DOI: 10.61905/wwr/215304

"Family Upbringing" vol. XXXII (4/2025)
„Wychowanie w Rodzinie" t. XXXII (4/2025)

**Ewa Jurczyk-Romanowska**
Institute of Pedagogy, Faculty of Historical and Pedagogical Sciences, University of Wroclaw, Wrocław, Poland

Ewa Jurczyk-Romanowska https://orcid.org/0000-0002-1508-5604

# Teenagers as Victims of Cyberbullying – a Study of Secondary School Students at the Beginning and End of the COVID-19 Pandemic

## Nastolatek ofiarą cyberprzemocy – badania uczniów szkół średnich na początku i po ustaniu pandemii COVID-19

Submitted: October 7, 2025 – Accepted: December 8, 2025

**Abstract**

**Aim.** The aim of the study was to diagnose the frequency and character of various forms of cyberbullying experienced by secondary school students. The study aimed to capture both the scale of the phenomenon and its internal diversity, including the types and intensity of electronic aggression. In addition, the experiences of girls and boys were compared, and the relationship between victimisation and selected personality traits (TIPI) and the educational functionality of the family of origin.

**Methods and materials.** The study was longitudinal and involved 165 students aged 15–19. Data were collected using an online questionnaire in 2020 and 2023. The data was collected using an online questionnaire in 2020 and 2023. An author-developed questionnaire on vulnerability to various forms of cyberbullying was corre-

**Corresponding author:** Ewa Jurczyk-Romanowska, e-mail: ewa.jurczyk-romanowska@uwr.edu.pl, Instytut Pedagogiki, Wydział Nauk Historycznych i Pedagogicznych, Uniwersytet Wrocławski, Dawida 1, 50-527 Wrocław, Polska

lated with socio-demographic data, a test of the educational functionality of the family of origin, and the Big Five Personality Inventory (TIPI). Descriptive statistics, Spearman's rank correlation coefficient, and the chi-square test were used in the analyses to examine categorical relationships.

**Results and conclusion.** After the pandemic, there was a decrease in incidental forms of cyberbullying and an increase in chronic cases. Girls were more exposed to violence that infringed on their dignity and privacy, while boys were more likely to experience confrontational and group aggression. Agreeableness, conscientiousness, and emotional stability had a protective effect, while openness correlated with sexting. High family functionality proved to be the strongest protective factor.

***Keywords:*** cyberbullying, secondary school students, educational functionality of the family of origin, Big Five personality traits, protective factors and risk factors, COVID-19

**Abstrakt**

**Cel.** Celem badań była diagnoza częstości oraz charakteru doświadczania różnych form cyberprzemocy wśród uczniów szkół średnich. Badanie miało na celu uchwycenie zarówno skali zjawiska, jak i jego wewnętrznego zróżnicowania, obejmującego typy i intensywność agresji elektronicznej. Analizowano zmiany w poziomie cyberprzemocy na przestrzeni lat 2020–2023. Dodatkowo porównano doświadczenia dziewcząt i chłopców oraz zbadano zależność między wiktymizacją a wybranymi cechami osobowości (TIPI) i funkcjonalnością wychowawczą rodziny pochodzenia.

**Metody i materiały.** Badanie miało charakter podłużny i objęło 165 uczniów w wieku 15–19 lat. Dane zebrano za pomocą kwestionariusza online w 2020 i 2023 roku. Skorelowano autorski kwestionariusz podatności na różne formy cyberprzemocy z danymi socjodemograficznymi, testem funkcjonalności wychowawczej rodziny pochodzenia oraz testem wielkiej piątki osobowości (TIPI). W analizach zastosowano statystyki opisowe, współczynnik korelacji rang Spearmana oraz test chi-kwadrat do analizy zależności kategorialnych.

**Wyniki i wnioski.** Po pandemii odnotowano spadek incydentalnych form cyberprzemocy oraz wzrost przypadków o charakterze przewlekłym. Dziewczęta częściej doświadczały przemocy naruszającej godność i intymność, a chłopcy — agresji konfrontacyjnej i grupowej. Ugodowość, sumienność i stabilność emocjonalna działały ochronnie, natomiast otwartość korelowała z sekstingiem. Najsilniejszym czynnikiem chroniącym okazała się wysoka funkcjonalność rodziny.

***Słowa kluczowe:*** cyberprzemoc, uczniowie szkół średnich, funkcjonalność wychowawcza rodziny pochodzenia, wielka piątka osobowości, czynniki chroniące i czynniki ryzyka, COVID-19

## Introduction to the Issue and Theoretical Framework

With the spread of the internet, the era of the information society has begun. The development of new technologies brings many benefits, including easy, cheap, and fast access to information resources, increased productivity and dynamic scientific progress. On the other hand, there is also growing concern about the impact of the media on people, the dangers associated with the influence of games, online publications, cyberbullying, addiction, and many other issues. The first documented act of cyberbullying dates back to 2002, when social media was manipulated in such a way as to embarrass and ridicule a teenager. In addition, in discussions, the protagonist of the film was harassed and encouraged to commit suicide, which consequently led to long-term depression (Borkowska, 2019). Today, such actions have become commonplace (Porębski, 2014), leading successive generations of young people towards mental disorders and (often successful) suicide attempts.

The literature often emphasises the need to distinguish between aggression and violence. *Aggression* is usually understood as a one-off or incidental act of behaviour aimed at causing harm to another person, often while maintaining a balance of power between the aggressor and the victim – it can be verbal, physical, or symbolic and does not have to be repeated over time. *Violence*, meanwhile, implies permanence and repetitiveness of actions, as well as an imbalance of power between the perpetrator and the victim (Kania, 2020). In the case of violence, one side has a clear advantage (physical, psychological, social, or technological). It consciously uses it to subjugate the other person, causing them fear, helplessness, or shame (Śledziewski, 2016). In relation to online phenomena, this means that a single, isolated incident of hostility on the internet can be described as aggression, while systematic, long-term harassment — especially when the perpetrator exploits their competence or social advantage — constitutes cyberbullying (Mysior, 2013; Pyżalski, 2012).

