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DIMENSIONS OF VIRTUAL BEHAVIOUR OF ADOLESCENTS

Abstract: *The aim of the paper is to explore adolescents' manifestations of the Facebook social network usage and to determine dimensions of adolescent behaviour on the social network. A sample of respondents (N = 134) is made up of second grade high school students. The research results show that there are three dimensions of the virtual activity of adolescents: intrinsic, extrinsic and risk dimension. Each dimension includes different domains of activities that potentially point to the educational implications of virtual activity (information and communication, socialization, addiction and violence). The results of the t-test show that there is no difference in intrinsic and extrinsic behaviour with respect to gender, but there is a difference in the implications for risk behaviour - female adolescents are more prone to identifying the virtual world with actual social networks and are more exposed to virtual violence, while male adolescents are more inclined to participate in virtual violence, and their virtual activity favours the creation of virtual addiction.*

Keywords: *social networks, socialization, virtual friendship.*

INTRODUCTION

The Internet and social networks appear to be the initiators of friendly contacts and relationships among people but at the same time they bring digital divide as the number of actual and immediate meetings among young people is reduced. According to Cristakis and Fowler (2010: 259), "the Internet has enabled new social forms that represent radical modification of existing types of interaction within social networks in four ways:" the vastness (a large increase in the scale of our networks and the number of people we can reach in order to join them), sense of group solidarity (expansion of the scope within which we can share information and contribute to collective efforts), specificity (an impressive increase in the particularity of the connections we can create), virtuality (ability to absorb virtual identities).

The paper deals with the Internet as the most important technological advancement of modern generation and social networks used by adolescents as the most widely spread mass media which has a socialization form. Dimensions of virtual behaviour and friendship on Facebook social network are empirically approached. Modern technology and fast computerization have brought about changes into society, and the biggest contribution is made by the Internet which is said to be "the civilizational achievement with the extremely dynamic and very rapid development of digital information-communication technologies that has changed the world" (Stanić, 2010: 10).

It has been empirically confirmed that mass media have become almost crucial factor of young generation's socialization that influences their thinking and behav-

our (Ilišin et al., 2001; Košir et al., 1999; Livazović, 2012; Miliša, 2006). Foucault Welles et al. (2014) have explored the nature of friendship on the popular social network *Second Life* by conducting 65 semi-structured interviews with its users. The aim of the research was to examine the reasons for becoming a virtual friend, the expectations of virtual friendship and the specifics that are created through virtual activity. Research results show that friendships on the abovementioned social network are very common, and making friends does not necessarily depend on common themes, activities, and people's interests. Ridings and Gefen (2004) explored reasons why people enter the virtual community. Total of 399 respondents participated in the research, and research results show that people are mostly involved in virtual communities because they seek friendship and information sharing, while a lower percentage of people go into virtual communities because they seek recreation or social assistance. Authors come to conclusion that the reasons for entering virtual communities vary depending on the type of group/community they are entering, so social support is one of the more common reasons for getting into the community dealing with health issues, while friendship was one of the most popular reasons for becoming a member of a community dealing with personal interests, hobbies, pets, etc. Froding and Peterson (2012) discuss, on the basis of Aristotle's theory of friendship, that virtual friendship is not the same as genuine friendship. Authors under the term virtual friendship imply the kind of friendship that exists on the Internet, which rarely or almost never happens in live interaction. Under the term traditional friendship, authors imply a type of friendship that involves real interaction, and emphasize that only this kind of friendship can become genuine friendship and that only such kind of friendship can be identified as morally valuable. Authors conclude that virtual friendship is a form of lower and less valuable social interaction. Livazović (2012) investigated the relationship between media and adolescent risk behaviour on the sample of 735 respondents, and the results show multiple correlation-regression coherence among the examined variables. The results show that quality family, school and peer relations are negative predictors of risk behaviour, and higher quality and activity of youth in free time predict greater prevalence of externalized risk behaviours and less media dependence. Kušić (2010) conducted a research aimed at determining the manner of Facebook usage in higher grades of primary school and identifying different behaviours of students on Facebook. The author concluded that out of 92 higher grade students included in the research, 89.1% of students possesses Facebook profile. By identifying student behaviour on Facebook and analysing the data obtained, author concludes that Facebook is one of the most prominent forms of communication in everyday life. Buljubašić Kuzmanović et al. (2010) are concerned with the peer context of student development with an emphasis on popularity and friendship as the two most important dimensions of peer relationship. The aim of the research was to examine what students expect from their best friend and how much these expectations are achieved in the school context, among peers, and how much this expectations change with respect to the age and gender of the child. The research included 278 students from the third to the eighth grade in the town of

