

The role of emotion regulation and empathy in students displaying cyberbullying

Mujidin¹, Sartini Nuryoto², Husnul Khotimah Rustam³, Alifiana Hildaratri², Daniel Ugih Echoh⁴

¹Faculty of Teacher Training and Education, Universitas Ahmad Dahlan, Indonesia

²Magister of Psychology, Universitas Ahmad Dahlan, Indonesia

³Faculty of Nurse and Midwifery, Institut Teknologi Kesehatan dan Sains Muhammadiyah Sidrap, Indonesia

⁴Faculty of Social Science, Universiti Malaysia Sarawak, Malaysia

Corresponding author: mujidin@psy.uad.ac.id

ARTICLE INFO

Article history

Received May 7, 2022

Revised January 30, 2023

Accepted February 10, 2023

Keywords

cyberbullying;
emotion regulation;
empathy.

ABSTRACT

Anxiety, anger, sadness, and other negative emotions are the harmful effect of bullying, especially in today's digital era. Many cases of bullying happen through social media, often associated with cyberbullying. Therefore, cyberbullying is increasingly common and requires control as early as possible. This study aims to identify the role of students' emotion regulation and empathy in cyberbullying behavior. The participants are 64 university students who tend to commit cyberbullying, chosen with the cluster random sampling technique. Three measurement tools, cyberbullying scale, emotion regulation scale, and empathy scale, were used in this study. Data were then analyzed with multiple linear regression analysis. Our finding reveals that emotion regulation significantly predicts cyberbullying, but empathy is not predicting cyberbullying. Emotion regulation allows students to keep their composure, control their words and action according to prevailing customs and norms and avoid showing aggression to people. Emotion regulation can help students to break the chain of cyberbullying.

Introduction

Bullying is one of the most common social problems worldwide, including in Indonesia. Bullying behavior is defined as acts of intimidation such as pushing, hitting, kicking, name-calling, teasing in a hurtful way, threats, gossiping, group exclusion, denying friendship, telling lies to isolate others intentionally, and aggression that makes the victim helpless (Dardiri et al., 2020). Cyberbullying is the most prominent social problem in the 21st century, which originates from digital media such as cell phones, computers, or tablets (Muralidharan & La Ferle, 2018). Cyberbullying is characterized by aggressive actions against individuals or groups who cannot defend themselves or are weak (Steffgen et al., 2011). The negative impact of cyberbullying is very distressing for most parties (Schultze-Krumbholz et al., 2016). Therefore, prevention and curation are needed for cyberbullying as an act of violence (Utomo et al., 2020)

In the 21st century, bullying has evolved into cybercrime via the internet or electronic devices. Threatening comments, accessing and misusing data, and distributing personal information on the internet without permission are all part of cyberbullying (Kowalski et al.,

2014). Cyberbullying is an act of oppression by sending or posting messages meant to criticize, offend, belittle, or intimidate someone through electronic or digital media (Alavi et al., 2015; van Geel et al., 2014). Cyberbullying includes posting harsh words, vulgarity, and insults to others; sending repeated malicious and threatening messages; posting gossip aimed at damaging someone's reputation; pretending to be someone else and making posts to tarnish someone's image; sending or posting confidential information and images to embarrass, excluding and removing someone from social media groups, and stalking someone on social media to send threatening messages.

Cyberbullying has adverse effects, such as increased symptoms of depression and anxiety (Navarro et al., 2015). Therefore, cyberbullying could also be the cause of suicide among teenagers (van Geel et al., 2014). Victims of cyberbullying reported more suicidal thoughts than victims of physical or verbal bullying (Hay & Meldrum, 2010; Hinduja & Patchin, 2010; Schneider et al., 2012). When someone commits cyberbullying, he indirectly commits aggression and immoral actions causing victims of bullying to feel stressed and has suicidal thoughts (Kowalski et al., 2014). Victims of cyberbullying also feel stress and psychological pressure (Sampasa-Kanyinga & Hamilton, 2015). Individuals stressed due to cyberbullying may attempt suicide (González-Cabrera et al., 2017). As well as bullying is often associated with suicidal thoughts because individuals feel intimidated by their environment (Hinduja & Patchin, 2010). This intimidation from bullies reduces self-esteem and increases hopelessness and loneliness in individuals, causing victims to consider their lives worthless and think of ending their lives by suicide.

