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Bullying and Cyberbullying among Children and Adolescents: A Comparative Analysis of Research Projects Conducted in Poland and Spain. Challenges for Prevention

ABSTRACT

The article shows the results of the research focused on the phenomena of bullying and cyberbullying among Polish and Spanish children and adolescents. The first part of this article describes the characteristics of the topic, including genesis and definitions of terms and descriptions of the nature of the phenomena, highlighting the negative consequences of this kind of violence. The second part of this article describes different studies focused on bullying and cyberbullying across the world and in Poland. Against this background, the author's own research results are described.

The aim of this study is to compare the prevalence of bullying and cyberbullying among students attending Polish and Spanish schools. An additional aim is to discover developmental tendencies in Poland and Spain while taking into account the age and gender of the participants. This research was conducted with the use of international measurement KEYWORDS peer violence, bullying, cyberbullying, comparative analysis, prevention

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tools. The study included 1.052 Polish and 1.483 Spanish students. The results show that the scale of the phenomenon is alarming. In Poland, around 70% of the participants are involved in some form of bullying and around 35% are involved in cyberbullying. In Spain, around 50% of the participants are involved in a form of bullying and around 20% in cyberbullying. The conclusions include the implications for pedagogical practice. Prevention and intervention programs against this kind of violence are needed and should be implemented in both countries.

Introduction

Peer violence, and, in particular, one of its most aggressive forms bullying, is the phenomenon popular all around the world, and its consequences affect all members of school communities (Zych, Ortega-Ruiz, Del Rey 2015a). Scientific research on bullying develops very fast, due to which we constantly extend our knowledge on the prevalence, conditions and results of this phenomenon (Zych, Ortega-Ruiz, Del Rey 2015b). At the same time, there is a need to carry out international research on the representative samples of children and youth coming from different geographical locations. Unfortunately, the number of international studies that would make it possible for us to compare the Polish students with their peers from other countries, is still insufficient. A comparative analysis is expensive and timeconsuming, but it enables the researcher to determine similarities and differences concerning the analysed phenomenon. This, in turn, makes it possible for us to describe the phenomenon in question in a more detailed manner and to initiate further research explorations.

Taking into account the scale of the above-mentioned phenomenon, our research aims at comparing the prevalence of bullying and cyberbullying among the students of Polish and Spanish schools. The additional intention is to learn about the developmental tendencies of individual students (the influence of age and sex) in Poland and Spain.

Bullying—characteristics of the phenomenon

The term *bully* was first used in 1897 by Frederick L. Burke to describe the children who mistreated other children (cf. Tłuściak-Deliowska 2017). Then, in 1969, Peter-Paul Heinemann, a Swedish

physician, described specific behaviours of boys playing in the schoolyard, which he named mobbing¹ (Roland, Auestad, Vaaland 2011). A few years later, a Swedish psychologist—Dan Olweus published his research on school mobbing among pre-adolescent boys (see Olweus 1973). A little later, another Swedish psychologist Anatol Pikas wrote a book on how to prevent violence among children and youth (Pikas 1976). Heinemann, Olweus and Pikas exerted a great influence on the development of research on bullying in Scandinavia. Later, scholars became interested in this phenomenon also in other countries, including England (Rivers, Smith 1994) and Spain (Ortega 1997).

In Polish, just like in many other languages, there is no single word that would be the best counterpart for "bullying," so both in the colloquial and scientific language many synonyms are used, e.g. mistreating, tormenting, harassing, persecuting, intimidating, terrorizing, as well as using school or peer violence. Not all of those synonyms are justified and adequate, which is why many authors—both Polish and foreign ones—use the original English term: *bullying*.

Bullying is defined as school/peer violence which consists in repeated and long-term mistreatment of some students by other students from a given school (Smith, Cowie, Olafsson, Liefooghe 2002). The concept of "school violence" does not only refer to the physical space, but it also includes people involved in bullying, as it can take place both in and outside the school building (on the way to/from school, at home or in the virtual reality) (Komendant-Brodowska 2014). Another, equally adequate term is "peer violence" which involves people at the similar age, from the same environment, who are in direct relations with one another and can influence one another in a noticeable manner (Rigby 2010).

