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Cyberbullying in the Experiences of Pupils – Selected Factors and Correlates of Being a Cyberbullying Victim and Aggressor

Introduction

Literature sources describe the new media mainly in the categories of challenges, hazard or potential pathologies. However, for young people the media space and new information and communication technologies, apart from being the natural and irreplaceable world, are more and more often the world they create, as observed by Tom Boellstorff (2012, p. 304), with a constation that in the *techné* era: „for the first time, due to creation, a human is able to create new worlds”. Creating new worlds may have a positive dimension, serving personal transgression but its a negative nature is on the rise. The Internet has become a new social space for fulfilment of a growing number of needs of an individual and the society, which may be perceived as a positive phenomenon (Castells, 2007a, p. 238–266; 2007b, p. 413–418, 430; Stalder, 2012), but also tragedies are more frequent and it becomes more often a place or a means to relieve human frustrations, which no longer may be positive. The common space among the social actors, the same availability for every partner in social interactions become

the space of an opportunity for potential actions which are of a frustrated nature and which are transferred from the real life to the virtual life, where it is easier to „display” them. One of the major problems, especially among the young generation (frustrated and attempting to overcome developmental crises), is cyberbullying – violence transferred from real relationships into the virtual world.

Reports from research on cyberbullying experiences among the young generation (including Poland) are not optimistic (Ackers, 2012; Cotter, McGilloway, 2011; Foody, Samara, O’Higgins, 2017; Jones, Mitchell, Finkelhor, 2012; Kiriukhina, 2019; Chmielecka, 2017; Waligóra-Huk, 2015; Włodarczyk, 2013; Młodzież, 2013). They indicate that even up to 50% of people in this group are victims to direct attacks with the use of electronic communication. The EU NET ADB (in: Włodarczyk, 2013) research results indicate that 76.4% of teenagers (aged from 14 to 17) in Poland have experienced at least one type of hazard: electronic aggression, meeting a person met online, contact with pornography and other potentially hazardous content.

Definition. Cyberbullying treated as online harassment (Hayes, 2008) or electronic aggression (Pyżalski, 2009, 2011, 2012a, 2012b; Heirman, Walrave, 2008) is a complex phenomenon (Betts, 2016). It comprises all and any non-random actions with the application of media and which undermine the personal freedom of an individual, which are carried out through the manipulation of images, sound and other information channels and/or which contribute to a psychological, physical, moral harm of a person, meaning that they trespass the principles of social relations (Englander et al., 2017). It refers to the use of the Internet or a mobile phone to manifest all forms or attacks of aggression, sending harmful messages or sending information aimed at destroying the reputation of an acquaintance (Willard, 2007, 2011). The essence of this phenomenon lies in a deliberate, planned, repeated and hostile use of a computer, the Internet, a mobile phone or similar technologies in order to cause damage, harm and distress to others (Hinduja, Patchin, 2009a, 2009b, 2011; Keith, Martin, 2005; Patchin, Hinduja, 2006; Tettegah, Betout, Taylor, 2006). Cyberbullying is expressed through a range of forms of aggression, it is of a relational nature (indirect or direct) because the aggressors harass their victims online with a variety of forms of cyberbullying such as harassment, threats, blackmail, posting and sending ridiculing information, pictures, films or impersonating others against their will. Therefore, the fundamental diagnostic and definition criteria of cyberbullying are: (1) **deliberate intent** – the perpetrator acts in a deliberate manner, with premeditation, the victim feels it is a deliberate, planned action; (2) **recurrence** – violence reflects a behaviour pattern, it is not a single incident and the victim perceives it as a non-incident, non-random event intended to harass them; (3) **harm** – experiencing and causing harm – the victim clearly feels the harm caused to them or that someone caused them distress, while the aggressor acts with such an intent; (4) **electronic media** – a home computer,

school internet, mobile phone or other electronic media (iPad, notebook) is used for an act of aggression. Such activities generate negative consequences of an emotional, cognitive and social nature, often resulting in auto destructive attacks of a cyberbullying victim deprived of an availability of any defence from the social consequences (Hinduja, Patchin, 2007, 2009c, 2010, 2019; Walrave, Heirman, 2009). A significant variation features among the manifestations of cyberbullying (specific implementation) (Agatston, Kowalski, Limber, 2007; Baldry, Blaya, Farrington, 2018; Hinduja, Patchin 2009a; Kowalski et al., 2014; Kowalski, Limber, 2007; Kowalski, Limber, Agatston, 2011; Pyżalski, 2011, 2012a, b; Waligóra-Huk, 2015), which is connected with a vast dynamics of this phenomenon and at the same time with the „inventiveness” of the cyberbullying perpetrators as regards the forms of its application. It depends *inter alia* on the development of digital technologies. In general, the forms of cyberbullying are the result of the quality of behaviours and the media used, hence their multitude.

