

Conference Paper

The Correlation Between Emotional Dysregulation and Deliberate Self-harm Among College Students in Malang

Olifia Citra Tristania^{1*}, and Fattah Hanurawan²^{1,2}Psychology, State University of Malang, Malang, Indonesia**Abstract.**

This study aimed to examine the correlation between emotional dysregulation and self-harm behavior among college students in Malang city. The research topic was based on the phenomenon of self-harm among college students. A quantitative and descriptive correlational approach was used. The population of this sample was students from various universities in Malang who had committed acts of self-harm, a total sample of 94 college students were obtained by accidental sampling. Two instruments were used, namely Difficulty in Emotion Regulation Scale (DERS-18) ($\alpha = .840$, $n = 94$) to measure emotional dysregulation and Deliberate Self-Harm Inventory (DHSI) to measure self-harm behavior ($\alpha = .818$, $n = 94$). The result of the study showed a significance value of $.000 (< .05)$ and a correlation coefficient of $.726$. Based on these results, it can be said that there is a relationship between emotional dysregulation and self-harm behavior.

Keywords: emotional dysregulation, deliberate self-harm, college students

Corresponding Author: Olifia
Citra Tristania; email:
olifia.citra.1808116@
students.um.ac.id

Published 21 November 2022

Publishing services provided by
Knowledge E

© Olifia Citra Tristania, and
Fattah Hanurawan. This article is
distributed under the terms of
the **Creative Commons**
Attribution License, which
permits unrestricted use and
redistribution provided that the
original author and source are
credited.

Selection and Peer-review under
the responsibility of the ICoPsy
Conference Committee.

1. Introduction

Self-injury is not a new thing in society, and even now it is still a serious mental health problem. Self-harm is often mentioned using different terms, such as non-suicidal self-injury [2], self-injury [29], and deliberate self-harm [13]. This research will be based on the term deliberate self-harm [13] which defines self as various acts of direct destruction of body tissues without suicidal intent, but resulting in severe injury. Actions such as slashing, shooting, hitting, and preventing wounds from healing are classified as self-injury.

Self-harm behavior is distinguished from suicidal intention, but is considered an important predictor of future suicidal behavior. The results of the study of [6] show that individuals who have a history of self-harm have a higher risk of committing suicide compared to individuals who do not have a history of self-harm. In addition, individuals

OPEN ACCESS

who hurt themselves generally hide the behavior for fear of the reactions of others [24]. They often choose areas of the body that are not visible or covered to be injured, such as hands, arms, thighs, abdomen, calves, wrists, fingers and head [36]. So if this behavior is not immediately addressed, it will have a bad impact on the perpetrators.

[22] stated that self-harm is more common in adolescents and early adults. A study in India found the prevalence rate of self-harm in a student population of 31.2% [20]. Furthermore, in the data recorded by YouGov [16] it was found that the majority of early adults (45%) had committed acts of self-harm. [19] found that 59% of students in Indonesia had thoughts of self-harm and 33% of them had hurt themselves. The student population in the city of Malang found that as many as 36% of respondents claimed to have injured themselves [1]. Researchers conducted a simple survey via google form in March 2021 for the student population in the city of Malang and found that 65% (67 of 103 respondents) had done self-injury.

Students in the early adult phase are in the postformal stage which involves understanding that proper problem solving requires reflective and mature thinking. Caspi explains that most individuals will experience fewer emotional mood swings and are more responsible for decision making [35]. However, some pressures from external situations that cause emotional changes in students are often unavoidable and not all individuals can choose the right solution for a problem or perceived pressure. Not a few of them choose to channel pressure in inappropriate ways such as injuring themselves. [42] explains that self-injury behavior is an individual's response to stressful conditions or a means to release pressure.

