Insomnia Levels in Freshmen Do Not Depend on Emotional Regulation

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Abstract. Freshmen often deal with significant transitions in academic life, which can affect psychological well-being, including sleep quality. Emotional regulation, which includes the ability to recognize, manage, and regulate emotions adaptively, is thought to be related to sleep patterns and insomnia levels. This study aims to explore the effect of emotional regulation on insomnia in freshmen. With a quantitative and survey method, data were collected through a questionnaire measuring the level of emotional regulation and sleep disorder from 75 respondents. The results showed that emotional regulation had an insignificant effect on insomnia, as seen from the significance value of 0.934 and the regression results with an R Square value of 0.000. The results of this research are that there is no linear relationship between emotional regulation and insomnia levels.

Keywords: Emotional Regulation, Insomnia, Sleep Quality.

1 Introduction

The transition to college life is a challenging period, with many academic and social demands. In the first year, many freshmen are living independently for the first time and need to develop self-regulation skills to be able to take care of themselves. Freshmen deal with main stressors related to independent living, but also significant pressure to perform well to achieve personal and professional success in the future. According to Tinto in [1], the first year of college is a critical transition period because this period becomes the foundation that can influence future academic success. Besides that, freshmen need psychological and social readiness to adapt to the new environment at college. [2].

Research [3] highlighted the negative relationship between emotional regulation and academic stress. Freshmen who were able to regulate their emotions well tended to have lower levels of academic stress, while those freshmen with less effective emotional regulation were more prone to academic stress. This suggests the importance of emotional regulation skills to helping freshmen manage the stress that appeared during the transition period. Research [4] furthermore explains that the process of emotional regulation in new freshmen involves cognitive assessment of the situation, the emotional reactions that appeared, and the coping strategies that were used. Adaptive emotional regulation helps freshmen to respond to difficulties more positively, thereby increasing their ability to adapt to new environments. This ability has an important role in creating effective adaptation schemes during the transition period. In the other research [5] linked stress as one of the main causes of insomnia in college freshmen, which then impacts

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their learning behavior. Freshmen who have insomnia are prone to have concentration problems, difficulty understanding lessons, and reduction in general health. This phenomenon suggests that poor emotional regulation not only increases academic stress, but also contributes to sleep disorders, such as insomnia, which can hinder freshmen ability to adapt to the demands of college life.

Self-adjustment is the process of finding and adopting behavioral patterns that are appropriate to the environment or changes in the environment [6] and includes dealing with stress, conflict, pressure, and fulfillment of needs [7]. Adjustment to campus life includes academic, social, personal-emotional, and institutional aspects [8]. Based on one study of these four types of adjustment, it was found that personal-emotional adjustment has an important role in academic success during this transition [8]. Understanding the intrapersonal resources that may support resilience and psychological well-being during the transition from high school to college may provide useful directions for counseling-based interventions [9]. One of the intrapersonal factors related to the level of self-adjustment, especially personal-emotional adjustment to college life, is the ability to regulate emotions. Emotional regulation is generally defined as the process of managing one's emotional responses to the environment, both adaptive and maladaptive, in response to positive or negative emotions.

Emotion is a someone's efforts to determine, maintain, or change the relationship between the individual and the environment to according to the individual's wishes [10] A person not only has emotions, but also needs to regulate their emotions, meaning they need to take a stand on their emotions and accept the consequences of their emotional actions. Regulation itself is a form of control that someone does over the emotions they have. Regulation can affect a person's behavior and experience. The results of regulation can be behavior that is increased, reduced, or inhibited in its expression. Emotional regulation comes from social sources, these social sources are part of the interest in others and the norms of social interaction.

Emotional regulation is an individual's effort to regulate and manage the emotions they feel, so that they are able to maintain calm and think clearly even when deal with various feelings [11]. These abilities include managing, expressing, and handling negative emotions, which aims to create emotional balance [12].

Sleep is the body's effort to eliminate physical and mental fatigue. The average adult needs 7-9 hours of sleep each night. Lack of sleep has serious health consequences and causes increased morbidity and mortality of diseases. Lack of sleep can affect immunity, psychological problems, metabolic disorders and increase the risk of cardiac disease and stroke. Lack of sleep affects emotional stability so that it can cause problems in family and marriage. Lack of sleep will cause someone to feel tired, weak, and lethargic when they wake up so that they lack enthusiasm, lack of concentration, decreased performance and productivity. Sleep disorders such as insomnia are health problems that are often experienced by adolescents, especially in the growth phase which requires quality sleep between 7 to 9 hours each day. However, adolescents often do not achieve this sleep duration due to various factors, including hormonal changes, psychosocial stress, and the use of technology such as social media and playing games until late at night.

