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Magdalena Wędzińska

Faculty of Pedagogy

Kazimierz Wielki University in Bydgoszcz

ORCID: 0000-0002-2515-4845

**KNOWLEDGE AND EXPERIENCE DEMONSTRATED
BY STUDENTS OF PEDAGOGY PROGRAMMES
IN THE FIELD OF CYBER VIOLENCE
AND THE MANNER OF ITS PREVENTION**

**Wiedza i doświadczenie studentów kierunków
pedagogicznych z zakresu cyberprzemocy i sposobów
jej przeciwdziałania**

Streszczenie

Celem artykułu jest prezentacja rezultatów badań własnych poświęconych zagadnieniu wiedzy studentów kierunków pedagogicznych na temat cyberprzemocy i sposobów jej zapobiegania. W tekście zaprezentowano ustalenia terminologiczne dotyczące problematyki cyberprzemocy oraz wyniki badań obrazujące stan wiedzy studentów kierunków pedagogicznych na temat istoty cyberprzemocy, form jej realizacji, czynników mogących predysponować do bycia ofiarą cyberprzemocy oraz działań profilaktycznych, jakie powinny być podejmowane, aby zapobiegać cyberprzemocy, a także działań mających na celu niwelowanie jej skutków. W badaniach własnych eksplorowano również kwestie związane z wcześniejszymi doświadczeniami respondentów

dotyczącymi cyberprzemocy (bycie jej świadkiem, bycie ofiarą różnych form cyberprzemocy).

Słowa kluczowe: cyberprzemoc, wiedza na temat cyberprzemocy, profilaktyka cyberprzemocy, formy realizacji cyberprzemocy, studenci

Abstract

The article aims to present the findings of the author's research on the knowledge of students of pedagogy programmes in the field of cyber violence and the ways to prevent it. The article presents the identified terminology concerning the issue of cyber violence, and the results of the research illustrating the state of knowledge demonstrated by students of pedagogy programmes about the essence of cyber violence, the forms of its exercise, the factors that may predispose people to become victims of cyber violence and actions to be taken to prevent it, as well as actions to mitigate its consequences. Moreover, the author's research explored the issues related to the respondents' earlier experience as regards cyber violence (witnessing cyber violence or being a victim of its different forms).

Key words: cyber violence, knowledge about cyber violence, prevention of cyber violence, forms of cyber violence exercise, students

Introduction

According to the latest data included in the "Teens 3.0" 2021 report prepared by NASK (National Research Institute), cyber violence is present in the lives of youth. Every fifth student declared having experienced violence on the Internet. The report's editor finds it striking that 20% of the respondents could not say whether they had experienced violence on the Internet. This may indicate their failure to understand this phenomenon, reluctance to talk about such experiences, or diminished sensitivity to online aggression. What is more, the data compiled in the report indicate that teenagers' parents do not know the risk of cyber violence (75% of them answered that their children had not experienced cyber violence, and 15% of them declared having no knowl-

edge thereof), which contradicts the data provided by the children, 23% of whom declared knowing the phenomenon of cyber violence from experience. The report also addressed the issue of the symptoms of cyber violence. The respondents had experienced calling of names (29.7%), ridiculing (22.8%) and humiliation (22%). The phenomena of threatening and blackmailing were experienced by 13.4% and 10.5% of those surveyed, respectively. Further, around 11% of teenagers declared having experienced attempts to impersonate them on the Internet. Moreover, nearly every tenth respondent admitted to having experienced dissemination of compromising materials and information about them. Compared to the data for 2018, a higher percentage was recorded for responses related to the following fields of online harassment. The respondents had been persecuted because of their physical appearance (an increase of 2.6%), political views (an increase of 2.5%) and hobbies (an increase of 3.4%). However, a decrease was recorded in the categories of religion (1.3%) and nationality (2.5%).¹

The data compiled in the NASK report reveal the social importance of the problem of cyber violence and the scope of this phenomenon. The figures describing parents' knowledge in this regard indicate an alarming trend. This is confirmed by the findings of Teresa Nella Rzepa and Marta Przybylska-Duda. Another problem is parental control of the time spent by children on the Internet. Only 14% of the parents surveyed admitted that they did not apply any control. On the other hand, 53% of junior high school students revealed that they could use the Internet without any restrictions. The greatest number of the parents surveyed (57%) limited the time spent by their children on using the net, 16% admitted that they personally controlled the websites visited by their offspring, and 11% had set up filters blocking access to websites considered inappropriate.²

¹ R. Lange, *Nastolatki 3.0. Raport z ogólnopolskiego badania uczniów*, Warszawa 2021.

² T.N. Rzepa, M. Duda-Przybylska, *Cyberbullying z perspektywy nastolatków i ich rodziców*, "Annales Universitatis Mariae Curie-Skłodowska," 2015 no. 28(2), pp. 19–32.

As indicated by Jay Wyckoff and his team, the majority of studies devoted to cyberbullying have focused on youth; however, this phenomenon also refers to university students and adults, causing negative consequences and increasing their susceptibility to depression, alcohol abuse and stress. Research shows that females and males develop different strategies for coping with cyber harassment. Women are more saddened by cyber aggression than men. Previous studies show that cyberbullying is quite a common phenomenon: 50% of college students have experienced cyber aggression, defined as using electronic communication for harming a victim. Researchers asked a sample of adult Americans to describe their experience related to aggression on social media, e.g. FB, Twitter, or Instagram, in particular concerning aggressors of the same sex. There were 208 participants in this research (157 females and 51 males), with an average age of 26 (age range 18–63). The respondents indicated the symptoms of cyber violence focusing on their personal appearance: 26.72% of females and 16.67% of males admitted to experiencing negative posts regarding their physical appearance. Older women declared experiencing posts regarding the deprecation of their physical appearance less often, while there was no such trend among men. Other manifestations of negative behaviours referred to skills, talents and achievements. Male respondents declared experiencing posts deprecating their skills more often than females (18.6% of men and 7.53% of women declared experiencing at least one such post). Another issue was negative references consisting in attributing promiscuity to the respondents on the Internet. While no male respondent declared experiencing such posts, 8.28% of female respondents did, and this was irrespective of their age. The research also considered other forms of deprecation, including homophobic comments (16.29% of females and 15.91% of males experienced at least one post with such content), political comments (37.84% of males and 18.05% of females declared experiencing at least one such post, and older respondents more often), social exclusion (8.51% of males and 8.45% of females declared experiencing at least one such post) and the religion

practised (8.51% of males and 7.53% of females declared experiencing at least one such post).³