Emotional dysregulation was found to be closely related to self-injury behavior regardless of age or gender [41]. Emotional dysregulation is an individual's inability to change emotions, experiences, actions, verbal and/or nonverbal responses in the desired way [14]. Poor regulation of emotions can increase the likelihood of harmful behavior when faced with intense emotions [39]. Self-injury is often used to control or calm the intense emotions/pressures an individual feels. The results of [10] shows that the reasons for self-injury include getting a feeling of relief from uncomfortable feelings or thoughts, to punish oneself, to get rid of feelings of displeasure, anger or irritation.

So far there have been several previous studies conducted by [8] showed that poor emotional regulation ability was correlated and became a risk factor for self-injury. Research by [27] reported that difficulty in emotion regulation predicts an increase in the frequency of self-injurious behavior. [19] found that emotional dysregulation still had an effect on self-injury even though it was not affected by self-criticism. However, research

by [8] using a population of early to middle age adults, [27] focused on the role of self-efficacy coping in emotion regulation, and [19] used an Indonesian student population and focused on self-criticism against emotional dysregulation and self-harm intentions. There has been no research on Malang students related to emotional dysregulation and self-injury behavior. Therefore, this study emphasizes the emotional dysregulation and self-injury behavior of Malang city students.

The purpose of this study was to examine the relationship between emotional dysregulation and self-injury behavior in university students in the city of Malang. Theoretically, this research is expected to provide benefits, namely being a reference in the study of Psychology. This research is expected to provide practical benefits in the form of presenting information on previous research related to the topic of self-harm and emotional dysregulation. In addition, it is expected to help students who are hurting themselves to pay more attention to emotional reactions to pressure and are expected to provide further insight regarding emotional dysregulation and self-harm for parents, friends, or close people of students who hurt themselves.

2. Literature Review

[11] defines deliberate self-harm as an act of intentional bodily harm but no suicidal intent. Forms of self-harm behavior according to [11] the forms of self-harm include cutting, burning, carving, scratching, biting, rubbing, dripping, stabbing, breaking bones, banging, hitting, and preventing wound healing. The most common forms of self-injury are slashing and burning body parts, while self-poisoning is generally found in attempted suicide [5]. [10] revealed that the most common reason for self-harm behavior is to vent an unwanted feeling or thought.

[14] defines emotional dysregulation as a failure to change and express emotions. According to [12], there are six factors that indicate emotional dysregulation in individuals, namely lack of awareness of emotional responses, lack of clarity of emotional responses, rejection of emotional responses, limited access to emotional regulation strategies, difficulty controlling impulses, and difficulty in goal-directed behavior.

Students in the transformation phase will be faced with a new environment, high academic demands, and even separation from their parents. This phase exposes the individual to various challenges and stress that are very prominent. Not a few students experience various pressures as well as social and emotional instability [30]. The unavoidable pressure situation required them to adapt. In this case, emotional dysregulation will make it difficult for students to control and respond to pressure and

intense emotions. [21] revealed that as a result of increased challenges and stress there was also an increase in self-injury behavior. Increased experiences of stress can increase the risk of self-injurious behavior through emotional dysregulation [9].

3. Method

3.1. Research Design

This research was conducted with a correlational quantitative approach. This study uses a correlational design because it aims to determine the correlation or relationship between two variables. The variables that are the focus of this study are emotional dysregulation (X) as the independent variable and self-injury as the dependent variable (Y)

3.2. Research Subjects

This study will use a population with characteristics including active students in the city of Malang, 18-25 years old and have done any self-injury in the past year. Because the population is unknown, in determining the number of samples the researcher uses the Roscoe guide, where the minimum number of samples taken is 30 and does not exceed 500 [26]. The sample in this study amounted to 94 students who were collected through accidental sampling technique

3.3. Instruments

This study uses two types of instruments to measure the variables to be studied. The instrument used to measure emotional dysregulation was modified from the Social and Difficulties in Emotion Regulation Scale (DERS-18) instrument by [38] which is an abbreviated form of the original version of DERS previously developed by [12]. This scale is based on aspects of non-acceptance, goals, impulse, awareness, strategy, and clarity. The validity test shows there are 17 valid items with a reliability of 0.840.