Not all the cases of school/peer violence are bullying, because bullying is characterized by three specific properties: intentionality, inequality of forces and repeatability. The first property—intentionality, is related to the fact that the offender's intention is to harm the victim (Volk, Dane, Marini 2014). Thus, in this case we are dealing with aggression. If it is directed against the student who cannot defend

¹ In the first series of research, the term *bullying* was used if the offender was one student, and *mobbing*—if there was a group of offenders.

himself/herself on their own, the second criterion is met: the inequality of forces between the offender and the victim (Smith, Brain 2000). It is worth mentioning that such inequality may result from different aspects. On the one hand, it may refer to physical strength or the number of people; on the other hand—it may be related to the offender's personality traits (Pyżalski 2012: 108). If a given behaviour takes place in the situation of the inequality between the offender and the victim, we are talking about violence (Surzykiewicz 2000).

Taking into account different behaviours specified as bullying, we can distinguish their different types: physical (e.g. pushing, pulling, kicking, hitting), verbal (e.g. calling someone names, offending, gossiping) and relational (e.g. ignoring, ostentatious going away when the victim approaches, excluding someone from the group, manipulating others to mistreat the victim) (Pyżalski 2012: 109). Moreover, bullying can occur in a direct form, in which the confrontation is face-to-face (e.g. pushing, kicking, offending, insulting someone), or in an indirect form—through other people (e.g. spreading gossips, persuading other people to exclude the victim from the group) (Rivers, Smith 1994).

It is worth noting that, in bullying, the students perform specific roles: the offender, the victim and the witnesses. The first ones are those who purposefully and for a long time persecute weaker students; the second ones are those who suffer purposeful persecution for a long time. There is also a whole structure of dominance from the aggressor and submissiveness from the victim (Ortega 2010). Some students adopt the two roles (the offender and the victim) at the same time.

However, we have to remember that bullying is not just a dyadic interaction between the offender (offenders) and the victim. Equally important are the witnesses to bullying who play a significant role in its nature and dynamics. Christina Salmivalli and her colleagues distinguished four roles performed by the witnesses to bullying: 1) assistants of the offender who join the aggressor; 2) supporters of the aggressor who reward the latter with their behaviour (ovation, cheering); 3) outsiders who do not react; 4) the defenders of the victim (Salmivalli, Lagerspetz, Björkqvist, Österman, Kaukiainen 1996). Thus, bullying is a group phenomenon, which is why the offenders often gain a high social status. Scientific research on bullying is developing fast all around the world, and the phenomenon is still very popular among children and youth, which results in serious consequences—not only for the victims and aggressors, but also for the whole school communities.

Moreover, in the last decade of the 21st century a new phenomenon appeared: cyberbullying, which is also called electronic, digital or online bullying. It is worth noting that many authors do not treat cyberbullying as a separate phenomenon, but as a new form of bullying (see Menesini 2012). The very name of the phenomenon suggests that it is bullying fulfilled through new communication technologies—usually smartphones or the Internet (Smith, Mahdavi, Carvalho, Fisher, Russell, Tippett 2008; Pyżalski 2012). The threat posed by this new phenomenon is very serious for a few reasons. First, the scale of using smartphones by the children is increasing, while the age of kids using the smartphones and the Internet is getting lower. Second, technological changes are very fast, which constantly opens new possibilities in terms of social media services. It means that the Internet users, who are becoming younger, are threatened with the phenomena which-before they are even identified and analysed—may lead to serious consequences.

The current research results indicate that bullying and cyberbullying result in serious short- and long-term consequences. It was, e.g., confirmed that the victims of bullying, even after they finish school, are more prone to develop depression (Ttofi, Farrington, Lösel, Loeber 2011a), and the offenders commit crimes more often than other people (Ttofi, Farrington, Lösel, Loeber 2011b). Other consequences of bullying include taking drugs (Ttofi, Farrington, Lösel, Crago, Theodorakis 2016), as well as suicidal thoughts and behaviours (Van Geel, Vedder, Tanilon 2014).

Bullying and cyberbullying in the world

The first research concerning bullying was carried out in Scandinavia by Olweus. A little later, the media presented the news on suicides among children and youth in various countries, which were caused by peer violence. Such a situation took place in Norway, where three teenage boys committed suicide because they fell victims of bullies. It resulted in the creation of the first social campaign against

bullying and the development of scientific research in different countries, which focused not only on the description of the phenomenon, but also on finding risk factors and factors that protect the youth against such behaviours (Olweus, Limber 2010).

