

THE PERCEPTION OF THE SCHOOL STRESSFUL SITUATIONS BY ADOLESCENTS

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Abstract: *Common daily problems associated with a school can present significant risks to mental health. To a great extent, it depends on their subjective perception and interpretation. This article is based on an empirical research and informs about perception of incidence and intensity of school stress situations by secondary school students. Differences in the evaluation are investigated both within the whole sample and with respect to gender, type of school, class and school performance. The results correspond with our previous researches and also with the knowledge presented in the literature. The incidence of the stressful situations is generally lower than the level of the subjectively perceived stress. The difference is significant especially in the situations concerned with the relationship between a teacher and a student, whereas it is insignificant in the situations related to learning process conditions and the school performance.*

Keywords: *stress, common daily problems, school, middle adolescence, gender, type of school, school achievement*

Introduction

The school environment is associated with many situations that are possible to call stressful. An individual can feel uncertainty, strain, threat or increased tension on his skills. The stressful situations are e.g. fear from exams, lowering the school achievement, own insufficiency, the feelings of disability to make inadequate requirements possible, but also difficult situations of interpersonal interaction, conflicts with peers, rivalry, making or holding a position in a group, communication with the teachers, everything that is in the literature described as so called hidden curriculum. Despite these situations are not extraordinarily traumatizing experiences in principle, they can represent a chronicle stress when occurring regularly and very often, and therefore they can cause high mental strain. However, the way of the subjective perception of the stressful situation is determinative.

The stressors associated with an educational institution and their perception by the adolescents gain a specific character during the adolescence. It is a period of significant changes including a change of the relationship to authorities, of seeing and evaluating the surrounding world but also themselves.

We are trying to make clear some aspects of the perception of incidence and intensity of the stressful situations perceived by adolescents. With regard to research approaches, their relationship is not investigated too often in literature.

Theoretical background

We consider stressful situations as a situation of disproportion or imbalance between requirements of a particular situation and competences or possibilities that are necessary to overcome these situations, eventually a disability of an individual to use these competences. (compare with Oravcová, 2004, Kebza, 2005, Havlínová, 1998). The situations that are associated with negative feelings and that are described as stress. According to Atkinson (1995), events perceived as the situations of physical or mental danger are involved.

A school was always full of these situations. Besides above mentioned situations, e.g. amount of learning and homework, pressure on school performance, examination and marks represent an extensive mental strain. An individual is regularly in danger that he will be compared and not able to stand up to peer competition or complete all requirements that he is asked for. E.g. Havlínová et al. (1998), Mlčák (1999), Nitch (1981) analyse and systematize the stressors associated with school environment in their interactive model of school strain. School strain situations especially connected with coping are in the long term focused on in Slovak Republic (e.g. Medved'ová, 2004, 2008, Senka, 1996, Sarmány Schuller, 1997).

We can easily apply Kebz's classification of stressors on school environment. From the psychological point of view, he divides them on stressors that start in consequence of extensive requirements on performance or time limitation needed to their achievement; stressors that start in consequence of insufficient or excessive stimulations; and conflicts (Kebza, 2005).

J. Mareš (Čáp, Mareš, 2001) describes a school strain situation that can have different sources and character with respect to time duration, place and effect. It can be similar to usual requirements, more important challenges or even danger of an individual's bio-psychosocial sphere.

However, every stressful situation does not have to represent trauma, an element that harms health. Significant inter-individual differences exist in perception, evaluation and experience of stressful situations. They present a destructive, paralysing factor for some people, for other people these situations are a motivating stimulus that is needed to mobilize their potential and to optimise their achievement. It is connected with a wide variability on the side of a stressful situation and on the side of a particular individual's character, too. In general, we consider the situation as more stressful if it is uncertain, uneasy to follow, beyond control and if it has an unpredictable development (Oravcová, 2004, Atkinson, 1995). Difficulty of a particular situation and requirements, that is the individual asked for, have an important role. However, these aspects are not possible to evaluate without looking at the individual's character, competences and his ability to complete the requirements. An important stimulating factor is adequate requirements possible to manage. In literature, such situations that slightly exceed current individual's skills to manage them are considered as stimulating for the individual's development (see Havlínová, 1998, Kebza, 2005, Čáp, Mareš, 2001).