Cyberbullying defined as: *a display of cruelty towards others through sending or publishing harmful material or involving in other forms of social aggression with the use of the Internet or other digital technologies*, an idea by Nancy E. Willard (2007, p. 1) was used in an attempt to classify the forms of cyberbullying. The author indicates a diversity of its forms: a) **flaming**: online „fights/brawls” through electronic messages with the use of wrathful and vulgar messages, expressed through an offensive language. Such exchanges between two people becomes more aggressive, express a growing fury, slurs, warnings referring to potentially dangerous behaviours towards the other person appear; b) **harassment**: sending unpleasant, insulting, malicious and rude messages repeatedly (receiving numerous messages, even from complete strangers, as a reaction to someone’s activity); c) **cyberstalking**: frequent, repeated, intense harassment and libel including threats or causing considerable fear of the addressee; sending messages including threats to cause harm or bullying messages (such as blackmail); involving in other online activities intended to cause anxiety and fear for oneself and own safety; d) **denigration**: sending or posting cruel gossip about a person to damage or ruin their reputation or their friendships (such as creating groups to post jokes, cartoons, gossip, rumours about a person and generally expressing one’s own disappointment with the person subjected to the negative assessment); e) **impersonation**: pretending to be someone else, hacking someone’s account, sending or posting posts as that person, sending unkind messages to destroy their image, get them in trouble, make them feel threatened or that their reputation and/or friendships have been ruined; f) **outing** and **trickery**: disclosing one’s preferences (e.g. homosexual), cheating or deceit; sharing information, disclosing online one’s secrets or embarrassing or inconvenient information, images; soliciting to disclose their secrets or embarrassing information about themselves, cheating in order to disclose their secretes or uncomfortable information, which is later made available online; g) **exclusion**: deliberately and cruelly eliminating a person from

an online group, such as from a list of friends on a social media or an online game, which may take on a form of all group members (e.g. peers) removing any links to a personal social media profile of such a person.

Jacek Pyżalski (2012a, p. 126–128) classifies the types of cyberbullying in a similar manner, with a slight modification in meaning: *flaming* (aggressive exchange of opinions), *harassment* – sending to the victim unpleasant messages via electronic means of communication regularly, identity theft (*impersonation* – posing as the victim), making secrets public (*outing* – disclosing the victim's private material), stalking (*cyberstalking* – invigilating and harassing a victim with unwelcome messages), *happy slapping* (provoking or attacking another person and documenting it as images or a film and making them publicly available on the Internet), humiliation (*denigration* – making humiliating, false information or material about a victim publicly available), *exclusion* – deliberately removing from the list of Internet contacts or making it unavailable to the victim), technical aggression (actions against the victim's hardware rather than the victim).

Research Procedure and Respondents

Research results presented in this paper were collected under the *Development of smart instruments for psycho-social-educational diagnosis of children and youths*, project conducted by the Diagmatic company and which was co-financed by the National Centre for Science and Development with the Smart Growth Operational Programme funds (project no.: POIR.01.01.01-00-0402/18-00). The research covered the entire territory of Poland (16 provinces). Data was collected at the end of October 2019 and beginning of March 2022 using the *Computer Assisted Self-Interview* (CASI) technique in the form of completion of an online questionnaire on a computer/laptop by each student (in the presence of a trained interviewer/instructor). The tool included 14 items and respondents took several minutes to complete it. The tool to study cyberbullying features very good psychometric properties. The scale to study *experiencing cyberbullying* features very good fit measurements: (RMSA = 0.028; CFI = 0.995; TLI = 0.993). Reliability measured with the Cronbach's alpha is 0.90, omega = 0.91. Very good psychometric properties of the scale to study *involving in cyberbullying* were also confirmed. The model fit measurements were as follows: RMSA = 0.039; CFI = 0.990; TLI = 0.986). Reliability measured with coefficients was: Cronbach's alpha 0.91, omega 0.92.

A group of primary school grade 6–8 students participated in the research. A total of 822 students were the research participants. Detailed data on the respondents is presented in the table 1.

Table 1. Distribution of statistics for the respondents

		N	%	Summary
Sex	Girls	448	54.5	N = 822
	Boys	374	45.5	
Age	Girls			M = 12.93; SD = 1.00
	Boys			M = 13.13; SD = 1.02
Group	Class 6	248	30.2	
	Class7	282	34.3	
	Class 8	292	35.5	
	School	25		students per class
	Classes in schools	54		M = 15.2; SD = 5.00

This study analysed the hazard related to interpersonal relations, namely personal cyberbullying, within the context of experiencing (from the victim's perspective) and involving in it (from the perpetrator's perspective). However, the analyses – in this article – of cyberbullying do not serve to evaluate its severity but to identify selected factors and correlates (related to gender, age, fulfilling basic social roles), which we consider to be an important element in the discussion and which is significant to undertake preventive actions.

