Exploring the Condition of Cyberbullying Victimization on Adolescents' Self-Esteem: A Cross-Sectional Study

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ABSTRACT
Background: Experiencing cyberbullying victimization has psychological repercussions on an individual's self-concept, particularly affecting self-esteem and leading adolescents to withdraw from social interactions.
Purpose: This study aim was to explore the conditions of adolescents' experiences as victims of cyberbullying and their self-esteem.
Methods: Employing a cross-sectional design, this research encompasses a population of all teenagers from two high schools in East Java, Indonesia, totaling 678 individuals. The sample size of 144 was determined using purposive sampling based on predetermined criteria. The utilized questionnaires include the Demographic Questionnaire, Revised Cyber Bullying Inventory (RCBI), and Coopersmith Self-Esteem Inventory. Descriptive analysis used to provide an overview of the results of the exploration of adolescent victims of cyberbullying and their self-esteem.
Results: The most common forms of cyberbullying experienced are harassment, flaming and exclusion. Teenagers who are victims of cyberbullying are mostly in the moderate category, totaling 87 people (60.42%) and most of their self-esteem is in the moderate category, totaling 71 people (49.31%).
Conclusion: This underscores the importance of mental health nurses intervening to enhance the self-esteem of adolescents grappling with cyberbullying victimization, ultimately aiming for the attainment of stable self-esteem.

Keywords: adolescents, cyberbullying, incidence, mental health

BACKGROUND

Experiencing cyberbullying can lead adolescents to encounter psychosocial issues like shame, helplessness, and a sense of worthlessness due to negative evaluations or social exclusion by peers. This, in turn, can reinforce negative self-perceptions and impact self-esteem (Chu et al., 2018). The act of cyberbullying puts immense pressure on the victim, inducing stress (Arslan, 2021). Negative peer assessments and challenges in emotional regulation often prompt victims to withdraw from social interactions, resulting in feelings of loneliness and ultimately leading to depression (Jiang et al., 2020).

The repercussions of cyberbullying on the well-being of children and adolescents are profound, manifesting in various negative emotions such as stress, sadness, anger, frustration, shame, lonelines, fear, depression, thoughts of revenge, and attempted suicide (Cabrera & Larrañaga, 2020; Kashy-Rosenbaum & Aizenkot, 2020; Peng et al., 2019; Rey et al., 2020; Tuyen et al., 2019; L. Wang, 2021). Given the adverse effects experienced by victims, mental health nurses play a crucial role in delivering services, offering consultation, and providing education related to self-esteem, an integral component of adolescent self-concept.

Cyberbullying encompasses various forms of online harassment, including sending aggressive messages, sharing embarrassing images, making intimidating phone calls, impersonating victims, and posting disparaging comments on social media or websites (Grifoni et al., 2021; Olga et al., 2019). As outlined by (Chadwick, 2014) types of cyberbullying include harassment, involving the repeated sending of offensive messages; denigration, spreading insulting and untrue information; flaming, engaging in online quarrels with offensive language; impersonation, using someone else's online identity to post cruel material; masquerading, pretending to be someone else; pseudonyms, keeping one's identity secret; outing and trickery, forwarding personal communications to public spaces; and cyberstalking, repeatedly sending threatening messages.

As per (Coopersmith, 1959) cited by (Mruk, 2013) self-esteem is the outcome of an individual's self-evaluation, reflected in attitudes toward oneself. This evaluation conveys a sense of acceptance or rejection and gauges the individual's belief in their capabilities, significance, success, and value based on personal standards and values. Cyberbullying significantly affects self-assessment, a crucial aspect of one's well-being. Healthy self-esteem is foundational to life satisfaction, influencing emotions and behaviors. Cyberbullying, however, leads to diminished self-esteem and self-confidence, contributing to anxiety. Some victims may internalize blame, viewing the aggressor's actions as justified due to their own perceived inadequacy. (Coopersmith, 1959) components of self-esteem encompass Power, reflecting the ability to regulate behavior and gain recognition; Significance, involving care, attention, and affection from others; Acceptance, characterized by warmth and positive responses from the social environment; Virtue, adherence to moral, ethical, and religious standards; and Competence, the display of high performance to meet achievement needs. Positive adherence to these components fosters positive self-esteem.