A psychological effect of a stressful situation is also determined by its incidence. However, the relationship between frequency of the stressor's influence and its intensity is not easy to define. Sometimes, only one extremely strong stimulus (some overwhelming events) can cause breakdown. The strong stimulus has a destructive effect also when applied only once. On the other hand, a repetitive stressful situation that the individual overcame (a stressor he faced up to) can strengthen the individual's resistance to the stressful situation. But, it is known that a permanent exposure to strain (and it can be also common daily problems) are very stressful for the individual. A long term strain often cumulated can dramatically worsen the individual's situation and it can negatively influence his ability to evaluate these situations and to overcome them (Křivohlavý, 2001, Čáp, Mareš, 2001).

An individual always evaluates typical aspects of a stressful situation in the process of its perception. The process of evaluation is usually described from a primary and a secondary layer in literature (see Lazarus, Folkmanová, 1984). During primary evaluation, the individual considers how much the situation is endangering, what risk it represents. The secondary evaluation involves the analysis of own possibilities to overcome the stressful situation, judging the sources that are at the disposal. The processes of the primary and the secondary evaluation and the process of dealing with stress do not happen separately but they probably blend together and determine each other.

The processes of evaluation of the stressful situation are however influenced by previous individual experiences. This can lead to incorrect interpretation of the situation especially by children and adolescents (it can be both overvaluation and undervaluation and the possibility to influence the situation). The inter-individual variability in perception of a stressful situation is significantly determined also by personal characteristics of the individual. We want to emphasize especially the subjective interpretation of the situation, and active or passive attitude and motivation to manage it from many of the personal characteristics that are analysed in literature quite often (such as temperament, self-evaluation, self-confidence, self esteem, stress resistance etc.). If some situations are subjectively described as very important, then they are probably perceived as more stressful (Plevová, Urbanovská, 2007). It is crucial not the objective level of all mentioned characteristics for the stress intensity, but how they are perceived, felt and evaluated by a person. This fact was proved on the base of research investigations (Lazarus, Folkmanová, 1984, Čáp, Mareš, 2001, Plevová, 2007 et al.). An active attitude to the particular stressor has a very important role. The individuals who understand a demanding situation as a challenge to know the borders of their abilities, are not exposed to stress so much (Atkinson, 1995).

We assume that all the moderators of stress (both the dimensions of the particular situation and inner conditions of the individual) are in the relationship of interaction and reciprocal influence. In our research we focused on the relationship between the incidence of a stressful situation and the level of subjectively perceived stress.

The aims of the research

We have been dealing with the problem of school stress for several years already. The results presented in this article are a part of a broader research focused on the perception of school stress. With respect to this article, the main aim is:

- to find out how the older adolescents perceive a school stressful situation from the incidence and intensity point of view (stress that the students feel in this situation)
- to find out the differences in perception of incidence and intensity in relation to gender, class, type of school and school achievement
- to compare the incidence of stressful situations in relation to stress amount they can cause

The Method

A new version of the questionnaire of stressful situations was modified in our research, which started as a reduction and adaptation of the previous questionnaire with 89 items. It was used in our previous researches (closer see Binarová et al., 2005). We verified functionality and a structure of the reduced questionnaire in 2006 and 2008. We tried to describe the principle of the reciprocal dependences among the items on the base of repeated factor analyses (closer see Urbanovská, 2007).

The questionnaire contains 2 x 47 items in two parts with a description of the situations that can represent inadequate stress for students. In the first part of the questionnaire, the situations are judged on the five point scale from the incidence point of view. In the second part, the identical situations are judged on the five point scale in relation to the level of stress they can evoke.

The situations cover five categories: A – relationship between a teacher and a student, B – school marking, D – learning process conditions, E – inter-personal peer relationships, F – other factors.

Particular items are then classified according to three factors (I, J, K), that are indicated by explorative factor analyses: the factor I which we specified as directed on emotions (passive managing), the factor J – directed on a problem (active managing) and the factor K – managing by avoidance (closer see Urbanovská, 2007).

The results were analysed on the base of statistical calculation of the Spearman's ordinal correlation, the Pearson's coefficient of correlation and Wilcoxon's binary test.