The following hypotheses were posed:

H1: Gender and age (grade) differentiate the level/severity of experiencing and involving in cyberbullying.

H2: Experiencing (being a victim) cyberbullying is related to the quality of fulfilment of fundamental social roles: the role of a peer, the role of a student and a child in a family,

H3: Involving in cyberbullying (being an aggressor) is connected with the quality of fulfilment of fundamental social roles: the role of a peer, the role of a student and a child in a family.

The predictors related to social role fulfilment were: a) in terms of the *peer role* – peer rejection (*pl.* OR), negative attitudes towards peers (*pl.* NPR), feeling threatened by peers (*pl.* PZR); b) in terms of the *child in a family role*– negative attitudes towards domestic chores (*pl.* NOD), rebellion against home discipline requirements (*pl.* BWW), uncontrolled behaviours away from a family home (*pl.* NZR); c) in terms of the *student role* – educational failures (*pl.* NE), school negativism (*pl.* NS).

The sparse research on experiencing cyberbullying does not provide a harmonious image as regards its scale and factors essential to its explanation and which are connected with gender or age or social role fulfilment. It is generally stated that cyberbullying is determined by gender, age, functioning in social roles, environmental context, but the nature of the variations determined by these characteristics is not clearly defined, as we indicate when discussing our own research findings.

An answer to the posed research hypotheses required suitable statistical methods selection with the application of: multiple regression analysis, student's test for independent groups and the ANOVA analysis. Multiple regression enables considering several predictors in the model (asses the relationship between one dependent variable and several independent variables) (Tabachnick, Fidell, 2013). Analysis of variance (ANOVA) is a collection of statistical models and their associated estimation procedures used to analyse the differences among means (two or more means) (Lomax, Hahs-Vaughn, 2012). Independent samples T-test is used when there are two experimental conditions and different participants were assigned to each condition (Field, 2013).

The analyses were conducted with the PS IMAGO software, version 26 and JASP version 0.14.1

Findings

The posed hypotheses were confirmed only partially, which permitted the emergence of most significant factors determining/correlates of experiencing and involving in cyberbullying.

Severity/level of cyberbullying vs. gender and age. The analyses commenced with verification of homogeneity of the groups with consideration for the variables: gender and age (grade). The first step was to verify any gender-related differences between the groups. The differences in the level of experiencing and involving in bullying between girls and boys was verified with the t-Student test. The analysis demonstrated that in terms of *experiencing cyberbullying* no significant gender-designated differences exist ($t(820) = 1.347, p = 0.178$). Similarly, with respect to *involving in cyberbullying*, girls and boys do not differ (statistically insignificant result: $t(722) = -1.253, p = 0.2180$) (see Figure 1).

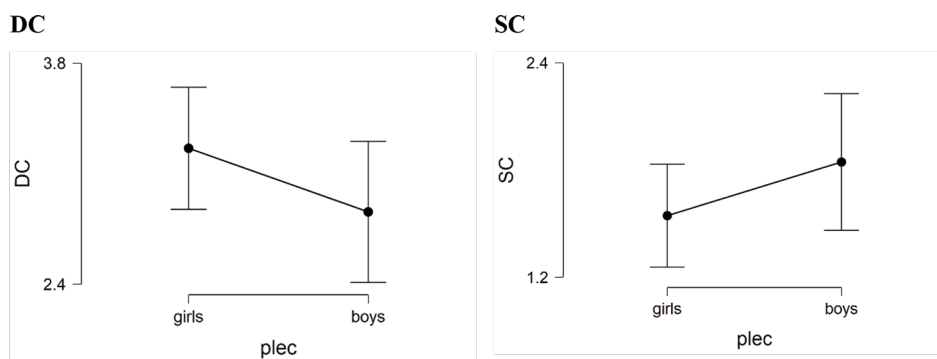


Figure 1. Descriptive plots for independent samples T-Test

The study also verified whether the level of experiencing and involving in cyberbullying varies between grades. In the instance of *experiencing cyberbullying* the result of a single factor analysis of ANOVA variance was as follows: $F(2, 819) = 0.418$; $p = 0.659$, whereas in the instance of *involving in cyberbullying*: $F(2, 819) = 0.614$; $p = 0.541$). Both results show that there are no significant differences among students of individual grades. It may therefore be assumed that girls and boys as well as pupils in grades 6, 7 and 8 experience cyberbullying to the same extent and involve in it to the same extent against others (see Figure 2).