The study of Dorota Siemieniecka and Małgorzata Skibińska among students of pedagogy at the Nicolaus Copernicus University in Toruń revealed that 98% of students knew and understood the essence of the concept of cyber violence, and 48% observed violent behaviour both in real and virtual space. Only 3% of the respondents admitted to having engaged in acts of cyber violence.⁴

The alarming trend regarding the increasing number of incidents of cyber violence and lack of knowledge about this phenomenon inspired this article to address the issue of knowledge demonstrated by students of pedagogy programmes about cyber violence and the ways to combat it. The article aims to present the terminology identified and the findings of research on cyber violence, its types and prevention concerning the diagnosis of the state of knowledge demonstrated in these problem areas by students of pedagogy programmes.

1. Cyber violence – terminology

The starting point for reflections on cyber violence is the concept of bullying. It is most often understood as tyrannising to harm another person. For the most part, an aggressive act is not only the result of provocation but recurs over a certain period. It is often defined as intentional, recurrent and unprovoked aggressive behaviours of one or a group of perpetrators towards a victim for causing physical pain to this person, making this person sad, and humiliating or terrifying this person, most often in the presence of “spectators” with a clear imbalance of forces, i.e. the victim’s inability to defend himself or herself and the feeling of impunity on the part of the perpetrator. The notion of bullying is more widespread in English-speaking countries, i.e. the

³ J.P. Wyckoff, D.M. Buss, A.M. Markman, *Sex Differences in Victimization and Consequences of Cyber Aggression. An Evolutionary Perspective*, “Evolutionary Behavioral Science,” 2019 no. 13(3), pp. 254–264.

⁴ D. Siemieniecka, M. Skibińska, *Sprawcy i ofiary*, “Głos Uczelni. Pismo Uniwersytetu Mikołaja Kopernika,” 2019 no. 28(7–10), pp. 63–70.

United Kingdom, Ireland, Australia, the USA and Canada. On the other hand, the term mobbing is in currency, *inter alia*, in Scandinavia, Germany and Poland.⁵

According to Dan Olweus, a recognised researcher of peer abuse, the traditional understanding of bullying is indicated by the following: saying malicious or wrongful things, calling names, ignoring or excluding from a group, hitting, kicking, pushing, beating, telling lies, spreading rumours, and leading to the said actions. Olweus feels the features of bullying include intentionality, recurrence and no balance of forces.⁶

According to Dorota Siemieniecka and her associates, the notion of “cyberbullying” was used for the first time by Bill Belsey in 2004 and was defined as using information and communication technologies for supporting the deliberate, recurrent and hostile behaviour of an individual or a group of people aimed at harming other people.⁷

The leading Polish researcher on the issue of cyberbullying, Jacek Pyżalski, points out that the notion of cyberbullying refers to all acts of aggression made using mobile phones or the Internet. Jacek Pyżalski classifies cyberbullying by victim type. Therefore, we can distinguish cyberbullying towards the disadvantaged, in which case a victim is a person weaker than the perpetrator, e.g. an alcoholic or a homeless person. Another type of bullying is cyberbullying of celebrities. Further, Jacek Pyżalski enumerates bias bullying, which is directed not towards a specific person, but groups of people, e.g. of a specific nationality or sexual preference. Another type is the cyberbullying of strangers chosen by accident while using the Internet. Jacek Pyżalski also distinguishes cyber mobbing, in which the victim belongs to a group, a member of which is also the perpetrator.⁸

⁵ S. Orłowski, *Mobbing i bullying w szkole: charakterystyka zjawiska i program zapobiegania*, 2020, www.ore.edu.pl (access: 26.05.2020).

⁶ D. Olweus, *School Bullying: Development and Some Important Challenges*, “The Annual Review of Clinical Psychology,” 2013 no. 9, pp. 751–780.

⁷ D. Siemieniecka, M. Skibińska, K. Majewska, *Cyberagresja. Zjawisko, skutki, zapobieganie*, Toruń 2020.

⁸ J. Pyżalski, *Agresja elektroniczna wśród dzieci i młodzieży*, Sopot 2011.

Lucy Betts and her team define cyber violence as intentional and aggressive behaviour, which recurs between the perpetrator and the victim of unequal status (it is more difficult for the victim to defend himself or herself), which takes place using electronic technologies.⁹ Krzysztof Nowakowski voices a similar opinion in his analyses of cyber violence, and refers to the findings of Jacek Pyżalski, indicating that cyberbullying should be treated as an electronic form of persistent peer abuse. When referring to cyber violence, this author also points out the modelling of aggressive behaviours. The Internet and the latest technological tools provide us with extremely wide and free access to the content posted on the Internet. In practice, consequently, it is easier than outside the virtual environment to observe various behaviours, including aggressive ones. The conditions that favour learning cyberbullying through observation and imitation include, above all, the reinforcement of abusive behaviours by other users of the Internet (a person using cyberviolence meets with approval, and there are no negative reactions to signs of violence) and gaining a relevant status within a peer group thanks to the use of cyberbullying.¹⁰

Julia Barlińska and her associates indicate the potential prospects of analysing the phenomenon of cyberbullying. The first of them, which refers to the medium of the Internet, is connected with a wide range of Internet tools used by the perpetrator, which have a large victimisation potential. They include hostile communication acts addressed directly to the victim (online chatting, instant messaging, communicating via e-mail). The perpetrator may also send such messages publicly, writing directly to the victim or about the victim (e.g. by posting comments on social media). Both verbal messages and audiovisual materials can be used to communicate. Moreover, the victim may experience other acts of violence, e.g. identity theft or public disclosure of his or her se-

⁹ L.R. Betts, K.A. Spenser, S.E. Gardner, *Adolescents' Involvement in Cyberbullying and Perception of School: The Importance of Perceived Peer Acceptance for Female Adolescents*, "Sex Roles," 2017 no. 77, pp. 471–481.

