 4 – Cardiovascular/Pulmonary Responses, Nursing diagnosis 00092 Activity Intolerance; Domain 12 – Comfort, Class 1 – Physical Comfort, Nursing diagnosis 00132 Acute Pain (Herdman et al, 2009). The international applicability of nursing diagnoses depends on inclusion of the linguistic as well as cultural differences in the common unified language of nursing diagnosis (Wake, Fehring, Fadden, 1991). The studies on nursing diagnoses are inevitable for maintenance and improvement of plausibility of the terminology and also for maintenance and enhancement of the evidence-based NANDA International Taxonomy.

Validation and research of diagnostic elements

The verb *to validate* is usually used in the meanings such as to confirm relevance, to verify, or to prove (Svoboda, 1999; Petráčková, Kraus et al, 2001; Kudlička, 2003; Creason, 2004). The definition of validity: "...a research tool is valid if it measures what it claims to measure" (Maršálová, 1990; Gavora, 1999; Svoboda, 1999; Kudlička, 2003); this can be considered to be the most frequent definition of validity which is, first of all, related to the evaluation and measurement techniques (scales, questionnaires, tests) used in the nursing research. However, validity is one of the most significant terms used in the methodology of the research of the diagnosis categories in nursing (Holmanová, Žiaková, Čáp, 2006). The relevance of the data obtained and used in the nursing practice and research can be understood as a criterion of their applicability related to formulation of nursing diagnoses, selection of the effective nursing interventions, and evaluation of their outcomes. Validation of nursing diagnosis means the confirmation that the diagnosis reflects the patient´s problem accurately, and that the conclusion was based on the collected relevant data (Holamnová, Žiaková, Čáp, 2006). The research focused on the diagnostic elements has been developed significantly since 1980. The most significant sources of the clinical validation studies were presented in the first twelve NANDA conference proceedings published between 1974 and 1988 in regular two-year intervals. According to Whitley (1999), Clark, Craft-Rosenberg (2000), and Creason (2004), the presented findings are considered to be the milestones which fundamentally influenced and directed the process of validation of the nursing diagnoses. The nursing professionals along with the informatics, statisticians and other specialists have been continually involved in the development and research of the NANDA diagnostic concepts. The presented results are the up-to-date versions of the NANDA classification taxonomies, and are presented by the professional periodicals, and at the NANDA or ACENDIO conferences (Nico, 2002). The research and testing in practice enhance the credibility of the terminology, and they are a long-term matter. Testing of the national versions of the NANDA terminology has been carried out in several countries of the world as a result of the wide international cooperation. The sources for the detailed and continual study can be also found in the publications such as the Journal of Advanced Nursing or the Online Journal of Issues in Nursing, and in other professional magazines of clinical nursing.

Reliability and validity of diagnostic elements

Reliability presents the degree of consistency of the measured attribute with the reality (Kudlička, 2003). Every nursing diagnosis must be examined in term of reliability and validity. These dimensions specify its dependability and applicability. To some extent, reliability and validity is the test of the conceptual clarity of the diagnostic concept. The problems in achieving the acceptable degree are solved by further development of the concept. It is not possible to obtain the absolute validity and reliability for every research. The obtained levels of validity and reliability are expressed (Gordon, 1987). According to Gordon (1987), credibility of the element is determined by its validity, and reliability is determined by its replicability. During the diagnostic process, the assumption is that the element must have the defining characteristic which comes towards the same judgement, the interdiagnosis. Using the diagnosis to describe the same condition in various clients is called intra-diagnosis. It labels them by the terms such as an intra-evaluator and inter-evaluator of reliability. Reliability is important in prevention of diagnostic errors. Validity describes the degree to which the group of defining characteristics describes reality which can be observed in the patient–environment interaction. Internal validity of the element describes the extent to which the observations formulated as characteristics of the element are the authentic presentations of what exists in the clinical practice. External validity of the diagnostic element describes the degree to which the characteristics may be legitimately used for diagnosis of the status in various groups of clients. These degrees create construct validity (Gordon, 1987). It is important to assess reliability of the abilities of the clinical data collectors to carry out an interview and examination, and their sensibility to the signals. Other principles for testing validity are also applicable. According to Gordon (1987), there are various methodologies that were used by Lackey (1986), Lo and Kim (1986), and Vincent (1986). Validity provides the degree of confidence that should be put on the accuracy of an element to describe reality. Of course, the concept reality is relative for a percipient. The characteristics may be found (1) present as a model in the patient–environment interaction that are measured, and (2) related to the conceptual definition of a diagnosis. As Fehring (1986) suggests, the study of consistent validity of an element from the randomised selection of the nurse population may be inevitable. On the other hand, if the researcher believes in the conceptual and legal dimensions, survival in the "labour market" of clinical practice will provide indication of the consensus of the nurses on the nursing diagnosis (Gordon, 1987). Data validation with a patient helps the nurse avoid coming to wrong conclusions. A patient (family member, mother) must be an active partner in data validation (Gordon, 1994). The data to support a nursing diagnosis must consist of a cluster of documented stimuli to represent the status. The nurse can prevent or minimize the potential adverse errors in data interpretation by accurate validation of the patient´s observations and complaints (Carpenito-Moyet, 2004).

Development of NANDA taxonomy validation methods

The NANDA Taxonomy has been developed for 30 years. The initiators of the development of the methodologies for research of validation of nursing diagnoses were Gordon and Sweeney (Whitley, 1999; Creason, 2004). In their works, Gordon and Sweeney

(1979) develop three models of identification and validation of nursing diagnoses: the retrospective identification model, the nurse validation model, and the clinical validation model. The basis for the retrospective identification model was accumulation of nurse experiences with nursing diagnoses and their defining characteristics identified in the clinical environment. The retrospective identification model was influenced by the conclusions of the First National Conference on Classification of Nursing Diagnoses. In the same year, the two-year multicentric American study was initiated and coordinated by the Clearinghouse for Nursing Diagnoses in St. Louis (1973-1975) (Gebbie, 1976). The study focused on obtaining the feedback from the clinical nurses; the objective was to identify and name the common problems solved by the nurses in practice. The data were obtained from 588 patients in 28 facilities. The findings of the study showed that the nurses formulated 2338 nursing diagnoses in 588 patients. Eighty percent of the diagnoses (their labels) formulated by the nurses in the study were consistent with the diagnoses approved at the First National Conference on Classification of Nursing Diagnoses (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). The nurse validation model focused on finding the agreement of the experts in the defining characteristics of the specific diagnoses. It is a retrospective model focusing on the data obtained by the nurses – experts on the diagnosis characteristics of the diagnoses in the NANDA classification system. Quantification of the individual diagnostic attributes in the modification of this model by Fehring (1984) significantly influenced its wider implementation in the research (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). The clinical validation model is a retrospective method focusing on comparison of the manifestation attributes of a diagnosis obtained directly from the patient with the defining characteristics presented in the NANDA classification system. In practical implementation of validation, fruitfulness and achievement of results are significantly influenced by construction of a record sheet, used documentation as well as guidelines for the process of diagnosis and data management. The model was modified by Fehring. Fehring´s modification of the last two models prepared by Gordon and Sweeney significantly contributed to enhancement of the interest in the clinical validation studies. At the Seventh Conference on Classification of Nursing Diagnoses, 24 validation studies were presented, including 14 studies focused on clinical validation (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). Fehring (1986) modifies the nurse validation model and the clinical validation model, and creates two significant models known as the Diagnostic Content Validity Model and the Clinical Diagnostic Validity Model (Holmanová, Žiaková, Čáp, 2006). The Diagnostic Content Validity Model (DCV) includes three interlocking phases (Whitley, 1999; Creason, 2004). In the first phase, 25-50 experts assess the degree of representativeness and specificity (significance) of an attribute related to the diagnosis (the NANDA classification system) on the Likert-type scale from 1 to 5. The goal of the second phase is to achieve the consensus between the experts who assessed the specific characteristic attribute. As the number of the experts is relatively high, the Delphi method is used to achieve consensus. In the third phase, the weighted score of each attribute is calculated. The characteristic attributes are the attributes with the weighted score above 0.80. These characteristic attributes (characteristics) are described as the major defining characteristics. The attributes with the weighted score bellow 0.50 are rejected. Sparks, Lien-Gieschen

(1994), and Ogasawara (1999) modify the third phase of the model by using the minor defining characteristics which are specified by the scores between 0.75 and 0.60. The additional characteristics and the distracting characteristics are added to the NANDA list of the characteristics assessed by the experts. The wide use of the presented model allows analysis of the individual studies focused on the specific nursing diagnoses. Even the social-cultural differences in the defining characteristics emerged through the multiethnic studies by Ogasawara (1999). The second model presented by Fehring is the Clinical Diagnostic Validity Model (CDV) which includes rearrangement of the diagnostic signs to the Gordon and Sweeney´s model. Two experts assess the incidence of the characteristics from the previous model with those that were manifested in the patient (Holmanová Žiaková, Čáp, 2006). In the DCV and CDV models, the expert is used for validation. Whitley (1999) suggests the following criteria for including the professional in the expert group: 1) Master´s education focused on the MA theses in the area of nursing diagnoses; 2) Publishing activities on research on the specific diagnostic attribute, or the related area; 3) Publications on the diagnosis in the professional periodicals; 4) Doctoral thesis focused on the specific nursing diagnosis; 5) Current clinical practice minimally for one year in the field relevant for the specific diagnostic attribute; and 6) Certification in the field relevant for the specific diagnostic attribute.

In the Slovak nursing, Holmanová Žiaková, Čáp (2006), and Zeleníková, Žiaková (2010) present the new approaches suggested by Hoskins (1988), Whitley (1999), and Creason (2004). They describe three phases of the process of validation of nursing diagnoses:

1. Concept analysis – making a list of diagnostic attributes. Gordon (1982; 1987), Fehring (1994) and above mentioned authors consider this phase to be the essential for validation of nursing diagnoses. Based on the analysis of various validation studies, Gordon (Whitley, 1999; Creason, 2004) identifies heterogeneousness of the conceptual definitions of diagnoses and criticises the absence of methodological conceptualisation. She mentions the differences in terminology and warns of the fact that identification and validation of diagnoses should initially focus on examination of their explicit definitions, their testing with accurate presentation of validity and reliability. Whitley (1999) and Creason (2004) suggest that the efforts should focus on realisation of repeated, comparative studies with relevant statistical analyses. Kramer, Chinn (1999), McKenzie (2005), and Florin (2005) define the conceptual analysis as the process of formation of the meaning of the diagnosis. Avant, Walker (1995), McKenzie (2005), and Florin (2005) consider it a strategy how to examine the defining characteristics and other characteristics of a specific diagnosis. The significance of using the conceptual analysis is in identification of various uses of a word which labels the relevant diagnosis and thus its meanings. For example, through the conceptual analysis of the nursing diagnosis we search the answers for the questions: What is ineffective maintenance of health? What does it represent? What does it characterise? What does it cause and what are its consequences? What does it consist of? How is it used? What is its significance? When does it occur? What is it connected with? What does it relate to? What are its synonyms, opposites, and metaphors? What are its manifestations? What is its quality? By

answering these questions we can differentiate the defining characteristics of the given diagnosis from inessential, irrelevant, secondary or related characteristics; that allows the specification of the meaning of the diagnoses which are vague, ambiguous. Conceptualisation leads to formation of a constructive definition (explication of diagnosis) and then it, through the defining characteristics, leads to operationalisation of a given diagnosis. Operationalisation of the diagnosis implies its measurability, which can lead to the development of the measurement tools (Holmanová, Žiaková, Čáp, 2006; Zeleníková, Žiaková, 2010).

2. Expert validation – Fehring (1994), and Whitley (1999) emphasise that the subject of expert validation should not be only the evaluation of representativeness, particularity (significance) of the attribute related to the diagnosis, but the evaluation of the operational definitions of the attribute related to the diagnosis through the diagnostic content validation (DCV) method.

3. Clinical validation – focuses on validation of the fact if, based on the independent expertise by the experts, the specific diagnosis is present in a group of patients in which its incidence is expected. The course of the individual phases is related to the creation of a measurement tool, and testing its validity and reliability (Holamnová, Žiaková, Čáp, 2006; Zeleníková, Žiaková, 2010). Clinton (1986) suggests the development of constructive, predictive and discrimination validity of the diagnostic items. Predictive validity refers to the extent to which the group of the defining characteristics (derived from the descriptive studies and conceptual analyses) relates to other theoretical features. The discrimination validity test is the extent to which the group of characteristics can find the differences between the groups of clients. The technique of the known group provides the extent to find the differences between the group of clients with the expected specific condition and the group in which this condition is not expected (Gordon, 1987).

Fehring (1986) provides the model for development of the content validity index (CVI) of the diagnostic items. He also suggests that each diagnostic item should have the standardised ranges of validity, including diagnostic content validity (DCV), clinical diagnostic validity (CDV), and etiological correlation rating (ECR). DCV is the index of validity content using the expert assessments of the characteristics for the conceptual definition. The expert observations of the characteristics in the clinical situations are the basis for CDV index of the item. The main characteristics (diagnostic criteria) of the item can be formulated from the DCV and CDV indexes. The correlations describing the strengths of associations between the problems and their etiological factors are presented by ECR. Validity of the items must be defined before the correlations between the items; therefore it is important to know DCV and CDV before paying attention to the relation between the problem and the etiological factor (Gordon, 1987).

Nursing Interventions Classification – NIC

Bulechek, Butcher and McCloskey-Dochterman´s (2008) NIC is the project of the University of Iowa and is supported by the Center for Nursing Classification and Clinical Effectiveness at the College of Nursing at the University of Iowa. According to the authors, NIC is the comprehensive standardised classification of interventions (with the series of

activities) that the nurses perform. It is useful for clinical documentation, communication of care, integration of data systems and sets, effective research, productivity measurement, reimbursement, and curricular design. The Classification includes the interventions that the nurses do on behalf of the patients, both independent and collaborative interventions, both direct and indirect care. The authors define the intervention as "any treatment, based upon clinical judgement and knowledge, which a nurse performs to enhance patient/client outcomes". NIC can be used in any setting (from ICU, to home care, to hospice care, to primary care) and in any specialty (from acute care, to out-patient care, to long-term care). The Classification describes the domain of nursing; however, some interventions can be performed by other providers. Most of the interventions are for the use of the individuals, but many of them can be used for families or communities. Each intervention is described by a label name, a definition, and a set of activities. In the fifth edition from 2008, there are 542 interventions and more than 12,000 activities. The portions of the standardised interventions are the labels and definitions; the definitions cannot be changed when they are used. Care provided with the use of NIC can be individualised through the activities. From the lists of 10 to 30 activities, the provider selects the activities for the individual or family, and then can use new activities if desired. The interventions are grouped into 30 classes and 7 domains for ease of use. The 7 domains include: Physiological: Basic; Physiological: Complex; Behavioural; Safety; Family; Health System; and Community. The 30 classes include:

A – Activity and Exercise Management	P – Cognitive Therapy
B – Elimination Management	Q – Communication Enhancement
C – Immobility Management	R – Coping Assistance
D – Nutrition Support	S – Patient Education
E – Physical Comfort Promotion	T – Psychological Comfort Promotion
F – Self-care Facilitation	U – Crisis Management
G – Electrolyte and Acid-Base Management	V – Risk Management
H – Drug Management	W – Childbearing Care
I – Neurologic Management	Z – Childrearing Care
J – Perioperative Care	X – Lifespan Care
K – Respiratory Management	Y – Health System Mediation a) Health System Management b) Information Management c) Community Health Promotion d) Community Risk Management
L – Skin/Wound Management	
M – Thermoregulation	
N – Tissue Perfusion Management	
O – Behaviour Therapy	

Some of the interventions are used in more than one class, but each has a unique number. The NIC taxonomy was coded for several reasons: 1) computer use; 2) data manipulation; 3) articulation with other coded systems; 4) for use in reimbursement. The codes for the 7 domains are 1 to 7; the codes for the 30 classes are A to Z, a, b, c, d. The activities are coded after the decimal using two digits; an example of a complete code is 4U-6140.01; e.g. Domain: 5 – Family, Class: W – Childbearing Care, Intervention: Breastfeeding Assistance 1054 (Bulechek, Butcher, McCloskey-Dochterman, 2008).

NIC validation and development

1. Construction of the Classification (1987–1992) and identification of the concepts and methods:

   A deductive approach was ruled out after systematic review of existing intervention classification schemes. An inductive approach was chosen – beginning with the activities that the nurses in practice were using to plan and document care. A major conceptual issue was the question of what sorts of nursing behaviours should be used in intervention taxonomy. The following types of behaviour were identified: 1) Assessment behaviours to make a nursing diagnosis; 2) Assessment behaviour to gather information for a physician to make a medical diagnosis; 3) Nurse-initiated treatment behaviours in response to nursing diagnoses; 4) Physician-initiated treatment behaviours in response to medical diagnoses; 5) Behaviours to evaluate the effects of nursing and medical treatments (including assessment behaviours done for purposes of evaluation, not diagnosis); and 6) Administrative and indirect care behaviours that support interventions (Bulechek, Butcher, McCloskey-Dochterman, 2008).

2. Generation of an initial list of interventions:

   Forty-five sources from a variety of specialty areas were reviewed. The main idea was to be comprehensive in the selection of sources and to make an initial list of interventions. The review of care planning books included those published in the 5 years prior (1983–1988). The analysis included categorisation of the selected nursing activities (Bulechek, Butcher, McCloskey-Dochterman, 2008). Refinement of the intervention list and activities:

   Two refinement methods were used: expert survey and focus group. For the expert surveys, a Delphi questionnaire process was used. The method was developed by the RAND Corporation as a tool for short-range forecast (it consists of two or more rounds of questionnaires as a means to achieve consensus within the group; personal work of a committee is not necessary). It requires cooperation of a group of experts who answer a series of questionnaires. It uses feedback; the answers from every round of questionnaires are analysed, summarised and returned to the experts in a new questionnaire. Then the experts are encouraged to revise their answers in light of the replies of other members of their panel. The process: answer – analysis – feedback – answer is usually repeated three times until the general consensus is achieved. Based on this approach, the dictionary was developed from the label/activity lists generated from the exercises. Clinical nursing and research literature were reviewed by the team of investigators who refined the activities. The investigator also wrote a definition of the intervention. Fehring´s methodology (1986), developed for validation of the NANDA taxonomy nursing diagnoses, was used. Fehring´s methodology for content validation of nursing diagnoses was adapted for use with interventions and yielded Intervention Content Validity (ICV) scores with critical and supporting activities. **Fehring´s method included the following steps:**

   1. Nurse experts rated the activities for each intervention on a Likert-like scale of 1 (activity is not at all characteristic of intervention) to 5 (activity is very characteristic), and suggested missing activities and definitions.

2. The Delphi technique was used to enhance consensus among experts; the second round presented a refinement of the first list of activities and interventions based on responses from the first round.
3. Weighted ratios were calculated for every activity; the weights established by Fehring were used: 5 = 1, 4 = 0.75, 3 = 0.50, 2 = 0.25, and 1 = 0.
4. Activities with ratios equal to or greater than 0.80 were labelled critical activities; activities with ratios less than 0.50 were discarded.
5. The total ICV score was obtained for each intervention by summing the individual activity ratings and averaging the results (Bulechek, Butcher, McCloskey-Dochterman, 2008).

The second method – **focus group work** was used. For each review, 5 to 20 people provided the input. The results included 198 interventions validated by focus group. The result of this phase included 336 interventions.

3 Construction of the Taxonomy (1990–1995)

Arrangement of the intervention list in an initial taxonomic structure; validation of the intervention labels, defining activities, and taxonomy: the use of survey to specialty organisation, the use of survey to individual nurses, the use of indirect care interventions, and taxonomy validation.

Clinical testing and refinement (1993–1997)

In 1997, the scale to measure the extent of implementation was developed: to measure the strength of concepts that were part of a differentiated group practice model; the Iowa Steps for Implementation of NIC in educational settings. The scale is consistent with the Roger´s model of the innovation-decision process, which consists of five stages: knowledge, persuasion, decision, implementation, and confirmation (Bulechek, Butcher, McCloskey-Dochterman, 2008).

Nursing Outcomes Classification – NOC

Numerous situations led to creation of this classification system, including the need to organise knowledge of nursing, the need of standardised communication within nursing paradigm (the example from medicine is the International Classification of Diseases), and the need to present the nursing activities to healthcare professionals and the public. The society uses the resources for health care therefore it is necessary to show how nursing action by nurses **affects health of people**. The organisational-formal classification consists of: a label, a numeral code – main and item (for linkage with other items), a definition, a set of indicators, a measurement scale with a set of indicators, and supporting references. The functional classification for 2008 consists of: 385 outcomes, 7 domains, 31 classes (organised from A to X, b, c) and subclasses (organised in sets), e.g. Domain: Physiologic Health (II), Class: Digestion & Nutrition (K), Scale: Not adequate to Totally adequate (f), **Breastfeeding Establishmnet:** Infant – 1000; Maternal – 1001; Breastfeeding Maintenance – 1002 (Moorhead, Johnson, Maas, Swanson, 2008). Each set consists of the individual outcomes (outcome concepts, conclusions) that are a subject and a means of measurement, evaluation. The whole is in accordance with the content of a specific definition, has a stabile structured internal system, and is completed by a measurement scale. All sets form one big integrated

system. **The system is organised in accordance with the philosophy of health** by M. Gordon**,** and it emphasises the nursing approach focused on health and the responses of an organism in continuity of health.

I **Functional Health**
  A – Energy Maintenance
  B – Growth and Development
  C – Mobility
  D – Self-Care
	V **Perceived Health**
	  U – Health and Life Quality
	  V – Symptom Status
	    e – Satisfaction with Care

II **Physiologic Health**
  E – Cardiopulmonary
  F – Elimination
  G – Fluid and Electrolytes
  H – Immune Response
  I – Metabolic Regulation
  J – Neurocognitive
  K – Digestion and Nutrition
    a – Therapeutic Response
  L – Tissue Integrity
  Y – Sensory Function
	VI **Family Health**
	  W – Family Caregiver Performance
	  X – Family Well-Being
	  Z – Family Member Health Status
	    d – Parenting

III **Psychosocial Health**
  M – Psychological Well-Being
  N – Psychosocial Adaptation
  O – Self-Control
  P – Social Interaction
	VII **Community Health**
	    b – Community Well-Being
	    c – Community Health Protection

IV **Health Knowledge and Behaviour**
  Q – Health Behaviour
  R – Health Beliefs
  S – Health Knowledge
  T – Risk Control and Safety	

The NOC Taxonomy:

In 1991, Moorhead, Johnson, Maas, Swanson (2008) founded the research for the NOC classification. The NOC development is connected with the research and generation of the NIC project at the University of Iowa – the College of Nursing. They used the adaptation of the Fehring´s technique to determine the content, patient´s satisfaction with the outcomes of nursing interventions in two samples: (1) the inpatients and the nurses in acute hospital medical/surgical settings, and (2) the outpatients and the nurses in out-patient care. The objective of the research team for the NOC classification was to design, label, apply and classify the nursing sensitive patient outcomes. The classification structure focuses on the outcomes and indicators at the level of abstraction, and the outcomes and indicators according to the rules that define the common attributes within the groups. The most critical task was to identify and standardize the patient outcomes and indicators sensitive to nursing which are clinically useful and sensitive to interventions. The work was inevitable for estimation of the effects and effectiveness of nursing in achieving the expected outcomes in the patients, for enhanced development of nursing knowledge, and increased awareness of the clients and the managers of contribution of nursing for health care. Selection of the data sources for the initial list of outcomes was carried out by the purposeful and systematic testing

of the nursing textbooks, the planning and control methods, the measurement tools, the practice standards, the nursing information systems, and the books on nursing diagnoses and care planning which included the specific nursing outcomes criteria. The team chose the sources which described nursing practice in hospitals, nursing homes, communities, and out-patient settings with various clinical emphasise and various age groups of patients. However, no list of nursing-sensitive outcomes can be complete; and as the profession develops, it will always be necessary to add new outcomes and indicators. The methodology developed by the team provided the means for identification of the most common nursing-sensitive patient outcomes which are the most commonly taught, and used in practice and research. The conceptual analysis of each of the outcomes was carried out in accordance with the procedure adapted from Rogers, Waltz, Strickland, and Lenz. The objective of the analysis was to evaluate complexity of the outcome concepts in the categories, and to develop the labels for missing concepts. Based on the recommendations of the clinicians, the five-point Likert scale was added to each outcome for testing in practice. The Classification includes 17 measurement scales. Each scale is constructed so that the fifth, or end, point reflects the most desirable patient condition relative to the outcome. Outcome measurement should be reliable and effectiveness of nursing interventions should be verified. The times at which outcomes should be evaluated are not specified, but the minimum requirement is obtaining a rating when the outcome is selected and when care is completed. This may be sufficient in acute care settings if the patient has a short stay; some acute care settings have chosen to evaluate patient status once a day or once a shift. Since measurement times are not standardised, reporting the patient care day or time when measures were obtained is important for making comparisons between patient populations and across units (Moorhead, Johnson, Maas, Swanson, 2008). A concern frequently voiced by users is subjectivity of the scales. The provided indicators assist the nurse in determining the patient´s status and rating on the outcome scale, but they do not eliminate the need for a nursing judgement. Because the scale anchors are not specifically defined for each indicator and outcome, the nurse must make a nursing judgement about the patient status for the indicators and for the outcomes. Although the accuracy of this judgement is important when quantifying outcomes, it requires the same judgement used when evaluating whether the patient has met a goal, has improved in relation to a goal, or has not met a goal (Moorhead, Johnson, Maas, Swanson, 2008).

Practice-Oriented Nursing Diagnosis (POP® - Praxis Orientierte Pflegediagnostik)

Stefan, Allmer, Eberl et al (2009), the authors of the Classification, present that the goal of nursing is restoration and maintenance of everyday autonomy. The purposeful orientation to resources is inevitable to achieve this goal. Existing classifications of nursing diagnoses do not provide adequate basis for resources-oriented work, preventive conclusions and **health promotion in nursing**. The goals of the Classification include: 1) Systematic description of relations between deficits and resources; 2) Integration of resources in nursing-diagnosis description; 3) Development of diagnoses which are applicable in everyday life; 4) Open-Access – the principle for nursing diagnoses, i.e.

no costs for a licence; 5) Development of a general diagnostic conclusion oriented on resources in nursing diagnosis; 6) Adaptation of the formats of nursing diagnoses; 7) Development of the specific nursing diagnoses; 8) Evaluation (continuously).

The diagnostic conclusion is oriented on resources. The resources are the strengths, abilities and options which people use in health maintenance and/or coping with diseases. The intact resources are the basis for coping with life situations and for developing relationships mainly in psychiatric nursing. Health is based on the intact and functional, physical-functional, mental and social resources. The limited/absent conditions are the cause (= etiology) of limitations in coping with everyday life. The resources which may be limited/absent without preventive nursing interventions are the risk factors.

Practice-oriented nursing diagnosis (POP)

The POP Classification of nursing diagnoses is based on the resource-oriented conclusions. It consists of 9 areas (domains), 19 classes and 150 diagnoses. The domains are structured according to the Orem´s modified system.

The POP formats of nursing diagnoses always contain "R" for resources (Ressourcen).

Risk nursing diagnoses: P/RF/R – the format: (P) nursing diagnosis – (RF) risk factor – (R) resources.

Actual nursing diagnoses: P/Ä/S/R – the format: (P) nursing diagnosis – (Ä) etiology – (S) symptom/sign – (R) resources.

Health promotion diagnoses: P/R – the format: (P) nursing diagnosis – (R) resources.

P – Pflegediagnosentitel, RF – Risikofaktor, R – Ressourcen, Ä – Ätiologie, S – Symptom.

The POP Classification with the licence rights can be used cost-free by the persons and organisations that provide nursing care or teach nursing. The nursing history record oriented on nursing diagnoses according to the POP Classification assists the care provider (Pflegende Person) in assessment and diagnosis. It facilitates identification of possible labels of diagnoses as the potential labels of diagnoses are organised along with the data obtained according to the POP domains. The existing classifications of nursing diagnoses do not describe any resources. Development of the concept of "nursing diagnosis" through the POP Classification will enable the care providers to obtain new view of people who need nursing care. Prevention, health promotion and enhanced role of people who need nursing care will be more integrable in nursing practice (Stefan, Allmer, Eberl et al, 2009).

Nursing is characterised as the science and the art which influence the system of knowledge transferred to practice. As a science, it attempts to understand the life process of humans, their health promotion and promotion of their adaptation abilities. As an art, nursing is based on understanding and expressing the facts of life.

ZDRAVIE V KONTEXTE OŠETROVATEĽSTVA

Abstrakt: Dnes sa podľa prevládajúceho konsenzu tvorcov ošetrovateľskej vedy uskutočňuje metaparadigmatické vymedzenie predmetu jej skúmania predovšetkým pomocou štyroch základných pojmov, okrem osoby, prostredia a ošetrovateľskej starostlivosti tam patrí aj zdravie. Zdravie je definované ako stav pohody (well-being) osoby ako príjemcu ošetrovateľskej starostlivosti v čase ošetrovania. Daný stav sa môže u príjemcu pohybovať v rozmedzí od jeho najvyššieho stupňa až po prítomnosť terminálneho ochorenia. Ošetrovateľstvo ako teoreticko-praktická disciplína zohľadňuje okrem teoreticko-výskumných cieľov aj prakticko-klinické ciele a to v ošetrovateľskom procese zachovať zdravie a kvalitu života, resp. eliminovať chorobu pacienta. Konkretizácia týchto aspektov spadá do kompetencie konceptuálnych modelov a na ne nadväzujúcich ošetrovateľských teórií. V kognitívnej štruktúre ošetrovateľstva nachádzame jej jazykovú a činnostnú stránku. Ide o horizontálnu a vertikálnu stránku vedy, ktorá sa premieta do odbornej terminológie. Štandardizovaný jazyk ošetrovateľstva zahŕňa aspekty zdravia a rieši ich prostredníctvom klasifikačných systémov napr. NANDA, NIC, NOC, POP.

Kľúčové slová: zdravie, ošetrovateľstvo, metaparadigma, konceptuálny model, klasifikačné systémy

THE CZECH CITIZENS' OPINIONS ON THE HEALTH AND QUALITY OF LIFE OF SCHOOL-AGE YOUTH

Evžen ŘEHULKA

Abstract: *A representative sociological research of the views held by the citizens of the Czech Republic regarding the health and quality of life of school-age youth was conducted at the end of 2010. In its course, 1793 randomly selected Czech citizens were questioned, using the form of a structured interview. Most Czech citizens consider the current health condition of our schoolchildren to be good. The health status of the young people in our schools is rated as 70% positive on average. The Czech citizens, for the most part, believe that primary school activities contribute to a higher quality of young people's lives. As to the possibility of students being overloaded with scholastic duties, the public slightly favors the opinion that such overloading occurs frequently or occasionally – about 2/5 of the respondents take that position. The notion that the youngsters are overloaded by schoolwork is more prevalent among women, the youngest age groups, and the citizens with basic education.*

Key words: *school-age youth, adolescent health, young people's quality of life, school and the quality of life, overloading of students*

Problem

A "Long-Term Program of Health Improvement for the Population of the Czech Republic" by which the Czech government adopted the World Health Organization program called HEALTH 21 in 2002, represents a qualitatively new approach to building health education and health care. Its "main objective is to protect and develop human health during the entire life, reduce the incidence of diseases and injuries, and limit the suffering that they cause to people". One of the main thrusts of these programs is prevention. A number of objectives set out in these materials is directed to children and adolescents as the segments of populations where social and health-oriented habits that can affect an individual for life are being formed. For example, the 4th objective of the "Long-Term Program…" requires "to create conditions, by the year 2020, for young people to be healthier and more able to fulfill their role in society". This is no small task, especially in light of the subsequent statement that "despite good medical care for this segment of population, the health of children and adolescents does not show a significant improvement. The number of allergic diseases and the diseases of the nervous and musculoskeletal system is increasing, the growth of behavioral disorders

persists, the number of serious injuries is on the rise. The youth mortality has been stagnant for the last 10 years...“.

At present, health education transcends the capabilities of the health care system and so it is becoming a task for social science, where the school involvement, public awareness, and social interaction are essential to create a healthy lifestyle. This is a very demanding job, especially when measured by specific efficiency.

The efforts of health institutions in this direction are closely paralleled by important documents of our school administration, namely *General Educational Programs*, that outline a new strategy of education, inclusive of an explicit section devoted to health education. In one of its educational areas (5.8 “Man and Health”) the *General Educational Program for Basic Education (GEP-BE)* says that education has to inspire “the students to learn and know themselves as living beings, to understand the value of health, the purpose of health-saving prevention, and the depth of the problems associated with diseases or other impairment of health”. This educational area is then presented in concrete terms in Educational Module “Health Education” that imparts the fundamental knowledge about man along with preventive protection of his health.

The *GEP-BE* contains a number of important ideas that structure the school-based health education in a novel way, and point to new opportunities of linking the health education provided at schools with that offered by healthcare institutions. By health education provided by these institutions, J. Holčík (2010) means

1. patient education
2. health risk warnings, and
3. health education.

Health education is defined in various ways (see for example Marádová 2006, Čevela, Čevelová, Dolanský 2009; Machová, Kubátová et al. 2009; Liba 2010; etc.). It is typically an educational activity that endeavors to obtain health-related information, knowledge and skills, leads to a lifestyle harmonious with the medical science, promotes health awareness, and encourages responsibility for one’s own health.

Like any institutional learning, health education does not start from zero but it builds on a certain level of knowledge and skills that people already possess, that can be developed or might even have to be re-shaped. With that in mind, we wanted to find out what ordinary people think about the health and quality of life of our youth, since that could be a good starting point for meaningful health education. We consider it important to bring these ideas to light because it is from them that the parents’ implicit educational programs evolve, and the public forms the image of contemporary schools as one of the factors.

The survey of citizens‘ views on the current health of students and the importance of primary schools in improving the quality of their lives included some factors that characterize young people’s life. We focused on the phenomenon of loading, or more precisely overloading, the students, which the public often perceives in its own way. We have previously looked at the issues of student workload in a relatively extensive research (Řehulka, E. 1987), and it turned out that the public is much interested in this topic, has its own original opinions about it, and often judges the quality of a given school by it.

Finally, we posed one more question which may be a factor in the student's lifestyle, and that was the hour when the classes should begin, arguably a moment from which the workday unfolds and a key to the day's timing.

Research

The research was conceived as sociological, and the field survey was done by means of standardized controlled conversations of the interviewer with the respondent. The research intent, and the research project, were prepared during September and October 2010.

The data collection was handled by agencies INRES-SONES in the entire Czech Republic (CR).

The statistical data processing was done by SASD 1.4.5 program for statistical analysis of social data. Performed were the 1st degree sorting and contingency tables of selected indicators for the 2nd degree sorting. The strength of correlation for selected indicators was checked by the chi-square test, and other test criteria were applied as per indicator nature. This analysis allowed to interpret the data and prepare the appropriate tables and charts.

The data was obtained from a group of 1793 individuals selected at random by means of quotas. The group is a representative sample of the Czech population aged 15 and above. Its representativeness was derived from the basic pool of Czech population of people 15 years of age and older.[1]

From the standpoint of gender, the group consisted of 874 (48.7%) men and 919 (51.3%) women, which corresponds to the CR population aged 15 years and older. In terms of relative frequency, the sample does not deviate from the population, which means that the research does represent the CR population 15 years of age and older, as far as the gender is concerned.

The age groups in combination with the gender groups are represented in the sample by the following percentages:

AGE	MEN		WOMEN	
	%	DEVIATION	%	DEVIATION
15–19 years	3.5	- 0.1	3.6	+0.1
20–24 years	4. 1	0.0	3.9	+0.1
25–34 years	10.2	+0.3	9.0	-0.3
35–44 years	8.5	-0.1	8.4	+0.3
45–54 years	7.8	0.0	7.5	-0,1
55–64 years	7.8	-0.1	8.6	+0.1
Over 65 years	6.9	0.0	10.2	-0.2

Table 1: Sample Composition by Gender and Age

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[1] See Age Distribution in the Population of the Czech Republic in 2009. Status as of 12/31/2009. Prague, Czech Statistical Bureau, 2010.

Compared to the age distribution of the population, the deviation does not exceed 0.3%. It can be therefore inferred that the results of the research are representative of the individual age groups of the CR population aged 15 years and older.

The geographic or regional categorization of respondents followed the administrative map of the CR in effect since 2001.

REGION DESIGNATION	%	DEVIATION
PRAHA	12.0	-0.1
STŘEDOČESKÝ	11.4	-0.2
JIHOČESKÝ	6.0	-0.1
PLZEŇSKÝ	5.5	0.0
KARLOVARSKÝ	2.9	0.0
ÚSTECKÝ	8.0	+0.1
LIBERECKÝ	4.2	+0.1
KRÁLOVÉHRADECKÝ	5.5	+0.2
PARDUBICKÝ	4.8	-0.1
VYSOČINA	5.0	+0.1
JIHOMORAVSKÝ	11.1	+0.1
OLOMOUCKÝ	6.1	0.0
ZLÍNSKÝ	5.5	-0.2
MORAVSKOSLEZSKÝ	12.0	+0.1

Table 2: Sample Composition by Regions

When compared to the population composition, the maximum deviation is 0.2%.

It can be stated that the research results are representative of the CR population 15 years of age and older in terms of gender, age, and region.

A preliminary analysis of the collected data showed that of those aspects that might describe or characterize the given sample, the requisite differentiation function is best performed by the basic demographic indicators, namely the facts of gender, age, and regional association.

Consequently, those indicators appear more or less regularly in the following presentation, albeit only when the appropriate correlation makes sense and the detected differences are sufficiently large to justify their presentation.

Among the indicators whose representativeness was not monitored but noted in the survey, were education, marital status, number of children, place of residence, occupation, net monthly income of the family, and religious attitude. The existence of a statistically significant link is pointed out in all cases.

In the course of the field investigation, the questioners approached a total of 1988 randomly selected citizens with a request for an interview on the issues of people's health and healthy lifestyle. 195 respondents declined the interview, or 9.8% of all contacted persons. Conversely, 1793 respondents, or 90.2% of candidates, consented to the interview.

The pattern of interview denial in terms of gender and age is apparent from the following table:

AGE	MEN		WOMEN		TOTAL	
	REFUSAL	%	REFUSAL	%	REFUSAL	%
15–19 years	8	4.1	5	2.6	13	6.7
20–24 years	7	3.6	6	3.1	13	6.7
25–34 years	23	11.8	21	10.8	44	22.6
35–44 years	22	11.3	19	9.7	41	21.0
45–54 years	15	7.7	17	8.7	32	16.4
55–64 years	17	8.7	18	9.2	35	17.9
65 and older	11	5.6	6	3.1	17	8.7
TOTAL	103	52.8	92	47.2	195	100.0

Table 3: Refusal to Participate in the Research by Gender and Age

A gender analysis of the refusal to participate in research indicates that women were more willing to participate in the research than men. The least willing to participate were the men and women in the 25–44 year age brackets. The willingness to participate in the research was lower in the 25–64 age category, whereas the most willing participants were respondents in both the youngest and the oldest age groups.