The instrument used to measure deliberate self-harm was modified from the Deliberate Self-Harm Inventory (DHSI) instrument developed by [11]. DHSI includes the characteristics of self-injury, among others; cutting, burning, carving, scratching, biting, rubbing, dripping harmful substances, stabbing, breaking bones, banging, hitting, and preventing wound healing. The validity test shows there are 16 valid items with a reliability of 0.818.

3.4. Data Analysis

This study uses descriptive analysis to provide a description of emotional dysregulation and self-injurious behavior. Before testing the hypothesis, an assumption test will be carried out which consists of a normality test and a linearity test. Hypothesis testing in this study was conducted by using a correlation test using Pearson’s Product Moment correlation to determine the relationship between emotional dysregulation and self-injury behavior. The significance value to see the results of hypothesis testing is less than .05 (p .05), meaning that there is a correlation between the variables being tested.

4. Result and Discussion

4.1. Results

Based on the results of calculating the gender frequency of a total of 94 students in the city of Malang, it was found that there were 28 (29.2%) male students and 68 (70.8%) female students. So it can be seen that most of the respondents are female.

TABLE 1: Emotional Dysregulation Score Classification.

Emotional Dysregulation	Interval	Classification	Frequency	Percentage
	$X > 51$	Very High	71	75,5%
	$34 > X > 51$	High	23	24,5%
	$17 > X > 34$	Low	-	-
	$17 > X$	Very Low	-	-
Total			94	100%

Based on the results of the categorization of emotional dysregulation scores, it is known that 23 (75.5%) respondents have a high level of emotional dysregulation, and 71 (23%) respondents have a very high level of emotional dysregulation. So it can be concluded that most of the respondents have poor emotional regulation ability in the very high category.

Based on the results of the categorization of deliberate self-harm scores, it is known that as many as 45 (47.9%) respondents have a level of self-harm in the low category, and followed by as many as 49 (52.1%) respondents have a level of self-harm in the high category. it is known that most of the respondents have self-harm behavior in the high category.

The results of the normality test using the Kolmogorov-Smirnov on both scales obtained a significance value of .930, meaning that the data were normally distributed.

TABLE 2: Deliberate Self-Harm Score Classification.

Deliberate Self-Harm	Interval	Classification	Frequency	Percentage
	$X > 48$	Very High	-	-
	$32 > X > 48$	High	49	52,1%
	$16 > X > 32$	Low	45	47,9%
	$16 > X$	Very Low	-	-
Total			94	100%

While the results of the linearity test in this study obtained a significance value of emotion regulation and self-harm of 068, meaning that the variables of emotional regulation and self-harm have a linear relationship.

TABLE 3: Hypothesis Test Result.

Variables	Pearson Correlation	Sig.	Description	Conclusion
Emotional Dysregulation (X) and Deliberate Self-Harm (Y)	.726	.000	Sig < .05	Hipotesis Diterima

In the analysis of the correlation test between the variables of emotion regulation and self-harm, it is known that the Pearson correlation is .726 with a significance value of .000 (<.05). Based on the results of the analysis, the hypothesis is accepted, namely that there is a relationship between emotional dysregulation and self-injury behavior. So that there is a significant positive relationship between emotional dysregulation and self-harm in students in the city of Malang.

4.2. Discussion

Based on the results of data analysis that has been carried out, it is found that most students have emotional dysregulation at a very high level. Individuals who have good regulatory abilities will make them resistant to various pressures [31]. They will try to use appropriate and adaptive strategies to deal with stress or intense emotions. On the other hand, individuals who experience difficulty in emotion regulation will tend to fail to apply or use appropriate strategies in dealing with intense situations [41].