*Cyberbullying* is defined as any behaviour carried out via electronic or digital media by individuals or groups who regularly communicate hostile or aggressive messages, intending to cause harm or discomfort to others (Tokunaga, 2010). Researchers emphasise the public aspect of internet harassment, which primarily affects young people (Finkelhor *et al*., 2000), and also point to the use of the internet or digital technologies as a necessary component (Juvonen & Gross, 2008; Pyżalski, 2012). They also point to the intentionality of the perpetrator's actions (Wojtasik, 2009). A factor conducive to acts of cyberaggression is the sense of anonymity and the ability to create false identities (Pyżalski, 2012). The terms cyberbullying and cyberaggression are often used interchangeably, but for this study, incidental aggressive behaviour using electronic communication has been distinguished from violent actions that are extended over time, often long-term. The subject of the study was behaviour char-

acterised by temporal persistence. Cyberbullying can take many forms. According to Robin M. Kowalski, Susan P. Limber, and Patricia W. Agatson (2008), the following typology can be adopted: 1) flaming (flame war) – consists of an aggressive exchange of views between participants in a virtual discussion, taking the form of an emotionally charged argument between polarised groups; 2) harassment – consists of regularly sending aggressive, ridiculing messages using various means of electronic communication; 3) impersonation – involves impersonating the victim online, also associated with gaining access to the victim's instant messaging passwords and social media profiles; 4) outing – involves sharing the victim's private materials with other people; the perpetrator often steals private materials or betrays secrets entrusted to them; 5) cyberstalking – is based on electronic surveillance and harassing the victim with unwanted messages; 6) happy slapping – consists of provoking the victim into a specific behaviour and then recording it on film and in photographs, which are then distributed via the internet; 7) denigration – involves disseminating, humiliating, and untrue information or material about other people via online communication; 8) exclusion – involves deliberately removing the victim from a list of online contacts or not allowing them to be added to it (Kowalski *et al*., 2008; Pyżalski, 2012); 9) hacking – in this case, the target is the victim's computer equipment, software, or It infrastructure (Pyżalski, 2012); and 10) sexting – involves sending messages, photographs, or videos of a sexual nature (Klettke *et al.*, 2014) and constitutes cyberbullying behaviour when the recipient has not consented to receiving such messages (Waszyńska, 2015).

Victims of cyberbullying are becoming younger and younger, which is related to the lowering age of internet initiation. The group in which this phenomenon is escalating is adolescents. Erikson pointed out that adolescence is primarily a crisis of identity. During this period, enormous physical and psychological changes emerge in a person; it is a time of gaining awareness of one's "self" with innate talents and opportunities offered by social roles. Adolescence is divided into early adolescence (13–17 years of age), which is a stage of intense biological changes, and late adolescence (18–22 years of age) – a stage of intense psychosocial changes (Erikson, 1997). Therefore, the study was conducted among adolescents, *i.e*., secondary school students.

## Methodological Context and Research Procedure

The aim of the study was to diagnose the frequency of experiencing various forms of cyberbullying among secondary school students. The study distinguished between incidental behaviour and experiences of a violent nature, *i.e*., those lasting for a longer period of time. The frequency of various forms of cyberbullying was examined and correlated with sociodemographic data, the scale of educational functionality of the family

of origin (Kwiatkowski, 2016; Kwiatkowski & Jurczyk-Romanowska, 2022) and the Polish adaptation of the Big Five Personality Inventory test (TIPI; Sorokowska *et al*., 2014).

The questions diagnosing the frequency of experiencing behaviours characteristic of cyberbullying were based on the above-mentioned classification of forms of such behaviours (Kowalski *et al*., 2008; Pyżalski, 2012). The study participants were asked questions about their experiences of harassment, impersonation, outing, cyberstalking, happy slapping, denigration, exclusion, hacking, flaming, and sexting. The answers were based on a five-point Likert scale.

The study involved 165 secondary school students (general secondary school and technical secondary school) aged 15–19. The first part of the study was conducted in April 2020, shortly after the outbreak of the COVID-19 pandemic. The research was accompanied by forced social isolation and the need to move many areas of life, including education, online. Ninety-two students took part in the first part of the study. The next study was conducted in May 2023, after the end of the social isolation caused by the pandemic. The same questionnaire was used to survey 73 students who declared that they attended the same types of schools. Both surveys were via an online questionnaire.

Descriptive statistics and correlation analysis were used in the analysis of the collected research material. Due to the non-parametric distribution of most variables and the rank-based measurement scale, the relationships between the constructs under study were calculated using Spearman's rank correlation coefficient. Furthermore, to assess the relationship between categorical sociodemographic variables and the level of cyberbullying experienced, a chi-square ($\chi^2$) test was used to verify the significance of differences in response distributions.

## Results

### *Experiencing Cyberbullying at the Beginning and End of the Pandemic*

The analysis focused on the experiences of secondary school students with cyberbullying from the victim's perspective. The research tool used clearly emphasised that the subject of the study was behaviour lasting over a longer period of time, highlighting the difference between incidental aggressive behaviour and actions bearing the features of cyberbullying, characterised by temporal persistence. Analysis of the collected material shows that in the case of most of the forms of cyberbullying studied, students reported no such experiences. The forms of cyberbullying least frequently experienced by students are happy slapping (78.8% of respondents have never experienced it), impersonation (71.5%), and hacking (66.1%). High values in this category may indicate that students relatively rarely become victims of actions that violate technical security or those that require particular intentionality on the part of the ag-

gressor. At the same time, in the case of two forms of violence — harassment (39.4%) and sexting (42.4%) — a smaller proportion of respondents declare no experience, which suggests that these behaviours are more widespread and constitute an important element of young people's functioning in the digital environment.

The percentage of students declaring frequent or continuous experiences of cyberbullying is relatively low – in the case of harassment, 12.7% of respondents experience it frequently, and another 8.5% experience it continuously, which indicates that almost one in five students is exposed to constant or repeated verbal abuse online. Elevated values in the *continuous* category are also visible in relation to flaming (9.1%) and exclusion (6.7%). These forms of cyberbullying are associated with a permanent disruption of social relationships and an increased risk of peer isolation. On the other hand, impersonation, happy slapping and hacking are among the least frequent forms of cyberbullying (less than 1–2% of respondents reported experiencing them constantly; Table 1).

