

THE RELATIONSHIP BETWEEN CYBERBULLYING AND DAS LEVELS (Depression, Anxiety, Stress) AMONG ADOLESCENTS IN SALATIGA

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ABSTRACT

Cyberbullying is a form of bullying that commonly affects adolescents. One of the psychological impacts experienced by victims of cyberbullying includes depression, anxiety, and stress. This study aimed to examine the relationship between cyberbullying and levels of depression, anxiety, and stress (DAS) among adolescents in Salatiga City. A quantitative method with a descriptive correlational approach was used. Data were collected using two stages of questionnaires: the first was the Olweus Bully/Victim Questionnaire-Revised Version (OBVQ-R) to assess exposure to cyberbullying, and the second was the Depression, Anxiety, Stress Scale 42 (DASS-42) to measure psychological symptoms. A total of 151 adolescents participated in the study, conducted from January 17–29, 2024. Statistical analysis using the Chi-Square test showed significant relationships between cyberbullying and depression (p = 0.000), anxiety (p = 0.001), and stress (p = 0.000). Conclusion: Cyberbullying is associated with varying levels of depression, anxiety, and stress in victims. Due to its persistent and hard-to-avoid nature, it causes significant emotional distress among affected adolescents.

ABSTRAK

Cyberbullying merupakan bentuk bullying yang sangat rentan terjadi pada usia remaja. Salah satu dampak yang dapat terjadi pada korban cyberbullying adalah dampak psikologis yaitu depresi, ansietas dan stres. Tujuan penelitian menganalisis hubungan cyberbullying dengan tingkat DAS (Depression, Anxiety, Stress) pada remaja di Kota Salatiga. Metode yang digunakan dalam penelitian ini menggunakan metode kuantitatif dengan menggunakan pendekatan analisis korelasi. Instrumen penelitian menggunakan tahapan 2 kuesioner dimana kuesioner pertama menggunakan kuesioner Olweus Bully/Korban-Versi Revisi (OBVQ-R) untuk mengukur paparan cyberbullying dan kuesioner kedua menggunakan kuesioner Depression, Anxiety, Stress Scale 42 (DASS 42) untuk mengukur tingkat depresi, ansietas dan stres. Responden penelitian ini berjumlah 151 remaja dan penelitian dilakukan pada 17-29 Januari 2024. Hasil Penelitian uji statistik uji Chi-Square Test pada remaja menunjukkan bahwa ada hubungan antara cyberbullying dengan tingkat depresi, ansietas dan stres. Dengan hasil cyberbullying terhadap depresi p-value = 0,000, cyberbullying terhadap ansietas p-value = 0,001 dan cyberbullying terhadap stres p-value = 0,000. Kesimpulan Cyberbullying menyebabkan munculnya depresi, ansietas dan stres pada korban yang pernah mengalami cyberbullying dengan tingkatan yang berbeda-beda, oleh karena sifatnya yang terjadi terus-menerus dan sulit dihindari membuat korban mengalami gangguan emosional.

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INTRODUCTION

Violent acts repeatedly committed by someone who is physically and mentally stronger against someone weaker are known as bullying. Bullying incidents can occur anywhere and anytime, such as at school or in the workplace (Novan Ardy Wiyani, n.d.). One form of bullying that involves the use of technological devices to harass victims is known as cyberbullying. Cyberbullying refers to actions intended to humiliate or harass individuals through social media platforms (Barseli, Ifdil, Mudjiran, Efendi, 2020). Perpetrators of cyberbullying aim to harm others and may attack victims in various ways, such as by sending cruel messages or distributing disturbing images to a wide audience, resulting in the victim feeling ashamed and humiliated (Rifauddin, 2016). Whether bullying occurs face-to-face or through digital means, both have negative impacts on victims and perpetrators alike. Cyberbullying may pose a more serious problem than traditional bullying because it can occur continuously for 24 hours or more, with the potential to be seen by a wider audience via the internet. In contrast, conventional bullying is limited to certain times and locations (Afifa et al., 2022). Although social media has positive effects on social and educational development, it can also be misused by individuals to engage in harassment or bullying if not used wisely (Byraktar, Machackova, 2014).