In this study, the regulation of emotions is described through several aspects according to [12], namely non-acceptance refers to avoiding or not validating perceived negative emotions, goals related to difficulty in concentrating and solving problems when faced with negative emotions, impulse refers to difficulties to control behavior in which individuals tend to make inappropriate decisions, awareness refers to the individual's

sensitivity and recognition of his feelings, strategy relates to the individual's belief that there are only a few ways that can be done to overcome negative emotions, clarity refers to the extent to which individuals know clearly the emotions that being felt.

If students have poor emotional regulation, it means that they cannot manage and react appropriately to unwanted emotions. This increases the risk of students making inappropriate decisions to channel their emotions. In line with the opinion of [39] who revealed that poor emotion regulation increases the risk of harmful behavior.

Based on the results of data analysis that has been carried out, it is found that most of the research respondents carry out self-harm behavior in the high category. [32] revealed that self-harm is used to control or calm intense negative emotions. Based on [11] the forms of self-harm that are depicted through the scale used include burning, biting, scratching, hitting/banging, cutting, and preventing wound healing. This study found that the majority of students used the method of cutting body parts (81.9%) followed by head banging (68.1%) to injure themselves. Meanwhile, the least used form of self-injury is breaking limb bones (3.2%). This is in accordance with the research of [10] who found that cutting the skin was the most common act of self-injury. In addition to slashing body parts, hitting/banging body parts is also the most common method found among students [23] Most self-injury perpetrators are known to use more than one method to injure themselves. This is in accordance with [17] who reported that more than half of the research respondents used multiple methods to self-harm. According to [40] this can happen because individuals feel they are not achieving their goals, so they constantly try to regulate their emotions through various methods. While [33] argue that not all self-harm methods can be accessed at the desired time so it is necessary to look for other alternatives.

Based on the results of hypothesis testing, the correlation coefficient of the two variables is .726 with a significance value of .000. So it can be concluded that there is a relationship between emotional regulation and self-injury behavior in students in the city of Malang. The results in this study are in line with previous research which found that self-injury behavior can be predicted through emotional dysregulation [8]; [27]; [19].

Students in their daily life certainly encounter various pressures caused by various sources, both in terms of academics and outside of academics. [4] reveals that college life involves various challenges and stressors for most students. These pressures trigger negative emotional situations for students. Individuals who are unable to control and express their emotions adaptively and prefer to suppress or avoid these negative feelings will experience more intense negative emotions [7]. Intense negative emotions [22] and difficulties in expressing them [18] will encourage self-harm behavior.

Poor emotional regulation is the underlying reason for self-harm behavior [25]. This is because after performing these behaviors negative emotions will decrease and individuals will feel relieved [22]. Individuals with a history of self-harm have greater emotional reactivity and difficulty identifying feelings and avoiding unwanted feelings [3]. They also feel unable to cope with the emotional stress of the time [34]. Therefore, lack of self-control and limited strategies for emotion regulation can cause these behaviors to occur under impulses [7]. In accordance with the opinion of [15] low behavioral control was found to be related to self-harm behavior.

Based on the explanation above, it can be seen that this study resulted in the finding that emotion regulation has a positive relationship with self-injury behavior. The results of this study are also supported by research conducted by [41], namely, a high level of emotional dysregulation increases the risk of self-injury behavior. So if the individual has difficulty in regulating emotions, it will increase the risk for the emergence of maladaptive behavior, namely self-harm.

Acknowledge, Funding, & Ethics Policies

The researcher would like to express her gratitude towards Mr. Fattah Hanurawan as a supervisor, who always guides and provides opinions to researchers in completing this research. I also thank Mrs. Hetti Rahmawati and Mr. Mochammad Sa'id as examiners who provided suggestions and input in writing this research.

