

Age and Gender Differences in Risk Behavior in Adolescence in Slovakia

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Abstract – In the paper we have focused on the age and gender differences in the risk behavior in adolescence. The main concept we work with is Jessor's Syndrome of Risk Behavior in Adolescence. In the research we used the 38-items QRB (Questionnaire of Risk Behaviour; Čerešník, 2016). Research sample consists of 1011 adolescents in the age 10 - 15 from all regions of Slovakia. We assumed the differences in the risk behavior in relation to age and gender. The results showed that the boys and older adolescents have the higher tendency to behave risky.

Keywords – Risk Behavior, Adolescence, Age differences, Gender differences.

1. Introduction

The risk behavior as a concept has a lot of definitions (in Slovak and Czech context e.g. Miovský, Zapletalová [1]; Dolejš [2]; Širůčková [3]; Nielsen Sobotková et al. [4]). It is very dynamic concept changing in the time. It has many categories as truancy, addictive behavior, premature sexual activities, bullying, delinquent behavior, xenophobia, low level physical activities, squatting etc. There are a lot of theories which interpret the risk behavior, e.g.

biological, psychological, interactive, control, subculture etc. (their review is available in the publication of Hrčka [5]) We prefer the theory of Jessor [6] who defined the concept of the syndrome of the risk behavior in adolescence (SRB-A) according to which the adolescent can behave risky only in concrete area of life and in other areas they behave adequately. It means that the adolescents test the boundaries of this world to discover what is willing and unwilling behavior. Jessor and his colleagues, (e.g. [7] [8] [9]) identified the risk factors which contribute to the risk behavior production. They are divided into three subgroups: individual, family and society. In the family factors there are effective relations and communication, support, values contingency, middle class. In the society factors there are quality school, effective legislative, strong social control, positive messages in the media, low acceptance to negative phenomenon. In the individual factors there are high intelligence, high self-esteem, social competences, high self-control, positive group of peers, positive orientation to health, religiosity, volunteering, positive perspective to future.

We explored the risk behavior in the age from 10 to 15 in Slovakia. We obtained the results that are summarised in publication of Čerešník [10].

The risk behavior has a higher prevalence in the group of the boys. It increases together with the age. It culminates when the adolescents leave the elementary school, resp. in the age of 14.

The risk behavior is more typical for the adolescents with lower school self-concept. It is connected with the achievement in the profile subjects (maternal tongue, math) and also with the lower self-esteem towards own school competence. Worse school results represented by the lower school self-concept and the long-term experience with failures in school are the factors which enlarge the gap between the risk and non-risk adolescents.

The risk behavior is also interconnected with the personality factors as impulsivity, aggression, lower self-evaluation, anxiety, enthusiasm, lower prudence [11], [12], [13].

The comparison of Slovak and Czech adolescents [14] showed that Slovak adolescents are less prudent,

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less anxious, less verbally aggressive, less hostile, less angry, more physical aggressive. The adolescents in Slovakia use psychoactive substances (alcohol, tobacco, marihuana) in lower frequency and they are victims of bullying more frequently. The Slovak adolescents behave more risky than the Czech ones.

The comparison of the forms of risk behavior showed the different values in Slovak and Czech adolescents [14], [15].

In Slovakia, we obtained this order of the risk behavior forms: (1) victim of insulting (35,8 %), (2) theft (25,4 %), (3) falsification of the parents' signature (24,7 %), (4) alcohol use (21,4 %), (5) self-harming (20,8 %), (6) money theft (17 %), (7) damaging of foreign property (16,3 %), (8) victim of hurting (13,8 %), (9) tobacco use (12,2 %), (10) truancy (12 %), (11) shop theft (10,8 %), (12) marihuana use (9 %), (13) drugs use without the knowledge of the parents (8,6 %), (14) internet victim of insulting (8,4 %), (15) problems with the police (6,6 %), (16) experience with the coitus (6,1 %), (17) toot with amnesia (4,9 %), (18) smoking more than 5 cigarettes per day (3,6 %).