Osijek. Research results show that popularity and friendship are two different forms of social experience that are conceptually and empirically related. Honesty and trust are shown as links to friendship and popularity (acceptance) with older students, and with younger students, kindness, help and honesty. Although online social networks make it easier to meet new people nowadays, young people use it primarily to maintain or strengthen their current, real social networks outside the virtual world (Foucault Welles et al., 2014).

In the period of adolescence, young people are the population most exposed to the risk due to insufficiently developed critical abilities (Erikson, 1968; Livazović, 2012; Miliša, 2015). Social networks are often full of inappropriate content that young people are directly and / or indirectly exposed to. There is the problem of educational role of such media content because children and young people are particularly inclined to imitate and “young people become passive fans of ideas of others” (Miliša, 2006: 49). Virtual activities allow for easier socialization of isolated adolescents, but can also enable the development and / or confirmation of delinquent behaviour such as various forms of violence, vandalism, and behavioural problems. In virtual world it is possible to lead another life and to treat others without restriction. This is where new forms of society emerge that erase the boundary between the real and the virtual world. Virtual worlds may look better than the real world because of the way people naturally start to behave in these new environments. Social networks are the place of information sharing, communicating with people, sharing details from personal life, playing various games, and in the abundance of online social networks, Facebook has become one of the most popular for all age groups. Facebook has become, in sociological sense, a new form of gregariousness and social connectivity. Due to the fact that socializing and conversation with friends are replaced by virtual activities, online social networks have an impact on the culture of socializing (Kušić, 2010). More frequent attachment to online activities becomes a lifestyle that can lead to the emergence of behaviour problems of young people. That is how cyber addiction appears - a modern type of addiction characterized by the blend of real and unreal and is described as an addiction to many features provided by computer and compulsive online behaviour. Apart from its many advantages, online activities can lead to negative consequences for the upbringing and socialization of young people. According to Christakis and Fowler (2010), social networks are elaborate, complex and widespread so it is necessary to explore what they serve, how they function and how they affect the environment.

METHODOLOGY

The aim of the research is to examine dimensions of virtual behaviour of adolescents on Facebook social network.

In order to operationalize the aim, research tasks were given: to establish domains of using the Facebook social network; to explore the manifestations of virtual activities of young people.

The research starts with the following hypotheses:

H1: Young people primarily use Facebook for information and socialization.

H2: The possibilities of virtual activities can be negatively manifested in the process of education and socialization of young people.

The research was conducted on a purposive sample of 134 respondents, consisting of second grade students from high schools with a grammar school program in the Varaždin County (N=134 in the 2016/2017 school year makes 29% of the total population), of which 96 are female and 38 are male respondents.²⁵ The sample was selected from the perspective of researcher's capabilities and based on the willingness of respondents and schools to cooperate. The instrument is an anonymous survey designed for research purposes and contains closed-ended questions in the form of statements and divided into three parts²⁶: the sociodemographic characteristics of the respondents; the dimension of Facebook social network usage; risk dimension. The sociodemographic characteristics of the respondents include four questions – grade, educational program, gender, and having a Facebook profile. The dimension of Facebook social network usage contains 15 statements relating to the intrinsic and extrinsic tendency to use Facebook as a social network. With each statement, the respondent was offered a 4-point Likert scale (1-strongly disagree; 2-disagree; 3-agree; 4-strongly agree). The risk dimension contains 14 statements related to exposure to negative virtual activity which includes the emotional component and the occurrence of risk behaviour. The same as in the previous instrument, with each statement the respondent was offered a 4-point Likert scale (1-strongly disagree; 2-disagree; 3-agree; 4-completely agree), and the respondent's task was to choose the answer that applies most to him. With the method of anonymous survey, the research was conducted in April 2017 in high schools in the Varaždin County. The survey was conducted in the classroom after the class and lasted for 20 minutes, where each respondent answered the questions and statements on their own. Descriptive statistics and t-test for independent samples were applied in the data processing, and the data were analysed using the SPSS computer program for statistical data processing.