The internet has made access to information, learning, games, and social interactions easier than ever. According to Hootsuite data (Riyanto, 2023), global internet users reached 4.95 billion in 2022, with Indonesia accounting for 4.13% of that number (204.7 million users), marking a 1% increase from 2021. However, with this increase, the internet also brings the risk of misuse, including its use as a medium for bullying. According to UNESCO, between 5% and 21% of children and adolescents worldwide have experienced cyberbullying (Nani Afrida, 2019). In Indonesia, a 2020 UNICEF report revealed that 45% of 2,777 children aged 14–24 years had been victims of cyberbullying (Unicef, 2020). Although local data on cyberbullying in Salatiga is still limited, Central Java Statistics Agency recorded an increase in violence experienced by children and adolescents up to 18 years old—from 19 cases in 2022 to 31 cases in 2023, which includes cyberbullying (Badan Pusat Statistik Provinsi Jawa Tengah, 2025).

Adolescents are particularly vulnerable due to the biological, psychological, and social changes they undergo. This transitional phase from childhood to adulthood is marked by physical, cognitive, emotional, and social development (Rifauddin, 2016). Cyberbullying has been shown to cause trauma and inflict psychological harm, pain, and suffering on its victims (Zsila et al., 2018). Adolescents who are bullied online are at risk of developing emotional and mental disorders such as depression, anxiety, and stress (L Sam, Bruce, Agyemang, 2019).

From the perspective of nursing theory developed by Betty Neuman, each individual and group is a unique system with characteristics shaped by both internal and external environmental factors. Individuals and groups are dynamic systems influenced by stressors, which—whether known or unknown to them—can affect health stability across physiological, psychological, socio-cultural, and spiritual dimensions (Lilis Lestari, 2018). Cyberbullying directly impacts mental health by causing psychological trauma, which may lead to depression, anxiety, and stress. Such impacts can disrupt victims' quality of life over the long term. Hence, this study is expected to contribute to raising public awareness, particularly among adolescents (Olenik-Shemesh & Heiman, 2017).

Based on these observations, the research question posed is: Is there a relationship between cyberbullying and DAS (Depression, Anxiety, and Stress) levels among adolescents? Therefore, the aim of this study is to determine the relationship between cyberbullying and DAS levels in adolescents in Salatiga.

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METHOD

Type of Research

This study is a quantitative research with a descriptive correlational design. The correlational design was used to examine the extent of the relationship between variables. The variables in this study include cyberbullying (as the independent variable) and DAS level (Depression, Anxiety, and Stress) as the dependent variable.

Place and Time of Research

The research was conducted in junior high and senior high schools in Salatiga City. Data collection was carried out from January 17 to 29, 2024.

Population and Sample

The population in this study consisted of all junior and senior high school students in Salatiga City, totaling 14,688 students. The sample size was determined using the Slovin formula, resulting in 432 potential respondents. A quota sampling technique was then applied to ensure proportional distribution across schools. After an initial screening to identify respondents who met the criteria of having experienced cyberbullying, a total of 151 respondents were selected from various schools, representing both junior and senior high school students in Salatiga City. The response rate was approximately 34.95%, indicating that the data adequately represent the target population.

Data Collection

Data were collected using two questionnaires. The first was the Olweus Bully/Victim Questionnaire-Revised Version (OBVQ-R) developed by Olweus (1996–2000), consisting of 33 items. This questionnaire is used to assess experiences of bullying, whether as a perpetrator, victim, or witness. The response scale ranges from 0 (never), 1 (sometimes), 2 (often), to 3 (very often). Interpretation is based on the total score, with higher scores indicating greater exposure to bullying. The reliability of this questionnaire was confirmed with a Cronbach's alpha value of 0.81. The second instrument was the Depression, Anxiety, and Stress Scale 42 (DASS-42), developed by the Psychology Foundation of Australia and translated into Indonesian by Damanik E. This questionnaire consists of 14 items each for depression, anxiety, and stress, using a response scale of 0 to 3. The interpretation are: a. Depression: $\leq 9 =$ no depression, > 9 = depression, b. Anxiety: $\leq 7 =$ no anxiety, > 7 = anxiety, c. Stress: $\leq 14 =$ no stress, > 14 = stress. The reliability of the DASS-42 was also measured with a Cronbach's alpha of 0.81, confirming its suitability for assessing psychological conditions.