Globally, insomnia is also a common problem in the younger population. In the United States, nearly 40% of the population have occasional insomnia, with 10-20% suffering from chronic insomnia [10]. Meanwhile, in Indonesia, the prevalence of insomnia in adolescents is estimated to reach 10%, or around 28 million people. This figure is quite high and shows that the problem of insomnia in adolescents needs more attention, especially considering its impact on daily

activities such as studying and social interaction. According to research by [13], Poor sleep quality can lead to decreased academic performance, increase the risk of accidents, and affect the overall mental health of adolescents. Several studies have also shown that insomnia is more common in female adolescents than in males. This is associated with hormonal changes experienced by females, especially during puberty, which can cause emotional instability and increase the risk of insomnia. According to [14] women are prone to experience stress more easily and have poorer coping strategies than men, so they are more susceptible to sleep disorders.

Emotional regulation is one of the important factors in the successful adaptation of freshmen during the transition to college. The ability to manage emotions helps freshmen deal with academic, social, and personal pressures that often arise in the first year of college. Good emotional regulation not only helps relieve academic stress but also prevents negative impacts such as insomnia, which can interfere with concentration, physical health, and learning performance. In addition, quality sleep also plays a vital role in maintaining emotional balance and academic performance. This phenomenon confirms that the combination of effective emotional regulation and good sleep quality are important components in supporting new students' adjustment to the demands of campus life.

2 Method

This study uses a quantitative method with a survey design to determine the effect of emotional regulation on sleep disorders (insomnia) in freshman of the psychology department of Padang State University. In this study there are two variables, namely one independent variable (X) and one dependent variable (Y). The independent variable in this study is emotional regulation (X), while the dependent variable is insomnia (Y). This method was chosen because it allows to collect representative data from a large number of respondents, data collection was carried out using a questionnaire that will be given to freshmen of the psychology department of Padang State University. In this study, an emotional regulation questionnaire was used using a questionnaire written by Gefri Dariando in his thesis, which was developed from the theory of Gratz and Roemer consisting of 10 statement items. While to see the level of insomnia using the Insomnia Rating scale (KSPBJ-IRS) which consists of 11 items. Regarding the validity of each adapted measuring instrument, it is quite valid so that this measuring instrument is worthy of being used in research that seeks to see the Influence of Emotional Regulation on Sleep Disorders (insomnia) in freshmen. According to [15] The range of Cronbach's Alpha Value is $\alpha < 0.50$ low reliability, $0.50 < \alpha < 0.70$ moderate reliability, $\alpha > 0.70$ then sufficient reliability, $\alpha > 0.80$ then strong reliability, $\alpha > 0.90$ then perfect reliability. The smaller the α value indicates the more unreliable items. For the reliability of emotional regulation using a questionnaire written by Gefri Dariando in his thesis, which was developed from the theory of Gratz and Roemer, Cronbach's α showed a result of 0.763. Meanwhile, related to reliability, on the Insomnia Rating scale (KSPBJ-IRS) to see the level of insomnia, reliability was obtained with a Cronbach's α value of 0.933 where this tool can be said to have perfect reliability because it is almost close to 1. Based on the reliability results on both measuring instruments, it can be concluded that the measuring instrument we use has high reliability and is suitable for use.

Population is a generalization consisting of objects, subjects, which have certain qualities, characteristics that have been determined by researchers to be studied and concluded [16]. The population in this study were freshmen of the Department of Psychology, Padang State

University with a total of 294 students. Sampling in this study used the Purposive Sampling technique. According to [16] Purposive sampling can be interpreted as taking samples or data sources through consideration. This technique is used if you want to choose respondents specifically based on certain characteristics. The sample in this study were new students of the Department of Psychology, Padang State University, the researcher took a sample of 10% of the population. Referring to opinion [17], that if the subject is less than 100, then it is better to take all of them so that the research is a population. However, if the number of subjects is more than 100, then it can be taken between 10 - 15% or 15 - 25% or more. Thus, the number of respondents in this study was 75 freshmen. The following are the inclusion criteria for the sample in this study. Purposive sampling is taking samples based on criteria that match what is desired. There are several criteria for the desired sample, namely:

a. Freshmen of the Department of Psychology, Padang State University
b. Have a messy sleep schedule

The data analysis and processing techniques used by researchers in this research consist of several tests, including the Normality Test, Linearity Test, Regression Test, and Coefficients. All of these analyses are analyzed using SPPS 27 for Windows software.