A previous study investigated cyberbullying in children aged 12-14 (Mawardah & Adiyanti, 2014). Meanwhile, this study focuses on individuals aged 20-23 years, a pretty complicated phase as a period of life crisis. Individuals begin to worry about other people's opinions or views of themselves, so they easily respond to other people's responses with aggressive actions. Individuals can be protected from cyberbullying by implementing empathy (Izzah et al., 2019). Past studies found that empathy negatively correlates with cyberbullying (Sticca & Perren, 2013). With empathy, individuals feel the suffering and weaknesses of others, discouraging or preventing them from cyberbullying. Empathy was described using four aspects, warmth, tenderness, caring, and pity (Park et al., 2022). Warmth consists of love and affection given to others. Tenderness is indicated by gentle speech, treating someone well, and nurturing behaviors. Caring included assistance, appreciation, and sharing. Lastly, pity is indicated by pity and sadness when seeing others' difficulties.

This current study contributes more to studying cyberbullying by including emotion regulation as a predictor. Anxiety and depression are among the harmful effects of cyberbullying that require psychological intervention, namely by improving the ability to regulate emotions. Emotion regulation enables individuals to choose situations, then channel attention to responding to problems calmly (Adiyanti et al., 2020). Individuals are more likely to accumulate positive emotions to deal with cyberbullying. Emotion regulation allows individuals to learn and be flexible in stressful situations like cyberbullying (Young et al., 2019). Therefore, emotion regulation and empathy may predict cyberbullying among students.

Method

Research Design

This study was conducted using a quantitative approach. A non-experimental quantitative design was applied in this study. Emotion regulation and empathy are tested as predictors of cyberbullying.

Participants

The participants of this study were University students. From the data collection, 70 students were taken. Seventy students from seven classes consisting of 35 males and 35 females participated in this study. Six participants were eliminated because of their inconsistency in filling in the scales. Due to the pandemic, the questionnaire was distributed online by contacting a representative of each class.

Instruments

Three measurement tools were used in this research: cyberbullying scale, emotion regulation scale, and empathy scale. For each scale, participants would be asked to indicate their response from the following response choices: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), or Strongly Disagree (SD). Favorable items are scored from 5 (SA) to 1 (SD). On the contrary, unfavorable items are scored from 1 (SA) to 5 (SD).

Cyberbullying scale contains 14 favorable and 14 unfavorable items. The scale was developed based on seven aspects (Espelage et al., 2012). The aspects are flaming, harassment, denigration, impersonation, outing, trickery, and exclusion. The item discrimination index ranged from .346 to .811. The reliability coefficient of the scale is .927.

Emotion regulation scale comprises 19 favorable and 16 unfavorable items. The scale was developed based on five aspects (Gullone & Taffe, 2012). The aspects are situation selection (i.e., regulating desired emotion), situation modification (i.e., reducing the strong influence of the emotions that arise), attentional deployment (i.e., diverting one's attention from what elicited the emotion), cognitive change (i.e., making positive reappraisal about the incoming stimulus), and response modulation (i.e., by regulating and displaying appropriate emotional responses). The item discrimination index ranged from .321 to .802. The reliability coefficient of the scale is .939.

Empathy scale consists of 14 favorable and 15 unfavorable items, developed based on four aspects (Totan et al., 2012). The aspects are warmth, tenderness, caring, and pity. The item discrimination index ranged from .373 to .784. The reliability of the scale is .952.

Data Analysis

A multiple linear regression analysis was conducted to test the hypothesis. The regression analysis was applied to explore whether the predictors significantly predict cyberbullying. The contribution of each predictor was also examined.

Results

Table 1 shows the result of the multiple regression analysis. Together, emotion regulation and empathy significantly predict cyberbullying ($F=9.547$; $p<.001$). This finding indicates that the research hypothesis is accepted.

Table 1

Hypothesis Testing of Emotion Regulation and Empathy on Cyberbullying

Variable	<i>F</i>	<i>R</i>	<i>R Square</i>
Emotion Regulation, Empathy→Cyberbullying	9.547	.488	.238

Table 2 shows that emotion regulation significantly negatively impacts cyberbullying ($Beta=.486$; $p<.001$). This result indicates the higher level of emotion regulation, the lower cyberbullying will be. Conversely, the lower level of emotional regulation, the higher the cyberbullying will be. However, empathy does not predict cyberbullying ($Beta=.036$; $p>.05$).