Data Analysis and Processing

Data were analyzed using the SPSS application with the Chi-Square test to determine the relationship between cyberbullying incidents and levels of depression, anxiety, and stress. The Chi-Square test was chosen because this study examined categorical variables only.

RESULT

A. Respondent Profile and Level of Cyberbullying

Respondent profile data describe the background characteristics of each participant, including age, gender, and education level. The level of cyberbullying experienced by adolescents in this study was measured using the Bully/Victim Questionnaire, with interpretation categorized into three levels: low, moderate, and high. This study involved 151 adolescent respondents who met the research criteria, specifically those who had been victims of cyberbullying. Respondents were aged 13 to 18 years and were enrolled in junior high and senior high schools in Salatiga City. The demographic distribution of respondents and the level of cyberbullying they experienced are presented in the following table:

Table 1 Frequency Distribution of Age, Gender, Education Level and Cyberbullying Incidents (n=151)

incluents (n=131)					
Age	Frequency	Percentage(%)			
Early Adolescence (11-14 Years)	53	35.1			
Mid Adolescence (15-17 Years)	85	56.3			
Late Adolescence (18-21 Years)	13	8.6			
Gender	Frequency	Percentage(%)			
Male	77	51			
Female	74	49			
Education Level	Frequency	Percentage(%)			
Junior High School	84	55.6			
Senior High School	67	44.4			
Cyberbullying Incidence	Frequency	Percentage(%)			
Low	144	95.4			
Medium	6	4.0			
High	1	0.6			

B. Level of Depression, Anxiety and Stress of Students

The levels of DAS (Depression, Anxiety, and Stress) among respondents were categorized into four groups: normal, mild, moderate, and high. These categories were based on the results obtained from 151 respondents using the DASS-42 questionnaire. The distribution of depression, anxiety, and stress levels among the participants is presented in the table below:

Table 2 Frequency Distribution of DAS Levels (Depression, Anxiety and Stress)

Table 2 Frequency Distribution of DAS Levels (Depression, Anxiety and Stress)					
DAS	INTERPRETASI	n = 151			
DAS	INTERFRETASI	f	%		
Depression	Normal	71	47.0		
_	Light	15	9.9		
	Medium	30	19.9		
	High	35	23.2		
Anxiety	Normal	69	45.7		
	Light	19	12.6		
	Medium	27	17.9		
	High	36	23.8		
Stres	Normal	58	38.4		
	Light	29	19.2		
	Medium	32	21.2		
	High	32	21.2		

C. The Relationship Between Cyberbullying and DAS

The relationship between cyberbullying and DAS (Depression, Anxiety, and Stress) levels was analyzed using the Chi-Square test with a significance level of 0.05. The test results showed the following outcomes:

Table 3 Chi-Square Test of Relationship between Cyberbullying and Stress

Chi-Square Tests (Stres)	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	27.297	6	0.000	-
Continuity Correction (a)	25.762	6	0.000	-
Likelihood Ratio	23.049	6	0.001	-
Fisher's Exact Test	-	-	-	0.000
Linear-by-Linear	14.701	1	0.000	-
Association				
Number of Valid Cases (N)	151			

Table 3 shows a significant relationship between cyberbullying and stress among respondents. This is indicated by a p-value less than 0.05, suggesting that cyberbullying is statistically associated with increased stress levels in adolescents.

Table 4 Chi-Square Test of Relationship between Cyberbullying and Anxiety

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	23.448	6	0.001	-
Continuity Correction (a)	21.562	6	0.001	-
Likelihood Ratio	21.202	6	0.002	-
Fisher's Exact Test	-	-	-	0.001
Linear-by-Linear	13.899	1	0.000	-
Association				
Number of Valid Cases (N)	151			

The results of the Chi-Square analysis presented in Table 4 indicate a significant relationship between cyberbullying incidents and anxiety levels. The p-value is less than 0.05 across multiple tests, including the Pearson Chi-Square, Likelihood Ratio, and Linear-by-Linear Association, demonstrating consistent and statistically significant findings. These results reinforce the conclusion that cyberbullying is closely associated with increased anxiety among adolescents.