RESULTS AND INTERPRETATION

First, the results obtained by descriptive statistics relating to the scale of Facebook social network usage and the implications of virtual activity of the respondents are presented, and then the results on subscales and differences between them by gender, with interpretations of the results are given. The obtained results are put into the function of educational practice and are enriched with available scientific and published papers in this and related fields, thus comparing the obtained research results with those of foreign and domestic authors. Below is an overview of the results obtained by descriptive statistics. For each questionnaire variable, the number of respondents who answered the statement was given, as well as the minimum (Min.) and maximum (Max.) range of responses on the scale, arithmetic mean (M), standard

25 The numerical difference in the ratio of male to female respondents is not accidental - in most classes of the grammar school education program, female gender is predominant.

26 The questionnaire is available on request to the author.

deviation (SD), and frequencies of positive (F+) and negative (F-) responses expressed in percentage.

Table 1. Facebook usage and implications of virtual behaviour (N=134; MIN.=1, MAX.=4)

Statement	M	SD	F -	F +
1. I use Facebook because it helps me make friends.	2,82	0,723	26%	74%
2. I make Facebook friendships because it makes it easier to maintain contacts.	2,61	0,820	35%	65%
3. I use Facebook to share information.	2,91	0,750	24%	76%
4. I use Facebook for fun with friends.	2,78	0,708	29%	71%
5. I use Facebook for quicker and easier arrangements and quicker and easier access to information.	3,32	0,620	6%	94%
6. I use Facebook to play online games with friends.	2,09	0,956	68%	32%
7. Because of Facebook friendships, I get to know my friends better.	2,20	0,890	61%	39%
8. Because of my presence and activity on Facebook, I have more friends.	2,25	0,801	66%	34%
9. I feel popular if I have as many Facebook friends as possible.	1,51	0,679	94%	6%
10. My peers without a Facebook profile are not „cool“.	1,41	0,674	96%	4%
11. Because of my Facebook profile and Facebook friendships, I get to hang out with peers more.	2,29	0,773	59%	41%
12. I feel more connected with my peers if we are Facebook friends.	2,56	0,879	43%	57%
13. I use Facebook to talk more honestly and openly with my friends.	1,76	0,805	84%	16%
14. I use Facebook to stalk other people - friends, acquaintances, former or future partners.	2,62	1,101	41%	59%
15. I use Facebook because it is easier to access the opposite sex through the social network.	2,30	0,851	55%	45%
16. I feel bad if I get on my Facebook profile and see that I don't have any new notifications or messages.	1,89	0,843	78%	22%
17. I get mad at my friend if he/she doesn't „like“ my picture or a post.	2,30	1,171	51%	39%
18. I know all my Facebook friends personally.	2,10	0,967	66%	34%
19. I wish to deactivate my Facebook profile, but due to certain circumstances, I can't.	3,09	0,658	16%	84%
20. In the morning when I wake up, my first activity is to visit my Facebook profile.	3,20	0,746	15%	85%
21. When I'm not active on my profile, I think about what my friends are doing on Facebook and what is going on online.	3,18	0,590	10%	90%
22. I feel restless if I have not visited my profile for a long time.	2,88	0,418	15%	85%