In general, the rate of refusal to participate in the survey was low.

As for the reasons, the most common cause for refusing to participate was a lack of time (cited by 69.3% of respondents). The second most frequent cause was no interest in the project or indifference to it (14.2% of respondents). Another 7.8% of the respondents expressed distrust in the research or doubts about its purpose, 4.2% of respondents declined on the grounds of considering this type of research useless, 3.5% voiced a concern that the collected information may be misused (although the survey was anonymous). The remaining 1.0% stated reasons of health, reasons not mentioned above, or gave no explanation for the refusal.

Results

First we asked how the public perceived the current state of health of school-age youth. The question was phrased as follows: *"State your health rating of our school-age youth in percent, with 100% being the best possible health and 0% the worst possible health?"*

As apparent from the question, the respondents were asked to quantify their position with a specific number within the range of 0% to 100%. The indicator was therefore structured as continuous, but it was later segmented into the following intervals for evaluation purposes: "0%–20%; 21%–40%; 41%–60%; 61%–80%; 81%–100%."

The analysis of responses to this question indicates that the CR citizens assess the **current state of health of our school-age youth** as predominantly good. The weighted arithmetic average is 68.975, which means that the average rating of the health status of

our students is approximately 70%, where 100% represents the best and 0% the worst possible health.

|	0 - 20 %	21 - 40 %	41 - 60 %	61 - 80 %	81 - 100 %
◼	2,1	12,3	37,2	35,3	13,1
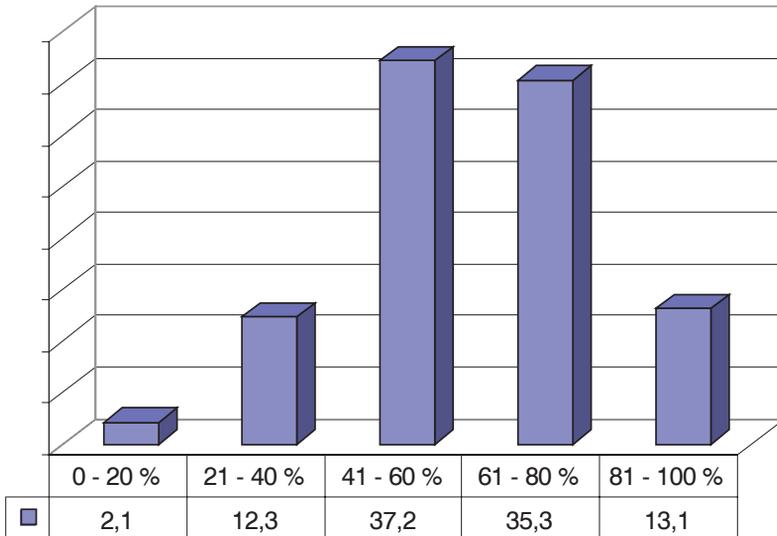
Fig. 1: Assessment of Health in School-Age Youth (in %) (N = 1776)

A subsequent analysis, based on the second degree sorting, did not identify any statistically significant correlation between the health rating for the current school-age youth and socio-demographic factors. This means that the health status is perceived similarly by men and women and by different age groups. No differences were found by education, marital status, size of the place of residence, region, or any other indicator. This means that the opinion of the CR citizens on the health of the current schoolchildren is essentially homogeneous and, on average, rated at 70% out of the possible 100%.

Another area tracked by the research were the citizens' views on primary schools from the perspective of the students' quality of life. The citizens were asked whether the primary schools contribute to a higher quality of life and whether it does not overload the children. Concurrently, the citizens were asked for an optimal time of the day to begin the instruction.

The next question deals with **the impact of primary schools on the quality of students' lives,** formulated as closed, with the following wording: *"Do you think that our primary schools contribute to a higher quality of life of the students?"* The respondents had the following options: *"1) yes, substantially; 2) yes, partially; 3) I don't know; 4) only little; 5) not at al".*
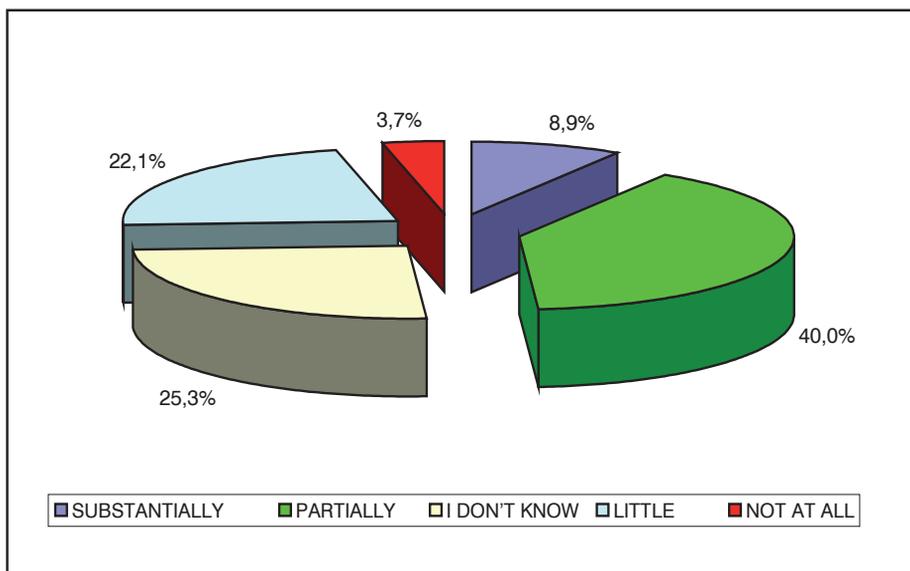
Fig. 2: Do Primary Schools Contribute to a Higher Quality of Students' Lives?
(N = 1792)

An analysis shows that almost (48.9%) of CR citizens sees the role of primary school as positive and think that it does help improve the quality of life for the young, partially or substantially. Another ¼ (25.3%) of citizens is not clear on the issue and unable to assess the situation, while the remaining ¼ (25.8%) of citizens sees the primary schools to be of little or no benefit in improving the young people's quality of life.

The analysis of statistically significant correlations failed to prove a link between gender and the position on this question. Men and women hold similar opinions on this matter. In the case of age, there is a tendency of the younger age groups to view the role of school in terms of its impact on the quality of life more critically than the older age groups. The chi-square statistic (χ^2) of the test of independence for age differentiation has the value of 51.721 with 24 degrees of freedom at the significance level $\alpha = 0.001$. This means that the views on this issue are dependent on age. Also detected was a correlation with education. The respondents with basic schooling more often state that the primary school does not improve the students' quality of life or otherwise choose the answer "I don't know" more frequently; the respondents who state that they learned a trade also significantly prefer the "I don't know" option, whereas the college-educated respondents, more than others, consider the role of school in that sense to be positive. The statistic (χ^2) of the chi-square test of independence for different levels of education has the value of 51.540 with 12 degrees of freedom at the significance level $\alpha = 0.001$. This means that the views on this subject are education-dependent. It is also logical that the respondents who are single and without children elected the answer "I don't know" more often than others.

It can be said that the CR citizens, for the most part, believe that the primary school activities contribute to a higher quality of life for the young people. This opinion is held more often by older citizens, with a higher, usually college-type, education.

Another school-related question we looked at was **the issue of possible overloading of schoolchildren.** The inquiry about this issue was formulated as closed, and worded as follows: *"Do you think that our students are overloaded with schoolwork?"* The respondents could choose from the following answers: *1) yes, frequently; 2) yes, occasionally; 3) I don't know; 4) only rarely; 5) not at all"*.
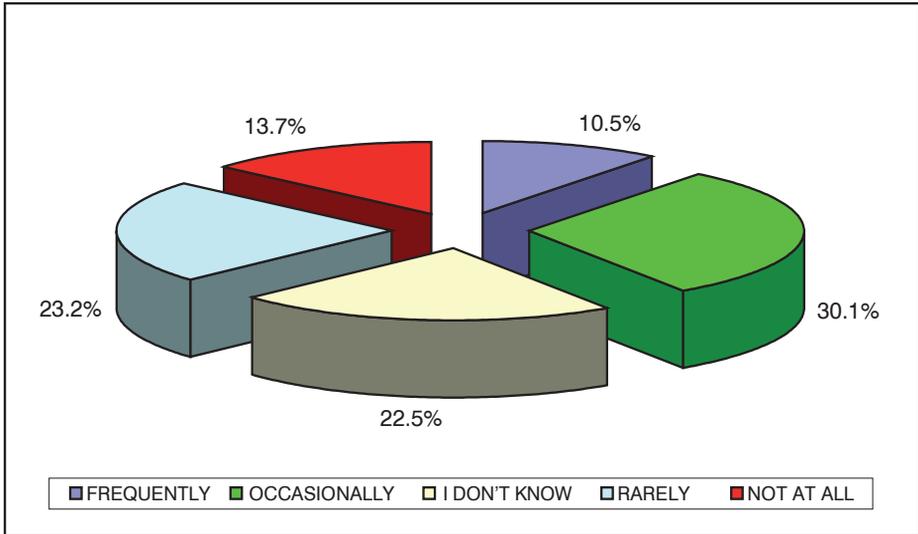

Fig. 3: Are Our Students Overloaded with School Work? (N = 1792)

With regard to potential overloading of students with schoolwork, the CR citizens are inclined to think that such overloading happens frequently or occasionally, since about 2/5 (40.6%) respondents take that position. A sizeable portion of the population (22,5%) is not clear on this matter, and the remaining 36,9% believe that overloading happens rarely or not at all.

The opinions about student overloading show some statistically significant correlations. Men, more often than women, state that overloading does not occur at all or choose the "I don't know" answer. Women, more than men, are inclined to believe that students do get overloaded. The statistic (χ^2) of the chi-square test of independence for the two genders is 26.912 with 4 degrees of freedom at the significance level $\alpha = 0.001$. This means that the position on this issue is dependent on the respondent's gender.

There is a strong link between the opinion on student overloading and age. The strongest conviction that overloading happens is in the youngest age groups. This conviction grows weaker with age, being the smallest is the highest age group. The correlation is evident from the following graph, showing a sum of responses "frequently" and "occasionally".

	15–19 years	20–24 years	25–34 years	35–44 years	45–54 years	55–64 years	over 65 years
FREQUENTLY - OCCASIONALLY	65.4	50.4	41.2	45.1	35.5	35.2	30.1
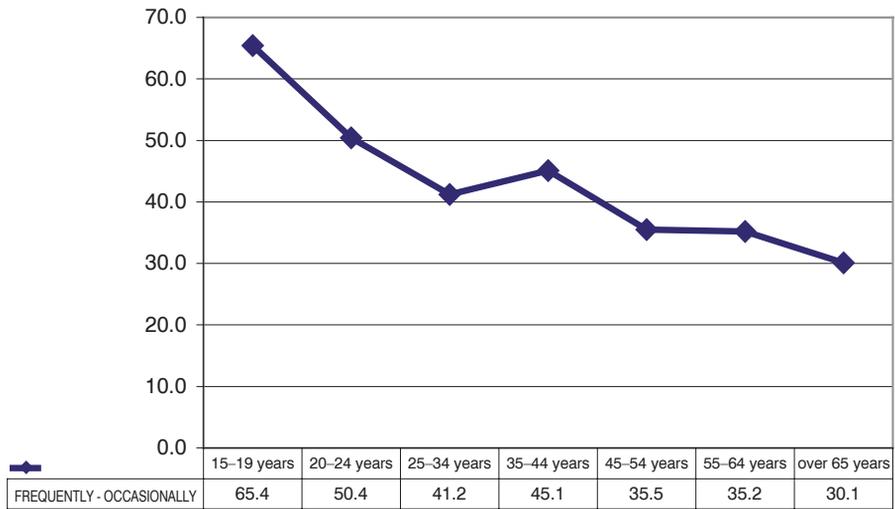
Fig. 4: Are Our Students Overloaded with School Work?
The Sum of Responses "Frequently" and "Occasionally" by Age (in %) (N = 1792)

The statistic (χ^2) of the chi-square test of independence for various ages yields the value of 151.545 with 24 degrees of freedom at the significance level $\alpha = 0.001$. The value of the test of independence for age is 0! It is therefore certain that the views on this issue depend on the respondent's age. Convinced of overloading are primarily those who are presently affected by it, i.e. the students of secondary schools, who predominate in the youngest age group.

The age-related nature of responses to this question is also evident in the fact that this conviction is typical for individuals who, in terms of marital status, are single.

Also identified was the link of this indicator to education. The citizens with the basic education are convinced about overloading more than others and the blue-color workers choose "I don't know" more often. In this case, age may be the underlying factor since most students of the secondary and trade schools are among the respondents with the basic education. The chi-square statistic (χ^2) of the test of independence for division by education is 60.858 with 12 degrees of freedom at the significance level $\alpha = 0.001$.

Along with the question of the effect that primary schools may have on the young people's life, and the issue of student overloading, we also surveyed some opinions on the organization of children's workday as a potentially important factor in their lifestyle. In this particular study, we present only the views of the CR citizens **on the most appropriate time to begin the classes,** an oft-debated topic. The question was posed as closed and articulated as follows: *"At what time of the day, in your opinion, should the instruction at primary schools begin?"* The respondents could choose one of the following answers: "1) at 6 a.m.; 2) at 7 a.m.; 3) at 8 a.m.; 4) at 9 a.m.".

|	at 6 A.M.	at 7 A.M.	at 8 A.M.	at 9 A.M.
	1.5	5.7	70.7	22.1
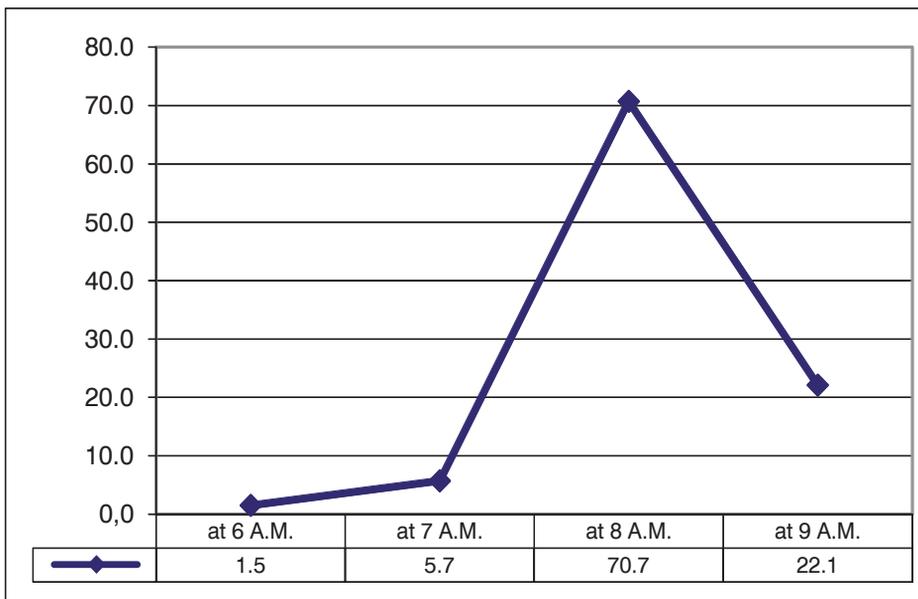
Fig. 5: The Most Appropriate Time to Begin Instruction (in %) (N = 1793)

The CR citizens clearly think that the best time to commence the instruction is at 8 a.m. This hour was favored by 7/10 (70.7%) respondents. A smaller portion (22.1%) recommended to begin the classes at 9 a.m., the other times were mentioned only exceptionally.

Men and women have the same opinion when to start the classes; there were no gender-based, statistically significant differences. It is true though that the lowest age groups (15–19 years and 20–24 years) have significantly more often than others recommended that the classes start at 9 a.m. This distinction is statistically significant. The chi-square statistic (χ^2) of the test of independence for division by age has the value of 83.715 with 18 degrees of freedom at significance level $\alpha = 0.001$. In other words, the respondents who currently attend school, in greater measure than others would like to move the starting time to 9 a.m. The age factor comes through in the marital status as well: the nine o'clock start was recommended especially by the respondents who indicated that they were single. The same starting hour is also significantly favored by those who indicated that they had a basic education. Conversely, the tradesmen, more than others, recommend to begin the classes at 7: 00 a.m. The chi-square statistic (χ^2) of the test of independence for division by education has the value of 50.871 with 9 degrees of freedom, at the significance level $\alpha = 0.001$. It can be said that the opinion on the optimal hour when to begin instruction is influenced by the degree of education attained.

Discussion

The results reached in this study were not unexpected. They show the conventional views that the public has on the important issues concerning our young

people and the current school system. From a certain perspective, the results of our research may be interpreted as positive; statistically speaking, there are no clearly negative conclusions. It is only natural to be pleased that the health situation of our schoolchildren looks good, but the other side of the coin is the need to explore the circumstances of the 30% of youngsters who are not in the first category. This is, of course, only an initial and general study, the results of which should serve as a springboard for further investigation. Another problem is the public perception and valuation of health. A number of current conceptual changes in the assessment of health may spark off a discussion about specific results; some of our surveys show that even educators are not sure where they stand on these issues (Řehulka, E. 2011, 2007, 2000, Řehulka, E., Řehulková, O. 1998b).

The questions of influence that schools exert on the quality of life of their students are equally debatable. Even though these topics are not talked about openly, the public scrutinizes the school for signs of psychological lapses, reacts sensitively to the issues of authority, bullying, school climate, often expects the school to resolve problems that the family cannot handle, or is critical when the kids in fact mirror the deficiencies of the society as a whole. However, when it comes to shaping the quality of life of the young people, the overall image of school is positive. An interesting comparison would be to juxtapose our findings with the results of a more broadly conceived publication by I. Možný (2002).

Seemingly minor issue of contemporary school is the question of overloading, which, unlike the previous discussions (see Řehulka E. 1987), now centers around the meaningfulness of scholastic instruction. The issue of school overloading must be defined if we want to institute some educational and preventive measures. We have already stated that "to prevent an overload, it is necessary to become acquainted with the specificity of the school in terms of students' social background, demographics of the environment, precepts of the pedagogical work, etc. which, in their entirety, are the factors that strongly determine the process of student overloading" (Řehulka, E. 1987 p. 130).

Traditional views came through in the question when to begin the classes, with eight o'clock being the customary hour to start and often a factor in transportation arrangements or family schedule. Extending work or entertainment (e.g. television) in the evening inspires, particularly in the young people, a desire for a later start, as practiced in most West-European countries. In general though, the public wants to stay with the traditional timing of the day, and that is necessarily true for the scholastic duties as well.

Conclusions

The citizens of the Czech Republic consider **the current state of health of our school-age youth** to be predominantly good. The average rating of our schoolchildren in terms of health condition is around 70%, where 100% stands for the best and 0% for the worst possible health. This opinion is homogeneous and, statistically speaking, the various groups of citizens do not differ significantly in their assessment.

The Czech citizens, for the most part, believe that primary schools activities contribute to a better quality of life for the young people. This opinion is more often held by older citizens with higher education, usually on a college level.

When it comes to potential overloading of students with scholastic duties, the Czech citizens slightly favor the notion that overloading does occur frequently or occasionally, the opinion shared by about 2/5 respondents. A sizeable portion of the citizenry (22.5%) does not have a clear-cut opinion on this matter, and the remaining 36.9% think that overloading happens rarely or not at all. The belief that schoolchildren get overloaded at school is favored more by women, by the youngest age groups, and by citizens with basic education.

The Czech citizens clearly consider 8 a.m. to be the most appropriate time to commence the instruction. This hour was chosen by 7/10 (70.7%) respondents. Fewer people (22.1%) recommends to begin at 9 a.m.; the other hours are rarely mentioned. To begin the classes later (at 9:00 a.m.), is preferred especially by the youngest age groups, i.e. by those who presently attend school.

NÁZORY OBČANŮ ČESKÉ REPUBLIKY NA ZDRAVÍ A KVALITU ŽIVOTA ŠKOLNÍ MLÁDEŽE

Abstrakt: Reprezentativní sociologický výzkum týkající se názorů občanů České republiky na zdraví a kvalitu života školní mládeže proběhl v závěru roku 2010. V jeho rámci bylo formou řízených rozhovorů osloveno 1793 náhodně vybraných občanů České republiky. Občané České republiky hodnotí současný zdravotní stav naší školní mládeže převážně jako dobrý. Průměrné hodnocení zdravotního stavu naší školní mládeže je cca 70 % pozitivní. Platí, že občané ČR ze z větší části domnívají, že základní škola svou činností přispívá ke zvyšování kvality života dětí a mládeže. Z hlediska možného přetěžování dětí a mládeže školními povinnostmi mírně převažuje mezi občany ČR názor, že k takovému přetěžování dochází často nebo občas – stanovisko zastávají cca 2/5 respondentů. K tomu, že škola děti a mladé lidi přetěžuje, se více přiklánějí ženy, nejmladší věkové skupiny a občané se základním vzděláním.

Klíčová slova: školní mládež, zdraví mládeže, kvalita života mládeže, škola a kvalita života, přetěžování dětí a mládeže

HEALTH EDUCATION IN TERMS OF RESPONDENTS IN THE SCHOOL ENVIRONMENT IN NITRA AND PREŠOV REGION

Miroslava LÍŠKOVÁ

Abstract: *In contemporary philosophy of a man as a bio-psycho-social being, health education is viewed as an important factor in promoting the health of individuals and society. Health education is defined with an emphasis on active access, motivation, and multidisciplinary. We interviewed 445 respondents from the school environment attending the sixth grade at primary school and the third grade at secondary grammar school in Nitra and Prešov Region on health education, and the focus of health programmes. The methods used were a questionnaire, and mathematic-statistical methods, Student's t-test in the program 11 for Windows. We conducted the research in 2007. The research indicates that health education is one of the priorities of the society. Active approach to prevention and responsibility for health were confirmed. Health status as number one value was recorded in more than half of respondent's answers. Considerable deficiencies were in health programs awareness. Health programs, according to respondents, focus on children, old people, and handle the issue of movement, nourishment, cancer prevention, and stress elimination.*

Key words: *health education, health, philosophy of health, health awareness, health promotion, nursing, nurse*

Health education is one of the areas of education, is the focus of educational curriculum, and is closely linked with health service. Health education or education for health? The controversy about whether it is preferable to use one or the other term was due to the English translation. There are several views and terminological expressions of health education in the literature. *„Consciously constructed opportunities designed to gain the knowledge alleviating changes in health behaviour"* (WHO, 1999). Beniak (1993) presents a further definition of WHO *„…health education is a special branch of medical sciences and health which aims to instil knowledge and develop pursuance aimed at preserving the health of individuals and population groups in society."* The emphasis on influence is in the following definition: *„Health education is a purposeful, deliberate, and systematic influence on pupils using pedagogic means to increase knowledge, influence their attitudes, and induce in daily life such behaviour to be healthy and to be able to fully develop their physical, mental, social potential"* (Broniš,

1995). Závodná (2002) regarding the work of professionals, states: „*Health education is a multilateral educational activity focused on creating conscious and responsible acting of a man with regard to support, preservation, and maintenance of health. Health education influences knowledge, attitudes, beliefs, motivation, and human behaviour in term of health and disease, and is a part of overall education, as well as of a particular health care system*". The emphasis on improving the health of the population expresses: „*Health education is a part of efforts to promote health and improve health status of the current population*" (Průcha, Walterová, Mareš, 2003). Payne (2005) understands health education as „*...support of all components of individual's health, thus not only status of physical, but also mental, and social well-being.*" Increasingly we encounter the concept of health education; Liba (2000) uses the concept health education as a determinant of prevention, mean of optimizing the functioning, morphological, functional, and mental balance of the organism. He argues that health education presents health from biological side and education for health wider field of action. The purpose of education to health he sees in the creation of relationships, attitudes, and subsequent positive behaviour to own health and the health of the others as the value which is a prerequisite for fulfilling life. In the ´80s of the last century health education was defined as a responsible use of primarily health information. Today, however, health education is viewed as a process focused especially on behaviour change. It follows that education for health and health education are identical processes. This can be demonstrated by comparing the content of health education topics by Liba (2000) and content domains of health education by Wiegerová (2005).

Content topics of education for health by Liba (2000):
1. Current health status of the population and developmental trends of children,
2. Basic knowledge of goals, objectives, content, forms, and methods of primary prevention,
3. Basic knowledge of proper nutrition,
4. Basic knowledge of environmental hygiene, quality of nutrition,
5. Rational use of leisure time,
6. Basic knowledge of structure and content of motion regime,
7. Basic knowledge of primary prevention of drug addiction,
8. Education for protection and care of nature,
9. Effective communication and verbalization,
10. Socialization,
11. Education for partnership, marriage, and parenthood,
12. Safe behaviour, traffic discipline.

Content domains of health education by Wiegerová (2005):
1. Regime strengthening health,
2. Use and abuse of medicines and drugs,
3. Sexuality and health,
4. Education for protection of health and safety at work,
5. Social aspects of health, life in a community, state,
6. Education for family life, family and its relationships, leisure time in family,
7. Exercise for health,

8.   Personal health care,
9.   Environmental aspects of health,
10. Psychological aspects of health.

Both content structures consistently respect bio-psycho-social level of health which is often used as argument in favour of education for health. Both concepts can be used. Education for health, however, evokes more active approach by the „educated" and an element of the new and progressive.

The concept of education for health and the concept of health promotion are not identical in content or implementation. Health promotion is a process throughout society in which education has its significant place, but also health promotion has its place in education.

Purpose of health education is to increase health awareness of healthy and ill residents. **Health awareness** is primarily a certain level of knowledge related to health, it is an expression of the relationship of the individual and society to individual and social protection of health reflected in particular proceeding. *„Health awareness as a part of health culture is a set of subjective factors which are formed within education, culture, tradition, world view, religion, and political beliefs"* (Závodná, 2005). Health awareness is influenced by objective (natural, social, economic, spiritual environment) and subjective (type of higher nervous system, genetic continuity, regulatory mechanisms, morality, character, education, personal voluntary characters) factors. The process of health awareness is affected by the quality of information, motivation, communication, way of persuasion, decision-making process, and respect for desirable behaviour. Conscious behaviour of individuals in relation to health requires appropriate conditions for the development of positive aspects of life. For one-self, education for health makes it necessary to take care of his/her health and the health of his/her children and relatives or distant mates, co-workers.

Health promotion is an awareness of the need for control over their health status and its enhancement. It means that the individual but also a group, a family strives to increase its knowledge for maintaining the health of their children, parents, extended family, but also society, at home, in neighbourhood, at work, at school. Society within health promotion sets out to achieve healthier lifestyle without risks and with permanent memory for sound health, therefore proposes programs of healthy diet, increasing physical exercise, ability to eliminate stress, maintenance of adequate weight, life without bad habits and addictive drugs, healthy family relationships, life without sexually transmitted diseases, reduction of mass non-infectious diseases, but also increase of quality of life at any age (Kaplun, Erbe, 1990, Lehtinen, 2004).

Protecting and strengthening of health as a part of working and living environment cannot exist without active, initiative, and systematic voluntary acting of people in favour of maintenance, promotion, and strengthening of health. A summary of educational activities focused on shaping the knowledge, attitudes, and acting of citizens towards promotion, strengthening or restoration of health presents health education. Its immediate task is to raise public health awareness and thereby achieve the higher activity and involvement in health care.

The basic role of health education is persuading a person to take decisions aimed at improving individual and collective health, to acquire healthy lifestyle and

maintain it and wisely and judiciously use health services. Tasks of health education of the population meet all the health facilities and their health professionals in close cooperation with family, school, economic and social organizations as an integral part of daily activities (Rovný et al., 1995, Bielsky, 1996). „*Health education is a complex concept characterized primarily by interdisciplinary character of branch of medicine, but also accepting the medical-andragogic-pedagogic level as well as the level of educational enlightenment activity aimed at active attitude towards health, enhancement of health awareness and health knowledge, expansion of care for healthy way of living and creation of healthy living environment aimed at enhancing the quality of life. The World Health Organization defines health education as a special field of medical sciences and health which aims to create knowledge and develop acting aimed at preserving the health of individuals and population groups in society"* (Hegyi et al., 2004). According to Bašková (2009) health education has an interdisciplinary character with an ambition to spread knowledge, form habits and attitudes focused on health protection and promotion of social character. Health education is an important part of nursing. According to Závodná (2002) its subject is the study of health status and development of knowledge, attitudes, motivation, and acting of individuals in individual and collective health protection and also it investigates the impact of environment on the health awareness of people from different social conditions. The range of health education is broad and may be classified into 7 dimensions:

1. It deals with the whole person and includes physical, mental, social, emotional, spiritual and social aspects.
2. It is a lifelong process, which lasts from conception to death and helps people to change and adapt during health and disease.
3. It focuses on people at every stage of health and disease, or disability to maximize their potential for healthy life.
4. It focuses on individuals, families, groups and communities.
5. It leads people to be able to help themselves and accept healthier choices.
6. It includes formal and informal teaching and learning using a range of methods.
7. It has a number of objectives including providing information, changing attitudes to behaviour and social change (Lemon, 1997).

The objective in intentions knowledge – attitude – behaviour is closely related to actual determination of health in general. In this context are: cognitive objectives focused on providing information to improve client/patient knowledge, affective objectives focused on attitudes, persuasion, evaluation, opinion, they have to provide emotional support to client-patient, objectives behaviourist focused on acquiring some competences and skills. *„In implementing the objectives in practice it is usually a combination of multiple goals. It should be noted that the achievement of one objective does not necessarily mean a shift to the other objective, it is also very important to set appropriate goal for particular client/patient."* (Závodná, 2002).

Health education in system of nursing education

Philosophy of health is understood as s philosophy of life and attitude to it, and also active participation in it. It presents a state of harmony of body and soul by

own effort, using psychical, voluntary, character, and biological predisposition of a human. It means **to take responsibility for own health**. This model emphasizing the individual's own activity requires changes not only in the minds of nurses and other health professionals, but also in the minds of people - laymen, who even today still do not realize that their own behaviour and action may cause certain health problems. Lifestyle questions are becoming conscious prevention markedly participating in health. Developing the philosophy of health is necessary to support the idea that nursing is a discipline dealing with care for the ill and increasingly providing special information, help, and advices. „*Caring for own health has also social, economic, and ethic value.*" (Závodná, 2002) Significant example is a nurse, who acts responsibly in order to maintain and promote own health. Nursing is both a science and an art.

Nursing applies different principles (physiological, psychological, social, spiritual, cultural – multicultural) in providing care to an individual, family, community in promoting and protecting their health. In **health protection** nursing focuses on a man during life, in a developmental period in continuity of two dimensions health – disease.

Education in nursing in the past and at the present time is undergoing a constant change. In traditional nurses' education, emphasis was put on technical skills, clinical aspects in nursing, disease and pathology. Little space was devoted to heath issues and factors that preserve it. The mentioned objective and functions of nursing require a new view, concept, and content of curricula of nursing education, which is currently carried out in the form of bachelor, eventually master programs on academic grounds. The academization of nursing education represents the development of nursing in these attributes and tendencies. Education and training of nurses is increasingly focused on a healthy humans, disease prevention, health maintenance and promotion. Therefore, health care is one of the main responsibilities of a nurse. **Health promotion** is a process that allows a healthy individual a control of those factors that affect health and its maintenance.

„*Training and education* of patients/clients include detection of individual knowledge and skills to maintain and restore health, preparation and information providing at appropriate level, organizing training and educational activities and their evaluation, aid to nurses to gain new knowledge and skills. Nursing objectives are focused on health care of an individual, family, groups, and communities to achieve physical, mental, and social health and welfare in accordance with their social and ecological environment, promote their positive health and promote a human as an active participant on health care, who is educated, informed, and willing and is willing to take care of own health, maximize human potential in the care of himself, and pursue disease prevention*" (Study programs of non-teaching fields of study, 2002).

Multidisciplinary nursing education prepares nurses to support community health. Students acquire skills in protecting, health promoting, alleviating suffering in selected health facilities. It is necessary to learn to act ethically, emphatic, but highly professionally, to demonstrate communication skills, personal, emotional, and social intelligence. Graduate's task is to shape and educate others, attract them to cooperation in health maintenance and promotion. Health education is prepared as a specialized field within further training for nurses, which may be completed after the first eventually second university degree, or higher education. (Slezáková et al., 2005) For the

development and application of nursing objectives in health promotion and potential social contribution it is necessary to ensure in education:

- strengthening the teaching of nursing in community health care in promoting, health maintaining, and taking responsibility for health of individuals, families, communities on theoretical level, but also on practical, within implementation of clinical practice in non-hospital facilities,
- emphasizing the important role of the individual in personal responsibility for own health status,
- demonstrating responsible behaviour and action of future nurses, exemplary lifestyle in order to promote and maintain own health,
- active participation of future nurses in societal health promotion programs (Healthy City, Healthy School...).

Whereas health education is a complex process with problematic clear definition, in practice we go from the following approaches:

The medical model implies disengagement from medically defined disease and disability. Health promoting activities seek to promote medical interventions, preventions using persuasion, encouragement.

Behaviour change assumes that behaviour of individuals leads to the absence of disease and important is change of attitude, behaviour, promotion, and adoption of healthy lifestyles through persuading and information providing (Bartholomew et al., 2006).

Health promoting activities are based on the fact that only individuals with knowledge can make decisions followed by active involvement while respecting each individual. Nurse actively explores values and helps to make decisions.

Focus on client/patient creates the conditions to the individual to identify the problems by him and propose solutions which nurse will accept.

Social change focuses on change in physical and social environment so as to enable better lifestyle choices through political and social changes. (Lemon, 1997, Závodná, 2002)

Health education in the new philosophy of care for bio – psycho – social being within multispecialty action allows professionals to develop a range of activities for which they are trained within education process on theoretical and practical level. Health education is an integral part of the educators´ and health professionals´ work when they support positive, and eliminate negative aspects out of the human's life within dissemination of knowledge, awareness of the possibility of active participation in health protection and special programs implementation of the World Health Organization, and also national programs aimed at health promotion (Bašková, 2009, Fertman et al. 2010).

Opinions of respondents from the school environment on health education

We surveyed the views of selected groups of respondents of health education in a broader context. We focused on health education, subjective health assessment, health-threatening factors, individual activities carried out in favour of health, information on programs supporting health and focus. We assumed that respondents´ opinions on health

promotion in Nitra and Prešov Region will not significantly differ. Research was also based on the assumption about the conformity of legislative and program – presented priority of health education by society with respondents´ replies. We assumed a stronger focus of health educational activities according to the respondents´ replies to promotion and protection of health in children and the elderly rather than productive population.

Methods and material

As a primary method for obtaining data about the issues we used a **questionnaire in selected, primary and secondary schools in Nitra and Prešov Region**. These regions were chosen for their similarity in terms of population structure and territorial location of the western and eastern part of the country The questionnaire incorporated 14 items and its aim was to ascertain the views of respondents to health education, health assessment by respondents, individual activities carried out in favour of health, information on health promotion programs and their focus. The research was conducted from May to October 2007. After analyzing the questions we made out 500 questionnaires, of which 456 were returned, it is 91.2% return, we met the criterion of required minimal value for questionnaire method (Gavora, 2001). We approached the directors of selected schools in connection with the possibility to carry out research in their institutions. The questionnaires were distributed by post or in person. Class masters in primary and secondary schools completed the questionnaires. Data collection was followed by quantification using the statistical program for social sciences SPSS 11 for Windows. The findings in single items were processed graphically in comparing respondents´ replies from each region (column chart with source data). Statistically significant dependence of examined characteristics we investigated by Student's t-test for two independent samples (Independent Samples Test) at significance level $\alpha = 0.05$ (Sollár, Ritomský, 2002). In order to test the differences of two quantitative variables in one investigated population we used Student's t-test for two dependent paired samples (Paired Samples Test) in identifying the focus of programs on different age groups in respondents´ replies.

The sample consisted of N = **456** respondents. From Nitra Region n_1 = 227 (49.78%) and Prešov Region n_2 = 229 (50.22%). Representation of categories consisted of girls in absolute frequency n=308, representing in relative frequency the value 67.54% and by boys in absolute frequency n=148, representing in relative frequency the value 32.46%. Selection criteria for respondents from each school were following: pupils attending the sixth grade public primary school with more than 15 years of history involved in the project „Healthy School", students attending the third grade at the four-year secondary grammar school with more than 15 years of history involved in the project „Healthy School". The subsequent statistical analysis included the replies of n = 112 (24.56%) students attending the sixth grade of Primary School of Prince in Nitra (ZŠ NR), n = 102 (17.11%) students attending the sixth grade of Primary School in Lesnícka Street in Prešov (ZŠ PR), n = 115 (25.22%) students attending the third grade of the Secondary Grammar School in Golianova Street in Nitra (G NR), n = 127 (27.85%) students attending the third grade of the Secondary Grammar School in Konštantínova 2 in Prešov (G PR).

Results

We presented and interpreted the findings according to the individual questionnaire items. For each question there is a graphical description of respondents´ replies in dependence on the region (NR – Nitra Region, PR – Prešov Region). The questionnaire items were formulated so that the respondent chooses from the options provided within.


Health status

	NR	NR %	PR	PR %	Total	Total %
Very good	49	10,74	40	8,77	89	19,51
Good	94	20,61	99	21,71	193	42,32
Satisfying	49	10,74	59	12,94	108	23,68
Less satisfying	31	6,8	25	5,49	56	12,29
Bad	4	0,89	6	1,31	10	2,2
Total	227	49,78	229	50,22	456	100
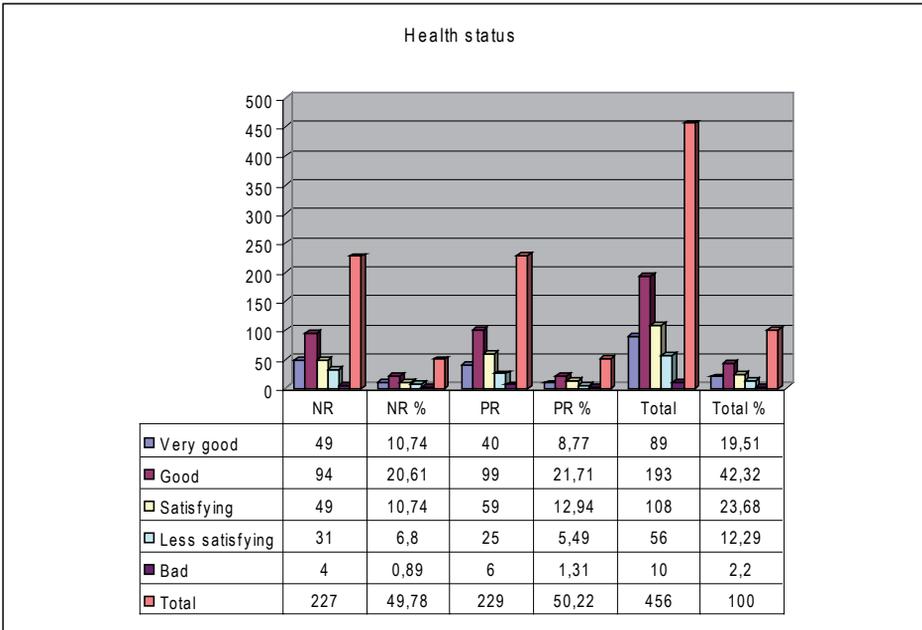
Figure 1 Health status assessment

In survey of own health status assessment the most frequently respondents´ reply was the option *good* n = 193 (42.32%). The next in order was the option *satisfying* which indicated n = 108 (23.68%). The ultimate option *bad* indicated n = 10 (2.2%) respondents. The findings correspond with the most frequently occurring response to the question of health status, which corresponds to category *good.* When comparing the respondents' replies from the two regions we did not find statistically significant differences within Student's t-test.