Meta-analysis of peer violence from 80 studies carried out in different geographical locations shows that the average prevalence of bullying is about 35% (36% are the victims and 35% the offenders). Cyberbullying is a bit less popular: 15% are the victims, 15%—the offenders (Modecki, Minchin, Harbaugh, Guerra, Runions 2014).

In terms of the occurrence of the phenomenon in different countries—in China 2–66% of the analysed youth declare being a victim of violence, and 2–34%—being the aggressor (Chan, Wong 2015). In Great Britain the rate of the phenomenon is a little lower (33% of the students are the victims; 11%—the offenders) (BIG 2015).

Wendy Craig and her colleagues compared the violence rates in forty countries. The lowest of them were among the boys in Switzerland, the Czech Republic and Spain, and among the girls in Sweden, Iceland and Malta. The highest bullying rates were among the boys in Lithuania, Latvia and Estonia, and among the girls in Lithuania, Latvia and Greenland (Craig, Harel-Fisch, Fogel-Grinvald et al. 2009). The newest international research on cyberbullying in eight European countries (Bulgaria, Cyprus, France, Greece, Hungary, Italy, Poland and Spain), with 4847 participants, show that the highest rate of peer violence is in Bulgaria and Hungary, and the lowest one—in Spain (Sorrentino, Baldry, Farrington, Blaya 2019). The research carried out in the USA indicates that the violence rates in America are higher than in other Western countries (Guerra, Williams, Sadek 2011).

Bullying and cyberbullying in Poland

In Poland, a lot of studies concerning the scale of aggression and violence among the children and youth are carried out. However, the research is still needed to estimate the scale, conditions and consequences of particular forms of violence, such as bullying and cyberbullying.

One of the largest research projects concerning the health of children and youth is the international program Health Behavior of School-Children (HBSC). The research has been carried out cyclically since 1983. At the beginning, the problem of peer violence was not leading in HBSC. The questionnaire used in the research only contained a few questions on using and experiencing such violence. At present, in the newest HBSC research, directed in Poland by Joanna Mazur and Agnieszka Małkowska-Szkutnik, the measurement of bullying and cyberbullying is made in a large group (n = 5225). The results of the research are as follows: 27.4% of the analysed young people are the offenders and 23.5% are the victims. The participants of bullying were mainly 13 year-olds (30.8%), as compared to 15-yearolds (27%) and 11-year-olds (24.3%). Thus, there is no increasing trend as far as the age is concerned. As for cyberbullying, the conclusions are as follows: one in five teenagers was the aggressor (16.2%), and one in six-the victim (18.7%) at least once within the previous two months. The phenomenon of cyber-violence is increasing with the age of the analysed youth (Mazur, Małkowska-Szkutnik 2018).

Cyclical research on young people's health behaviours has been carried out since 1984. The Mokotów research (the name comes from the name of the city districts in which the schools participating in the study are located), initiated by Barbara Wołniewicz–Grzelak and continued by the researchers from the Institute of Psychiatry and Neurology in Warsaw supervised by Krzysztof Ostaszewski, are mainly focused on risky behaviours of 15-year-olds, in particular—their use of psychoactive substances. Peer violence is just a contribution to a broader image of health behaviours of the youth from the Warsaw schools (see *Pracownia Profilaktyki Młodzieżowej "Pro-M"* ["Pro-M" Youth Prevention Workshop]).

Within the social program: "School without Violence," the research concerning school violence was carried out (2006, 2011). In 2011, 3169 students, 883 teachers and 2301 parents from 150 schools took part in the research. The results indicate that there were no significant changes as compared to the research results from 2006. The only change was the increase in verbal violence, relational violence and pressure (63% of the students experienced verbal aggression, and more than 30% experienced physical aggression) (Giza-Poleszczuk, Komendant-Brodowska, Baczko-Dombi 2011).

In the research carried out in 2012 by Jacek Pyżalski, 11.8% of the primary and junior high school students declared being the victim of

bullying, 26.9%—the offender, and 16.6%—both the victim and the offender. In case of cyberbullying, 6.6% are the victims, and 19.6%—the aggressors; 5.9%—the victims/the offenders (Pyżalski 2012).