As cyberbullying continues to impact various aspects of adolescents' lives, including self-assessment, understanding the relationship between the intensity of their involvement as victims and the corresponding effects on self-esteem becomes imperative. By examining the nuanced connections between cyberbullying victimization and self-esteem, this research seeks to contribute valuable insights that can inform interventions and support mechanisms tailored to promote the mental health and resilience of adolescents facing the challenges of cyberbullying in the digital age. The increasing prevalence of cyberbullying among adolescents poses a significant concern for mental health and well-being. Therefore, this

study aim was to investigate the correlation between adolescents' experiences as victims of cyberbullying and their self-esteem.

OBJECTIVE

The purpose of this study is to exploration the conditions of adolescents' experiences as victims of cyberbullying and their self-esteem.

METHODS

Design and Samples

This study employed a cross-sectional design to explore the conditions of adolescents' experiences as victims of cyberbullying and their self-esteem. In January 2023, the study was carried out in two senior high schools situated in East Java, Indonesia, involving a total of 678 adolescents. After the initial screening process by Revised Cyber Bullying Inventory (RCBI), 337 adolescents were identified as meeting the inclusion criteria. The sampling approach employed was purposive, considering specific criteria such as active engagement with social media (utilizing platforms like WhatsApp, Instagram, Facebook, or others), experiencing cyberbullying victimization within the preceding six months (either without responding to perpetrators or responding to them), and the willingness of adolescents aged 15–19 to participate. The sample size determination employed Slovin's formula, resulting in a final sample of 144 adolescents, consisting of 13 males and 131 females.

Research isntrument and Data Collection

Researchers, accompanied by three research assistants, conducted the data collection process. Questionnaires were distributed to each class in the selected schools, following prior permission obtained from the school principals. Prior to participating in the research, students received an explanation about the informed consent process, and parental consent was secured. Subsequently, students proceeded to fill out the questionnaires as part of the data collection procedure.

The study employed three questionnaires to gather data on demographic characteristics, the Revised Cyberbullying Inventory II (RCBI II), and the Coopersmith Self-Esteem Inventory. Before initiating the research, the authors conducted assessments for translation, validity, and reliability due to the absence of a published Indonesian version of these instruments. Two proficient translators fluent in both languages conducted the initial translation of the instruments from English to Bahasa Indonesia. Subsequently, a panel of experts, including two psychologists, meticulously reviewed both the translated questionnaire and its reverse translation. After completing the translation process, pilot assessments for validity and reliability were carried out in 30 participants. In the construct validity test using Pearson correlation, it was observed that all items had an r count value surpassing the r table value, confirming their validity. Additionally, Cronbach's alpha testing was performed, revealing reliability coefficients of 0.90 for RCBI II and 0.68 for the Self-Esteem Inventory. Consequently, the questionnaire was considered suitable for implementation in this study.

Demographic characteristics

In this study, demographic characteristics served as independent variables and encompassed age, gender, duration of social media usage, the number of owned social media accounts, and daily hours spent on social media.

Revised Cyberbullying Inventory II (RCBI II)

To evaluate students' engagement in cyberbullying and identify the types of cyberbullying, a questionnaire adapted from the Revised Cyberbullying Inventory II (RCBI II), originally developed by (Topcu & Erdur-Baker, 2010), was employed. The Revised Cyberbullying Inventory comprised 36 statements assessing experiences as victims of

cyberbullying, and it was administered over a two-week period in July 2021. Respondents rated the frequency of their experiences using a scoring system: 0 (never), 1 (1 time), 2 (2 – 3 times), and 3 (more than 3 times). The Cyberbullying Victims Screening Questionnaire demonstrated validity, with an observed correlation (r count) exceeding the critical value (r table) at 0.312. Additionally, the reliability of the cyberbullying victim screening questionnaire was estimated using Cronbach's alpha, resulting in a coefficient of 0.90.

Coopersmith Self-Esteem Inventory

The self-esteem questionnaire utilized in the study incorporated adapted and developed components from the Coopersmith Self-Esteem Inventory, specifically the power, significance, virtue, and competence questionnaires. These adaptations were conducted by(Hills et al., 2011), resulting in questionnaires consisting of 6, 9, 8, and 9 statements, respectively. Respondents assigned numerical scores to each statement based on the following scale: 1 = never, 2 = sometimes, 3 = often, and 4 = always. The validity of the self-esteem questionnaire was confirmed, as evidenced by an r count value exceeding the critical r table value (0.312). Additionally, the questionnaire demonstrated reliability, as indicated by a Cronbach's alpha coefficient of 0.68.