The characteristics of the research sample

The research was realized in spring 2008 at seven vocational schools and grammar schools in Moravian region. 619 students took part in the research (1st and 3rd classes, at age of 15 – 20, the average age was 16,87, 257 boys and 362 girls, 301 students of grammar schools and 318 students of vocational schools with different specializations).

The results and a discussion

The incidence of the stressful situations

The average values are as a whole close to grade 2 (rarely) on the five point evaluating scale. It means that in average the stressful situations occur at the chosen secondary schools only rarely or sometimes.

In regard to the particular categories, all respondents indicate as the most frequent the situations connected with learning conditions and school performance. The difference of average values of this group of situations and category on the second place (situations connected with school classification) is significant. The situations connected with the teacher – student interaction are the third most frequent as a whole and at vocational schools, however, at grammar schools other situations are the third most frequent (situations connected e.g. with behaviour of a school porter, cooks, other students in a school canteen etc.).

From the I, J, K dimensions point of view, the situations that are saturated by factor J are the most frequent (the individual can influence the process and the result of this situation with the help of his activity connected with active managing directed on the problem). The situations connected with manifestations of hostility, aggression, noisy and unpleasant atmosphere (factor K) were placed on the second place. The situations hardly influenceable are judged as the least common. In these situations, the relationship to an authority dominates, connected rather with passive managing directed to emotions (factor I).

We present the average values of incidence of the situations as a whole and with respect to the type of school in the chart 1.

Chart 1: The average values of incidence as a whole and in term of type of school

Type of school	AS A WHOLE		VOCATIONAL SCHOOLS		GRAMMAR SCHOOLS	
	Average	Order	Average	Order	Average	Order
Average	2,30		2,27		2,33	
CATEGORIES						
A	2,07	3.	2,10	3.	2,03	4.
B	2,21	2.	2,27	2.	2,15	2.
D	2,91	1.	2,81	1.	3,02	1.
E	1,98	4.	1,97	4.	1,99	5.
F	1,92	5.	1,79	5.	2,05	3.
I	2,09	3.	2,10	3.	2,08	3.
J	2,83	1.	2,75	1.	2,91	1.
K	2,18	2.	2,12	2.	2,24	2.

In respect to type of school, there were **significant differences** both in overall average and the situations B, D, F, J and K (see chart 2). The students of grammar schools indicate significantly higher incidence both as a whole and especially at the situations connected with learning process conditions and school performance (category D), with other various aspects (category F). The results related to factor J (influenceable, active managing) and K (hostility, escape) correspond with this fact. The students of vocational schools then judge the situations connected with school marking (B) as more common.

Chart 2: Differences in evaluation of incidence in respect to type of school (Mann-Whitney's U test)

parameter	Overall score	A	B	D	E	F	I	J	K
z	2,7057	-1,128	-2,072	5,874	0,487	7,424	0,579	4,913	3,136
level of p	0,0058	0,259	0,038	0,000	0,625	0,000	0,562	0,000	0,001

Key: Z – test quantity, p - probability (corresponding level of significancy)
 Values (tests) indicated in red are significant on the level $p < 0,05000$

Significant **differences of incidence with respect to gender** were proved in several categories of situations (see chart 3):

- In comparison with girls, the boys evaluate as significantly more common the incidence of the situations connected with relationship teacher – student (A), with school marking (B), other situations (F) and situations connected with passive managing (I).
- On the other hand, the girls evaluate as significantly more common the situations connected with learning conditions (D).

The overall score of the incidence is lower at female group; however, the significant difference was not proved.

Chart 3: Differences in evaluation of the incidence with respect to gender (Mann-Whitney's U test)

Parameter	average	A	B	D	E	F	I	J	K
z	-1,205	-2,759	-2,570	2,000	0,086	-2,269	-2,087	0,860	1,274
Level of p	0,2281	0,0057	0,0101	0,0454	0,9314	0,0232	0,0368	0,3893	0,2025

Key: Z – test quantity, p - probability (corresponding level of significancy)
 Values (tests) indicated in red are significant on the level $p < 0,05000$

Significant **differences in respect to class** were proved only in the category E (reciprocal peer relationships). The students of the 3rd classes evaluate these situations as significantly more common than the students of the 1st classes.