The most health threatening factors	NR	NR %	PR	PR %	Total	Total %
Environment	80	17,54	70	15,35	150	32,89
Nutrition	40	8,77	16	3,51	56	12,28
Stress	35	7,68	18	3,95	53	11,63
Smoking, alcohol, drugs	48	10,53	101	22,15	149	32,68
Other	24	5,26	24	5,26	48	10,52
Total	227	49,78	229	50,22	456	100
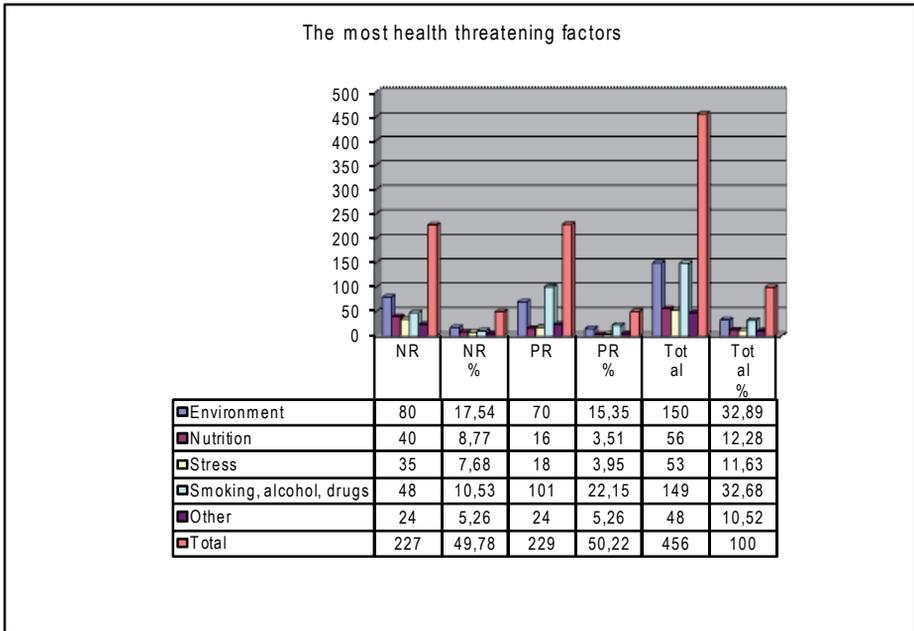
Figure 2 The most health threatening factors

Figure 2 shows the respondents´ replies related to health threatening factors. According to n = 150 (32.89%) respondents the most frequent factor is *environment.* Another factor is *smoking, alcohol, drugs*, as reported n = 149 (32.68%) respondents. *Nutrition* is considered for a threatening factor by n = 56 (12.28%) respondents and *stress* by n = 53 (11. 63%) respondents. The option *other* reported n = 48 (10.52%) respondents. Within the option *other* respondents added hygiene, vaccination, sick children, society, sleep, dressing, viruses, immunity, and non-smoking.

Health maintaing activities

	N R	N R %	P R	P R %	T ot al	T ot al %
▫ Exercise	148	32,46	152	33,33	300	65,79
▪ Alternating activity/rest	26	5,7	15	3,29	41	8,99
▫ Nutrition	32	7,02	41	8,99	73	16,01
▫ Dressing	2	0,43	5	1,11	7	1,54
▪ Other	15	3,29	8	1,75	23	5,04
▪ Nothing	4	0,88	8	1,75	12	2,63
▫ Total	227	49,78	229	50,22	456	100
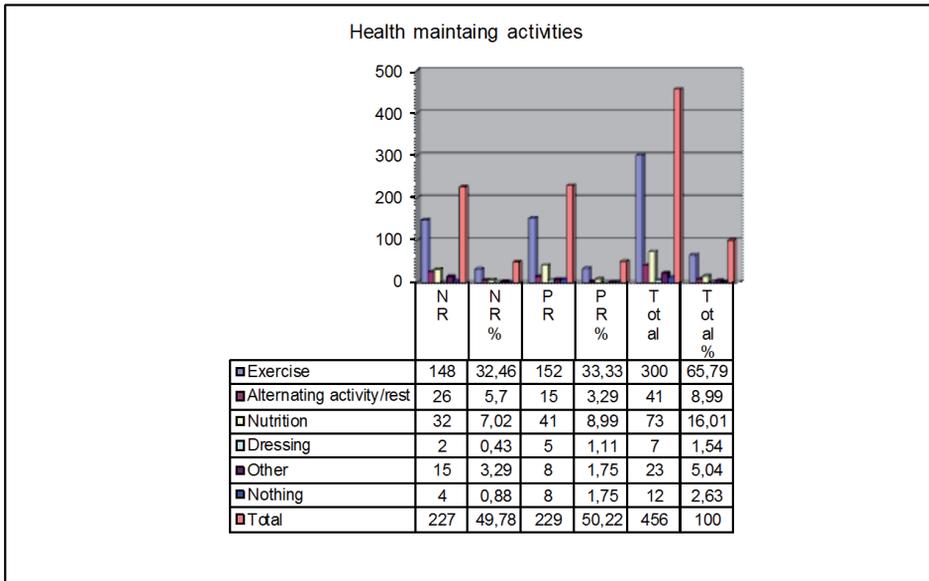
Figure 3 Health maintaining activities

Physical activity - *exercise* was the most frequent chosen option by n = 300 (65.79%) respondents. *Nutrition* was the second most frequent chosen option reported by n = 73 (16.01%) respondents. Next followed alternating of *activity and rest* reported by n = 41 (8.99%) respondents. In the category *other*, n = 23 (5.04%) respondents stated watching TV, health checkups, no alcohol, respecting parents, taking vitamins. N = 12 (2.63%) respondents do *nothing* to maintain health. Adequate dressing, as an activity for maintaining health reported n = 7 (1.54%) respondents. A comparison of respondents does not show any statistically significant differences.
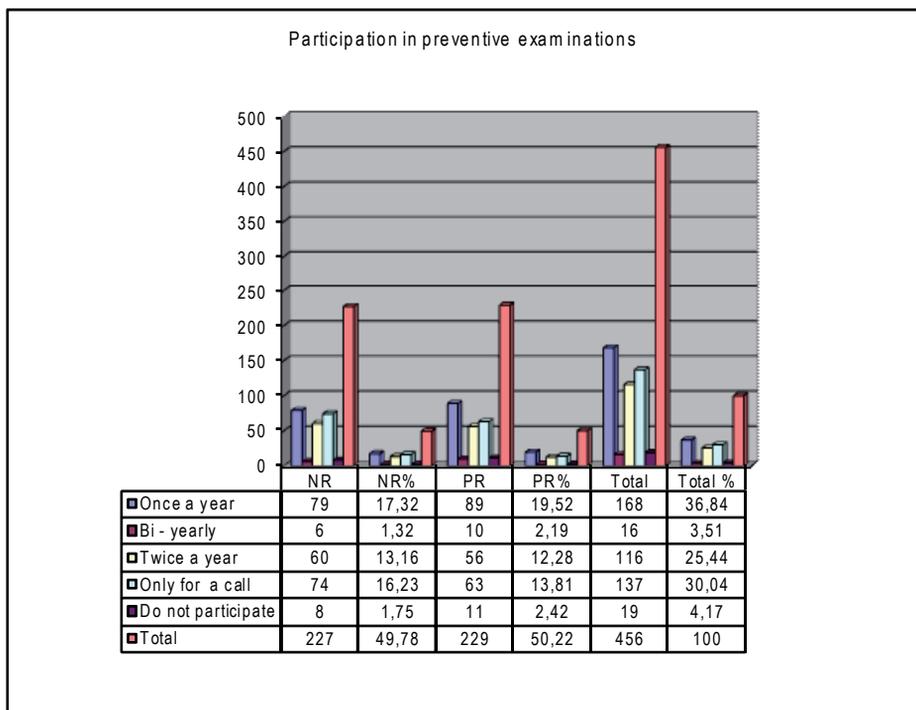
Figure 4 Participation in preventive examinations

Participation in health checkups is a significant factor in health education, so we asked how often the respondents undertake them. The most often chosen category was *once a year* n = 168 (36.84%) respondents. This option implies a proactive approach of respondents to prevention. The second most often chosen option was *only for a call* by n = 137 (30.04%) respondents. The given option informs about certain respondents´ passivity as they participate in health checkups after the surgery call. N = 116 (25.44%) respondents participate in health checkups *twice a year*. It is disturbing to find out that up to n = 19 (4.17%) respondents *do not participate* in preventive examinations at all.

	NR	NR %	PR	PR %	Total	Total %
◻Individual alone/parents for chidren	208	45,61	201	44,08	409	89,69
◼Society	14	3,07	12	2,63	26	5,7
◻Town, community	0	0	1	0,22	1	0,22
◻Other	5	1,1	15	3,29	20	4,39
◼Total	227	49,78	229	50,22	456	100

Responsibility for individual´s health
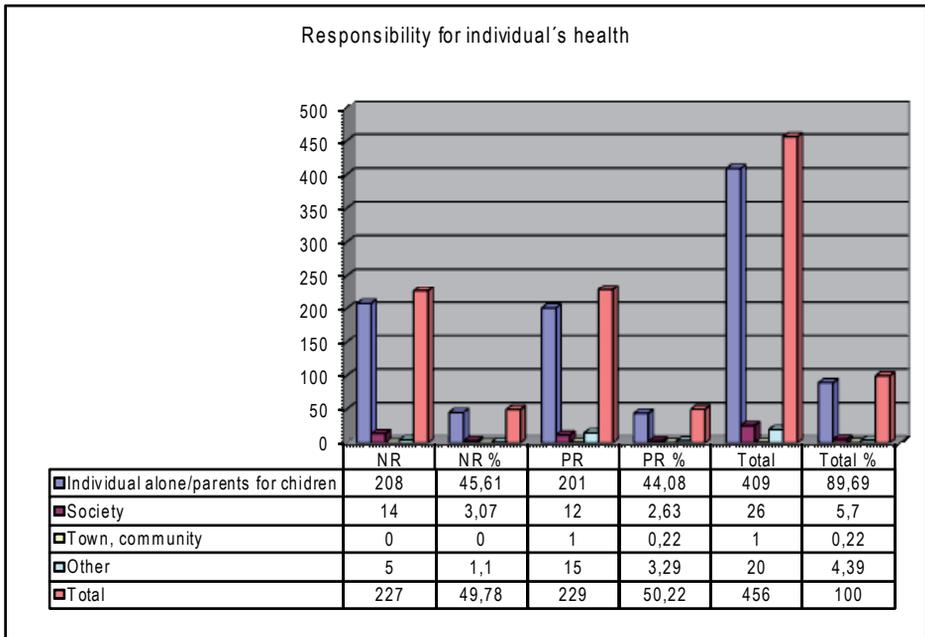
Figure 5 Responsibility for individual's health

In the next item we were interested in responsibility for individual's health. With a pleasure we can state the result, that n = 409 (89.69%) respondents are responsible for their own health. Within the option *other* n = 20 (4.39%) respondents wrote a physician, God, sport, teachers, catering establishments and conveniences of modern science and technology. According to the research there were no statistically significant differences in respondents´ responses.
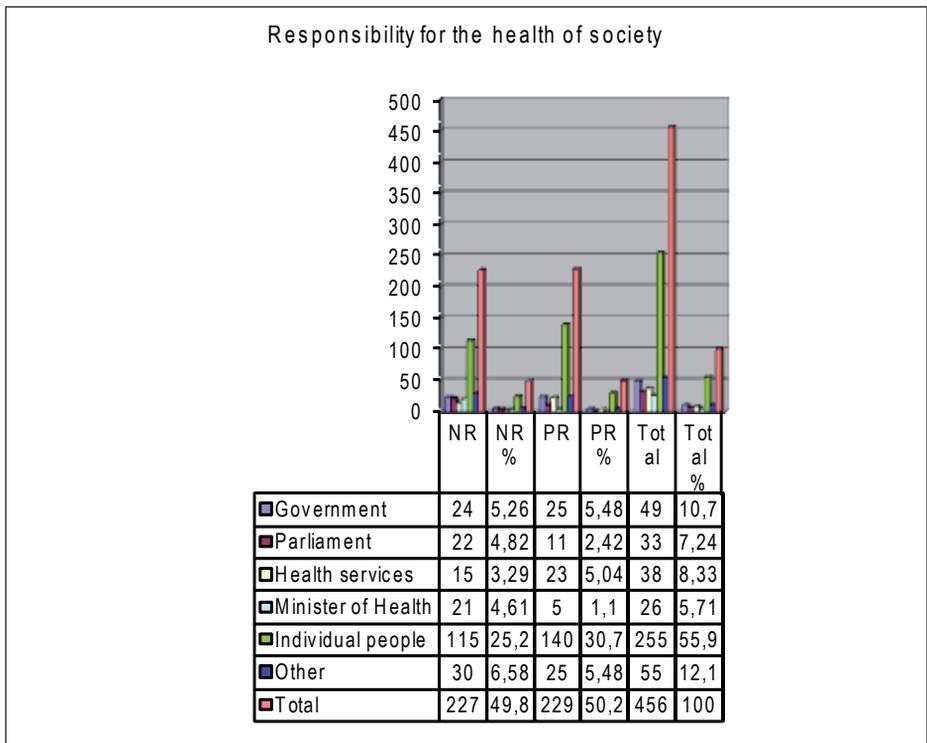
Figure 6 Responsibility for the health of society

The chart data table:

	NR	NR %	PR	PR %	Total	Total %
Government	24	5,26	25	5,48	49	10,7
Parliament	22	4,82	11	2,42	33	7,24
Health services	15	3,29	23	5,04	38	8,33
Minister of Health	21	4,61	5	1,1	26	5,71
Individual people	115	25,2	140	30,7	255	55,9
Other	30	6,58	25	5,48	55	12,1
Total	227	49,8	229	50,2	456	100

We were also interested in respondents´ attitude to responsibility for the health of society. From the offered options the most frequent choice was *individual people* n = 255 (55.92%). In the option *other* n = 55 (12.06%) respondents wrote insurance companies, doctors, God, power stations, scientists, media, companies producing food products, lifestyle, sufficiency. Other options were *government* according to n = 49 (10.74%) respondents, *health service* according to n = 38 (8.33%) respondents, *parliament* according to n = 33 (7.24%) respondents, and *Minister of Health* according to n = 26 (5.71%) respondents.

The item focused on respondents´ value orientation included the options: *money, health, love, family, God, school, happiness*. *Health* as the value number one was reported by n = 248 (54.40%) respondents. Total score values of health in a sample of respondents was 1.83. As the value on the second place by n = 108 (23.70%) respondents, on the third place by n = 47 (10.29%) respondents, on the fourth place by n = 41 (9.01%) respondents, on the fifth place by n = 5 (1.10%) respondents, on the sixth place by n = 4 (0.88%) respondents and on the seventh place by n = 3 (0.32%) respondents. The second, most frequently reported value was *family* with the score of 2.87, the third was *love* with the score of 3.02, the fourth was *happiness* with the score of 4.6, the fifth *God* with the score of 4.75, the sixth *money* with the score of 5.36 and seventh *work* with the score of 5.49.

Necessity of health education

	NR	NR %	PR	PR %	Total	Total %
□ Necessary	155	33,99	160	35,09	315	69,08
■ Less necessary	36	7,89	27	5,92	63	13,81
□ Necessary only in childhood	28	6,14	35	7,67	63	13,81
□ Not necessary	3	0,66	5	1,1	8	1,76
■ Do not know	5	1,1	2	0,44	7	1,54
□ Total	227	49,78	229	50,22	456	100
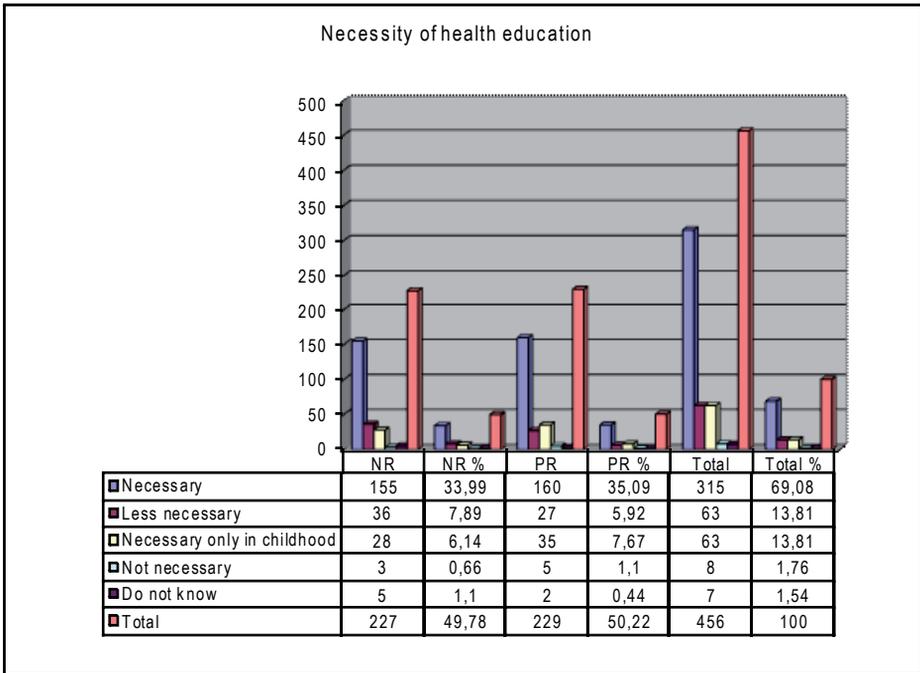
Figure 7 Necessity of health education

In respect to the set objectives we asked the respondents about the necessity of health education for human. We found out that n = 315 (69.08%) respondents think that health education is necessary for people. *Less necessary and necessary only in childhood* think congruently n = 63 (13.81%) respondents, *not necessary* according to n = 8 (1.76%) respondents and n = 7 (1.54%) respondents *did not know*. There are not significant differences in responses by regions.

Health promotion programs - Slovakia

	NR	NR %	PR	PR %	Total	Total %
Insurance companies	19	4,17	12	2,63	31	6,8
No	147	32,24	129	28,29	276	60,53
Healthy schools, towns	15	3,29	20	4,39	35	7,68
Movement	26	5,7	18	3,95	44	9,65
Vaccination	1	0,22	15	3,29	16	3,51
Red Cross	2	0,44	10	2,19	12	2,63
Nutrition	9	1,97	13	2,85	22	4,82
Cancer prevention	8	1,75	11	2,41	19	4,16
Mental health	0	0	1	0,22	1	0,22
Total	227	49,78	229	50,22	456	100
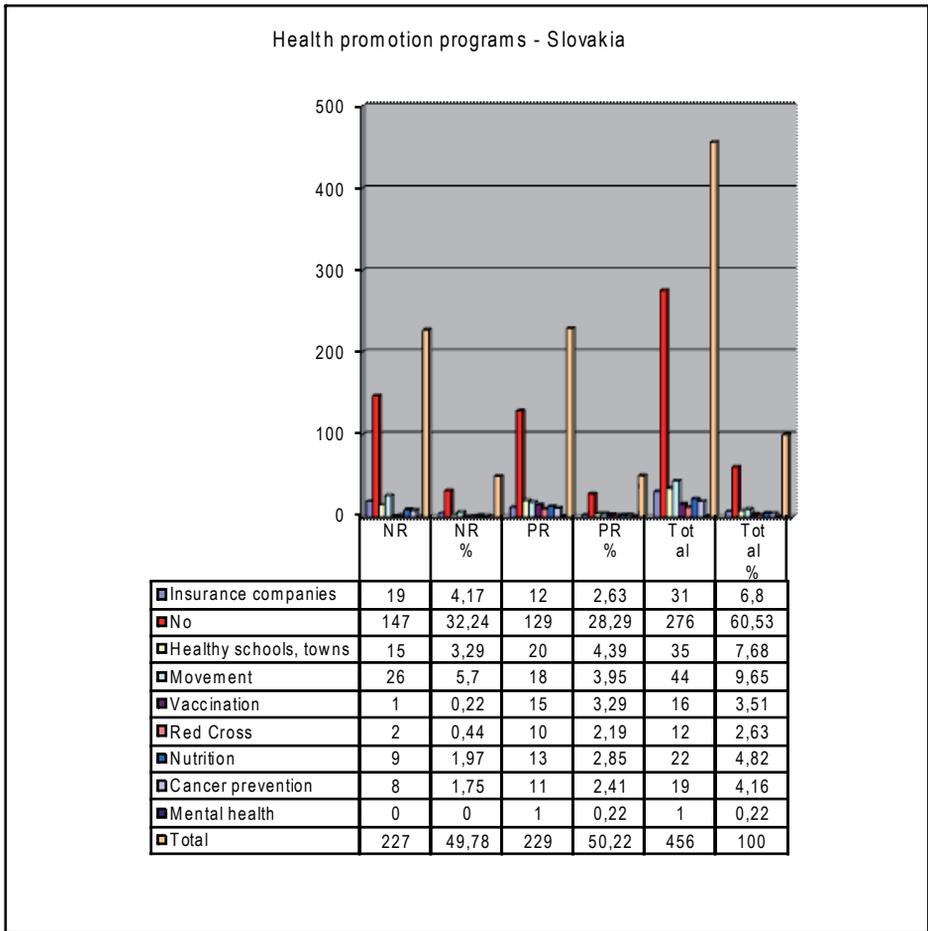
Figure 8 Health promotion programs – Slovakia

We wanted to know which health promotion programs implemented in Slovakia are respondents aware of. Negative finding is that up to n = 276 (60.53%) respondents do not know *any* programs. Programs focused on *movement* stated n = 44 (9.65%) respondent and *Healthy schools, healthy towns,* stated n = 35 (7.68%) respondents. Health promotion programs identified with *insurance companies* n = 31 (6.80%) respondents. Programs focused on *nutrition* stated n = 22 (4.82%) respondents. *Cancer prevention* in programs mentioned n = 19 (4.16%) respondents. *Vaccination*, as health promotion program, stated n = 16 (3.51%) respondents. *Red Cross*, as health promotion program, wrote n = 12 (2.63%) respondents. Program of *mental health* promotion stated only n = 1 (0.22%) respondent. Respondents had the possibility to write all programs they know, so we expected higher number of responses. None of the respondents wrote more than one program.

	NR	NR %	PR	PR %	Total	Total %
◻Insurance companies	17	3,73	5	1,1	22	4,83
◼No	161	35,3	129	28,29	290	63,59
◻Healty schools, towns	10	2,19	46	10,09	56	12,28
◻Movement	28	6,14	12	2,63	40	8,77
◼Vaccination	3	0,66	11	2,41	14	3,07
◼Red Cross	0	0	4	0,88	4	0,88
◼Nutrition	5	1,1	10	2,19	15	3,29
◻Cancer prevention	3	0,66	12	2,63	15	3,29
◻Total	227	49,78	229	50,22	456	100
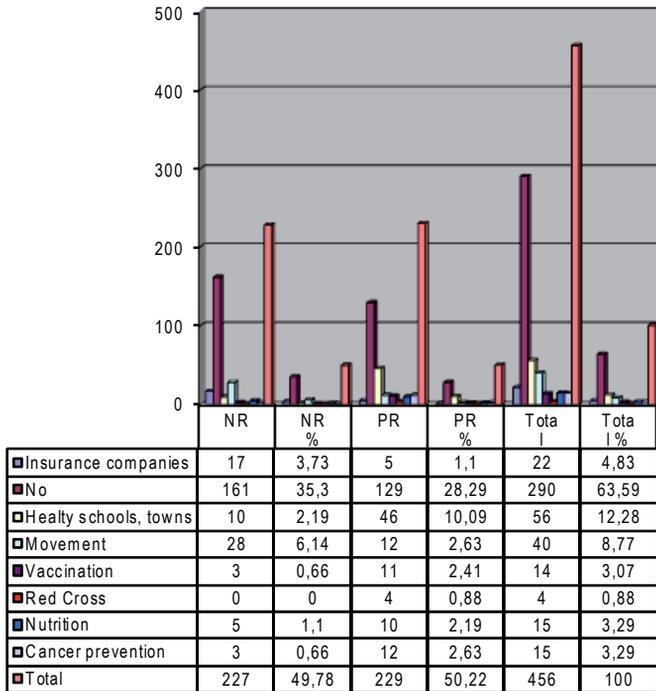
Figure 9 Health promotion programs implemented in respondents´ surrounding

We asked about the programs implemented in respondents´ surrounding. Up to n= 290 (63.59%) respondents wrote *no* programs. N = 56 (12.28%) respondents wrote *healthy towns,* n = 40 (8.77%) stated *movement*, n = 22 (4.83%) stated *insurance companies*, n = 15 (3.29%) respondents wrote *nutrition* and *Cancer prevention*, n = 14 (3.07%) wrote *vaccination* and n = 4 (0.88%) respondents wrote *Red Cross*.

Fosus of programs on area

	NR	NR %	PR	PR %	Total	Total %
▫Lifestyle	22	4,83	38	8,33	60	13,16
▪Nutrition	46	10,09	56	12,28	102	22,37
▫Hygiene	12	2,63	23	5,04	35	7,67
▫Movement	51	11,18	22	4,83	73	16,01
▪Other	96	21,05	90	19,74	186	40,79
▫Total	227	49,78	229	50,22	456	100
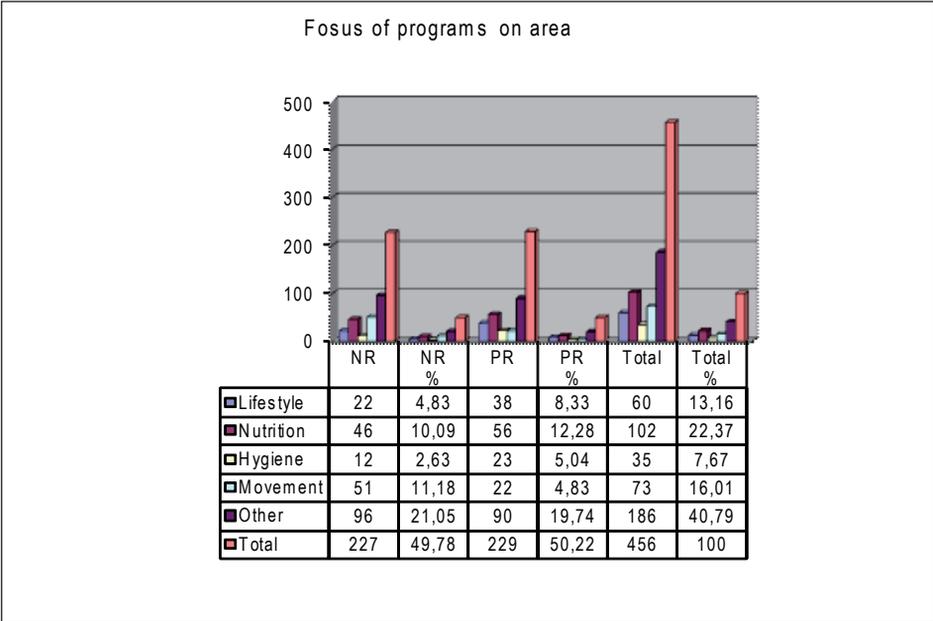
Figure 10 Focus of programs on area

In accordance with the objectives of our work we were interested in which area of health education are the programs focused on. Respondents were asked to write only one possibility. Figure 10 shows respondents´ responses by regions. N = 186 respondents (40.79%) marked *other* and did not write any area. N = 102 (22.37%) respondents think that programs focus especially on *nutrition*. N = 7 (16.01%) respondents marked *movement*, n = 60 (13.16%) respondents *lifestyle* and n = 35 (7.67) respondents *hygiene*.

Preference of age category

	NR	NR %	PR	PR %	Total	Total %
Children	135	29,61	146	32,02	281	61,63
Adults	53	11,62	54	11,84	107	23,46
Seniors	39	8,55	29	6,36	68	14,91
Total	227	49,78	229	50,22	456	100
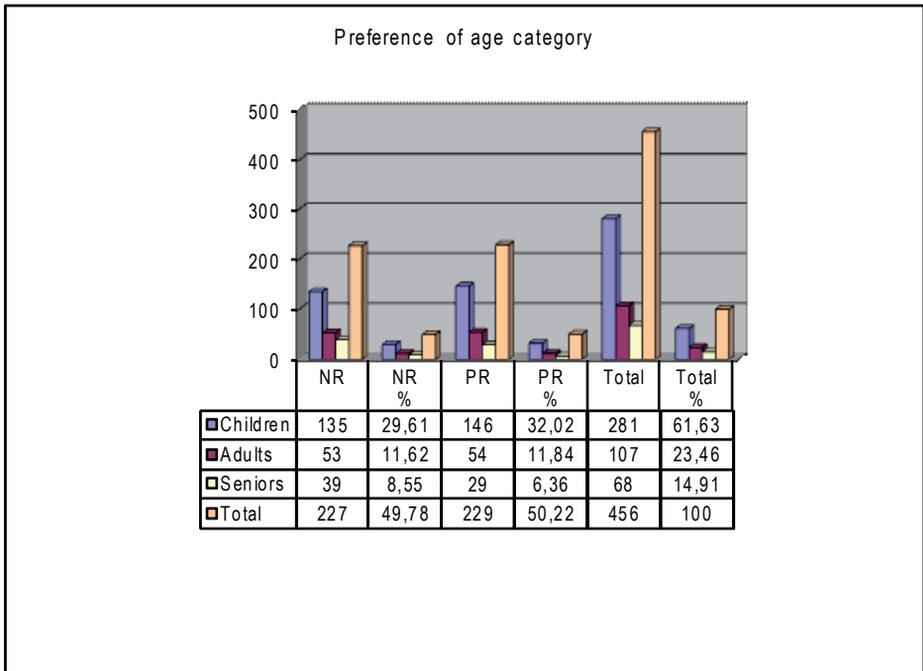
Figure 11 Preference of age category in health promotion programs

We wanted to find out which age category are health promotion programs designed for. According to n = 281 (61.63%) respondents these programs are designed especially for *children.* N = 107 (23.46%) respondents think that health promotion programs are designed for *adults*. N = 68 (14.91%) respondents think that they are designed for *seniors*.
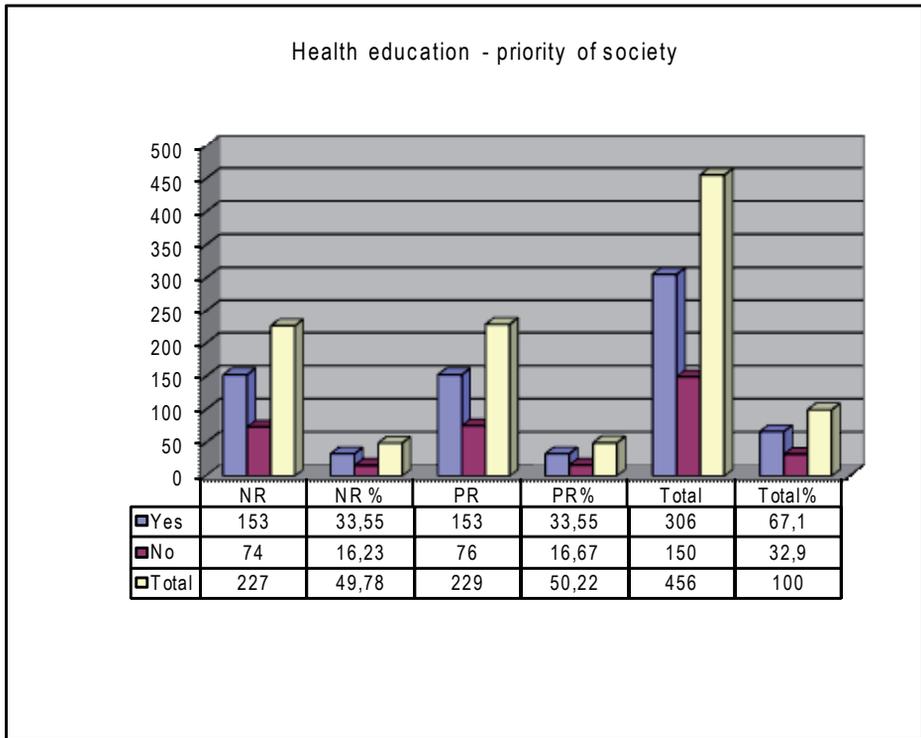
Figure 12 Health education as a priority of society

Corresponding with the focus of work, participants were asked for their opinion whether health education is a priority of society. Figure 12 shows their responses. N = 306 (67.10%) respondents answered *yes* and n = 150 (32.90%) respondents answered *no*. Respondents´ responses *yes* were completely identical in comparison of regions; responses *no* were almost identical in favour of respondents from Prešov Region.

	NR	NR %	PR	PR %	Total	Total %
☐ Radio and television	61	13,38	77	16,89	138	30,27
☐ Internet	70	15,35	50	10,96	120	26,31
☐ Courses, training	8	1,75	5	1,1	13	2,85
☐ Books, magazines	51	11,18	39	8,55	90	19,73
☐ School	5	1,1	21	4,61	26	5,71
☐ Physician	3	0,66	9	1,97	12	2,63
☐ Nurse	0	0	1	0,22	1	0,22
☐ Other	29	6,36	27	5,92	56	12,28
☐ Total	227	49,78	229	50,22	456	100
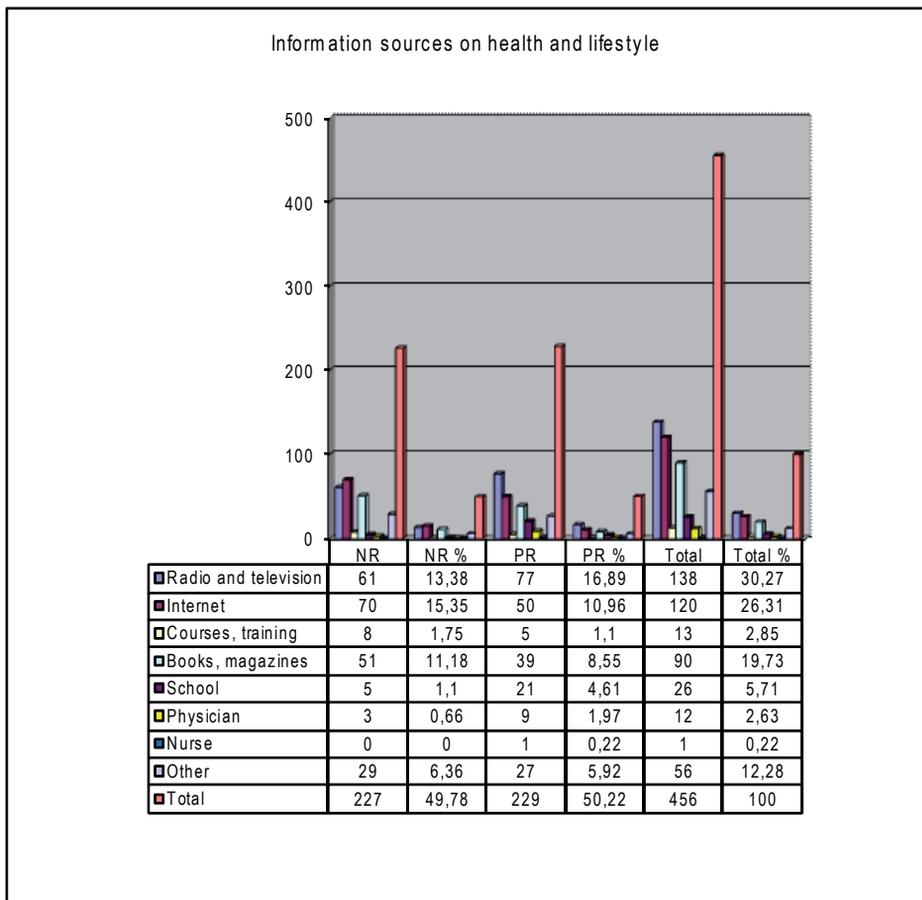
Figure 13 Information sources on health and lifestyle

Information relating to health is one of the prerequisites of health education, so we wanted to find out which sources respondents use for obtaining information. As the most common source of information respondents stated *radio and television* n = 138 (3027%), followed by *internet* n = 120 (20.31%), *books and magazines* n = 90 (19.73%), *other* n = 56 (12.28%) – in this scale respondents did not specify their response, *school* n = 26 (5.71%), *courses and training* n = 13 (2.85%), *physician* n = 12 (2.63%), *nurse* n = 1 (0.22%).