In 2015 a lot of research results concerning peer violence in the Polish schools were published. According to the research by Jakub Kołodziejczyk and Bartłomiej Walczak (2015), as many as 1/3 of the students declares participation in bullying. According to the Report of the Institute of Educational Research: "Students' Safety and Social Atmosphere in Polish Schools," every tenth student is the victim of bullying (*Students' Safety and Social Atmosphere in Polish Schools* 2015). And the results of the research on cyberbullying conducted by Rosaria Del Rey, José Casas, Rosaria Ortega-Ruiz and their colleagues (2015) indicate that 6.1% of the students declare being the victim, 6% the offender, and 4% both the victim and the aggressor (n = 900).

Another study, carried out with the use of the questionnaire adapted by Pyżalski (2012) among 1800 Polish teenagers aged ca. 15, referred to cyber-violence. About 10–30% of the respondents declared that they have been the victims or aggressors in such a kind of violence (Tomczyk 2017).

Also, high rates of the phenomenon of bullying in Polish schools are indicated by Izabela Zych, Rosaria Ortega-Ruiz and Vincente Llorent (2017) in their research. According to these scholars, 18.7% of the students are the victims; 13.1% the offenders; and 44.1% the victims/the offenders. The newest research confirms that bullying and cyberbullying is very popular among Polish students. The research results indicate that 31% of the students are the victims of peer violence, 6.5%—the offenders, and 3%—the victims/the offenders. As for the prevalence of cyberbullying, 12.9% are the victims of cyberviolence, 5.2%—the offenders, and 15.2% the victims/the aggressors (Twardowska-Staszek, Zych, Ortega-Ruiz 2018).

The issue of peer violence was developed in an innovative manner by Iwona Chmura-Rutkowska in her newest book: *Być dziewczyną, być chłopakiem i przetrwać. Płeć i przemoc w szkole w narracjach młodzieży* [Be a Girl, Be a Boy and Survive. Sex and Violence at School in the Narratives of Young People] (2019). The author discusses the problem of violence and sex, showing such violence as repeated, intentional, harmful actions towards someone connected with the person's sex. Just like in "traditional" bullying, in this case we also deal with mistreatment and dominance of one person over another. According to the students' declarations, more than a half of the surveyed children experience—on a daily basis or almost every day—violence caused by their sex. Verbal violence is the most frequent, but other forms are also experienced, e.g. physical, psychological, relational, financial or sexual violence. Violence occurs in a direct contact, but more and more frequently it is experienced indirectly, through SMS, MMS and Internet communicators (Chmura-Rutkowska 2019).

The above data confirms that the problem of peer violence is present almost everywhere in the world. Despite the fact that the research in question is developing fast, both in Poland and abroad, there are still not enough studies that approach bullying and cyberbullying in the comparative perspective. What we need is international research in which the same standardized research tools are used, which makes it possible to compare the obtained results and search for the common denominator of those phenomena.

Description of the research procedure

The subject of the research is the phenomenon of bullying and cyberbullying among children and youth in Poland and Spain. The main research objective is estimating the prevalence of bullying and cyberbullying among the Polish and Spanish students. In addition, the introduction of such variables as sex and age of the researched students shall enable the analysis of the dynamics of this phenomenon. The crucial problem is included in the question: What is the scale of the phenomenon of bullying and cyberbullying among the Polish and Spanish children and youth? The following detailed questions were formulated with regard to the above main question: 1) What is the prevalence of bullying and cyberbullying among the surveyed students? 2) Is the country a differentiating factor? 3) What are the roles of the students who participate in bullying and cyberbullying? 4) Is the age a differentiating factor? 5) What are the roles of the students taking part in bullying and cyberbullying 6) Is sex a differentiating factor?

This research constitutes the first stage of a broader research project which, in its assumption, is the attempt to search for the predictors

of bullying and cyberbullying in the context of such variables as: empathy, online empathy, emotional, social and moral competences. It shall make it possible to identify the risk factors and protective factors in terms of the above-mentioned variables. The research results shall be a contribution to construct prevention programs taking into account the obtained results.