Data Analysis

Data processing using SPSS version 26 (IBM Corp. 2019). Demographic information, characteristics data, and adolescents' engagement in cyberbullying, level of cyberbullying victims and their self-esteem are depicted through descriptive statistics, distribution frequency tables.

Ethical Consideration

Approval of the research's ethical feasibility was obtained from health research ethics commission, Faculty of Nursing, University of XXX with number 2726-KEPK on December 22, 2022. As a form of research ethical consideration, the researcher ensures that data recording is carried out anonymously and gives informed consent to respondents and parents of respondents.

RESULTS

Table 1. Respondents' Demographic Characteristics (n = 144)

Variables	f	%
Gender		
Man	13	9.0
Woman	131	90.9
Grade		
X	30	20.8
XI	60	41.7
XII	54	37.5
Social Media		
WhatsApp	144	100
Facebook	96	66.7
Instagram	87	60.4
Twitter	15	10.4
TikTok	58	40.3
Internet Usage Duration		
Carry out a task		
<1 Hour	63	43.8
2-3 Hour	74	51.4
4-5 Hour	7	4.9
Communication		
<1 Hour	46	31.9
2-3 Hour	63	43.8
4-5 Hour	29	20.1
> 5 Hour	6	4.2
Entertainment		
<1 Hour	32	22.2
2-3 Hour	55	38.2
4-5 Hour	49	34.0
> 5 Hour	8	5.6
Other		
<1 Hour	60	41.7
2-3 Hour	38	26.4
4-5 Hour	37	25.7
> 5 Hour	9	6.2

As per Table 1, among the 144 respondents, the majority were females [131 (90.97%)], and most were in grade XI [60 (41.7%)]. This observation is consistent with the demographic composition of the school where the study was conducted, where a significant portion of the student population is female. Additionally, concerning the number of social media platforms owned, each respondent typically had 2-3 types of social media, including WhatsApp [144 (100%)], Facebook [96 (66.7%)], and Instagram [87 (60.4%)]. Fifty-five respondents (38.2%) reported using the internet for 2-3 hours per day for entertainment, while 60 respondents (41.7%) used the internet for 2-3 hours per day for other purposes. Furthermore, adolescents exhibited diverse uses of more than two social media platforms and

the internet, such as completing assignments, entertainment, communication, and other activities, with an average daily internet usage time ranging from 2 to 3 hours. This implies that, on average, individuals spend approximately 8-12 hours per day on the internet.

Table 2. Type of Cyberbullying in Cyberbullying Victims (n = 144)

Type Of Cyberbullying	f
Flaming	60
Harrashment	109
Denigration	41
Impersonation	24
Outing	48
Exclusion	85
Cyberstalking	37

Based on Table 2, the distribution of cyberbullying incidents across different types of cyberbulliying, harassment was the most prevalent, occurring 109 times, followed by exclusion with 85 occurrences. Flaming and outing were reported 60 and 48 times, respectively. Denigration was documented in 41 instances, while cyberstalking and impersonation had 37 and 24 occurrences, respectively.

Table 3. Cyberbullying and Self Esteem among Participants (n = 144)

Variables	Category	f	%
Victims Of Cyberbullying	Low	57	39.58
	Moderate	87	60.42
	High	0	0
Self esteem	Low	5	3.47
	Moderate	71	49.31
	High	68	47.22

Table 3 showed that the majority of respondents are categorized as moderate for both "Victims of Cyberbullying" (60.42%) and "Self-esteem" (49.31%). Remarkably, none of the respondents reported high levels of victimization in cyberbullying. Furthermore, a significant portion of respondents (47.22%) exhibited high self-esteem, while only a small percentage experienced low self-esteem (3.47%).

DISCUSSION

Characteristics of respondents involved as victims of cyberbullying

The findings of this study are consistent with the demographic characteristics of the adolescents in the school under investigation, where the majority were female. This alignment corresponds with previous research, which indicated a higher prevalence of cyberbullying victimization among females (Kashy-Rosenbaum & Aizenkot, 2020). This implies a more frequent occurrence of cyberbullying incidents among females compared to males(Kowalski et al., 2019; M.-J. Wang et al., 2019). However, it's noteworthy that despite this trend, there was no statistically significant difference based on gender in the present study. Interestingly, research conducted in one of Pakistan's major cosmopolitan cities revealed a higher frequency of male teenagers experiencing cyberbullying (Rafi, 2019).

These variations underscore the complex and context-dependent nature of cyberbullying dynamics across different regions and demographics.