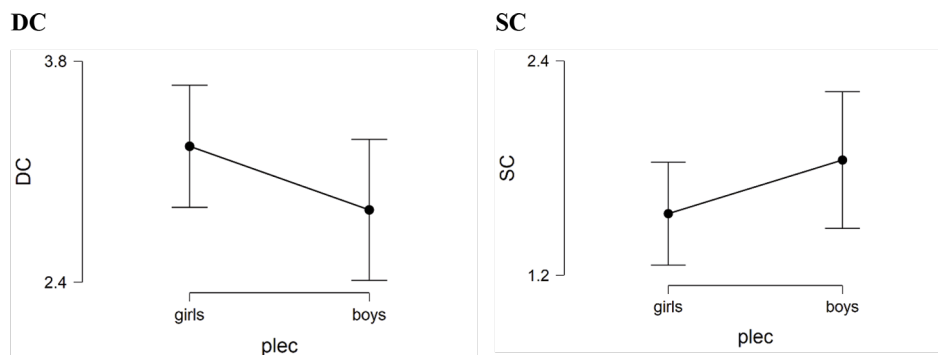


Figure 2. Descriptive plots for ANOVA

Victim – experiencing cyberbullying. In order to verify the hypothesis on the determinants of being a victim of cyberbullying, a multivariate linear regression (using the introduction method) of 8 predictors associated with the performance of social roles was applied (OR – peer rejection; NPR – negative attitudes towards peers; PZR – feeling threatened by peers; NOD – negative attitudes towards domestic chores; BWW – rebellion against home discipline; NZR – uncontrolled behaviours away from a family home; NE – educational failures; NS – school negativism). Consideration for the commonly found differences, *i.e.* the specific manifestation of aggression among girls and boys, was the basis for a decision to carry out an analysis by gender. One of the common statements is that that boys are more likely than girls to be the victims of aggression and violence, just as younger pupils are more likely than the older students to be the victims of violence (Currie et al., 2012; Komendant-Brodowska, 2014). However, analyses by age were not conducted due to the relative and confirmed homogeneity of the study sample (primary school grades 6, 7, 8). Instead, it was assumed that although gender variable does not analogously differentiate the severity of experiencing and involving in cyberbullying, yet, their factors/correlates may vary here. However, there are no empirical studies to support this assumption, which constitutes the added value of the research.

In a search for determinants affecting the level of *experiencing* (being a victim of) *cyberbullying* in the tested model, two out of eight predictors proved to be statistically significant. In both groups – boys and girls – the predictors are: uncontrolled behaviours away from a family home (NZR) as well as feeling threatened by peers (PZR), but the degree of their manifestation in both groups varies. This model (both independent variables) explains as much as 36% of the dependant variable variant (being a victim) for girls and in the instance of boys the result is lower, although still significant, covering 27% of the variance. Notably, the variation of the trait (influences the level of being victimised) is explained to a high degree by one of the two significant predictors – feeling threatened by peers (PZR). The higher the level of feeling threatened by peers the higher the level of *experiencing cyberbullying* (being a victim). Moreover, although to a lower degree, the other variable explains *experiencing cyberbullying* – the more uncontrolled behaviours away from a family home (NZR) occur, the higher the potential to be a victim of cyberbullying. Those variables demonstrated their significant impact in both groups. Whereas: feeling threatened by peers (PZR) is more pronounced among girls, while the uncontrolled behaviours away from a family home (NZR) are not differentiated by the gender variable. Detailed data is presented in Table 2 and Figure 3.

Table 2. Multivariate regression model to explain the dependant variable of *Being a Victim* (DC)

Group		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
		B	SE	β					
Girls	(Constant)	-3.985	0.491		-8.117	0.000	126.94	0.60	0.36
	NZR	0.284	0.041	0.269	6.955	0.000			
	PZR	0.424	0.034	0.484	12.502	0.000			
Boys	(Constant)	-4.254	0.651		-6.540	.000	66.910	0.51	0.27
	NZR	0.300	0.047	0.288	6.420	.000			
	PZR	0.367	0.042	0.396	8.836	.000			

Note: NZR – uncontrolled behaviours away from a family home; PZR – feeling threatened by peers