On the base of Kruskal-Wallis's test, it is possible to acknowledge statistically significant **differences in evaluation of incidence of the stressful situations with respect to school achievement** in Czech language and math in categories A, B, E, F, I. The most distinctive differences were proved at situations B connected with school marking. The students with mark 3 and 4 from Czech and math indicated the incidence of these situations as significantly more frequent than the students with better mark. In relation to school achievement in math, a significant difference was proved also among students with mark 1 and 2. The students with mark 2 evaluated these situations as significantly more frequent. A similar character of differences (the students with better school achievement evaluated these situations as less frequent) was proved also at most of the stressful situations.

The intensity of subjectively perceived stress of the stressful situations

The average values of intensity of subjectively perceived stress of the stressful situations in the whole sample but also in relation to the particular types of schools oscillate around the middle value of the five point scale. It means a middle level of stress (see chart 4).

We can claim that as a whole the stressful situations present in average the middle level of stress for students at chosen secondary schools.

From the particular categories point of view, the situations connected with teacher – student interaction (A) are indicated as the most stressful in the average of the whole sample. The difference of average values of this group of situations and the category which was on the second place (D – situations connected with learning conditions and school performance) is minimal. An interesting fact corresponds with this result: from the dimensions I, J, K point of view, the dimensions saturated with factor I (passive managing directed on emotions) are indicated as the most stressful, on the second place with minimal difference dimension J (active managing directed on a problem). All students perceived as significantly least stressful the situations connected with peer relationships (E) and with “avoidance” (K).

The differences of stress intensity with respect to type of school are possible to read from the data in chart 4 and 5. The students of grammar schools feel higher level of stress as a whole but also in all types of the situations. Chart 5 shows significant differences on the level of significancy 0,01 between the evaluation of grammar schools students and vocational schools students in all categories of the situations.

The differences are, however, also in order of particular categories. The most stressful situations for vocational schools students are those connected with learning conditions and school performance (D), but the grammar schools students are under the stress mostly by the situations connected with teacher – student interaction (A). This fact corresponds with different evaluations of the stress at the situations I and J. Vocational schools students indicate as the most subjectively stressful the situations of factor J, so the situations that we connect with the possibilities of active managing directed on the problem. On the contrary, it is most stressful to deal with the situations connected with so called passive managing or managing directed on emotions (factor I) for the grammar schools students. The order of other categories (B, E, F, and K) is the same at both types of schools.

Chart 4: Average values of subjectively perceived stress as a whole and with respect to type of school

Type of school	AS A WHOLE		Vocational schools		Grammar schools	
			Average	Order	Average	Order
Average	3,03		2,82		3,25	
Categories						
A	3,14	1.	2,86	2.	3,44	1.
B	2,99	3.	2,82	3.	3,18	3.
D	3,13	2.	3,03	1.	3,24	2.
E	2,62	5.	2,43	5.	2,81	5.
F	2,78	4.	2,50	4.	3,08	4.
I	3,20	1.	2,89	2.	3,53	1.
J	3,14	2.	3,02	1.	3,26	2.
K	2,59	3.	2,49	3.	2,70	3.

Chart 5: The differences in evaluation of the intensity with respect to type of school (Mann-Whitney's U test)

Parameter	average	A	B	D	E	F	I	J	K
Z	7,944	8,075	5,493	4,333	5,272	8,241	9,175	4,818	4,036
level p	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

Key: Z - test quantity, p - probability (corresponding level of significancy)

Values (tests) indicated in red are significant on the level $p < 0,05000$

We can follow **the differences in evaluation of stress intensity with respect to gender** in chart 6.

Significant differences in perception of stress intensity between boys and girls were proved in all categories of situations besides category F (other situations). Plus values predicate that in all cases the girls indicate the situations as significantly more stressful than boys.

Chart 6: The differences in evaluation of stress intensity with respect to gender. (Mann-Whitney's U test)

parameter	average	A	B	D	E	F	I	J	K
z	3,336	3,313	2,125	2,567	6,979	0,781	2,335	3,063	4,785
level p	0,000	0,000	0,034	0,010	0,000	0,435	0,019	0,002	0,000

Key: Z - test quantity, p - probability (corresponding level of significancy)

Values (tests) indicated in red are significant on the level $p < 0,05000$

Significant **differences with respect to class** were proved only in one category of situations: In comparison with 1st class students, the students of 3rd classes indicate the situations connected with teacher – student interaction (A) as significantly more stressful.

