

# CYBERBULLYING IN THE LIGHT OF CHALLENGES OF SCHOOL-BASED PREVENTION

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## ABSTRACT

The main goal of the paper is to present opinions about cyberbullying prevention in Poland in the light of teachers' experiences. The authors show the current state of knowledge of electronic aggression and cyberbullying among the youths. They also present an overview of the difficulties educators face, the challenges and expectations of kids and youth regarding media prevention, as well as challenges related to the effectiveness of the modern, innovative prevention of risky behaviours. The study was conducted in the Pedagogical University of Cracow, in the first half of 2019, using a focus group method. The results provide new guidelines and findings which may be valuable for school practice and media pedagogy. The interviewed teachers declared that the effectiveness of the hitherto implemented preventive activities varies. They declared their need to develop their own digital literacy and were willing to participate in trainings focused on the practical aspects of anticipating cyberbullying and solving difficult cases (e.g. related to sexuality, image protection or attacking teachers via the Internet). The respondents admitted the necessity of joining efforts with police and local community institutions when solving the cyberbullying-related problems.

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## 1. INTRODUCTION

Cyberbullying is a constantly noticed challenge in Europe. This is proved by the number of young people with experience in this area. For example, 16.05% of Spanish adolescents have experienced occasional or severe cyberbullying (Del Rey et al., 2015). Studies conducted by Czech researchers from Olomouc show much greater percentage of almost 50% (Kopecký and Szotkowski, 2013). Because aggression and cyberbullying have different victimisation (hurting) potential, we need to clearly discern between certain oppressive behaviours young people face online. For example, according to the EU KIDS Online study, during the 12 months prior to the study, young Poles aged 9-17,

had experienced the following forms of cyberbullying and electronic aggression (Pyżalski et al., 2019): I received unpleasant or mean messages (e.g. words, graphics, photos or videos) 8.7%; I was removed or banned from a group or some Internet activity 5.5%; I experienced other unpleasant incidents when online 5.0%; Someone sent out or posted somewhere unpleasant or mean messages about me (e.g. words, graphics, photos or videos) so that others could see them 4.9%; Someone threatened me in the Internet 4.9%; I was forced to do something I did not want to do 2.0%.

Based on the study conducted in eight European countries (Bulgaria, Cyprus, France, Greece, Hungary, Italy, Poland, and Spain), it was observed that both, being a victim and a bully, is the most common in Bulgaria and Hungary and the least common in Spain. In all the studied countries, boys engage in behaviours classified as cyberbullying more often than girls. The scale of the activities defined as cyberbullying experience in these countries is from several to a dozen or so percent, depending on the type of cyberbullying (Flaming, Denigration, Impersonation, Outing, Exclusion)

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(Sorrentino et al., 2019). Other, comparative studies in Europe confirm the changing nature of cyberbullying, depending on the definition adopted (Athanasίου et al., 2018). However, we need to emphasise at the very beginning that the scale of the phenomenon changes also due to different methodological assumptions (construction of questions, narrowing down the timeframes of experiencing and exercising cyberbullying, definitions of aggression and cyberbullying). Cultural context, intervention and anticipation strategies are also important factors that differentiate the scale (Barlett et al., 2013).

Today, schools face new and classic threats resulting from the computerisation of our daily life. Cyberbullying is one of the challenges, which for over a decade has been the focus of the researchers and practitioners. Preventions and intervention related to cyberbullying is one of the common challenges among pedagogues - practitioners. Analyses performed among both, students and teachers show the crucial role of teachers in solving the problems mediated by the Internet. But educators use diverse intervention strategies which depend on the type of school, stage of education, digital literacy level, experience or type of cyberbullying. Based on these research, we can notice that there is quite a large group of parents, children and youths who, when facing e-threat to their security, ask teachers for help in the first place (Giménez-Gualdo et al., 2018). It is also indisputable that both, researchers and practitioners refer to education as the necessary element to stop cyberbullying and a base to mitigate serious negative physical and psychological consequences this type of e-threats leaves with the victims. Online safety education and educational programmes about cyberbullying prevention have become necessary for today's schools. Introduction and implementation of effective curricula requires not only complex knowledge of cyberbullying but also expertise and competences in the field of media education (Marzano, 2019). For this reason, the study presented herein assumes that knowledge and experience of the teachers are the base to learn the modern aspects of media prevention related to cyberbullying in Poland.

Because of different definitions of cyberbullying, the analysed phenomenon should be first clearly defined. Cyberbullying is defined as aggressive behaviours or actions performed using electronic means or information and communication technologies (ICT), initiated by a group or

an individual against a victim whose ability to defend themselves is limited. What differs cyberbullying from violence exercised offline is the fact, that in case of cyberbullying the perpetrators can usually stay anonymous and there are no territorial and time limitations (Rębisz, Sikora, and Smoleń-Rębisz, 2017). Cyberbullying is considered one of the signs of aggression. Cyberbullying is an intentional activity to cause harm or suffering (Frankowiak, 2018).

The recent analysis of the international research network EU KIDS Online shows that the more traditional aggression have young people experienced from their peers, the more often they were also the victims of electronic aggression (Pyżalski et al., 2019). Both, qualitative research and meta-analyses confirm that individual traits and socio-family conditions are the important cyberbullying factors. The strongest risk factor related to cyberbullying is intimidation in school, that is, offline aggression experienced from peers (Baldry, Farrington and Sorrentino, 2015). School, or rather peer environment in school, becomes the main arena of cyberbullying behaviours. There are different ways to minimise the cyberbully-ingrelated risky behaviours. One of them is total ban on using mobile phones in a school. According to some researchers or politicians (e.g. in France), these restrictions is crucial in eliminating cyberbullying and, at the same time, dealing with risky behaviours in schools, mediated by new median (Kaimara et al., 2019). However, restrictive prevention raises many objections related to education (Oliveira, Cunha and Soares, 2019). In opinion of many researchers, it is much more beneficial to educate how to use Internet and phones in a constructive way rather than exclude new media from the school life. Developing positive habits and showing the potential of the new media is one of the components of smart media prevention (Panckhurst and Coughon, 2019).

Jacek Pyżalski points out that an effective media prevention programme should follow several principles which are important in educational practice. Programmes should be integrated with other educational activities addressing also the traditional violence. Addressing electronic aggression and cyberbullying only has no rationale as in most cases peer aggression online and offline has common grounds. Pyżalski also mentions the fact that many preventive solutions are universal and they translate into reduction of both types of peer aggression/bullying. Thus,

by engaging in programmes to reduce the offline violence, teachers at the same time contribute to the decrease of online aggression. The meta-analyses also revealed that implementation of media prevention requires something more than standard educational activities (like instructional methods). Rather than moralise, workshops with children and youths should focus more on developing their knowledge of the nature of media communication and online relationships. A strategic element in reducing cyberbullying is the inclusion of the salutogenic elements – the opportunities paradigm of media pedagogy, showing how to use ICT constructively (Pyżalski et al., 2019).

