Volume 1, Number 3, 2025 pp. 40-47

Open Access: https://e-journal.samsarainstitute.com/jipsh/index

CREATING A SAFE SCHOOL ENVIRONMENT IN THE DIGITAL **ERA: BEHAVIORAL MODIFICATION STRATEGIES IN** PREVENTING CYBERBULLYING

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ARTICLE INFO

Article History:

Naskah Masuk : 4 Juni 2025 Naskah Direvisi : 10 Juli 2025 Naskah Disetujui: 17 Juli 2025 Tersedia Online : 21 Juli 2025

Keywords:

Cyberbullying, **Behavior** Modification, Students

Kata Kunci:

Cyberbullying, Modifikasi Perilaku, Pelajar



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Cyberbullying is a form of psychological violence that occurs through digital media and has become increasingly prevalent among students. This study aims to examine behavior modification strategies for preventing cyberbullying. This review employs a literature-based approach, analyzing articles published between 2015 and 2024. The findings indicate that cyberbullying has distinct characteristics compared to conventional bullying, particularly in terms of method, intensity, and psychosocial impact. Factors influencing both perpetrators and victims include individual psychological traits, family dynamics, peer pressure, and the school climate. Effective prevention involve responsive counseling-based interventions, strengthening of digital literacy, and collaboration between schools, families, and communities. This research recommends the development of value- and technology-based guidance programs as a preventive and promotive effort to create a safe and empathetic school environment.

ABSTRAK

A B S T R ACT

Cyberbullying merupakan bentuk kekerasan psikologis yang terjadi melalui media digital dan semakin marak di kalangan pelajar. Penelitian ini bertujuan untuk mengkaji strategi modifikasi perilaku dalam mencegah cyberbullying. Kajian ini menggunakan pendekatan literature review pada artikel yang 2015-2024. dipublikasikan antara tahun Hasil menunjukkan bahwa cyberbullying memiliki karakteristik yang berbeda dibandingkan dengan bullying konvensional, baik dari sisi modus, intensitas, maupun dampak psikososialnya. Faktorfaktor yang mempengaruhi perilaku pelaku dan korban meliputi karakteristik individu, dinamika keluarga, tekanan teman sebaya, serta iklim sekolah. Strategi pencegahan yang efektif mencakup intervensi berbasis bimbingan konseling yang responsif, penguatan literasi digital, serta kolaborasi antara sekolah, keluarga, dan komunitas. Penelitian ini merekomendasikan perlunya pengembangan program bimbingan berbasis nilai dan teknologi sebagai upaya preventif dan promotif dalam menciptakan lingkungan sekolah yang aman dan berempati.

I. INRODUCTION

In the digital era like today, the development of information and communication technology media has brought significant changes in various aspects of life. The presence of various social media and digital platforms such as Instagram, Facebook, WhatsApp, Tiktok, X, Threads, and YouTube has become an inseparable part of modern society's daily life (Nurhanudin & Kartimi, 2024). Digital media not only provides many conveniences and fast accessibility but also changes individuals' ways of thinking in establishing interpersonal relationships and building social identity (McQuail, 2011).

The convenience of communication, interaction, and accessibility offered by digital platforms has driven a transformation in the social structure and culture of society (Kizilhan & Bal Kizilhan, 2016). However, the rapid development of social media and digital platforms has also presented challenges to social interaction patterns, such as the tendency towards social isolation, the spread of fake news, and the decline in the quality of face-to-face interactions (Aritonang et al., 2024). This situation has also had a real impact on students, such as cyberbullying (Chukwuere, 2021) (Fazry & Apsari, 2021).

Cyberbullying is defined as a deliberate aggressive act carried out through electronic media, such as text messages, social media, or online forums, that is repeated by an individual or group against a victim who has difficulty defending themselves (Slonje et al., 2013). Cyberbullying refers to bullying or harassment carried out through digital platforms with the intention of hurting, degrading, or intimidating the victim online (Berguer, 2015).

Data from the Pew Research Center (2022) shows that around 59% of teenagers in the United States have experienced cyberbullying, with various forms ranging from verbal harassment, rumor spreading, to threats. Meanwhile, in Indonesia, a survey by the Indonesian Internet Service Providers Association (APJII) (2023) revealed that 45% of students admitted to being victims of cyberbullying, with Instagram, TikTok, and WhatsApp being the most frequently used platforms by the perpetrators.