In Czech republic, we obtained this order of the risk behavior forms: (1) alcohol use (31,2 %), (2) falsification of the parents' signature (29,9 %), (3) self-harming (25,2 %), (4) theft (23,3 %), (5) victim of insulting (17,6 %), (6) damaging of foreign property (15 %), (7) money theft (11,9 %), (8) victim of hurting (11,7 %), (9) tobacco use (10,9 %), (10) marihuana use (10,9 %), (11) shop theft (10,7 %), (12) drugs use without the knowledge of the parents (9 %), (13) truancy (8,3 %), (14) problems with the police (7,4 %), (15) internet victim of insulting (7,1 %), (16) experience with the coitus (5,6 %), (17) toot with amnesia (3,9 %), (18) smoking more than 5 cigarettes per day (3 %).

The exploration of the adolescent risk behavior in relation to self-control showed that the lower self-control is related to higher asocial, antisocial, impulsive, maladaptive and negativistic behavior and inclination to problem groups. The adolescents believed that the effort is useless and that the others have bigger power over their lives than they do.

The social variables also influence the risk behavior production. We found that the socially excluded adolescents are more risky. They use psychoactive substances, behave delinquently and bully more frequently. Their typical symptoms were money theft (34,1 %), victim of insulting (47,4 %), alcohol use (32,3 %), cigarette smoking (18,8 %), damaging of foreign property (24,1 %). Higher risk

behavior was identified in the low-threshold centres [16], foster homes and educational institutions [17].

We suggested that the negative relation to the school increases the risk behavior and that close relations

decrease the risk behavior production. The effective communication and the trust to the parents are good protective factors. On the other hand, a lot of parents in Slovakia use the upbringing styles with negative relation to their children, low or contradictory control which are the factors increasing the risk behavior.

If we recall the information about protective individual factors defined by Jessor and colleagues [7], [8], [9], we can't identify the age and gender as factors which can contribute to risk behavior production. But some researches refer to the significant differences in risk behavior in relation to age and gender. That is the reason we explored the relations among these variables.

Byrnes, Miller, Schafer [18] discovered that the males behave more risky in substances use, sexual activities, driving, gambling, intellectual tasks. They state that the age was also the factor which influenced the risk behavior. The age 10-13 was risky in the area of risk taking in intellectual tasks and sexual activities. The age 18-21 was risky in the area of substance use and smoking. The age over 22 was risky in the area of driving. Croisant et al. [19] explored the risk behavior of the adolescents in the 9th to 12th grade level. They state that the males are more risky in the area of substance use (alcohol, tobacco, marihuana, illegal drugs), driving in conditions of alcohol intoxication, sexual activities (experience with oral sex, having more than 4 sexual partners during the lifetime). Kopecký et al. [20] mentioned that the Czech girls aged 11-17 are more frequently victims of verbal aggression, identity theft, penetration to the email account, extortion and disparagement in the environment of the internet. The boys were more frequently the aggressors. Kann et al. [21] identified the gender differences in risk behavior within the Youth Risk Behavior Surveillance. They identified the difference between the girls and boys in the 9th to 12th grade level in the area of carried weapon, bullying (also on the internet), forced sexual intercourse, feeling sadness, suicide attempt, cigarette smoking, current sexual activities, physical activities, obesity, sleeping activities. The boys were more risky in the majority of the areas. The exceptions were physical and sleeping activities. In these areas the girls were more risky. The majority of the risky activities culminated in the 11th, resp. the 12th grade. But some of them, e.g. carried weapon, feeling sadness, obesity, were the problem of all the explored grade levels.

2. Method

The research data were acquired from 1011 lower secondary education pupils in Slovakia, 470 boys and 500 girls within the age from 10 to 15 (41 of them don't present the data about their sex). Their average

age was 12,75 years (standard deviation 1,483). We obtained data from all regions of Slovakia. The representation of the grades was approximately equivalent.

The parent population was 203172 pupils visiting the 5th-9th grade of the elementary state school in the school year 2017/2018 [22].

In our research we used the Questionnaire of Risk Behavior (QRB), the method developed by Čerešník [23]. The form we used is modified. It consists of 38 items which are derived from the clinical indicators of the risk behavior. They are divided into seven subscales: (1) family relations and rituals, (2) school and friendship, (3) addictive behavior, (4) delinquent behavior, (5) bullying, (6) eating habits and activities. There is also the possibility to calculate the total score of the risk behavior. Participants evaluate the items through Likert scale with various possibilities of the answers.