**Table 1**

*Experiences of various forms of cyberbullying among secondary school students (N = 165)*

| | **harassment** | **impersonation** | **outing** | **cyberstalking** | **happy slapping** | **denigration** | **exclusion** | **flaming** | **sexting** | **hacking** |
|---|---|---|---|---|---|---|---|---|---|---|
| never | 39.40% | 71.50% | 60.60% | 57.60% | 78.80% | 65.50% | 56.40% | 55.80% | 42.40% | 66.10% |
| rarely | 29.70% | 15.80% | 18.80% | 17.00% | 10.90% | 13.90% | 18.20% | 15.80% | 26.10% | 13.90% |
| sometimes | 9.70% | 8.50% | 12.70% | 16.40% | 7.30% | 11.50% | 10.30% | 13.30% | 13.90% | 15.20% |
| often | 12.70% | 3.60% | 4.20% | 4.80% | 2.40% | 4.80% | 8.50% | 6.10% | 10.90% | 3.60% |
| continuous | 8.50% | 0.60% | 3.60% | 4.20% | 0.60% | 4.20% | 6.70% | 9.10% | 6.70% | 1.20% |

A comparison of the results from 2020 and 2023 reveals certain changes in the distribution of responses regarding various forms of cyberbullying. The most noticeable phenomenon is a gradual decrease in the frequency of incidental experiences (the *rarely* and *sometimes* categories) and a simultaneous increase in both *never* responses and, more importantly, cases of continuous violence. This means that cyberbullying is not so much declining as it is concentrated in smaller groups of students who experience it with greater intensity (Table 2).

**Table 2**

*Experiencing various forms of cyberbullying – changes in percentage thresholds in studies conducted in 2020 and 2023*

| | harassment | | | impersonation | | |
|---|---|---|---|---|---|---|
| | 2020 | 2023 | percentage point [pp] | 2020 | 2023 | pp |
| never | 35.90% | 43.80% | 7.90 | 68.50% | 75.30 | 6.80 |
| rarely | 31.50% | 27.40% | -4.10 | 15.20% | 16.40 | 1.20 |

| | harassment | | | impersonation | | |
|---|---|---|---|---|---|---|
| | 2020 | 2023 | percentage point [pp] | 2020 | 2023 | pp |
| sometimes | 14.10% | 4.10% | -10.00 | 9.80% | 6.80 | -3.00 |
| often | 12.00% | 13.70% | 1.70 | 5.40% | 1.40 | -4.00 |
| continuous | 6.50% | 11.00% | 4.50 | 1.10% | 0.00 | -1.10 |
| | outing | | | cyberstalking | | |
| | 2020 | 2023 | pp | 2020 | 2023 | pp |
| never | 59.80% | 61.60% | 1.80 | 50.00% | 67.10% | 17.10 |
| rarely | 20.70% | 16.40% | -4.30 | 19.60% | 13.70% | -5.90 |
| sometimes | 15.20% | 9.60% | -5.60 | 19.60% | 12.30% | -7.30 |
| often | 4.30% | 4.10% | -0.20 | 7.60% | 1.40% | -6.20 |
| continuous | 0.00% | 8.20% | 8.20 | 3.30% | 5.50% | 2.20 |
| | happy slapping | | | denigration | | |
| | 2020 | 2023 | pp | 2020 | 2023 | pp |
| never | 73.90% | 84.90% | 11.00 | 60.90% | 71.20% | 10.30 |
| rarely | 10.90% | 11.00% | 0.10 | 17.40% | 9.60% | -7.80 |
| sometimes | 12.00% | 1.40% | -10.60 | 13.00% | 9.60% | -3.40 |
| often | 3.30% | 1.40% | -1.90 | 5.40% | 4.10% | -1.30 |
| continuous | 0.00% | 1.40% | 1.40 | 3.30% | 5.50% | 2.20 |
| | exclusion | | | flaming | | |
| | 2020 | 2023 | pp | 2020 | 2023 | pp |
| never | 59.80% | 52.10% | -7.70 | 57.60% | 53.40% | -4.20 |
| rarely | 20.70% | 15.10% | -5.60 | 21.70% | 8.20% | -13.50 |
| sometimes | 7.60% | 13.70% | 6.10 | 12.00% | 15.10% | 3.10 |
| often | 7.60% | 9.60% | 2.00 | 7.60% | 4.10% | -3.50 |
| continuous | 4.30% | 9.60% | 5.30 | 1.10% | 19.20% | 18.10 |
| | sexting | | | hacking | | |
| | 2020 | 2023 | pp | 2020 | 2023 | pp |
| never | 37.00% | 49.30% | 12.30 | 62.00% | 71.20% | 9.20 |
| rarely | 33.70% | 16.40% | -17.30 | 16.30% | 11.00% | -5.30 |
| sometimes | 13.00% | 15.10% | 2.10 | 17.40% | 12.30% | -5.10 |
| often | 12.00% | 9.60% | -2.40 | 3.30% | 4.10% | 0.80 |
| continuous | 4.30% | 9.60% | 5.30 | 1.10% | 1.40% | 0.30 |

For most of the forms of cyberbullying analysed, there was an increase in the percentage of pupils declaring no experience. This applies, among others, to happy slapping (+11 percentage points), denigration (+10.3 points), sexting (+12.3 points), hacking (+9.2 points), and cyberstalking (+17.1 points). This phenomenon suggests that after the pandemic, a significant proportion of young people are less likely to encounter aggressive behaviour in the digital area. At the same time, the observed declines in the *rarely* and *sometimes* categories indicate that marginal and occasional experiences are becoming less common. In many areas — *e.g.*, in the case of harassment, outing, denigration, or sexting — these two categories account for the largest declines, suggesting a decline in incidental forms in favour of a more polarised distribution of experiences.

There is also a noticeable systematic increase in chronic experiences, *i.e*., the *continuous* category. This phenomenon is particularly evident in flaming (an increase of as much as 18.1 points), outing (+8.2 points), exclusion (+5.3 points), harassment (+4.5 points), and sexting (+5.3 points). These data show that although cyberbullying has weakened in part of the population, it is becoming more severe for the students who experience it. In practice, this means a shift from widespread but incidental aggression to situations in which a smaller group of students become victims of intense, prolonged and repeated acts of online violence.