Table 2*Hypothesis Testing of The Contribution of Predictors on Cyberbullying*

Variable	Beta	p
Emotion Regulation→Cyberbullying	-.486	.000
Empathy→Cyberbullying	.036	.751

Discussion

This study aimed to determine the role of emotion regulation and empathy in cyberbullying among university students. Emotion regulation has a significant negative effect on cyberbullying. The result indicates that the higher one's emotional regulation, the lower the cyberbullying. Conversely, the lower one's emotional regulation, the higher the cyberbullying.

The finding on the role of emotion regulation in cyberbullying is in line with a previous study that a person who is able to regulate their emotion may avoid cyberbullying (Adiyanti et al., 2020). Individuals who can control their emotions through social expectations will be able to suppress the desire to attack someone with harsh words on social media. Therefore, when an individual comes across their peers or strangers on social media with a different opinion from what they believe, the desire to attack that person personally can be controlled. An individual with good emotion regulation may avoid excessive emotions during an unfavorable situation.

Emotional regulation is a shield to avoid all forms of cyberbullying, e.g., harsh words (Turliuc et al., 2020). Emotion regulation plays a vital role in preventing cyberbullying. Through emotion regulation, individuals are able to prevent and reduce aggressive behavior so as not to harm others. The ability to regulate emotions includes diverting concentration when coming across unpleasant or hurtful posts about others. The diversion may regulate and control the direction of an action. When a negative emotion is about to burst, the diversion plays a role in defusing that emotion. In line with the study by (Wigati et al., 2020), the higher one's emotional regulation, the less likely one would engage in cyberbullying. An individual tries not to excessively express anger or negative emotions to the bully (Méndez et al., 2019). Before responding to a bully or being a bully, a person applies effective strategies. The strategies include regulating emotions as desired, reducing the strong influence of the emotions that arise, diverting attention from the things that evoke emotions, changing the way of thinking to be more positive, and regulating and displaying emotional responses as appropriate.

A previous study found that emotion regulation cannot manipulate cyberbullying (den Hamer & Konijn, 2016). This finding contradicts this study in which emotion regulation can influence cyberbullying. These two findings could be due to differences in a cultural context and the diversity of western cultural values. Cultural values that instill emotion regulation from an early age could help diminish any form of cyberbullying. Individuals can become calmer and better at suppressing their anger when encountering unpleasant posts or comments on social media. For future research, other positive internal regulation variables can be involved.

The finding also shows empathy has no significant role in cyberbullying. This result indicates empathy does not affect cyberbullying. A previous study also found that empathy does not play an active role in cyberbullying (Wigati et al., 2020). However, the results of this study contrast the results of previous studies where empathy is effective in mitigating cyberbullying (Ang et al., 2017; Martínez et al., 2020; Schultze-Krumbholz & Scheithauer, 2013; Steffgen et al., 2011). People who do not empathize are more likely to cyberbully.

The implication of the finding of this study, students are expected to improve their emotional regulation to prevent cyberbullying. Practicing emotional regulation may lower cyberbullying. Therefore, the lecturers and family need to collaborate to enhance students' ability to regulate their emotions. Lecturers can provide teaching materials accompanied by the dangers and impacts of cyberbullying, then educate about emotional regulation to prevent cyberbullying practices and be wise in using social media. Universities can provide education on the danger of cyberbullying and how to improve students' emotional regulation. They can provide training or seminar on emotion regulation and cyberbullying to avoid the practice of such behavior.

This study has a limitation, which is the possible response bias. Several patterns of response that a few respondents did were found. This condition could happen when respondents are in a hurry, unfocused, or deliberately answered normatively.

Conclusion

Emotion regulation is a significant predictor of cyberbullying. Emotional regulation enables individuals to control themselves and mentally deal with bullies. Individuals feel better with emotion regulation, so there is no fear or a collection of negative emotions. Individuals have more positive emotions so that they are able to strengthen themselves from various harsh words and intimidation from bullies. In turn, individuals who do not feel oppressed and are calmer to face the challenges ahead will not intend to do cyberbullying. However, this study's finding suggests that empathy has no role in cyberbullying. In other words, empathy is not predict cyberbullying.

Acknowledgment

We want to thank University students who have taken their time and are willing to be our respondents.

Declarations

Author contribution. M develops the research idea, supervises the research implementation, and assists in writing the report and publication. SN develops the research idea and supervises the implementation of the research. HKR analyzes the data and drafts the article publication. AH develops research design, implements research in the field, and writes the results. DUE supervises the drafting and writing the manuscript for publication.