Figure 3 Residuals and dependent variable DC for girls and boys

Aggressor – involving in cyberbullying. The situation is rather different when explaining *involving in cyberbullying* (being an aggressor). The suggested model (both variables independent) explains 22% of variance variability among boys, while in the group of girls it is only 13%. Uncontrolled behaviour away from a family home (NZR) is a noteworthy predictor having an impact

in the context of the respondents' gender. It is significant in the boys group ($b = 0.43$) and the impact of feeling threatened by peers (PZR) is not so strong ($b = 0.15$), however, it is still statistically significant. A conclusion may be drawn that the more uncontrolled behaviours away from a family home (NZR), the higher the level of involving (being an aggressor) in cyberbullying. When explaining involving in cyberbullying in the girls group the second predictor is also of great importance: the uncontrolled behaviours away from a family home (NZR), but feeling threatened by peers (PZR) is of minor importance, although here we observe a significance trend (value „p” exceeded 0.05). This means that uncontrolled behaviours away from a family home (NZR) are manifested stronger among boys, similarly to feeling threatened by peers (PZR), which has no significance in the girls group. Detailed results of the model analyses are presented in table 3 and figure 4.

Table 3. Multivariate regression model to explain the dependant variable of *Being an Aggressor (SC)*

Group		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
		<i>B</i>	<i>SE</i>	<i>B</i>					
girls	(Constant)	-1.380	0.428		-3.226	0.001	33.02	0.36	0.13
	NZR	0.263	0.036	0.334	7.382	0.000			
	PZR	0.051	0.030	0.078	1.729	0.085			
boys	(Constant)	-3.363	0.573		-5.875	0.000	53.93	0.48	0.22
	NZR	0.386	0.041	0.432	9.395	0.000			
	PZR	0.122	0.037	0.153	3.334	0.001			

Note: NZR – uncontrolled behaviours away from a family home; PZR – feeling threatened by peers

Figure 4. Residuals and dependent variable SC for girls and boys

Discussion on Findings

Age and gender vs. cyberbullying. No significant differences within the severity of experiencing and involving in cyberbullying determined by the gender and the respondents' age (primary school grades 6, 7, 8) variable were observed. Therefore, it may be concluded that in the respondent group, both girls and boys, younger and older students, are in this respect homogenous. It is in contrast to the research findings indicating – although not conclusively in terms of connections and differences – the significance of both variables for experiencing and involving

in aggression and violence, which leads to an opinion that it also refers to those transferred into the virtual space (Currie et al., 2012; Komendant-Brodowska, 2014). Data on the extent of aggression and violence at school showed the existence of distinct differences between girls and boys and between younger and older students in terms of the severity of a range of aggressive behaviours and victimisation indicators (boys and younger students are more likely to be exposed to aggression from others). Whereas – significantly – the differences within the age in the respondent groups here were greater than in the analysed studies, which undoubtedly may be relevant to the achieved result.

Notably, many results of Polish and foreign research studies are ambiguous. It is indicated that on average every fifth teenager experiences cyberbullying (Włodarczyk, 2013), but on the one hand a conclusion is made that girls are more vulnerable to cyberbullying than boys and persons using the latest technological advances in a dysfunctional manner – addicted to the Internet or a mobile phone (Bartkiewicz, Chudnicki, 2019; Włodarczyk, 2013), while on the other hand research indicates that gender, too, diversifies involvement in violence but girls get involved in traditional means of violence less and their experience of it is considerably lower as well as their involvement in electronic bullying is also less frequent, at the same time they are more critical of it (Bartkiewicz, Chudnicki, 2019). There is also research on violence and harassment at school indicating a reverse trend, therefore a higher exposure to violence among boys and among younger students (Currie et al., 2012; Komendant-Brodowska, 2014; Salmivalli, Kaukiainen, Lagerspetz, 2000). This would imply that violence in real world and cyberbullying are realised in different manners, although they are pronounced and highly correlated (Bartkiewicz, Chudnicki, 2019), therefore there is a strong cohesion within the scope of participation in cyberbullying and school bullying in general. It means that those involving in cyberbullying also get involved in the so called traditional violence. Furthermore, an existence of a distinctive relation between being a victim and an aggressor of cyberbullying has been established, because many acts of violence may be the result of a victim's revenge. Whereas 37% depicts „being a victim” of traditional violence and 28% of cyberbullying. A pronounced number of acts of violence are of an unreciprocated nature which are related to a part of school teams (some are only aggressors, some only victims, either passive – not reciprocating violence as well as active – reciprocating violence in self-defence or in revenge). A study conducted in an almost analogous age group must be referred to, because it was observed that far fewer Polish secondary school students fell victims to cyberbullying – 6.6%, with a higher percentage, 19%, admitting to being an aggressor and with 6.8% admitting to being cyberbullying aggressors and victims (*bullyvictim*) (Pyżalski, 2013). The achieved percentage distribution is puzzling, as it would suggest that we are more prone to admit to being the perpetrator of cyberbullying (19%) than to being its victim (6.8%). Other research (Bartkiewicz, Chudnicki, 2019) found