We formulated the following statistical hypotheses:

H1: We assume the gender differences in the risk behavior of the adolescents.

H2: We assume the gender differences in the family relations and rituals of the adolescents.

H3: We assume the gender differences in the school and friendship of the adolescents.

H4: We assume the gender differences in the addictive behavior of the adolescents.

H5: We assume the gender differences in the delinquent behavior of the adolescents.

H6: We assume the gender differences in the bullying of the adolescents.

H7: We assume the gender differences in the eating habits and activities of the adolescents.

H8: We assume the age differences in the risk behavior of the adolescents.

H9: We assume the age differences in the family relations and rituals of the adolescents.

H10: We assume the age differences in the school and friendship of the adolescents.

H11: We assume the age differences in the addictive behavior of the adolescents.

H12: We assume the age differences in the delinquent behavior of the adolescents.

H13: We assume the age differences in the bullying of the adolescents.

H14: We assume the age differences in the eating habits and activities of the adolescents.

3. Results

The obtained data were analyzed in the SPSS 20.0 programme. We used the descriptive statistics (count, mean, standard error of mean, standard deviation), the t-test and ANOVA (the description of the statistics is available in Tomšík [24]). The standard level of significance $\alpha \leq 0.05$ was used.

The results are presented in Tables 1. and 2., Figures 1. to 4.

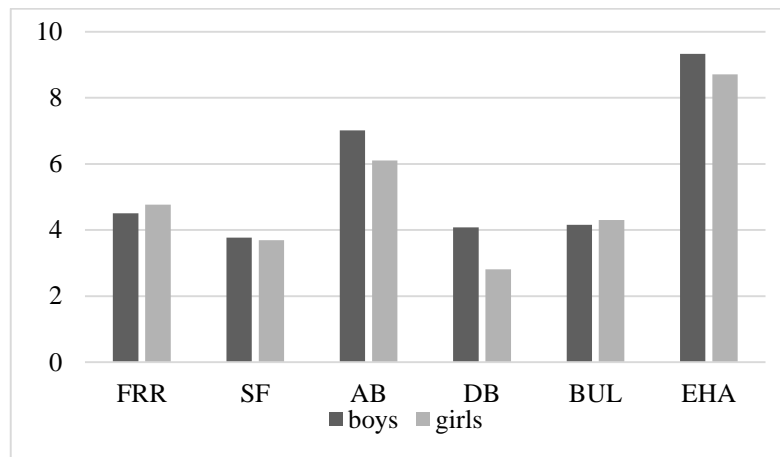
We identified the gender differences (Table 1., Figure 1. and 2.) in the addictive behavior ($t = 3,066$, $p = 0,002$), the delinquent behavior ($t = 5,109$, $p < 0,001$), the eating habits and activities ($t = 2,600$, $p = 0,009$) and the total score of the risk behavior ($t = 2,304$, $p = 0,022$). The boys produced always more risky behavior. Other differences were non-significant.

We identified the age differences (Table 2., Figure 3. and 4.) in all subscales of the risk behavior and the total score of the risk behavior except the subscale, the eating habits and activities. F-values were in the range from 3,100 to 12,001. The differences were significant at least at the level $\alpha \leq 0,01$. The risk behavior of the adolescents increased with age. We identified the culmination at the age of 14. There were two exceptions. The addictive behavior culminates at the age of 15 (in our research sample). The bullying culminates at the age of 13.

Table 1. Gender differences in risk behavior of adolescents

gender		FRR	SF	AB	DB	BUL	EHA	RB
boys	N	438	460	428	459	455	448	369
	M	4,50	3,77	7,01	4,08	4,15	9,33	32,44
	SEM	,139	,071	,232	,194	,233	,166	,725
	SD	2,910	1,532	4,791	4,149	4,970	3,524	13,925
girls	N	470	488	458	486	476	480	394
	M	4,77	3,69	6,10	2,81	4,31	8,71	30,13
	SEM	,134	,070	,188	,157	,213	,170	,698
	SD	2,894	1,536	4,023	3,464	4,637	3,727	13,851
t		1,378	,751	3,066	5,109	,486	2,600	2,304
p		,168	,453	,002	<,001	,627	,009	,022