The research results suggest clearly that teachers who think they can stop cyberbullying intervene more often when it happens and create activities to minimise this phenomenon. It is also noticeable that the sense of self-effectiveness in the analysed area is connected with teachers' engagement in educational interventions in the past. The effective prevention in schools emphasises increasing teachers' confidence during interventions and their preparation based on exchange of experience, cyberbullying case analyses and solving this type of problems as they occur (Fischer and Bilz, 2019). Implementation of effective curricula requires teachers read the recent subject matter literature, invest in their professional development (e.g. by participating in conferences, courses, online trainings) and improve their digital literacy. Based on the analyses conducted in nine European countries, it was observed that the sources of cyberbullying are particularly connected with the patterns of using ICTs, lack of media literacy and media education, as well as lack of adequate regulations to monitor the risky behaviours in the Internet. According to teachers and experts, their professional group is considered to play a significant role in minimising cyberbullying, however they emphasise their need for ongoing educational and organisational support to increase digital safety among students but also parents and teachers themselves (Jäger et al., 2010). Education to improve the effectiveness of cyberbullying preventions and develop digital literacy has become obvious in the rapidly developing information society.

## 2. MATERIALS AND METHODS

### Research objective

The objective of the study was to provide a holistic view on digital safety among children and youths in the context of prevention of cyberbullying in schools. Given that hitherto studies into cyberbullying and electronic aggression lack teachers' perspective, we have identified the following research problems:

1. What cyberbullying prevention programmes have the teachers participated so far?
2. What kind of difficulties in implementation of cyberbullying prevention among children and youth do teachers face?
3. What are the needs and expectations of children and youths related to teachers' knowledge about digital safety in the context of cyberbullying?
4. What are the challenges connected with cyberbullying prevention?

Due to the dynamically changing conditions related to digital safety in the context of education (Tomczyk, Potyrała, 2019), this study is not only a basic study but it will also be used to design some practical solutions. The analyses were conducted as part of the project SELI - Smart Ecosystem for Learning and Inclusion - ERANet17/ICT-0076 SELI (cofinanced by the National Centre for Research and Development) the purpose of which is to create an international e-learning platform to support teachers from Latin America and Europe in developing effective solutions to prevent cyberbullying. The data obtained will serve to update the present resources addressed to educators involved in cyberbullying preventions in the school environment.

### Research procedure and sampling

Providing answers to the research questions was possible thanks to pedagogical qualitative study. For this purpose, the method of focus group was applied. It took place in the first half of 2019, in Poland. The sample consisted of 11 persons (postgraduate students of Administration and Management in Education, studying in the Faculty of Pedagogy of the Pedagogical University of Cracow). There were 9 females and 2 males. Most of the respondents were teachers (kindergarten, preschool education, math, history, family life education, physical education, English, Polish and geography). The sample included also an economist (specialising in finance and banking), a philosopher and a teacher of

children with intellectual disabilities. Almost half of the respondents held two university degrees (pre-school and early school education and history, pre-school and early school education and English, pre-school and early school education and philosophy, pre-school and early school education and Polish, physical education and geography). One of the respondents had three degrees (history, pre-school and early school education, education of children with intellectual disabilities). The age of the group was 30-46 years. Most of the teachers worked as appointed and chartered teachers (second and third out of four degrees of professional promotion) in kindergartens, primary schools (also with integration classes) and secondary general and technical schools. The study took 50 minutes. The procedure was compliant with the assumed methodology and research ethics (Vaughn, Schumm and Sinagub, 1996).

#### Data analysis

The interviews were transcribed and then analysed in terms of meaning. For this purpose the following methods were used: coding, data reduction and interpretation of meaning were used. Coding and categorisation are the basic techniques used to organise the research material. All the answers were processed by assigning basic words to the pieces of statements, which enabled conceptualisation during the next stage. During the categorisation, reduction of meaning was applied – the selected statements were reduced (for example those covering wider areas than the research problem or repetitive). The interpretation of the interviews is presented in the discussion part (Kvale, 2010; Kvale and Brinkmann, 2009). The study was conducted within the normative paradigm of the pedagogical qualitative research.

The normative paradigm allows the presentation of the educational processes in the perspective of the subjective, individual feelings, that is, the way teachers interpret a specific reality, the characteristics they assign to it. Knowledge obtained in this way aligns with the goals, ideals and values of the education, and helps to discover what needs to be changed in order for the education process (in this case media education) to run properly (Czerwiński, 2011).

### 3. RESULTS

#### Participation in cyberbullying prevention programmes

All the respondents declared they knew popular cyberbullying prevention programmes (like “Safety+”) but the most popular form of prevention in this area they had encountered were special meetings organised by the police. Most of the respondents took part in regular meetings addressing the issues of cyberbullying, organised by the police or city guards (most often, it was an annual meeting for all the students and teachers from a given school). The most often addressed topics were legal issues related to the consequences of cyberbullying (publishing photos/image online without a person’s consent and the consequences of such actions). Certain threats were discussed based on real case studies (e.g. a student trying to commit suicide because his compromising photos have been published in the Internet, the consequences for the persons responsible for sharing the photos). One of the respondents added:

*During the meetings, we also discussed the cases of suicidal attempts, successful or not, which went viral.*

The respondents definitely appreciated the trainings led by the police more than their own activities undertaken during the classes. According to one of the respondents:

*Usually, during the general education classes, at least in my opinion, the teacher says something and the students get bored. They are much more impressed if a police officer comes in his uniform and tells them about his real experiences, specific cases of real people and the consequences. Then of course, they [the students] sit and listen, and they are surprised. I think the class is much less effective [when you discuss cyberbullying] than when they meet with an expert.* The respondents said these type of meetings with the police officers should be organised more often in schools.

They also pointed out to the necessity to address the issue of anonymity in the Internet and the irreversible nature of some actions, as one of the risks of global communication. The respondents try to address these issues as often as possible (not only during the general education classes). They often discuss (especially with primary students but often also in the secondary schools) the online *savoir vivre* (what should we post in the Internet and what should they avoid, making them aware that there is no such thing as anonymity in the Internet). One of the respondents added:

*We have been recently talking much that there is no such thing as anonymity. The truth is, you can always find the author. They [students] think they know better, they know everything.*

### **Difficulties in implementation of cyberbullying prevention among children and youth**

The main problem with cyberbullying prevention mentioned by the respondents is the age barrier between the students and their parents and teachers. Today's students but also younger children is the generation who has been growing up using telecommunication technologies every day. They are fluent users of different devices and software, but they lack the awareness of the threats connected with the daily use of the Internet. The students do not understand that there is no "temporary photo sharing", that every action and every user can be identified. The respondents pointed out the fact that children, especially younger ones, do not understand what is Internet/smartphone/computer addiction. One of the respondents noticed: *it is even worse because parents lack this awareness too.*

Sometimes parents learn about this types of addictions during meetings in schools and kindergarten. Often they do not know what purposes their children use the Internet for. Another respondent said:

*student sit locked in their bedrooms, in front of their computers till late in the night or even morning... Sometimes I can see they log into the electronic log at, for example, 2:55 am. And I wonder what do they do at that time. Why don't they sleep? Parents often neglect that.*

According to the respondents, parents are not aware how much time their children spend using their computers and how they use the Internet (especially older primary and high school students). In the opinion of teachers, parents often ignore their responsibilities towards children. The teachers also see the risk of Internet addiction among the students as they observe how much active they are online.