Table 5 Chi-Square Test of Relationship between Cyberbullying and Depression

Test	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	24.328a	6	0.000	-
Continuity Correction (a)	22.617	5	0.000	-
Likelihood Ratio	21.641	6	0.001	-
Fisher's Exact Test	-	-	-	0.000
Linear-by-Linear	13.918	1	0.000	-
Association				
N of Valid Cases	151	-	-	-

The statistical test results presented in Table 5 show a highly significant relationship between cyberbullying and depression. This is evidenced by all significance values (p-values) being less than 0.05, indicating that adolescents exposed to cyberbullying are more likely to experience symptoms of depression.

Table 6. Cross tabulation of Chi-Square Test results between cyberbullying and DAS levels (Depression, Anxiety, Stress):

Cross Tabulation

Watershed Level	Pearson Chi- Square (χ^2)	df	Asymp. Sig. (2-sided)	Likelihood Ratio	Linear-by- Linear Association	N of Valid Cases
Stress	27.297	6	.000	23.049	14.701	151
Anxiety	23.448	6	.001	21.202	13.899	151
Depression	24.328	6	.000	21.641	13.918	151

Table 6 demonstrates a significant relationship between cyberbullying and DAS levels (Depression, Anxiety, and Stress), as indicated by Asymp. Sig. (2-sided) values consistently below 0.05 across all variables. Based on data from 151 valid respondents, these findings confirm a strong association between cyberbullying and the psychological dimensions measured, highlighting its impact on adolescent mental health.

DISCUSSION

Levels of Depression, Anxiety and Stress in Students

A total of 38.4% (n = 58) of respondents experienced normal stress levels. Meanwhile, 21.1% (n = 32) reported moderate stress and 21.2% (n = 32) experienced high stress. This indicates that the number of respondents experiencing moderate to high stress symptoms is relatively high and may be concerning. Adolescents who are victims of cyberbullying tend to feel threatened and depressed, which may trigger stress responses. This finding suggests that cyberbullying has a significant psychological impact on adolescents.

In terms of anxiety, 45.7% (n = 69) of respondents were in the normal category. However, 30.5% (n = 54) experienced mild to moderate anxiety, while 23.8% (n = 36) experienced high anxiety levels. These results indicate that cyberbullying has a negative impact, particularly anxiety, on the majority of respondents. This anxiety may arise from fear and insecurity caused by cyberbullying, which disrupts their mental well-being (Jalal et al., 2021).

Regarding depression, 47.0% (n = 71) of respondents were in the normal range. However, 23.2% (n = 35) experienced high levels of depression, 19.9% (n = 30) experienced moderate levels, and 19.2% (n = 29) experienced mild depression. Depression is often reported by adolescents who have been exposed to cyberbullying, particularly when they feel isolated or unable to cope with their negative emotions (Rifauddin, 2016). Regardless of its severity, depression can have long-term consequences and therefore must be taken seriously.

The relationship between cyberbullying and das

The results of the Chi-Square test showed that all p-values were less than 0.05, indicating a significant relationship between cyberbullying and levels of stress, anxiety, and depression. These findings are consistent with the results of a study by Syena (Syena et al., 2020), which concluded that cyberbullying negatively affects adolescent mental health. Cyberbullying can serve as a significant stressor, particularly during adolescence—a developmental stage marked by identity formation (Yulieta et al., 2021).

This study also found that poor psychological health resulting from cyberbullying affects various aspects of adolescents' lives, including their ability to learn, their relationships with peers and family, and their decision-making capacity (Rachmatan & Rizky Ayunizar, 2017). Preventive efforts such as health education programs about the impact of cyberbullying should be implemented in schools and communities. In addition, nursing interventions based on Neuman's theory may involve primary, secondary, and tertiary prevention strategies (Lilis Lestari, 2018).