that students involve and experience electronic aggression less frequently than traditional school violence, however, participation in the roles of an aggressor or a victim applies to 59.2% of respondents. With 32.9% of students involving or experiencing cyberbullying relatively regularly. A similar percentage, 14.4%, of typical passive victims (not taking revenge) and aggressive victims (taking revenge) were identified with only 3.9% of typical cyberbullying aggressors (see Pan et al., 2017). Hence, we also have a special case of a victim of violence/cyberbullying, the so-called provocative victim – *bully-victim* (Salmivalli, Nieminen, 2002), who at the same time is a regular victim of harassment, who is regularly aggressive towards other students. At the same time significant gender-determined differences related to the nature of participation in cyberbullying were found: boys more often assumed the role of a Bully (bullying others), Reinforcer (reinforcing the bully) and Assistant (assisting the bully), while girls more often identified with the role of a Defender (defending the victim) and Outsider (staying outside bullying situations) (Salmivalli et al., 1996; Salmivalli, Voeten, 2004). Therefore, one may assume that the nature of girls' and boy's participation in the acts of cyberbullying differs, although the extent of the phenomenon in terms of gender relevance is not uniformly determined. It is generally stated that students with certain individual characteristics, e.g. age or gender, may be more vulnerable to violence, which has not been confirmed by research. This may also be evident of unification of the phenomenon in terms of gender, while in terms of age the group was too homogenous as regards their development, to observe significant differences within experiencing and involving in cyberbullying.

Social roles vs. cyberbullying. Little is known about the significance of how basic social roles are performed in the context of experiencing and involving in cyberbullying. A search for the determinants affecting the level of *experiencing* (being a victim) and *involving in* (being an aggressor) *cyberbullying* gave a rise to two significant predictors emergence in the group of girls as well as boys: uncontrolled behaviours away from a family home (NZR) and a feeling of threat from peers (PZR), therefore referring to the functioning in the role of a child in a family and in the role of a peer (the significance of functioning in the role of a student for experiencing and involving in cyberbullying was not confirmed). Those predictors are manifested in both of the compared groups, diversified in terms of gender, to a different degree, within the area of experiencing and involving in cyberbullying.

Studies commenting directly the achieved results have not been found, yet, it is generally confirmed that the teenagers' aggression is a group process and it is generally related to peer rejection (Salmivalli 1999, 2010; Salmivalli, Kaukiainen, Lagerspetz, 2000), which may generate negative attitudes towards peers or be generated by a feeling threatened by them. The research also confirmed the relevance of social acceptance and rejection, which is connected with differentiation of the roles related to the sociometric status within the context of

cyberbullying behaviours. It is generally argued that the importance, both positive and negative, of relationships with parents, peers, school-related factors, e.g. class climate, school type and school climate, may be important for the manifestation of acts of cyberbullying (Kärnä et al., 2010; Kochenderfer-Ladd, Troop-Gordon, 2010), which correspond to the functioning in basic social roles (peer, student, child in a family). The significant factors in our study cover only those concerning functioning in a family (uncontrolled behaviours away from a family home) and in a peer group (threat from peers). The first determines a potentially low quality of family relations, because uncontrolled behaviours away from a family home are associated with an absence of parental control and also, hypothetically, with an absence of their support in the situations difficult for the child. The second one is a characteristic correlate of peer rejection evoking a sense of a threat on their part, which may exacerbate involving in cyberbullying (*bully-victim*) in self-defence and frustration as well as it is directly related to experiencing it, therefore the emergence of feeling threatened by peers who use violence.

It is noteworthy, that within the **experiencing cyberbullying** (being a victim) context, feeling threatened by peers (PZR) is more predominantly manifested among girls and the uncontrolled behaviours away from a family home (NZR) are not differentiated by the gender variable. This means that girls are more likely to feel threatened in relationships with their peers, while functioning within a family determines the experience of cyberbullying among girls and boys to a similar extent. Explaining this result on the basis of the research results available is difficult but one may assume that functioning in peer roles is differentiated above all by gender, which constitutes a significant predictor for experiencing cyberbullying due to one's gender (girls feel more vulnerable and are more frequently exposed to cyberbullying resulting from a lower sociometric status marked out by a cultural gender, which may be related to a social stigma and treating girls as „inferior”).