Cyberbullying-related issues are most often discusses during the general education classes and the respondents treat them as a priority. One of the teachers added that the so called general education classes are not very effective when it comes to cyberbullying prevention. Special meetings organised for the whole school community and led by specialists, like police officers, are much more

effective, as students learn about the certain, real-life cases and the consequences of such actions. Cyberbullying is also addressed during the family life education classes. One of the respondents stated:

*Family life education classes provide many opportunities to talk about it. Sometimes life brings specific problems and we are forced to discuss them with the students, take certain actions.*

### **Needs and expectations of children and youths regarding cyberbullying issues**

When asked what is the most common type of electronic aggression they had encountered, all the teachers agreed it was: ridicule, mocking, mean and offensive comments towards specific persons, sharing photographs, processing photographs, publishing memes (using someone's image). One of the respondents noticed that students quite often write offensive comments about their friends' parents. Most often, the students report the facts of publishing pornography. However, they treat this type of activities as fun, they are not aware of the consequences, also legal, they entail. The respondents also described certain, witnessed examples of cyberbullying among their students (publishing a photo of a naked students as an exgirlfriend revenge, reporting the case to the police, confiscating the phones from the students). The teacher added:

*We've had this kind of situation twice [the problem of pornography in the Internet]. First: it had spread very fast among the students, it was really farreaching. A boy posted the photo of a naked girl. We reported the case to the police and students had an opportunity to experience this type of intervention themselves. Phones were confiscated because they were sending this out via some applications, claiming it was only for a moment. Fifteen people got their phones confiscated for a month, they were at the police station, in the court. The boy who took the photo and posted it had to bear some serious consequences.*

Another respondent recalled her own experience when her students reported to her that a photo of a naked student had been published and it spread out in the school immediately, and the student, shocked, run away from the class. According to the respondent, the key response in this situation was to provide psychological support for the student and then public punishment for the perpetrators.

Asked, how can they deal with cyberbullying experiences, the respondents answered that, apart from raising students' awareness through talks or mini lectures, it is important to raise awareness among the parents (education of parents) and provide them with information about cyberbullying. The respondents said parents are not aware of the scale of the phenomena. One of them pointed out:

*A student who is not controlled, does not feel someone is watching them, feels they can get away with it, feels free. From my observation at least, I can see that when students know there is a problem and the teacher informs their parents right away, they feel controlled and are not so brave. They feel the "whip" over them.*

According to the teachers, not only talking to the students about the improper behaviours is important but also showing them the legal consequences of the certain actions, condemning these actions, informing parents and, when needed, law enforcement authorities. It is important that teachers do not underestimate any sign of cyberbullying. The respondent said cyberbullying is sometimes ignored by the parents. One of the respondents said:

*There was a mother who was called by the teacher during an open day and she told the management: "I have come because my son wrote this but it is nothing wrong". She did not see any problem... If she ignores such an act, then next time her son will publish, for example, some photos and she will not see anything wrong in it either.*

According to the respondent, neglecting cyberbullying by some parents is the additional obstacle to prevention activities in this area.

The teachers said that today's parents throw the responsibility for educating their children on the school, especially regarding the competencies enabling safe use of the Internet. When a cyberbullying issue is reported, parents first go to the school management and expect the school will solve the problem. The respondent emphasised:

*Parents very often expect the school to solve different problems and conflicts, or investigated who, for example, set up a fake Facebook profile and is bombing their kid with some information. She said that when parents find out they should report it to the police, they withdraw and do not want to exercise their rights, they try to keep everything quiet.*

The teachers also said that they quite often see that students who fell victims of

cyberbullying (online harassment) do not cope emotionally with this problem and struggle with various psychical problems. Another respondent gave the example of her former student (at that time in the third grade) who set up a fake account in a dating portal (for adults) and told her friends in the class she had a boyfriend. It was thanks to the intervention of the teacher (reporting it to the school director and the parents) that it became clear the the students (10 years old) was interacting with an adult man. The parents were completely unaware of what their daughter was doing online. The respondents added:

*I was alarmed by the students' conversation. Luckily, it is a third grade and kids have quite a big trust to the teacher and tell the truth. I immediately notified the director and parents. And the parents did not know anything.*

One of the pre-school teachers said that their institution organises regular meetings for the parents to raise awareness regarding the threats resulting from the excessive use of the Internet and devices like smartphone or tablet by the pre-schoolers. For this respondent it was very important that for the parents using the Internet by their children is not only the matter of entertainment.

*First of all, we teach the parents that they are responsible for this. Because if we teach children from the very beginning to look for all the entertainment online, in their laptops or tablets instead spending time with their parents, they will quickly get access to inappropriate, dangerous content.* The respondents all agreed that they feel responsible to teach the parents but they would gladly use some e-learning trainings in the area of cyberbullying prevention. And because information technologies develop so rapidly, teachers do not keep up with those changes. E-learning is also a perfect form of training for the teachers who, due to their multiple duties, can only learn in their free time.

Some respondents critically viewed the functioning of contemporary families. The pointed out that due to the lack of the free time and for their own comfort, parents let the children watch TV or use the Internet, without controlling what they actually watch. One of the teacher added that:

*Today parents work. We cannot blame them for the wrong intentions. Because they often work and there is also no protection. There is special software to protect children but kids are so smart and intelligent now that they can remove the blockades. If not them,*

*a friend from their class will do it.* In such cases, said the respondents, different social campaigns, local or nation-wide, would help.

They said that students who had experienced cyberbullying first come to their teachers whom they trust. Sometimes they are afraid how their parents might react, therefore they seek help with the teachers they trust. Much more seldom they ask school counsellor or psychologist. Counselling or psychological support is offered only when needed. It is teachers they turn to with their problems who decide how to solve the problem or if they should ask for psychological help.

As for students' responses to the different types of cyberbullying, the respondents agreed they depend on the emotional maturity. Ridiculing or offensive comments are the most common online activities among the students. Sometimes these behaviours trigger extremely different reactions in the victims. They depend mainly on the psychical condition of a student.

Given the effectiveness of the methods of working with cyberbullying victims, the respondents pointed out the necessity to address these issues by the teachers of all the subjects and to organise special meetings with the police officers. One of the respondents suggested organising the so called "organisational assemblies" in schools when the students who were engaged in cyberbullying would receive public reprimand. Many teachers still gives the priority to the methods of public condemnation of the given risky behaviours.

The most difficult case of cyberbullying the respondents had encountered was spreading racist, anti-German content by one of the students. After the police intervention (confiscated phone), the student plead guilty because he was afraid of the consequences he had not been aware of before. Another example was a failed suicidal attempt by a student whose naked photographs were published online by one of her school friends.

