

The Relationship Of Cyberbullying And Self-Harm Behavior Among Adolescents

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Abstract

Cyberbullying phenomenon among adolescents have been one of the significant outcome of 21st-century technological advancements. The widespread use of social media in cyberspace has made it easier for perpetrators to engage in various forms of digital harassment, which can lead individuals to conduct self-harm. Therefore, the researcher observes the potential of cyberbullying has a significant impact on self-harm. Thus, it is necessary to conduct research linking the two. This study employs an analytical observational research type with a cross-sectional approach. The population for this research consists of adolescents at SMPN 1 Purwokerto, with sampling conducted using a non-probability sampling method, specifically consecutive sampling. The results indicate that the highest role of respondents in cyberbullying is as victims (56%). The frequency distribution data shows that the highest intensity of involvement in cyberbullying falls into the mild category, with 111 respondents (74%). The number of self-harm doers is 100 respondents (66%). The study provides evidence of a positive correlation between cyberbullying incidents and self-harm behavior among adolescents.

Keywords: Adolescents; cyberbullying; self-harm

INTRODUCTION

Cyberbullying phenomenon among adolescents have been one of the significant outcome of 21st-century technological advancements. Adolescents have the opportunity to engage in online interactions due to their easy access to technological devices such as smartphones and social media platforms. The ease of concealing one's identity online increases the likelihood of cyberbullying behavior, as perpetrators can attack without fear of being detected. Additionally, the stage of identity formation and self-exploration during adolescence makes them more vulnerable to social pressures and self-image issues, which can be exacerbated by cyberbullying. Cyberbullying among adolescents has become a significantly increasing phenomenon. (1)

According to data collected from previous studies on a global scale, the incidence rate of cyberbullying is known to be 6% and is expected to continue rising. (2) Cyberbullying incidents are also

emerging in Indonesia. It is important to note that internet users in Indonesia increase by 61.26 million each year. Adolescents are the largest group of users, with ages ranging from 13 to 18 years. Among this group, 75.50% are high school students, comprising 70.54%, and middle school students, comprising 48.53%. (3)

Cyberbullying among adolescents is not a new issue. Considering its prevalence both globally and nationally in Indonesia, cyberbullying has become a common occurrence. The widespread use of social media in cyberspace facilitates perpetrators in committing various forms of digital harassment. (1) One study indicates that the most common form of cyberbullying behavior experienced by victims is flaming, accounting for 29%. This is followed by harassment, denigration, and impersonation, each with a score of 6%, and finally, trickery and cyberstalking, each with a score of 5%. (4)

The occurrence of such behaviors brings about various changes in the victims. Many eventually experience disruptions in their lives, starting with feelings of self-shame, loss of self-confidence, anxiety, and depression. Ultimately, all these factors can lead to a desire to self-harm as a way of coping with the existing depression.(1) Another study suggests that engaging in self-harm is believed to provide a sense of relief or release from negative emotions or thoughts.(5)

Self-harm behavior among early adolescents is often seen as a way to alleviate feelings they cannot express. Adolescents who engage in self-harm without suicidal intent still want to live and use self-inflicted pain to cope with their suffering. However, self-harm carries risks beyond physical injury; it can also endanger their lives.(6)

Common forms of self-harm behavior among adolescents include cutting the outer parts of their bodies, scratching, hitting themselves, and lightly banging their heads.(1) On the other hand, suicide is a form of self-harm behavior that is more aggressive and repeated. The most common methods of suicide are hanging, followed by repeatedly banging the head, jumping from heights, and stabbing vital organs, all of which can result in loss of life.(7)

Viewed from global incidence rates between 2010 and 2021, self-harm among adolescents can be categorized based on the frequency of injuries: mild injury frequency (12.6%) followed by moderate injury frequency (11.6%).(8) The data shows that the effects of self-harm are very dangerous. This clearly warrants special attention from us as a society. Both cyberbullying and self-harm are interrelated and share similar connections. Self-harm is often driven by social factors, with the belief that friendships are based on utility frequently serving as a reason for engaging in self-harm.(9)

Therefore, researchers recognize that cyberbullying has a significant impact on self-harm. It is essential to conduct studies linking the two. Research on this relationship has not yet been conducted in central Java, which is why the researchers chose to undertake this study.