The psychological impact of cyberbullying should not be underestimated. Victims often experience anxiety, depression, lowered self-esteem, and in extreme cases, may have tendencies to harm themselves or commit suicide (Ningrum & Amna, 2020). Additionally, the long-term effects of cyberbullying, such as difficulties in building social relationships and a decline in academic performance, also pose serious concerns (Kowalski & Limber, 2013).

In the context of education, cyberbullying presents a serious challenge for educators, particularly in the field of Guidance and Counseling (BK), specifically counselors. This is because cyberbullying, as a form of bullying through digital media, can occur not only outside of school but also often begins from interactions among students within the school environment (Bauman, 2015). In the BK framework, addressing cyberbullying becomes crucial, as counselors are on the front lines in identifying signs of cyberbullying, such as social anxiety, decreased motivation to learn, and lower academic performance (Hutson, 2016). Furthermore, the goal of BK services is to create a safe and supportive school environment that fosters student development (Hidayatul Ulum et al., 2025).

Various previous studies have discussed the negative impacts of cyberbullying on students and the importance of school interventions. However, most of these studies still focus on describing the phenomenon and prevalence data, while the concrete strategies for behavior modification through the role of school counselors have not been explored in depth. Moreover, the approach of digital literacy as a preventive measure is still rarely discussed in direct relation to guidance and counseling services. In fact, strengthening digital literacy and behavior modification strategies are crucial elements in the holistic efforts to prevent and address cyberbullying.

This study aims to comprehensively analyze the factors that cause cyberbullying among students, describe the impacts of cyberbullying, and formulate effective behavior modification strategies to address it. Thus, this article is expected to provide both theoretical and practical contributions to the education sector, particularly in supporting the

implementation of guidance and counseling services that are responsive to the challenges of the digital era.

II. METHODS

This study uses a literature review or descriptive-qualitative approach. This method is chosen to collect, evaluate, and analyze various previous studies that discuss the phenomenon of cyberbullying and behavior modification strategies as intervention efforts within the educational context. A literature review is a systematic method for identifying, assessing, and interpreting all relevant research on a specific topic (Snyder, 2019).

The literature review process is carried out through five main stages. First, relevant literature related to the research focus is searched using the Publish or Perish software, with data sources from the Google Scholar and Science Direct databases. The collected literature includes scientific articles that contain information relevant to the research theme. Second, a selection process is conducted on the found literature based on time criteria, specifically publications from the last five years (2015–2024). The third stage involves analysis, synthesis, and evaluation of the selected literature. Fourth, the researcher draws conclusions based on the results of the literature review. Finally, in the fifth stage, the findings from the literature review are discussed in-depth to gain a more comprehensive understanding.

From the selection process, a total of 36 articles that met the criteria were obtained. These articles consist of 20 international articles and 16 national articles, sourced from journals indexed in Scopus, DOAJ, and Sinta. The thematic focus of the articles includes: (a) the prevalence and forms of cyberbullying, (b) the psychological and social impacts on students, (c) digital literacy strategies in the school context, and (d) the role of guidance and counseling services in preventing cyberbullying.

III. RESULT AND DISCUSSION

Definition of Cyberbullying

Cyberbullying, derived from the words "cyber" (internet) and "bullying" (harassment), conceptually refers to a form of bullying that occurs through digital media using electronic devices such as smartphones, computers, or tablets. Cyberbullying can be understood as online bullying, bullying that takes place in the digital world, the virtual world, or even on social media platforms. This bullying can occur through text messages, emails, instant messaging, online games, websites, chat rooms, or social networking sites (Kowalski & Limber, 2013).

According to Hinduja and Patchin (2023), cyberbullying is a deliberate and repeated aggressive behavior carried out by an individual or group against a victim who is in a position of difficulty in defending themselves. This definition is reinforced by the World Health Organization (WHO, 2022), which emphasizes three key elements of cyberbullying: (1) the intention to harm, (2) the use of digital technology as the medium, and (3) an imbalance of power between the perpetrator and the victim. This differs from conventional bullying, which occurs in face-to-face interactions in the real world.

The fundamental difference between conventional bullying and cyberbullying lies in the media used and the context of the interactions involved. Conventional bullying typically occurs in face-to-face interactions at school, social environments, or other public places, where aggressive or bullying actions happen directly, whether through physical, verbal, or social means (Cho & Lee, 2018). In contrast, cyberbullying takes place in the virtual world or digital space, where aggression can occur anytime and anywhere, without the constraints of time or location. Additionally, anonymity is a distinguishing factor, as cyberbullying is often carried out anonymously, which makes the perpetrator feel safer from direct consequences (Adellia et al., 2024).