According to Neuman's model, clients are viewed as open systems that respond to stressors from their environment (Lilis Lestari, 2018). The theory identifies three types of stressors: intrapersonal, interpersonal, and extrapersonal. In the context of this study, adolescents exposed to cyberbullying experience extrapersonal stressors, which originate from their external environment. Client variables in Neuman's model include physiological, psychological, socio-cultural, developmental, and spiritual aspects (Yunalia & Etika, 2020). Preventive efforts based on this model can be categorized into: Primary prevention, aimed at preventing exposure to stressors; Secondary prevention, which targets early treatment after exposure; and Tertiary prevention, to restore well-being and prevent relapse. Efforts to reduce cyberbullying among adolescents should include awareness campaigns and health education. For victims, protection and access to professional mental health services are essential so they can learn effective coping strategies to deal with depression, anxiety, and stress. Such interventions are crucial in preventing the development of more severe mental health disorders (Sari et al., 2020)

CONCLUSION AND SUGGESTION

Based on the results of the research, it can be concluded that there is a significant relationship between cyberbullying and DAS levels (Depression, Anxiety, and Stress) among adolescents in Salatiga. These findings indicate that victims of cyberbullying tend to experience psychological symptoms that negatively impact their mental well-being. This study has certain limitations. The use of self-report instruments presents a potential risk of response bias, as some respondents may not report their experiences of cyberbullying or psychological symptoms honestly or accurately. Additionally, the

relatively low incidence of severe cyberbullying among respondents limits the ability to fully assess its deeper psychological impact on individuals exposed to high levels of cyberbullying. For future research, it is recommended to adopt experimental or longitudinal research designs to explore the causal relationship between cyberbullying and DAS levels. Such designs would provide a better understanding of how continued exposure to cyberbullying may lead to long-term mental health issues. Further studies are also encouraged to evaluate the effectiveness of various nursing interventions for victims of cyberbullying, including individual therapy, group counseling, and family-based educational programs. These interventions could support adolescents in managing emotional responses and developing effective coping strategies to prevent the escalation of mental health problems.