3 Result and Discussion

Based on the analysis of gender distribution, it was found that of the total participants involved in this research, 14 were male students, which is equivalent to a percentage of 18.7%. Meanwhile, the majority of participants, that is 61 people, were female, with a percentage of 81.3%. This shows that the proportion of female participants in this study is much greater than that of male participants, reflecting the potential dominance of the number of female frehmen in the population research. Furthermore, for the age of the participants, there are four age groups identified in this research, namely 17, 18, 19, and 20 years. The 17-year-old age group consists of 7 participants, which covers a percentage of 9.3% of the total number of participants. The 18-year-old age group is the majority in this research, with the number of participants reaching 42 people, or equivalent to a percentage of 56%. Furthermore, the 19-year-old age group consists of 21 participants, with a percentage of 28%. Meanwhile, the 20-year-old age group is the group with the smallest participants, which is 5 people, which include 6.7% of the total participants. This finding shows that the majority of participants in this research are in the age range of 18 to 19 years, which is in accordance with the general characteristics of freshmen in their first year of college.

The results of the normality test of the study using Kolmogorov-Smirnov with a Sig. value of 0.05. Based on the normality test, if the significance value is above 0.05, the research data can be said to be normally distributed. After the normality test is known to be normally distributed, the next step is the linearity test between the emotional regulation and insomnia. The results of the linearity test is F value = 0.482 with a sig. value of 0.934. If the sig value> 0.050, then between emotional regulation and insomnia can be said to be linear.

Table 1. Regression test. Results of the effect of emotional regulation to insomnia levels

Model Summary'				
Model	R	R sqare	Adjusted R Squar	Std. Error of the Estimate
1	0,010	0,000	-0,014	4,007

The results of the regression analysis showed that the relationship between emotional regulation and insomnia was very weak, with an R value of 0.010. The R Square value of 0.000 indicates that no variance in insomnia can be explained by emotional regulation. This indicates that the regression model used is unable to explain the relationship between the two variables. Furthermore, the negative Adjusted R Square value (-0.014) indicates that the model is not only ineffective in explaining variance, but also performs worse than the model without predictors. Besides that, the Standard Error of the Estimate value of 4.007 indicates a fairly high standard error rate in the model prediction. The results of the regression analysis show that the constant (intercept) of the model is 24.707, which represents the predicted value of insomnia when emotional regulation is zero. The coefficient for emotional regulation of 0.011 indicates that every one unit increase in emotional regulation is only associated with a 0.011 unit increase in insomnia.

However, this value is very small and not significant, as evidenced by the t value of 0.083 and the significance value (p-value) of 0.934, which is much greater than the significance threshold of 0.05. Besides that, the standard Beta value of 0.010 indicates that the relative influence of emotional regulation on insomnia in standard units is very weak. With a standard error of 3.861 for the constant and 0.134 for the emotional regulation coefficient, this model also has a fairly high error rate in estimation. Therefore, it can be concluded that emotional regulation does not have a significant effect on insomnia in this regression model. However, there is a positive relationship between emotional regulation and the level of insomnia, which means that the better a person's emotional regulation ability, the lower the level of insomnia they have. Otherwise, in certain parts of the analysis, no significant relationship was found between the two variables.

4 Conclusions

Based on the results of this research, it can be concluded that the majority of participants in this study were female (81.3%), with the dominant age being in the range of 18-19 years (84%). This reflects the general characteristics of freshmen in the first year of college. The results of the normality test of the study using Kolmogorov-Smirnov with a Sig. value of 0.05. Based on the normality test, if the significance value is above 0.05, the research data can be said to be normally distributed. The results of the regression analysis showed that the relationship between emotional regulation and insomnia was very weak (Rsquare = 0.000) and not statistically significant ($\alpha = 0.934$). This indicates that there is no significant linear relationship between the two variables in this study. Therefore, it can be concluded that emotional regulation does not have a significant effect on insomnia in this regression model.