23. I get into arguments via Facebook comments.	2,39	0,957	55%	45%
24. Other people insult and/or harass me on Facebook.	3,02	0,822	26%	74%
25. Using Facebook sometimes causes discontent in me.	2,49	0,571	51%	49%
26. I am often exposed to inappropriate content via Facebook.	2,85	0,910	28%	72%
27. Strangers contact me on Facebook.	2,35	0,959	59%	41%
28. By communicating online, I can speak/write what I want and to whom I want without restrictive content or vocabulary.	2,25	1,008	64%	36%
29. My friends' posts sometimes upset me and/or cause discomfort.	2,43	0,929	47%	53%

Descriptive statistics show that respondents use Facebook because they believe that this social network helps them make friends and makes it easier to keep in touch with friends and acquaintances. Most of the respondents gave a positive answer to the statements related to the basic function of social networks - socialization and communication, and it is visible that respondents distinguish between virtual and genuine friendship. Low frequency of positive responses occurs with statements of feeling popular because of a Facebook account, and a lower percentage of respondents feel bad when they visit their Facebook profile and don't have any notifications or messages. For a slightly higher percentage of respondents it is extremely important that their friends like their pictures or posts, i.e. it is important for them to collect likes because the more likes they have, the more interesting and popular they are. Given indicators are contradictory when looking at response frequencies regarding the aforementioned popularity (94% of respondents do not feel popular if they have as many Facebook friends as possible, but a larger number of friends allows for more likes – which is important to respondents because 39% of them get angry with their friends if they don't like a picture or a post). Also, this is supported by the results that only 34% of respondents know their Facebook friends personally. The results show that very high percentage of positive frequencies occurs with statements that indicate the occurrence and development of risk behaviour, as well as exposure to inappropriate contents and indoctrination.

The following section presents the results on subscales divided into three dimensions of behaviour on the Facebook social network: intrinsic, extrinsic and risk behaviour of adolescents.

THE INTRINSIC AND EXTRINSIC DIMENSION OF USING FACEBOOK SOCIAL NETWORK

Below is an overview of the results obtained by inferential statistics. For each questionnaire variable, the statistical significance of difference according to gender was tested with respect to the use of the Facebook social network.

Table 2. T-test by gender with respect to Facebook usage

Statement	Gender	M	SD	t	p
1. I use Facebook because it helps me make friends.	Male	2,55	0,795	2,765	0,006**
	Female	2,92	0,668		
2. I make Facebook friendships because it makes it easier to maintain contacts.	Male	2,36	0,851	2,261	0,025*
	Female	2,71	0,790		
3. I use Facebook to share information.	Male	2,86	0,811	0,407	0,685
	Female	2,92	0,729		
4. I use Facebook for fun with friends.	Male	2,81	0,651	0,330	0,742
	Female	2,77	0,732		
5. I use Facebook for quicker and easier arrangements and quicker and easier access to information.	Male	3,28	0,653	0,368	0,714
	Female	3,33	0,609		
6. I use Facebook to play online games with friends.	Male	2,63	0,942	4,333	0,000***
	Female	1,88	0,881		
7. Because of Facebook friendships, I get to know my friends better.	Male	1,97	0,884	1,880	0,062
	Female	2,29	0,881		
8. Because of my presence and activity on Facebook, I have more friends.	Male	2,07	0,712	1,598	0,112
	Female	2,32	0,827		
9. I feel popular if I have as many Facebook friends as possible.	Male	1,42	0,642	1,006	0,316
	Female	1,55	0,693		
10. My peers without a Facebook profile are not „cool“.	Male	1,42	0,758	0,114	0,909
	Female	1,40	0,642		
11. Because of my Facebook profile and Facebook friendships, I get to hang out with peers more.	Male	2,00	0,869	2,809	0,006**
	Female	2,40	0,704		
12. I feel more connected with my peers if we are Facebook friends.	Male	2,21	0,741	3,043	0,003**
	Female	2,70	0,893		
13. I use Facebook to talk more honestly and openly with my friends.	Male	1,73	0,685	0,219	0,827
	Female	1,77	0,851		
14. I use Facebook to stalk other people - friends, acquaintances, former or future partners.	Male	1,94	0,957	4,860	0,000***
	Female	2,89	1,041		
15. I use Facebook because it is easier to access the opposite sex through the social network.	Male	2,21	0,874	0,815	0,416
	Female	2,34	0,843		