Legend: N = frequency, M = mean, SEM = standard error of the mean, SD = standard deviation, t = value of t- test, p = significance, FRR = family relations and rituals, SF = school and friendship, AB = addictive behavior, DB = delinquent behavior, BUL = bullying, EHA = eating habits and activities, RB = total score of risk behavior



Legend: FRR = family relations and rituals, SF = school and friendship, AB = addictive behavior, DB = delinquent behavior, BUL = bullying, EHA = eating habits and activities

Figure 1. Gender differences in risk behavior of adolescents (subscales)

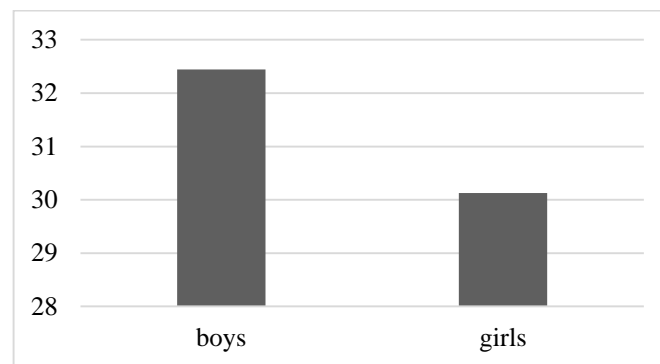
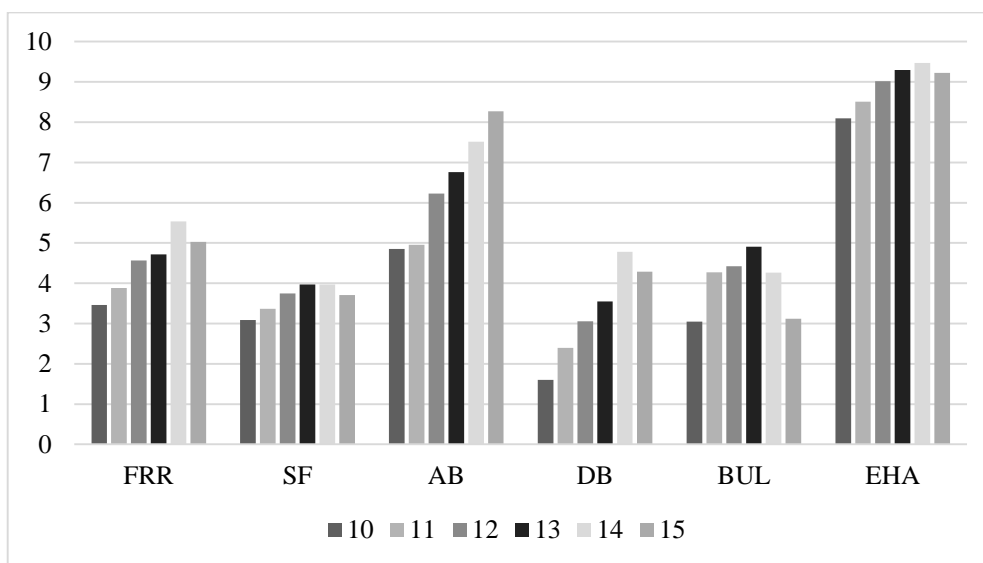


Figure 2. Gender differences in risk behavior of adolescents (total score)

Table 2. Age differences in risk behavior of adolescents

age		FRR	SF	AB	DB	BUL	EHA	RB
10	N	43	46	41	45	44	43	35
	M	3,47	3,09	4,85	1,60	3,05	8,09	23,20
	SEM	,384	,215	,606	,454	,523	,549	2,176
	SD	2,520	1,458	3,883	3,048	3,471	3,598	12,872
11	N	167	185	170	177	177	176	133
	M	3,88	3,37	4,95	2,40	4,27	8,51	26,86
	SEM	,212	,109	,265	,243	,362	,292	1,127
	SD	2,744	1,487	3,452	3,228	4,818	3,872	12,995
12	N	188	196	185	197	195	195	165
	M	4,56	3,75	6,23	3,06	4,43	9,02	31,38
	SEM	,203	,104	,282	,239	,348	,261	,988
	SD	2,785	1,451	3,837	3,348	4,860	3,648	12,692
13	N	207	214	204	218	213	207	178
	M	4,72	3,97	6,76	3,55	4,91	9,29	32,31
	SEM	,202	,105	,330	,281	,379	,253	1,141
	SD	2,904	1,530	4,710	4,153	5,524	3,640	15,225
14	N	149	151	148	151	148	151	126
	M	5,54	3,97	7,51	4,78	4,26	9,47	35,07
	SEM	,236	,121	,361	,351	,365	,279	1,208
	SD	2,886	1,485	4,393	4,310	4,439	3,429	13,562
15	N	146	148	135	148	145	145	121
	M	5,03	3,71	8,27	4,29	3,12	9,22	33,24
	SEM	,238	,136	,448	,331	,309	,293	1,193
	SD	2,881	1,659	5,204	4,022	3,720	3,533	13,119
F		7,503	5,558	12,001	10,535	3,100	2,026	7,952
p		< ,001	< ,001	< ,001	< ,001	,009	,073	< ,001