In turn, the phenomenon of exclusion recorded a decrease in the *never* response (-7.7 points), while at the same time gaining strongly in the *sometimes*, *often,* and *constantly* categories. This means that exclusion from groups, chats or communication channels is becoming an increasingly common form of violence. A similar trend can be seen in the case of flaming, with a marked increase in chronic cases. These patterns suggest that peer relationships have been restructured after the pandemic: digital technologies have begun to function as tools of control, exclusion and escalation of conflicts, rather than merely reflecting them.

### *Victims of Cyberbullying in the Context of Socio-Demographic Data*

An analysis of the relationship between selected socio-demographic variables and the frequency of experiencing particular forms of cyberbullying indicates that these factors play a relatively limited role in explaining the risk of victimisation. Most of the correlation coefficients do not reach statistical significance, and the lack of a relationship between age, place of residence or parents' education and the frequency of experiencing such forms of violence as harassment, impersonation, cyberstalking, happy slapping, denigration, hacking. or flaming indicates that acts of electronic aggression occur in different environments with similar frequency.

The only form of cyberbullying that shows a significant correlation with age is sexting, which is more frequently reported by older students. This result is consistent with the developmental specificity of the phenomenon, which occurs more frequently in late adolescence, when young people explore the sphere of intimacy more intensively and enter into more complex interpersonal relationships, including in the digital space.

Much more pronounced correlations are observed in relation to family income, although these are also selective in nature. Negative, significant correlations relate to the outing and exclusion, which means that students from families with lower economic status are more likely to experience these forms of cyberbullying. It can be concluded that young people from families with lower economic status are more vulnerable to peer conflicts, difficulties in building stable relationships or lower emotional resilience, which contributes to victimisation. At the same time, the lack of analogous correlations in the case of other forms of cyberbullying indicates that material status is not a universal predictor of risk (Table 3).

**Table 3**

*Experiencing various forms of cyberbullying and selected sociodemographic factors*

| | | **age** | **place of residence** | **family income** | **mothers' education** | **fathers' education** |
|---|---|---|---|---|---|---|
| harassment | Spearman's *rho* | -0.012 | 0.058 | -0.117 | -0.032 | 0.001 |
| | *p*-value | 0.875 | 0.460 | 0.133 | 0.685 | 0.989 |
| impersonation | *rho* | 0.070 | 0.010 | -0.103 | 0.015 | -0.024 |
| | *p* | 0.370 | 0.902 | 0.189 | 0.851 | 0.761 |
| outing | *rho* | -0.027 | 0.076 | **-0.171*** | 0.094 | 0.068 |
| | *p* | 0.729 | 0.331 | 0.028 | 0.229 | 0.387 |
| cyberstalking | *rho* | 0.055 | 0.059 | -0.128 | 0.012 | -0.041 |
| | *p* | 0.482 | 0.454 | 0.100 | 0.877 | 0.598 |
| happy slapping | *rho* | 0.012 | 0.113 | -0.071 | -0.046 | -0.011 |
| | *p* | 0.880 | 0.149 | 0.366 | 0.555 | 0.891 |
| denigration | *rho* | -0.096 | 0.046 | -0.013 | -0.022 | 0.003 |
| | *p* | 0.220 | 0.555 | 0.872 | 0.776 | 0.972 |
| exclusion | *rho* | -0.102 | -0.043 | **-0.220**** | 0.026 | -0.006 |
| | *p* | 0.192 | 0.581 | 0.004 | 0.742 | 0.939 |
| hacking | *rho* | 0.100 | -0.023 | -0.112 | -0.069 | -0.094 |
| | *p* | 0.200 | 0.765 | 0.151 | 0.378 | 0.230 |
| flaming | *rho* | -0.060 | 0.046 | -0.021 | 0.038 | 0.018 |
| | *p* | 0.443 | 0.559 | 0.785 | 0.629 | 0.821 |
| sexting | *rho* | **0.172*** | 0.058 | -0.077 | -0.020 | -0.032 |
| | | 0.027 | 0.458 | 0.323 | 0.796 | 0.688 |
| experiencing cyberbullying | *rho* | 0.025 | 0.053 | -0.118 | 0.017 | 0.006 |
| | *p* | 0.753 | 0.496 | 0.130 | 0.828 | 0.943 |

*Note.* Marked correlations are significant at $p < .05000$ and graduated * $p < .05$, ** $p < .01$, *** $p < .001$.

An analysis of differences in the experience of cyberbullying between women and men reveals that although the overall level of exposure of both groups is similar, the nature and structure of these experiences are different. In the group of women, forms of violence that violate personal dignity, privacy, and intimacy dominate. Girls report persistent forms of such behaviour more often than boys, especially concerning denigration, outing, and sexting. The high percentage of *constantly* responses in these areas indicates that violence against girls is more often relational and emotional in nature, and its purpose is to damage reputation, trust, or personal integrity. This phenomenon is also reflected in slightly more frequent experiences of cyberstalking, suggesting that girls are more likely to be the subject of constant observation or unwanted contact in the digital environment (Table 4).

A different profile of experiences is observed in the group of men, who more often declare participation in intense, overt online conflicts. Higher percentages of *often* and *constantly* responses mainly concern flaming and exclusion, as well as some forms of harassment. This indicates that violence directed at boys more often takes the form of open confrontation, verbal aggression, or escalation of conflicts in public spaces, where interactions are observed by a wider group of peers. This type of violence is not directed against a single aspect of identity, but rather is part of the rivalry, dominance or group tensions characteristic of the dynamics of male peer relationships (Table 4).

The results also suggest that boys are more likely than girls to encounter technical forms of violence, such as hacking or impersonation. Although these differences are not extreme, they may result from boys being more active in digital environments where such threats are more likely, such as online games or communication networks based on anonymity. Girls, meanwhile, although less likely to experience technical forms of aggression, are more often the targets of violence directed at their social position and interpersonal relationships.