Research tools

The research that was carried out was of diagnostic, descriptive and comparative nature. In the presented research we used the method of measuring non-observable variables, and the research techniques included psychological tests. In both countries—Poland and Spain—the research was carried out with the use of the research tools: The European Bullying Intervention Project Questionnaire (EBIP-Q) and The European Cyberbullying Intervention Project Questionnaire (ECIP-Q).

The European Bullying Intervention Project Questionnaire makes it possible to specify, in a measurable manner, the role (victim, aggressor or aggressive victim) the student plays in school bullying on the basis of the information given by the student. The questionnaire consists of 14 diagnostic statements. Seven of them refer to victimization (e.g. a friend insulted me; a friend hit/kicked/pushed me); the remaining seven—to aggression (e.g. I insulted a friend; I hit/ kicked/pushed a friend).

The European Cyberbullying Intervention Project Questionnaire is a self-description tool related to the roles of students in cyberbullying (victim, aggressor, aggressive victim). The questionnaire consists of 22 items; 11 of them refer to cyber-victimization (e.g. someone insulted me in the Internet or in messages sent through a mobile phone; someone spread gossip about me in the Internet); and 11—to cyber-aggression (e.g. I insulted someone in the Internet or in messages sent through a mobile phone; I spread gossip about others in the Internet).

In both questionnaires, the student is to mark—on a five-grade scale—the frequency of experiencing particular situations in the last school year. The scale includes the following categories of replies: 1—never; 2—yes, once or twice a year; 3—yes, once or twice a month; 4—yes, about once a week; 5—yes, more than once a week.

The results of the validations of the Spanish versions of the questionnaires show that both instruments have good psychometric properties, which makes them good tools for the diagnosis of the phenomenon. EBIP-Q: Cronbach's $\alpha = 0.84$ for both scales (see Ortega-Ruiz, Del Rey, Casas 2016), ECIP-Q: Cronbach's $\alpha = 0.97$ in case of cyber-victimization, Cronbach's $\alpha = 0.93$ for cyber-crime (Del Rey, Casas, Ortega-Ruiz et al. 2015).

The work on the Polish version of the questionnaires was divided into two stages. First, the questionnaires were translated (from English to Polish [and from English to Polish] by a person fluent in both languages and by a translator); then the adequacy and reliability of the scales was determined. Both the linguistic similarity and psychometric properties of the tool turned out to be good for this research group. EBIP-Q: Satorra-Bentler Chi-square = 796.23, df = 76, NFI = 0.94, NNFI = 0.93, CFI = 0.94, RMSEA = 0.09, and the reliability rate Cronbach's α : factor 1 (victimization) α = 0.85, factor 2 (aggression) α = 0.85. ECIP-Q: Satorra-Bentler Chi-square = 981.92, df = 208, NFI = 0.98, NNFI = 0.98, CFI = 0.98, RMSEA = 0.06 and the reliability rate Cronbach's α : factor 1 (cyber-victimization) α = 0.90, factor 2 (cyber-aggression) α = 0.89.²

Research participants

First of all, in order to select possibly the most representative research group, requests were sent to the principals of more than a dozen schools for conducting the research among the students. After obtaining the opinion of the teachers and the parents, the principals of 8 schools in Andalusia and 6 schools in Lesser Poland approved of the research. The investigation was anonymous, voluntary and carried out according to the national and international ethical standards. First, the participants of the research were informed about the

² A detailed description of the Polish validation of both questionnaires and a detailed analysis of the intensity of the behaviours included in both tools can be found in the publication: Twardowska-Staszek, Zych, Ortega-Ruiz (2018).

objectives and asked to give honest replies related to particular behaviours in the last school year. The students could refuse to participate in the research or withdraw from it at any moment. All of them expressed their willingness to fill in the questionnaires. 26 students did not reply to the questions included in the questionnaire, so their data was not used in further analyses. In Poland, the research was carried out by Estera Twardowska-Staszek, with the support of the teachers appointed by the school principals; in Spain the research was carried out by Izabela Zych and her research team.

In Poland, 1052 students from six Lesser Poland schools participated in the research (four schools from big cities; two—from small towns): 55% students from primary schools (n = 580) and 45% students from junior high schools (n = 472). The age of the respondents varied from 9 to 16 (M = 12.53, SD = 1.98); there were 45% boys (n = 472) and 55% girls (n = 572).