Social media use among cyberbullying victims

Moreover, the study findings, when considering the number of social media platforms owned, indicate that respondents typically have 2-3 types of social media accounts, including WhatsApp, Facebook, and Instagram. The majority of respondents reported spending 2-3 hours per day on the internet for both entertainment and other purposes. This suggests that, on average, individuals allocate approximately 8-12 hours daily to internet usage. These patterns align with previous research that establishes a connection between issues related to internet and social media usage and instances of cyberbullying victimization (Yoon et al., 2019). This association underscores the relevance of understanding online behaviors and their potential impact on individuals' vulnerability to cyberbullying incidents.

As indicated in prior research, the widespread accessibility and use of social media have introduced new opportunities for online aggression (Craig et al., 2020). Numerous studies have elucidated that a high level of social media use and active engagement on these platforms increases the risk of becoming a victim of cyberbullying, although several other factors also contribute to individuals experiencing cyberbullying (Chan et al., 2019; Coopersmith, 1959; Giumetti & Kowalski, 2022; Gül et al., 2019; Rasheed et al., 2020). The relationship between personal communication technologies and social control is intricate, involving multifaceted interactions among fashion, bodies, social groups, and technology. The intensity of social media use is intricately linked to the complexity of communication, aligning with research findings that highlight the multifaceted relationship between personal communication technology and social control.

Cyberbullying and self-esteem levels among cyberbullying victims

Based on the results of research using the Revised Cyber Bullying Inventory, there are several types of cyberbullying, namely Harrashment, Exclusion, Flaming, Cyberstalking, Outing, Impersonation and Denigration. Adolescents who fall victim to cyberbullying often grapple with self-esteem challenges, experiencing emotions such as shame, helplessness, and a sense of worthlessness due to negative evaluations by peers or social exclusion (Albikawi, 2023; Extremera et al., 2018; Sarfika et al., 2023). These negative experiences can further contribute to reinforcing adolescents' unfavorable self-perceptions related to self-esteem. The presence of unfavorable peer evaluations and difficulties in emotional regulation may prompt victims to withdraw from social interactions, leading to feelings of loneliness and isolation. Cybergossip refers to the utilization of digital technologies to make evaluative comments about third parties (Romera et al., 2021).

Cyberbehavior, encompassing activities like cybergossip, serves various groups by contributing to positive aspects of social learning. It can inform group members about operations, facilitate learning about navigating social situations for success or avoiding failure, and provide positive gossip models to emulate. While cybergossip holds the potential to strengthen groups and enhance interpersonal relationships, it can also be employed in ways detrimental to cybercoexistence, negatively impacting an individual's reputation and even being used with malicious intent, as observed in cyberbullying.

Self-esteem plays a crucial role in the developmental process of adolescents and warrants careful attention. The establishment of self-esteem is intricately linked to emotional well-being. The participation of adolescents as victims of cyberbullying has repercussions on their negative emotions (Cabrera & Larrañaga, 2020; Kashy-Rosenbaum & Aizenkot, 2020; Peng et al., 2019; Tuyen et al., 2019), subsequently influencing self-esteem. Adolescents who can maintain a positive self-evaluation possess stable self-esteem. Instances of posting cruel

and embarrassing content on social media contribute to a type of cyberbullying that significantly impacts self-esteem, as the digital footprint on social media platforms is accessible to many people over an extended period. Furthermore, the persistent delivery of intimidating messages can evoke feelings of sadness, powerlessness, and contribute to a negative self-evaluation in teenagers(Alyami et al., 2017; Mohsen, 2017).

The study's findings carry significant implications for supporting adolescents who have encountered cyberbullying. Psychosocial support is crucial, and the involvement of mental health professionals, educators, and parents is vital in aiding victims to navigate the emotional aftermath and strengthen their self-esteem. Educational programs focusing on the consequences of cyberbullying and promoting positive online behavior are warranted. Schools and communities can benefit from awareness campaigns to educate both adolescents and adults about the potential harm caused by cyberbullying. Additionally, there is a need to enhance online safety measures, including parental guidance, privacy settings, and responsible social media use, to empower adolescents with the skills and knowledge to protect themselves in the digital realm.

CONCLUSION

Adolescents who are victims of cyberbullying generally experience several types of cyberbullying. In this regard, mental health nurses need to pay attention to provide treatment for self-esteem in adolescents related to the cyberbullying incidents they experience. This is because no matter how low cyberbullying is, it will have an impact on negative emotions in adolescents related to self-esteem.

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CONFLICTS OF INTEREST

None

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