METHODS

This study employs an analytical observational research type with a cross-sectional approach. The population for this research consists of adolescents at SMPN 1 Purwokerto. Sampling was conducted using a non-probability sampling method, specifically consecutive sampling, in accordance with the inclusion criteria (subjects willing to fill out the Google Form and use gadgets) and exclusion criteria (those unwilling to fill out the Google Form and not using gadgets), conducted between May and June 2024. The final number of respondents in this study was 151.

The data collection tools used in this study include two questionnaires. The cyberbullying questionnaire is the Cyberbullying and Online Aggression Survey Instrument, adapted from the research by Hinduja & Patchin, which then validated and tested for reliability by Yuniarti and Nur in 2021.(10) The original version had 18 items, but after further adjustments by the researcher, the final version contained 15 items with a Cronbach's $\alpha = 0.837$. The self-harm questionnaire used is the Self-Harm Inventory (SHI) in Indonesian, validated and tested for reliability by Kusumadewi in 2019.(11) The original version had 22 items, but after adjustments by the researcher, the final version also contained 15 items with a Cronbach's $\alpha = 0.837$.

This study received approval from the Medical and Health Research Ethics Committee of Universitas Muhammadiyah Purwokerto, under number KEPKK/FK/036/V/2024. Data were collected using a Google Form distributed through teachers and shared via WhatsApp groups. Subsequently, data processing and analysis were conducted using Microsoft Excel and JASP, employing chi-square analysis.

RESULTS

Characteristics of the Respondents

Based on the research data, the characteristics of the respondents are categorized according to demographic data, including gender, age, and school grade.

Table 1. Demographic Data of Respondents (n=151)

Variable	Frequency	Percentage (%)
Gender		
Male	61	40
Female	90	60
Age		
12	4	3
13	51	34

14	80	53
15	16	11
School Grade		
7	51	34
8	100	66

Table 1 shows that the gender variable in this study is predominantly Female (60%) compared to Male (40%). The most common age among respondents is 14 years old, with a percentage of 53%. The number of respondents in 8th Grade (66%) is nearly twice that of 7th Grade (34%).

Frequency Distribution of the Highest Items for Perpetrators and Victims of Cyberbullying

Based on the research data obtained, the following presents the frequency distribution of the highest items for the roles of perpetrators and victims of cyberbullying.

Table 2. Frequency Distribution of the Highest Items for Perpetrators and Victims of Cyberbullying (n=151)

Cyberbullying item	Frequency	(%)
Perpetrator		
I bully people on social media		
Never	124	82
Once	13	9
Several Times	14	9
Often	0	0
Victim		
Someone is spreading rumors/issues/gossips about me online		
Never	81	54
Once	24	16
Several Times	34	23
Often	12	8

Table 2 shows that the highest frequency item for cyberbullying perpetrators is bullying others online, with (82%) of respondents answering "never," (9%) answering "once," (9%) answering "several times," and (0%) answering "often." For the highest frequency item among *cyberbullying* victims, it is someone spreading rumors/issues/gossip about the respondent online, with (54%) of respondents answering "never," (16%) answering "once," (23%)

answering "several times," and (8%) answering "often."

Table 3. Description of Cyberbullying and Self-harm Respondents (n=151)

Description	Frequency	(%)
Intensity of Involvement in Cyberbullying		
Never	36	24
Mild	111	74
Moderate	4	3
Severe	0	0
Roles in Cyberbullying		
Perpetrators	7	5
Victims	85	56
Both	25	17
Neither	34	23
Roles in self-harm		
Doers	100	66
Non-Doers	51	34

Table 3 shows that the highest role of respondents in *cyberbullying* is as "victims" (56%), followed by those who are "neither" (perpetrators nor victims) (23%), "both" (perpetrators and victims) (17%), and the lowest as "perpetrators" (5%). The frequency distribution data indicates that the highest intensity of involvement in *cyberbullying* falls into the "mild" category, with 111 respondents (74%). The second-highest category is "never" (24%), followed by "moderate" (3%), and the lowest is "severe" (0%). Among respondents in *self-harm* roles, there are 100 "doers" (66%) compared to 51 "non-doers" (34%).

Relationship between Cyberbullying and Self-Harm

Based on the research data obtained on cyberbullying and self-harm, the following are the findings of the conducted tests.

Table 4. Relationship between Cyberbullying and Self-harm (n=151)

Cyberbullying	Self-harm		p Value	Odds Ratio
	Yes	No		
Yes	18	16	0,007	2,864
No	33	84		

Table 4 shows that cyberbullying incidents are related to self-harm behavior, with a significance

level of $p < 0.05$ and shows that cyberbullying incidents are proven to increase self-harm behavior.