Funding statement. We use personal funds collectively to commit to production funding and human resources.

Conflict of interest. The authors declare no conflict of interest.

Additional information. No additional information is available for this paper.

References

- Adiyanti, M. G., Nugraheni, A. A., Yuliawanti, R., Ragasukmasuci, L. B., & Maharani, M. (2020). Emotion regulation and empathy as mediators of self-esteem and friendship quality in predicting cyberbullying tendency in Javanese-Indonesian adolescents. *International Journal of Adolescence and Youth*, 25(1), 251–263. <https://doi.org/10.1080/02673843.2019.1614079>
- Alavi, N., Roberts, N., Sutton, C., Axas, N., & Repetti, L. (2015). Bullying victimization (being bullied) among adolescents referred for urgent psychiatric consultation: Prevalence and association with suicidality. *Canadian Journal of Psychiatry*, 60(10), 427–431. <https://doi.org/10.1177/070674371506001003>

- Ang, R. P., Li, X., & Seah, S. L. (2017). The role of normative beliefs about aggression in the relationship between empathy and cyberbullying. *Journal of Cross-Cultural Psychology, 48*(8), 1138–1152. <https://doi.org/10.1177/0022022116678928>
- Dardiri, A., Hanum, F., & Raharja, S. (2020). The bullying behavior in vocational schools and its correlation with school stakeholders. *International Journal of Instruction, 13*(2), 691–706. <https://doi.org/10.29333/iji.2020.13247a>
- den Hamer, A. H., & Konijn, E. A. (2016). Can emotion regulation serve as a tool in combating cyberbullying? *Personality and Individual Differences, 102*, 1–6. <https://doi.org/10.1016/j.paid.2016.06.033>
- Espelage, D. L., Rao, M. A., & Craven, R. G. (2012). Theories of cyberbullying. In S. Bauman, D. Cross, & J. Walker (Eds.), *Principles of cyberbullying research: Definitions, measures, and methodology* (pp. 49–67). Routledge/Taylor & Francis Group.
- González-Cabrera, J., Calvete, E., León-Mejía, A., Pérez-Sancho, C., & Peinado, J. M. (2017). Relationship between cyberbullying roles, cortisol secretion and psychological stress. *Computers in Human Behavior, 70*, 153–160. <https://doi.org/10.1016/j.chb.2016.12.054>
- Gullone, E., & Taffe, J. (2012). The Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA): A psychometric evaluation. *Psychological Assessment, 24*(2), 409–417. <https://doi.org/10.1037/a0025777>
- Hay, C., & Meldrum, R. (2010). Bullying victimization and adolescent self-harm: Testing hypotheses from general strain theory. *Journal of Youth and Adolescence, 39*(5), 446–459. <https://doi.org/10.1007/s10964-009-9502-0>
- Hinduja, S., & Patchin, J. W. (2010a). Bullying, cyberbullying, and suicide. *Archives of Suicide Research, 14*(3), 206–221. <https://doi.org/10.1080/13811118.2010.494133>
- Izzah, L., Sukarti, S., & Gusniarti, U. (2019). Pelatihan empati untuk menurunkan perilaku bullying pada pelaku bullying di sekolah dasar [Empathy training to reduce bullying behavior of bullies on elementary school]. *Jurnal Intervensi Psikologi (JIP), 11*(2), 79–90. <https://doi.org/10.20885/intervensipsikologi.vol11.iss2.art2>
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin, 140*(4), 1073–1137. <https://doi.org/10.1037/a0035618>
- Martínez, J., Rodríguez-Hidalgo, A. J., & Zych, I. (2020). Bullying and cyberbullying in adolescents from disadvantaged areas: Validation of questionnaires; prevalence rates; and relationship to self-esteem, empathy and social skills. *International Journal of Environmental Research and Public Health, 17*(17), 6199. <https://doi.org/10.3390/ijerph17176199>
- Mawardah, M., & Adiyanti, M. (2014). Regulasi emosi dan kelompok teman sebaya pelaku cyberbullying [Emotion regulation and peer groups cryberbullies]. *Jurnal Psikologi, 41*(1), 60–73. <https://doi.org/10.22146/jpsi.6958>
- Méndez, I., Jorquera, A. B., Ruiz-Esteban, C., Martínez-Ramón, J. P., & Fernández-Sogorb, A. (2019). Emotional intelligence, bullying, and cyberbullying in adolescents. *International Journal of Environmental Research and Public Health, 16*(23), 4837. <https://doi.org/10.3390/ijerph16234837>
- Muralidharan, S., & La Ferle, C. (2018). Religious symbolism in the digital realm: A social advertising approach to motivate bystanders to aid victims of cyberbullying.