It is worth noting that in most categories, there are no significant differences between the sexes in the *never* and *rarely* responses, which means that the basic level of exposure to cyberbullying is similar for girls and boys. Essential differences only become apparent in the "extreme" categories of the distribution – in the *often* and *constantly* responses. It is here that a clear division can be seen between relational violence, which more often affects girls, and confrontational and group violence, which more often affects boys.

In summary, gender does not differentiate the overall risk of being a victim of cyberbullying, but it significantly differentiates its form and intensity. Girls are more likely to experience actions targeting their reputation, intimacy and interpersonal relationships, while boys are more likely to be involved in aggressive conflicts and competitive actions. These results highlight the need to design preventive measures that account for the specific patterns of victimisation characteristic of both groups, as well as the diverse psychological and social mechanisms underlying their experiences.

**Table 4**

*Experiencing various forms of cyberbullying in the group of women (n=90)*

| | **harassment** | **impersonation** | **outing** | **cyberstalking** | **happy slapping** | **denigration** | **exclusion** | **flaming** | **sexting** | **hacking** |
|---|---|---|---|---|---|---|---|---|---|---|
| never | 38.90% | 72.60% | 63.20% | 56.80% | 77.90% | 69.50% | 55.80% | 62.10% | 41.10% | 67.40% |
| rarely | 36.80% | 15.80% | 18.90% | 20.00% | 11.60% | 15.80% | 21.10% | 13.70% | 26.30% | 14.70% |
| sometimes | 6.30% | 6.30% | 10.50% | 13.70% | 7.40% | 6.30% | 9.50% | 13.70% | 12.60% | 13.70% |
| often | 8.40% | 5.30% | 1.10% | 5.30% | 2.10% | 2.10% | 5.30% | 4.20% | 9.50% | 3.20% |
| continuous | 9.50% | 0.00% | 6.30% | 4.20% | 1.10% | 6.30% | 8.40% | 6.30% | 10.50% | 1.10% |

**Table 5**

*Experiencing various forms of cyberbullying in the group of males (n=70)*

| | harass-ment | imperson-ation | outing | cyber-stalking | happy slapping | denigra-tion | exclusion | flaming | sexting | hacking |
|---|---|---|---|---|---|---|---|---|---|---|
| never | 40.00% | 70.00% | 57.10% | 58.60% | 80.00% | 60.00% | 57.10% | 47.10% | 44.30% | 64.30% |
| rarely | 20.00% | 15.70% | 18.60% | 12.90% | 10.00% | 11.40% | 14.30% | 18.60% | 25.70% | 12.90% |
| sometimes | 14.30% | 11.40% | 15.70% | 20.00% | 7.10% | 18.60% | 11.40% | 12.90% | 15.70% | 17.10% |
| often | 18.60% | 1.40% | 8.60% | 4.30% | 2.90% | 8.60% | 12.90% | 8.60% | 12.90% | 4.30% |
| continuous | 7.10% | 1.40% | 0.00% | 4.30% | 0.00% | 1.40% | 4.30% | 12.90% | 1.40% | 1.40% |

### *Experiencing Cyberbullying and Personality Traits*

The relationship between personality traits and experiencing cyberbullying reveals several important correlations. A higher intensity of traits such as agreeableness, conscientiousness and stability is associated with a lower frequency of experiencing most forms of cyberbullying. This means that these three traits primarily serve a protective function, reducing the risk of victimisation. The strongest protective effect is exhibited by agreeableness, which reduces the risk of experiencing such diverse forms of cyberbullying as impersonation, happy slapping, denigration, cyberstalking, and outing. These relationships reflect the relational nature of cyberbullying: more agreeable people, who avoid conflict and care about social harmony, are less likely to become targets because their behaviour reduces the likelihood of escalating tensions in peer relationships. Conscientiousness, however, which is also significantly associated with a reduced risk of victimisation, can have a protective effect by influencing caution in managing privacy, conscious use of digital tools and avoidance of potentially conflictual situations. Conscientious individuals are more likely to maintain stable social relationships and less likely to provoke retaliatory or aggressive behaviour.

Stability, although showing slightly weaker correlations, also has protective characteristics. Its relationship with exclusion and other forms of violence indicates that emotionally resilient individuals are less likely to engage in digital interactions that lead to conflict escalation or are less vulnerable to peer manipulation. The lack of significant correlations with some forms of cyber aggression may be because stability primarily influences the way people react, rather than their exposure to violence itself.

Extroversion does not correlate significantly either positively or negatively. Its associations with cyberbullying are generally weak and occasionally statistically significant, suggesting that greater socialisation and activity in relationships do not necessarily affect exposure to electronic violence. The only clear trend is a slight negative correlation with experiences of harassment and happy slapping, which can be interpreted as the result of extroverts' better social skills, which make it easier for them to function in peer groups.

Against the background of other characteristics, openness to experience behaves distinctly differently, as it is the only one that remains positively associated with the frequency of sexting. This means that individuals who are more open-minded and willing to explore

new forms of communication are more likely to engage in sexual interactions in cyberspace. Consequently, this may increase their vulnerability to both voluntarily engaging in the exchange of intimate content and being exposed to abuse. However, the absence of similar correlations in other areas of cyberbullying indicates that openness is not a general risk factor, but selectively affects areas related to the exploration of identity and intimacy (Table 6).