Significant **differences of stress intensity with respect to school achievement** in Czech language are possible to prove in all categories and overall score on the base of Kruskal-Wallis’s test. With respect to school achievement in math, it is possible to prove the differences in overall score and most categories, besides situations connected with learning conditions, active managing and avoidance. The differences with respect to school achievement in Czech language are more distinctive.

If we resume all found significant differences in perception of stress intensity with respect to school achievement, we can state that the students who have mark 2 in Czech language and math feel the highest stress as a whole and nearly in all categories. On the other hand, the students with mark 3 and 4 indicate lower stress and the differences in their evaluation in relation to students with better or worse school achievement are in many cases significant. The students with mark 4 perceive the lowest stress intensity. This knowledge is interesting because if we speak about stress and trauma from failure, usually students with not so good school achievement come into our mind. But in our sample, these students were the least stressed by the situations from all respondents.

The comparison of the incidence and stress intensity perception

Accordingly to above mentioned theoretical background, it is necessary to consider stress intensity of particular situations in the context of their incidence to know better the atmosphere at a school.

Chart 7: The comparison of incidence and intensity – average and order – whole sample

	Incidence	Order	Intensity	Order
Average	2,30		3,03	
Average A	2,07	3.	3,14	1.
Average B	2,21	2.	2,99	3.
Average D	2,91	1.	3,13	2.
Average E	1,98	4.	2,62	5.
Average F	1,92	5.	2,78	4.
Average I	2,09	3.	3,20	1.
Average J	2,83	1.	3,14	2.
Average K	2,18	2.	2,59	3.

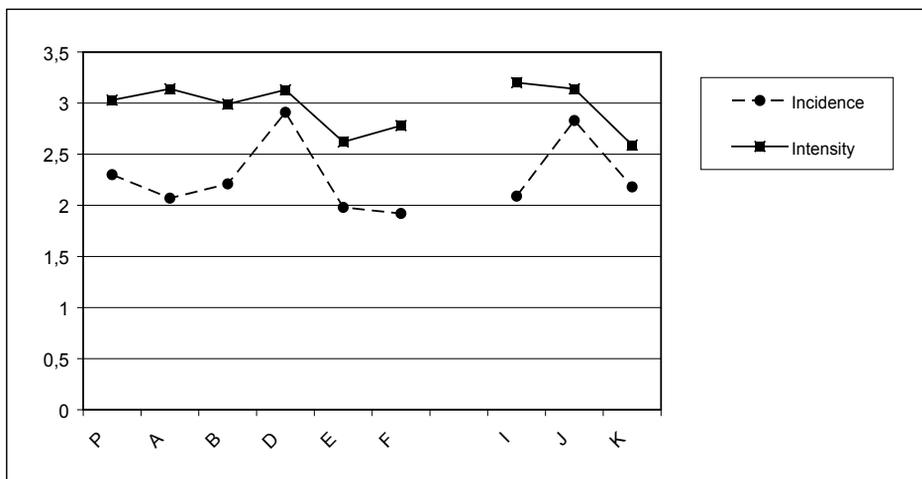
The chart 7 shows, that the overall average and average values with respect to particular categories are lower at incidence than at stress intensity.

It is evident also from chart 1 that the lowest difference among average scores of incidence and intensity is at situations J and D. It means that situations that are connected with active managing and directed on the problem (mostly the situations dealing with learning conditions and school performance) have the highest incidence and at the same time they are quite stressful.

On the other hand, the situations dealing with reciprocal teacher – student interaction (category A) and the situations connected with passive managing (factor I) are indicated as the most stressful but their incidence is not so high (the third in order).