- International Journal of Consumer Studies*, 42(6), 804–812. <https://doi.org/10.1111/ijcs.12448>
- Navarro, R., Ruiz-Oliva, R., Larrañaga, E., & Yubero, S. (2015). The impact of cyberbullying and social bullying on optimism, global and school-related happiness and life satisfaction among 10-12-year-old schoolchildren. *Applied Research in Quality of Life*, 10(1), 15–36. <https://doi.org/10.1007/s11482-013-9292-0>
- Park, K. Y., Shin, J., Park, H. K., Kim, Y. M., Hwang, S. Y., Shin, J. H., Heo, R., Ryu, S., & Mercer, S. W. (2022). Validity and reliability of a Korean version of the consultation and relational empathy (CARE) measure. *BMC Medical Education*, 22(1), 403. <https://doi.org/10.1186/s12909-022-03478-5>
- Sampasa-Kanyinga, H., & Hamilton, H. A. (2015). Social networking sites and mental health problems in adolescents: The mediating role of cyberbullying victimization. *European Psychiatry*, 30(8), 1021–1027. <https://doi.org/10.1016/j.eurpsy.2015.09.011>
- Schneider, S. K., O'Donnell, L., Stueve, A., & Coulter, R. W. S. (2012). Cyberbullying, school bullying, and psychological distress: A regional census of high school students. *American Journal of Public Health*, 102(1), 171–177. <https://doi.org/10.2105/AJPH.2011.300308>
- Schultze-Krumbholz, A., & Scheithauer, H. (2013). Is cyberbullying related to lack of empathy and social-emotional problems? *International Journal of Developmental Sciences*, 7(3–4), 161–166. <https://doi.org/10.3233/DEV-130124>
- Schultze-Krumbholz, A., Schultze, M., Zagorscak, P., Wölfer, R., & Scheithauer, H. (2016). Feeling cybervictims' pain—The effect of empathy training on cyberbullying. *Aggressive Behavior*, 42(2), 147–156. <https://doi.org/10.1002/ab.21613>
- Steffgen, G., König, A., Pfetsch, J., & Melzer, A. (2011a). Are cyberbullies less empathic? Adolescents' cyberbullying behavior and empathic responsiveness. *Cyberpsychology, Behavior, and Social Networking*, 14(11), 643–648. <https://doi.org/10.1089/cyber.2010.0445>
- Sticca, F., & Perren, S. (2013). Is cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth and Adolescence*, 42(5), 739–750. <https://doi.org/10.1007/s10964-012-9867-3>
- Totan, T., Dogan, T., & Sapmaz, F. (2012). The Toronto empathy questionnaire: evaluation of psychometric properties among Turkish university students. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 12(46), 179–198.
- Turliuc, M. N., Măirean, C., & Boca-Zamfir, M. (2020). The relation between cyberbullying and depressive symptoms in adolescence. The moderating role of emotion regulation strategies. *Computers in Human Behavior*, 109, 106341. <https://doi.org/10.1016/j.chb.2020.106341>
- Utomo, K. D. M., Hanurawan, F., Muslihati, & Ramli, M. (2020). Traditional bullying and cyberbullying in adolescents: The roles of cognitive empathy and affective empathy. *International Journal of Innovation, Creativity and Change*, 13(3), 312–326.
- Van Geel, M., Vedder, P., & Tanilon, J. (2014). Relationship between peer victimization, cyberbullying, and suicide in children and adolescents: A meta-analysis. *JAMA Pediatrics*, 168(5), 435–442. <https://doi.org/10.1001/jamapediatrics.2013.4143>

-
- Wigati, M., Diponegoro, A. M., & Bashori, K. (2020). Roles of empathy, emotion regulation and school climate against cyber bullying in high schools in Merangin, Jambi. *American Research Journal of Humanities & Social Science*, 3(8), 72–79.
- Young, K. S., Sandman, C. F., & Craske, M. G. (2019). Positive and negative emotion regulation in adolescence: Links to anxiety and depression. *Brain Sciences*, 9(4), 76. <https://doi.org/10.3390/brainsci9040076>