**Table 6**

*Experiencing various forms of cyberbullying and personality traits*

| | | **extroversion** | **agreeableness** | **conscientiousness** | **stability** | **openness** |
|---|---|---|---|---|---|---|
| harassment | Spearman's *rho* | **-0.172*** | -0.096 | -0.113 | -0.092 | -0.006 |
| | *p*-value | 0.028 | 0.221 | 0.150 | 0.238 | 0.934 |
| impersonation | *rho* | -0.052 | **-0.243**** | **-0.165*** | -0.010 | -0.087 |
| | *p* | 0.507 | 0.002 | 0.034 | 0.902 | 0.268 |
| outing | *rho* | -0.141 | **-0.171*** | **-0.155*** | -0.128 | -0.016 |
| | *p* | 0.071 | 0.028 | 0.047 | 0.102 | 0.839 |
| cyberstalking | *rho* | -0.105 | **-0.188*** | -0.137 | -0.113 | 0.039 |
| | *p* | 0.178 | 0.016 | 0.080 | 0.148 | 0.623 |
| happy slapping | *rho* | **-0.176*** | **-0.233**** | **-0.187*** | -0.069 | -0.054 |
| | *p* | 0.024 | 0.003 | 0.016 | 0.381 | 0.492 |
| denigration | *rho* | -0.128 | **-0.259***** | **-0.240**** | -0.117 | -0.125 |
| | *p* | 0.101 | < .001 | 0.002 | 0.136 | 0.111 |
| exclusion | *rho* | -0.106 | -0.133 | **-0.220 **** | **-0.210**** | 0.000 |
| | *p* | 0.176 | 0.088 | 0.005 | 0.007 | 0.999 |
| hacking | *rho* | 0.064 | -0.067 | -0.111 | -0.018 | -0.058 |
| | *p* | 0.414 | 0.392 | 0.154 | 0.822 | 0.459 |
| flaming | *rho* | -0.108 | **-0.159*** | **-0.160*** | -0.104 | -0.143 |
| | *p* | 0.168 | 0.041 | 0.040 | 0.182 | 0.067 |
| sexting | *rho* | 0.101 | -0.039 | -0.028 | -0.053 | **0.166*** |
| | *p* | 0.197 | 0.621 | 0.721 | 0.499 | 0.033 |
| experiencing cyberbullying | *rho* | -0.110 | **-0.186*** | **-0.183*** | -0.132 | -0.014 |
| | *p* | 0.161 | 0.017 | 0.018 | 0.091 | 0.856 |

*Note.* Marked correlations are significant at $p < .05000$ and graduated * $p < .05$, ** $p < .01$, *** $p < .001$.

***Experiencing Cyberbullying and the Educational Functionality of the Family of Origin***

An analysis of the relationship between the educational functionality of the family of origin and the experience of cyberbullying clearly indicates that the quality of the family environment is one of the most important factors protecting young people from electronic violence. The correlation results reveal a consistent tendency: the higher the family function-

ality, the lower the frequency of experiencing almost all forms of cyberbullying analysed. Moreover, these relationships are not only numerous but in many cases also show a high level of statistical significance, which confirms their importance in interpreting the phenomenon.

The strongest negative correlations relate to harassment, cyberstalking, and the overall indicator of experiencing cyberbullying. This means that young people growing up in highly functional families are much less likely to experience prolonged verbal aggression, persistent harassment, or multiple forms of electronic violence. It can be assumed that family functionality — including elements such as emotional support, adequate boundaries, clear rules, constructive communication and cohesive bonds — promotes the development of social skills and emotional regulation, which protect against victimisation in peer relationships. A stable family environment can also build self-esteem and interpersonal confidence, which can reduce the risk of a young person becoming a target of aggression.

Statistically significant correlations also include forms of violence such as revealing secrets, happy slapping, denigration, exclusion, hacking, flaming, and sexting. Although the strength of these correlations is lower than in the case of harassment or cyberstalking, their direction remains consistent – each of these forms more often affects people from less functional families. This indicates that parenting dysfunction, manifested in a lack of support, normative chaos or poor-quality bonds, may increase susceptibility to various forms of electronic aggression. Families with low functionality often fail to provide young people with adequate models of emotion regulation or opportunities to safely disclose problems, which can make it difficult to deal with conflicts or threats in the digital environment (Table 7).

**Table 7**

*Experiencing various forms of cyberbullying and the educational functionality of the family of origin*

| | | **functionality** |
|---|---|---|
| harassment | Spearman's *rho* | **-0.260 ***** |
| | *p*-value | < .001 |
| impersonation | *rho* | -0.077 |
| | *p* | 0.325 |
| outing | *rho* | **-0.155*** |
| | *p* | 0.047 |
| cyberstalking | *rho* | **-0.261***** |
| | *p* | < .001 |
| happy slapping | *rho* | **-0.226 **** |
| | *p* | 0.003 |
| denigration | *rho* | **-0.196*** |
| | *p* | 0.011 |
| exclusion | *rho* | **-0.219 **** |
| | *p* | 0.005 |

| | | **functionality** |
|---|---|---|
| hacking | *rho* | **-0.181*** |
| | *p* | 0.020 |
| flaming | *rho* | **-0.236 **** |
| | *p* | 0.002 |
| sexting | *rho* | **-0.215 **** |
| | *p* | 0.006 |
| experiencing cyberbullying | *rho* | **-0.284 ***** |
| | *p* | <.001 |

*Note.* Marked correlations are significant at $p$ <.05000 and graduated * $p < .05$, ** $p < .01$, *** $p < .001$.

The statistical significance of the relationship between the general categories of the educational functionality of the family of origin and the frequency of experiencing cyberbullying was also confirmed by the chi-square test ($\chi^2 = 17.3$, $p = 0.002$). This result clearly indicates that differences in the level of victimisation are related to the level of educational functionality (Table 8). This means that the family environment is an important factor regulating their safety in the digital space. Deficits in these areas can lead to increased vulnerability to electronic aggression, both interpersonal and technical. The results emphasise the need to take the family environment into account in preventive and intervention measures aimed at protecting young people from cyberbullying.

**Table 8**

*The correlation between the educational functionality of the family of origin and the frequency of experiencing cyberbullying*

| | **value** | ***df*** | ***p*** |
|---|---|---|---|
| $\chi^2$ | 17.3 | 4 | 0,002 |
| N | 165 | | |

## Discussion and Conclusion

The research conducted has revealed cyberbullying to be a dynamic, complex and multidimensional phenomenon, strongly linked to both the socio-cultural context and the individual resources of young people and the functioning of their families (Barlińska *et al*., 2018; Bartkowicz & Chudnicki, 2019; Pyżalski, 2012; Waligóra-Huk, 2015). In the study group, the most common forms of cyberbullying were harassment (60.6% of respondents reported experiences of varying frequency) and sexting (57.6%), followed by experiences with flaming (44.2%), exclusion (43.6%), cyberstalk-

ing (42.4%), outing (39.4%), and denigration (34.5%). The least common forms were hacking (33.9%), impersonation (28.5%) and happy slapping (21.2%). The results are consistent with other research reports (Naukowa i Akademicka Sieć Komputerowa – Państwowy Instytut Badawczy [NASK], 2019, 2023; Twardowska-Staszek & Zych, 2019; Waligóra-Huk, 2015).