The respondents admitted that they experience cyberbullying against the teachers quite often. The most common are processed photos and animations using teachers' image. Sometimes there are very offensive, negative comments regarding the school or teachers, posted on the official city webpages (e.g. miasto.info). Most often, these cases are reported to the school management by the teachers themselves.

The interviewed teachers emphasised that they would like the trainings in cyberbullying prevention to be led by different persons and institutions. One of

the respondents added: *every form of talking about it is good. The more we talk about it, the greater awareness among the students, mainly of the consequences [of cyberbullying] in this area. And this is good. Whether it is a police officer or a representative of an organisation, it does not matter that much. Only so the students participate and listen.*

For the respondents, the biggest problem is that students lack the awareness of the consequences of their actions. They emphasised they do not understand that even deleting the previously published content does not solve the problem because it still remains in the Internet. It is important to adjust the content presented during the talks/trainings to the level of the development of the students.

Another important issue mentioned by the teachers was the necessity to sensitise the children to carefully select the photos they post online. The purpose of such meetings is the prevention of different forms of cyberbullying. The respondents were concerned the most about the lack of awareness among the students, regarding the consequences of cyberbullying. One of the respondents (a high school teacher) said:

*students have practically no awareness of the legal consequences [of cyberbullying]/ They do not realise what danger they are in.*

As for the trainings and workshops for students, one of the respondents had an idea to invite people who work daily using the Internet, for example gameplayers, youtubers or public persons whom the students know and respect. Sharing their experience with the students would be of particular value. Another group should consist of police experts dealing with cybercrimes.

The respondents agreed that they do not feel well prepared to work with children-cyberbullying victims. They expect more training in this area for, both teachers and students (organised by city, municipality authorities, police and NGOs). They said that information about the legal consequences of inappropriate use of online applications would be particularly useful. One of the participants admitted she feels less conscious Internet user than her students (a generational barrier) and therefore, she feels unprepared to implement the cyberbullying preventive methods.

### **Cyberbullying prevention programmes – disadvantages**

The respondents did not have positive opinions about the forms of training related to cyberbullying prevention. Often, these

meetings were only limited to a short lecture or presentation and the speakers were not able to draw students' attention to a given problem. Thus, it is important that this type of classes were prepared by competent persons and the form presentation was accessible, attractive and relevant. Only this way one can reach the young generation. The teachers declared they knew popular cyberbullying prevention programmes. One of the respondents evaluated highly the initiative by the local government in Myślenice, titled "stop hate" (cyclic meetings, talks in schools combined with the local social campaign).

Another weakness of this type of programmes is that they are occasional. According to the respondents, such meetings and talks for students and teachers should be held on regular basis. As organisers, the respondents pointed out to police officers who are respected by the students. As for the content, the respondents think that theory should be minimum. The best form is the analysis of certain, actual examples of cyberbullying. This form works best with students' imagination, said the respondents. Another good idea would be to organise such trainings for the parents.

The elements which need improvement in the cyberbullying prevention programmes are: 1) obligation to cover certain subjects during the general education class; obligatory participation in open lectures delivered to the whole school, most often as a response to a particular incident (lack of planned preventive actions), 2) trainings led by incompetent persons who use the language students cannot understand and who are not able to engage students in the topic, 3) necessity to introduce trainings for the parents who are the least aware of the threat.

The advantages of the prevention programmes: 1) raising awareness of students and teachers in this area, 2) meetings organised by the police are the most effective, 3) comprehensive approach to the trainings which are addressed to students and teachers.

All the respondents agreed that due to different scales of the different forms of cyberbullying, it is necessary to implement complex preventive action, raise awareness among the students and teachers but also among the parents. It is also very important to adapt the content to the stage of development (different issues discussed with the pre-schoolers than with children in grades I-III, IV-VIII and in secondary schools). Preparation of the classes is of a great importance too. They

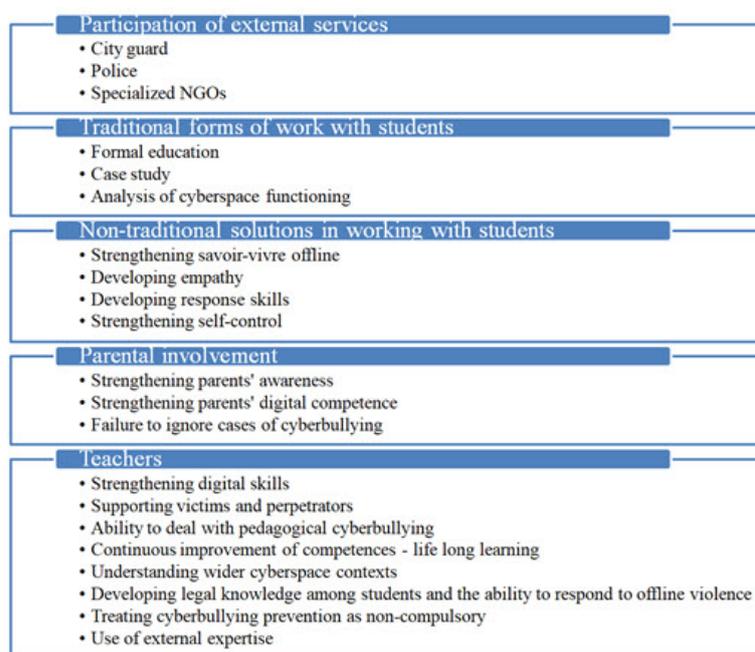
should be attractive and the person teaching should be competent and able to engage the students. One of the teachers added:

*cyberbullying never shows up in a child, and other people, in a day. This is a process. So, something had to happen. Most often, a child is excluded from a peer group and wants to be seen. And either he or she finds someone weaker to mock or a weaker teacher whose photo will get manipulated. For sure, children are not completely aware they will bear legal consequences.*

The respondents have certain expectations regarding e-learning trainings for teachers/parents: 1) sharing materials which could be used during classes (analyses of specific cases with legal consequences), 2) the list of frequently asked questions and answers; ready-to-use course of action in certain cases (proceedings) 3) a list of popular trainers specialising in cyberbullying prevention who can be invited to a school for a general education class or parents meeting, 4) presentation of the psychological grounds in recognising the victims of cyberbullying among the children (how to recognise a child has been bullied, how to talk to such child, how to convince them to see a psychologist), 5) avoid the academic language which may not be understandable for the audience. Due to the specifics of the teaching profession, save for the regular, traditional lectures, e-learning is the best form of training. Finally, the respondents suggested this type of activities should be supported financially by the local governments.

## 4. DISCUSSIONS

Graph 1 presents synthetically all categorized analyzes regarding challenges in the field of cyberbullying prevention.