References

- [1] Adinda S T, Prastuti E. Regulasi emosi dan dukungan sosial: Sebagai prediktor ide bunuh diri mahasiswa. *Journal An-Nafs: Kajian Penelitian Psikologi*. 2021;6(1):135-151.
- [2] American Psychiatric Association. *Diagnostic and statistical manual of mental disorders: DSM 5*. Arlington, VA: American Psychiatric Association; 2013.
- [3] Anderson N L, Crowther J H. Using the experiential avoidance model of non-suicidal self-injury: Understanding who stops and who continues. *Archives of Suicide Research*. 2012;16(2):124-134.
- [4] Arnett J J College students as emerging adults: The developmental implications of the college context. *Emerging Adulthood*. 2016;4(3):219-222.
- [5] Bryan C, Bryan A. Nonsuicidal self-injury among a sample of United states military personnel and veterans enrolled in college classes. *Journal of Clinical Psychology*. 2014;70(9):874-885.

- [6] Chan M K, Bhatti H, Meader N, et al. Predicting suicide following self-harm: Systematic review of risk factors and risk scales. *The British Journal of Psychiatry*. 2016;209(4):277-283.
- [7] Chen W L, Chun C C. Association between emotion dysregulation and distinct groups of non-suicidal self-injury in Taiwanese female adolescents. *International Journal of Environmental Research and Public Health*. 2019;16(18):3361.
- [8] Davis T S, Mauss I B, Lumian D, et al. Emotional reactivity and emotion regulation among adults with a history of self-harm: laboratory self-report and functional MRI evidence. *Journal of Abnormal Psychology*. 2014;123(3):499.
- [9] Ewing L, Hamza C A, Willoughby T. Stressful experiences, emotion dysregulation, and nonsuicidal self-injury among university students. *Journal of Youth and Adolescence*. 2019;48(7):1379-1389.
- [10] Gillies D, Christou M A, Dixon A C, et al. Prevalence and Characteristics of Self-Harm in Adolescents: Meta-Analyses Of Community-Based Studies 1990-2015. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2018;57(10):733-741.
- [11] Gratz K L. Risk factors for and functions of deliberate self-harm: An empirical and conceptual a review. *Clinical Psychology: Science and Practice*. 2003;10(2):192.
- [12] Gratz K L, Roemer L. Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*. 2004;26(1):41-54.
- [13] Gratz K L. Measurement of deliberate self-harm: Preliminary data on the deliberate self harm inventory. *Journal of Psychopathology and Behavioral Assessment*. 2001;23(4):253-263.
- [14] Gross J J. (ed.) Handbook of emotion regulation. Guilford publications; 2013;(recheck the year).
- [15] Heath N L, Carsley D, De Riggi M E, Mills D, Mettler J. The relationship between mindfulness, depressive symptoms, and non-suicidal self-injury amongst adolescents. *Archives of Suicide Research*. 2016;20(4):635-649.
- [16] Ho K. A quarter of Indonesians have experienced suicidal thoughts, (Online). 2019. Diakses 23 September 2021. (<https://id.yougov.com/id/news/2019/06/26/quarter-indonesians-have-experienced-asuicidal-thou/>)
- [17] Holliday R, Smith N B, Monteith L L. An initial investigation of nonsuicidal self-injury among male and female survivors of military sexual trauma. *Psychiatry Research*. 2018;268:335-339.