We assumed that the respondents´ opinions on the area of health education from Nitra and Prešov Region will not significantly differ. Verification of the assumption was made by Student's t-test for two independent samples. We tested the respondents´ answers to 11 items in the questionnaire. Using Student's t-test we analysed monitored variables (respondents´ opinion on area of health education in two independent samples of respondents from Nitra and Prešov Region); results are presented in table 1, N – presents number of respondents, AM – mean of responses in set codes in individual items, SD – standard deviation, df. – level of freedom, t – test criterion, p – reached significance

Questionnaire	N	AM	SD	df	t	p
Health status	NR 227	2.326	1.017	454	-0.576	0.543
	PR 229	2.379	0.982			
Health threatening factors	NR 227	2.541	1.421	454	-3.157	0.278
	PR 229	2.969	1.47			
Activities for health	NR 227	1.775	1.289	454	-0.229	0.455
	PR 229	1.803	1.331			
Preventive examinations	NR 227	2.674	1.336	454	0.977	0.322
	PR 229	2.55	1.367			
Responsibility for individual's health	NR 227	1.127	0.494	454	-2.219	0.001
	PR 229	1.266	0.802			
Responsibility for health of society	NR 227	4.193	1.553	454	-0.783	0.350
	PR 229	4.305	1.496			
Importance of health education	NR 227	1.533	0.918	454	0.106	0.931
	PR 229	1.524	0.891			
Programs Slovakia	NR 227	2.669	1.616	454	-2.967	0.001
	PR 229	3.165	1.939			
Programs surrounding	NR 227	2.444	1.251	454	-4.102	0.001
	PR 229	3.03	1.753			
Focus of programs	NR 227	3.674	1.435	454	2.605	0.001
	PR 229	3.305	1.579			
Preference of age group	NR 227	1.577	0.768	454	1.27	0.040
	PR 229	1.489	0.71			
Health education as a priority	NR 227	1.326	0.469	454	-0.133	0.790
	PR 229	1.331	0.471			
Information source	NR 227	3.101	2.24	454	-0.403	0.122
	PR 229	3.187	2.33			
Value - money	NR 227	5.039	1.717	454	-4.281	0.159
	PR 229	5.681	1.474			
Value - health	NR 227	1.823	1.221	454	-0.291	0.378
	PR 229	1.855	1.136			
Value - love	NR 227	3.057	1.125	454	0.514	0.451
	PR 229	3	1.249			
Value - family	NR 227	2.788	1.435	454	-1.26	0.151
	PR 229	2.952	1.331			
Value - God	NR 227	5.352	1.964	454	6.19	0.077
	PR 229	4.165	2.125			
Value - work	NR 227	5.405	1.266	454	-1.502	0.996
	PR 229	5.585	1.29			
Value - happiness	NR 227	4.519	1.619	454	-1.093	0.331
	PR 229	4.681	1.532			

Table 1 Results of Student's t-test for two independent samples in responses

Taking into account conditions of chosen statistical test, we did not record in 15 items significant differences p > 0.05. These item concerned opinions on health status p = 0.543, health threatening factors p = 0.278, activities for health p = 0.455, health checks p = 0.322, responsibility for health of society p = 0.350, importance of health education p = 0.931, health education as a priority p = 0,790, information about health p = 0.440, information source p = 0.122, value - money p = 0.159, value - health p = 0.378, value - love p = 0.451, value - family p = 0.151, value - God p = 0.077, value - work p = 0.996, value - happiness p = 0.331. There were no significant differences in respondents´ responses. Only 5 items showed statistically significant differences: responsibility for individual's health, program Slovakia, programs surrounding, and focus of programs with p = 0.001 and preference of age group with p = 0.040.

We assumed that compliance with legislation and program presented priority of health education by society with respondents´ answers by regions. To verify the assumption we used the relative frequency with values of significance from Student's t-test in selected items. We chose an item that is related to the participation in health checks that is directly regulated by the Act No. 577/2004 Coll. on the scope of health care coverage on the basis of public health insurance and on the reimbursement of healthcare-related services, as amended by later regulations. Maintaining and improving vaccination level is a permanent priority task of health service (Elaboration of the Manifesto of the Government of the Slovak Republic for department of health service, 2008). Participation in health checks is a significant factor in health education, so we asked how often respondents participate in health checks. The most frequently category was *once a year* n = 168 (36.84%) respondents. This option implies a proactive respondents´ approach to prevention. The second most frequently chosen option was *only for surgery appointment* in n = 137 (30.04%) respondents. Value p = 0.322 indicates that there is no significant difference in respondents´ responses by regions. Then we selected the item concerning responsibility for the health of society. Program declaration of government of Slovak Republic since its inception in 1993 declared responsibility for the health of residents on the level of government, parliament, Ministry of Health with the appeal to proactive approach of citizens themselves. In this issue we were interested in the respondents´ opinion on responsibility for the health of society. From the offered options respondents chose the option *individual people* n = 255 (55.92%) *most often*. Other options were in order *government* according to n = 49 (10.74%) respondents, *health service* according to n = 38 (8.33%) respondents, *parliament* according to n = 33 (7.24%) respondents, and the last one was *minister of health* according to n = 26 (5.71%) respondents. Value p = 0.350 indicates that there is no significant difference in respondents´ responses by regions. The next question verifying the assumption focused on the necessity of health education for society and we were interested in conformity on the level of health legislation -need of respondents. We found that for n = 315 (69.08%) respondents is health education for society *needed. Less needed and needed only in childhood* is identically according to n = 63 (13.81%) respondents, *not needed* is according to n = 8 (1.76%) respondents and n = 7 (1.54%) respondents *did not know* to answer. There were no statistically significant differences in responses by regions p = 0.931.

We selected also respondents´ responses to health education as a societal priority; n = 306 (67.1%) respondents stated that health education is priority of society. Value p = 0.790 indicates that there is no significant difference in respondents´ responses by regions. There is a compliance with legislation and program presented priority of health education by society with respondents´ responses to selected items by regions.

We assumed that health promotion activities will be, according to respondents´ responses markedly focused on health promotion and protection of children and old people as the productive population. To test the differences of two quantitative variables (measured by mean) in one examined population (all respondents from the questionnaire) we used Student's t-test for two dependent paired samples (Paired Samples Test) while finding programs´ focus on individual age categories (children - adults, seniors - adults) in respondents´ responses to the item.

Data source	pair	N	AM	SD	t	p
questionnaire	Children - adults	456	0.377	0.840	9.588	0.001
questionnaire	Seniors - adults	456	0.085	0.614	2.973	0.003

Table 2 Results of paired t-test

We found that there are statistically significant differences in respondents´ responses to health promotion activities in favour of children and seniors. The category of seniors we assigned in connection with the increasing proportion of seniors in population.

Discussion

The first area on which we focused presented the problems of respondents' opinions to the health education in a more complex context. Respondents were chosen from Nitra and Prešov Region for their geographical and historical similarity and also for their similarity in the number of habitants and the structure of industry. We used questionnaire to investigate the opinions of the respondents in 6th grades at the primary schools in the city. These pupils are comfortable within their class surroundings and even though they are going through a difficult pubescence period, they can express their own opinions. We were interested in the opinions of the respondents in the 3rd grades of the four year grammar schools in the city. These pupils are "on the threshold of adulthood" and their opinions are both cognitive and behavioural. Our assumption about the similarity of the respondents' opinions was affirmed. Self-evaluation of the health condition was mainly considered to be good by 42.32%, similar to the relative quantity found out in the research by Valentová (2007) on a smaller sample of respondents 47.00%. High school students were more critical to the perception of health conditions. Significant differences among the answers according to the regions were not observed p = 0.543. Commenting on the factors threatening our health in general, it can be concluded that 32.89% of respondents indicated the environment. Hegyi et al. (2004) state in objective 13 Health for everyone in the 21st century that by the year 2015 people should have had more opportunities to live in a healthy social environments at home, in school, at workplaces

and local community in the region. The most frequent chosen option of the environment indicates that it is necessary to improve the quality of environment. It corresponds with the mentioned objectives and the priority areas of the new form of state health policy of the Slovak Republic (2008), in which priority 3 is environment and health. The last mentioned document describes that the influence of environment on health is 20–30%. Another factor in the order of the respondents' point of view is smoking, alcohol, drugs 32.68%. Tobacco and alcohol are the fourth priority of the state Health policy of the Slovak Republic (2008). Lately, according to information from that document, there are about one third of Slovakian citizens older than 18 years of age smoking. Although the situation in comparison with previous years has slightly stabilized, the National Council of the Slovak Republic has agreed to conclude the Framework Agreement on Tobacco Control of 4th December 2003 Resolution No 667, followed with ratification by the United Nations, and we were among the first 14 countries which handed it in.

Alcohol Action Plan deals with the alcohol problems. The Alcohol Action Plan was approved by the government in 2006. Our findings correspond with the objective 12 Reduce damage caused by alcohol, drugs and tobacco, from Health 21 (Hegyi et al., 2004). Activities to maintain health 67.79% of respondents indicated physical activity – exercise. Nutrition prevailed as activity carried out for maintaining family health. Valentová (2007) states similar findings too. In The Concept of national health policy of the Slovak Republic (2008) is reflected in the priorities and objectives in the field of cardiovascular health an appeal to improve the conditions of regular physical activity and improve the access to healthy food. According to the findings 36.84% of respondents undertake regular health checks once a year 30.04% respondents have it arranged by a doctor and 25.44% respondents undertake it twice a year. We feel that above results are quite satisfying and we may state the similarity with the findings of Valentová (2007). In the question to the health status in the respondents' scale of values we found out the overall score of 1.83 and as the absolute value was chosen by 54.40% respondents. Koldelová (2007) states the overall measured score (average value) and the ranking of health by the sample of 190 high school students in Slovakia and 120 in Germany 4.8 and 4.7 which was always the number-two in both countries. We explain the differences of the measured quantity in our results by the age of respondents, whereas the author Koldelová worked only with high school students. We found out in the direct investigation about the field of health education that for 69.08% respondents it is important. Our findings are supported by the scientific discussions written by Farkašová (2005), Hegyi (2004), Koňošová (2000), Krišková (2003), Závodná (2005) and also the Framework of the branch of Health Education by the Ministry of Health Official publication MZ SR (1996) and the Framework of State Health Policy of the Slovak Republic (2008). In accordance with the work objectives we were interested whether respondents know which health supporting programs are implemented in Slovakia. Very negative observation is that up to n= 276 (60.53%) of respondents do not know *any*. Most of the respondents indicated programs on *exercise* n = 44 (9.65%), followed by *healthy schools, healthy cities* n = 35 (7.68%) of respondents. *The Health Insurance companies* were identified with the health supporting programs by n = 31 (6.80%) of respondents. Programs focused on *nutrition* indicated n = 22 (4.82%) of respondents. *Oncological problems* in the health supporting programs noticed n = 19

(4.16%) of respondents. *Vaccination*, as a health supporting program, indicated n = 16 (3.51%) of respondents. *The Red Cross,* as a health supporting program indicated n = 12 (2.63%) of respondents. *Mental health* supporting programs indicated just n = 1 (0.22%) respondent. We expected a higher number of responses, because respondents could have listed in this question all the programs they know. Unfortunately, none of the respondents indicated more than one program. Our findings correspond to the findings of Valentová (2007), who found out the ignorance of the health supporting programs reaches up to 70% of respondents. Programs, which respondents knew, were the healthy cities and schools. Further to the previous question, we asked about the programs carried out in the respondents' environment. Up to n = 290 (63.59%) of them indicated *none*. Valentová (2007) in her work states up to 80%. N = 56 (12.28%) of respondents indicated *healthy towns* and *schools,* n = 40 (8.77%) indicated *exercise*, n = 22 (4.83%) indicated *The Health Insurance companies*, n = 15 (3.29%) of respondents indicated *nutrition* and n = 15 (3.29%) of respondents indicated *oncological problems,* n = 14 (3.07%) indicated *vaccination* and n = 4 (0.88%) indicated *The Red Cross*. We were interested in what health education area are the health supporting programs mainly focused on. Respondents had to choose only one of the options offered. N = 176 respondents (40.79%) chose the option *write in* and did not write any other area, n = 102 (22.37%) respondents supposed that the programs are mainly focused on *nutrition,* n = 173 (16.01%) respondents chose *exercise,* n = 60 (13.16%) of respondents indicated *lifestyle* and n = 35 (7.67%) respondents indicated *hygiene*. We were interested in what age group are the health supporting programs especially meant for. According to the n = 281 (61.63%) of respondents we found that these programs are especially meant for *children*. Another issue for us was to find out from what sources respondents look up the information about health. As the most frequent source of information respondents indicated *radio* and *television* n = 138 (30.27%), followed by *internet* n = 120 (20.31%), *books* and *magazines* n = 90 (19.73%), *write in* n = 56 (12.28%) – in that scale respondents did not provide any concrete formulations, *school* n = 26 (5.71%), *courses* and *trainings* n = 13 (2.85%), *physician* n = 12 (2.63%), *nurse* n = 1 (0.22%). Valentová (2007) states that up to 67% of the category *often,* which is probably caused by the scope of the research sample and also of the chosen method (interview). Nurse as a source of the information about health has similar results in research of Hanzlíková (2004). We see correlation with the achieved progress of information and communication technologies and their availability. On the other hand, up to 46% respondents, teachers at the primary schools, according to the study carried out by Řehulka (2010) stated that prevention should be the responsibility of the medical staff.

The objective of the second research area was the verification of the postulate of legislative and program agreement of the priorities of health education with the respondents' answers by regions. Our hypothesis was affirmed in some parameters related to the prevention, needs of health education, health education as a social priority, and in statements of responsibility for the health of the individual and the whole society. We used the Student's t-test, which did not show any significant differences among the answers according to the regions. However, we have noticed an active approach to devolve the responsibility for health to individuals.

The priority of health education is legislatively declared in the Act No 576/2004 Coll. on health care, health care related services and on the amendment and supplementing of certain laws as subsequently amended, Act No 578/2004 Coll. on health care providers, health workers and professional organisations in the health service, and amending and supplementing certain laws, as amended by later regulations, Act No 132/2010 Coll. on the protection, support and development of public health and on the amendment and supplementing of certain laws, as subsequently amended, Act No 577/2004 Coll. on the scope of health care covered by public health insurance and on the reimbursement of health care - related services, as amended by later regulations, in the Government provision program of the Slovak Republic and the Framework of State Health Policy.

The third research area included the findings related to the focus on health-educational activities according to the age in terms of respondents who answered the questionnaire, which we implemented by paired t-test. We found out that the main focus is on children and the elderly group.

Recommendations for improving research problems

Results of work provide impulses for further research and also have significant educational and social implications. We are clear about the need for an indication of selected initiatives that would be useful to enhance theoretically and empirically. We recognize that the research findings have some limits. To improve research problems we recommend:

1. To emphasize continuous deepening of theoretical knowledge in the field of health education in area of institutional, non-institutional, but mainly lifetime education.
2. To present activities related to various health programs on the level of all-society, regions, and communities in close cooperation with the municipality.
3. To continue in efforts to transfer responsibility for the health of individuals.
4. To continue in active approach to disease prevention from aspects of individual age categories.
5. To lay stress on the senior population in activities dealing with health.
6. To deepen knowledge of health education by research findings within the field of nursing.
7. To heighten practical autonomy fulfilment of nursing profession with the accent on positive image of nursing.
8. To establish grant agency aimed at acquiring and reallocation of financial means for projects related to health promotion in connection to existing structures of European Union.
9. To intensify cooperation of individual components in society aimed at increasing health awareness and improving health care within the program Health 21.

Conclusion

The most important prerequisite for full-life is health. It is the right, the source and the basis of life. Health care should be the top priority of the society and each

individual. In this context arises the need for educational activities in the field of health. The issue of health education is terminologically not simple because of its broad and complex approach. Health promotion activity has its own historical, political, demographic and geographic particularities. It is always bound to a specific time and space. Therefore we focused on health promotion and maintenance by implementing health education and its perception as priority in selected respondents as members of contemporary society. According to respondents´ responses we found that health education is needed and belongs to priorities of society. From other findings resulted active approach to prevention, responsibility for health and finding information related to health, even though the nurse as the source of information was placed on the other position. Health as the value number one was reported in more than half of respondents´ responses. Considerable deficiencies we saw on the awareness of health programs and their implementation, where it would be appropriate to think about their targeted propagation.

VÝCHOVA K ZDRAVIU VO VYJADRENÍ RESPONDENTOV ZO ŠKOLSKÉHO PROSTREDIA V NITRIANSKOM A PREŠOVSKOM KRAJI

Abstrakt: V súčasnej filozofii človeka ako bio-psycho-sociálnej bytosti sa stretávame s výchovou k zdraviu ako dôležitým faktorom v prospech podpory zdravia jednotlivcov aj spoločnosti. Výchova k zdraviu je definovaná s akcentom na aktívny prístup, motiváciu a multidisciplinárnosť. Zisťovali sme názory 445 respondentov zo školského prostredia 6. ročník základnej školy a 3. ročník gymnázia v Nitrianskom a Prešovskom kraji na oblasť výchovy k zdraviu, zameranie programov zdravia. Použité metódy boli dotazník, a matematicko-štatistické, Studentov t-test v programe SPSS 11 pre Windows. Výskum sme realizovali v roku 2007. Z výskumu vyplýva, že výchova k zdraviu patrí k prioritám spoločnosti. Bol potvrdený aktívny prístup k prevencii a zodpovednosti za zdravie. Postavenie zdravia ako hodnoty číslo jeden sme zaznamenali u viac ako polovici respondentov. Výraznejšie nedostatky boli v informovanosti o programoch zdravia. Programy zdravia sú podľa respondentov zamerané na deti, seniorov a riešia problematiku pohybu, výživy, prevencie onkologických ochorení a eliminácie stresu.

Kľúčové slová: výchova k zdraviu, zdravie, filozofia zdravia, zdravotné uvedomenie, podpora zdravia, ošetrovateľstvo, sestra

EXPERIENCE WITH HEALTH EDUCATION IN BASIC SCHOOL

Leona MUŽÍKOVÁ, Vladislav MUŽÍK

Abstract: The chapter deals with health education as a newly emerging educational field of basic education as well as a subject of curricular research. Within the Czech Framework Educational Programme health education is together with physical education part of the educational area Humans and Health. Curricular research which focuses on health education and physical education uncovers the difficulties of implementing health education into school practice. Research in health education as well as research in physical education indicate that the stated educational fields show discrepancies between the designed form of the curriculum and its implementation in the school practice. Therefore, this chapter focuses on the research findings and suggestions, which can contribute to improving the quality of health education as well as physical education in basic education.

Key words: health education, physical education, educational field, educational area, Framework Educational Programme, school educational programme, designed form of the curriculum, implemented curriculum, research in health education, research in physical education

Introduction

Curricular reforms implemented after 1989 raised in the Czech Republic discussions on the global form of the Czech education as well as on partial aspects of education and training. Curriculum research started to be carried out in various educational areas, educational fields, subjects etc.

Also the emerging training in the field of *Health Education* attracts increasing attention. The motives for research in the field of health education draw upon our own research findings (e.g. Mužíková, 2006, 2008, 2010a, 2010b, 2011; Mužík, Mužíková, 2007; Mužík, Vlček et al., 2010; and so on), as well as upon the current data published by other authors or institutions, e.g. the Research Institute in Prague (Tupý, 2008, 2011), Czech School Inspection (2010) and others.

The development of education in the field of health education after 1989 with the focus on basic education will be outlined in the following text and will be supported by research results. Concurrently, we will focus on *Physical Education*, which in the Czech basic education accompanies Health Education.

1 Health Education as an Educational Field

We understand Health Education generally as a part of *Health Promotion.* According to Holčík (2004) health promotion represents a complex of ideas, tools and methods, which can be called: strengthening, reinforcing, supporting, protecting and developing health with active participation of individual citizens, groups, organisations, and the society as a whole. That is where these are not the matters solely of health institutions, but activities of individuals, groups, organisations, departments, and the society as a whole.

Health Education within the area of education can be comprehended more broadly as a part of the whole system of education and more narrowly as a concretely specified educational field defined by the existing educational documents. Health education should lead to raising the health awareness as well as behaviour in citizens. The term *Health Literacy* is frequently used in this context to define the "cognitive as well as social skill which determines motivation and ability of individuals to gain access to information on health, understand it and use it for promoting and sustaining good health." (Holčík, 2004, p. 120)

Health Literacy should be a prerequisite for *healthy lifestyle* (or *healthy way of life*). According to Liba (2005, p. 5) it lies in "a balance between psychic and physical strain, deliberate physical activity, rational diet, harmonious relationships among people, cautious sexual life, refusing of addictive substances, responsibility in work and life, personal and work hygiene etc." Healthy lifestyle affects the *quality of life,* which reflects the overall satisfaction with life and overall feeling of personal well-being, spiritual harmony and life satisfaction.

The term *Health Education* will be used in the following text mainly as an official designation of one of the fields within the Czech *system of fields of education*. The main conceptual document, which constituted the educational field of *Health Education* within the system of Czech Basic Education was *the Standard for Basic Education* from 1995. The aforesaid standard concisely formulated the key educational objectives as well as sets of obligatory educational contents, at the fulfilment of which all the pedagogical activities were aimed. The so-called core curriculum was arranged according to the educational areas and as a whole it defined the content and extent of basic education, which should be obtained by pupils during their compulsory education. The educational fields which created the framework for the selection of the core curriculum as well as the bases for its didactic processing in the educational programmes were singled out within the individual educational areas.

The standard for basic education served also as a tool for self-evaluation of schools. It focused both on ascertaining the effectivity of educational activities as well as on the assessment of pupils´ results. By formulating the generally valid framework for basic education the standard became also a suitable starting point for creating the criteria for checking and assessment activities of the Czech school inspection.

The educational field *Health Education* pertained to the Standard for the basic education as a part of core curriculum and was included together with the field of *Physical Education and Sport* into the educational field of *Healthy lifestyle.* The main goal was to recognise the most significant favourable and unfavourable influences,

which can affect human development in the course of their lives including their current physical as well as psychic condition.

The core curriculum of the field of *health education* was divided into the following topics, which were in the Standard for basic education further elaborated on and described separately for the primary school and junior secondary school within the basic school:
- family, home and personality development;
- the fundamentals of psychic and physical hygiene, day regimen;
- rational nutrition;
- prevention of abusing addictive substances;
- the fundamentals of sexual education;
- personal safety;
- physical activity and health.

Another field in the educational area of *Healthy lifestyle*, as stated above, was the educational field of *Physical Education and Sport*. The objective of the training in this field should lead to pupils´ acquisition of physical skills, improvement of their physical performance as well as proper body posture and to their attempt at an optimal development of health orientated performance and so on.

In compliance with the new principles of the curricular policy formulated in 2001 in *The National Programme for the Development of Education in the Czech Republic – The White Book,* a new system of curricular documents for educating pupils and students from 3 to 19 years was introduced in the education system. These curricular documents are formulated on two levels – of state and school. The state level is represented by the documents such as *The White Book* and *The Framework Educational Programmes* (in Czech abbreviated as RVP). The framework educational programmes represent an obligatory framework for education and standardise educational content for preschool, primary, and secondary education. The school level is represented by *The School Educational Programmes* (in Czech abbreviated as ŠVP), according to which education is implemented at individual schools. Each school creates their own school educational programme according to the principles stated in their particular framework educational programme. When creating The School Educational Programme, schools can take into consideration specific needs of their pupils, specific intentions and conditions of the school and of the region.

The Framework Educational Programmes represent the central level of the designed form of the curriculum. They define educational objectives, key competences as well as the educational content necessary for reaching the former stated. They define the framework for draft curriculum and formulate the rules for the School Educational Programmes. These programmes define the worth-while and appropriate education for the individual levels as well as fields. They represent the humanistic and democratic values, which are the basis for educating pupils and for the life of schools in the Czech Republic.

We were interested especially in the *Framework Educational Programme for Basic Education* (FEP BE). This document was implemented in schools within the Czech Republic on 1 September 2007 and it is annually updated.

The Framework Educational Programme for Basic Education emphasizes especially those aspects of education which are vital for life in the modern multicultural

society. They are namely understanding of values, the art of communication and cooperation, understanding of global problems, active influence and protection of health, practical activities of everyday life, educating towards independent thinking, acting and educating oneself. Among the nine educational objectives, there is also the following: teach the pupils to actively develop and protect their physical, psychic and social health and to be responsible for it.

The educational content is in the Framework Educational Programme for Basic Education divided into nine *educational areas*. The individual educational areas are formed by the *educational fields* which are related in their content. Health Education is in The Framework Educational Programme for Basic Education incorporated in the educational fields of *Humans and their World* and *Humans and their Health*.

The educational area *Humans and their World* is conceptualised for primary school. It consists of five topics out of which the topic that deals with health education is *Humans and their Health*. This topic makes the pupils get to know themselves on the basis of getting to know the humans as live beings with their own biological as well as physiological functions and needs. They get to know how humans develop from cradle to adulthood, what is suitable and what is not from the point of the daily regimen, hygiene, nutrition, interpersonal relationships etc. They obtain basic instruction on health and diseases, health prevention, first aid, safe behaviour in various life situations, including emergency situations, which threaten life of individuals or even whole groups of citizens. Pupils gradually realise what responsibility every human being has for their own health and security as well as for the security of health of other people. Pupils should come to an understanding that health is the highest value in life of a human being. They are getting the needed knowledge and skills by observing concrete situations, playing roles and solving problem situations.

The educational content is divided into the following topics:
- *human body:* life needs and manifestations, the basic structure and function of the human body, sex differences between a man and a woman, the basics of human reproduction, the development of a human being;
- *partnership, parenthood, basics of sexual education:* the family and partnership, biological and psychological changes in adolescence, the ethical aspects of sexuality, HIV/AIDS;
- *healthcare, healthy nutrition:* daily regimen, drinking regimen, physical regimen, healthy nutrition, disease, minor accidents and injuries, first aid, injury prevention, personal, intimate and psychic hygiene, stress and risks connected with it, influence of commercials;
- *addictive substances and health:* refusing addictive substances, gaming machines and computers;
- *personal safety:* safe behaviour in a risky environment, safe behaviour in road traffic in the role of a pedestrian, a cyclist, crisis situations (bullying, torturing, sexual abusing and so on), brutality and other forms of violence in the media, services of professional help;
- situations of public threat.

The educational area *Humans and their Health* is drawn up for both the levels of basic schools (i.e. primary and lower secondary level). It brings the fundamental stimuli

for influencing health which are introduced to the pupils who then learn to apply them and use them in their lives. The education in this field leads to pupils´ learning about themselves as live beings, understanding the value of health, the significance of health prevention as well as the depth of problems connected with a disease or health damage. The emphasis is laid upon practical skills and their application in model situations as well as in every day life of their school. The educational area *Humans and their Health* comprises two educational fields: *health education* and *physical education*, to which appertains the accompanying field of *health physical education*.

The educational field *Health Education* brings the basic knowledge on humans in connection with the preventative protection of their health. It teaches the pupils to actively develop and protect health in all its components (social, psychic, and physical) and be responsible for it. The educational content is directly linked to the educational field Humans and their World. Pupils strengthen their hygienic, nutritive, work as well as other health prevention habits, they develop their skills to refuse harmful substances, prevent accidents and face their own being threatened in everyday as well as emergency situations. They extend and deepen their knowledge of the family, school and the community of their peers, of nature, humans, interpersonal relationships and they learn to look at the aforesaid phenomena from the point of view of adolescents and to decide in favour of health. Due to the individual and social dimension of health, the educational field Health Education is very closely linked with the cross-curricular topic Personal and Social Education.

The content of the educational field Health Education is divided into the following topics:
- interpersonal relationships and the forms of cohabitation: pair relationships, relationships and the rules of cohabitations in a community;
- changes in human life and reflection upon them: childhood, puberty, adolescence, sexual maturing and reproductive health;
- healthy way of life and health care: nutrition and health, physical and psychic hygiene, daily regimen, protection against contagious as well as non contagious diseases, chronic diseases and injuries;
- life threatening risks and prevention thereof: stress and its relationship to health, civilization diseases, auto-destructive addictions, hidden forms and levels of individual violence and abuse, sexual criminality, safe behaviour, keeping the rules of security and health protection, manipulative commercials and information, protection of humans in emergency situations;
- the value and support of health: holistic approach to humans in health and sickness, reinforcement of health and its forms, support of health in a community;
- personal and social development: self-cognition and self-concept, self-regulation and self-organisation of activities and behaviour, psychohygiene, interpersonal relationships, communication and cooperation, moral development.

In the educational field *physical education* the pupils are traditionally led, on the one hand, to getting to know their own physical potential and interests but also to getting to know the effects of concrete physical activities on their physical capability, psychic and social well-being. Physical education proceeds from spontaneous physical activities to controlled and optional activities. Pupils are learning to assess independently the level

of their capabilities and to incorporate physical activities into their daily regimen to satisfy their own physical needs as well as interests, for the optimal development of their capabilities and total performance, for regeneration of their powers and compensation of various loads, for the support of their health and protection of their lives.

What is characteristic for physical education is the recognition and development of physical abilities of pupils. Remedial and special compensatory exercises are an integral part of physical education as they can be preventively used for all the pupils or set to pupils with a physical disability instead of activities not suitable for their particular disability.

It is obvious that the FEP BE links physical education with health education in the field *Humans and their Health* much more than other educational documents.

Explicitly health education can be found also in the educational field *Humans and nature*. The educational field of *Biology* comprises the topic of human biology with a limited content of phylogenesis and ontogenesis, anatomy and physiology, illnesses, injuries, prevention, and healthy lifestyle. This topic not only corresponds with the field Health Education but also revises some of the content (e.g. lifestyle). Topics in the field Health Education can also be found in *Chemistry*: for example work safety, emergency situations, natural substances and their significance for the human body, medicaments, dangerous and addictive substances. From the educational field *Humans and the world of Work* we can use as an example the topic of food preparation.

Health Education is implicitly present also in other educational areas and fields, such as the educational field *Humans and Society* or the complementary educational field *Drama Education.*

A significant and integral part of the Framework Educational Programme for Basic Education are *cross-curricular topics*, which try to cover the current world topical issues and create opportunities for involving pupils, make them cooperate and help to develop pupils´ personalities especially in the field of attitudes and values. Due to the fact that cross-curricular topics go across the educational fields and have a clear integrational character, they are significant for the support and education for health. Namely, it is the *personal, social* and *environmental education*.

There is an independent chapter in the the FEP BE which states the material, personal, hygienic, organisational and other conditions for the implementation of the the FEP BE. Even this chapter clearly shows the emphasis on supporting health at schools.

Another useful part of health education at basic schools are also the *programmes and projects for supporting health*, which complement the educational offer and enrich the implementation of the health education curriculum. Below you will find a basic summary of them.

The member states of WHO accepted at their meeting in 1998 the generally known programme *health 21 – Health for Everyone in the 21st century* (1999). The Czech government reacted to the said programme when they approved the national programme called *Longterm Programme for Improving the Health State of the Citizens of the Czech Republic – Health for Everyone in the 21st century (Czech Programme for Health 21)*. The concrete targets of *Health 21* concerning the basic education have the form of a curriculum design and that is how they amend the contents of the curricular documents.

Besides the programme *Health 21* there are the aims of *the National Programme of Health in the Czech Republic*, which is annually contributed to by the subsidy programme *Projects for Supporting Health*. These are overall interventional projects with the aim to favourably influence state of health, health condition, and education to a healthy way of life. Until now about two thirds of the implemented projects for health support were targeted at the child population and they could have been implemented at schools– e.g. *School Supporting Health*, *Healthy Teeth*, *School Milk*, *Fruit and Vegetables Five Times a Day, It is normal not to Smoke, Smoking and Me, Programme against Bullying and Violence at Schools and School Institutions, etc.*

The obviously best elaborated concept among the above stated projects can be found in the project *School Supporting Health* (Havlínová, 1998). The Czech Republic used this project for entering the European network of schools supporting health (ENHPS). Currently the project conjoins more than 40 European countries and within the territory of the Czech Republic several hundred preschool, basic, special as well as secondary schools.

Many schools create their own school or class projects, which stem from the topical needs and conditions of particular schools. These projects frequently use modern methods, such as project teaching and problem solving tasks and they, concurrently, have a motivating effect upon the pupils. The most frequently they are projects like *Healthy Days* or *Healthy Weeks*.

The above stated as well as other programmes are available on the website of the Czech Ministry of Education, Youth and Physical Education[1], The Ministry of Health[2], The State Health Institution[3] and other institutions. A more detailed description as well as the analysis of the individual programmes or projects related to the educational field Health Education can be found for example in the works of Bočková (2005) and Brázdová (2008).

2 Health Education as a Subject of Curricular Research

It must be admitted that the Czech Republic lacks interdisciplinary research that would illuminate the position of health education in relation to other fields of school education. However, the results of the research carried out until now are not negligible.

Since the 1990s research is beginning to define and study the relationship of health education to physical education as well as to family education (e.g. Mužík, Krejčí, 1997; Mužík, Mužíková, 2007; Marádová, 2005). On the level of conceptualisation of the educational content it is rather the position the individual topics should have within the curriculum of health education that is being considered: e.g. problematic nature of life style and quality of life (Csémy et al., 2005; Havelková, Kachlík, Raus, 2006; Pokorná, 2006; and so on), nutrition (např. Rouhová, Pillerová, Havelková, 2001; Procházková, 2006), experience (Krejčí, 2004), physical self perception (e.g. Fialová, 2005), social behaviour (e.g. Prokopová, 2006), socially pathological phenomena prevention (e.g. Kachlík, 2005; Čech, Hanáková, 2008), health risks and primary prevention (Žaloudíková, 2004, 2009)

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[1] http://www.msmt.cz/
[2] http://www.mzcr.cz/
[3] http://www.szu.cz/

etc. The publications of Havelková, Reissmannová et al. (2009), Machová, Kubátová et al. (2009) as well as other authors are based on specifically orientated research findings.

The implemented form of the curriculum of health education is the subject matter of the research conducted by Marádová (2007). The results clearly show that majority of the tested pupils prefer topics from family or sexual education. Some knowledge on the implemented curriculum of health education can be found in the research of Žaloudíková (2003, 2004, 2009). The author infers from her research that school does not provide enough information on what is most harmful for health and how to prevent serious diseases. The authors Hajerová-Müllerová, Doulík and Škoda (2005) published a study within which they were assessing the changes of children´s attitude to *drugs*.

The research studies organised by the co-author of this text analysed the opinions of almost 700 basic school headmasters regarding the implementation of health education at their schools (e.g. Mužíková, 2006; Mužíková, 2010a). The ascertained findings confirmed that the status of health education as an independent educational field is very low at many schools and that the desighend form of the curriculum of health education is not implemented in a suitable way (see the detailed results in the following part of the chapter).

The history of the research in the curriculum of physical education in the Czech Republic started in the 1970s. The first research studies focused mainly on the implemented form of the curriculum of physical education, especially the didactic interaction between the teacher and the pupil. A comprehensive summary of those research studies can be found in the work of Dobrý, Svatoň et al. (1997). In the aforesaid publication you can find research results pertaining to the diagnostic activities of the teacher (e.g. Šafaříková 1980), the influence of various contents upon the didactic activities of the teacher (e.g. Hercig, 1977), the structure of activities of teacher and students (e.g. Svoboda, Kocourek, 1987; Jansa, 1987) and so on.

The research method of the Analysis of the didactic interaction enabled substantiating the relationship between the quality of teacher´s activities and pupils'learning results (Dobrý, Svatoň, Šafaříková, 1984). The following research studies regarded the process of influencing the teaching activities of a teacher through immediate feedback information gained via a computer recording of the observed phenomena (Mužík, Uhlíř, 1989; Mužík, Hurychová, 1994; Mužík, 1997) or demarcating the activity profile of a teacher and their professional competences (Karásková, 1994).

In the recent years the research in the curriculum of physical education focuses on more forms of the curriculum (see e.g. Mužík, Trávníček, 2006; Mužík, Janík, 2007, 2009; Mužík, Vlček et al., 2010; and so on). The results of those research studies indicated a discrepancy existing between the curricular demands and the pedagogical practice. These results acted as the stimulus for the subsequent research studies presented in the following parts of the text. Physical education is perceived as an educational field closely connected with health education and belonging into the same educational field as Humans and Health.

2.1 Knowledge on the Implementation of Health Education in School Practice

Health Education, as stated above, is a newly developing educational field. It is a newly drawn up designed form of the curriculum of health education and it needs

to be approached innovatively when implementing health education at schools. We are expecting that the new quality of education in health education will manifest itself in the improved health literacy of the pupils and, subsequently, in their improved health condition.

These curricular schemes put great demands upon the school practice. That is why a question arose whether the Czech education system is well prepared for those demands and whether the increased demands in relation to health education are reasonable – for example when compared with foreign coutries. We followed the partial research results gained in 2005 (Mužíková, 2006), which indicated that schools were not prepared to implement a newly prepared health education curriculum into their school practice. The findings could be generalised as follows:

- most headmasters and teachers at basic schools understand the importance of health education, however, they are not sufficiently acquainted with its content and the requirements for its implementation according to the FEP BE;
- a minority of headmasters and teachers do not appreciate health education and are not planning to implement it in the projected form at their school due to the fact that they consider the current status satisfactory. The main reason is the unfamiliarity of the projected form of the curriculum of health education in FEP BE.

These findings were followed by research carried out with a sample of headmasters of Czech basic schools.

2.1.1 Basic School Headmasters' Opinions of the Implementation of Health Education

The aim of the subsequent research was to get a deeper insight into the way health education is being taught at schools as well as a more thorough understanding of the problems that both Czech education and health education face. The research aim was thus formulated: To analyse basic school headmasters' opinions of the implementation of the health education curriculum according to FEP BE. We focused namely on the state of the conditions for training in health education, on the preference of individual parts, ways and forms of education, arrangement of the subject in the implementation of the field of health education, etc.

Research Method

The research method in this part of the research study was written questioning. The questionnaire had four parts: questions regarding the characteristics of the research sample (closed or semiclosed questions), questions upon the implementation of health education according to the Standard of basic Education (closed or semiclosed questions), quantitatively aimed questions regarding the implementation of health education according to FEP BE (closed or semiclosed questions) and qualitatively aimed questions regarding the implementation of health education according to FEP BE (open questions).

To ascertain the significance of differences in the number of the observed quantitative data we used the method of chí-square test. In responses to the open questions we used the method of the content analysis on the threshold of the method of open coding (Strauss, Corbinová, 1999). The answers of the respondents were transformed into

partial statements and processed by computer programme MAX QDA, which enabled their categorising as well as quantification. Our aim was to arrange the statements of the headmasters in such a way that they would, on the one hand, express the number of occurrence of the presented opinions (quantitative standpoint) and, on the other hand, express the sense thereof (qualitative standpoint). This arrangement was later used for deriving the content, extent as well as the nature of the researched phenomena.

The questionnaire was formed and verified during the school year of 2005/2006. It was distributed to schools in the second term of the schools year of 2005/2006, i.e. in the time, when the schools obtained the instructions for preparing their school educational programmes. The research sample consisted of headmasters of Czech schools. The selection of the headmasters was carried out in cooperation with the Czech School Inspection (CSI) using a method of random selection from a list of basic schools in the CSI database. It was the CSI that carried out the distribution and collection of the questionnaires. Then they were submitted to the co-author of this text for processing.

1000 headmasters of basic schools were addressed. The questionnaire was anonymously filled in and returned by 712 headmasters of basic schools (i.e. 71,2% of the addressed headmasters). Further 32 questionnaires were excluded from the sample during the processing for incomplete significant information and 148 questionnaires were put aside as they described only primary level of basic school. That is to say the research sample was creted by 532 headmasters of the basic schools with both the primary and junior secondary level. We gathered 7564 partial statements, which were subsequently categorised and quantified.

Results and Discussion

The detailed results have already been published (Mužíková, 2010a), therefore we focus on the main findings corresponding with the implementation of health education into school practice:

More than half of the observed sample of headmasters (56%) considered implementing health education as an individual educational field useful. Most of the headmasters were not sure, though, who would guarantee and teach health education at their schools as they did not have qualified teachers for that.

Many a headmaster in the time of the research (2006) did not know that health education was defined as an independent field in the Standard for Basic Education as early as in 1995 and that FEP BE will enable them to implement health education either as an independent subject or in integration with another subject.