¹⁰ K. Nowakowski, *Szkodliwość cyberprzemocy w ocenie młodzieży*, "Problemy Opiekuńczo-Wychowawcze," 2018 no. 7, pp. 44–51.

crets. According to Jacek Pyżalski, public and hostile communication acts have the highest victimisation potential.¹¹

As indicated by the aforesaid terminology, the notion of cyber violence denotes hostile acts of violence through the Internet, which may take diverse forms. The following subsection addresses the symptoms of cyber violence.

2. Types of cyber violence

As pointed out by Teresa Nelly Rzepa and Marta Przybylska-Duda, researchers of cyber violence distinguish the following of its forms, which are most often applied by children and young people through electronic messaging:

- flaming: an argument with the use of vulgarisms;
- harassment: sending recurrent, humiliating, aggressive and ridiculing messages to a person,
- slandering: sending messages or rumours which ruin a person's reputation or positive relationships established by that person with other people;
- impersonation: the perpetrator sends from the victim's account insulting comments and compromising information, usually addressed to public figures;
- outing: secret and embarrassing information and photos are posted on the Internet; blackmailing somebody. Outing may be used to perform other acts of aggression;
- denigration: distribution of humiliating and untrue materials and information about people,
- happy slapping: the victim is provoked and the incident is documented in the form of a film or photos, which are then made public;
- exclusion: excluding a given person from an online group, deleting from the list of Internet contacts or a social networking site;

¹¹ J. Barlińska, P. Plichta, J. Pyżalski, A. Szuster, *Ich słowami – obraz pomocy w sytuacjach cyberprzemocy rówieśniczej z perspektywy uczniów*, "Dziecko Krzywdzone. Teorie, badania, praktyka," 2018 no. 17(4), pp. 82–115.

- cyberstalking: electronic surveillance of the victim and plaguing with unwanted messages, prejudicial remarks and threats of persecutive nature;
- technical aggression: undertaking actions to damage hardware and software by sending out viruses and hacking other people's computers.¹²

Referring to the works of Nancy Willard, Dorota Siemieniecka and her associates present a typology of the ways of committing cyber violence, which is similar to that presented by Teresa Nelly Rzepa and Marta Przybylska-Duda. Concerning several issues, these typologies coincide, but in some points, the issues described by the said authors are elaborated on or extended with new content. According to Dorota Siemieniecka and her associates, when referring to the ways of committing cyber violence, the following can be distinguished: flaming, harassment, dissing/denigration, impersonation, using other people's unsecured social media pages or accounts, outing, trickery, exclusion and cyberstalking.¹³

Explanations are provided below for the respective terms, as proposed by Dorota Siemieniecka and her team. Flaming is understood by this author as an argument with the use of insults and vulgarisms between the participants of Internet-based communication. Flaming is not restricted to social media, and can also take place through text messages and e-mail.¹⁴ In Polish, Teresa Nelly Rzepa and Marta Przybylska-Duda call this form of cyber violence "wojna na obelgi" (*flaming*), while Dorota Siemieniecka describes it as "płomienna kłótnia" (*flaming*), which may indicate problems with rendering this English term into the Polish scientific context.

Another manifestation of cyber violence is harassment. It consists in sending multiple threats or vulgar and insulting messages. The perpetrator incessantly plagues the victim unless he or she surrenders and

¹² T.N. Rzepa, M. Duda-Przybylska, *Cyberbullying z perspektywy nastolatków*, op. cit., pp. 19–32.

¹³ D. Siemieniecka, M. Skibińska, K. Majewska, *Cyberagresja*, op. cit.

¹⁴ *Ibidem*, p. 34.

becomes more helpless. This form of plaguing can be both indirect and direct.¹⁵

Dissing/denigration, in turn, consists of spreading malicious rumours about the victim and/or embarrassing photos through social media. This method is applied by persecutors for humiliating the victim in public, deprecating the victim, or damaging the victim's interpersonal relationships or reputation. The victim is often unaware of such hostile actions or becomes aware of them late, e.g. when the perpetrator fails to tag the victim in a photo posted on social media, because of which the compromising material can be accessed by a wider public and the "main character" is not informed about its publication.¹⁶

Another form of cyber violence is impersonation/masquerading. It consists in creating a fake profile on social media or gaining access to a profile with the victim being unaware of this. Thus, the perpetrator impersonating the victim creates fake posts or posts compromising photos, which damage the victim's image and complicate his/her interpersonal relationships. A variant of such activity is using somebody's open and unsecured Facebook page, i.e. fraping. In this case, the aggressor creates inappropriate, damaging and compromising posts or makes profile changes without the owner's knowledge and consent.¹⁷

Outing is also a form of cyber violence. It means sharing on the Internet somebody's secrets, embarrassing information, private photos, or private messages saved in a private online group (e.g. ones that reveal a person's concealed sexuality, private details of a relationship, or other embarrassing secrets or personal data) for harming or embarrassing the victim. As a result of tricking or manipulating the victim, or unauthorised access to the victim's device (e.g. a mobile phone, computer, camera, or microphone), the cyber perpetrator gets to know the victim's secrets. Within peer groups, this type of violence is often connected to getting over rejected love or the aggressor's jealousy. This activity also has its variant, i.e. doxing, which is collecting on the Internet information which identifies a given person (real first name and surname, ad-

¹⁵ Ibidem.

¹⁶ Ibidem, p. 35.

¹⁷ Ibidem.

dress, workplace, telephone number, or any other important details enabling identification of this person) to attack the victim, with whom the aggressor disagrees. Perpetrators usually indulge in doxing with the malicious intention of humiliating, threatening, intimidating, or punishing a specific person. Publication of personal or sensitive data exposes the aggrieved parties to a risk of abuse or loss of health and life.¹⁸

Another form of cyber violence is trickery, which consists in inducing somebody to disclose embarrassing information or photos on the Internet. This method is also applied by traditional persecutors with no use of technology, usually by way of manipulation or blackmail.¹⁹

Exclusion, on the other hand, consists of intentionally and strictly eliminating the victim from participation in a virtual group or event by blocking access to relevant content, blocking the consent to become a member of a group, or deleting from the member list. By excluding the victim from an online social group, which is exclusive to the victim, cyber perpetrators cause this person to feel unwanted and unimportant.²⁰

The last form of cyber violence indicated by Dorota Siemieniecka and her associates is cyberstalking. It is intense and recurrent plaguing of the victim through threats and defaming through the Internet and electronic media, to cause considerable fear in the victim. Persistent cyberstalking includes, *inter alia*, dead or insulting calls, unwanted SMS messages or e-mails, sending messages over instant messengers and unwanted messages by e-mail, sending out mail to random addressees on behalf of the stalked person against his or her will, as well as posting comments on Internet forums and sending gifts via the Internet.²¹

3. Factors predisposing one to become a victim of cyber violence

International empirical research indicates factors that may predispose an individual to become a victim of cyberbullying. Kostas Fanti's team

¹⁸ Ibidem.