Note: $p < 0,05^*$, $p < 0,01^{**}$, $p < 0,001^{***}$, $df = 132$ ($N = 134$; MALE = 38, FEMALE = 96)

By analysing respondents' answers by gender with respect to the use of the Facebook social network, the t-test showed that male and female adolescents differ in several domains of Facebook use. A very significant statistical difference with respect to gender occurs for two purposes of using the Facebook social network: use for the purpose of playing online games with friends, where male respondents

dominate ($M=2.63$; $SD=0.942$) over female respondents $t(132)=4.333$, $p<0.001$, and use for stalking other people where female respondents tend to dominate ($M=2.89$; $SD=1.041$) over male respondents $t(132)=4.860$, $p<0.001$. A significant statistical difference is seen for the purposes of using Facebook to make friends, where the results show that female respondents ($M = 2.92$; $SD = 0.668$) use Facebook to serve these purposes more than male respondents $t(132)=2.765$, $p<0,01$. Also, a significant statistical difference with respect to gender appears in terms of the usefulness of using Facebook, where the results indicate that female respondents ($M=2.40$; $SD=0.704$) consider that, because of online friendship, they hang out more with their friends than male respondents $t(132)=2.089$, $p<0.01$. The results of the t-test showed ($p=0.003$) that a significant statistical difference with respect to gender appeared in the sense of connectedness - the female respondents ($M=2.70$; $SD=0.893$) felt more connected than the male respondents $t(132)=3.043$, $p<0.01$ with their peers if they are also connected online. The lowest level of significance ($p<0.05$) occurs when using Facebook for keeping in touch where the results indicate that female respondents ($M=2.71$; $SD=0.790$) more than male respondents $t(132)=2.261$, $p<0,05$ use Facebook because of the simplicity of maintaining contact. The remaining t-test results show that there is no statistically significant difference with respect to gender with other variables related to the use of the Facebook social network.

THE RISK DIMENSION OF VIRTUAL ACTIVITY

Below is an overview of the results gained by inferential statistics. For each questionnaire variable, the statistical significance of the gender difference was tested with respect to the emotional manifestations of virtual activity and the implications for risk behaviour.

Table 3. T-test by gender with respect to manifestations of virtual activity

Statement	Gender	M	SD	t	p
1. I feel bad if I get on my Facebook profile and see that I don't have any new notifications or messages.	Male	1,52	0,725	3,306	0,001**
	Female	2,04	0,845		
2. I get mad at my friend if he/she doesn't „like“ my picture or a post.	Male	1,52	0,861	5,323	0,000***
	Female	2,61	1,136		
3. I know all my Facebook friends personally.	Male	2,07	1,075	0,191	0,848
	Female	2,11	0,927		
4. I wish to deactivate my Facebook profile, but due to certain circumstances, I can't.	Male	3,02	0,636	0,780	0,437
	Female	3,12	0,668		
5. In the morning when I wake up, my first activity is to visit my Facebook profile.	Male	3,34	0,847	1,302	0,195
	Female	3,15	0,700		

6. When I'm not active on my profile, I think about what my friends are doing on Facebook and what is going on online.	Male	3,02	0,677	1,999	0,048*
	Female	3,25	0,542		
7. I feel restless if I have not visited my profile for a long time.	Male	2,92	0,358	0,527	0,568
	Female	2,87	0,441		
8. I get into arguments via Facebook comments.	Male	3,00	0,838	4,992	0,000***
	Female	2,15	0,898		
9. Other people insult and / or harass me on Facebook.	Male	2,76	0,942	2,405	0,018*
	Female	3,13	0,748		
10. Using Facebook sometimes causes discontent in me.	Male	2,44	0,601	0,574	0,567
	Female	2,51	0,561		
11. I am often exposed to inappropriate content via Facebook.	Male	2,84	1,027	0,128	0,898
	Female	2,86	0,865		
12. Strangers contact me on Facebook.	Male	1,73	0,828	5,073	0,000***
	Female	2,59	0,901		
13. By communicating online, I can speak/write what I want and to whom I want without restrictive content or vocabulary.	Male	2,78	1,017	4,090	0,000***
	Female	2,04	0,928		
14. My friends' posts sometimes upset me and / or cause discomfort.	Male	2,44	0,978	0,499	0,619
	Female	2,62	2,103		