A comparative analysis of data from 2020 and 2023 indicates that experiences of cyberbullying have undergone certain changes following the COVID-19 pandemic, which is also confirmed by the *Nastolatki 3.0* [Teenagers 3.0] reports (NASK, 2019, 2023). The results indicate a high percentage of responses declaring no experience of cyberbullying, which is also reflected in other studies of this population (Czopek, 2024). Although in many areas the percentage of students not experiencing electronic violence has increased, at the same time, there has been a noticeable increase in chronic forms, occurring *often* and *constantly*. Cyberbullying, therefore, affects smaller groups of young people who experience it more permanently and intensely. This is particularly true of behaviours such as flaming, exclusion, or outing, which further reinforce the destructive role of the digital environment in peer relationships.

The sociodemographic analysis used showed that basic structural variables — such as age, place of residence, family financial status or parents' education — have limited predictive value. However, studies have shown a clear positive correlation between age and sexting, which is confirmed in the literature on the development of intimate relationships in adolescence (Barabas, 2019; Bębas, 2015; Kacprzak, 2015). In turn, lower family income was associated with more frequent experiences of exclusion and outing. However, the overall pattern indicates that cyberbullying affects young people regardless of their social background, confirming its widespread and transversal nature.

The results of the study revealed differences in experiences of cyberbullying depending on gender. Despite a similar overall level of exposure, girls were more likely to experience violence that violated their personal dignity and intimacy – especially denigration, outing and sexting, and these forms were more likely to be persistent. These results are consistent with the report by the Helsinki Foundation for Human Rights (Smętek & Warso, 2017). Boys, on the other hand, were more likely to encounter overt and confrontational aggression, such as flaming, exclusion, or intense online conflicts.

In turn, an analysis of personality traits indicates that selected individual psychosocial resources may have a protective role in the context of digital threats. Agreeableness, conscientiousness, and stability were associated with a lower frequency of experiencing many forms of cyberbullying, suggesting that interpersonal skills and the ability to regulate emotions reduce the risk of victimisation. Openness to experience was found to be a factor increasing the propensity to engage in sexting, confirming the selective character of this trait, as confirmed by the results of studies on young people's exploratory behaviour in the digital space (Barabas, 2019; Kacprzak, 2015).

However, the most clear and consistent conclusion from the research is the key role of the functional parenting of the family of origin. The results of the correlation and chi-square test confirm that a well-functioning family environment, based on emotional support, stability, clear rules, and constructive communication, provides a strong protective function against various forms of cyberbullying. Students from highly functional families are significantly less likely to experience electronic violence, both incidental and chronic, while deficits in family functioning increase vulnerability to conflictual and destructive interactions online. This result is definitely confirmed in the literature (Fanti *et al*., 2012; Helweg-Larsen *et al*., 2012; Knol-Michałowska, 2012; Kwiatkowski & Jurczyk-Romanowska, 2018; Pyżalski, 2013).

The phenomenon of cyberbullying among young people requires a multifaceted approach that takes into account both the technological and psychosocial contexts. The results of the study indicate that effective prevention should include parallel measures: strengthening students' social and emotional competencies, building mature and safe family environments, and developing awareness of digital threats. The complexity of the mechanisms revealed emphasises the need to integrate the activities of schools, families and support institutions to create coherent strategies for protecting young people from violence in the digital environment.

## References

Barabas, M. (2019). Zachowania sekstingowe młodzieży [Sexting behaviour among young people]. *Edukacja – Technika – Informatyka, 3*(29), 164–169. https://doi.org/10.15584/eti.2019.3.24

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 help in situations of peer cyberbullying from the students' perspective]. *Dziecko Krzywdzone. Teoria, Badania, Praktyka, 17*(4), 82–115.

Bartkowicz, Z., & Chudnicki, A. (2019). Cyberprzemoc w opiniach uczniów szkół średnich [Cyberbullying in the opinions of secondary school pupils]. *Journal of Education, Technology and Computer Science, 28*(2), 264–269. https://doi.org/10.15584/eti.2019.2.39

Bębas, S. (2015). Sexting – nowe zagrożenie wśród dzieci i młodzieży [Sexting – a new threat among children and young people]. *Labor et Educatio, 3*, 431–444.

Borkowska, A., (2019). *Cyberprzemoc – włącz blokadę na nękanie* [Cyberbullying – activate the harassment block]. NASK Państwowy Instytut Badawczy. https://cyberprofilaktyka.pl/publikacje/Poradnik_cyberprzemoc_www.pdf

Czopek, N. K. (2024). Nasilenie cyberprzemocy wśród uczniów szkół średnich w roli sprawcy, ofiary i świadka tego zjawiska [The prevalence of cyberbullying

among secondary school pupils as perpetrators, victims and witnesses of this phenomenon]. *Annales Universitatis Mariae Curie-Skłodowska. Sectio J, Paedagogia-Psychologia, 37*(4), 21–43. https://doi.org/10.17951/j.2024.37.4.21-43

Erikson, E. H. (1997). *Dzieciństwo i społeczeństwo* [Childhood and society]. Dom Wydawniczy REBIS.

Fanti, K., Demetriou, A., & Hawa, V. (2012). A longitudinal study of cyberbullying: Examining risk and protective factors. *European Journal of Developmental Psychology, 9*(2), 168–181. https://doi.org/10.1080/17405629.2011.643169

Finkelhor, D., Mitchell, K. J., & Wolak, J. (2000). *Online victimization: A report on the nation's youth.* National Center for Missing and Exploited Children.