In Spain, the research group included 1483 students from eight schools in Andalusia (six schools from big cities, two—from smaller towns), including 40.3% students from primary schools (n = 598) and 59.7% students from junior high schools (n = 885). The age of the students varied from 9 to 16 (M = 12.68, SD = 2.17), 48.1% girls and 51.9% boys.

Results

First, we analysed the participation of children and youth in bullying, in Poland and Spain.

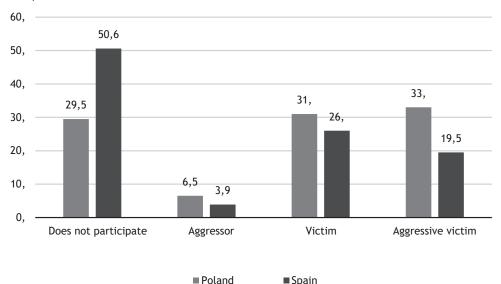


Diagram 1. Percentage comparison concerning the students' roles in bullying in Poland and Spain

The results clearly indicate that bullying is very popular in Polish schools. Only 29.5% of the students do not participate in bullying; the remaining 70.5% are the children and teenagers who take up certain roles (31% declare that they experienced violence within the previous school year; 6.5% admit they acted as aggressors and 33% are the people who both use violence and fall the victims of violence). Bullying is also present in Spain, but its scale its much lower than in Poland. According to the results, 50.6% of the Spanish students do not participate in bullying, 3.9% declare being the offender, 26% are the victims, and 19.5%—the aggressive victim.

The next diagram presents the participation of Polish and Spanish students in cyberbullying.

Source: the authors' own research.

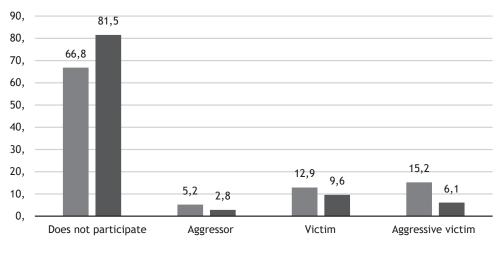


Diagram 2. Percentage comparison concerning the students' roles in cyberbullying in Poland and Spain

■ Poland ■ Spain

Source: the authors' own research.

According to the Polish data, 66.8% of the students do not participate in cyber-bullying. Among those who do, 5.2% are the offenders, 12.9%—the victims, and 15.2%—the students who play both roles. Just like in the case of bullying, cyberbullying is also less popular in Spain. 81.5% of the Spanish students do not participate in bullying, 2.8% declares being the aggressor, 9.6%—the victim, and 6.1%—the aggressive victim.

Then, we tried to analyse the dynamics of the phenomenon, taking into account the age and sex of the students.

	Primary school		Junior high school		Girls		Boys	
	Poland	Spain	Poland	Spain	Poland	Spain	Poland	Spain
			B	ollying	I	1	1	l
Does not participate	30,6%	47,7%	28,1%	52,6%	32,9%	56,7%	25,5%	45%
Aggressor	3,7%	2,7%	10%	4,8%	5,5%	2,8%	8%	5%
Victim	39,3%	29,1%	20,9%	23,9%	37,5%	27,8%	22,7%	24%
Aggressive victim	26,4%	20,5%	41,1%	18,8%	24,3%	12,6%	43,8%	25,9%
			Cyb	erbullying	•			
Does not participate	80,4%	87,1%	51,1%	77,6%	69%	82,1%	64,2%	81%
Aggressor	2,4%	1,6%	8,5%	3,7%	5%	2,3%	5,5%	3,2%
Victim	9,9%	8,4%	16,2%	10,4%	13,3%	10,2%	11,9%	8,9%
Aggressive victim	7,3%	3%	24,3%	8,3%	12,6%	5,3%	18,3%	6,9%

 Table 1. The roles adopted by the students in bullying and cyberbullying, taking into account the age and sex of Polish and Spanish schools

Source: the authors' own research.