With regard to **involving in cyberbullying** (being an aggressor), a considerable impact of uncontrolled behaviour away from a family home (NZR) was found in the context of the gender of the respondents. This impact is prominent among boys and of more importance than feeling threatened by peers (PZR). Such tendencies are even more prevalent among girls where uncontrolled behaviour away from a family home (NZR) bear a great importance when explaining involving in cyberbullying, but feeling threatened by peers (PZR) is of slight relevance (on the border of significance), which limits the potential of frustrated and retaliatory involvement in cyberbullying towards others in a group of girls. This means that both variables (uncontrolled behaviour away from a family home NZR and feeling threatened by peers – PZR) are more pronounced among boys, thus they are more significant predictors of cyberbullying than among girls. Hence, although research findings do not confirm that, it may be concluded that boys receive less support in a family home as well as feel to be more threatened by their peer group, which

may lead to their involvement in frustrated and retaliatory acts of cyberbullying more frequently.

There is now a shift away from an analysis of individual risk factors (although these are material and should be identified) towards an analysis of the social context in which violence and cyberbullying occur (Kochenderfer-Ladd, Troop-Gordon, 2010). It is indicated, *inter alia*, that children with the same level of anxiety and feelings of social/peer rejection (individual risk factors), depending on the social context (class characteristics, social climate), become or do not become victims of bullying in different class groups (Barboza et al., 2009; Kärnä et al., 2010). This is dependant on the reaction of a class group to violent behaviours, *i.e.* enhancing violence and cyberbullying (reinforcing and assisting the bully), indifference towards them (staying outside bullying situations) or protecting the victims (defending the victim). The students experiencing social support deficit are most vulnerable to cyberbullying and systematic harassment by their peers, since they have less support from their families, peers and often school staff, whether in the situations of violence or in the developmental or school difficulties they experience. The rather distant relationship of a student's parents with the school is also identified as a risk factor, indicating a scarce parental interest in the child. This restricts the risk of their intervention in situations involving violence. International research indicates that individual and social features, in broad terms, of victims of cyberbullying and school violence are a typical stimulating factor. They are conducive to an absence of a reaction to violence, on the part of the victim (personality traits) as well as their social environment (support deficit). The more dependent and compliant students, who are less self-confident, physically weaker, without support from others, the more likely they are to be the victims, since attacking them is „safer” because it involves a lower risk of an efficient retaliation from a and/or their environment (Pepler, Smith, Rigby, 2004; Rigby, Smith, Pepler, 2004; Salmivalli, 2010; Salmivalli et al., 2004). The research findings also indicate other typical individual features of peer bullying victims, with the prevalence of relational nature factors. Students experiencing violence and cyberbullying such as harassment display a stronger sense of peer rejection, they feel socially isolated, hence they have few friends and they experience an absence of peer acceptance. Moreover, they experience school failure, *i.e.* they are students with poorer performance, achieving poorer grades than the class average (Giza-Poleszczuk, Komendant-Brodowska, Baczek-Dombi, 2011; Komendant-Brodowska, 2014, Komendant-Brodowska, Baczek-Dombi, Giza-Poleszczuk, 2011a, b), which may contribute to the shaping of school negativism. Educational failures may be the cause as well as the consequence of experiencing violent behaviours from others. School achievement deterioration may be the result of the process of violence as well as experiencing violence/cyberbullying may be the result of peers perceiving those students as poorer at school, in terms of academic achievements as well as poorer functioning in social – peer – relations. However, own research

did not fully confirm such trends since functioning in the student role does not constitute a significant predictor of experiencing cyberbullying. At the same time it indicates the significance of functioning in a peer group (feeling threatened), which is enhanced by functioning within a family home (lack of support) and a necessity to treat them as more important predictors of experiencing cyberbullying.

It is also important to bear in mind that various individual and social/relational risk factors of violence/cyberbullying reinforce each other, as emphasised by Peter K. Smith et al. (2004, p. 100), demonstrating that the presently prevalent model of victimisation risk covers a comprehensive inclusion of family, individual and relational/interpersonal factors as explaining experiencing violence and cyberbullying (also partially used as a form of a frustrated retaliation). It can be assumed that some people are at a greater risk of violent behaviour from others, which can bear a boomerang effect of, for example, parental overprotectiveness or personal physical vulnerability, however the risk of victimisation may be reduced/eliminated with a higher number of friends or good quality relationships with peers (supportive friendship) or due to a general good position within a peer group (see Giza-Poleszczuk, Komendant-Brodowska, Baczko-Dombi, 2011, Komendant-Brodowska, Baczko-Dombi, Giza-Poleszczuk, 2011a, b).