Legend: N = frequency, M = mean, SEM = standard error of the mean, SD = standard deviation, F = value of ANOVA, p = significance, FRR = family relations and rituals, SF = school and friendship, AB = addictive behavior, DB = delinquent behavior, BUL = bullying, EHA = eating habits and activities, RB = total score of risk behavior



Legend: FRR = family relations and rituals, SF = school and friendship, AB = addictive behavior, DB = delinquent behavior, BUL = bullying, EHA = eating habits and activities

Figure 3. Age differences in risk behavior of adolescents (subscales)

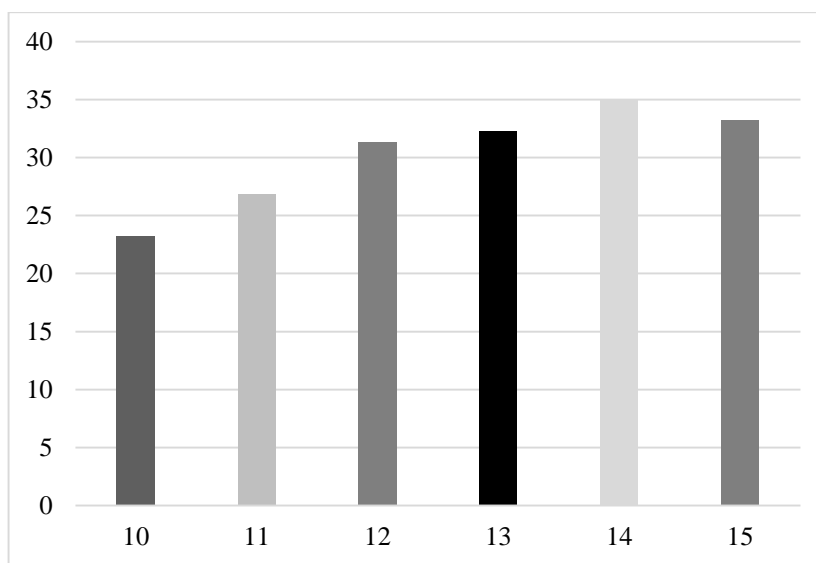


Figure 4. Age differences in risk behavior of adolescents (total score)

4. Discussion

As the results showed, we can support the hypotheses 3, 4, 6, 7, 8 to 12, 14. In general, we can state that there are the age differences in risk behavior of adolescents. The risk behavior increases with the increasing age and it culminates at 14 years. The gender is also the discriminant category in the relation to the risk behavior, but not in all subscales. The boys behave more risky, especially in addictive and delinquent behavior. It seems that the girls have problems with family rituals but they are not significantly different in comparison with the boys.

The results are in accord with the research results of the mentioned authors [18] [19] [20] [21]. The

open question is the specification of the risk behavior of the girls. It can be higher than the risk behavior of the boys in some of the indicators. It seems that the girls are threatened by alcohol or marihuana use the same as the boys [21]. But there are also another risks of the girl's behavior such as problems with sleep, sadness, low physical activity, verbal aggression or psychological separation from parents [10].

The goal of the education in the family and in the school should be the interest in the child and the active relation with him/her to identify the bud of the potentially risk behavior, especially in the sensitive age from 10 to 15.

5. Conclusion

The research results showed that there are age and gender differences in the risk behavior of the adolescents aged from 10 to 15. The boys behave more risky. The adolescents in the age of 14 are the most risky group.

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