**Graph 1.** Solutions conducive to cyberbullying prevention

The respondents were familiar with the selected elements of cyberbullying. This results from the fact of the growing scale of the school incidents related to digital safety and the relatively big number of training projects addressed to teachers (Tomczyk, Srokowski and Wasiński, 2016). We can notice that during the recent years, the level of teachers' knowledge of cyberbullying has been changing (Tomczyk, 2017). This results from the fact that teachers are the first to provide this safety, both online and offline (Pyżalski, 2012). The respondents take part in the programmes to raise awareness about the risky behaviours in the cyberspace. These initiatives are financed, for example, by the Ministry of National Education. At present, the issue of the prevention of cyberbullying and electronic aggression is one of the priorities in media pedagogy. This is confirmed, for example, by the number of educational events, conferences or publications focusing on the phenomenon. Despite these initiatives, teachers still have insufficient knowledge and digital literacy – this is due to the rapid pace of transformations taking place in the information society (Ziamba, 2013). New digital services and technologies force teachers to update their knowledge about the information and communication technologies (Kędzierska and Potyrała, 2015; Potyrała, 2017; Veličković

and Stošić, 2016). Modern school needs competent, prepare educators who are able to face the challenges mediated by digital media (Stošić and Stošić, 2015).

Regarding the qualitative results presented herein, there are several recurring and new dilemmas related to the effectiveness of media prevention in the area of cyberbullying. First, the already mentioned changes in the cyberspace force teachers not only to constantly update their knowledge about the e-threats but also include the third parties into media prevention. This is an interesting issue because the respondents emphasised many times the effectiveness of the police and other intervention units. Often, the teachers feel helpless in solving complicated problems related to cyberbullying and prevention that they involve police officers in it. By the way, we need to emphasise that in the Polish system of prevention, the police willingly and frequently joins the prevention activities implemented in schools. This type of support is provided by qualified officers (Beale and Hall, 2007; Feinberg and Robey, 2009). According to the teachers, the level of digital literacy in their professional group is still insufficient to allow them to solve the problems of the digital world effectively (Tomczyk, 2019). It is a paradox, but despite low self-evaluation, it is teachers who are first to solve the issues

related with cyberbullying, as they work not only with the victims but also the witnesses, offenders and parents (Compton, Campbell and Mergler, 2014). However, the teachers believe their knowledge is insufficient and requires improvement with the support of other professionals, including police officers, researchers or NGO representatives (Zych et al., 2017; Giménez-Gualdo et al., 2018).

The respondents think the present media prevention methods are still ineffective (Zych et al., 2015). This opinion results from the fact of the generational differences, low awareness of students regarding the e-threats and, at the same time, highly developed functional components of digital literacy. The respondents also think that effective prevention must engage the parents. Unfortunately, when it comes to media education, parents also lack sufficient knowledge, time and interest in the problems of safety in the cyberspace. Of course, this is a selected group of parents (Wąsiński, Tomczyk, 2015; Mesch, 2009). The teachers emphasise that more and more often parents throw the responsibility for media education on the schools and neglect intentional educational, role modelling and prevention activities at home.

According to the teachers, modern media prevention does not fulfil its role. Teachers lack adequate knowledge not only due to their age or the level of digital literacy, but mainly because they do not receive support in updating their expertise and skills. Trainings they take part in, have many methodical flaws: they do not focus on practical application and are not regular. Teachers often respond intuitively as they have no knowledge about the mechanisms related to cyberbullying. Media prevention issues introduced during the general education classes are presented using instruction methods or other methods, forms and means which do not seem to be effective enough. The teachers notice there are different types of cyberbullying among the young people, which lead to isolation, damage to the reputation, vulgarisation of the online space, law infringement and publications of images (memes, manipulated graphics) which are hard to remove (Dooley, Pyżalski, Cross, 2009; Popović-Čitić, Djurić, and Cvetković, 2011; Ševčíková, Šmahel and Otavová, 2012). Therefore, to eliminate and anticipate the above mentioned situations, teachers try to focus on the universal competencies and skills protecting from the e-threats, for example: developing personal culture, empathy, raising legal awareness, improving technical

knowledge regarding, for example the lack of anonymity in the Internet (Pérez-Rodríguez et al., 2019). They see the potential hidden in the non-standard media prevention which would engage celebrities in the process of media education, leverage the phenomenon of youtubers or use materials prepared by specialist NGOs (Tomczyk, Kopecký, 2016; Kopecký, 2016). New times require constant searching for the new solutions and improvement of the methods used at present.

Cyberbullying prevention becomes particularly important in extreme cases, when there is an infringement of the law. These incidents are the most difficult for the teachers and they usually involve: sharing intimate photographs of the young people (Tomczyk, Szotkowski and Kopecký, 2017), home runaways, creating fake accounts – identity theft, racial-based hate and suicidal attempts as the result of a long-term cyberbullying (Pyżalski et al., 2019). The above mentioned consequences of cyberbullying happen in the Polish schools and require joint interventions of teachers and law enforcement authorities. When facing the most difficult cases, the respondents feel helpless in the area of psychological support needed. This is the specialist knowledge which combines the theory and practice of: psychological crisis intervention, law, mediation and IT (Plichta, 2017; Stauffer, et al., 2012; Tangen and Campbell, 2010). In addition, the teachers feel helpless when they are the victims of cyberbullying. They say that they too need support in dealing with the situations when someone attacks their reputation online and in removing or tracking the perpetrators. They also want to collaborate with the school management to develop and implement procedures to protect teachers in the cyberspace (Kopecký and Szotkowski, 2017; Kopecký and Szotkowski, 2017b).

Based in the focus group session, we can carefully conclude that teachers have the basic knowledge of the prevention related to digital safety in schools but they still feel uncertain as the key persons in formal media education. Throwing the responsibility on the school, lack of support from the parents and often also school directors, rapid development of the information society, quickly outdated digital literacy are the factors which force teachers to redefine their own prevention methods many times. Given the teachers postulates, it seems right to develop courses focusing on the practical application, which would enable quick access to proven preventive

solutions. Such possibility is provided in the form of synergic activities led by the academic circles of media educators and the interested beneficiaries (Eger, 2015; Eger and Egerová, 2013).

## 5. CONCLUSIONS

The issues presented herein are rooted in the risk paradigm of media pedagogy (Pyżalski et al., 2019; Tomczyk, Potyrała, 2019) thus they present the style of use of the digital media by the young people in the perspective of threats. The effective elimination of the e-threats, that is, increasing the level of digital safety, requires the development of digital literacy in the school environment. This, however, requires proven, effective and innovative elements of media prevention to be introduced into the education system. Successful minimising the digital threats has become one of the key priorities in the modern school where teachers, together with other beneficiaries mentioned herein, should act intentionally and with confidence. Such model approach raises many challenges listed by the teachers. The effective prevention also brings new challenges related to designing and experimenting with the solutions which have not been used before to prevent such e-threats as: cyberbullying, electronic aggression, problematic Internet use, identity theft, sexting, patostreaming. The wide range of e-threats must be further investigated to reveal the wider contexts, that is, conditions present in all education and socialisation environments.

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### Conflict of interests

The authors declare no conflict of interest.