Final Reflections and Conclusions for Further Research

Our knowledge about cyberbullying expands because we study this phenomenon in more detail. Nevertheless, due to its broad developmental dynamics we still know too little about its mechanisms and manners of operations which may prevent it as well as the forms of cyberbullying prevalent in the experience of the young generation. Cyberbullying generally and more commonly released into the public domain, becomes more often associated with stalking, sending threatening e-mails to famous people or posting discrediting photos of friends on social media. To a lesser extent is it associated with a real threat, only potential when generated en masse on a feasible broad scale. The globalisation of life we experience generates global hazards causing plenty of frustration with an instrument to release it, and effectively emergence of this potential destruction, may be and already is the digital technology as a new and relatively easily available means applicable in the process of dealing with the experienced frustrations or developmental problems. From the perspective of evaluation of the cyberbullying phenomenon, the behaviours constituting its forms are of an antisocial nature stemming from various deficits, but in a fundamental (psychological) sense they may be conditional upon an absence of empathy (Ang, Goh, 2010), experienced frustrations and unsatisfied needs (aggressor) or feeling threatened and an inability to contradict a group, whose acceptance the young generation in particular attempts to win, with those phenomena being a natural part of them, they frequently cause indifference to

cyberbullying (Ball, 2007; Padgett, Notar, 2013). The scale of this phenomenon is not sufficiently recognised, the available research data is inconsistent and the sources are frequently incomplete or unreliable. The Polish Supreme Audit Office (*pl.* NIK) indicated in the audit report¹, that the Ministry for National Education, Ministry for Digitization, educational facilities and the police did not recognise and did not specify properly the scale of a hazard related to experiencing cyberbullying among children and youths. The Ministry for National Education also did not coordinate operations with respect to prevention and combating cyberbullying among students as well as did not develop any guidelines for schools regarding cyberbullying.

Own research results show the complexity of the phenomena of cyberbullying to a lesser extent within the context of its manifestations and more in terms of the risk factors and mechanisms of its display and the respective consequences. The need to create the model of individual as well as social and relational (family, peer, school) risk factors for violence/cyberbullying, which reinforce each other and may cause various adverse developmental consequences, is indicated (Smith et al., 2004). It is important from the perspective of identification of the mechanism of becoming a victim/perpetrator of cyberbullying, which in turn is related to designing prevention programmes and a support system for the victims and perpetrators of cyberbullying occurring in a peer group. Common mechanisms and predictors of experiencing and involving in cyberbullying – although rare and revealed in this study with varying degrees – indicate that both, the cyberbullying victims and aggressors, need support. Therefore it is essential to search for an answer to a question why an individual becomes a victim or/and perpetrator of cyberbullying and what consequences are caused by involving in the process of violence, in the victims as well as the aggressors. In terms of the consequences of cyberbullying, our focus lies primarily with the victims, forgetting about the aggressors, who most frequently involve in it as a revenge rather than being an example of the so called evident cyberbullying perpetrators (Pan et al., 2017), although the results within this respect are not conclusive (Pyżalski, 2013). Experiencing various forms of cyberbullying, confirmed in the victims, causes a plethora of negative consequences which go far beyond the limits of functioning within a group. Among them the most important ones comprise: (1) **Emotional effects**. Experiencing cyberbullying chronically, especially by younger children (preadolescents) is a source of multiple negative emotional effects (Hinduja, Patchin, 2009c; Ybarra, Mitchell, 2004): sense of anxiety (Nishina, Juvonen, Witkow, 2005; Ybarra et al., 2006), hazard, loneliness and isolation, humiliation (Breguet, 2007), sadness and hurt, a sense of harm, despair, anger and frustration (Beran, Li, 2007; Patchin, Hinduja, 2006); (2) **Personality effects**. Exposure to violence causes self-assessment (lower) and self-acceptance (deficit) problems,

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¹ www.nik.gov.pl/aktualnosci/nik-o-cyberprzemocy-wsrod-dzieci-i-mlodziezy.html.

evokes the feeling of hopelessness, lack of control and helplessness as well as withdrawing from social relations (Patchin, Hinduja 2006; Strom, Strom 2005). Negative beliefs about „I” (a sense of being weak, different from others, worse than others), own potential to act – „I in action” (a sense that nothing can be done) or own relations with the world, mainly in social terms – „I in relations with others” (a sense of stigmatisation, a desire to withdraw, disappear) are formed; (3) Effects on health and life. Cybervictimisation causes many negative effects to the mental health, with the most important ones being the clinical depression symptoms. In extreme instances and situations of a long-term exposure to cyberbullying it may lead to the empirically confirmed: development of the presuicidal syndrome and suicidal behaviour (Breguet, 2007; Görzig, 2016; Hinduja, Patchin, 2010, 2019; Ybarra, 2004; Ybarra et al., 2006).

Finding significant predictors of experiencing and involving in cyberbullying is, therefore, a necessity within the context of eliminating significant inhibitors of personal development and projecting preventive operations within the area of cyberbullying, which due to the technological progress and typical characteristics (availability, simplicity, relative impersonal nature) will become a form of releasing own frustrations and problems in psychosocial functioning of young people exploited with an increasing frequency.

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