Note: $p < 0,05^*$, $p < 0,01^{**}$, $p < 0,001^{***}$, $df = 132$ (N=134; MALE=38, FEMALE=96)

Results of the t-test show that a very significant statistical difference with respect to gender according to the negative implications of using Facebook social network occurs in the domain of emotions. Female respondents ($M = 2.61$; $SD = 1.136$) are more likely to get angry with their friends if they do not show a satisfactory reaction to a photo and/or post ($p < 0.001$) than male respondents ($t(132) = 5.323$). This subscale points to the problem of rationalizing the virtual and the real world. Due to the opportunities offered by social networks in modern times, young people are enabled to equate the virtual and the real world, to identify virtual relationships with real relationships. A very significant statistical difference also occurs with higher exposure of female respondents ($M = 2.59$; $SD = 0.901$) than male respondents ($t(132) = 5.073$) to contact by unknown people ($p < 0.001$). The t-test results showed that male respondents ($M = 3.00$; $SD = 0.838$) were more prone to getting into arguments on social network than female respondents ($t(132) = 4.992$, $p < 0.001$), while at the same time, male respondents ($M = 2.78$; $SD = 1.017$) to a greater extent than female respondents ($t(132) = 4,090$) find that when communicating online they can speak and/or write what they want and to whom they want ($p < 0.001$). These results can be connected to the ability to communicate online in general, as it allows for a high level of freedom and no control. A significant statistical difference is shown in terms of feeling discomfort if, upon accessing their profile, respondents do not have new notifications, messages, or comments where the t-test indicates that female respondents ($M = 2.04$; $SD = 0.845$)

feel worse than male respondents $t(132)=3.306$, $p<0.01$. Apart from the abovementioned, a statistical difference occurs with the statements that the female respondents ($M=3.13$; $SD=0.748$) are more exposed than the male respondents $t(132)=2.405$ to bullying through the social network ($p<0.05$), and at the same time female respondents ($M=3.25$; $SD=0.542$) showed a slightly higher tendency to develop social network addiction than male respondents $t(132)=1.999$, $p<0.05$. The results of the t-test for the remaining variables indicate that there is no statistical difference by gender with respect to the emotional manifestations of virtual activity and the implications for risk behaviour.

DISCUSSION

A general research problem was to find out the educational implications of virtual activity of young people. According to the research results, it can be said that H1 and H2 are confirmed, i.e. the research results indicate that young people primarily use Facebook for socialization and communication purposes, which is confirmed by other research (Cristakis and Fowler, 2010; Kušić, 2010; Livazović, 2012; Ridings and Gefen, 2004), but possibilities for virtual activity can develop a risk dimension of adolescent behaviour. The use of social networks, on the one hand, enables young people to socialize, it facilitates mutual communication, but on the other hand it can contribute to the development of risk behaviour. "Excessive and compulsive use of the Internet and online activities leads to isolation, affects the creation of virtual friendship, as well as the gradual alienation and loss of real friends, with the possibility of addiction development" (Stanić, 2010: 220), and in addition, the results show that there is a risk dimension of using social networks that favours the development of risk behaviour in adolescents - violence and addiction. Young people have a need to use Facebook, but this need has a negative effect on socialization because they are simultaneously exposed to various forms of frequent virtual violence (arguments, insults, presence of strangers).