## REFERENCES

- Athanasidou, K., Melegkovits, E., Andrie, E. K., Magoulas, C., Tzavara, C. K., Richardson, C., ... & Tsitsika, A. K. (2018). Cross-national aspects of cyberbullying victimization among 14–17-year-old adolescents across seven European countries. *BMC public health*, 18(1), 800. <https://doi.org/10.1186/s12889-018-5682-4>
- Baldry, A. C., Farrington, D. P., & Sorrentino, A. (2015). "Am I at risk of cyberbullying"? A narrative review and conceptual framework for research on risk of cyberbullying and cybervictimization: The risk and needs assessment approach. *Aggression and Violent Behavior*, 23, 36–51. <https://doi.org/10.1016/j.avb.2015.05.014>
- Barlett, C. P., Gentile, D. A., Anderson, C. A., Suzuki, K., Sakamoto, A., Yamaoka, A., & Katsura, R. (2013). Cross-Cultural Differences in Cyberbullying Behavior. *Journal of Cross-Cultural Psychology*, 45(2), 300–313. <https://doi.org/10.1177/0022022113504622>
- Barlińska, J., Plichta, P., Pyżalski, J., & Szuster, A. (2018). Ich słowami-obraz pomocy w sytuacjach cyberprzemocy rówieśniczej z perspektywy uczniów (In their words – a picture of support in cyberbullying situations from the student's perspective). *Dziecko Krzywdzone. Teoria, badania, praktyka*, 17(4), 82-115. <https://dzieckokrzywdzone.fdds.pl/index.php/DK/article/view/693>
- Barlińska, J., Szuster, A., & Winiewski, M. (2013). Cyberbullying among adolescent bystanders: Role of the communication medium, form of violence, and empathy. *Journal of Community & Applied Social Psychology*, 23(1), 37-51. <https://doi.org/10.1002/casp.2137>
- Beale, A. V., & Hall, K. R. (2007). Cyberbullying: What School Administrators (and Parents) Can Do. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 81(1), 8–12. <https://doi.org/10.3200/tchs.81.1.8-12>
- Blaya, C., Kaur, K., Sandhu, D., & Sundaram, S. (2018). Cyberbullying in Higher Education in India and France. In P. Smith, S. Sundaram, B. Spears, C. Blaya, M. Schäfer, & D. Sandhu (Eds.), *Bullying, Cyberbullying and Student Well-Being in Schools: Comparing European, Australian and Indian Perspectives* (pp. 107-129). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781316987384.007>
- Bolton, N. (1979). Phenomenology and education. *British Journal of Educational Studies*, 27(3), 245-258. <https://doi.org/10.2307/3120716>
- Casas, J. A., Del Rey, R., & Ortega-Ruiz, R. (2013). Bullying and cyberbullying: Convergent and divergent predictor variables. *Computers in Human Behavior*, 29(3), 580-587. <https://doi.org/10.1016/j.chb.2012.11.015>
- Compton, L., Campbell, M. A., & Mergler, A. (2014). Teacher, parent and student perceptions of the motives of cyberbullies. *Social Psychology of Education*, 17(3), 383–400. <https://doi.org/10.1007/s11218-014-9254-x>
- Czerwiński, K. (2011). Między pedagogiką ogólną a metodologią badań (Betwen general pedagogy and methodology of research). *Przegląd Badań Edukacyjnych*, 2011, nr 1 (12), s. 85-105.
- Del Rey, R., Casas, J. A., Ortega-Ruiz, R., Schultze-

- Krumbholz, A., Scheithauer, H., Smith, P., ... Plichta, P. (2015). Structural validation and cross-cultural robustness of the European Cyberbullying Intervention Project Questionnaire. *Computers in Human Behavior*, 50, 141–147. <https://doi.org/10.1016/j.chb.2015.03.065>
- Dooley, J. J., Pyżalski, J., & Cross, D. (2009). Cyberbullying versus face-to-face bullying: A theoretical and conceptual review. *Zeitschrift für Psychologie/Journal of Psychology*, 217(4), 182-188. <https://doi.org/10.1027/0044-3409.217.4.182>
- Eden, S., Heiman, T., & Olenik-Shemesh, D. (2013). Teachers' perceptions, beliefs and concerns about cyberbullying. *British Journal of Educational Technology*, 44(6), 1036-1052. <https://doi.org/10.1111/j.1467-8535.2012.01363.x>
- Eger, L. (2015). Is Facebook a similar learning tool for university students as LMS?. *Procedia-Social and Behavioral Sciences*, 203, 233-238. <https://doi.org/10.1016/j.sbspro.2015.08.287>
- Eger, L., & Egerová, D. (2013). e-Learning trends in Central Europe: The case of the Czech Republic. *Knowledge Management & E-Learning: An International Journal*, 5(3), 375-387. <https://doi.org/10.34105/j.kmel.2013.05.027>
- Fedorov, A. (2008). On media education. Moscow: ICOS UNESCO IFAP. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2625076](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2625076)
- Feinberg, T., & Robey, N. (2009). Cyberbullying: Intervention and prevention strategies. *National Association of School Psychologists*, 38(4), 22-24.
- Fischer, S. M., & Bilz, L. (2019). Teachers' self-efficacy in bullying interventions and their probability of intervention. *Psychology in the Schools*, 56(5), 751-764. <https://doi.org/10.1002/pits.22229>
- Frankowiak, K. (2018). Cyberagresja wśród adolescentów. – skala, charakter, uwarunkowania (cyberagresion among adolescents – scale, character, conditions). *STUDIA Z TEORII WYCHOWANIA. TOM IX: 2018 NR 4(25)*, 237-257.
- Gilbert, L. C., & Fedorov, A. (2004). A model for media education research in Russia and the US. *Educational Media International*, 41(2), 157-162. <https://doi.org/10.1080/09523980410001678610>
- Giménez-Gualdo, A.-M., Arnaiz-Sánchez, P., Cerezo-Ramírez, F., & Prodócimo, E. (2018). Teachers' and students' perception about cyberbullying. Intervention and coping strategies in primary and secondary education. *Comunicar*, 26(56), 29–38. <https://doi.org/10.3916/c56-2018-03>
- Hollá, K. (2016). Cyberbullying as a negative result of cyber-culture of Slovak children and adolescents: selected research findings. *Journal of Language and Cultural Education*, 4(2), 40-55. <https://doi.org/10.1515/jolace-2016-0015>
- Jäger, T., Amado, J., Matos, A., & Pessoa, T. (2010). Analysis of Experts' and Trainers' Views on Cyberbullying. *Australian Journal of Guidance and Counselling*, 20(2), 169-181. <https://doi.org/10.1375/ajgc.20.2.169>
- Kaimara, P., Poulimenou, S. M., Oikonomou, A., Deliyannis, I., & Plerou, A. (2019). Smartphones at Schools? Yes, Why not? *European Journal of Engineering Research and Science*, 1–6. <https://doi.org/10.24018/ejers.2019.0.cie.1288>
- Kędzierska, B., & Potyrała, K. (2015). Kształcenie i doskonalenie nauczycieli w globalizującym się społeczeństwie (Vocational education and development in a globalizing society). *Rocznik Lubuski*, 41(2), 117-130.
- Kopecký, K. (2016). Cyberbullying in a population of Slovak teenagers (quantitative research). *Human Affairs*, 26(2). <https://doi.org/10.1515/humaff-2016-0013>
- Kopecký, K., & Szotkowski, R. (2013). Cyberbullying, sexting and establishment of risky contacts by Szech children within the Internet environment—research and prevention. *International Journal of Science and Research (IJSR)*, (4)5.
- Kopecký, K., & Szotkowski, R. (2017). Cyberbullying, cyber aggression and their impact on the victim – The teacher. *Telematics and Informatics*, 34(2), 506–517. <https://doi.org/10.1016/j.tele.2016.08.014>
- Kopecký, K., & Szotkowski, R. (2017b). Cyberbullying, cyber aggression and their impact on the victim – The teacher. *Telematics and Informatics*, 34(2), 506–517. <https://doi.org/10.1016/j.tele.2016.08.014>
- Kvale, S. (2010). *Prowadzenie wywiadów (Conducting research)*. Warszawa: Wydawnictwo Naukowe PWN.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Lokmić, M., Opić, S., & Bilić, V. (2013). Violence against teachers - rule or exception?. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)*, 1(2), 6-15. <https://doi.org/10.5937/ijcrsee1602009o>
- Łuszczuk, W. (2008). Normatywny i interpretacyjny paradygmat w badaniach pedagogicznych (Normative and interpretative paradigm in pedagogical research). *Pedagogika*, 3, 13-26. <http://www.sbc.org.pl/Content/22112/luszczuk.pdf>
- Marzano, G. (2019). *Educational Approaches for Tackling Cyberbullying*. In G. Marzano, & J. Lizut (Eds.), *Cyberbullying and the Critical Importance of Educational Resources for Prevention and Intervention* (pp. 173-210). Hershey, PA: IGI Global.
- Mesch, G. S. (2009). Parental Mediation, Online Activities, and Cyberbullying. *CyberPsychology & Behavior*, 12(4), 387–393. <https://doi.org/10.1089/cpb.2009.0068>
- Morbiter, J. (2007). *Edukacja wspierana komputerowo a humanistyczne wartości pedagogiki (Computer-supported education and humanistic values of pedagogy)*. Kraków: Wydaw. Naukowe Akademii Pedagogicznej.
- Oliveira, P. M., Cunha, J. B., & Soares, F. (2019). Innovating in Control Engineering Teaching/Learning with Smartphones. 2019 6<sup>th</sup> International Conference on Control, Decision and Information Technologies (CoDIT). <https://doi.org/10.1109/codit.2019.8820429>
- Panckhurst, R., & Cougnon, L.-A. (2019). Youth Digital Practices: Results from Belgian and French Projects. *TechTrends*. <https://doi.org/10.1007/s11528-019-00417-y>
- Pérez-Rodríguez, A., Delgado-Ponce, A., Marín-Mateos, P., & Romero-Rodríguez, L. M. (2019). Media Competence in Spanish Secondary School Students. Assessing Instrumental and Critical Thinking Skills in Digital Contexts. *Educational*