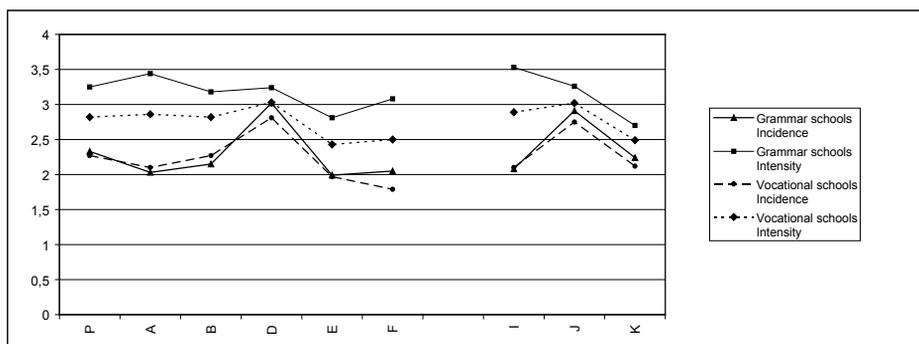
Chart 8: The comparison of incidence and intensity – average and order – type of school

	Grammar school				Vocational school			
	Incidence	Ord.	Intensity	Ord.	Incidence	Ord.	Intensity	Ord.
Average	2,33		3,25		2,27		2,82	
Average A	2,03	4.	3,44	1.	2,10	3.	2,86	2.
Average B	2,15	2.	3,18	3.	2,27	2.	2,82	3.
Average D	3,02	1.	3,24	2.	2,81	1.	3,03	1.
Average E	1,99	5.	2,81	5.	1,97	4.	2,43	5.
Average F	2,05	3.	3,08	4.	1,79	5.	2,50	4.
Average I	2,08	3.	3,53	1.	2,10	3.	2,89	2.
Average J	2,91	1.	3,26	2.	2,75	1.	3,02	1.
Average K	2,24	2.	2,70	3.	2,12	2.	2,49	3.



Graph 1: The comparison of incidence and intensity – whole sample

P = average, A, B, D, E, F, I, J, K = particular categories and dimensions



Graph 2: The comparison of incidence and intensity – with respect to type of school

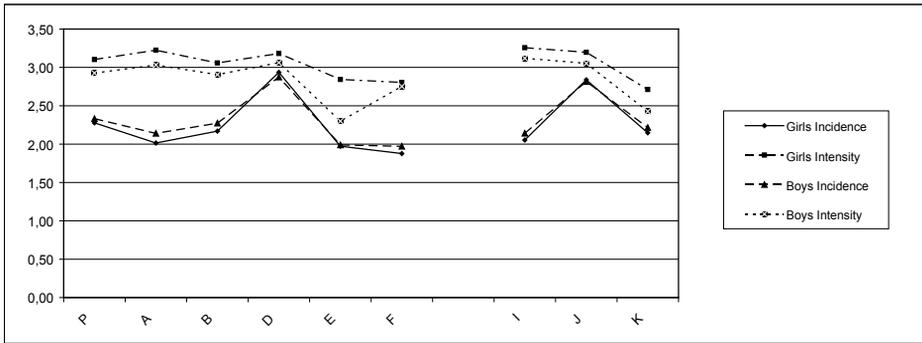
P = average, A, B, D, E, F, I, J, K = particular categories and dimensions

The comparison of incidence and intensity **with respect to the type of school** shows that the grammar schools students perceive the incidence of the stressful situations as a whole and in some categories as significantly higher, but the differences are not as distinctive as the evaluation of intensity. In other words, there is not so distinctive difference in evaluation of incidence between both types of school as in subjectively perceived stress that the students in these situations feel.

The comparison of incidence and intensity **with respect to gender** shows that the girls indicate significantly lower incidence of stressful situations both as a whole and in most of the categories, but significantly higher level of stress intensity in all categories and also as a whole. This fact corresponds with transaction stress theory of Lazarus and Fokmanová (1984). According to this theory, people do not have to feel more numerous stressors, but after all they can feel them more intensively. However also in this case, we can see, that gender differences in perception of incidence are not so distinctive as in subjectively perceived stress that the students feel in these situations.

Chart 9: The comparison of incidence and intensity with respect to gender

	Girls		Boys	
	Incidence	Intensity	Incidence	Intensity
Average	2,28	3,10	2,33	2,93
Average A	2,01	3,22	2,14	3,03
Average B	2,17	3,06	2,27	2,91
Average D	2,93	3,18	2,87	3,06
Average E	1,97	2,84	1,99	2,30
Average F	1,88	2,80	1,97	2,75
Average I	2,05	3,26	2,14	3,12
Average J	2,84	3,20	2,82	3,05
Average K	2,15	2,71	2,22	2,43



Graph 3: The comparison of incidence and intensity – with respect to gender

P = Average, A, B, D, E, F, I, J, K = particular categories and dimensions

An interesting knowledge is that significant differences in perception of incidence and intensity **with respect to class** were proved only in minimal number, always in one category. So the parameter age does not probably mean so important role in perception of incidence and intensity of the stressful situations as other investigated parameters.