Only 11% of the headmasters of basic schools were considering to implement health education as an independent subject, on the contrary, 44% of the headmasters of basic schools did not plan to implemenet health education in any particular way. The biggest part of the headmasters (45%) was intending to integrate health education with another subject, most frequently with physical education.

Only one fourth of the headmasters intended to employ a qualified health education teacher in the future. Most of the headmasters focused rather upon a certain specific prevention (smoking, drugs apod.) and did not appreciate duly the complex idea of Schools Supporting Health (Havlínová, 1998). None of the respondents represented any idea of a complex scheme for health education within their school.

Most of the headmasters assumed that they would not soon acquire any didactic materials for health education and would not secure the material, personal, hygienic, organisational as well as other conditions for the implementation of health education as stated by the FEP BE (chapter 10). The most frequent reason was lack of financial means.

When asked which forms of education the school would use to implement health education, 474 basic school headmasters answered, i.e. 89,1% respondents (10,9% respondents did not answer). Most of the headmasters answered the question using several different statements, altogether 1526 statements were gathered. These statements were divided into categories defined on the basis of the content analysis of the answers and then quantified (see Fig. 1).
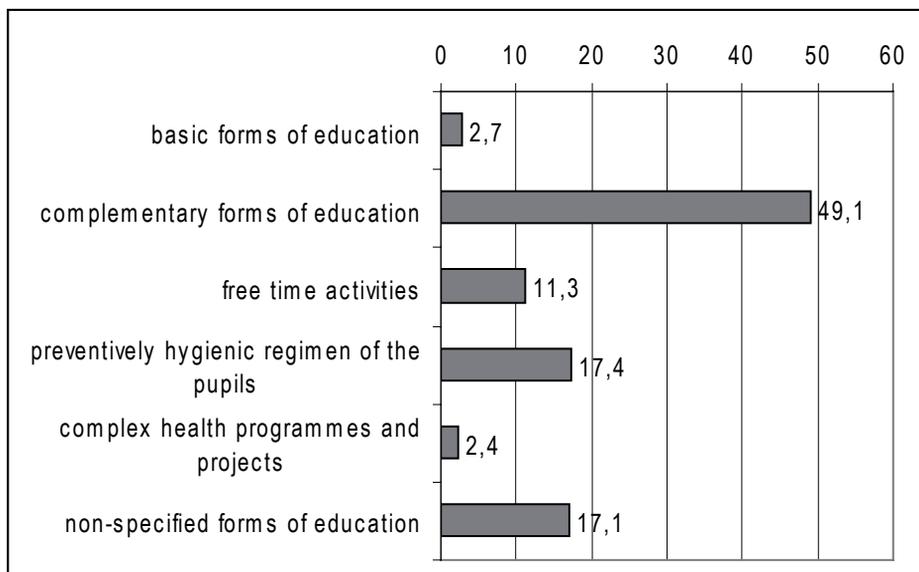
Fig. 1 Preferences in the forms of education in Health Education as stated by the heads of basic schools (% statements)

Very low frequency was observed in the headmasters´ statements focused on the basic forms of education. Only 2,7% of the headmasters stated that health education would be implemented in the form of an independent subject or an optional subject.

Almost 50% of all the statements concerned the accompanying forms of education, such as school projects of health support (14,1% statements), projects with the themes of healthy lifestyle, physical activity, nutrition, sexual education, AIDS prevention, smoking, alcohol, drugs, addictions, bullying, emergency situations, ecology and so on. Some projects were not specified in more detail though (there was written only: projects, thematic projects, school and class projects). Second most frequent amending form of education were meetings with experts (12,5% statements), most frequently with doctors, further short-term courses and seminars (7,9% statements), such as the traditional skiing or swimming course, first aid courses etc. Relatively low frequency (less than 3% statements) showed one-off competitions.

11,3% statement of the respondents referred to leisure-time forms of education. The most represented (5,2% statement) were the school clubs (usually sports) and hobby groups (e.g. health, first aid and so on). Unfortunately, these groups are attended by a low percentage of pupils.

Relatively highly represented (17,4% statements) were the headmasters´ responses regarding the preventative hygienic regimen of school pupils. The most frequent statements (12,4%) refer to the physical activities during the school attendance, i.e. recreational breaks, physical education moments, relaxation moments and so on. However, we consider these as an integral part of the common regimen of the school as they belong to the basic hygienic and organisational conditions of education.

Very low frequency was shown in the statements regarding complex programmes and projects (2,4% statements), to which also the project *School Supporting Health* (0,9% statements) belonged. Concerning this project the result is rather surprising for the fact that the programme Health 21 was approved by the government of the Czech Republic, which counts on schools entering the said project en mass.

Relatively high representation (17,1%) was observed in the statements, which do not characterise any educational form targeted at pupils. These are especially further trainings of teachers in the field of health education, however, very frequently merely courses of first aid for teachers.

If we evaluate all the above commented results, a question arises as to what forms of education and arrangement of subject content the schools have implemented so far; or are planning to implement regarding the educational content of the educational field health education legislatively stated in the Standard for Basic Education in 1995 and specifically emphasised in FEP BE in 2005. We assume that health education cannot be in its stated educational extent implemented only via accompanying educational forms (projects and meetings), preventatively by the hygienic regimen of schools and by offering leisure time activities to pupils (hobby groups or school clubs). A majority of respondents did not state their opinion regarding the basic arrangement of the content of health education, e.g. integrating it with other school subjects.

The above stated commentaries regarding the results are generalised and do not cover the analysis of the individual questionnaires focused on understanding of the mutual connections between the individual statements of each respondent. On the basis of the qualitative analysis of the individual questionnaires, which we carried out, we can state that, with the exception of the headmasters who named the project *School Supporting Health* as the most effective part of the process of education at their school (only 10 respondents!), no other headmaster introduced a more elaborate and complex way of implementing the educational content of health education. This finding confirms our former finding that many headmasters do not know well the educational content of health education, or at the time of the research study were not prepared to deal with the complex situation regarding implementing health education into the school practice.

We can object that more accurate results would be obtained in a study of teachers who guarantee or teach health education at schools (such research in primary school was conducted by e.g. Wiegerová (2005). We are aware of this fact, however, concurrently we suppose that as the headmaster is responsible for the running of the school and he/she is the person who decides in what way the educational contect of the individual

field will be implemented. Many questionnaires also showed that they were completed in cooperation with the particular teacher or with the whole school staff. That is why we consider the results to be credible.

Due to the fact that the questionnaire survey was anonymous, the answers of the individual headmasters cannot be confronted with the real situation at the particular schools or with the particular school educational programmes. It is not possible to amend the answers either, e.g. with interviews with teachers or pupils (or any other way). On the other hand the anonymous way of questioning is assumed to provide significant openness and sincerity regarding the answers.

Even though the responses of the majority of headmasters did not provide a complex or concrete picture of the implementation of health education at the individual schools, more than 7500 respondent statements regarding health education presents a rich and suggestive material, which can be used as a source when drafting school educational programmes. These suggestions will be used in teacher training.

The results processing enabled us to get invaluable experience for further similar studies. We found out that the preparation of the questionnaires must be more thorough and precise. The main imperfection of the structure of the questionnaire was to assume that all the respondents would approach a questionnaire sent by the Czech School Inspection in a responsible way and fill in all the questions. Second erroneous assumption was that school headmasters would know the basic educational documents as well as the terminology and content of FEP BE on which the questionnaire was based. However, the analysis of the answers showed that at least one third of the respondents did not know the contents of the already approved curricular document. Third erroneous assumption was that the respondents being the top representatives of the basic education would show helpfulness towards the study, which refers to the necessary life value – human health. A number of the headmasters were not interested in the topic of health education at all. Some headmasters stated expressly that they considered health education within the basic education surplus and would not invest time to learn more about it. More than one quarter of the respondents did not return the questionnaire, which corresponded to the above stated assumption.

The analysis of the answers first brought a feeling of bewilderment. Many an answer showed that the headmasters' opinion of their work was sceptical and that they found the current state of the Czech basic education unsatisfactory. The answers also showed that some of the respondents found the questionnaire annoying and that they considered the study unnecessary. This finding confirms the generally known fact that a state of a phenomenon cannot be researched in one study; on the contrary, many other factors must be used, which are not covered in a questionnaire. We still consider the obtained data and opinions of a significant part of the headmasters of Czech basic schools rewarding and inspiring. Direct interviews would undoubtedly be more objective for fulfilling the aim of the research as well as direct observations carried out in schools; however, these methods would narrow down the sample of the researched schools and their headmasters.

The carried out discussion shows that we must not overestimate the content or statistical significance of the gathered results. Many other research studies in the field of health education are orientated mainly on teachers, pupils or students (e.g. Čech, 2005,

Kachlík, 2005, Marádová, 2006, 2007, Řehulka, Řehulková, 2004, Wiegerová, 2005 and so on). That is why we cannot compare the obtained results with other studies and thus make them more objective.

2.1.2 Opinions of Czech Citizens on the Implementation of Health Education

The incentive for researching the opinions of Czech citizens regarding the implementation of health education were the results presented in the previous chapter. These results document that health education until 2006 had not been, in many basic schools, implemented in compliance with the Standard for Basic Education (1995) and that the conditions suitable for implementing health education according to FEP BE had not been created either. The aim of this subsequent research was to document the opinions of Czech population regarding the level of health education at basic schools and identify the main reasons for satisfaction or dissatisfaction with health education at schools.

Research Method

The research was carried out in cooperation with the *Institute for Health and Healthy Lifestyle Studies* and the *INRES – SONES* agency towards the end of 2008. The opinions of the Czech population were gathered from a research sample, which included 1606 respondents (in November 2007) and 1796 respondents (in November 2008) who were selected randomly by means of quota.

The sample was representative of the Czech population over the age of fifteen. Representativeness was derived from the population of the Czech Republic aged over fifteen. It can be argued that the results stated below are representative of the Czech population aged over fifteen in terms of gender, age and region.

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 proven are pointed out. Nevertheless, due to the fact that these data are not representative, the statistically significant correlations can be interpreted only as tendencies.

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 standardised guided interview between an interviewer and a respondent. The respondents' answers were recorded in a written form; answer sheets were verified in a pre-research. Each sheet completed by a respondent was logically and visually inspected – the focus was placed on logical relations and information credibility. The sheets with non-functional illogical links and incomplete sheets (when the respondent refused to answer the questions and decided to end the interview leaving part of the sheet blank) 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. The obtained results were interpreted and published by the author of the study (Mužíková, 2009, 2010a, 2010b).

Results and Discussion

The opinions of the representative sample of citizens regarding the level of health education at Czech basic schools were ascertained by means of open questions. The below stated questions were answered by 1606 respondents above 15 years of age.

We were not able to categorise or statistically process the answers to the question where the main positives of the current level of health education at basic schools are. The majority of respondents answered "I do not know", "I do not have the slightest idea how health education is taught at schools", "I do not have enough information" or did not answer the question at all. Only 29 respondents (i.e. 1,8%) stated that they were led at school to a healthy way of life, that their school focused on cleanliness, changing shoes, washing hands or that "everything is all right".

When asked what are the main insufficiencies of the current level of health education at basic schools, 689 respondents answered (42,9%) and 917 respondents (57,1%) stated that they did not know, did not have enough information, were not able to answer the question, or did not answer the question at all.

689 concrete responses were analysed and on the basis of the aforesaid analysis we determined the categories into which the responses were divided. We succeeded in identifying the main reasons of dissatisfaction of the Czech population with the level of health education at basic schools:

The most frequent stated reason for dissatisfaction with health education at basic schools (34,0% responses) was the insufficient extent of the lessons (see Fig. 2). Relatively close were the responses regarding the content of the lessons (15,2%) and the level of the teachers (14,5%). Summing up those responses within the two categories, we found out that 29,7% respondents were not satisfied with the level of the lessons. The approach of pupils to the subject matter was criticized by 13,8% respondents, insufficient support in the family 5,1% respondents, financial demands of the lessons 1,4% respondents. Further reasons were not significant for the subject matter.
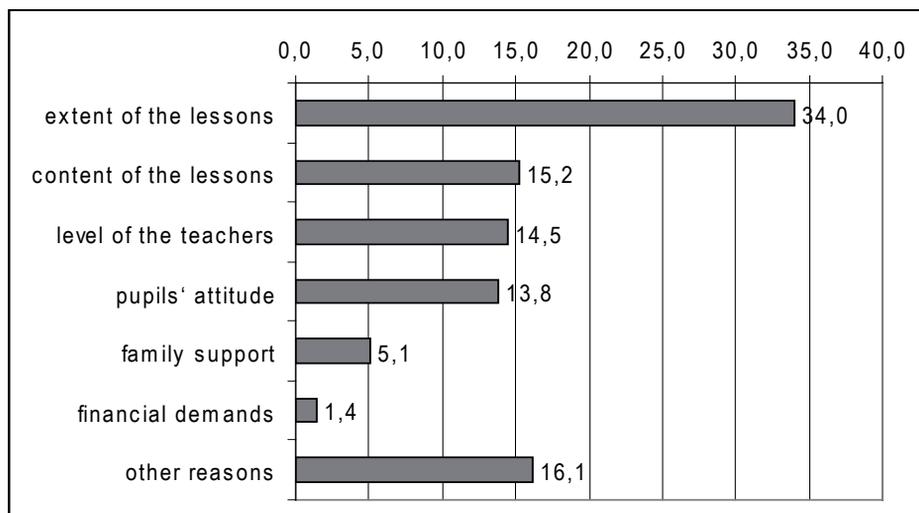
Fig. 2 Reasons for dissatisfaction of Czech citizens with health education (% statements)

The analysis of the relations in the frequency of the responses among the individual groups of the population ($p < 0,05$), carried out on the basis of second sorting, brought the following statistically significant results:

The small extent of health education is more frequently pointed to by women, students and single respondents, mainly young people not exceeding 24 years of age. Due to the fact that the frequency of responses in the young generation between 15 and 24 years of age statistically significantly differ from the responses of the older groups ($p < 0,05$), these responses were put aside and interpreted as a separate group. Another important moment is that the responses of the young population have a more up-to-date declarative value for evaluating the current state of the implementation of health education. Most of these respondents had already experienced health education that should have been implemented according to the Standard of basic Education (1995) during their school attendance.

Young respondents most frequently pointed out the insufficient extent and content of the lessons of health education and were also critically commenting on the level of the teachers, who allegedly did not have the qualification to teach health education. In comparison with the whole population, the young generation is more critical to the attitude of pupils to health education, however, the criticism of the attitude of families was almost the same with the older generation.

Another question: "Do you think that basic education should include also topics from the field of health support and healthy life style?" The question was asked in the way of closed dichotomic question with the possible "yes" and "no" answers.

Most of the citizens of the Czech Republic (88,6%) was of the opinion that topics from the field of health support and healthy lifestyle should be incorporated into the lessons of basic education. In doing so, women significantly more often agree, while the youngest age group (between 15 and 19 years of age) significantly more often disagree as well as the respondents with basic education who significantly more often disagree. On the other hand, respondents with A-levels significantly more often support it.

The question, which ascertained the opinion of citizens regarding the possible implementation of the topics of health education and healthy lifestyle into the lessons at basic schools, was of filtering character. The respondents, who supported the idea of implementing the topics into the lessons of basic schools (1590 respondents), were also asked to state, which topics from the field of health support and healthy lifestyle should be incorporated into the lessons at basic schools.

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 the respondents was as follows:
- topics concerning healthy diet (basic components of nutrition etc.),
- topics concerning physical activity (fitness programmes for the healthy etc.),
- topics concerning psychic and physical hygiene (daily regimen, prevention of diseases etc.),
- topics concerning personal safety (first aid, emergency 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 which).

As shown in Fig. 3, the citizens of the Czech Republic mostly prefers the topics from the fiels of healthy nutrition (52,4%). Another group of topics, the implementation of which is supported by more than two thirds of the respondents are the topics from the field of sexual and family education (47,6%), topics from the field of pathological phenomena (45,0%) and topics from the field of physical activity (41,9%). The least supported topics were the topics from the field of psychic and physical hygiene, which were preferred by only a third of the respondents (31,2%). In the so-called „other topics" the citizens frequently proposed senior citizen care and protection against bullying.
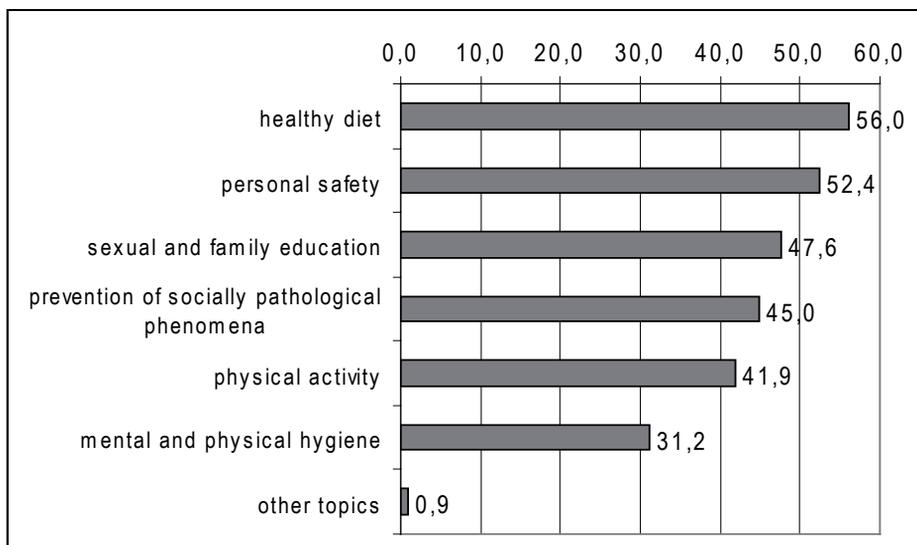
Fig. 3 Preference in topics of health education in Czech citizens' views (% statements)

Men significantly more often than women prefer physical activities, otherwise the opinions are balanced. It means that statistically there are no differences in the opinions of the individual age, education, or other groups of respondents, who were divided according to socio-demographic characteristics.

There was a minority of respondents (11,4%) who stated that basic school education should not incorporate topics from the field of health support and healthy lifestyle and that was why they were asked what the reasons for their view that the topics should not be incorporated into the teaching at basic schools were. The most important reasons mentioned were that it was not interesting or surplus for the children and that it was predominantly the issue to be dealt with within the family, that there is enough information on the topic in the media and other subjects, etc. or that it is a topic not comprehensible for basic school pupils. More than one fifth of the respondents who did not agree with implementing health education into basic school curriculum could not substantiate their reasons and chose the answer of "I do not know".

The applied testing criteria did not signal statistically significant relations between the stated opinion and the observed socio-demographic characteristics. It is necessary to mention that due to the small number of cases the possibility of their application was very limited.

2.2 The Findings Regarding the Implementation of Physical Education in School Practice

In 2007 a survey was carried out in the field of the curriculum research. It researched the opinions of secondary schools students on physical education they and to attend during their compulsory school attendance (Mužík, Janík, 2007, 2009). The results of the survey indicated that there was a discrepancy between the demands of the projected curriculum and the pedagogical practice. From the gathered findings we choose the following:

Secondary school students (basic school graduates) endorsed an opinion that the basic school physical education lessons focus most upon the skills from sport games, athletics or gymnastics. The answers of the graduates indicated that insufficient attention was paid to the complex fitness preparation skills, which are the pre-condition for the health orientated fitness (i.e. also the support of health).

The graduates stated that the physical education lessons were not focusing more significantly on acquiring knowledge. If there was some knowledge mediated to the students, it was predominantly focusing on presenting the rules of sports and games, less frequently on the influence of physical activities upon fitness and health (including hygiene and safety during physical activities).

The pupils were in the lessons of physical education mostly assessed for their sports performances. However, the fundamental aim of the contemporary physical education is creating a positive relation of the pupils to physical activity and health orientated fitness. The results indicated that physical education did not have any evidential influence upon pupils´ physical regimen. The graduates showed, in the obtained results, a positive attitude towards physical activities, nonetheless, a less favourable attitude to physical education. Majority of the graduates did not consider their teachers to either observe or evaluate leisure time physical activities.

The opinions of boys and girls did not show from the point of the subject matter any significant differences. The exception was a statistically significant worse relation towards physical education in girls.

2.2.1 Basic School Pupils´ Opinions Regarding the Implementation of Physical Education

In 2008 we carried out a subsequent study to the above described research. The aim of the research was to verify the above described results on a larger sample of respondents, separately for the primary school and junior secondary school within the basic school.

The research questions focused on evaluating the relation between the designed and the implemented curriculum. Simultaneously, these are subordinate to the target categories of the designed curriculum of physical education:

– What physical activities (skills) did the educational process of physical education focus on?

- What knowledge did the educational process of physical education focus on?
- How did the pupils perceive the aims or rather the concept of physical education?
- What is the pupil´s relationship to school physical education and physical activity in their leisure time?

The research questions focused on selected aspects of the implemented form of the curriculum, however, there was an overlap of the results and outcomes of the learning. In our case, these were researched only implicitly on the basis of the reflection of basic school pupils. In doing so, we assumed that an average pupil is able to realise and evaluate the mission of a subject that he/she experienced at basic school.

Research Method

The method of the research was a non-standardised questionnaire, the items of which reflected the above stated research questions. The individual questionnaire items were created by partial closed questions with the alternatives of the answers on a four degree scale: Yes, definitely (1), Yes, quite (2), rather not (3), definitely not (4). Some of the items were accompanied by open questions with the possibility of free answers, however, those were used only rarely and that is why we do not comment on those in the results.

The questionnaire was drawn up and verified by the authors of the text. Cronbach´s alfa was for all the items of the questionnare 0,85 and for the individual items 0,55; 0,78; 0,58.

The questionnaire was handed out to pupils of the fifth grade at basic school and pupils of the ninth grade of basic school at the end of the school year of 2007/2008. The research sample consisted of 1170 basic school pupils, out of which 585 were pupils of fifth grade (260 boys, 325 girls) and 585 were pupils of ninth grade (276 boys, 309 girls).

The questionnaires were distributed with the help of the students of the Faculty of education. The students addressed the respondents in the places were they lived (each student one fifth grade pupil and one nine grade pupil), they explained the content of the questionnaire and supervised its completion. The condition for processing the questionnaire was that each respondent was from a different school or a different fifth or ninth grade. That is how we succeeded in gathering respondents from a large area of the Czech Republic, from more than 500 schools, even though the regions were not represented by the same numbers of respondents. The questionnaire was anonymous regarding the relation to the respondents as well as to the evaluated physical education lessons (or rather schools or teachers of physical education). However, the research sample of repondents is not representative according to the basic indicators (age, sex, and region).

The filled in questionnaires were processed during the school year of 2008/2009. The responses of the pupils were recorded on a four point scale (from "definitely yes" to "definitely not") and were transferred into the categorial values of 1 to 4. The frequency of the pupils´responses was then expressed by means of the basic statistical characteristics (arithmetical mean value, median, mode, minimal value, maximal value, variance and standard deviation). The observed dependences were verified by means of the statistical methods chí-square and correlations. The statistical calculations were carried out using the software Statistica CZ 9.

Results and Discussion

The detailed results including the statistical characteristics had already been published (Mužík, Vlček et al., 2010), that is why we are below stating only the most important findings.

The ascertained results inform us in general terms about the implementation of the designed form of the curriculum in physical education at basic schools. The number of respondents was sufficient (1170 žáků), however the research sample was not representative in regards of the basic school pupils according to any indicator. The results cannot be generalised and only indicate the ascertained tendencies. Nevertheless, they are the evidence of the topical situation in physical education at basic schools and enable us to give general answers to the research questions.)

Some respondents thought that the lessons of physical education focused mainly on the activities and skills in the field of sport games, athletics and gymnastics, less on dance and rhythmical exercises or tasks. These findings equally corresponded to both the primary as well as junior secondary school.

The results further showed that physical education of both the above mentioned levels of basic school focused mainly on the rules of sports and games, which corresponds to the above stated result (i.e. the lessons focus on the skills from the field of traditional sports and games and, concurrently, on the knowledge of their rules). Furthemore, the lessons often incorporated safety rules in physical activities. According to the designed curriculum in the FEP BE (activities influencing health) pupils should also gain knowledge of the muscles of human body, compensatory exercises, fitness, hygienic habits and proper body posture.

The main objectives of physical education, as perceived by the respondents, are improving sports performances and developing personal fitness. Without the corresponding knowledge that would regard the influence on personal fitness, the intended concept of physical education "oriented towards health" cannot be properly fulfilled.

For almost 90% of fifth graders at basic schools (boys as well as girls) physical education lessons in primary school are enjoyable and pleasant lessons. Junior secondary school situation is rather different: about 80% of boys are contented, however more than 30% of girls have a negative attitude towards physical education lessons. These findings correspond to the results of a Slovak author Bartík (2009), who, nonetheless, researched the attitudes of Slovak pupils towards physical education significantly deeper.

The interest in movement and sport, however, is not related only to the physical activities in the lessons of physical education. The educational aim of physical education is, besides others, to support the need of the children to perform physical activities also outside school. That is why the questionnaire included a question asking if the pupils were physically active also in their free time. The results showed that most of the children took part in a physical activity outside school. However, there was a part of the children who stated a negative answer in the questionnaire. Surprisingly, 10 respondents from the fifth grade responded "definitely not" when answering the question if they liked performing a physical activity in their free time. We have not found such a response in the ninth grade respondents.

The opinions of the boys and girls differed in more cases. From the point of the subject matter the differences did not influence the results of the survey.

The carried out research confirmed, in many an indicator, the opinions of the secondary students presented in the introduction of the text (Mužík, Janík, 2007). The results show the discrepancy between the designed curriculum and the implementation of the physical education in school practice. We can also state that schools are generally keeping the traditional sport focus of physical education and do not reflect sufficiently the health orientated concept of physical education.

2.2.2 Czech Republic Citizens´ Opinions Regarding the Level of Physical Education

The subject matter of physical education at Czech basic schools was researched from the similar point of view like health education. Besides the opinions of the Czech Republic citizens regarding the level of health education, we also ascertained the reasons for satisfaction or dissatisfaction of Czech public with the level of physical education. Furthermore, we tried to determine the preferences with regard to the preferred topics of physical education lessons according to the opinions of the Czech public.

Research Method

The research was conducted in two phases concurrently with the research of the opinions of CR citizens regarding health education. The research was designed as a sociological one using the questions proposed by the author (co-author of this chapter) according to the same methodology as in the previous survey.

The data collection was carried out by means of the method of the standardised directive interview between an interviewer with a respondent. The field testing was conducted all over the CR between November and December 2008. The opinions of the population of the CR were obtained from the sample of 1792 respondents selected randomly by means of quota. The sample was representative of the population of the CR aged 15 and above. Its representativeness was derived from the basic sample of the population of the CR aged 15 and above. We can state that the further described results of the research are representative for the population of the CR aged 15 and above with regards to sex, age, and region.

Results and Discussion

The authors are not aware of the fact that there had been a similar sociological survey regarding the educational field of physical education carried out in the Czech Republic prior to this research. The ascertained findings can, therefore, be considered pilot and descriptive. The evaluation of the data can contribute to a better understanding of physical education and can be a starting point to further improvement on the implementation level of the educational field Humans and Health.

To describe the public opinion as accurately as possible, the respondents were given an open question asking them what, in their opinion, were the main positives of the current level of physical education at basic schools. The respondents were not offered any choices and were asked to express the reasons for satisfaction with the level of physical education in schools in their own words. All the obtained answers were subsequently subjected to a content analysis and then were categorised into the following basic groups:

- Support of physical activities (responses of the following type: makes physical activity possible, forces children to be physically active, limits children´s passivity, etc.).
- Health support (responses such as: it is a prevention of phenomena detrimonious to health, obesity, enables healthy bodily development, etc.).
- Forming desirable personal habits and contributing to purposefully spent free time (responses such as: educates to discipline, perseverance, subordination, forms relations to a collective, leads to purposefully spent free time, etc.).
- A larger variety within the teaching (responses such as: it is more varied than before, it offers more types of physical movement activities, it offers various sports, etc.).
- Better equipment of gymnasiums and sports places (responses such as: there are more gymnasiums, sports places, they are of better quality, there are more sports apparatuses, aids, fitness centers, swimming pools, skating rinks, etc.).
- Better teachers (responses such as: teachers have better attitudes, they are more qualified, better prepared, they have more modern teaching methods, they are more able to motivate the pupils, etc.).
- Others (responses such as: the time is more modern, the demands are not so strictly focused on performance, etc.).
- No positives (responses of the following type: the level is worse, I cannot see any positives, it is good for nothing, etc.).
- Do not know (responses such as: I do not have enough information, I do not have the needed knowledge, etc.).

Almost half of the respondents (47,6%) were not able of define the reasons for their satisfaction with the current level of physical education and chose the response "I do not know". This group most frequently did not have children going to school and were not in contact with physical education even through a different channel (i.e. via the media, family relatives or acquaintances). More than one fifth of the respondents thinks that the main positive thing about the physical education at basic school is the fact that it supports physical activity in children and is a balance to their sitting at the desks or at the computer, it enables children to entertain themselves, relax, rest actively. Comparing this category with the opinions of the young between 15 and 19 years of age there is a significant statistical difference ($p < 0,05$). Physical activity is considered as the main positive asset by almost 28% respondents representing the young.

Another group of respondents (10% of the whole population, 13% of young citizens) considers the main positive asset to be the fact that the contemporary physical education at basic schools is more varied, offers more kinds of physical activities, more sports including the non-traditional. Almost the same group of population in number (10,5%) also of younger citizens between 15 and 24 years of age (12,4%; 13,0%) sees the main positive asset in the improved equipment of the gymnasiums. other types of questions were not as highly represented, their proportion was within the range of 3 to 7%.

The analysis carried out on the basis of the second stage of sorting shows that the response "I do not know" was more frequently chosen by male respondents. It was demonstrably ascertained that older age groups had the least information on the level of physical education (citizens over 55 years of age more frequently than other chose the

response "I do not know"), while younger people up to 34 chose that response significantly less frequently (in the group of young people up to 19 years of age only 23,4%). From the point of view of education the least informed were the citizens who stated having a vocational training. The age worked also through marital status as the response "I do not know" was significantly more frequently chosen by married citizen and, especially, by widowed people, while single people opted for that response significantly less frequently and credited physical education with some of the above stated positives.

Besides the positives also the insufficiencies that the citizens of the CR attributed to physical education were ascertained in the research. The respondents were asked what the main reasons for dissatisfaction with the contemporary level of physical education at basic schools were.

Similarly to the process of identification of the reasons for satisfaction, we opted for the open question without predefined scale of possibilities. That is why the content analysis of all the statements of the citizens regarding the subject matter was carried out on the basis of which the categories were determined for the subsequent division of individual responses. Find the determined categories regarding the main insufficiencies of the level of the contemporary physical education at basic schools below:

– Insufficient number of lessons (responses such as: there are few lessons, it is not sufficient twice a week, it is needed to add lessons, etc.).
– Insufficiencies in the content of the lessons (responses such as: the lessons are monotonous, the content is bad, there is not enough gymnastics, athletics, swimming, it is not interesting, etc.).
– Insufficient preparation of teachers (responses such as: the teachers are not sufficiently qualified, they are not professionals, they are not able to motivate the children, get them interested, they are not consistent, etc.).
– Wrong attitude of children to the lessons (responses such as: children are lazy, reluctant, they are not interested in the lessons, they avoid physical activities, they are passive, etc.).
– Insufficient technical facilities for the lessons (responses such as: few gymnasiums, playgrounds, sports grounds, little sport equipment, old equipment, equipment of not satisfactory quality, etc.).
– Great financial demands of the lessons (responses such as: expensive leotards, sports clothing, equipment, courses, expensive skiing training, etc.).
– Other insuffeciencies (responses such as: little support from the families, bad atmosphere in large cities, etc.).
– No insufficiencies (responses such as: everything is OK, the level is high, I cannot see any insufficiencies, etc.).
– Do not know (responses such as: I do not have information, I do not go to school, I do not have children who go to school, etc.).

More than half of the respondents (53,1%) were not able to find any insufficiencies in the current level of physical education at basic schools. These respondents chose the answers "I do not know", or "I cannot judge", "I do not have enough information". Similarly to the positive responses, these were the respondents who did not have either direct or mediated information on the field. Their closer characteristics will be described in connection with the analysis carried out on the basis of the second level of sorting.

If the citizens stated any insufficiencies in physical education at basic schools, they saw them mainly in the wrong attitude of children to the lessons (12,8%), in the low number of lessons (12,0%), in the bad level of teachers (9,5%), or in the insuffeciencies regarding the content of the lessons (7,2%). Other insufficiencies were less frequent and their occurrence was within 5%.

The responses of the younger population between 15 and 19 let statistically differed from the whole other sample of the population in the following categories: insufficiencies in the content of the lessons (12,0% of the young), insufficient level of the teachers (13,5% of the young) and do not know (36,1% of the young).

The responses of the population between 20 and 24 statistically differed from the whole sample of the population in the category of the insufficient level of the teachers (16,7%), in the category "other insufficiencies" (8,3%) and in the category "do not know" (31,9%).

The subsequent analyses carried out on the basis of the second level sorting signalled connections similar to those ascertained in case of the positive responses. The rule was that the higher the age of the respondent the more frequently the response "I do not know" was chosen while younger people opted for this response significantly less frequently. The age influenced the responses in mediation of other sociodemographic indicators. The response "I do not know" was significantly more often chosen by widowed people as well as people with lower income. Similarly as in the case of the positive responses, the answer "I do not know" was more frequently chosen by men and the respondents who stated that their highest education was vocational school. Students more frequently than others saw the insufficiencies in the content of the lessons and the personality of the teacher. Bad teacher as the main sourse of insufficiencies was more frequently seen by female respondents.

The aim of the research was also to ascertain what the Czech citizens´ opinion was regarding the content of the lessons of physical education within basic education. This was carried out by means of semi-open question: „Do you think that physical education at basic school should include these topics? (Can you circle maximum 3 topics that you consider to be the most important?)"

The scale of possible answeres:
- activities from the field of sport and sport games (athletics, gymnastics, basketball, voleyball etc.),
- physical recreational activities (amusement physical games, non-traditional activities such as juggling, activities of pupils'free choice etc.),
- fitness exercises for the optimal development of physical fitness (especially muscle power and endurance),
- compensatory exercises within the prevention of the supportive physical system and body posture (stretching, strengthening and relaxing exercises),
- physical activities supporting self-cognition and self-control (yoga for children etc.),
- theory from the field of physical education and sport (the subject matter of physical load, lower muscle tone, measurement and assessment of fitness etc.),
- further topics (state which).

The evaluation of the responses brought the following results:

Czech Republic citizens regard the activities of sports and sports games as the most important within the content of physical education (see Fig. 4). This topic is preferred by more than two thirds of the CR citizens (68,9% respondents). Compensatory exercises within the prevention of the supportive physical system and body posture (58,6% respondents) are ranked second and the third most frequent answer stated were the fitness exercises for the optimal development of physical fitness (48,4% respondents). The respondents stated that the above mentioned three topics are the ones that should be definitely included in the physical education lessons. Recreational activities were not stated that often (36,4% respondents) and only less than fourth of the respondents (24,7%) considered the activities supporting self-cognition and self-control to be important to include in the lessons. Only 19,6% respondents thought the theory from the field of physical education and sport to be important. Other topics were, essentially, not proposed.
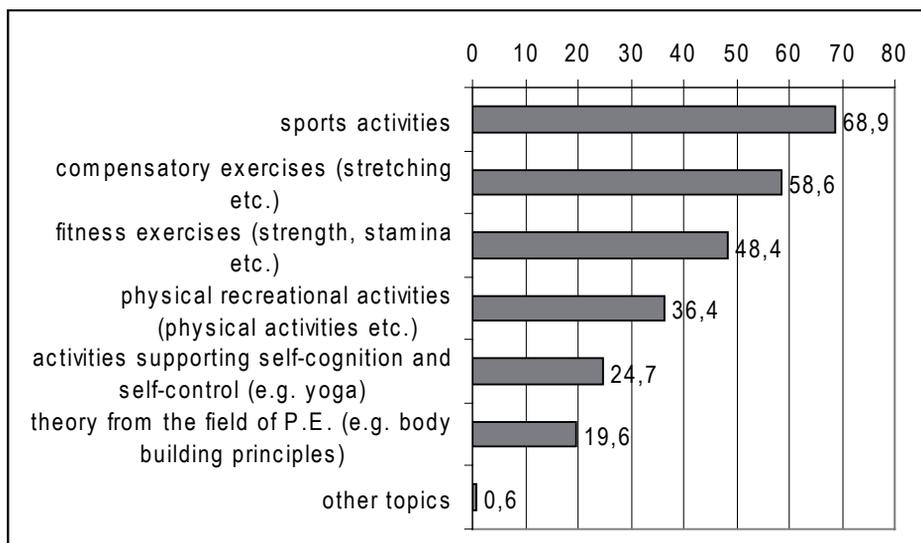
Fig. 4 Preferences in topics of physical education in CR citizens' views (% statements)

The opinion regarding the importance of the individual topics is dependent on the sex of the respondents. Males preferred the activites from the field of sport and sports games, while women considered compensatory exercises within the prevention of the supportive physical system and body posture, and physical activites supporting self-cognition and self-control. Other statistically significant differences were not found.

Approximately half of the Czech Republic citizens are not able to state the positives and negatives of the contemporary level of physical education at basic schools. If the citizens stated any positives, they saw them in the support of physical activities, greater variety and the improving equipment of gymnasiums and sports grounds. The insufficiencies were seen mainly in a wrong attitude of children to physical education or physical activity, small number of lessons of physical education, unsatisfactory level of the teachers and problematic content of the lessons.

The stimulus for a deeper research of physical education were the opinions of relatively fresh graduates of basic schools. About 28.1% of the young between 15 and 19 years of age showed dissatisfaction or complete dissatisfaction with the level of physical education. The most frequent causes according to the respondents are badly organised lessons (boring, uninteresting, monotonous, not varied, stereotypical etc.) and bad teachers whose approach disgusted the pupils and negatively influenced their relation to physical education.

Czech Republic citizens think that the most important topics that should be included in physical education lessons at basic schools are the activities from the field of sport and sports games and fitness exercises targeted at the optimal development of physical fitness. In connection with the research of Czech citizens´ opinions regarding health education there is a discrepancy in the fact that they welcome the implementation of health education into the school curriculum but, concurrently, within physical education, prefer sports activities to fitness, compensatory and preventative activities supporting health.

The above stated findings provide recommendations for the pedagogical practice in basic education as well as for the pre-service teacher training. We recommend that pre-service teacher training in physical education emphasized more topics that are directly linked with health support, i.e. exercises within the prevention of the supportive physical system and body posture.

Suplementing Observations and Conclusions

The knowledge and findings regarding the field of education of health education in the Czech Republic are summarised below:

Health education as an independent educational field was defined in the projected curriculum (Standard for Basic Education) as late as in 1995. Nonetheless, the independent educational field of health education was not implemented after 1995. The topics of health education were incorporated mainly in the subject of family education that was implemented as "family education and health education".