Helweg-Larsen, K., Schütt, N., & Larsen, H. (2012). Predictors and protective factors for adolescent internet victimization: Results from a 2008 nationwide Danish youth survey. *Acta Paediatrica, 101*(5), 533–539. https://doi.org/10.1111/j.1651-2227.2011.02587.x

Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? Bullying experiences in cyberspace. *Journal of School Health, 78*, 496–505. https://doi.org/10.1111/j.1746-1561.2008.00335.x

Kacprzak, K. (2015). Rola nowych mediów w randkowaniu adolescentów [The role of new media in adolescent dating]. *Przegląd Pedagogiczny, 1*, 317–331.

Kania, J. (2020). Dzieci i młodzież szkolna wobec agresji i przemocy słownej w internecie [Threats to School Children by Hate Speech on the Internet]. *Zarządzanie Mediami, 8*(1), 1–13. https://doi.org/10.4467/23540214ZM.19.017.11612

Knol-Michałowska, K. (2012). Rola rodziny w interwencji i profilaktyce zagrożeń w internecie [The role of the family in intervention and prevention of online risks]. *Studia Edukacyjne, 23*, 301–327.

Kowalski, R. M., Limber, S. P., & Agatson, P. W. (2008). *Cyberbullying: Bullying in the digital age*. Blackwell Publishing.

Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review, 34*(1), 44–53. https://doi.org/10.1016/j.cpr.2013.10.007

Kwiatkowski, P. (2016). Resiliencja rodziny jako źródło pozytywnej adaptacji młodzieży [Family resilience as a source of positive adaptation among young people]. *Wychowanie w Rodzinie, 13*(1), 311–343. https://doi.org/10.23734/wwr20161.311.343

Kwiatkowski, P., & Jurczyk-Romanowska, E. (2018). Funkcjonalność wychowawcza rodziny a ryzykowna aktywność młodzieży w Internecie [The upbringing functionality of the family and online risk behaviours of young persons]. *Wychowanie w Rodzinie, 18*(2), 379–399. https://doi.org/10.34616/wwr20182.379.399

Kwiatkowski, P., & Jurczyk-Romanowska, E. (2022). A retrospective measure of the quality of family upbringing – a proposition of a new tool. *Wychowanie w Rodzinie, 28*(3), 13–28. https://doi.org/10.34616/wwr.2022.3.013.028

Mysior, R. (2013). Bullying tradycyjny a cyberbullying. Przejawy agresji elektronicznej wśród uczestników czatu internetowego [Traditional bullying and cyberbullying. Manifestations of electronic aggression among internet chat participants]. In P. Plichta & J. Pyżalski (Eds.), *Wychowanie i kształcenie w erze cyfrowej* (pp. 159–180). Regionalne Centrum Polityki Społecznej.

NASK Państwowy Instytut Badawczy. (2019). *Nastolatki 3.0: Raport z ogólnopolskiego badania uczniów* [Teenagers 3.0: Report from a nationwide survey of school pupils]. NASK. https://cyberprofilaktyka.pl/publikacje/RAPORT_NASTOLATKI_3_ONLINE_.pdf

NASK Państwowy Instytut Badawczy. (2023). *Nastolatki 3.0: Raport z ogólnopolskiego badania uczniów i rodziców* [Teenagers 3.0: Report from a nationwide survey of school pupils and parents]. NASK. https://cyberprofilaktyka.pl/badania/Thinkstat_RAPORT_nastolatki-3_0_ONLINE.pdf

Porębski, L. (2014). Gorzki smak technologii: Nowe formy przemocy jako konsekwencja rewolucji informacyjnej [The bitter taste of technology: New forms of violence as a consequence of the information revolution]. *Ethos, 27*(2), 299–313. https://doi.org/10.12887/27-2014-2-106-16

Pyżalski, J. (2012). *Agresja elektroniczna i cyberbullying jako nowe ryzykowne zachowanie młodzieży* [Electronic aggression and cyberbullying as new risky behaviours among young people]. Impuls.

Pyżalski, J. (2013). Rodzina i szkoła a przeciwdziałanie zaangażowaniu młodych ludzi w ryzykowne zachowania online [Family and school in counteracting young people's involvement in risky online behaviour]. *Dziecko Krzywdzone. Teoria, Badania, Praktyka, 12*(1), 99–109.

Smętek, J., & Warso, Z. (2017). *Cyberprzemoc wobec kobiet w sieci: Raport* [Cyberbullying against women online: Report]. Helsińska Fundacja Praw Człowieka.

Sorokowska, A., Słowińska, A., Zbieg, A., & Sorokowski, P. (2014). Polska adaptacja testu Ten Item Personality Inventory (TIPI) – TIPI-PL – wersja standardowa i internetowa [Polish adaptation of the Ten Item Personality Inventory (TIPI) – TIPI-PL – standard and online versions]. WrocLab, Instytut Psychologii, Uniwersytet Wrocławski.

Śledziewski, A. (2016). *Przestępstwo znęcania się w kontekście przemocy w rodzinie* [The offence of abuse in the context of domestic violence]. Uniwersytet w Białymstoku.

Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior, 26*, 277–287. https://doi.org/10.1016/j.chb.2009.11.014

Twardowska-Staszek, E., & Zych, I. (2019). Bullying i cyberbullying wśród dzieci i młodzieży: Analiza porównawcza wyników badań prowadzonych w Polsce

i Hiszpanii [Bullying and cyberbullying among children and young people: A comparative analysis of research findings from Poland and Spain]. *Studia Paedagogica Ignatiana, 22*(3), 115–137. https://doi.org/10.12775/SPI.2019.3.006

Waligóra-Huk, A. (2015). *Cyberprzemoc wśród młodzieży ze szkół wiejskich* [Cyberbullying among rural school youth]. Wydawnictwo Uniwersytetu Śląskiego.

Waszyńska, K. (2015). W (nie)rzeczywistej relacji z Innym, czyli miłość i seks w cyberprzestrzeni [In (un)real relationships with the Other, or love and sex in cyberspace]. *Studia Edukacyjne, 34*, 197–210. https://doi.org/10.14746/se.2015.34.12

Wojtasik, Ł. (2009). Przemoc rówieśnicza z użyciem mediów elektronicznych – wprowadzenie do problematyki [Peer violence using electronic media – an introduction to the issue]. *Dziecko Krzywdzone. Teoria, Badania, Praktyka, 8*(1), 1–5.