Significant differences of values in incidence and intensity were proved at most items and averages of particular categories. The score of perceive stress intensity is higher than the score of incidence of the stressful situations in all cases of significant differences. It means that in spite of the fact the situations are evaluated as very stressful, their incidence is evaluated as significantly less common.

The significant differences were not proved only at several particular situations that are connected with learning conditions (examination, writing essays, unpleasant environment of classrooms) and with peer interactions (group rivalry and superiority of older students). The values of incidence and intensity at these situations are very close. If it is low, middle or high incidence and stress, it is possible to judge only with respect to average values of these items (see chart 10).

Chart 10: The average values of incidence and intensity at items where significant differences were not proved (the whole sample)

Item	Description of the situation	Incidence	Intensity
12 KE	There are groups which compete among themselves.	2,5	2,6
15 JD	You are examined at the blackboard.	2,9	2,8
27 JD	You write an essay which is very important for you.	3,5	3,5
33 KF	Older peers forerun in the queue in the canteen.	2,4	2,4
36 JD	You write more tests in one day.	3,7	3,8
45 KD	The classroom is unpleasant.	2,5	2,5

The chart shows that the values are close or overreach the middle value (3) only at three situations (in bold). All these situations deal with writing essays or examina-

tion. The situations that are evaluated as very stressful and they appear quite often at the same time are possible to declare as dangerous for mental health. We detected other very stressful and often repeated situations during the analysis of incidence and intensity values of particular items. Though a significant difference was proved in their incidence and intensity (see chart 11).

Chart 11: The situations with the highest values of intensity and incidence where the significant differences were proved (the whole sample)

Item	Description of the situation	Incidence	Intensity
11 JD	You are supposed to learn a great amount of information to next day.	3,8	3,4
7 JD	The afternoon school takes long time.	3,7	3,2

Summary and discussion

The known results are in step with previous researches. The average value of subjectively perceived intensity is in the zone of middle stress. The values of incidence are lower than the values of intensity; they are close to level “rarely”. The situations from the categories: teacher – student interaction, learning conditions and school performance are the most stressful for the students. The stress intensity in the factor dimensions of passive managing and active managing corresponds with this fact. The situations of learning conditions and school performance and factor dimension of active managing are perceived as the most frequent.

Statistically significant differences in perception of incidence and intensity with respect to gender, type of school, and school achievement were proved. The girls, the grammar schools students and the students with mark 2 feel significantly higher level of stress. The found differences in perception of stress at girls and boys are not surprising. Previous researches (e.g. Mlčák, 1999, Medved'ová, 2004) show higher sensibility of girls in any stress. The difference is probably determined by basic gender differences. It is possible to assume, that male population interpret a stress situation more rationally, on the contrary, female population more emotionally. Other researches prove (Plevová, 2007), women ascribe to stressful situations bigger importance. Then, it is possible to explain why they perceive the situations as more stressful (closer see Plevová, Urbanovská, 2007).

From the same point of view, it is possible to consider the differences with respect to the type of school. The higher subjectively perceived stress of stressful situations at grammar schools students can be explained by higher importance that is ascribe to them. Moreover, it is possible to discuss also the influence of higher level of responsibility, that the grammar school students feel, and also higher requirements that they are asked for.

We identified the biggest stress at situations from the category A (teacher – student interaction) and D. In this respect, we admit consensus with results of L. Medvěďová (2008) in her research of school stressor in early adolescence. The most stressful were the stressors of school competence (strict school rules, subordination to an autho-

ity) and stressors directed to school performance. Piekarska (2000) found out that the most stressful part of the school stress is teachers' behaviour and attitude to pupils. In other researches, tests and examination were proved as the most stressful, so in respect to our division, it is category D (Warianová, 2000). We can state, that our findings correspond with the results in other researches.