¹⁹ Ibidem, p. 36.

²⁰ Ibidem.

²¹ Ibidem, pp. 36–37.

aimed to analyse the potential risks and protective factors related to cyberbullying and cyber victimisation. The risk factors indicated by the authors include exposure to violence in the media and psychopathic personality (narcissism, impulsiveness and soullessness). The research covered a group of 1,461 adolescents living in Cyprus (50.1% of those surveyed were girls, and the respondents were aged 11–14). The research procedure was repeated a year later, and 93.59% of the respondents from the original research sample participated in this research. The research participants differed in terms of their parents' education (20.1% with no secondary education, 46% with secondary education, and 33.9% with higher education) and family status (7.2% of the respondents were brought up in one-parent families).²²

Robin Kowalski and her research team indicate the hierarchy of factors predisposing one to become a victim of cyber violence. The researchers enumerate them in descending order of importance. According to the authors, the major risk factor is being a victim of traditional violence. Subsequent predictors of becoming a victim of cyber violence in this hierarchy are being a perpetrator of traditional violence, being an adolescent, having a high frequency of internet use, social anxiety, having no moral involvement, risky behaviours on the Internet, anger and hyperactivity.²³

Jacek Pyżalski feels that a factor predisposing one to be a victim of cyber violence is being a victim of traditional peer violence (bullying) earlier. Potential victims are often shy people, who have problems with establishing relationships or standing out from a group in any other way, e.g. in personal appearance. They can also be people who became members of a class later than others. Moreover, cyberbullying can be experienced by adolescents with poor social competence, having problems with assertiveness and characterised by low self-esteem. The fact

²² K.A. Fanti, A.G. Demetriou, V.V. Hawa, *A Longitudinal Study of Cyberbullying. Examining Risk and Protective Factors*, "European Journal of Developmental Psychology," 2012 no. 9(2), pp. 168–181.

²³ R. Kowalski, G. Giumetti, A. Schroeder, M. Lattanner, *Bullying in the Digital Age: A Critical Review and Meta – Analysis of Cyberbullying Research Among Youth*, "Psychological Bulletin," 2014 no. 140(4), pp. 1073–1137.

of experiencing cyber violence intensifies the victim's feeling of otherness and leads to isolation from a peer group. The victim feels strongly ashamed and humiliated, his or her self-esteem decreases, and he or she may also experience suicidal thoughts, which are a mechanism for escaping from the problem.²⁴

According to Elizabeth Janopaul-Naylor and Edward Feller, anybody can become a victim of cyber violence. They are usually girls and women, who more often fall victim to online violence, including attacks combined with sexual abuse. Moreover, victims of cyber violence may be physically or intellectually disabled people. The reasons for persecution may be race, nationality, socio-economic class, expression of one's sexuality, or sexual preference. Victims of cyber violence are more likely to articulate their emotional problems or problems with interpersonal relationships, and to experience social anxiety, and they experience more pathology in their families of origin.²⁵

Dorota Siemieniecka and her associates provide a synthetical presentation of factors predisposing one to become a victim of cyber violence: low intellectual ability, low status within a peer group combined with low self-esteem, interpersonal skill deficits, lack of social support, social isolation, disrupted social relationships often based on difficult behaviours resulting from ADHD, for example. Moreover, other factors listed by the authors are being a victim of violence in the past and a failure to obtain specialist help in this regard, membership of a minority group (ethnic or religious), acceptance of corporal punishment and violence by the victim's immediate family, friends and associates, the poor economic situation of the victim's family and "otherness," which is negatively valorised within the community (e.g. disability).²⁶

²⁴ J. Pyżalski, *Agresja elektroniczna*, op. cit.

²⁵ E. Janopaul-Naylor, E. Feller, *Cyberbullying: Harassment at Your Fingertips*, "Rhode Island Medical Journal," 2019 no. 102(9), pp. 7–9.

²⁶ D. Siemieniecka, M. Skibińska, K. Majewska, *Cyberagresja*, op. cit.

4. Prevention of cyber violence

Another issue to be addressed in this article is the prevention of cyber violence. When discussing the prevention of negative phenomena on the Internet, Wioletta Wróbel-Delegacz refers to the role that should be played by education. Due to the threats related to cyberspace, the author distinguishes several functions of education. The first of them is the educational and socialisation one, aimed at ensuring cultural, axiological, linguistic and moral continuity. The next function is care-providing. It enables ensuring the safety of the members of society, particularly those vulnerable to threats, also in the world of information technology. The emotional and sexual function is to provide children with emotional support and satisfaction of their need for love so that they do not have to turn to the virtual world for the satisfaction of these needs. The integrative and control function is to control the actions of all the members of society, control what websites are accessed by children, use relevant applications and block sites with dangerous and harmful content, and organise children's time as per generally accepted rules of procedure. The recreational and social function consists in organising free time, entertainment and leisure, as well as introducing children to the world of social relations in the real world.²⁷

It is also worth focusing on the issues indicated by youth concerning support activities. Julia Barlińska and her team found young people experiencing cyberbullying encounter a lack of sufficient assistance from teachers. In the young people's opinion, teachers do not take information about such incidents seriously enough, and, similarly, the support or advice provided by teachers is not sufficient for youth. Young people emphasise that what they expect from support schemes is not "frightening them with the Internet," but an indication of specific actions to be taken in a difficult situation. They express their need to acquire knowledge and skills for coping with becoming a victim of cyber

²⁷ W. Wróbel-Delegacz, *Edukacyjno-wychowawcza rola rodziny w kształtowaniu kultury i poczucia bezpieczeństwa w cyberprzestrzeni*, "Journal of Modern Science," 2019 no. 1(13), pp. 9–30.