The forms of cyberbullying are varied in practice. According to Willard (2022), there are several main types of cyberbullying: (1) flaming, or online insults through harsh comments

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on social media; (2) denigration, or spreading rumors and false information to damage the victim's reputation; (3) exclusion, or deliberately excluding someone from a digital group; (4) impersonation, or impersonating someone's identity with the intention of harming the victim; and (5) doxing, which refers to the sharing of personal information without consent (Saripah & Pratita, 2018).

Table 1. Comparison between Cyberbullying and Conventional Bullying

Aspect	Cyberbullying	Conventional Bullying
Media/Channel	Through digital devices: social media, instant messaging, email, online games	Face-to-face interactions at school, home, or public places
Time and Place	Can happen 24/7, not limited by time or place	Limited to specific times and places (e.g., during school hours)
Perpetrator's Identity	Often anonymous or using fake accounts	Usually known directly by the victim
Spread	Can spread very quickly to a wide audience via the internet	Localized and limited to the victim's social circle
Evidence	Documented (screenshots, message history, uploads)	Hard to prove, as it doesn't always leave a physical or digital trace
Psychological Impact	Deeper: social anxiety, depression, isolation, even suicidal thoughts	Anxiety, fear, trauma, but usually can be monitored directly by the environment
Environmental Response	Tends to be slow because it's not visible directly	Can be immediately responded to by teachers/parents who witness it
Prevention Measures	Requires digital literacy, technology control, online safety policies	Interpersonal approach: character building, teacher supervision
Role of School Counselor	Digital education, online counseling, digital footprint assessment	Direct intervention through individual/group counseling services
Behavior Examples	Insulting through comments on social media, spreading photos without consent	Hitting, mocking directly, pushing, excluding

Factors Causing Cyberbullying Among Students

The phenomenon of cyberbullying among students is influenced by a variety of complex factors, including individual aspects, family and social environment, as well as the school environment. Cyberbullying among students is significantly influenced by the psychological characteristics of individuals. Perpetrators of cyberbullying tend to have low levels of empathy and difficulties with emotional regulation, while victims often exhibit traits of low self-esteem and social isolation (Martínez-Monteagudo et al., 2024). The aspect of anonymity on social media creates an "online disinhibition effect," where perpetrators feel free from social consequences due to the concealment of their identity (Wang et al., 2024). This phenomenon is exacerbated by perceptual distortion through digital features such as filters and avatars, which can obscure one's true identity (Nghaimesh et al., 2023).

In addition, the family and social environment, such as parenting styles and a lack of supervision, positively correlates with the tendency toward cyberbullying behavior

(Istiqomah et al., 2024). On the other hand, warm family relationships and open communication serve as protective factors (Mesch, 2009). Families that provide good emotional support and apply positive discipline can help prevent bullying behavior (Moad & Rianto, 2024). The dynamics of friendships and peer groups are also triggering factors for cyberbullying, where the pressure to conform influences both positive and negative behaviors and attitudes. Friendships that have norms supporting aggressive behavior can trigger cyberbullying behaviors. Close friendships with individuals involved in bullying, both online and offline, can encourage a student to participate in bullying or become a victim themselves (Juvonen & Gross, 2008).

A school climate that promotes mutual respect and involves all parties in bullying prevention tends to reduce the occurrence of cyberbullying. Clear school policies and firm actions by the school in addressing bullying cases are crucial in creating a safe and supportive environment for all students (Kowalski & Limber, 2013). The role of teachers and counselors is vital in early detection. They can take a preventive approach by educating students about the negative impacts of cyberbullying, as well as helping them develop healthy social skills to prevent both online (cyberbullying) and offline bullying.

Impact of Cyberbullying on Students Psychological and Emotional Impact of Cyberbullying

Students who become victims often experience deep feelings of depression, ongoing anxiety, and sleep disturbances. Cyberbullying has a significant psychopathological impact on victims. Victims of cyberbullying are 2.5 times more likely to experience severe depression symptoms compared to non-victims (Bansal et al., 2024). Victims of cyberbullying tend to feel more isolated and unsafe, which can trigger mental health issues such as depression and anxiety. The feelings of helplessness and constant stress also increase the likelihood of sleep disorders in victims, which in turn worsens their mental health (Dennehy et al., 2020).