Family education teaching could have been studied at faculties of education only since 1996. That is why the graduates of this educational field are very rare in basic education: in 2005 they were teaching only at about 13% of schools (Mužíková, 2006).

Health education was subsequently implemented into the newly emerging framework educational programmes for preschool, basic and secondary education. The educational aims of health education are very close to the educational aims of the programme *Health 21*.

Heath education includes two specific educational topics: relationships among people and forms of cohabitation (e.g. relations in a couple), changes in human life and reflection upon the changes (e.g. sexual maturing and reproduction health), healthy way of life and healthcare (e.g. nutrition and health), risks endangering health and their prevention (e.g. civilisation diseases), values and support of health (e.g. holistic concept of a man in health and sickness), personal and social development (e.g. psychohygiene).

The FEP BE does not see the key point in the organisational structure of teaching but in the educational content. The FEP BE, therefore, leaves the traditional division

into subjects. The designed form of the educational content can be integrated at schools either into the traditional or new subjects or other forms of teaching in compliance with the demands of the individual educational fields.

Nevertheless, such a concept of health education is difficult to put into practice. Teachers without qualification in family education or health education do not have the suitable qualification for the whole designed extent of health education.

Since 2004 it has been possible to study teaching health education for the junior secondary school (i.e. upper level of basic school) at several Faculties of Education in the Czech Republic. Nonetheless, it is necessary to emphasize that there are very few graduates of the new field of Teaching Health Education in the Czech Republic. Also the assumed number of the future graduates of Teaching Health Education is relatively low and it is, within the territory of the Czech Republic, in tens in a year. Basic schools in the Czech Republic, therefore, will not have for a number of years enough qualified teachers of health education. Moreover, it is probable that headmasters of smaller schools will not be interested in employing graduates from the programme of Teaching Health Education (or Teaching Family Education) because it would be difficult to find a full workload for them. That is why schools usually manage the situation in compliance with the FEP BE by incorporating the content of health education into other educational fields or subjects.

The main organisational problem seems to be the time needed for health education in the upper cycle of basic school. The pilot version of the Framework of Edacional Programme for Basic Education (2002) allotted health education 4 teaching lessons, i.e. 1 lesson a week in every year of the upper cycle of the basic school. In the basic version of the Framework Educational Programme for Basic Education (2005) the minimum time was lowered to 3 lessons and in the current valid version of the Framework Educational Programme for Basic Education (2007) health education is allotted only 2 lessons. The Framework Educational Programme for Basic Education does not state in which way or in which years the topics of health education should be implemented. Only in the pilot version of the Framework of Educational Programme for Basic Education (2002) there was a note to the curriculum that health education would be implemented usually as an independent subject or in a functional integration with another field of education. The subsequent versions of the Framework Educational Programmes for Basic Education did not include any organisational recommendation any longer[4].

With regard to this information it is surprising and satisfying to know that according to the survey of the Pedagogical Research Institute in Prague (Tupý, 2008) health education was taught in the school year of 2007/2008 in 36% of basic schools as an independent subject health education and in 34% schools as an independent subject with an integrated part of the educational content into another subject. In 30% of schools the content of health education was integrated into other subjects, most frequently into biology.

In 2011 the Pedagogical Research Institute in Prague analysed 250 randomly selected school educational programmes (Tupý, 2011). It was ascertained that health

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[4] Contrary to the above stated, a directive for the educational field of Physical education requires: "The educational content of the educationla field of Physical education is implemented in all grades of basic education; the time allotted for physical education must not be for health and hygienic reasons lower than 2 lessons a week." (FEP BE, 2007)

education is taught as an independent subject at the moment at 70% of Czech basic schools. Even more surprising was the finding that average time allotted to the subject at the upper cycle of basic school was 3 lessons. Many schools, therefore, complement the obligatory two lessons with their available lessons.

Integrating the content of health education within other educational subjects is, currently, used by about 30% of schools. Even though it is important to state that before any kind of integration of health education into other educational subjects there should be detailed analysis of the crosscurricular relations and the interconnectedness of the content of other fields, by means of the system method of modelling (see Maňák, 2007; Mužíková, 2010a, 2011; Dočekalová, 2010).

As stated above, in the Czech Republic health education is closely linked with the educational field of physical education. However, health orientated physical education puts increased demands not only on the ways of implementing the subject at schools but also on the teachers´ qualification. Additional research orientated on physical education confirmed that schools as well as the Czech public prefer the content of the traditional sports activities (sports games, athletics and gymnastics). If the main aim of the educational field of physical education – a part of which is, currently, also health support as well as health literacy – is to be fulfilled, it is necessary for the lessons to concentrate not only upon the practical activities supporting health (fitness exercises as well as other physical activities supporting health but also upon acquiring the appropriate knowledge linked with the significance of physical activity for health. However, this should be carried out appropriately, in an attractive way and with regard to the age of the pupils. The question is to what extent the designed educational content of physical education at school is reflected and to what extent the implementation of physical education is perceived by the pupils as well as the Czech public.

ZKUŠENOSTI S VÝCHOVOU KE ZDRAVÍ V ČESKÉM ZÁKLADNÍM VZDĚLÁVÁNÍ

Abstrakt: Kapitola představuje výchovu ke zdraví jako nově se formující vzdělávací obor základního vzdělávání i jako předmět kurikulárního výzkumu. V českém rámcovém vzdělávacím programu je výchova ke zdraví spolu s tělesnou výchovou součástí vzdělávací oblasti Člověk a zdraví. Kurikulární výzkumy zaměřené na výchovu ke zdraví a na tělesnou výchovu odkrývají potíže, s nimiž se implementace výchovy ke zdraví do školní praxe potýká. Výzkumy výchovy ke zdraví i výzkumy tělesné výchovy rovněž naznačují, že v uvedených vzdělávacích oborech existuje nesoulad mezi projektovanou formou kurikula a její realizací ve školní praxi. Kapitola se proto zaměřuje na výzkumné poznatky a podněty, které mohou přispět ke zkvalitnění výchovy ke zdraví a tělesné výchovy v základním vzdělávání.

Klíčová slova: výchova ke zdraví, tělesná výchova, vzdělávací obor, vzdělávací oblast, rámcový vzdělávací program, školní vzdělávací program, projektované kurikulum, realizované kurikulum, výzkum výchovy ke zdraví, výzkum tělesné výchovy

IDENTIFICATION, RE-EDUCATION AND PSYCHOTHERAPY OF BEHAVIORAL AND EXPERIENTIAL DIFFICULTIES AND DISORDERS

Rudolf KOHOUTEK

Abstract: *Behavioral and experiential difficulties and their comparison to behavioral disorders and personality disorders listed in the International Classification of Diseases (ICD). Through an exploratory analysis of casuistry of pedagogical and psychological counseling centers and the Delphi method, 10 diagnostic units which differ from the behavioral and personality differences listed in the International Classification of Diseases were defined. A theoretical concept of difficulties was designed and practical consequences for pedagogical and psychological counseling centers, school psychologists (educational counselors) and teachers working with children with difficulties proposed.*

Key words: *behavioral difficulties, behavioral disorders, research, difficulties, personality disorders, diagnostics, identification of difficulties, rectification of behavioral difficulties and disorders, re-education, psychotherapy*

Introduction

Behavioral and experiential difficulties and disorders in children and young people constitute a very serious social problem determining the further psycho-social development of the young generation.

A competent pathopsychological and psychopathological classification and identification of such difficulties and disorders is a prerequisite for an adequate approach, or rather a re-education, re-socialization and rectification thereof.

In the Czech Republic, the first monograph, *Závady a poruchy chování v dětském věku* (*Behavioral Difficulties and Disorders in Children)* by Pavel Vodák, a physician, and Antonín Šulc, an educator, was published in Prague in 1964. Disorders in psychological development were also explored by Josef Švancara (1974). Individual issues related to behavioral difficulties and disorders in children were addressed by Pavel Říčan in his book, *Agresivita a šikana mezi dětmi (Aggression and Bullying among Children)*, published by the Prague-based Portál (1995). In 1997, Marie Vágnerová published her *Psychologii problémového dítěte školního věku (Psychology of the Problem Schoolchild),* and in 2008, with Jarmila Klégrová, *Poradenská psychologická*

diagnostika dětí a dospívajících (Counseling and Psychological Diagnostics of Children and Adolescents). a short monograph on aggression in children was also published by Ivo Čermák (1998).

In Slovakia, the first important monograph on this topic was published by Ladislav Košč, Julius Marek and Ladislav Požár *et al.* in 1975 under the titles *Patopsychológia (Patho-psychology)* and *Poruchy učenia a správania (Learning and Behavioral Disorders)*. In 1975, J. Jakabčic and L. Požár's *Všeobecná psychopatológia* (*General Psychopathology*) was also published in Slovakia.

Psychológia a patopsychológia dieťaťa, Pedagogika, Pedagogická orientace and *Speciální pedagogika* were among periodicals which contributed the most to work in the field of behavioral difficulties and disorders in children and young people.

This paper ***proposes a scientific and practical classification of ten categories of difficulties (behavioral difficulties)*** and their general distinction from behavioral disorders and personality disorders. The main method employed to define the categories was an analysis of case documentation of pedagogical and psychological counseling centers and psychiatric counseling centers for children and young people.

The general aim of education developed, balanced personality exhibiting maturity appropriate to the age group concerned. However, a fairly large number of children fails to reach this condition in the educational process. Due to a whole host of factors, problems occur in the development of behavior and personality in a significant percentage of children and youth. Education sciences must seek ways for more effective work with children's mental preconditions and potential personality so as to achieve good adaptation and success in life. Educators are often the first ones able to identify various behavioral and experiential difficulties which signal a threat to normal, healthy mental development of the pupil, together with the consequences for the pupil's social and professional integration.

Children with such behavioral and experiential difficulties require non-standard, often more tolerant and truly individual approach from the educator, still ultimately with not very satisfactory or even unsatisfactory outcome.

The term behavioral and experiential difficulty is deemed to be synonymous with the term difficulty.

In this paper, we will not primarily focus on the causes and rectification of behavioral difficulties but rather on their classification and identification. If we want to determine the correct **individual approach**, the correct type of educational incentives, stimulation, motivation and activation of the child, we first need to realize what type of personality we are dealing with. The types of educational stimulation used for children with a complex personality will differ from those used for pupils with reduced or disharmonious mental faculties, minimal brain dysfunction, neurotic or psychopathic children, etc. a differentiated approach has to be applied to form positive attitudes and personality traits in different types of problem children.

The theory of difficulties is addressed by **pathopsychology** as a science studying mental processes, conditions and traits on the borderline between the standard and pathology, and as a science studying accompanying mental phenomena which contribute to the occurrence, process and consequences of any life insufficiency but

which do not reach the level and quality of mental abnormality or pathology (Košč *et al*., 1975).

In conformity with Smékal (1961), we are of the view that difficulties are those educational and learning difficulties which still fall within a broader standard, and as such are not primarily organic, psychopathic, psychotic or oligophrenic.

Difficulties are partly or completely *reversible*. While they are developmentally inappropriate (dysontogenetic), they are *non-pathological* and *defect-free* mental states which are manifested socially (and possibly also subjectively) through unfavorably viewed behavior and experience.

Difficulties may be *multi-conditional, poly-etiological*, which is important for both their diagnostics (which ought to be based on personality and comprehensive) and treatment.

In the diagnostics of difficulties, we rely on behavioral and experiential manifestations in children and youth. The distance of a specific form of behavior from the actual essence of the child's personality allows us to organize the child's behavioral manifestations on a certain scale which can be used in diagnostics. The **symptoms** are as follows:

random – completely untypical of the personality,

secondary – more frequently occurring insignificant manifestations, more typical for the group or age, subsidiary,

central – manifestations which mark the specific individuality of the personality precisely,

cardinal – very important, significant, permanent manifestations decisive for the recognition of the dominant traits of the personality in question, forming a **behavioral syndrome** which refers directly to the relevant personality traits.

Therefore, we always need to ask ourselves whether the behavior observed is random, secondary, central or cardinal. Unlike personality disorders and behavioral disorders, difficulties are more frequently only manifested by random or secondary symptoms; such symptomatic levels tend to be more closely associated with exogenous, in particular social conditions, and are less inherent in the personality itself. On the other hand, personality disorders and behavioral disorders are often conditioned on more permanent (endogenous) factors and personality traits (e.g., genetic).

Compared to behavioral disorders and personality disorders, difficulties:
- *are of a shorter-term nature*
- *have less intense manifestations*
- *are less socially consequential*
- *tend to be conditioned on and caused by exogenous, situational and social factors, rather than endogenous, personality, genetic or biological factors*
- *are more often reversible in terms of prognosis (i.e., there is a more optimistic prognosis*)

Classification of children and youth with behavioral and experiential difficulties

According to **symptomatology** (i.e., the symptoms manifested) which can help us as the search methodology for the **identification** of individual types of children, the main areas of behavioral and experiential difficulties (occasional, shorter-term, situational, not yet reaching the quantitative and qualitative levels and severity of personality disorders and behavioral disorders listed for instance in the International Classification of Diseases (ICD) published in Geneva) can be divided into ten categories:

1) increased mental tension
2) infantilism
3) behavior outside the social and educational norm
4) increased intropunitivity
5) partial defects in communication abilities and skills (in particular in spoken and written speech) and cognitive processes
6) motor, locomotion and praxis difficulties
7) psychomotor instability
8) social, educational and cultural neglect
9) problems in school performance
10) problems in professional and study orientation and adaptation

It needs to be stressed that problem behavior (difficulties) may also occur in combination or change or transform, especially in children. If we provide a symptomatological classification, we also need to note by way of an introduction that in order to diagnose a difficulty, not all the symptoms need to be present, and in some cases, a single one is sufficient (e.g., the child stammers occasionally, suffers from a reading difficulty, etc.). Certain symptoms are of an unspecific nature and can occur in several different types of difficulty.

Every symptom has to be assessed in terms of quantity as well: e.g., does not manifest itself (0) manifests itself seldom (1), frequently (2), very frequently (3).

To a competent expert, symptoms which manifest themselves very frequently (3rd degree) in certain combination then may indicate a disorder, rather than a mere difficulty.

1. Increased mental tension
Manifestations of *mental tension* include the following:
- *examination fright, tremor, shaking hands, voice (0 – 1 – 2 – 3)*
- *overly sensitive reaction to failure, compunction, tearfulness (0 – 1 – 2 – 3)*
- *daydreaming, absent-mindedness (0 – 1 – 2 – 3)*
- *bad mood (seems discontent) (0 – 1 – 2 – 3)*
- *anxiety over one's appearance and its changes (0 – 1 – 2 – 3)*
- *increased mental vulnerability, low self-esteem (0 – 1 – 2 – 3)*
- *emotional deprivation (0 – 1 – 2 – 3)*
- *change of face coloring, blushing, blotches, pallor (0 – 1 – 2 – 3)*

- *fear of ordinary things (e.g., heights, solitude, dark, animals) (0 – 1 – 2 – 3)*
- *nail-biting (0 – 1 – 2 – 3)*
- *headache, stomach ache, subjective weakness despite no medical findings (0 – 1 – 2 – 3)*
- *increased sweating (0 – 1 – 2 – 3)*
- *blinking, facial tics, arm tossing, shrugging (0 – 1 – 2 – 3)*
- *throat clearing, sniveling without a cold (0 – 1 – 2 – 3)*
- *rubbing one's ear, chin, twisting one's hair, pinching, finger sucking (0 – 1 – 2 – 3)*

The frequency of the occurrence and intensity of the tension is determined by the specific mental and physical condition of the child and the social environment affecting the child.

A special, specific group of children with increased mental tension is represented by *physically and mentally abused children* (Vágnerová, 1997) who are frequently abused by the very people who were supposed to be their source of certainty and security. All this frequently damages the overall personality development.

We have to distinguish difficulties manifested only by an increased mental tension from various neurotic disorders.

Neurotic disorders are divided according to prevailing clinical manifestations, e.g., into phobic anxiety disorders, panic disorder and the obsessive-compulsive disorder. A phobic anxiety disorder is characterized primarily by various phobias, e.g., a phobia of sharp objects, water, flying, enclosed space, insects, snakes, disease, blood, etc. These are specific phobias.

Agoraphobia is a fear of open spaces, as well as large enclosed spaces, such as an airplane, subway, department store, etc. It includes the fear of leaving one's home, traveling. It is a separate diagnostic unit which occurs twice as often in women, as do specific fobias, a generalized anxiety disorder and panic disorder. Agoraphobia tends to be associated with the panic disorder, secondary depression and various physical complaints. *Social phobia* is in a category of its own. It occurs in men and women equally. An individual suffering from social phobia is excessively fearful of embarrassing himself/herself in his/her contacts with people and in social situations (he/she blushes, sweats, has a tight throat, shaking hands and voice and various vegetative symptoms). Anxiety symptoms lead to unpleasant emotional states, concerns that one would be observed and viewed in an unfavorable light, avoidance of unpleasant situation, general evasive behavior, social isolation, and, in extreme cases, to suicide. And yet, the sufferers are aware of the fact that their concerns and behavior are excessive, inappropriate.

A periodic, recurrent massive anxiety is typical of the *panic disorder*. It occurs suddenly, without any objective threat. The panic arises suddenly and lasts several minutes. The state is accompanied by an unbearable fear of losing control, going insane, dying. An attack experienced once leads to a certain fixation and repetition.

Generalized anxiety disorder is a different diagnostic unit. It includes permanent, excessive concerns, anxieties and bad premonitions of a general nature, associated with everyday life events. The sufferers live in a constant state of anxious tension and expectations. The symptoms are not triggered by any specific situations. Anxiety disorders constitute a significant burden and lead to social maladptation of the sufferer.

Obsessive-compulsive disorder is characterized by persistent thoughts, ideas (obsessions) or acts (compulsions). The obsessions include fear of dirt, infection, damage, loss, of something not having been done or something not having been done in a required fashion. Compulsions (acts) alleviate the anxiety brought about by the obsessions (ideas). Entire compulsive rituals which in the patient's belief are to prevent a future "catastrophe", avert a threat to the patient or his/her loved ones or prevent evil the patient could cause are encountered frequently. These disorders are treated by *psychotherapy* which – depending on the severity of the various symptoms and associated disorders – is supplemented with *pharmacotherapy*. Analytical and dynamically oriented psychotherapy and cognitive –behavioral therapy (CBT) tend to be applied. In addition to CBT, many cases respond favorably to hypnosis and additional support therapy involving relaxation techniques. Social skill training, group psychotherapy and social support also tend to be effective.

2. Infantilism

Typical symptoms of **infantilism** which can be easily established by observation and interview, include the following:

- *psycho-social behavior corresponds to a lower age (0 – 1 – 2 – 3)*
- *age-inappropriate playfulness (0 – 1 – 2 – 3)*
- *excessive use of diminutives in speech (0 – 1 – 2 – 3)*
- *inappropriate need for caressing (0 – 1 – 2 – 3)*
- *inappropriate naivety (0 – 1 – 2 – 3)*
- *emotional instability (0 – 1 – 2 – 3)*
- *lack of independence (0 – 1 – 2 – 3)*
- *egocentricity (0 – 1 – 2 – 3)*
- *fantasizing (0 – 1 – 2 – 3)*
- *lack of interest in work (0 – 1 – 2 – 3)*
- *excessive dependency on assistance from others at work, when dressing (0 – 1 – 2 – 3)*
- *preference for friendships with mostly younger or mostly older people (0 – 1 – 2 – 3)*
- *emphasis on conspicuous clothes, hairstyle and footwear (0 – 1 – 2 – 3)*
- *neglects to perform assignments (0 – 1 – 2 – 3)*
- *generally infantile behavior and experiencing (0 – 1 – 2 – 3)*

All of the above with intelligence within the norm.

Manifestations of immaturity and inaptitude have an extremely significant impact on the child's adaptation with regard to the beginning of primary school attendance and later on to choice of career and study.

The beginning of school attendance means an important change for the child, a serious milestone in the child's life. Until now, the child was carefree and could play but now it will have to work in a disciplined manner. Until now, the child could simply abandon its play when it grew bored with it, and start doing something else. Now it will have to be able to concentrate and make a sustained conscious effort in order to fulfill work assignments, including those the child will not find interesting. While the child can

now move spontaneously without permission, it will soon have to follow the teaching with discipline, accept assignments, work on them and complete them by a stipulated deadline.

A child who is ***still too immature (not yet capable of) for school attendance*** manifests for instance the following typical behavior when examined at the pedagogical and psychological counseling center:

- does not want to leave its parents, resists, cries
- does not establish contact, is negativistic, does not talk, acts scared
- shows no inhibitions, is excessively relaxed, treats adults in a familiar fashion, is obtrusive
- is unable to follow commands without individual assistance
- is easily distracted, does not concentrate
- interrupts work, refuses to continue, leaves the work station, sings while working
- has difficulty expressing itself, is difficult to communicate with
- has an obviously small vocabulary
- appears too infantile and playful overall
- appears to be mentally retarded
- defective articulation (lisping, mumbling, cluttering, stammering, etc.);
- is obviously restless
- poor graphic expression
- behavior appropriate to a lower age
- underdeveloped hygienic routines
- is not looking forward to starting school yet.

Infantilism must be distinguished from mental retardation and dementia.

Mental retardation is an affliction involving a slight, medium, serious and severe retardation of development of intellectual abilities and skills, different development of certain mental traits and social behavior disorders. Mental handicap or mental retardation refers to a permanent diminishment of intellectual abilities caused for instance by organic damage to the brain.

An infantile personality may be manifested at a higher age by immaturity in professional and study orientation and adaptation.

3. Behavior outside the social and educational norm

The following symptoms of **behavior outside the norm** may occur:
- *aggression, destructive tendencies, torturing animals and insects, bullying peers (0 – 1 – 2 – 3)*
- *outbursts of rage (0 – 1 – 2 – 3)*
- *maliciousness (0 – 1 – 2 – 3)*
- *stealing, cheating, lying (0 – 1 – 2 – 3)*
- *impertinence, vulgar language, rudeness (0 – 1 – 2 – 3)*
- *negative attitude towards authority, arguments and disputes with adults (0 – 1 – 2 – 3)*
- *truancy, vagrancy, spending nights away from home, little or no remorse for misdeeds (0 – 1 – 2 – 3)*

- *membership in problem groups, choice of unsuitable friends (0 – 1 – 2 – 3)*
- *inciting resistance against teachers, wardens, overseers (0 – 1 – 2 – 3)*
- *poor self-control (0 – 1 – 2 – 3)*
- *undesirable values, consumption of alcoholic beverages (0 – 1 – 2 – 3)*
- *obscene talk, premature sexual experience (0 – 1 – 2 – 3)*
- *experiments with unsuitable tattoos (0 – 1 – 2 – 3)*
- *tendency to nicotine dependency (0 – 1 – 2 – 3)*
- *drug use experiments (0 – 1 – 2 – 3)*

Dissocial personality disorder (F 60.2) has to be distinguished from behavior outside the social and educational norm. The former is manifested for instance by a permanent edginess and behavioral disorder during childhood and adolescence, disregard for other people's feelings, utter and permanent irresponsibility and lack of respect for social standards, rules and obligations, low tolerance for frustration and low aggression threshold, a marked tendency to blame others (marked extrapunitivity) and a *severe behavioral disorder* (F 91) within the meaning of the International Classification of Diseases (10th revised edition) which includes very serious symptoms – a problem individual may, for instance, use a gun which can cause grievous bodily harm to other people (e.g., a bat, brick, broken bottle, knife, firearm); manifests physical cruelty towards other people (e.g., ties, cuts or burns the victims), deliberately starts fires with the risk of causing serious damage or intending to cause same, commits a crime involving confrontation with the victim (including the grabbing of a handbag, extortion, mugging and strangling), imposes sex on another person, breaks into a house, building or car of another person.

Depending on the severity of the threat to society, behavioral disorders are classified as follows:

Dissocial behavior: Usually occurs in a certain stage of development (e.g., adolescence) but may also be caused by a minimal brain dysfunction or neuroses. It is constituted by difficult, inappropriate, unsocial behavior which may be managed by means of adequate educational procedures under certain circumstances. It may be influenced positively. Examples: disobedience, various misdeeds, talking back, etc.

Asocial behavior: Is manifested by more serious problems which are in conflict with social norms. The child violates moral norms, social norms, but does not break the law. An asocial person lacks adequate social feelings and empathy. Examples: truancy, running away from home, addictive behavior.

Antisocial behavior: It is basically constituted by criminal activity. The individual violates the law and usually causes damage to himself/herself and the people around him/her in the process. Examples: theft, organized crime, sexual crimes, etc.

If education fails for any reason and the behavioral difficulty or disorder becomes very severe, the child is placed into institutional or protective educational institutions where the state acts as a surrogate family through institutional education.

This occurs for instance in those cases where:
- the parents are unable to secure conditions required for their child's healthy development in the family;
- the behavioral disorder is of such degree and severity that it jeopardizes the child's healthy development; where due to the behavioral disorder, the child

violates the law and its conduct would constitute a criminal act were the child criminally liable;
- where the child violates the law as a result of the behavioral disorder, is criminally liable and institutional (protective) education is ordered (imposed) as alternative punishment;
- where the child violates the law as a result of the behavioral disorder at the age of 12–15 in a way that would earn exceptional punishment to an adult. (Pipeková, 2006, p. 366)

This includes: children's homes (for children without behavioral disorders), children's educational institutions, educational institutions for youth, children's reform institutions and youth reform institutions. The decision on the child's placement depends on the severity of the difficulty or disorder, age, sex and type of school attended.

Voluntary reform institutions have been established recently. Children and juveniles are sent there at the request of their parents, rather than a court order. This relates for instance to Educational Care Centers (SVP) or institutions for juvenile mothers ordered to stay in institutional care. (Helena Pelcová, 2008).

4. Increased intropunitivity

A person with increased *intropunitivity* for instance:
- *suffers from fear or shyness in front of strangers (0 – 1 – 2 – 3)*
- *is mentally highly vulnerable (0 – 1 – 2 – 3)*
- *tends to take even a mild reprimand very badly (0 – 1 – 2 – 3)*
- *overreacts to any failure (0 – 1 – 2 – 3)*
- *tends to succumb to the rule of excessive motivation (0 – 1 – 2 – 3)*
- *tends to speak in a low voice during examinations (0 – 1 – 2 – 3)*
- *is unable to use his/her knowledge, has low self-confidence (0 – 1 – 2 – 3)*
- *finds adaptation to new situations difficult (0 – 1 – 2 – 3)*
- *tends to refuse verbal communication (0 – 1 – 2 – 3)*
- *needs to be reassured that his/her approach is correct, requires systematic educational guidance to boost his/her self-confidence and adaptable communication (0 – 1 – 2 – 3)*
- *tends to act in an insecure and "suspicious" manner when any misdeeds are being investigated despite his/her innocence (0 – 1 – 2 – 3)*
- *tends to be a loner (0 – 1 – 2 – 3)*
- *self-depreciation (0 – 1 – 2 – 3)*
- *inability to form close relations (0 – 1 – 2 – 3)*
- *withdrawn, frequently manifests quiet resistance, is passive aggressive (0 – 1 – 2 – 3)*
- *tends to be shy, overly submissive (0 – 1 – 2 – 3)*
- *overestimates other people (0 – 1 – 2 – 3).*

Intropunitive children are sometimes referred to as children with **communication problems** (Vágnerová, 1997). The term "child with a communication problem" is deemed to be superior to the term intropunitive personality orientation.

Further communication problems may be caused for instance by health handicaps and sensory disorders (in particular hearing, sight, touch, react, receptive or expressive element of speech, etc.).

A passive type of social adaptation, intropunitive personality orientation is closely related to the self-esteem of children, juveniles and adults.

Intropunitivity is fairly easy to diagnose by observation and interview alone, or further by means of a questionnaire and projection techniques.

Intropunitive difficility needs to be distinguished from personality disorders (formerly referred to as psychopathy).

Personality disorders are constituted by permanent character deviations which create a disharmonious, unbalanced and abnormal personality in which certain elements of the personality and psyche are excessively prominent or suppressed and minimized due to maladaptation. Such disorders include the following: paranoid, schizoid, dissocial, emotionally unstable, histrionic, anankastic, anxiety, avoidant, addictive, etc.

Re-education and psychotherapy

It is *advisable* to supplement the *re-education* of intropunitivity with tailored psychotherapy.

Rational psychotherapy offers adequate, logical explanation comprehensible to the client, advice (persuasion), explication and clarification of the substance and causes of problems and recommendation of measures and procedures in the area of mental hygiene. It may be supplemented with long-term regulatory or psychagogic guidance towards healthy life and work style and an adequate value system. It is close to education and mental hygiene.

Suggestive psychotherapy and hypnotherapy offers one-off or systematic therapeutic suggestions which may either be applied directly in hypnosis or, in a situation of mere wide-awake rapport in less hypnable individuals. It does not primarily appeal to the logical thinking and actions of the client, but rather on the client's emotivity and suggestibility. Some clients respond better to authoritative, "fatherly" suggestions of the therapist, some to more permissive, convincingly applied "motherly" suggestion accompanied by social support.

Abreactive psychotherapy, or rather abyssal abreactive psychotherapy (AAP), or rather regression therapy, employs associative memories of mental and psychosomatic problems experienced by the person in the past in stressful and traumatizing situations when the person was in a state of narrowed consciousness or even unconsciousness to induce abreaction. In some cases, various psychopharmaceuticals inducing a state between wakefulness and sleep are used.

Training psychotherapy consists of cognitive behavioral and descent exercise techniques and programs. It involves for instance systematic desensitizing exercises in gradually aggravating adverse conditions.

Principles designed to strengthen introspection, self-confidence and effort of will focusing on self-correction (the ability to correct one's own mistakes and insufficiencies) are applied in order to improve mental health. The clients learn to face obstacles, not to bow down in front of them and not to succumb to them. They exercise to improve their muscle tone, learn to walk upright, proudly. Autogenous training is also employed.

Imagination psychotherapy techniques. Unhealthy attitudes and reactions are gradually reduced and clients guided towards adult, responsible and mature actions. The Katathym imaginative psychotherapy (KIP) developed by Hans Carl Leuner (1997) can also be used. It is a technique of controlled daydreaming based on abyssal and psycho-dynamically oriented therapy the theoretical bases of which are derived from Jung's analytical psychology and psychoanalysis. It is based on the presumption that the content of day dreams reflects, on a symbolic level, preconsciousness, unconsciousness and inner conflict (Svoboda, 2003)

A combined eclectic and integrating psychotherapy is prescribed at the discretion of the psychotherapist involved (Kratochvíl, 2006). For instance, rational psychotherapy is combined with relaxation techniques (using various discs as well), individual psychotherapy is combined with group therapy. Art therapy is also employed.

Eclectic-synthetic and integrating concept of psychotherapists treating difficulties is also possible.

5. Partial defects in communication abilities and skills (in particular in spoken and written speech) and cognitive processes

The symptoms of this difficulty, or disorder, as the case may be, include the following:

- *impaired sound of speech, for instance, mumbling (0 – 1 – 2 – 3)*
- *impaired fluency of speech and diction, for instance, cluttering (0 – 1 – 2 – 3)*
- *impaired articulation, for instance, lisping (0 – 1 – 2 – 3)*
- *speech defects accompanying other dominant handicaps (0 – 1 – 2 – 3)*
- *voice defects (0 – 1 – 2 – 3)*
- *reading and language learning difficulties, although the pupil may be doing well in mathematics, for instance (0 – 1 – 2 – 3)*
- *confusing words and letters – at the end of first grade or later, the pupil confuses letters similar in shape or sound, e.g., r-z, k-h, d-t, n-m, a-e, p-g, d-b (0 – 1 – 2 – 3)*
- *syllabification, unable to follow the content while reading (even in higher grades)(0 – 1 – 2 – 3)*
- *putting even simple words together with difficulty (0 – 1 – 2 – 3)*
- *difficulty in pronouncing more difficult groups of consonants and unknown words when reading (0 – 1 – 2 – 3)*
- *swapping or leaving out sounds and syllables, especially end ones, when reading (0 – 1 – 2 – 3)*
- *swapping or leaving out sounds and syllables when writing (0 – 1 – 2 – 3)*
- *writing with grammatical mistakes (0 – 1 – 2 – 3)*
- *inventing endings and syllables (often with mistakes) (0 – 1 – 2 – 3)*
- *confusing letters similar in shape or sound: s-z, p-q, m-n, h-k, z-c, b-d, t-j (0 – 1 – 2 – 3)*

The ability to distinguish between mirror letters is related to the development of conscious recognition of the right and left sides. In some cases, reading is merely markedly slow, cumbersome, but without typical mistakes. In writing, the child often

leaves out and adds letters, does not distinguish between hard and soft syllables: di-dy etc., letters are misshapen, the child confuses them, writes the letters in a word in a wrong order (dysorthography is associated with dyslexia in about 60% of cases).

Motor difficulties and disorders in connection with dyslexia were studied as early as the 1960s. In 1960, Z. Žlab compiled a set of tests designed to diagnose laterality and minimal brain dysfunction (MBD) which is still used today in some facilities. It consists of seven tests focusing on perception and motorics: throwing and catching a tennis ball, coordination of lower and upper limbs when marching on the spot (by wall bars), visual-motoric test with a colored circle, left-right orientation test, Z. Matějček's tracing test, rhythm reproduction test and speech examination with a focus on specific disorders. Motorics is stressed even in the classic work by Otakar Kučera *et al.* (1962) devoted to slight encephalopathies in children. Z. Třesohlavá (1974) in her extensive research focused on children with MBD pays great attention to the development of motorics and diagnostics of motor development. The combined occurrence of dyspraxia and dysgnosia (a developmental disorder of the ability to recognize objects) was described by Ivan Lesný (1989) who referred to it as the dy-dy syndrome, i.e., the dysgnosia – dyspraxia syndrome. Lesný classifies it as minimal brain damage and believes it is mostly caused by a disorder located in the mesencephalon. Much scholarly information on perception and motorics in MBD sufferers is contained in the publication by M. Černá *et al.* (1999).

The recognition of the relationship between dyslexia and motor disorders was already obvious in the preceding decades. The battery of tests used in the 1980s by H. Tymichová, the principal of the first school for dyslectics in Karlsbad, included J. Míka's orientation test of dynamic practice. In his book, Dyslexia (1987), Z. Matějček refers to the connection between poor articulation, poor fine motorics and poor coordination of fine motorics in writing.

Diagnostika specifických poruch učení (*Diagnostics of Specific Learning Difficulties)* by J. Novák (2002) includes a fine motorics test which is based on Lurij's neuropsychological examination. Long-term verification showed that the current examination according to J. Míka and I. Lesný contains items which lack sufficient diagnostic merit for the respective purposes. In another treatise, J. Novák differentiates between motor dysgraphia and orthographic dysgraphia (more often referred to as dysorthography). Together with J. Smutná, they discovered a dependency between the fine motorics level and auditory analysis and synthesis (1996).

The brief overview provided above shows that the Czech approach to specific learning difficulties and minimal brain dysfunctions always included motorics and motor coordination. As the diagnosis becomes more accurate, re-education improves, and so does the understanding of the child's problems (Zelinková, 2003).

A more severe *specific reading disorder* (F81.0) which is included in specific developmental disorders of school skills in the International Classification of Diseases must be manifested by the following two symptoms:

1) the accuracy or comprehension score deviates by at least two standard degrees from the level expected with a view to the chronological age and general intelligence of the child, where both the reading skill and the IQ is assessed by means of an individually administered test standardized for the culture and educational system concerned.

2) anamnesis of more severe reading difficulties or test scores meeting the above criterion at an earlier age, and written test score which deviates by at least two standard degrees from the level expected with a view to the chronological age and IQ of the child.

The specific reading disorder is not caused directly by defects in visual or auditory acuity or neurological disorder.

Other partial defects of cognitive functions include for instance reduced performance in the area of certain mental functions; disorders in speech development; counting on fingers; difficulty in abandoning an opinion and difficulty in conceiving numerical notions – *dyscalculia*, great difficulty in drawing and painting – *dyspinxia* etc.

Children with compromised communication abilities and skills are usually integrated in mainstream primary schools. However, most primary school teachers only have theoretical or no experience with compromised communication abilities. The integration of children with compromised communication abilities in primary schools would therefore benefit from the presence of a special pedagogist – speech therapist.

According to Kateřina Walková (2007), adequate development of communication abilities and skills also requires:
- correct speech model from the child's early age;
- inspiring and stimulating speech environment;
- logopedic depistage – purposeful identification of individuals with suspected impaired communication abilities;
- effective collaboration between the family, speech therapist and school;
- systematic, regular and long-term speech therapy in case of more severe difficulties and disorders;
- further education of kindergarten and primary school teachers in speech therapy issues.

6. Motor, locomotion and praxis difficulties
The following symptoms are found in individuals with these problems:
- *extremely untidy drawings and art work (0 – 1 – 2 – 3)*
- *difficulties in spatial orientation (0 – 1 – 2 – 3)*
- *cramped, excessively forced handwriting (0 – 1 – 2 – 3)*
- *clumsiness and lack of independence in self-service (0 – 1 – 2 – 3)*
- *lack of manual skills (0 – 1 – 2 – 3)*
- *difficulties in precision drawing (0 – 1 – 2 – 3)*
- *clumsiness in sports, awkwardness (0 – 1 – 2 – 3)*
- *uncoordinated walking(0 – 1 – 2 – 3)*
- *falls, accidents, injuries (0 – 1 – 2 – 3)*
- *partly paralyzed arm, leg, limping (0 – 1 – 2 – 3)*
- *retrained left hand because right hand cannot be used (0 – 1 – 2 – 3)*
- *crossed laterality (0 – 1 – 2 – 3)*
- *non-descript laterality (0 – 1 – 2 – 3)*
- *grimacing (0 – 1 – 2 – 3)*
- *tremors, tics (0 – 1 – 2 – 3)*

- *uncontrolled movements (0 – 1 – 2 – 3)*
- *defects in organization, fluency and coordination of active volitional movements (0 – 1 – 2 – 3)*
- *impaired self-perception of the body (0 – 1 – 2 – 3)*

A material prerequisite for success in school is the attainment of a certain developmental level of motor skills. That is why the diagnostics of such motor development is important also with respect to various disorders of the central nervous system. Motorics is one of the basic behavioral aspects and as such needs to be monitored in behavioral assessment.

Ozereckij's scale is used to assess the adequacy of motor development. This method was designed by *N. I. Ozereckij* and its original version published in Russia in 1923. It is designed to assess the adequacy of motor development. The test was modified several times. The most recent version of the test is the modified American one from 1978.

Description of the test: N. I. Ozereckij viewed coordination, accuracy and fusion of various movements as important indicators of motor development. The test consists of 46 items of such orientation, divided into 8 subtests. For every age group, there are several tasks to be performed by a child of that age. The test makes it possible to assess the level of individual motor competencies: it helps measure both gross motor skills, i.e., the agility of the body and lower limbs, and fine motor skills, i.e., manual skills and agility of the hands, or rather fingers. An abbreviated version consisting of only 14 items is also available.