violence and deciding whether a given event constitutes cyber violence or not. Moreover, youth highlighted the absence of clear rules and expectations concerning the use of the Internet at school and home. They also stressed the issues related to parents' support concerning the rules governing the virtual world.²⁸

Further, youth highlighted adults' ignorance of such serious phenomena as online aggression. According to young people, this category includes the public nature of acts of violence, as well as their prolonged nature and the profile of perpetrators' actions. Another painful issue indicated by adolescents comprises cases of cyber violence connected with the dynamics of their romantic relationships. Julia Barlińska and her associates found as a common phenomenon concerning acts of cyber violence the spreading of erotic materials in the form of photos, e.g. when people split up or one of the parties does not reciprocate the other party's feelings.²⁹

Łukasz Tomczyk and Łukasz Srokowski indicate that the most important preventive measure for cyber violence is educating people on social values and skills. This education should also specifically include the use of mobile phones and the Internet. Children and youth should master the ability to use digital technology, and become acquainted with the advantages of electronic communication devices, as well as their potential risks and the methods of preventing such risks. The provision of training as regards these values, knowledge and skills should be a duty of the teachers, family, and society.³⁰

Dorota Siemieniecka and her associates indicate three basic levels of preventive actions. The first covers the broadly defined information, media and civil education, aimed at making people aware of the risks, their sources and mechanisms, the potential consequences of the broadly defined violence and the potential methods of its prevention, concerning victims, perpetrators and witnesses to violence.³¹

²⁸ J. Barlińska, P. Plichta, J. Pyżalski, A. Szuster, *Ich słowami*, op. cit., pp. 82–115.

²⁹ Ibidem, p. 90.

³⁰ Ł. Tomczyk, Ł. Srokowski, *Kompetencje w zakresie bezpieczeństwa cyfrowego w polskiej szkole*, Tarnów 2016.

³¹ D. Siemieniecka, M. Skibińska, K. Majewska, op. cit.

The next level of actions is defined by Dorota Siemieniecka and her co-researchers as the psychological and social level, covering actions aimed at developing the right attitudes towards manifestations of violence (both as a victim and a witness to violence) and media users, as well as actions for the provision of training in interpersonal communication, computer-mediated communication, assertiveness, empathy, constructive methods of satisfying needs and solving problems, and coping with stress and the consequences of aggressive behaviours.³²

According to the above authors, the last level of action is defined as the interactional level. In the researchers' opinion, actions undertaken as part of this level of prevention are oriented towards the recognition of symptoms of violence and making people aware of the potential methods of opposing the broadly defined violence, and towards the provision of knowledge regarding the options of reporting problems and preventing them, receiving legal or psychological help, as well as therapy options (both for victims and perpetrators of cyber violence).³³

Leen d'Haenens and her associates aver that the strategies for coping with cyber violence should focus on improving social, communication and digital competence, and resistance of the victim. Resistance is the ability to cope with negative online or offline experiences. According to the researchers, online resistance denotes having the ability to cope with negative experiences on the Internet through actively solving problems, and not being passive, avoiding, or even taking revenge on the perpetrator.³⁴

³² Ibidem, p. 59.

³³ Ibidem, p. 60.

³⁴ L. d'Haenens, S. Vandoninck, V. Donoso, *How to Cope and Build Online Resilience?*, "EUKids Online," 2013 no. 1, pp. 1–15, https://www.researchgate.net/publication/273130678_How_to_cope_and_build_online_resilience (access: 12.10.2021).

5. Methodological assumptions of this author's research

The objective of the research is to describe the phenomenon of cyber violence and students' knowledge thereof. **The subject of the research** is to ascertain the state of the students' knowledge of the phenomenon of cyber violence and experiences related to it.

The research problems covered by the author's research are represented in the following questions:

1. What is the state of knowledge demonstrated by students of pedagogy programmes about the essence of cyber violence?
2. What is the state of knowledge demonstrated by students of pedagogy programmes about the forms of committing cyber violence?
3. Are students of pedagogy programmes aware of any factors predisposing one to become a victim of cyber violence, and, if so, what are these factors?
4. What is the state of knowledge demonstrated by students of pedagogy programmes about preventive actions undertaken concerning cyber violence?
5. What is the experience declared by the respondents concerning cyber violence (being a witness or a victim of cyber violence)?

Due to the diagnostic nature of the author's research, the author avoided putting forward research hypotheses. As Sławomir Banaszak points out, these tests are used to identify and assess the current state of affairs.³⁵ Referring to Jerzy Apanowicz³⁶ and the classification of global variables, covering a wide scope of phenomena, and detailed (partial) variables, covering a narrower scope of the phenomena analysed, the following variables were identified in the current author's research.

³⁵ S. Banaszak, *Diagnoza: pojęcie, cechy diagnostyczne i zastosowanie w badaniach edukacyjnych*, "Studia Edukacyjne," 2018 no. 47, pp. 137–146.

³⁶ J. Apanowicz, *Metodologia ogólna*, Gdynia 2002.

Table 1
Variables and their referents in the author's research

Global variable	Partial variables	Referents
Knowledge about cyber violence	Essence of cyber violence	<ul style="list-style-type: none"> • Any action constituting violence via the Internet or through SMS messages. • The perpetrator threatens, humiliates, or insults the victim through comments on social media, or by taking photos or making films without the victim's consent. Next, these materials are posted on open-access websites accessed by many people.
	Forms of cyber violence	<ul style="list-style-type: none"> • Flaming, • Cyberstalking, • Impersonation, • Harassment, • Outing, • Trickery, • Exclusion from social media groups
	Factors predisposing one to become a victim of cyber violence	<ul style="list-style-type: none"> • Low intellectual ability, • Low status within a group, low self-esteem, • Interpersonal skills deficits, • Lack of social support, social isolation, • So-called difficult behaviours, e.g. ADHD, disrupted social relationships, • Being a victim of violence, e.g. physical violence, in the past, • Membership of a minority group, e.g. an ethnic minority, • Acceptance of corporal punishment and violence in a given culture, • Poor economic situation of the family, • "Otherness" which is negatively valorised within the community (e.g. physical disability)

Table 1 (cont.)