- Sciences: Theory & Practice*, 19(3). <https://doi.org/10.12738/estp.2019.3.003>
- Peters, M. A. (2009). Heidegger, phenomenology, education. *Educational Philosophy and Theory*, 41(1), 1-6. <https://doi.org/10.1111/j.1469-5812.2008.00516.x>
- Plichta, P. (2017). *Socjalizacja i wychowanie dzieci i młodzieży z niepełnosprawnością intelektualną w erze cyfrowej* (Socialization and education of children and adolescents with intellectual disabilities in the digital age). Toruń: Wydawnictwo Adam Marszałek.
- Plichta, P., Barlińska, J., & Pyżalski, J. (2018). Cyberprzemoc a kreowanie własnego wizerunku w internecie-co w ich mechanizmach zmienia niepełnosprawność młodych dorosłych osób?. *Interdyscyplinarne Konteksty Pedagogiki Specjalnej*, (20), 101-122. <https://doi.org/10.14746/ikps.2017.17.09>
- Popović-Citić, B., Djurić, S., & Cvetković, V. (2011). The prevalence of cyberbullying among adolescents: A case study of middle schools in Serbia. *School Psychology International*, 32(4), 412-424. <https://doi.org/10.1177/0143034311401700>
- Potyrała, K. (2017). *iEdukacja. Synergia nowych mediów i dydaktyki. Ewolucja - antynomie - konteksty*. Kraków: Uniwersytet Pedagogiczny. <https://doi.org/10.24917/9788380840522>
- Pyżalski, J. (2012). From cyberbullying to electronic aggression: typology of the phenomenon. *Emotional and Behavioural Difficulties*, 17(3-4), 305-317. <https://doi.org/10.1080/13632752.2012.704319>
- Pyżalski, J. (2012b). *Agresja elektroniczna i cyberbullying jako nowe ryzykowne zachowania młodzieży* (Electronic aggression and cyberbullying as new risky behaviors of young people). Kraków: Oficyna Wydawnicza Impuls.
- Pyżalski, J., Zdrodowska, A., Tomczyk, Ł., Abramczuk, K. (2019). Polskie badanie EU Kids Online 2018. Najważniejsze wyniki i wnioski (Polish EU Kids Online 2018 survey. The most important results and conclusions). Poznań: Wydawnictwo Naukowe UAM.
- Rębisz, S., Sikora, I., & Smoleń-Rębisz, K. (2017). Świadomość i skala zjawiska cyberprzemocy wśród młodzieży gimnazjalnej województwa podkarpackiego. *Edukacja – Technika – Informatyka*, 21(3), 231-238. <https://doi.org/10.15584/eti.2017.3.32>
- Ryk, A. (2011). *W poszukiwaniu podstaw pedagogiki humanistycznej*. Kraków: Oficyna Wydawnicza Impuls. <https://doi.org/10.16926/p.2014.23.50>
- Schultze-Krumbholz, A., Göbel, K., Scheithauer, H., Brighi, A., Guarini, A., Tzorbatzoudis, H., ... Smith, P. K. (2014). A Comparison of Classification Approaches for Cyberbullying and Traditional Bullying Using Data From Six European Countries. *Journal of School Violence*, 14(1), 47-65. <https://doi.org/10.1080/15388220.2014.961067>
- Ševčíková, A., & Šmahel, D. (2009). Online Harassment and Cyberbullying in the Czech Republic. *Zeitschrift Für Psychologie / Journal of Psychology*, 217(4), 227-229. <https://doi.org/10.1027/0044-3409.217.4.227>
- Ševčíková, A., Šmahel, D., & Otavová, M. (2012). The perception of cyberbullying in adolescent victims. *Emotional and Behavioural Difficulties*, 17(3-4), 319-328. <https://doi.org/10.1080/13632752.2012.704309>
- Soldatova, G., Rasskazova, E., Zotova, E., Lebesheva, M., Geer, M., & Roggendorf, P. (2014). *Russian Kids Online: key findings of the EU Kids Online II survey in Russia*. Moscow: Foundation for Internet Development. <http://eprints.lse.ac.uk/60575/>
- Sorrentino, A., Baldry, A. C., Farrington, D. P., & Blaya, C. (2019). Epidemiology of Cyberbullying across Europe: Differences between Countries and Genders. *Educational Sciences: Theory & Practice*, 19(2). <https://doi.org/10.12738/estp.2019.2.005>
- Stauffer, S., Heath, M. A., Coyne, S. M., & Ferrin, S. (2012). High school teachers' perceptions of cyberbullying prevention and intervention strategies. *Psychology in the Schools*, 49(4), 352-367. <https://doi.org/10.1002/pits.21603>
- Stośić, L., & Stośić, I. (2015). Perceptions of teachers regarding the implementation of the internet in education. *Computers in Human Behavior*, 53, 462-468. <https://doi.org/10.1016/j.chb.2015.07.027>
- Tangen, D., & Campbell, M. (2010). Cyberbullying prevention: One primary school's approach. *Journal of Psychologists and Counsellors in Schools*, 20(2), 225-234. <https://doi.org/10.1375/ajgc.20.2.225>
- Tomczyk, Ł. (2017). Cyberbullying in 2010 and 2015 — A perspective on the changes in the phenomenon among adolescents in Poland in the context of preventive action. *Children and Youth Services Review*, 75, 50-60. <https://doi.org/10.1016/j.childyouth.2017.02.017>
- Tomczyk, Ł. (2018). Digital competences of parents in the matter of electronic threats. In *SHS Web of Conferences (Vol. 48, p. 01004)*. EDP Sciences. <https://doi.org/10.1051/shsconf/20184801004>
- Tomczyk, Ł. (2019). What Do Teachers Know About Digital Safety? *Computers in the Schools*, 1-21. <https://doi.org/10.1080/07380569.2019.1642728>
- Tomczyk, Ł., & Kopecký, K. (2016). Children and youth safety on the Internet: Experiences from Czech Republic and Poland. *Telematics and Informatics*, 33(3), 822-833. <https://doi.org/10.1016/j.tele.2015.12.003>
- Tomczyk, Ł., & Solecki, R. (2019). Problematic internet use and protective factors related to family and free time activities among young people. *Kuram ve Uygulamada Eğitim Bilimleri*, 19(3), 1-13. <https://doi.org/10.12738/estp.2019.3.001>
- Tomczyk, Ł., & Wasiński, A. (2017). Parents in the Process of Educational Impact in the Area of the Use of New Media by Children and Teenagers in the Family Environment. *Eğitim ve Bilim*, 42(190). <https://doi.org/10.15390/eb.2017.4674>
- Tomczyk, Ł., Potyrała, K. (2019). *Wybrane zagrożenia bezpieczeństwa cyfrowego dzieci i młodzieży w perspektywie pedagogiki mediów* (Selected threats to the digital security of children and young people in the perspective of media pedagogy). Kraków: Wydaw. Uniwersytetu Pedagogicznego.
- Tomczyk, Ł., Srokowski, Ł. & Wasiński, A. (2016). *Kompetencje w zakresie bezpieczeństwa cyfrowego w polskiej szkole (Competence in area of Digital safety in Polish school)*. Tarnów: Stowarzyszenie Miasta w Internecie.
- Tomczyk, Ł., Sztokowski, R., & Kopecký, K. (2017).