Academic Impact of Cyberbullying

The psychological impact of cyberbullying not only affects the mental well-being of students but can also have repercussions on their academic performance. Students who are victims often experience a decline in academic achievement due to disruptions in their concentration and motivation to study. Victims of cyberbullying tend to struggle with focusing on school tasks and exhibit lower motivation to perform well, as a result of feelings of anxiety, depression, or fear of further threats in the online world (Berguer, 2015).

Social Impact of Cyberbullying

Victims often experience social isolation, both in the online world and in everyday life. They may feel ostracized or ignored by their peers, which worsens their feelings of loneliness and social insecurity. This sense of isolation can lead to difficulties in interpersonal relationships, both with peers and family members, ultimately affecting their ability to interact with others in a healthy manner (Juvonen & Gross, 2008).

Behavior Modification Strategies to Address Cyberbullying Among Students Prevention and Education

A comprehensive digital literacy program has proven effective in reducing incidents of cyberbullying by equipping students with an understanding of digital ethics and responsible online navigation skills. Programs that integrate three main components—(1) awareness of digital risks, (2) development of online empathy, and (3) responsive strategies to cyberbullying—have been shown to reduce cyberbullying cases by up to 35% within school environments (Fonseca & Borges-Tiago, 2024). Furthermore, awareness campaigns involving the entire school community can create an environment that is intolerant of cyberbullying.

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Parents play a crucial role in monitoring and guiding social media usage, while teachers and counselors need to be trained to recognize the early signs of cyberbullying and provide appropriate interventions (Dietrich et al., 2023).

Guidance and Counseling (BK) Approach to Address Cyberbullying

School counselors play a key role in providing emotional support and offering appropriate interventions to help students cope with their experiences of cyberbullying. Counselors are responsible not only for providing emotional support but also for designing and implementing intervention strategies that can help reduce the negative impact of cyberbullying on students' psychological well-being. In this context, according to (Bauman, 2015) the three main functions of counselors are: (1) providing psychological first aid to victims, (2) conducting suicide risk assessments, and (3) developing individualized intervention plans

The Role of Schools in Addressing Cyberbullying

Schools play a crucial role in creating a safe and supportive environment for all students. One of the initial steps that should be taken is the development of a clear and firm anti-cyberbullying policy (Nurfitriyanti et al., 2024). he development of this policy should involve aspects of prevention, response to incidents, as well as recovery for victims and rehabilitation for perpetrators.

Digital Literacy for Cyberbullying Prevention

The research conducted by (Anzari et al., 2021) found that initial data showed 72% of the 50 surveyed students did not understand online privacy settings, while 65% reported having experienced or witnessed cases of cyberbullying on online learning platforms. This situation prompted the implementation of a digital media literacy outreach program, focusing on student council members as change agents. The intervention program was designed with a multimodal approach, combining interactive counseling, case simulation workshops, and training on creating educational content. The main topics covered included an in-depth understanding of the forms of cyberbullying, analysis of psychological and legal impacts, and social media ethics practices through role-playing scenarios. The evaluation results showed a significant improvement in participants' understanding, with only 45% recognizing the concept of cyberbullying in the pre-test, compared to 89% in the post-test after the intervention.

IV. CONSLUSION

Cyberbullying is a social phenomenon that has become increasingly complex amidst the rapid development of digital technology, especially among students. The causes of cyberbullying are multidimensional, encompassing individual characteristics such as low empathy and poor emotional regulation, family conditions and parental supervision, as well as the influence of the social environment and school climate. Its impacts include emotional disturbances (such as depression, anxiety, and social isolation), a decline in academic performance, and disruptions in the interpersonal relationships of the victims.

To address this issue, a holistic behavior modification strategy is essential. An integrated digital literacy approach, firm school policies, and the active role of counselors through responsive guidance and counseling services are key components in the prevention and handling of cyberbullying. In this context, counselors serve as primary agents for early detection, psychological intervention, and digital ethics education for students. Therefore, strong collaboration between schools, families, and the community is needed to foster a healthy, safe, and empathetic digital culture. This research is expected to serve as both a conceptual and practical foundation for developing counseling services based on digital literacy, as a strategic step in addressing bullying challenges in the digital age.

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