Global variable	Partial variables	Referents
	Prevention of cyber violence	<ul style="list-style-type: none"> • The broadly defined information, media and civic education aimed at making people aware of the risks, their sources and mechanisms, the potential consequences of the broadly defined violence and the potential methods of its prevention, both concerning victims, perpetrators and witnesses to violence, • Focusing on actions oriented towards the recognition of symptoms of violence and making people aware of the potential methods of opposing the broadly defined violence, and the provision of knowledge as regards the options of reporting problems and preventing them, receiving legal aid or psychological help, as well as therapy options (both for victims and perpetrators of cyber violence),
Experience of cyber violence	Witnessing cyber violence	<ul style="list-style-type: none"> • Having experience witnessing cyber violence, • No experience of witnessing cyber violence
	Being a victim of cyber violence	<ul style="list-style-type: none"> • Flaming, • Cyberstalking, • Outing, • Trickery, • Exclusion from social media groups

Source: own work.

In her research, the author applied the method of diagnostic survey (questionnaire method), and the research tool was a questionnaire aimed at assessing the respondents' knowledge about cyber violence, its forms and preventive actions therefor. The questionnaire was also used to collect data concerning the respondents' experience related to cyber violence (being a victim, perpetrator, or witness to cyber violence). The questionnaire survey was carried out through an online survey using the Survio system.

The questionnaire was prepared based on the theoretical approach to the phenomenon of cyber violence, its forms and preventive actions proposed by Dorota Siemieniecka and her associates.³⁷ Questions numbered 1–6 were demographic, intended to provide a socio-demographic profile of the respondents (sex, age, place of residence, type of programme studied, number of programmes studied and the fact of combining studying and gainful employment). The next questions covered the essence of cyber violence (question no. 7), the fact of witnessing cyber violence (question no. 8), forms of cyber violence (questions 9–19), being a victim of cyber violence in its individual forms (question no. 20), factors predisposing one to be a victim of cyber violence (question no. 21) and actions to prevent cyber violence (question no. 22).

The respondents were selected for the survey through purposive sampling, in which the criterion was studying a pedagogy programme. The respondents were the students of Kazimierz Wielki University in Bydgoszcz and Cuiavian University in Włocławek.

6. Findings of the author's research

The author's research was carried out in October 2021 with a sample of 114 students of pedagogy programmes (pedagogy, social rehabilitation education, preschool and early childhood education). The analysis covered 100 questionnaires, as 14 questionnaires were incomplete (no answers to some of the questions). The respondents were the students of Kazimierz Wielki University in Bydgoszcz and the Cuiavian University in Włocławek (Poland).

63% of the respondents were females and 37% males. The respondents were aged 19–47 and included both people living in rural areas (50%) and city dwellers (50%). The majority of the respondents (60%) were students of extramural programmes. While 93% studied one programme, two programmes were studied by 7%. The majority of the respondents worked professionally (75%).

³⁷ D. Siemieniecka, M. Skibińska, K. Majewska, *Cyberagresja*, op. cit.

Students' knowledge about cyber violence and the ways to prevent it, and experience of cyber violence among students in light of the author's research

The respondents were asked whether cyber violence denotes any actions constituting violence through the Internet or SMS messages, and whether the perpetrator threatens, humiliates and insults the victim through comments on social media, or by taking photos or making films without the victim's consent and then posts these materials on open access websites accessed by many people. The percentage distribution of the respondents' answers is presented in Table 2.

Table 2
Students' knowledge about the essence of cyber violence

I know about cyber violence	%
Yes	83
No	11
Don't know	6
Total	100

Source: own work.

The findings of the research indicate that the vast majority of the respondents know that cyber violence is violence taking place through the Internet or communication media. Moreover, the respondents are aware of what the cyber perpetrator's actions on social media and elsewhere within the Internet space consist of (threatening, humiliating and insulting the victim). Another analysed area of students' knowledge was their recognition of the forms of committing cyber violence.

Table 3
Recognition of the forms of cyber violence by students

Do you think that the following phenomena constitute cyber violence?	Yes %	No %	Don't know %	Total %
Flaming	54	37	9	100
Cyberstalking	83	9	8	100
Impersonation	79	12	9	100
Harassment	84	8	8	100
Dissing/denigration	80	10	10	100
Outing	79	10	11	100
Trickery	75	17	8	100
Exclusion from social media groups	65	24	11	100

Source: own work.

The findings of the research show that the majority of the respondents correctly identify different forms of cyber violence. It was the easiest for them to identify harassment (84% of those surveyed) and cyberstalking (83%). The form of cyber violence that was the most difficult for the respondents to identify was flaming (37% of the respondents did not regard it as a form of cyber violence, and 9% declared having no knowledge of it). The next stage of the analysis was verifying whether students understand what individual forms of cyber violence exercise consist of. The first of them was flaming.

Table 4
Recognition of the essence of flaming among students

Flaming is	%
An argument with the use of insults and vulgarisms between participants of Internet-based communication	66
Not restricted to social media; it can also take place through SMS and e-mail	64
Don't know	30

Source: own work.

The findings of the research indicate that the majority of the respondents correctly identify flaming as an argument with the use of vulgarisms and insults between the participants of Internet-based communication. The respondents are also aware that flaming is not restricted to social media. However, nearly one-third of them (30%) do not know the essence of this phenomenon.

Table 5
Recognition of the essence of harassment among students

Harassment	%
Consists of sending multiple threats or vulgar and insulting messages	75
The perpetrator incessantly plagues the victim until the victim surrenders and becomes more helpless	73
Don't know	19

Source: own work.

The students surveyed know the essence of harassment (75% of the respondents). Moreover, they are aware of what the bullying person's actions consist of (73% of the respondents).

Table 6
Recognition of the essence of dissing/denigration among students

Dissing/denigration	%
Consists of spreading malicious rumours about the victim and/or embarrassing photos of the victim through social media	77
It is a method applied by persecutors for humiliating the victim in public, deprecating the victim, or damaging the victim's interpersonal relationships or reputation	72
The victim is often unaware of such hostile actions or becomes aware of them late, e.g. when the perpetrator fails to tag the victim in a photo posted on social media, because of which the compromising material can be accessed by a wider public and the "main character" is not informed about its publication	69
Don't know	19

Source: own work.