The scale can be used as part of the battery of tests in clinical and counseling practice for individual examination of children where motor skills development or overall retardation is suspected, e.g., as part of a more comprehensive disorders, such as mental retardation. It is also recommended for diagnostics of children with minimal brain dysfunction, or ADHD syndrome, and of children with specific learning difficulties.

The American psychologist Joy Paul Guilford (1897-1987) tried to create a 2D matrix of psychomotoric skills through which he observed parameters such as strength, impulse, speed, static accuracy, dynamic accuracy, coordination and agility, gradually observing the whole body: trunk, limbs, hands, fingers (Smékal, 2002).

Various tests have been designed for the assessment of the ability of motor coordination; for instance, the composite movement test (two levers are used simultaneously to control the movement of a spike which is to follow a curved line). Studies have shown that there is a close connection between success in these tests and the controlling of machinery (Sillamy, 2001).

The diagnostics or therapy of these children is addressed in detail for instance by the English pediatrician A. Kirby in her book *Clumsy Child Syndrome* (2000).

Motor, locomotion, praxis and laterality disorders needs to be distinguished from *stereotyped movements disorders* listed in the International Classification of Diseases under diagnosis code F98.4. This behavioral disorder is manifested by the child (juvenile) producing stereotyped movements to such extent that he/she causes physical injury to himself/herself or that normal activities are greatly impaired. The disorder must persist for at least one month and the sufferer does not suffer from any other mental or behavioral disorder.

Further, disorders with *organic or somatic causes,* e.g., consequences of infantile cerebral paralysis, must also be distinguished from the above.

7. Psychomotor instability

Typical symptoms of **psychomotor instability** include for instance the following:

- *great liveliness, agility bordering on restlessness (0 – 1 – 2 – 3)*
- *unable to sit still, fidgets, leaves his/her place (0 – 1 – 2 – 3)*
- *talks without invitation, interrupts others (0 – 1 – 2 – 3)*
- *acts rashly, on impulse, without thinking (0 – 1 – 2 – 3)*
- *unable to cooperate satisfactorily (0 – 1 – 2 – 3)*
- *moves rashly, bumps into objects, falls (0 – 1 – 2 – 3)*
- *unable to focus on any game, activity, work for any length of time (0 – 1 – 2 – 3)*
- *does not pay attention, is distracted, attention problems, unable to concentrate (0 – 1 – 2 – 3)*
- *tires easily (0 – 1 – 2 – 3)*
- *moodiness, disputes, conflicts (0 – 1 – 2 – 3)*
- *conspicuous alternation of days when he/she is doing very well and days when he/she is completely out of control and does very badly at everything (0 – 1 – 2 – 3)*
- *inappropriate exclamations (0 – 1 – 2 – 3)*
- *does not observe the appropriate distance (0 – 1 – 2 – 3)*
- *engages in other activities while working (0 – 1 – 2 – 3))*
- *minor and more serious accidents (0 – 1 – 2 – 3).*

Zelinková (2003) focuses on specific learning difficulties and disorders and their causes, dyslexia, dyspraxia and MBD, also in connection with motor skills.

Newly introduced terms are syndromes abbreviated as ADHD and ADD.

The ADHD diagnostic category is used for behavioral disorders characterized mainly by hyperactivity, impulsiveness and attention disorders. Disorders of fine motor development, including specific speech disorders, can be referred to as dyspraxia. The term ADHD refers to an attention deficit disorder combined with hyperactivity. ADD is an attention deficit disorder without hyperactivity, ODD is an oppositional defiant disorder. Further classification is ADHD without aggression and ADHD with aggression.

Minimal brain dysfunction (MBD) is used to refer to a number of manifestations in the child based on structural changes of the CNS which deviate from the norm. They thus appear to be unusual, conspicuous and strange (markedly uneven development of intellectual abilities, conspicuous manifestations and disorders in the dynamics of mental processes, hyperactivity or hypoactivity, attention deficit, insufficient perseverance, impulsiveness, rashness, mood and intellectual performance swings, physical clumsiness, perception disorders, etc. (Slowík, 2007).

Hyperkinesis is referred to as motoric restlessness. Certain *hyperkinetic children* (with ADHD) may also suffer from a specific developmental motor function disorder

manifested as marked dyspraxia, clumsiness and awkwardness (clumsy child syndrome); such children for instance find it difficult to hit a target with a ball, to tie their shoelaces, to string beads, to write or draw tidily. They tend to be reprimanded for breaking or damaging things often, they usually get bad grades in physical education and may become the source of mockery because of their clumsiness. They are fairly frequently left-handed.

About one half of children with tic disorders is afflicted with hyperkinetic symptoms at the same time. Tics are repetitive, involuntary and irregular muscle convulsions which most frequently affect mimic muscles (blinking, sniffing, mouth opening) but may affect other muscle groups as well. Tics may further be auditory and vocal: the child produces various disturbing sounds, exclaims certain words or fragments of sentences. a combination of muscle and vocal tics is typically found in a severe form of the tic disorder – Tourette's syndrome, which may also include a compulsive exclamation of vulgar expressions (Drtílková, 2007).

Education based on love and respect for a higher order is the most effective prevention of all mental and psychosomatic illnesses, and as such of restlessness in man and among people.

For gross motor skills – long walks, trips, mountain hikes (but not taking a cosy ride on the funicular but making the hard climb on foot), cycling, rowing, jumping on the trampoline, jumping in a sack, dancing, jazz gymnastics, clearing of snow, sweeping, gardening – hoeing, weeding, etc.

For fine motor skills – all types of handiwork without using electrical appliances: filing, modeling, crocheting, knitting, fruit picking, cleaning of vegetables (potato or apple peeling), dough kneading, string spooling (Prekopová, Schweizerová, 2008).

Under certain circumstances, psychomotor instability can be referred to as **hyperkinetic disorder** in accordance with the International Classification of Diseases (10th edition), diagnosis code F90, which may be specific to home or to classroom.

The condition is for instance that the combination of certain selected symptoms must persist for at least 6 months and the symptoms have to be sufficiently severe to be maladaptive and in conflict with the child's developmental level. The disorder manifests itself before the 7th year of age, not later.

Monographs on children suffering from **ADHD** (Attention Deficit Hyperactivity Disorder) have been written for instance by Gordon Serfontain (1999), a child neurologist at the Sydney children's hospital. Serfontain claims that these disorders occur in as much as 20% of boys and 8% of girls.

In the Czech Republic, the **LDE** concept (Kučera, 1961) was applied in connection with this disorder.

8. Social, educational and cultural neglect

Individuals with this difficulty manifest for instance the following symptoms:
- *poor preparation for school (0 – 1 – 2 – 3)*
- *educational problems, although the child's intellectual gifts are within the norm (0 – 1 – 2 – 3)*
- *poor understanding of information newly presented at school due to large gaps in knowledge (0 – 1 – 2 – 3)*

- *primitive and vulgar forms of social communication (0 – 1 – 2 – 3)*
- *small vocabulary (0 – 1 – 2 – 3)*
- *developmental problems in speech and written language (0 – 1 – 2 – 3)*
- *poor grooming (0 – 1 – 2 – 3)*
- *disorder in private things (0 – 1 – 2 – 3)*
- *lack of interest in reading magazines and books (0 – 1 – 2 – 3)*
- *lack of interest in cultural matters (0 – 1 – 2 – 3)*
- *lack of interest in theatre plays and serious cinema (0 – 1 – 2 – 3)*
- *retarded somatic development, stunted growth, low weight etc. (0 – 1 – 2 – 3)*
- *poor hygienic routines (0 – 1 – 2 – 3)*
- *unpleasant bodily odor (0 – 1 – 2 – 3)*
- *dirty aids (0 – 1 – 2 – 3)*

Families of socially neglected children often tend to be primitive (simple), providing few psychosocial and cultural incentives, or even defective (alcoholism, drug abuse, criminal activity, mental illness), and generally insufficient in terms of upbringing.

A disturbed family (incomplete, defective, in crisis) creates worse prerequisites for the formation of its children's development than a complete and undisturbed family. a broken family, especially due to divorce, correlates positively with anxiety symptoms, for example.

Manifestations of psychosocial neglect are frequently accompanied by further problems and disorders: increased mental tension or even neurosis, antisocial behavior, etc.

The hostile relationship between the parents and the child often leads to child mistreatment, abuse (e.g., sexual), sometime even to the child's physical liquidation.

Socially neglected children have to be distinguished from *children with a socio-cultural handicap*. The latter may for instance concern children of immigrants who find adaptation to the new environment difficult because of national customs or language barrier.

9. Problems in school performance

Individuals with problems in school performance:
- *suffer from learning difficulties (0 – 1 – 2 – 3)*
- *have results below average despite significant effort (0 – 1 – 2 – 3)*
- *do not learn logically and rationally (0 – 1 – 2 – 3)*
- *have a negative attitude to school and learning (0 – 1 – 2 – 3)*
- *fail to comprehend (á) (0 – 1 – 2 – 3)*
- *tend toward mechanical memorizing (0 – 1 – 2 – 3)*
- *are slow to understand new information (0 – 1 – 2 – 3)*
- *seem to be overworked, mentally exhausted (0 – 1 – 2 – 3)*
- *tend to suffer from low self-confidence (0 – 1 – 2 – 3)*
- *feel inadequate or even inferior (0 – 1 – 2 – 3)*
- *are passive aggressive, refuse social communication (0 – 1 – 2 – 3)*
- *have a poorly developed ability to abstract (0 – 1 – 2 – 3)*

- *find it difficult to apply rules in practice (0 – 1 – 2 – 3)*
- *have poor understanding even of common notions and ideas (0 – 1 – 2 – 3)*
- *tend to be intellectually passive (0 – 1 – 2 – 3)*

Where grades are very bad and lack of success at school marked, it first needs to be established what type of failure is involved, whether it is a more permanent and general, ***absolute*** school failure (i.e., learning insufficiency stemming from insufficiently developed intellectual abilities), or whether it is an occasional or partial, ***relative*** school failure (the pupil has poor results for reasons unrelated to his/her intellect), which can usually be rectified. Where relative school failure is concerned, the pupil's performance is poorer than his/her intellectual (mental) abilities and qualifications. This may be due to a crisis, increased tendency to fatigue, neurotic reactions, temporarily reduced motivation, etc.

Absolute and relative school failure both reflects and is the consequence of individual differences between pupils which we find not only in the pupils' personalities (e.g., the level and structure of gifts, nature, interest in learning, emotivity, motivation, harmonious or disharmonious personality development), but also in the different conditions of their upbringing in their families. Low grades and school failure are usually not caused by a single cause but rather by multiple causes. All the cases of poor results are caused by an individual combination of causes and conditions, and display their own individual developments and dynamics.

Relative school failure may be caused by socio-psychological, biological-psychological and intrapsychic factors. a single isolated handicap (e.g., worse conditions in the family) does not automatically have to have a determining impact on the pupil's success at school. School failure is usually due to a combination of several conditions and causes.

10. Problems in professional and study orientation and adaptation
The following are deemed to constitute problems in professional and study orientation and adaptation:
- *indecisiveness in the choice of career or school (0 – 1 – 2 – 3)*
- *lack of interest in further study (0 – 1 – 2 – 3)*
- *lack of interest in a specific profession (0 – 1 – 2 – 3)*
- *laziness (0 – 1 – 2 – 3)*
- *absence without excuse (0 – 1 – 2 – 3)*
- *tendency to job hopping (0 – 1 – 2 – 3)*
- *failure to observe sanitary rules at work (0 – 1 – 2 – 3)*
- *failure to observe safety rules at work (0 – 1 – 2 – 3)*
- *inadequate and unrealistic choice of career (study) in terms of ability or motivation etc. (0 – 1 – 2 – 3)*
- *lack of involvement in the choice of career or study (0 – 1 – 2 – 3)*
- *passive or indifferent approach to one's own future (0 – 1 – 2 – 3)*
- *manifestation of difficult adaptation to the chosen field of study or profession (0 – 1 – 2 – 3)*
- *manifestation of negative attitude to the chosen field of study or profession (0 – 1 – 2 – 3)*

- *effort to change or leave the field (0 – 1 – 2 – 3)*
- *tendency to professional liability within the specific profession (0 – 1 – 2 – 3)*

Professional orientation of schools and psychological counseling play an important role in the process of self-recognition and self-understanding and maturing for the choice (selection) of career (study). Psychological examination of the pupil's personality and prognosis of school and later on professional performance (comparison of the pupil's personality traits with a professiogram) is often very valuable. Most people can practice a variety of professions because they there is ample room for various compensations, outweighing of weaknesses by strengths and in particular learning of various specific professional skills and routines.

Information on the results of a psychological examination may play an important role in the process of teachers getting to know the pupil, as well as the process of the pupil's self-recognition and self-evaluation. a pupil who understands himself/herself well is more likely to adapt well than a pupil with a poor level of self-recognition and self-understanding. Self-recognition and self-understanding basically mean that one can precisely describe one's strengths, weaknesses, experience, requirements and goals, can predict one's behavior and manage and control one's behavior more easily. Self-recognition and self-understanding contributes to an appropriate self-acceptance which is one of the goals of psychological counseling. After all, counseling strives to inform the subject of examination of the level of his/her individual personality traits with a view to psycho-correction and self-education of his/her interpersonal relations, the relationship to himself/herself and success in the chosen profession (or study).

People who are more cognizant of their personality and work environments make better career choices than people who are less well informed. The adequacy of career choice is also partly determined by age because passage of time offers more opportunities to gather information. People with more adequate career choices posses more differentiated knowledge of professions and are aware of professiographic requirements of individual professions.

Problems in professional and study orientation and adaptation often occur in infantile, immature children with infantile personality traits.

Ondřej Janovec (2009) notes than young people are put under an escalating pressure during study, study requirements are growing, the number of highly specialized study programs is also on the rise. In the world of great possibilities and opportunities where a young woman or man can choose a field tailored to his/her abilities and wishes, young people are sometimes "confused" and unable to find their bearings in the offers and alternatives related to further study which thus shape their paths for the near future. Whether this situation is caused by indecisiveness in their choices or lack of interest in their future fate, the people around them should intervene and help the young man/woman in his/her self-recognition and choice of study field corresponding to his/her ideas, as well as abilities and skills. There are many specialized facilities offering career advice. For some people, it is sufficient to hint at various alternatives while others need several sessions to arrive, with the expert's assistance, at the recognition of themselves and their abilities, and to realize whether their ideas and wishes are realistic.

Advice focusing on assistance in the education and upbringing of children and career and study orientation has been on offer within our educational system since the 1960s. It was provided for in Decree No. 130/1980 Sb. of the Ministry of Education of the Czechoslovak Socialist Republic. In 2005, a new decree on the provision of advice at schools and educational counseling facilities (No. 72/2005 Sb.) entered into force.

Pedagogical and psychological counseling centers provide in particular comprehensive pedagogical and psychological examination of children and adolescents. Most frequently addressed issues include the identification of causes of learning and behavioral difficulties, career and study orientation (career advice), etc. a special type of educational counseling centers is represented by counseling centers for special psychology which work with pupils with health handicaps. These provide special pedagogical and psychological advice to children with impaired sight, hearing, mental or physical handicap, help prepare individual educational plans for integrated pupils and provide methodological support to schools.

Counseling provided directly at schools can be considered the most important element in the prevention of educational and pedagogical problems. Every pupil or student should enjoy suitable conditions both for his/her education and the development of the personality-linked qualities of his/her life. Primary and secondary school principals are responsible for the quality of school counseling. Pedagogical and psychological counseling is usually procured by a teacher – career advisor, in-house prevention methodologist, in-house special educator, psychologist from a pedagogical and psychological counseling center or an in-house psychologist. The counseling team at the school ought to identify pupils, students and entire classes at risk, in particular with a view to prevention of school failure and undesirable behavior. On the other hand, the counseling team should provide support in the choice of an educational path which leads to career success, to support and integrate children with special educational needs. These are usually extremely gifted pupils or pupils with developmental learning disorders, sometimes also individuals coming from other cultural environments. All those require individual support in the modification of educational method, or professional help in the design of an individual educational plan.

As the question of future career is sometimes a difficult one for primary school pupils, the Ministry of Labor and Social Affairs and the National Educational Fund came with the idea of a calendar which would help pupils in their last year decide "where to go from there". The calendar was first issued in 2001. The calendar was designed in order to create a basic material which would serve as a basis for decision-making and facilitate discussion on future careers between pupils, teachers, parents and career advisors.

To decide on future career is very difficult for a young person, and his/her choice may significantly influence the entire further future life of the young girl or boy. Not all young people certainly give their ideas a long-term consideration and are able to imagine what exactly their chosen field and profession involve.

A mandatory consultation of the pupil's ideas of his/her future choice of career or school with a career specialist competent to assess whether the young person's plans are realistic and what the prognosis is therefore desirable.

Re-education and psychotherapy of difficulties

Re-education refers to special pedagogical methods which develop or correct impaired functions and activities.

Behavioral and experiential difficulties must be given special attention because their early identification and intervention may mean that the development of serious behavioral disorders, personality disorders and illnesses in children and youth can be arrested. The educator is often the first person who is able to recognize various peculiarities, behavioral and experiential difficulties and disorders which indicate a threat to the normal, healthy mental development of the pupil (student) and consequences for his/her social integration. By alerting specialists (psychologists, psychiatrists etc.) to the problems and assisting in the resolution of the problems in cooperation with those experts, the educator actually performs depistage and prevents further escalation of the difficulties. Children with such behavioral and experiential difficulties require non-standard, often more tolerant and truly individual approach from the educator, still ultimately with not very satisfactory or even unsatisfactory outcome, especially with a view to the growing number of problem children in recent years. Problem children and youth could in many cases be diagnosed as children and youth with difficulties. Difficulties may generally be rectified either by psychological means, or by special pedagogy or therapeutic and pedagogical means.

Psychotherapy as a method and technique of treatment may generally be rational, suggestive, abreactive, training, imagination or combined, individual or group.

Rational psychotherapy offers adequate, logical explanation comprehensible to the client, advice (persuasion), explication and clarification of the substance and causes of problems and recommendation of measures and procedures in the area of mental hygiene. It may be supplemented with long-term regulatory or psychagogic guidance towards healthy life and work style and an adequate value system. It is close to education and mental hygiene.

Suggestive psychotherapy and hypnotherapy offers one-off or systematic therapeutic suggestions which may either be applied directly in hypnosis or, in a situation of mere wide-awake rapport in less hypnable individuals. It does not primarily appeal to the logical thinking and actions of the client, but rather on the client's emotivity and suggestibility. Some clients respond better to authoritative, "fatherly" suggestions of the therapist, some to more permissive, convincingly applied "motherly" suggestion accompanied by social support.

Abreactive psychotherapy, or rather abyssal abreactive psychotherapy (AAP), or rather regression therapy, employs associative memories of mental and psychosomatic problems experienced by the person in the past in stressful and traumatizing situations when the person was in a state of narrowed consciousness or even unconsciousness to induce abreaction. In some cases, various psychopharmaceuticals inducing a state between wakefulness and sleep are used. Narcotics which can be inhaled are also available. Tensions, anxieties and fears are released in a controlled fashion. Also abyssal abreactive psychotherapy or regression therapy.

Training psychotherapy consists of cognitive behavioral and descent exercise techniques and programs. It involves for instance systematic desensitizing exercises in gradually aggravating adverse conditions.

Principles designed to strengthen introspection, self-confidence and effort of will focusing on self-correction (the ability to correct one's own mistakes and insufficiencies) are applied in order to improve mental health. The clients learn to face obstacles, not to bow down in front of them and not to succumb to them. They exercise to improve their muscle tone, learn to walk upright, proudly. Autogenous training is also employed.

Imagination psychotherapy techniques. Unhealthy attitudes and reactions are gradually reduced and clients guided towards adult, responsible and mature actions. The Katathym imaginative psychotherapy (KIP) developed by Hans Carl Leuner (1997) can also be used. It is a technique of controlled daydreaming based on abyssal and psycho-dynamically oriented therapy the theoretical bases of which are derived from Jung's analytical psychology and psychoanalysis. It is based on the presumption that the content of day dreams reflects, on a symbolic level, preconsciousness, unconsciousness and inner conflict (Svoboda, 2003)

A combined eclectic and integrating psychotherapy is prescribed at the discretion of the psychotherapist involved (Kratochvíl, 2006). For instance, rational psychotherapy is combined with relaxation techniques (using various discs as well), individual psychotherapy is combined with group therapy. Art therapy is also employed.

Eclectic-synthetic and integrating concept of psychotherapists treating difficulties is also recognized as possible.

If we wish to identify the correct individual type, or rather re-educational approach, the right type of educational incentives, stimulation, motivation and activation of the child, we first need to realize what type of behavioral difficulty, behavioral or personality disorder we are dealing with. The types of educational stimulation used for children with a complex personality will differ from those used for pupils with reduced or disharmonious mental faculties, minimal brain dysfunction, neurotic or psychopathic children, etc. a differentiated approach has to be applied to form positive attitudes and personality traits in different types of problem children.

Impaired motor skills may affect a number of school abilities, skills and performance. The child may struggle with the selection of activities in physical education due to physical clumsiness, integration into the group, clumsiness during games due to poor fine motor skills, lower agility of organs of speech, all of which affect communication, self-perception of the body and space, and last but not least, causes writing difficulties.

Deficits in cognitive functions are manifested in connection with motor skills. These include for instance insufficient development of graphomotorics which may be manifested by slow writing, difficulty in emulating the shapes of letters. The child may further struggle with geometry and other subjects requiring at least some degree of manual skill. Motor skills are one of the tools of cognition, allow us to handle objects, and thus serve as a basis for the understanding of mathematical operations.

Serfontein (1999) advises us how children with gross and fine motor difficulties and disorders may appear to teachers, and offers certain practical solutions.

Children with *gross motor* difficulties or disorders seem clumsy, ungainly, their movements uncoordinated. They can hardly compete with their peers during physical education classes, and in the classroom, they tend to "stumble" over desks, chairs and other furniture. This goes hand in hand with self-depreciation and sense of inferiority. Gross motor skills concern all muscle groups, the ability to move various parts of the

body in a controlled fashion and to coordinate movements depending on external and internal factors, such as gravity force, side orientation and gravity center of the body. The aim of the exercises is to teach the child to move fluently and efficiently, and last but not least, to improve the child's spatial orientation and self-perception of the body. a child with a gross motor skill disorder needs a tailored exercise regimen. Including such child in group exercises and games is not advisable at first. The teacher should focus on overcoming the specific problem troubling the child.

Teaching methods designed to improve gross motor skills include basic exercises, such as walking backward, forward and to the sides. The child follows a straight, zigzag, broad or narrow route, may be required to negotiate various obstacles while keeping his/her arms in a certain position. a more demanding activity for children with gross motor skill disorder is represented by rope skipping which combines both technique, rhythm, balance and coordination of movement.

Pupils with *fine motor skill* difficulty or disorder usually have problems with the handling of objects and activities requiring precise fingerwork. Their problems are manifested in writing, drawing, tying of shoelaces, buttoning, joining of objects and cutting with scissors. Handiwork and drawings of such pupils resemble work of much younger children. Some may be very gifted in terms of gross motor skills but their fine motor skills tend to be below average.

In this context, Serfontein (1999) proposes activities such as tracing, pouring water into a vessel, cutting with scissors, buttoning and tying of shoelaces which help develop fine motor skills and coordination. For older children, embroidery is an example of a suitable activity.

Teachers and parents need to select age-appropriate exercises for the development of motor skills. Pupils at senior primary school ought to be given more difficult exercises, or simple exercises ought to be made more demanding.

Correct development of motor skills includes **self-perception of the body.** According to Serfontein (1999), this notion refers to the recognition of one's own body and its abilities. The activities are conceived in such a way so as to help the child develop correct ideas of the position and function of individual body parts. They include the naming of body parts. The child makes a life-size outline of his/her schoolmate with chalk on the ground or with pencil on a sheet of paper. The children then swap their roles in terms of tracing. The pupils draw in details into the outlines of their own bodies – facial features, fingernails, etc. Cracking a puzzle. Pantomime. The children mimic various professions and activities – a bus driver turning the steering wheel, a policeman directing traffic, a postman delivering mail, and a chef busy in the kitchen.

The notion of a body scheme which is, according to Kotasová (2000), used by authors studying processes at the root of comprehensive motor action, is related to this. They face the complexity of relations between the motor, gnostic a emotional systems, and try to explain how the coordination between the systems takes place in the course of motor action. On a more general level, this notion can be viewed as an effort to capture and describe, based on the achieved level of cognition, the diversity and specificity of relations between physical (neuro-physiological basis of the execution of motor reaction) and mental (gnostic and emotional component of a motor act) attributes of a motor expression of the individual.

Deviations in the development of grapho-motor skills in a child with difficulties are manifested in particular by an uneven development, or development which is retarded with a view to the child's age. During school attendance, when the pupil is learning to write, deficiencies in grapho-motor skills could signal problems and disharmony in psycho-motor abilities.

Grapho-motor problems and disorders are most frequently manifested by a poor coordination of body movements and articulation organs which makes correct pronunciation difficult. This is due to the relationship between motor functions and the child's psyche and the maturing of his/her nervous system. Early detection of individual problems and deficiencies in the child's grapho-motor development may therefore play an important role in the prevention of writing disorders which would otherwise only be manifested during school attendance. Sluggish writing pace and insufficient automation of grapho-motor movements would then cause the child serious problems in all his/ her attempts at written expression (not only in writing classes). Should problems with mastering the correct letter shapes persist, the child's handwriting would be not only untidy, cramped and messy but also difficult to read and comprehend. Moreover, if the child becomes more aware of his/her problem, it may weaken its inner motivation as far as writing is concerned, and that leads to written expression which is poor in content and uncreative (Lipnická, 2007).

In the Czech Republic, there is an educational counseling system which, pursuant to a decree on educational counseling, includes educational counseling centers: pedagogical and psychological counseling centers and special pedagogy centers, as well as in-house counseling centers at primary and secondary schools. The Ministry of Education, Youth and Sports established the Institute for Pedagogical and Psychological Counseling which provides methodological guidance to the entire educational counseling system (Pešová, Šamalík, 2006). Pedagogical and psychological counseling centers are staffed by psychologists, special pedagogists, prevention methodologists, social workers, and in some cases, also social pedagogists. Special pedagogy centers staffed by psychologists, special pedagogists, and social workers are intended to work with children with certain handicaps. In-house counseling centers at schools are staffed by an in-house psychologist, in-house special educator, in-house prevention methodologist and career advisor. In the counseling work, less and more severe difficulties must be distinguished. Where the disorders are more severe, cooperation is required, not only with the family and school, but also with a psychiatrist or other health specialists.

Re-education means renewed education using special pedagogic procedures and work methods designed to develop impaired or undeveloped functions.

There is no single re-educational approach suitable for all children: it needs to be based on the individual child and the specific manifestations of his/her difficulty or disorder. Re-education has to be based on quality diagnostics of problems, their severity and manifestations, as well as the condition of mental functions.

Re-educational methods and tools and areas on which activities should be focused are identified. Re-education starts at a level where the child can still manage, and only then demands are escalated. For instance, deficiencies and disorders in motor skills, locomotion and praxis are first addressed by exercising perceptive-motor functions which are the cause of the problems and which needs to be addressed and developed.

For instance, where the child suffers from dysgraphia, the training starts with relaxation exercises of the entire hand, with a focus on both gross and fine motor skills; coordination of movements is also practiced. Where the disorder is combined with dysorthography or dyslexia, sensory perception exercises are also included – visual and auditory perception. Reeducation employs an approach involving as many senses as possible, in combination with the word, movement and rhythmization. It is important to design exercises targeting the specific problem, and to monitor their effect. Some children require further care in their regular school environment even after the reeducation process is completed; for instance, a slower writing pace, poorer handwriting quality and layout need to be tolerated. a sensitive personalized approach to the child and his/her parents is a must.

As with other difficulties and disorders, the sooner we start working with the child, the greater the chances of improvement. Reeducation is a long-term process. The main objective is to teach the child to live in regular living conditions. The situation is more serious in those cases where the difficulty or disorder was not adequately diagnosed. In a regular class, individual approach may be difficult for the teacher who, however, may help the pupil with a learning difficulty or disorder by giving him/her more time to complete assignments, by allocating shorter assignments to the pupil, by using various aids. The teacher should first and foremost assign tasks which can be fulfilled and should know how to praise.

Conclusion

Personality development is not the same in all children, and is often not ideal. Educators and psychologists must seek ways for working with the mental abilities and potential personality of all pupils, more effectively than ever before, so as to help their pupils be successful at school, in the work process and in life.

Special attention needs to be paid to behavioral difficulties in children and youth, their detection, classification, prevention and rectification.

Ten categories of behavioral difficulties were proposed; these need to be distinguished precisely from behavioral disorders and personality disorders.

If the school is to work successfully with problem children, school staff need to be informed not only about the basis of learning difficulties and behavioral disorders, but also about forms of depistage of children with behavioral difficulties and disorders, about interventions and options for continuous and systematic cooperation with pedagogical and psychological counseling centers, bodies involved in child and family care, courts, police, etc.

Behavioral disorders caused by personality disorders, neurosis, mental retardation or dementia need to be addressed in collaboration with psychiatric facilities for children and youth.

Difficulties, i.e., educational and learning difficulties which still fall within the broader norm, can be resolved by means of pedagogical and psychological tools.

Difficulties are usually determined by an entire complex of conditions and causes which is important both for their diagnostics and rectification.

The conditions and causes for the occurrence of behavioral difficulties can be the following:

- *biogenous* – congenital factors, including heredity
- *sociogenous* – e.g., parentogeny (caused by the family), pedagogeny (caused by upbringing or education – Helus, 1991)
- *psychogenous* – due for instance to intellectual passivity, escalated pubescent changes of nature, etc.

Educators need to exert a deliberate, purposeful and consistent influence over the individuals being educated so as to ensure positive development of their personalities.

For such efforts to be effective, we first need to get to know the children in the educational process well. Such knowledge is a must. That is why we perform pedagogical diagnostics during our educational efforts. The detected condition then serves as a basis for an individual re-educational approach to the children, as well as the procurement of further adequate specialized professional help, if required.

IDENTIFIKACE, REEDUKACE A PSYCHOTERAPIE DIFICILIT A PORUCH CHOVÁNÍ A PROŽÍVÁNÍ

Abstrakt: Závady v chování a prožívání (dificility) a jejich srovnání s poruchami chování a poruchami osobnosti uvedenými v Mezinárodní klasifikaci nemocí (MKN). Explorativní analýzou kasuistik pedagogicko-psychologických poraden a metodou Delphi bylo na základě výzkumu stanoveno 10 diagnostických jednotek, které se liší od poruch chování a poruch osobnosti uvedených v Mezinárodní klasifikaci nemocí. Byla vytvořena teoretická koncepce dificilit a byly navrženy praktické konsekvence pro práci pedagogicko-psychologických poraden, školních psychologů (výchovných poradců) a učitelů s dificilními dětmi.

Klíčová slova: závady chování, poruchy chování, výzkum, dificility, poruchy osobnosti, diagnostika, identifikace dificilit, náprava dificilit a poruch chování, reedukace, psychoterapie

RISK BEHAVIOR AMONG ELEMENTARY SCHOOL PUPILS AND HIGH SCHOOL STUDENTS WHILE WORKING WITH COMPUTERS AND THE INTERNET

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Abstract: *Computer technology, computer networks, mobile phones and other advanced information and communication technologies (ICT) allow a rapid exchange of information and bring new opportunities in employment, science, education and entertainment. An ill-considered use of ICT by children and young people in particular may lead to many health and social disorders. Quantitative research carried out in all regions of the Czech Republic addressed 1072 pupils from 26 schools (elementary and high schools) in the form of an anonymous questionnaire. Its questions were related to their leisure time activities, work with ICT, and offensive behavior via ICT. The results have shown that there is a low level of parental control; 30% of respondents have already experienced offensive behavior via ICT. Only 5% of the sample have addressed their parents when dealing with a problematic situation, while more than 50% of the respondents are willing to make their personal data public after one year of on-line communication. It is necessary to strengthen parents' interest in their children's free time and in how they handle ICT, as well as to build trust between the two parties and apply early solutions to problems. As for the school environment, it is necessary to deepen the information literacy of pupils with an emphasis on their personal safety and netiquette.*

Key words: *safety, questionnaire, game, ICT, Internet, computer, prevention, risk, student, school, offensive behavior, free time, research, abuse, pupil*

Introduction to the field of study

Information and communication technologies (ICT) have spread very quickly from the military and academic environment to the common user and have gained great popularity. ICT are used not only for performing a job but also in households and for leisure time activities (Procházka, 2010).

Billions of people worldwide use mobile phones and the Internet to communicate. It is only necessary to dial a number or click a mouse. Among the Internet's benefits for communication use is the ability to access and diffuse information, interactivity in the exchange of messages and the speed of acquiring contacts (Vybíral, 2000).

The history of the world-wide computer web began in the 1950s when Americans were making an effort to keep up with the Soviets, who at that time had already began applying space technologies to military use. There was a particular concern about a nuclear attack that could threaten large areas of America and its allies, and knock out their defense and communication systems (which had been centralized). Researchers at RAND (*Research ANd Development*) came up with a unique solution – build a network that would not have a central node and that could deliver information to recipients via other routes in the event that other lines are destroyed (Kras, 2001).

In the United States a special government agency called ARPA (*Advanced Research Projects Agency*) was established to deal with advanced research projects. In 1969, an experimental network called ARPANET was launched. The network was expanded from its original 20 nodes of strictly military and government type (in 1971) to more than 200 nodes (in 1981) including the academic environment. Computer technology at that time was only available to large institutions. It was considerably large, expensive and (from today's perspective) not very effective. It also required qualified administrators. For the first time, the term "Internet" was used and commercial users were also able to connect to the network and make use of it. Since the 1980s the computer has been getting smaller in size, unlike its performance and accessibility, which have been increasing. It has been designed as personal for single-users (Blábolil, 1997). Since the 1990s the number of Internet users has been growing exponentially; more than doubling each year. We have been witnessing an era which is significantly affecting mankind's behavior – the Internet age. Today's worldwide computer network is a global cyberspace – an inexhaustible source of information and ideas which can be accessed by several billion users (Kras, 2001).

The development of a global web of pages known as the World Wide Web (WWW) is another crucial milestone in the development of the Internet. This is a system of communication taking place via multimedia and hypertext links that make presentations posted on the Web attractive from both a user's and a commercial perspective. Nowadays virtually every user can publish their thoughts on the Internet (Blábolil, 1997). In 1992 development was begun on a graphical web browser – the Mosaic project *(*Kodýtek [on-line], 2006), the Czech Republic (former Czechoslovakia) was officially connected to the Internet on 13 February 1992. At first it had only 2 nodes (Prague, Brno) linked by landline. Over time this backbone was expanded to other cities and competitive projects came into existence. The capacity of the network was initially available to academic and non-profit organizations, and since 1995 it has also been accessible to the commercial sector, which provides capital for its further development and operations (Zemánek, 2004).

Within the Internet network users can make use of several standard services. Most often it is the World Wide Web (WWW), which is as a system of interlinked hypertext documents providing an extensive virtual space of information (Broža, 2004). Others that are worthy of notice are HTTP (Hyper Text Transfer Protocol) – a structured text with links to other sites, texts, images, sounds, animation and other files (Říha, 1996) and FTP (File Transfer Protocol) – a tool used for bulk file transfer, placing graphics, music and videos on websites (Musil [on-line], 2003a). In the case of electronic mailing (e-mail), this is a form of fast communication between institutions, companies and private persons. Such messages can contain text, sound, images, and videos (Říha, 1996).

E-banking (electronic banking) is nowadays offered by all banks. With a client ID and password it is possible to instantly determine the status of one's account and to perform various banking transactions at any hour of the day or night and from any distance (Elektronické bankovnictví [on-line], 2010). IM (Instant Messaging) allows direct communication within a network in real time. News (UseNet, NetNews, NewsGroup) are theme-oriented discussion groups where one can read news, respond to them and publish their own. All content is accessible to everyone (Musil [on-line], 2003b). The „Newspaper" service accelerates access to information clearly sorted into sections. Virtually every major printed book also has its electronic mutation. There are also books distributed exclusively by electronic means. It is possible to comment on one's posts and have discussions about them (Kras, 2001). Trading and shopping (e-business, e-commerce, e-shop) represent a growing segment of services on the Web. Currently, it is possible to purchase a vast range of goods and services and pay via the Internet or by text message. Goods are usually delivered through couriers or by COD mail. (Vitovský, 2006) WAP (Wireless Application Protocol) assures the operations of electronic services optimized for mobile phones, which thus enable the display to act as an Internet browser. Television and radio broadcasts shared on the Internet allow us to watch most programs live or after their first run (Kras, 2001).

The benefit of extensive computer networks is the sharing of information regardless of geographical distance and that the information is available to practically any user of the network within seconds (Veřtát et al., 1993). The revolutionary development of ICT affects a large number of aspects of human life: on one hand it helps to rationalize and simplify a vast range of human activities. On the other hand it provides space for committing crimes. Today's children and adolescents spend more and more time at the computer, being virtually swallowed up by the Internet phenomenon. The results of a 2000 worldwide survey carried out by the Media Metrix agency showed that 7.6% of children aged 2 to 11 years old and 11.9% of teenagers surf the Internet. It can be presumed, based on the results, that more than a quarter of the children's Internet population in the Czech Republic has not reached the age of 18 yet. Nowadays almost every child has access to the Internet; a part of their life takes place in a virtual environment and they consider this fact to be natural and normal (Co dětem hrozí na internetu [on-line], 2010).