- Zachowania ryzykowne dzieci i młodzieży związane z udostępnianiem i odbiorem materiałów o charakterze seksualnym–wybrane wyniki badań czeskiego Centrum Prewencji Ryzyka Wirtualnej Komunikacji z lat 2010–2017 (Risky behavior of children and adolescents related to the sharing and reception of sexual material - selected research results of the Czech Center for Virtual Risk Prevention from 2010-2017). *Dziecko krzywdzone. Teoria, badania, praktyka*, 16(3), 103-118.
- Tsitsika, A., Janikian, M., Wójcik, S., Makaruk, K., Tzavela, E., Tzavara, C., ... & Richardson, C. (2015). Cyberbullying victimization prevalence and associations with internalizing and externalizing problems among adolescents in six European countries. *Computers in Human Behavior*, 51, 1-7. <https://doi.org/10.1016/j.chb.2015.04.048>
- Vandebosch, H., & Van Cleemput, K. (2008). Defining cyberbullying: A qualitative research into the perceptions of youngsters. *CyberPsychology & Behavior*, 11(4), 499-503. <https://doi.org/10.1089/cpb.2007.0042>
- Vandebosch, H., Beirens, L., D'Haese, W., Wegge, D., & Pabian, S. (2012). Police actions with regard to cyberbullying: The Belgian case. *Psicothema*, 24(4), 646-652. <http://www.psicothema.com/PDF/4067.pdf>
- Vaughn, S., Schumm, J. S., & Sinagub, J. M. (1996). *Focus group interviews in education and psychology*. Thousand Oaks, CA: Sage.
- Vazsonyi, A. T., Machackova, H., Sevcikova, A., Smahel, D., & Cerna, A. (2012). Cyberbullying in context: Direct and indirect effects by low self-control across 25 European countries. *European Journal of Developmental Psychology*, 9(2), 210–227. <https://doi.org/10.1080/17405629.2011.644919>
- Veličković, S., & Stošić, L. (2016). Preparedness of educators to implement modern information technologies in their work with preschool children. *International Journal of Cognitive Research in Science, Engineering and Education*, 4(1). <https://doi.org/10.5937/IJCRSEE1601023V>
- Wasiński, A., & Tomczyk, Ł. (2015). Factors reducing the risk of internet addiction in young people in their home environment. *Children and Youth Services Review*, 57, 68-74. <https://doi.org/10.1016/j.chilyouth.2015.07.022>
- Ziemba, E. (2013). The holistic and systems approach to the sustainable information society. *Journal of Computer Information Systems*, 54(1), 106-116. <https://doi.org/10.1080/08874417.2013.11645676>
- Zych, I., Baldry, A. C., & Farrington, D. P. (2017). *School Bullying and Cyberbullying: Prevalence, Characteristics, Outcomes, and Prevention*. Handbook of Behavioral Criminology, 113–138. [https://doi.org/10.1007/978-3-319-61625-4\\_8](https://doi.org/10.1007/978-3-319-61625-4_8)
- Zych, I., Farrington, D. P., & Tfofi, M. M. (2019). Protective factors against bullying and cyberbullying: A systematic review of meta-analyses. *Aggression and Violent Behavior*, 45, 4–19. <https://doi.org/10.1016/j.avb.2018.06.008>
- Zych, I., Ortega-Ruiz, R., & Del Rey, R. (2015). Systematic review of theoretical studies on bullying and cyberbullying: Facts, knowledge, prevention, and intervention. *Aggression and Violent Behavior*, 23, 1–21. <https://doi.org/10.1016/j.avb.2015.10.001>
- Zych, I., Ortega-Ruiz, R., & Marín-López, I. (2016). Cyberbullying: a systematic review of research, its prevalence and assessment issues in Spanish studies. *Psicología Educativa*, 22(1), 5–18. <https://doi.org/10.1016/j.pse.2016.03.002>