The majority of students (77%) know that dissing/denigration consists in spreading rumours and malicious materials about other people on the Internet, and most often on social media. The majority of the respondents (72%) are aware that these actions are undertaken by perpetrators to humiliate the victim and damage his/her reputation and image. Moreover, the respondents (69%) realise that victims may be unaware of being the “object” of dissing/denigration.

Table 7
Recognition of the essence of impersonation among students

Impersonation	%
The perpetrator impersonating the victim creates fake posts or posts compromising photos, which damage the victim's image and complicate his/her interpersonal relationships	77
Consists of creating a fake profile on social media or gaining access to a profile with the victim being unaware of this	75
Don't know	18

Source: own work.

The majority of the respondents (77%) realise that a person impersonating somebody on the Internet aims to damage the victim's image and interpersonal relationships. They (75%) know that this is possible by way of creating fake social media accounts or gaining access to the victim's social media profiles without the victim's consent.

Table 8
Recognition of the essence of fraping among students

Fraping	%
The aggressor creates inappropriate, damaging and compromising posts or makes profile changes on the owner's behalf, without the owner's knowledge and consent	71
It is a variety of impersonation	67
Don't know	20

Source: own work.

Fraping denotes using somebody's open and unsecured Facebook page. The majority of the respondents (71%) know that it comprises the aggressor creating inappropriate, vulgar or compromising posts on Facebook. A smaller percentage (67%) realise that this phenomenon is a variety of impersonation.

Table 9
Recognition of the essence of outing among students

Outing	%
It refers to the sharing on the Internet of a person's secrets, embarrassing information, private photos or private messages saved in a private online group (e.g. ones that reveal a person's concealed sexuality, private details of a relationship, or other embarrassing secrets or personal data) for harming or embarrassing the victim	77
Through tricking or manipulating the victim, or through unauthorised access to the victim's device (e.g. a mobile phone, a computer, or their devices, such as a camera or a microphone), the cyber perpetrator gets to know the victim's concealed secrets. Within peer groups, this type of violence is often connected while getting over rejected love or due to the aggressor's jealousy	68
Don't know	20

Source: own work.

The majority of the respondents (77%) realise that outing consists of making public on the Internet embarrassing information, private photos, or private messages to harm the victim. The respondents (68%) are aware that the aggressor obtains such information through trickery or manipulation.

Table 10
Recognition of the essence of doxing among students

Doxing	%
Consists of collecting on the Internet information which identifies a given person (real first name and surname, address, workplace, telephone number, or any other important details enabling identification of this person) to attack the victim, with whom the aggressor disagrees. Perpetrators usually get involved in doxing with the malicious intention of humiliating, threatening, intimidating, or punishing a specific person	56
It is a form of harassment	56
Don't know	56

Source: own work.

More than half the respondents (56%) realise that doxing is a form of harassment, consisting of collecting on the Internet information which enables identification of the victim and making this information public for intimidating, humiliating, or threatening the victim.

Table 11
Recognition of the essence of trickery among students

Trickery	%
It is a method applied by traditional persecutors with no use of technology, usually through manipulation or blackmail	78
It consists of inducing a person to disclose embarrassing information or photos on the Internet	64
Don't know	20

Source: own work.

The majority of the respondents (78%) know that online trickery is a method practised by traditional persecutors and (64%) are aware that such actions consist of inducing a person to disclose embarrassing information.

Table 12
Recognition of the essence of exclusion among students

Exclusion	%
Intentionally and strictly eliminating the victim from participation in a virtual group or event by blocking access to relevant contents, blocking the consent to become a member of a group, or deleting from the member list	78
By excluding the victim from an online social group, which is exclusive to the victim, cyber perpetrators cause the victim to feel unwanted and unimportant	64
Don't know	20

Source: own work.

The majority of the respondents (78%) realise that exclusion on the Internet consists of blocking participation in online groups or events, e.g. on Facebook. They (64%) also realise that exclusion from an online group may result in the victim feeling unimportant and rejected.

Table 13
Recognition of the essence of cyberstalking among students

Cyberstalking	%
Persistent cyberstalking includes, <i>inter alia</i> , dead or insulting calls, unwanted SMS, e-mails or messages over instant messengers, sending unwanted messages by e-mail, sending out mail to random addressees on behalf of the stalked person and against his/her will, as well as posting comments on Internet forums and sending gifts via the Internet	76
It is intense and recurrent plaguing of the victim through threats and defaming through the Internet and electronic media to create considerable fear in the victim	76
Don't know	18

Source: own work.

The respondents (76%) to the same extent realise that cyberstalking denotes highly intense and recurrent actions aimed at frightening the victim, and know examples of actions that can be classified as cyberstalking.

Another issue being of research interest to the author was the knowledge demonstrated by students of pedagogy programmes about the factors that may predispose people to become victims of cyber violence. A summary of the respondents' answers is presented in Table 14.

Table 14
Students' knowledge about the factors predisposing one to become a victim of cyber violence

Factor	Yes %	No %	Don't know %	Total %
Low intellectual ability	72	11	17	100
Low status within a group, low self-esteem	71	13	16	100
Interpersonal skills deficits	67	16	17	100
No social support, social isolation	72	12	16	100
The so-called difficult behaviours, e.g. ADHD, disrupted social relationships	69	12	19	100
Being a victim of violence, e.g. physical violence in the past	66	18	16	100
Membership of a minority group, e.g. an ethnic minority	79	9	12	100
Acceptance of corporal punishment and violence in a given culture	59	20	21	100
Poor economic situation of the family	78	8	14	100
"Otherness" which is negatively valorised within the community (e.g. physical disability)	83	5	12	100

Source: own work.

The respondents recognise the factors predisposing one to become a victim of cyber violence. For the majority of the respondents, the factors most likely to predispose one to become a victim of cyber violence are "otherness" which is negatively valorised within the community (e.g. disability) (83% of the respondents) and membership of a minority group, e.g. an ethnic minority (79%). The respondents (59%) indicated acceptance of corporal punishment and violence in a given culture as a factor that is the least likely to predispose one to become

a victim of cyber violence. Moreover, in the respondents' (66%) opinion, being a victim of traditional violence earlier is a factor that is less likely to predispose one to become a victim of cyber violence.