DISCUSSION

Regarding demographics, the study showed that females dominated the sample with 90 respondents (60%), compared to 61 males (40%). This does not necessarily indicate that female adolescents are more involved in cyberbullying as either perpetrators or victims. Previous research in MTs Al-Islam Limpung Batang showed higher rates of cyberbullying among male adolescents compared to females.(12) Another study also reported that male adolescents are at a higher risk of being cyberbullying perpetrators than females.(13)

The data also indicates that 14-year-olds (53%) and 8th graders (66%) have the highest involvement in cyberbullying. This supports earlier research conducted in middle schools in DKI Jakarta, which found the highest involvement at age 13 and in 7th grade, showing no significant difference in age characteristics(14). Another study found that 14-year-olds and 8th graders were most involved in cyberbullying(15)

Out of the respondents, 124 stated they had never engaged in cyberbullying, 13 admitted to doing it once, and 14 reported doing it multiple times. The highest reported form of victimization was having someone spread rumors/gossip about them online, with 81 respondents indicating it never happened to them, 24 said it happened once, 34 mentioned it happened several times, and 12 reported it happened often. From the responses, it is evident that more respondents identified as victims rather than perpetrators, with a low intensity of cyberbullying involvement. This aligns with another study that found similar patterns of cyberbullying, where perpetrators would spread memes targeting victims for entertainment without considering the victims' feelings(16)

Cyberbullying is identified when both the roles of perpetrator and victim are found in online bullying. The results indicate that there are more victims than perpetrators. This, of course, has a greater impact on the mental health of adolescent victims. Victims tend to become passive and find it difficult to trust others. Previous research on seven respondents showed that they experienced feelings of resentment, felt ashamed when posting photos on social media, became quiet in class, and lost

concentration in their studies. These are the psychological impacts of cyberbullying on the victims.(17)

The impact of cyberbullying often manifests in various forms. It does not only cause anxiety but extends beyond that. Anxiety itself is a mental health disorder that leads to feelings of panic and difficulty in adapting to the environment. When someone feels highly unworthy and embarrassed, they experience discomfort to the point where they want to vent those feelings. Victims often take out these feelings on themselves by self-harming to achieve a sense of relief and dispel the distressing emotions. A subsequent impact of this behavior is the development of suicidal ideation, which frequently goes unnoticed.(18)

The involvement of respondents in self-harm is quite significant. According to the research data, 100 respondents identified themselves as self-harm doers. This aligns with previous research, which found that respondents engaging in severe self-harm had an average score of 0.85, with a maximum score of 4. This indicates that respondents have a low overall tendency to engage in self-harm.(19)

This research was conducted to determine the relationship between cyberbullying incidents and self-harm behavior among adolescents. The results show that there is a correlation between cyberbullying incidents and self-harm behavior among adolescents. The one-way alternative hypothesis is also proven, with the odds ratio indicating that cyberbullying incidents increase the likelihood of self-harm behavior by 2 times among adolescents. This finding is supported by previous research, which states that factors such as positive friendships, which are unrelated to cyberbullying, can reduce the risk of self-harm behavior. However, it has been proven that adolescents who experience negative psychological effects from involvement in cyberbullying have an increased potential for self-harm behavior.(20)

CONCLUSION

The conducted research proves a positive correlation between cyberbullying incidents and self-harm behavior among adolescents. This is demonstrated by a significant p-value of 0.007 and an Odds Ratio indicating that cyberbullying increases the likelihood of self-harm behavior by 2 times. The one-way alternative hypothesis is accepted, confirming that cyberbullying incidents

can increase the rate of self-harm behavior in adolescents. Therefore, the conclusion of this study is that the higher the incidence of cyberbullying, the higher the self-harm behavior among adolescents.

SUGGESTION

The results of this research are expected to serve as a reference for future researchers studying cyberbullying and self-harm. During the research process, the researcher realized that the impact of cyberbullying is not limited to causing self-harm but also includes many other factors. Therefore, it is recommended for future researchers to explore risk factors that influence this relationship, such as trauma history, abuse, low social support, and pre-existing mental health issues.

For educational institutions like schools, there is a need for prevention and intervention strategies. This can be achieved by forming an independent committee within the school environment, which would assist in decision-making, especially on matters related to students. The school committee should be neutral and include not only teachers but also parent representatives. This committee is expected to provide solutions and early interventions for bullying in both the real world and online. Additionally, recommendations for clinical medicine involve implications for public policy and clinical practice in the field.

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