Online networks require users to provide information about relationships with others and their daily activities, thus developing new systems that automatically generate large amounts of passively collected online data that allow friends to be tracked automatically (Christakis and Fowler 2010). A characteristic of Facebook is the restriction of people that users see online, thereby trying to reduce the number of connections among strangers and contributing to the feeling that their online life is applicable to their social networks from the real world. Facebook is designed to connect friends, search for old acquaintances, and track events and news of the selected people. Today, it has become a habit for young people on social networks to update their profile multiple times a day as this makes them more connected, and one of the basic functions of social networks is a sense of connection, but it is evident that respondents distinguish between virtual and genuine friendship, as confirmed by Froding and Peterson (2012). Young people often out of habit visit social networks throughout the day, while passively reading comments and posts on friends' walls. Perception of Facebook as a social network is that it is a network that everyone uses.

This perception is not educationally good because every action on Facebook is virtual, not real, and young person, to whom social networking becomes the main form of communication and socialization and who neglects real communication, is actually getting further from reality. The creation of a virtual world is favoured by general frustration and social insecurity as they create identity crisis in young people, leading to possible forms of violence and various forms of risk behaviour.

Various types of risk behaviour and various addictions often develop due to adaptation to the company in which the person is, or even because of the pressure of the society. In modern times, addiction without drugs is often being talked about. Itković and Petranović (2010) associate the phenomenon of addiction without drugs with the passions that “nest” in the brainwashed modern man. The concept of addiction research has, in the past, included mostly psychoactive substances. More recently, the attention of scientists has turned to addiction without the introduction of psychoactive substances into the body. Concerns are being raised because there are increasing indications that there are parallels between drug addictions and addictions without drugs. Thus, Itković (2004) lists the types of addictions without drugs: addiction to gambling, addiction to uncontrolled shopping, addiction to sports and exercise-related activities, sex addiction, work addiction, cyber addiction, and according to Goodman (1990) addiction without drugs includes: feeling of tension that precedes addictive behaviour, inability to resist stimuli, relief during the activity, a sense of wasting time during that activity, thinking about addictive activities, awareness of the misbehaviour of the addicted person, neglect of daily obligations as well as sports activities and reporting uneasiness in the event of an inability to fulfil addictive behaviour. The results point out to a variable that indicates a form of risk behaviour - the appearance of virtual addiction. According to Zuckerman (2013) there are no reliable statistics on cyber addicts, and the problem that contributes to this is the fact that many addicts do not recognize themselves as such. Zuckerman Itković and Petranović (2010) include the Internet addiction, a chat addiction, a computer game addiction, a web addiction, masturbation addiction, and online shopping addiction as types of cyber addiction. Social network addiction can also be added to this list as a new form of cyber addiction. At the same time, this type of addiction includes and enables all of the abovementioned cyber addictions (the Internet addiction, a chat addiction, a computer game addiction, a web addiction, masturbation addiction, and online shopping addiction) in one place.

CONCLUSION

According to the results, it can be said that there are three dimensions of adolescent virtual behaviour - intrinsic (information, communication), extrinsic (socialization, utilitarian) and risk (addiction, violence). Also, the results of the research indicate that adolescents' virtual activities are value neutral - use and presence on social networks for young people is neither value-positive nor value-negative because young people are aware of both the positive and negative things that come with using social networks. Considering the results of significance test on gender, it can

be stated that out of 29 variables tested, a statistically high significant difference appears in 6 variables ($p < 0.001$), a statistically significant difference appears in 4 variables ($p < 0.01$), and a weaker statistically significant difference appears with 3 variables ($p < 0.05$). The results of the t-test show that there is generally no difference in the intrinsic and extrinsic behaviour of adolescents, but there is a difference in implications for risk behaviour – female adolescents are more likely than male adolescents to identify the virtual world with real social networks and are more exposed to virtual violence, while male adolescents are more prone to participating in virtual violence and their virtual activities favour the creation of virtual addiction. The results obtained can be applied to improve educational functions, and future research could include studies related to the perception and quality of virtual relationships in adolescents. For pedagogical science, this problem points out to the current situation in educational practice, and because of empirical validity, it is possible, based on the results, to act preventively and to create guidelines for educational work with adolescents.

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