REFERENCES

- Afifa, S., Yelfiza, Y., & Merina, Y. (2022). Cyberbullying Found in Commentary on English Educational Youtube Channel for High School Students. *Edumaspul: Jurnal Pendidikan*, *6*(1), 717–722. https://doi.org/10.33487/edumaspul.v6i1.2039
- Badan Pusat Statistik Provinsi Jawa Tengah. (2025). *Jumlah Anak (Usia 0-18 Tahun) Korban Kekerasan Per Kabupaten/Kota di Provinsi Jawa Tengah, 2022-2024*. https://jateng.bps.go.id/id/statistics-table/2/MTAyNiMy/jumlah-anak-usia-0-18-tahun-korban-kekerasan-per-kabupaten-kota-di-provinsi-jawa-tengah.html
- Barseli, Ifdil, Mudjiran, Efendi, Z. (2020). *Pengembangan modul bimbingan dan konseling untuk pengelolaan stres akademik siswa.pdf* (pp. 72–78). Jurnal Konseling dan Pendidikan. https://doi.org/https://doi.org/10.29210/141700
- Byraktar, Machackova, S. (2014). Cyberbullying: The Discriminant Factors Among Cyberbullies, Cybervictims, and Cyberbully-Victims in a Czech Adolescent Sample. *Journal of Interpersonal Violence*, 30(18). https://journals.sagepub.com/doi/abs/10.1177/0886260514555006
- IDAI. (2018). *Cyberbullying*. Ikatan Dokter Anak Indonesia. https://www.idai.or.id/artikel/seputar-kesehatan-anak/cyberbullying
- Jalal, N. M., Idris, M., & Muliana. (2021). Faktor-Faktor Cyberbullying Pada Remaja. *Jurnal IKRA-ITH Humaniora*, 5(2), 152–153. https://ojs.upi-yai.ac.id/index.php/ikraith-humaniora/article/download/965/754
- L Sam, Bruce, Agyemang, A. (2019). Cyberbullying Victimization among High School and University Students in Ghana. *Deviant Behavior*, 40(11). https://www.tandfonline.com/doi/abs/10.1080/01639625.2018.1493369
- Lilis Lestari, R. (2018). *Falsafah dan teori keperawatan*. Pustaka Pelajar. https://balaiyanpus.jogjaprov.go.id/opac/detail-opac?id=304084
- Nani Afrida. (2019). UNICEF: 70% remaja dunia jadi korban kekerasan online Badan PBB menyerukan "aksi bersama" terhadap kekerasan online, mendesak semua orang "untuk bersikap baik." https://www.aa.com.tr/id/dunia/unicef-70-remaja-dunia-jadi-korban-kekerasan-online/1385034
- Novan Ardy Wiyani. (n.d.). Psikologi perkembangan anak usia dini: panduan bagi orang tua dan pendidik PAUD dalam memahami serta mendidik anak usia din. https://inlislite.uinsuska.ac.id/opac/detail-opac?id=13077
- Olenik-Shemesh, D., & Heiman, T. (2017). Cyberbullying Victimization in Adolescents as Related to Body Esteem, Social Support, and Social Self-Efficacy. *Journal of Genetic Psychology*, *178*(1), 28–43. https://doi.org/10.1080/00221325.2016.1195331
- Rachmatan, R., & Rizky Ayunizar, S. (2017). Cyberbullying Pada Remaja Sma Di Banda Aceh. *Jurnal Insight Fakultas Psikologi Universitas Muhammadiyah Jember* |, *13*(2), 67–79. https://www.researchgate.net/publication/324220775_CYBERBULLYING_PADA_REMAJA_S MA_DI_BANDA_ACEH/link/5ac5d2ad0f7e9b1067d4db84/download?_tp=eyJjb250ZXh0Ijp7Im ZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19
- Rifauddin, M. (2016). Fenomena Cyberbullying pada Remaja. *Khizanah Al-Hikmah*: *Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan, 4*(1), 35–44. https://doi.org/10.24252/kah.v4i1a3
- Riyanto. (2023). *Hootsuite (We are Social): Indonesian Digital Report 2023*. https://andi.link/hootsuite-we-are-social-indonesian-digital-report-2023/
- Sari, S. R. N., Nauli, F. A., & Utomo, W. (2020). Gambaran Perilaku Cyberbullying Pada Remaja Di

- Sman 9 Pekanbaru. *Jurnal Keperawatan Sriwijaya*, 7(2), 16–24. https://doi.org/10.32539/jks.v7i2.15240
- Syena, I., Hernawaty, T., BSI, A. S.-J. K., & 2020, undefined. (2020). Gambaran Cyberbullying pada Siswa di SMA X Kota Bandung. *Ejurnal.Ars.Ac.Id*, *VIII*(1), 88–96. http://ejurnal.ars.ac.id/index.php/keperawatan/article/view/120
- Unicef. (2020). Fakta-kunci-perundungan-di-Indonesia. https://www.scribd.com/document/559700353/Fakta-kunci-perundungan-di-Indonesia
- Yulieta, F. T., Syafira, H. N. A., Alkautsar, M. H., Maharani, S., & Audrey, V. (2021). Pengaruh Cyberbullying di Media Sosial Terhadap Kesehatan Mental. *De Cive: Jurnal Penelitian Pendidikan Pancasila Dan Kewarganegaraan*, 1(8), 257–263. https://doi.org/10.56393/decive.v1i8.298
- Yunalia, E. M., & Etika, A. N. (2020). Analisa kecerdasan emosional remaja tahap akhir berdasarkan jenis kelamin. *Jurnal Keperawatan Jiwa*, 8(4), 477–484.
- Zsila, Á., Orosz, G., Király, O., Urbán, R., Ujhelyi, A., Jármi, É., Griffiths, M. D., Elekes, Z., & Demetrovics, Z. (2018). Psychoactive Substance Use and Problematic Internet Use as Predictors of Bullying and Cyberbullying Victimization. *International Journal of Mental Health and Addiction*, 16(2), 466–479. https://doi.org/10.1007/s11469-017-9809-0