The found differences with respect to school achievement are interesting. Mostly, it is assumed high stress intensity at students with bad school performance. This fact was not proved at our sample, on the other hand, these students perceived the lowest stress. Surprisingly, the students with objectively good results felt the highest stress intensity. It is possible to assume, the result of learning activity is important for these students, maybe because they have also higher aspirations. It is quite probable, that they do not evaluate their school achievement as sufficient; they want to achieve better results. Therefore, the situations connected with learning activities and active managing are so stressful for them.

However, it is also possible to assume another causality. The found perceived high stress intensity can present a reason why they do not reach mark 1. The high stress intensity can have negative influence on their performance during tests and examination. We think that a model of criterion evaluation at secondary schools, which was introduced in Slovak Republic by Z. Vašašová (2006), could be one of the possibilities of positive change in students' attitude to school and school evaluation. It is possible to assume, that the transparency of evaluation criteria can significantly lower the examination pressure for students who perceived the school achievement as subjectively very important.

Significantly distinctive differences were proved in perception of stress intensity with respect to gender and type of school than in perception of incidence of the stressful situations. This fact introduces a question of causality of this phenomenon. It is possible to admit that so big inter-individual differences do not exist in evaluation of incidence, that the perception of incidence in comparison with the perception of intensity is not so significantly determined by personal determinants, but it is based on objective indicators. Then, we can assume that the statements about incidence correspond more or less with objective fact which the adolescents are able to objectively judge.

The significant differences between perception of incidence of the stressful situations and their intensity were proved. The biggest difference between the incidence and the intensity exists at the situations connected with teacher – student interaction. We consider this knowledge as positive one because strongly stressful situations occur only rarely. It is possible to suppose, that school and classroom climate, influenced by the teacher to a great extent, does not have to represent only negative characteristics at our schools (compare with Grecmanová, 1998). The minimal differences are at the situations from the categories connected with learning conditions and school performance. Especially these situations, when the students write important or unexpected tests or more tests in one day, are very stressful for the respondents and at the same time, they occur very often. This knowledge should lead the teachers to think about the organisation of learning activities and to find the possibilities to lower the mental stress of the pupils and the students. With respect to high values of intensity and incidence, we think that these situations can represent risk for mental health of adolescents.

Conclusion

The research data gained in 2008 with the help of modified questionnaire of stressful situations correspond with the results from our previous researches. We confirmed a middle level of the overall stress; the average incidence of the stressful situations did not reach the middle values. The significant differences between the perception of the incidence of the stressful situations and the subjectively perceived stress intensity were proved.

Gender differences, differences with respect to the type of school and also to school achievement were proved in perception of incidence and intensity. More distinctive differences were shown in perception of stress intensity; there was agreement more often in perception of incidence.

We applied the questionnaire of the stressful situations within the overall quantitative research, which brought some interesting and important findings. However, it is showed at the same time that statistical treatment of data can hide some significant facts. Therefore, we emphasize the validity of stress conception as the multifactor phenomenon that is necessary to judge in respect to particular context with inter-individual and intra-individual variability in our mind. In these dimensions, it is possible to consider also the stress adequacy or stress inadequacy connected with school environment.

We are sure that it is necessary to use more detailed data analyses with respect to particular environment of the schools and students and to interconnect the research with qualitative approaches for the possible intervention of particular pedagogical conditions.

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PERCEPCIE ŠKOLNÍCH STRESOGENNÍCH SITUACÍ ADOLESCENTY

Abstrakt: Běžné denní problémy spojené se školou mohou představovat významná rizika pro duševní zdraví. Do značné míry to závisí na jejich subjektivní percepci a interpretaci. Příspěvek na základě empirického výzkumu informuje o tom, jak současní středoškolští studenti percipují frekvenci výskytu a intenzitu působení školních stresogenních situací. Rozdíly v hodnocení jsou zde zkoumány jak v rámci celého souboru, tak z hlediska pohlaví, typu školy, ročníku a školního prospěchu. Výsledky korespon-

dují s našimi předchozími výzkumy i s poznatky prezentovanými v odborné literatuře. Frekvence výskytu zátěžových situací je celkově nižší, než úroveň subjektivně vnímané zátěže. Rozdíl je výrazný zejména u situací vztahu učitel - žák, zatímco u situacích se k podmínkám učebního procesu a podávání výkonu je zanedbatelný.

Klíčová slova: stres, běžné denní problémy, škola, střední adolescence, pohlaví, typ školy, prospěch