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References

[1] A. Olani, R. Hoekstra, E. Harskamp, and G. Van Der Werf, "Statistical Reasoning Ability, Self-Efficacy, and Value Beliefs in a Reform Based University Statistics Course," 2011.
[2] A. Islamiyah, M. Sismawati, and D. V. S. Kaaloeti, "Pengaruh psikoedukasi mindfulness singkat pada kemampuan regulasi emosi mahasiswa," Jurnal Ilmiah Psikologi Terapan, vol. 8, no. 1, p. 89, Feb. 2020, doi: 10.22219/jipt.v8i1.9444.
[3] A. Anwar et al., "Pengaruh Regulasi Emosi Terhadap Coping Penyelesaian Studi Mahasiswa," 2018.
[4] Pertiwi, "Pertiwi Pola Regulasi Emosi Mahasiswa Baru Pada Jurusan Bimbingan dan Konseling Fakultas Ilmu Pendidikan Tahun Akademik 2018/2019. Skripsi. Semarang: Universitas Negeri Semarang," 2019.
[5] K. Putri, D. Konseling, and U. N. Yogyakarta, "Perilaku Belajar Pada Mahasiswa Yang Mengalami Insomnia Learning Student Behaviour That Have Insomnia," Kartika Putri, 2017.
[6] "advanced-educational-psychology-MANGAL," 2002.
[7] M. Julia and B. Veni, "An analysis of the factors affecting students' adjustment at a University in Zimbabwe," International Education Studies, vol. 5, no. 6, pp. 244–250, 2012, doi: 10.5539/ies.v5n6p244.
[8] M. A. Taylor and D. A. Pastor, "A confirmatory factor analysis of the student adaptation to college questionnaire," Educ Psychol Meas, vol. 67, no. 6, pp. 1002–1018, 2007, doi: 10.1177/0013164406299125.
[9] D. V. S. Kaloeti, A. Rahmandani, H. Sakti, S. Salma, S. Suparno, and S. Hanafi, "Effect of childhood adversity experiences, psychological distress, and resilience on depressive symptoms among Indonesian university students," Int J Adolesc Youth, vol. 24, no. 2, pp. 177–184, Apr. 2019, doi: 10.1080/02673843.2018.1485584.
[10] V. Editor, W. Damon, and R. M. Lerner, "Handbook Of Child Psychology Sixth Edition Volume Three: Social, Emotional, and Personality Development Editors-in-Chief."
[11] J. J. Gross and O. P. John, "Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being," J Pers Soc Psychol, vol. 85, no. 2, pp. 348–362, Aug. 2003, doi: 10.1037/0022-3514.85.2.348.
[12] A. Pascual-Leone and L. S. Greenberg, "Emotional Processing in Experiential Therapy: Why 'the Only Way Out Is Through,'" J Consult Clin Psychol, vol. 75, no. 6, pp. 875–887, Dec. 2007, doi: 10.1037/0022-006X.75.6.875.
[13] D. Yulia et al., "Insomnia Selama Pandemi COVID-19 Insomnia During COVID-19 Pandemic," 2020, doi: 10.35816/jiskh.v10i2.483.
[14] R. Stikes, A. Dahlan, C. Marwati, S. Ahmad, D. Cirebon, and Y. Trihandayani, "Hubungan Tingkat Stress Dengan Insomnia Pada Mahasiswa," Jurnal Mahasiswa Ilmu Farmasi dan Kesehatan, vol. 1, no. 3, 2023, doi: 10.59841/jumkes.v1i2.
[15] J. Manajemen, B. Aliansi, R. Slamet dan, and S. Wahyuningsih, "Validitas Dan Reliabilitas Terhadap Instrumen Kepuasan Kerja," 2022.
[16] Sugiyono, "Metode penelitian kuantitatif, kualitatif, dan R&D. Bandung. CV. Alfabeta," 2013.
[17] S. Zahroil Batul and F. Tarbiyah, "Diajukan untuk memenuhi tugas dan melengkapi syarat Guna memperoleh gelar Sarjana Pendidikan dalam Ilmu Pendidikan Matematika O l e h : TADRIS MATEMATIKA," 2010.