The research results indicate that younger students (from primary schools) more frequently fall the victims of bullying, while older students (junior high school) more frequently play the roles of aggressors and aggressive victims. Moreover, the phenomenon of cyberbullying increases with the age, which probably results from the fact that not all younger school children have smartphones or unlimited access to the Internet. Additionally, younger children are more controlled both by the parents and the teachers. In terms of sex, the girls are more often victims, and boys—aggressors. On the basis of the obtained data we cannot notice any significant differences between the sexes in cyber-violence. The Polish and Spanish results indicate similar tendencies in both countries as for the meaning of age and sex in bullying and cyberbullying.

The authors are fully aware of the limitations related to the research, which result from the selection of the schools, the number of researched students, and the way of making measurements. It is necessary to carry out broader research in both countries, choosing the

schools in a random manner to include a larger number of students in several age groups.

Conclusions and challenges for preventive actions

The review of the results of the international research clearly indicates that the problem of bullying and cyberbullying is still serious among the children and youth all around the world. The scale of the phenomenon, as well as the lack of clear decreasing tendencies, should encourage us to conduct further scientific analyses focused on the predictors of peer violence, as well as effective interventions and preventive activities.

The comparison of the results of the studies carried out in Poland and Spain, as well as evaluating them taking into account the situation in other countries, enables us to conclude that the mechanisms of peer violence are universal.

Both in Poland and in Spain, bullying is more popular than cyberbullying. Younger students and girls fall the victims of such violence more frequently than older students and boys, who often take the roles of aggressors. The current research shows that the problem of bullying and cyberbullying is more popular in Poland than in Spain. This may result from the fact that in Spain and in some other countries there have been some campaigns against bullying and cyberbullying, which might have led to the reduction of such violence (Gaffney, Ttofi, Farrington 2019; Gaffney, Farrington, Espelage, Ttofi 2019). Thus, it is recommended that similar programs are implemented in Poland, taking into account the differences resulting from the young people's sex and age (see Barlińska, Szuster 2014).

Most of the analyses are focused on the prevalence of the phenomenon and the identification of the risk factors and the factors protecting the children against violence. Unfortunately, most of such research is cross-sectional and correlative, which makes it impossible to sufficiently analyse the relations between the variables and answer the questions on the reasons and long-term consequences of adopting each of the above-mentioned roles. Nevertheless, such investigations are very useful to describe the variables related to peer violence and the attempt to take them into account while designing preventive measures.

The results of the meta-analysis carried out by David Farrington and Maria Ttofi (2009) indicate that intervention and prevention programs may effectively reduce bullying. Effective preventive programs are, first of all, complex, long-term and intensive. The complexity of actions should consist in the involvement of the students who are not only the aggressors and the victims of bullying, but also those who witness such incidents. In this perspective, we should take into account the specific features of risk factors and protective factors with reference to the victims, offenders and the witnesses to violence. Moreover, the actions taken should not only include individual work with the victim or the aggressor, but also group work addressed to the whole class and the whole school community (principal, teachers and other employees of the school). The parents' involvement and cooperation is also crucial. As for the duration of preventive programs, the research results clearly indicate that long-term and intensive actions are the most effective (programs for children that included at least 270 hours, and for teachers-at least 4 days, turned out to be more effective).

In terms of preventive actions at the level of particular schools, special attention should be paid to a specific anti-bullying policy, e.g. the creation of teams of specialists dealing with diagnosing and preventing peer violence.

As our knowledge on, i.a. the minorities, which often fall victims to peer violence, is extending, we are able to plan some preventive measures through, e.g. providing the students with the necessary knowledge, integrating the class team, and monitoring the students' behaviours and immediate responding to the first symptoms of aggression.

At the school level, an important factor protecting children and youth against improper behaviours is the atmosphere of the school, the sense of security at school, and the awareness of the support of friends and teachers. Unfortunately, according to some analyses, more than a half of the students are poorly adjusted to school life, which results from—among other aspects—the sense of danger and indifference of other people (Twardowska-Staszek 2016). Thus, an important element of preventive actions is strengthening the sense of security in terms of physical space (controlling the changing rooms,

toilets, the playground) and the school atmosphere (clear system of class and school norms).

Although there are many models of interventions and preventive actions that prevent and reduce the phenomenon of bullying, we have to take into account that there is not a single, miraculous method to be applied in each school. Thus, while designing preventive actions, we should consider the specific needs, conditions and context of a given school.

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