- [18] Jacobson C M, Hill R M, Pettit J W, Grozeva D. The association of interpersonal and intrapersonal emotional experiences with non-suicidal self-injury in young adults. *Archives of Suicide Research*. 2015;19(4):401-413.
- [19] Jannah S R, Yuliadi, Scarvanovi B W. The mediating effect of self-criticism on college students' emotion dysregulation and intention to self-harm. *Psikohumaniora: Jurnal Penelitian Psikologi*. 2022;7(1):65-76.
- [20] Kharsati N, Bhola P. Patterns of non-suicidal self-injurious behaviours among college students in India. *International Journal of Social Psychiatry*. 2015;61(1):39-49.
- [21] Kiekens G, Hasking P, Claes L, et al. Predicting the incidence of non-suicidal self-injury in college students. *European Psychiatry*. 2019;59, 44-51.
- [22] Klonsky E D, Victor S E, Saffer B Y. Nonsuicidal self-injury: What we know, and what we need to know. *The Canadian Journal of Psychiatry*. 2014;59(11):565-568. DOI:10.1177/070674371405901101.
- [23] Lewis S P, Arbuthnott A E. Nonsuicidal self-injury: Characteristics, functions, and strategies. *Journal of College Student Psychotherapy*. 2012;26(3):185-200.
- [24] Maidah D. *Self injury pada mahasiswa (Studi kasus pada mahasiswa pelaku self-injury)*. [Unpublished doctoral dissertation]. Semarang: Universitas Negeri Semarang; 2013.
- [25] McKenzie K C, Gross J J. Nonsuicidal self-injury: An emotion regulation perspective. *Psychopathology*. 2014;47(4):207-219.
- [26] Memon M A, Ting H, Cheah J H, Thurasamy R, Chuah F, Cham T H. Sample size for survey research: Review and recommendations. *Journal of Applied Structural Equation Modelling*. 2020;4(2):1-20.
- [27] Midkiff M F, Lindsey C R, Meadows E A. The role of coping self-efficacy in emotion regulation and frequency of NSSI in young adult college students. *Cogent Psychology*. 2018;5(1):1520437.
- [28] National Institute for Health and Clinical Excellence (NICE). Self-Harm in over 8s: Long-Term Management. Clinical Guideline [CG133]. NICE, 2011. (<https://www.nice.org.uk/guidance/cg133>).
- [29] Nock M K. Self-injury. *Annual review of clinical psychology*. 2010;6(1):339-363.
- [30] Oakley L. *Exploring student loneliness in higher education*. Springer International Publishing; 2020.
- [31] Pollock N C, McCabe G A, Southard A C, Zeigler-Hill V. Pathological personality traits and emotion regulation difficulties. *Personality and Individual Differences*. 2016;95:168-177.

- [32] Reis M, de Matos M G, Ramiro L, Figueira I. Understanding self-harm in young people: An emotional unbalance in need for intervention. *Problems of Psychology in the 21st Century*. 2012;4:50-61.
- [33] Robinson K, Garisch J A, Wilson M S. Nonsuicidal self-injury thoughts and behavioural characteristics: Associations with suicidal thoughts and behaviours among community adolescents. *Journal of Affective Disorders*. 2021;282:1247-1254.
- [34] Rolston A, Lloyd-Richardson E. What is emotion regulation and how do we do it. *Cornell Research Program on Self-Injury and Recovery*. 2017;1-5.
- [35] Santrock J W. *Life-span development*. 13th ed. New York: McGraw Hill; 2011.
- [36] Stein L. The relationship between self-harm and college students. *Disertasi*. Texas: Texas Tech University; 2012.
- [37] Thompson R A. Emotion dysregulation: A theme in search of definition. *Development and psychopathology*. 2019;31(3):805-815.
- [38] Victor S E, Klonsky E D. Validation of a brief version of the difficulties in emotion regulation scale (DERS-18) in five samples. *Journal of Psychopathology and Behavioral Assessment*. 2016;38(4):582-589.
- [39] Weiss N H, Sullivan T P, Tull M T. Explicating the role of emotion dysregulation in risky behaviors: A review and synthesis of the literature with directions for future research and clinical practice. *Current Opinion in Psychology*. 2015;3:22–29.
- [40] Wester K L, Ivers N, Villalba J A, Trepal H C, Henson R. The relationship between nonsuicidal self-injury and suicidal ideation. *Journal of Counseling & Development*. 2016;94(1):312.
- [41] Wolff J C, Thompson E, Thomas S A, et al. Emotion dysregulation and non-suicidal self-injury: A systematic review and meta-analysis. *European Psychiatry*. 2019;59:25-36.
- [42] Wu D, Rockett I R, Yang T, Feng X, Jiang S, Yu L. Deliberate self-harm among Chinese medical students: A population-based study. *Journal of Affective Disorders*. 2016;202:137-144.