Another research area explored was the respondents' knowledge about actions undertaken to prevent and mitigate the consequences of cyber violence. The findings are presented in Table 15.

Table 15
Students' knowledge about the prevention of cyber violence

Preventive action	%
The broadly defined information, media and civic education aimed at making people aware of the risks, their sources and mechanisms, the potential consequences of the broadly defined violence and the potential methods of its prevention, concerning victims, perpetrators and witnesses to violence	75
Focusing on actions for the recognition of the symptoms of violence, making people aware of the potential methods of opposing the broadly defined violence, sharing of knowledge regarding the options of reporting and preventing problems, receiving legal or psychological help, as well as therapy options (both for victims and perpetrators of cyber violence)	72
Actions aimed at developing the right attitudes towards manifestations of violence (both as a victim and a witness to violence) and media users, as well as actions for the provision of training in interpersonal communication, computer-mediated communication, assertiveness, empathy, constructive methods of satisfying needs and solving problems, and coping with stress and the consequences of aggressive behaviours	72
Don't know	17

Source: own work.

Three-fourths of the respondents indicate broadly defined education as a preventive action for cyber violence. Actions for the recognition of the symptoms of cyber violence, knowledge about the options of reporting cyber violence and receiving therapeutic support, as well as development of the right attitudes and social competence vis-a-vis cyber violence were highlighted as important preventive actions by 72% of the respondents, while 17% confessed to lack of knowledge about preventive actions for cyber violence.

As part of the research, the respondents' personal experience related to cyber violence was also analysed. The first issue was the fact of witnessing cyber violence. A summary of the respondents' answers is presented in Table 16.

Table 16
Experience of witnessing cyber violence among students

Have you ever witnessed cyber violence?	%
Yes	56
No	29
Don't know	15
Total	100

Source: own work.

The majority of the respondents (56%) admitted to having witnessed cyber violence in the past, while 29% had not, and 15% of the respondents had difficulty answering this question.

Table 17
Experience of various forms of cyber violence among students

Forms of cyber violence	Yes %	No %	Don't know %	Total %
Flaming	21	59	20	100
Cyberstalking	6	80	14	100
Impersonation	9	75	16	100
Harassment	14	72	14	100
Dissing/denigration	20	64	16	100
Outing	15	67	18	100
Trickery	22	62	16	100
Exclusion	12	71	17	100

Source: own work.

The findings of the research show that the respondents experienced every form of cyber violence, although this experience differed among the participants. The highest percentage of respondents declared experiencing trickery (22%), flaming (21%) and dissing/denigration (20%), while the lowest percentages related to experiencing cyberstalking (6%), impersonation (9%) and exclusion from social media groups (12%).

Summary

According to the data provided by the Nationwide Educational Network (Ogólnopolska Sieć Edukacyjna, OSE):

Mobile devices are being used by younger and younger children, who are also spending more and more time in front of computer and smartphone screens. An average teenager spends more than 4 hours a day using the Internet, but during the pandemic and remote learning, this period has become significantly longer, reaching even 8–12 hours a day. Many aspects of our lives have moved to the Internet, including, unfortunately, our traditional problems. One of them is cyber violence – harm done with the use of electronic devices, and most often computers or phones [...] Research shows that cyber violence (plaguing, harassing, or persecuting online) is becoming an increasingly frequent problem, which is experienced by even every fifth teenager.³⁸

As pointed out by Anna Borkowska, the digital education expert from the Educational and Information Programme Team at NASK, “the scope of this phenomenon is not decreasing, and, now, after the pandemic, and especially in the case of the youngest Internet users, it has even slightly increased.”³⁹ Observation of the social reality has inspired the author of this study to reflect on the knowledge demonstrated by students of pedagogy programmes about cyber violence.

³⁸ <https://ose.gov.pl/aktualnosci/wpis/po-pierwsze-przeciwdzialac-czyli-glos-eksperta-o-cyberprzemocy> (access: 15.11.2021).

³⁹ Ibidem.

Students of pedagogy programmes, being future educators and carers of young people, should be aware of the risks and threats of our functioning in virtual space. Considering the reality of the last two years of school education, when the educational and social activity of young people has moved mainly to the Internet, it is an important challenge faced by future teachers and educators to develop responsiveness to signals, indicating the possibility of someone being a victim of cyber violence, and different forms of cyber violence manifestation, and the ability to implement various preventive and support activities oriented towards victims, perpetrators and witnesses to cyber violence.

The findings of the author's research revealed that almost one-fifth of the respondents do not know the forms of cyber violence, perhaps indicating their failure to understand this phenomenon or a detached attitude thereto. According to the respondents, the factors that are least likely to predispose one to become a victim of cyber violence are those connected with being a victim of traditional violence, and acceptance of corporal punishment and violence in traditional education environments, which contradicts the findings of Pyżalski⁴⁰ devoted to cyber violence and those of Kowalski and his team.⁴¹

Based on the findings, the author concludes that more than half the respondents (56%) have witnessed cyber violence. The highest percentage of the respondents declared experiencing trickery, flaming and dissing/denigration, while the smallest numbers related to cyberstalking, impersonation and exclusion from social media groups. The findings show that each form of cyber violence had been experienced by the respondents but to different extents, which confirms the general trend regarding the scope of cyber violence.⁴²

The findings of this research indicate a continuous need for improving knowledge among students of pedagogy programmes about cyber violence, its forms of manifestation, its causes and preventive actions therefor. One of the conditions necessary for creating knowledge re-

⁴⁰ J. Pyżalski, *Agresja elektroniczna*, op. cit.

⁴¹ R. Kowalski, G. Giumetti, A. Schroeder, M. Lattanner, *Bullying in the Digital Age*, op. cit., pp. 1073–1137.

⁴² E. Janopaul-Naylor, E. Feller, *Cyberbullying*, op. cit., pp. 7–9.

sources is not only devoting more attention to issues related to cyber violence in public discourse but also changing the higher education curricula. It is essential that the curricula of pedagogy programmes and those provided for acquiring teaching qualifications include classes that not only theoretically reflect on cyber violence, but also provide for practical activities helping students to obtain the requisite competence necessary to undertake preventive actions regarding this phenomenon.

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