When working with computers and while using the Internet, children and adolescents are exposed to a number of risks. Among the most significant are the following:

- Incautious and thoughtless disclosure of sensitive information, which is thus at risk of being abused; it is possible to create a profile of a particular user by linking his/her traits left in cyberspace (even without any specific knowledge) by means of search engines (Dočekal [on-line], 2010);
- Commercial use and abuse of data from children and young people obtained from social networks, a compilation of a comprehensive profile of the personality and their family, tracking future victims of crime (Procházka [on-line], 2010);
- Posting and abusing inappropriate content on social networks; Facebook as a worldwide domain has exceeded 2 million users within the Czech Internet environment over the last few years (Dědiček, 2010);

- Flaming i.e. aggressive, insulting and hostile behavior expressed via the Internet; e-mail, discussion forums and chat can be thus used to hold fiery discussions without logical reasoning in order to insult, humiliate and attack; elementary rules of the Internet communication – so-called 'netiquette' – are thus being violated (Flame war [on-line], 2010);
- Hacking – breaking into information systems in order to explore such systems and identify their features, usually without leaving changes to their operations and other damage (Jirovský, 2007);
- Cracking – breaking into information systems in order to obtain data, change their content, features, to gain profit and commit other crimes; the so-called "script kiddies" are adolescents with minimal technical knowledge who draw attention to themselves by attacking ICT. It is also necessary to mention violations of copyright and intellectual property rights, which are done by users who illegally offer computer programs and multimedia files, delete and circumvent included protective elements (Rychnovský, 2005).
- Phishing – a form of fraud on the Internet, spoofing/eliciting, acquiring and abusing trust and personal data of an inexperienced and naive user, e.g. their login IDs, passwords, account numbers, PIN codes, etc. (Phishing [on-line], 2010);
- Child grooming – deliberate and manipulative behavior towards children and adolescents applied via the Internet, most often by the means of chat rooms, e-mail, dating sites and ICQ in order to gain a child's trust under false pretenses. Child groomers appear to listen to and understand children while collecting as much information as possible at the same time. Such information is then used to blackmail and hurt the child, or abuse the child for pedophile and terrorist acts while meeting him/her in person (Cyber grooming [on-line], 2010).
- Cybersex – derogatory or vulgar Internet communication (words, text, pictures, videos) of a sexual nature whose range and form can vary – e.g. flirting, pornographic material, intimate advances, spy cams (i.e. voyeurism or exhibitionism via web cams) (Až 25 miliónů lidí denně provozuje kybersex [on-line], 2010);
- Pedophilia, pornography – the promotion and obtaining of this material has been made much easier within the Internet environment (Weiss, 2002). Child pornography is the most profitable sector of the film industry (Milfiát, 2008; Vaníčková, 2009). The dissemination of pornography is not a crime in many countries. However, due to the transnational nature of the Internet, sites with illegal content are visible also in countries where the dissemination of pornography is considered to be a crime (Matějka, 2002). Children are not only in the position of victims, but also in the position of knowingly or unknowingly supplying sensitive materials and sexual services (Milfiát, 2008; Kožíšek, 2010; Viktora, Vokáč, 2010).
- SMS spoofing – all mobile network operators provide services connected to the Internet, among other services it is possible to send text messages, e-mail, and browse web pages. A child who does not usually even think of verifying the sender of a received text message (which can be anonymous and faked) can get to a dangerous situation (Klíma, 2005; SMS Spoofing [on-line], 2010).

- Malware – a shortened term meaning malicious software, referring to the spreading of harmful codes (e.g. viruses, worms, Trojan horses) that can break into computer systems and damage them, distribute unsolicited advertising, rob or access sensitive data (Hlavenka, Samšuk, 1996; Kocman, Lohniský, 2005; Kuneš, 2006);
- Spamming – unsolicited bulk messages of mostly advertising nature which are distributed on a mass scale primarily by e-mail. However, they also infest discussion forums and social networks. Opening a spam message threatens the user, e.g. by infecting the computer with a virus or by transferring them to harmful sites (Matějka, 2002);
- Hoax (falsehood, deception, mystification, fake) – chain e-mails which generally come in the form of false alarm messages containing, for instance, warnings against non-existent threats and which encourage recipients to forward the message (Únos dětí v obchodním domě [on-line], 2010);
- Cyberbullying – violent and degrading acts of individuals or groups against a weaker individual who cannot escape from the situation, is unable to effectively defend themselves (Vágnerová, 2004). As far as children are concerned, this usually means recording and publishing videos and pictures of children and teachers in discrediting situations by means of a computer, the Internet or mobile phone (Doubrava, 2010);
- Cyberstalking – persecuting or stalking followed by a subsequent aggressive behavior via the Internet and mobile phones with the intent to hurt the victim and demonstrate the power and strength of the attacker (Kyberstalking [on-line], 2009);
- Cyberterrorism, promotion of violence and aggression – violence is gradually becomimg a part of our everyday experience, even in the case of symbolic violence presented by the media; our society is beginning to consider violence to be a normal phenomenon (Vágnerová, 1997). According to Jirovský (2006), cyberterrorism is a link between cyberspace and terrorism associated with current global threats, illegal activities aimed at computers, computer networks and information stored within them in order to intimidate or force users to promote social and political goals.
- Promotion of religious sects and extremist movements – children and young people are a very vulnerable and highly impressionable group, the high degree of anonymity of the Internet environment enables these sects and movements to present their activities, enable the recruitment of new members and mobilize their sponsors (Šmahel, 2003);
- The spreading of the ideology of a purely consumer way of life, preferring money, success, selfishness and power to traditional values (health, family, relationships, hobbies) (Říčan, 2007);
- Addiction to virtual drugs (netolism and netomania) and ICT such as mobile phones, chat, social networks, Internet, one's PC – children and teenagers develop addictions faster than adults. It affects all facets of one's health (Kalina [on-line], 2010). It is the psychological element that dominates when talking about addictions (Pokorný et al., 2002). A self-conscious personality with low confidence and self-image that has no real social relationships

contributes to the development of an addiction (Vágnerová, 2004; Nešpor, 2000; "Závislost" na internetu a boj proti ní [on-line], 2010).

Everyone has the right to use the Internet for good things. Some individuals, however, abuse it to their own benefit and pleasure and that is a completely different thing. Children should be given basic information on prevention and safety within their family (Fischer, Škoda, 2009).

Bednář (2006) and Kühnelová (2011) talk about several basic rules of children's computer safety:
- Do not download any illegal programs;
- Use legal and updated operating systems and official Web browsers;
- Do not open e-mail messages and attachments that have not been requested and/ or come from unknown addresses;
- Read properly the warnings and other messages related to the running of your computer;
- Do not enter questionable sites, especially those offering pornographic material, illegal programs and media; these are the most frequent carriers of viruses;
- Use various and longer passwords for various services (combination of letters, numbers, special characters);
- Log out properly after you have finished working with Web applications and close all your browser windows. This prevents your information from possibly being robbed;
- Fill in registration forms with only a minimum of personal information;
- Do not share any personal information with anyone about whose identity you are not certain.

When talking about the prevention of risk behavior in children and teenagers, the family plays a fundamental role. The family provides an environment in which they feel safe and encouraged and which is essential for their social self-fulfillment. It is a source of experience and patterns of behavior that we are not able to learn in any other environment (Fischer, Škoda, 2009). A child's family is a key factor for the prediction of his/her risk behavior. Open communication, the importance of positive emotional relationships within the family and the nature of the relationship between parents and school are all accentuated when dealing with the prevention of risk development (Macek, 1999).

It is important to provide an up-bringing to children from an early age that teaches them to sort through information and judge what is harmful for them and what is beneficial. It is good to be in close proximity to your children, periodically check which sites they are visiting, come to an agreement with them on how much time they are allowed to spend in front of the monitor and make sure they adhere to the rules. It is possible to protect your children through means of various kinds of parental control programs (Hlídací pes 2002 [on-line], 2010).

Should parents decide to purchase such a program, it is better if they first talk to their children before actually installing it and explain to them that the program is not meant to track the child, but to protect them. Children should be aware that there are

ways to avoid dangerous situations and that parents want to know about everything that may happen to them. It is a lack of information that makes children vulnerable (Elliott, 2000).

When looking at the transformation of the school system following the process of European integration, it is clear that there is currently a need to reform educational programs at all levels of education in accordance to the requirements of social/market economics and prepare young people for the possibility of entering the flexible EU labor market with dynamic communication skills and knowledge of how to use modern technologies, including the Internet (Lokšová, Lokša, 2003).

We are part of an information society and these new influences therefor contribute to the transformation of the environment in which education takes place. Children gain a significant amount of knowledge of this field at school. The educational objectives of schools are undergoing changes and the school educational programs are being adjusted accordingly. As a consequence of this the overall mission of schools is being adjusted as well. Tasks such as finding one's bearings in the world of information, obtaining elementary skills in handling computer technology and achieving a basic level of literacy in the use of modern technology have been acquired by children as early as elementary school through the field of study of „ICT", which is a compulsory part of the Framework Education Program for Elementary Education (*RVP ZV*). This field of study is very important for achieving a first-rate education and maintaining much demanded competitiveness in the market. In an information society the aforementioned skills are a crucial precondition for succeeding on the labor market as well as a condition for the effective development of professional and leisure time activities. The objectives of this educational area include an understanding of and familiarity with digital media and all of its information flow – from its source, through its transfer, processing and to its practical use. Pupils learn to think creatively, compare and sort multiple information sources and, last but not least, respect intellectual property rights. The fundamental objective lies in acquiring a responsible and ethical attitude towards inappropriate content found on the Internet or in other media (Vítková, 2004; RVP ZV, 2010).

Free time is meant to be a time when children can freely (according to their mood, interests and feelings) do activities they have chosen to do (Pávková et al., 2001). It is not possible to consider every free time activity of children and teenagers to be preventive. It is necessary to choose and encourage programs and approaches that will fulfill tasks of rejuvenation, relaxation, learning, socio-preventive and compensation. Integrating children into free time activities is a fairly complex process which requires including information, motivational, economic and social factors. The advent of information technology has brought about changes in the lives of children and teenagers, particularly in the area of their free time. Sport and culture have become commercialized and the dominant forms of media are now computers, the Internet, television and recorded music. Many children do not know how to meaningfully spend their free time and therefore become bored. Their own creative activities are replaced by television and video (Viehoff, Reuys, 2000). It is obvious that digital media plays an important role in the lives of children and teenagers and it would be wrong to forbid them from using them or condemn them for it. It is important to bear in mind that the younger and more immature children are, the greater influence media have in forming

their opinions and attitudes. An important aspect of education lies in an education aimed towards the development of children's personality, acquiring positive social behavior, a healthy lifestyle and a natural resistance to all forms of illegality. Among the healthiest free time activities are sport and exercise, which contribute in many areas to a healthy lifestyle, develop socialization and the overall personality of young people. Free time spent in a pleasurable and meaningful way will not solve everything, though there is a lower chance that the child will lapse into undesirable behavior in relation to computer technology and social pathology in general. It also increases a child's chances to be successful at something. When deciding on free time activities, it is not the amount, but rather their composition and quality that are important (Hájek et al., 2008).

Methodological notes

The main objective of the research was to analyze risk behavior and possibilities of abusing information and communication technology in a sample of children and teenagers.

The quantitative research method was used to meet this objective. The research includes a critical analysis of both scientific printed and electronic information resources as well as the anonymous questionnaire technique. The survey itself was carried out between January and May of 2010. First the heads of a number of elementary and highly schools were contacted and briefed on the research. Each regional capital of the Czech Republic had one elementary and one high school included in the research (see Tables 1 and 2). Only upper elementary school pupils were chosen to take part in the questionnaire.

After having obtained the approval of the selected schools, we contacted the teachers who had been assigned at each of them to be in charge of the distribution and collection of the questionnaires among pupils and students in the individual classes. Most of them were teachers of Computer Science.

The respondents were given a total of 1,300 anonymous non-standardized questionnaires containing a total of 35 questions with a closed range of responses, out of which 29 questions were single choice and 6 were multiple choice. Each school was thus given 50 questionnaires. A total of 1,072 of them returned filled in.

The data from the questionnaires were converted to electronic format. The output was obtained through the use of descriptive statistics using the Epi lnfo 6.04 en program (Dean et al., 1994).

Region of CZ	Group of respondents					
	Girls n = 525		Boys n = 547		Total n = 1,072	
	Number	*%*	*Number*	*%*	*Number*	*%*
Karlovy Vary	45	8.6	38	6.9	83	7.7
Olomouc	50	9.5	44	8.0	94	8.8
Plzeň	37	7.0	46	8.4	83	7.7
Ústí Nad Labem	36	6.9	43	7.9	79	7.4
Central Bohemia	42	8.0	60	11.0	102	9.5

Pardubice	42	8.0	43	7.9	85	7.9
Liberec	39	7.4	40	7.3	79	7.4
Vysočina	42	7.8	42	7.7	84	7.7
Moravian-Silesia	37	7,0	43	7.9	80	7.5
South Bohemia	38	7.2	33	6.0	71	6.6
South Moravia	40	7.6	40	7.3	80	7.5
Zlín	38	7.2	40	7.3	78	7.3
Hradec Králové	39	7.4	35	6.4	74	6.9

Tab. 1: The characteristics of the respondents in terms of representation of individual regions and gender

Age category	Group of respondents					
	Girls n = 525		Boys n = 547		Total n = 1,072	
	Number	*%*	*Number*	*%*	*Number*	*%*
19 and older	44	8.4	45	8.2	89	8.3
17–18	106	20.2	112	20.2	218	20.3
15–16	150	28.6	133	24.3	283	26.4
13–14	111	21.1	130	23.8	241	22.5
11–12	114	21.7	127	23.2	241	22.5

Table 2: The characteristics of the respondents in terms of age groups and gender

A total of 1,072 respondents participated in the questionnaire; 525 girls and 547 boys. Overall, the most represented group was the 15–16 age category and the least represented was the 19 and over age category.

Results of the questionnaires

The results are presented by means of tables of absolute and relative frequencies obtained by sorting the population according to gender. The tables are accompanied by text commentaries. Minor deviations in relative frequencies (tenths of a percent) are caused by rounding the numeric values to one decimal place.

Time spent at the computer per week	Group of respondents					
	Girls		Boys		Total	
	Number	*%*	*Number*	*%*	*Number*	*%*
less than 2 hours	0	0.0	0	0.0	0	0.0
3–5 hours	16	3.0	3	0.5	19	1.8
6–10 hours	44	8.4	17	3.1	61	5.7
11–15 hours	100	19.0	58	10.6	158	14.7
16–20 hours	151	28.8	159	29.1	310	28.9
more than 20 hours	213	40.6	310	56.7	523	48.8

Table 3: Total amount of time spent at the computer during one week

On the whole, respondents spend more than 20 hours a week at the computer – 523 persons (48.8%), out of whom 213 were girls (40.6%) and 310 were boys (56.7%). None of the respondents claimed to have spent less than 2 hours per week.

| Amount of time spent at the computer playing computer games per week | Group of respondents | | | | | |
| | Girls | | Boys | | Total | |
	Number	%	Number	%	Number	%
less than 2 hours	156	29.7	60	11.0	216	20.1
3–5 hours	106	20.2	154	28.2	260	24.3
6–10 hours	30	5.7	132	24.1	162	15.1
11–15 hours	14	2.7	82	15.0	96	9.0
16–20 hours	8	1.5	39	7.1	47	4.4
more than 20 hours	13	2.5	55	10.1	68	6.3
I do not play computer games	198	37.7	25	4.6	223	20.8

Table 4: Amount of time spent at the computer playing computer games per week

On the whole, respondents most often play computer games 3–5 hours per week (260 persons, 24.3%). 198 girls (37.7%) do not play any computer games; most boys play computer games 3–5 hours per week (154 respondents, 28.2%). It is obvious from the table that boys play computer games far more often than girls.

| Amount of time spent surfing the Internet per week | Group of respondents | | | | | |
| | Girls | | Boys | | Total | |
	Number	%	Number	%	Number	%
less than 2 hours	19	3.6	2	0.4	21	2.0
3–5 hours	54	10.3	34	6.2	88	8.2
6–10 hours	90	17.1	63	11.5	153	14.3
11–15 hours	110	21.0	118	21.6	228	21.3
16–20 hours	107	20.4	132	24.1	239	22.3
more than 20 hours	143	27.2	197	36.0	340	31.7
I do not surf the Web at all	2	0.4	1	0.2	3	0.3

Table 5: Amount of time spent surfing the Internet per week

On the whole, respondents most often surf the Internet more than 20 hours a week (340 persons, 31.7%); 143 girls (27.2%) and 197 boys (36%).

To the question of whether parents mind if their children spend their free time on the computer, a total of 501 respondents replied positively (46.7%); out of whom 282 were girls (53.7%) and 219 were boys (40%). To the question of whether parents monitor what pages children look at, a total of 134 respondents (12.5%) responded affirmatively; from 109 girls (20,8%) and 25 boys (4.6%). Parents most often monitor their children between the ages of 11–12 years of age.

Time spent communicating on social networks per week	Group of respondents					
	Girls		Boys		Total	
	Number	*%*	*Number*	*%*	*Number*	*%*
less than 2 hours	2	0.4	2	0.4	4	0.4
3–5 hours	20	3.8	16	2.9	36	3.4
6–10 hours	60	11.4	30	5.5	90	8.4
11–15 hours	96	18.3	102	18.6	198	18.5
16–20 hours	113	21.5	136	24.9	249	23.2
more than 20 hours	187	35.6	247	45.2	434	40.5
I do not communicate thus	47	9.0	14	2.6	61	5.7

Table 6: Time spent communicating on social networks per week

Respondents most often communicate on social networks more than 20 hours per week, which was mentioned by 434 persons (40.5%); 187 girls (35.6%) and 247 boys (45.2%). 61 respondents (5.7%) stated they do not use social networks for communication at all, out of whom 47 were girls (9%) and 14 were boys (2.6%).

Facing offensive behavior via mobile phones and computers	Group of respondents					
	Girls		Boys		Total	
	Number	*%*	*Number*	*%*	*Number*	*%*
threatened	35	6.7	56	10.2	91	8.5
mocked	71	13.5	86	15.7	157	14.6
insulted	76	14.5	84	15.4	160	14.9
abuse of account	54	10.3	57	10.4	111	10.4
picture, video, voice	201	38.3	203	37.1	404	37.7

Table 7: Offensive behavior via information and communication technologies (respondents were allowed to select more affirmative options at the same time)

The respondents have faced all of the offered types of offensive behavior via ICT. Most often this dealt with the misuse of photos, video and audio recordings depicting embarrassing or awkward situations and posting them on some of the social networks or Web portals. More frequently, victims have been mocked and insulted via ICT. Of the total population of respondents, 86.1% of them have met this form of behavior; 83.3% of girls and 88.8% of boys.

In general, a total of 170 respondents (15.9%) have encountered unpleasant situations related to the use of ICT; 79 girls (15%) and 91 boys (16.6%). According to age category, the most represented age group was the 13–14 years – a total of 54 respondents (31.8%); the least represented was the 19 and over age group – a total of 10 respondents (5.9%).

Dealt with given problems with parents	Group of respondents					
	Girls		Boys		Total	
	Number	%	Number	%	Number	%
threatened	7	1.3	13	2.4	20	1.9
insulted	21	4.0	21	3.8	42	3.9
mocked	31	5.9	26	4.8	57	5.3
abuse of account	21	4.0	27	4.9	48	4.5

Table 8: Dealt with offensive ICT behavior with parents
(respondents were allowed to select more affirmative options at the same time)

A total of 15.6% of respondents dealt with offensive ICT behavior together with their parents: 15.2% of girls and 15.9% of boys. Most often it was a mockery and abuse of social network accounts.

Providing sensitive information through the Internet after a short acquaintance	Group of respondents					
	Girls		Boys		Total	
	Number	%	Number	%	Number	%
name	382	72.8	407	74.4	789	73.6
last name	117	22.3	127	23.2	244	22.8
residence (address)	25	4.8	28	5.1	53	4.9
mobile number	33	6.3	38	6.9	71	6.6
identification of school	70	13.3	51	9.3	121	11.3
e-mail	118	22.5	115	21.0	233	21.7
Skype, ICQ	128	24.4	135	24.7	263	24.5
e-mail password	0	0.0	0	0.0	0	0.0
PIN code for credit cards	0	0.0	0	0.0	0	0.0

Table 9: Providing personal data and sensitive information after a short acquaintance over the Internet (respondents were allowed to select more affirmative options at the same time)

In situations where the respondents knew the person only briefly and only through Internet communication, it was their name that was most often divulged (reported a total of 789 people; 73.6%; 382 girls, i.e. 72.8%; 127 boys, i.e. 23.2%), and one's Skype and ICQ number (a total of 263 persons, i.e. 24.5%; 128 girls, i.e. 24.4%; 135 boys, i.e. 24.7% None of the respondents would disclose their e-mail password or credit card PIN code.

After a year-long acquaintance through only the Internet, the situation would be similar (see the table 10): respondents would most often divulge their name (a total of 968 people, i.e. 90.3%; 467 girls, i.e. 89%; 501 boys, i.e. 91.6%). The second most divulged information would be one's Skype and ICQ number (mentioned by a total of 792 persons, i.e. 73.9%; 386 girls, i.e. 73.5%; 406 boys, i.e. 74.2%). Again, none of the respondents would disclose their e-mail password and credit card PIN code.

Providing sensitive information through the Internet after a year's acquaintance	Group of respondents					
	Girls		Boys		Total	
	Number	%	Number	%	Number	%
name	467	89.0	501	91.6	968	90.3
last name	280	53.3	303	55.4	583	54.4
residence (address)	151	28.8	157	28.7	308	28.7
mobile number	186	35.4	203	37.1	389	36.3
identification of school	241	45.9	270	49.4	511	47.7
e-mail	374	71.2	409	74.8	783	73.0
Skype, ICQ	386	73.5	406	74.2	792	73.9
e-mail password	0	0.0	0	0.0	0	0.0
PIN code for credit cards	0	0.0	0	0.0	0	0.0

Table 10: Providing personal data and sensitive information after a year's acquaintance over the Internet (respondents were allowed to select more affirmative options at the same time)

Providing sensitive information through the Internet in return for payment	Group of respondents					
	Girls		Boys		Total	
	Number	%	Number	%	Number	%
name	373	71.0	395	72.2	768	71.6
last name	69	13.1	73	13.3	142	13.2
residence (address)	16	3.0	14	2.6	30	2.8
mobile number	32	6.1	27	4.9	59	5.5
identification of school	33	6.3	29	5.3	62	5.8
e-mail	108	20.6	117	21.4	225	21.0
Skype, ICQ	132	25.1	157	28.7	289	27.0
e-mail password	0	0.0	0	0.0	0	0.0
PIN code for credit cards	0	0.0	0	0.0	0	0.0

Table 11: Providing personal data and sensitive information over the Internet for pay (respondents were allowed to select more affirmative options at the same time)

For payment (a present, money), respondents would most often provide their name to a communication partner they know only through the Internet (total of 768 persons, i.e.. 71.6 %; 373 girls, i.e. 71%; 395 boys, i.e. 72.2%). The second most frequently provided information would be one's Skype or ICQ number (reported a total of 289 persons, i.e. 27%; 132 girls, i.e. 25.1%; 157 boys, i.e. 28.7%). None of the respondents would disclose their e-mail password or credit card PIN code.

Many of the addressed children have already met with harassment of an intimate nature. A total of 193 respondents have received photographs in which someone is partially dressed or naked (i.e. 18%); 98 girls (i.e. 18.7%) and 95 boys (i.e. 17.4%). Sexually themed message have been received by a total of 425 respondents (i.e. 39.6%) – 198 girls (i.e. 37.7%) and 227 boys (i.e. 41.5%). As shown in chart No. 1, harassment of an intimate nature increases in relation to age.
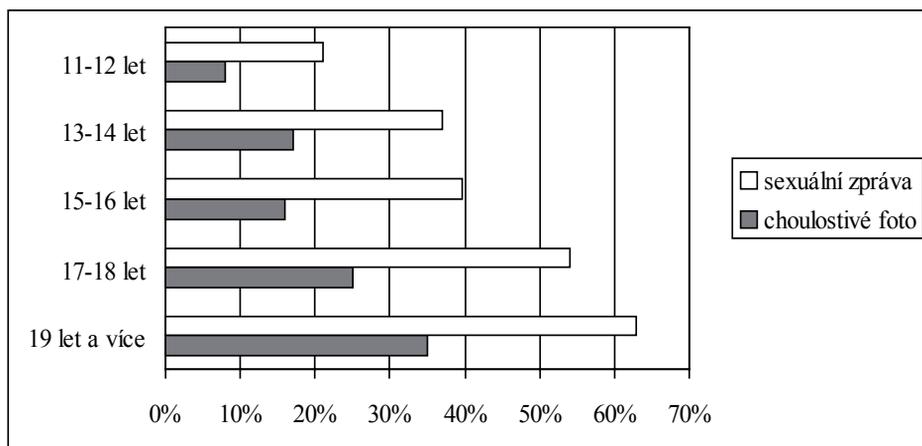
Chart 1: Harassment of an intimate nature according to the age category of respondents.

A total of 232 respondents (21.6%) would agree to a meeting arranged over the Internet, of which 105 were girls (20%) and 127 were boys (23.2%). According to age category, the most likely to go to agree to a meeting were those aged 17 to 18 years of age (a total of 78, i.e.. 33.6%).

Notification of an agreed upon meeting over the Internet	Group of respondents					
	Girls		Boys		Total	
	Number	%	Number	%	Number	%
siblings	97	18.5	149	27.2	246	22.9
parents	207	39.4	134	24.5	341	31.8
to a friend	149	28.4	173	31.6	322	30.0
noone	72	13.7	91	16.6	163	15.2

Table 12: Notification of a meeting arranged over the Internet

Girls would be most likely to tell their parents about a planned meeting (207, i.e. 39.4%), boys a friend (173, i.e. 31.6%). A total of 219 respondents (20.4%) post the truth about themselves on the Internet; 101 girls (19.2%) and 118 boys (21.6%). Most respondents correspond under a nickname (a total of 805, i.e. 75.1%), of which 395 were girls (75.2%) and 410 were boys (75%).

A total of 240 respondents (i.e. 22.4%) have received a request for secrecy from someone over the fact that „we write each other", of which 110 were girls (21%) and 130 were boys (23.8%). This most often occurred in the 15–16 age group.

A total of 214 respondents (i.e. 20%) have received a request for secrecy from someone over „what we write each other", of which 110 were girls (21%) and 104 were boys (19%). Again, this most often occurred in the 15–16 age group.

Acquaintance with someone from the portal site	Group of respondents					
	Girls		Boys		Total	
	Number	*%*	*Number*	*%*	*Number*	*%*
Alík	284	54.1	325	59.4	609	56.8
Líbímseti	460	87.6	492	89.9	952	88.8
YouTube	514	97.9	544	99.5	1058	98.7
Hry.cz	221	42.1	329	60.1	550	51.3
Facebook	524	99.8	547	100.0	1071	99.9
Rajče	376	71.6	433	79.2	809	75.5
MySpace	201	38.3	241	44.1	442	41.2
XChat	338	64.4	386	70.6	724	67.5

Table 13: Acquaintance with someone from one of the above-mentioned portals (respondents were allowed to select more affirmative options at the same time)

Aside from one girl, virtually all respondents know Facebook – 1071 persons, i.e. 99.9%. The second most famous portal was YouTube – a total of 1058 persons, i.e. 98.7%, of which 514 were girls (97.9%) and 544 were boys (99.5%). The least known portal among respondents is MySpace – a total of 442 persons mentioned it, i.e. 41.2%, of which 201 were girls (38.3%) and 241 were boys (44.1%).

Account established at one of the mentioned portals	Group of respondents					
	Girls		Boys		Total	
	Number	*%*	*Number*	*%*	*Number*	*%*
Alík	101	19.2	106	19.4	207	19.3
Líbímseti	188	35.8	166	30.3	354	33.0
YouTube	154	29.3	229	41.9	383	35.7
Hry.cz	25	4.8	71	13.0	96	9.0
Facebook	463	88.2	515	94.1	978	91.2
Rajče	124	23.6	148	27.1	272	25.4
MySpace	26	5.0	25	4.6	51	4.8
XChat	153	29.1	167	30.5	320	29.9

Table 14: An account set up at one/some of these portals (respondents were allowed to select more affirmative options at the same time)

Most respondents have an account set up on Facebook – a total of 978 persons, i.e. 91.2%, of which 463 were girls (88.2%) and 515 were boys (94.1%). The fewest respondents have an account set up on MySpace – a total of 51 persons, i.e. 4.8%, of which 26 were girls (5%) and 25 were boys (4.6%). For boys, the second most preferred portal where they have their own account was YouTube (indicated by 229 boys, i.e. 41.9%). Similarly, girls indicated that their second portal option was Líbímseti (188, i.e. 35.8%). In the age category of 11–12 years, a total of 240 respondents (i.e. 99.6%) have an account on Facebook.

A total of 272 respondents (25.4%) know of at least one portal containing objectionable content, of which about 137 were girls (26.1%) and 135 were boys (24.7%). The best informed were respondents within the 15–16 years age category (a total of 68 persons, i.e. 25%).

From the perspective of leisure-time, most children do 3–5 hours of sport per week (333 respondents, i.e. 31.1%). Girls also most commonly do 3 to 5 hours of sport per week (256, i.e. 76.9%), boys do from 6 to 10 hours per week (196, i.e. 61.6%).

Girls most often attend two after-school activities (116, i.e. 22.1%), and 163 girls (31%) do not attend any after-school activities. Boys most often attend one after-school activity (264, i.e. 48.3%), while 161 boys (29.4%) do not attend any after-school activities.

A total of 220 respondents (20.5%) report frequent feelings of boredom, of which 126 were girls (24%) and 94 were boys (17.2%). A total of 291 respondents (27.1%) spend most of their free time at home alone, of which 157 were girls (29.9%) and 134 were boys (24.5%). A total of 260 respondents (24.3%) mentioned being dissatisfied with their free time, of which 132 were girls (25.1%) and 128 were boys (23.4%).

Discussion

Over the past 20 years the Internet has become a normal part of our lives. We use it for education, work and play. In addition, it has brought about a new phenomenon – the phenomenon of cyberspace. This is a virtual world where almost every one of us finds ourselves and leaves our fingerprints from time to time. When we look up information, we increasingly find ourselves saying that "everything is on the Internet".

As ICT gets better, the boundaries between the real and virtual worlds tend to gradually disappear. It is children in particular who, from an early age, are used to accessing computers and the Internet and they take their usage absolutely for granted, just as they do the mobile phone. Unfortunately, many of them are unaware of the risks associated with these activities, which can lead to the disclosure of much information of a confidential nature, and in addition to the leaking of this information it can lead to its abuse. It is also not worth placing one's full confidence in the veracity of published information when the cost for quickly finding and providing it is often dubious quality, false and incorrect presentation, and dangerous views. It is therefore not possible to automatically take for granted that everything we find on the Internet is correct, valuable and true. It pays to compare information from several different sources, and it is recommended to favor, in particular, traditional printed materials and sites whose content is expertly reviewed.

Before publishing any information (especially of personal nature), it is necessary not to forget to carefully read the rules and licensing terms that are increasingly being found at social networks of the nature of Facebook. Unfortunately, children and adolescents often skip or ignore them and thus make serious errors that cannot simply be undone, nor can they correct the consequences of their actions in a legal way. Many of the materials people make public (photos, conversations) are materials they would be afraid to show or tell those closest to them „face to face", but nothing stops them from making them public on a website because they are not in direct line of sight of anyone.

This is, however, a big mistake – the internet has a „memory" and everyone more or less leaves their traces there. In extreme cases, an individual may be retroactively identified and associated with activities he/she carried out on the net – revealing his/her habits, opinions, consumer and professional behavior, and deviations. So, just as we value our families, health, status, finances and successes, we should also value our privacy – even in virtual form. It is not recommended to disclose more information than is actually needed, and then only to those we know better than those that have been met over the Internet. Many perpetrators of punishable offenses have perfectly mastered so-called „social engineering". It is not a problem for them to create trust in their victims and abuse that trust; therefor caution, verification of the identity of a communication partner and having a slightly „paranoid" approach are therefore fully appropriate.

Before its expansion, the Internet's predecessor was a military and government network that was not public. After this network was opened, it rapidly expanded, especially into the academic sector. Nowadays the Internet practically spans the entire planet and its users amount to several billion. A significant proportion of its capacity is focused on commercial activities, which also substantially fund its further development and maintenance. The prevalence of advertising on the Internet is further given for these services. On the one hand, this creates a competitive environment and pressure on the relationship between price and quality of offered commodities. On the other hand, it makes it difficult for a number of users to move about the Internet as they like – it advertises products and services they cannot actually „touch" and users are dependent only on the soundness of the trader.

No universal search engine contains the entire contents of the Internet. Some parts of the Internet are intentionally unavailable to common non-privileged users (classified information), while others permit only limited access to search bots, which index published data.

Censorship of Internet content is possible to a certain extent, but it is tied to considerable technical and human capacity. On a global scale, it is virtually impracticable, because this media is a diversified, highly dynamic, it works without regard to national boundaries, users prefer the free exchange of information and any significant restriction is not accepted positively in their communities.

However, a reasonable degree of censorship on the part of parents of children and adolescents is feasible and desirable. The simplest route is to establish the „rules of the game" and check on their compliance. Internet browsers or, as the case may be, operating systems can also be set up with switches for children (filtering potentially malicious content and services, allowing them to use the computer only at certain times). Third-party tools can also be used (special watch-programs). In every situation, it is appropriate that parents inform the child in advance of this situation, that they discuss the purpose of such protection, and that they do not use it secretly, „incognito". It is also appropriate that parents be actively interested in what their child does on the computer and on the Internet, and how he/she uses his/her mobile phone. Even a child has the right to privacy, so it is necessary to act tactfully and not destroy the confidence of mutual respect and openness of communication.

Work with ICT requires not only a corresponding level of technical and information literacy, but media literacy as well. Media education, the creation, defense

and evaluation of one's own opinions, factual information about the effects of advertising and its tricks, as well as the ability to face it should be provided to children in their families before they start compulsory education. Additionally, they should be made aware of the fact that all information has its own value that we have to be able to assess, protect and respect.

Children are not only victims harmed by ICT abuse, but can actually actively help those situations happen. Many of them know „the rate" they can ask for intimate pictures, a personal meeting or various sexual activities. In return, they choose to get credit for their mobile phone, tickets for games, accept sponsorship in the form of clothes, cosmetics, fashion accessories, sport and other free time activities, or directly in cash.

Every single permission to communicate through a Web camera or to have a personal meeting is potentially dangerous for a child and should be strictly rejected. Any unexpected, uncomfortable or unusual situation children come across when using their computer, Internet or mobile phone should be automatically discussed with their parents or any other adult who is close to the child (legal guardian, teacher, educator) with trust.

Copyright violations carried out by persons who illegally upload and allow the distribution of audiovisual works and computer programs on the Internet or, as the case may be, who remove protections from these files also cannot be considered as negligible. The actual removal of such content by the user (in the case of audio and video in particular) is not usually a crime. However, such an act is within the „grey zone". In addition, many of the programs „customized" in this way can do significant damage (damage or destruction of data, data theft, infecting computers and networks with viruses, etc.) and have tragic consequences (system controls and management, as well as home computers with important documents, family pictures and videos created over a period of several years).

Too frequent and long-term use of ICT can cause a range of health problems. Not only does that mean an addictive behavior with a strong psychological element, the development of a higher tolerance, withdrawal symptoms, procrastination, shallow communication and difficulties with face to face communication, but also an irregular nutrition routine with an inappropriate and forced body posture and greater pressure on the spine, eyes and hands, as well as with worse blood circulation, especially in the lower part of the body and risk of being overweight or obese.

We long for interpersonal communication and personal meetings, though paradoxically it is the convenience of ICT that can alienate us should we rely solely upon them and turn away from the real world and real communication partners.

Conclusion

An anonymous questionnaire study was carried out on a sample of 1,072 respondents – upper elementary school pupils and high school students selected from all regions of the Czech Republic.

Nearly half of the respondents spend more than 20 hours a week at the computer, while one third surf the Internet more than 20 hours a week. The most common amount

of time the respondents dedicate to playing computer games is 3–5 hours a week. That is one quarter of the population. One fifth of the addressed children and teenagers do not play any computer games at all. Respondents most often spend more than 20 hours a week on social networks (40% of the population claim so), 6% of the sample do not communicate this way at all.

The respondents have been faced with all major possibilities of offensive behavior via ICT, especially abuse of sensitive visual and audio recordings. Victims of offensive behavior via ICT have been primarily exposed to mockery and insults, which was claimed by 86% of the entire population. Only 16% of the addressed have discussed this offensive behavior via ICT with their parents. Almost half of the respondents mention that their parents object to their children's free time being spent at the computer. Parents of only 13% children (mostly between 11 and 12 years of age) monitor what they do on the computer and the Internet.

Almost three quarters of respondents would tell a communication partner their name after a short acquaintance held exclusively over the Internet, while a quarter of them would divulge their Skype or ICQ number. The situation would be similar after a year of an impersonal relationship, with 90% of respondents divulging their name and nearly three quarters giving out their Skype or ICQ number. The children were willing to provide the same information for payment. None of the respondents would disclose their e-mail password or credit card PIN code. One-fifth of respondents publish truthful information about themselves, while three quarters sign in under a nickname.

Approximately one-fifth of children have already met with harassment of an intimate nature connected with obtaining delicate photos. Sexually themed messages have been received by approximately 40% of the population. A fifth of respondents, most frequently in the 17–18 age group, would go to a meeting arranged over the internet. Girls would tell their parents about this meeting, while boys would tell their friend. One-fifth of adolescents aged 15–16 years have received a plea for silence in respect to the communication partner, or the content of their communication.

Virtually all of the respondents are familiar with Facebook, nearly all with the portal YouTube. Most respondents (92%) have set up an account at the social network Facebook. A quarter of the children and adolescents know where to find objectionable content on the Internet.

The Internet offers a democratic environment with minimal restrictions and is continually developing and growing. In order to fully exploit its potential without getting harmed, it is necessary to constantly educate one's self on how to effectively search and work with information, as well as about one's own protection against threats connected with the net and other things ICT related. The primary burden of preventive action is initially carried on the shoulders of family and school. Later in life it is the personal responsibility of each user of ICT for their own behavior.

RIZIKOVÉ CHOVÁNÍ ŽÁKŮ ZÁKLADNÍ ŠKOLY A STŘEDOŠKOLSKÝCH STUDENTŮ PŘI PRÁCI S POČÍTAČEM A S INTERNETEM

Abstrakt: Výpočetní technika, počítačové sítě, mobilní telefony a další vyspělé informační a komunikační technologie (ICT) umožňují rychlou výměnu informací, přinášejí nové možnosti v zaměstnání, ve vědě, vzdělání, zábavě. Jejich neuvážené používání zejména dětmi a mládeží může vést k řadě zdravotních i sociálních poruch. Bylo provedeno kvantitativní výzkumné šetření, které proběhlo ve všech regionech ČR, při němž bylo formou anonymního dotazníku osloveno 1072 žáků z 26 škol (2. stupeň ZŠ a SŠ). Otázky se týkaly trávení volného času, práce s ICT, útoků vedených cestou ICT. Ukázalo se, že existuje nízký stupeň rodičovské kontroly, 30 % respondentů již bylo atakováno cestou ICT. Problematické situace řešilo s rodiči jen 5 % vzorku, více jak 50 % je ochotno zveřejnit po roční on-line komunikaci své osobní údaje. Je nezbytné posílení zájmu rodičů o volný čas dětí a jejich manipulaci s ICT, nastolení důvěry a brzké řešení problémů, ve škole je potřebné prohloubení informační gramotnosti žáků s důrazem na jejich osobní bezpečnost a netiketu.

Klíčová slova: bezpečnost, dotazník, hra, ICT, internet, počítač, prevence, riziko, student, škola, útok, volný čas, výzkum, zneužití, žák

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