



The Relationship Between Anxiety and Eating Patterns Among Clinical Clerkship Students at Prima Indonesia University

Adhayani Lubis¹, Angel CP Pangaribuan^{2*}, Ira Aini Dania³, Ana Fresia⁴

^{1,2,4}Universitas Prima Indonesia, Medan, Indonesia

³Universitas Islam Sumatera Utara, Medan, Indonesia

Email: adhayani70@gmail.com, angelpangaribuan79@gmail.com, iraaini27@gmail.com, ana_fr86@yahoo.com

KEYWORDS	ABSTRACT
Anxiety, clinical clerkship students, Diet	Medical students often experience higher levels of stress compared to students in other faculties. They have high expectations from family and society towards them, which is one of the causes of this stress. They also need to understand actual medical practice and read many books every day. So, the researcher conducted a cross-sectional analytic observational approach with 64 respondents, which aimed to understand the relationship between anxiety and diet in clinical clerkship students at UNPRI. This research study will investigate the relationship between diet and anxiety disorders in clinical clerkship students at UNPRI. The main anxiety disorder is General Anxiety Disorder-7 (GAD-7). This study is an analytic observational study with a cross-sectional approach. This result is relevant considering the majority of respondents, 53.1%, were in the mild anxiety category, while 40.6% had moderate anxiety, and 6.3% suffered from severe anxiety. The dietary patterns to be studied are the frequency of food consumed and the method to record the regulated meals. From the study, it was found that there was a significant relationship between anxiety and diet found through bivariate analysis with the Spearman correlation test. The correlation coefficient (r) was 0.681, and the significance value (p) was 0.000. This indicates a positive correlation where higher anxiety is associated with greater disordered eating.

DOI: 10.58860/ijsh.v3i11.269

Corresponding Author: Angel CP Pangaribuan*
Email: angelpangaribuan79@gmail.com

INTRODUCTION

A person's diet is crucial to their physical and mental health. A poor diet can lead to health problems such as obesity, heart disease, and diabetes, as well as mental disorders such as depression and anxiety (Kris-Etherton et al., 2021). In contrast, a balanced intake of nutrients can aid optimal body function and mental well-being. Many studies have found a link between diet and mental health over the past few decades. These studies suggest that healthy nutrition is not only important for physical health but also for emotional stability and cognitive function (Putra, n.d.).

When compared to students in other faculties, medical students often experience higher levels of stress (Dyrbye & Shanafelt, 2016). Some of the causes of this stress include the high expectations that families and society have of them. Another factor is the daily obligation to read many books and the obligation to understand actual medical practice (Putri, 2020).

Anxiety is an emotional state characterized by feelings of worry, anxiety, fear, and unease and is often accompanied by certain physical symptoms (Sarason, 2019). Anxiety can be divided into three levels: mild anxiety, moderate anxiety, and severe anxiety. The highest level can cause panic attacks and interfere with daily life (NurCita & Susantiningsih, 2020). Anxiety disorders can cause various

physiological reactions in the body, including problems with the digestive system. One of the effects is an increase in stomach acid production, which can cause stomach pain or digestive problems (Budiyanti et al., 2021). When a person feels anxiety through brain receptors, anxiety often has an impact on daily life, including their diet (Maghfira et al., 2023).

Various factors, such as eating habits, physical activity levels, and sleep duration, can affect a person's nutritional status. Diet can be defined as how often, how much, and the type of food a person consumes over a period of time (Mufidah & Soeyono, 2021). Frequent consumption of fast food, ignoring meal schedules, not paying attention to environmental hygiene when eating, and paying little attention to the nutritional value of food are examples of unhealthy habits (Firdausy et al., 2022).

Based on the above background, the purpose of this study is to understand and analyze how diet and anxiety levels in clinical clerkship students at Prima Indonesia University relate to each other (Price, 2016). The benefit of this study is to provide insight into how anxiety affects daily behaviours such as diet, which is important for general mental health awareness.

METHOD

This study is an analytic observational research with a cross-sectional approach, aiming to examine the relationship between anxiety and diet in clinical clerkship students at UNPRI. The research will be conducted at Royal Prima Hospital from April to June.

The population of this study consists of 156 clinical clerkship students at UNPRI. The sample for this study will be selected using a stratified random sampling technique, focusing on students who are currently undergoing their clinical clerkships. Data will be collected through a questionnaire designed to assess the relationship between anxiety and diet among clinical clerkship students at UNPRI. This study will adopt a correlational research design to explore the relationship between anxiety and diet. The criteria for inclusion are clinical clerkship students at UNPRI during the study period.

Bivariate analysis will be performed using the Pearson correlation test if the data is normally distributed. If the data is not normally distributed, the Spearman rank correlation test will be used. A p-value <0.05 will indicate a significant relationship, leading to the rejection of the null hypothesis, which suggests a significant association between anxiety and diet.

RESULT AND DISCUSSION

Normality Test

Table 1. Normality Test Table

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Eating Patterns	.077	64	.200*	.983	64	.502
Anxiety	.337	64	.000	.726	64	.000

Based on the normality test, it is found that :

- a. Diet has a significance of 0.200 (Kolmogorov-Smirnov) and 0.502 (Shapiro-Wilk), which means the diet data is normally distributed.
- b. Anxiety has a significance of 0.000, both in Kolmogorov-Smirnov and Shapiro-Wilk, which indicates that the anxiety data is not normally distributed.

Since there is non-normally distributed data, the Spearman test will be conducted to determine the correlation value.

Univariate Analysis

Distribution of respondent characteristics (n=100) through frequency and percentage.

Table 2. Univariate

Characteristics	F	%
Gender:		
Men	13	20.3
Female	51	79.7
Age:		
≤ 23	55	85.9
≥ 24	9	14.1
Force:		
2019	22	34.4
2020	42	65.6

Based on descriptive analysis involving age, gender, and generation of the 64 respondents, the mean age was 22.47 years, with an age range between 21 and 28 years and a standard deviation of 1.37. Most of the respondents were female (79.7%), with 20.3% being male. In terms of the batch, 34.4% of respondents were from the class of 2019, and 65.6% were from the class of 2020.

Bivariate Analysis

Table 3. Descriptive Analysis of Anxiety

	Frequency	Per cent	Valid Percent
Lightweight	34	53.1	53.1
Medium	26	40.6	40.6
Weight	4	6.3	6.3
Total	64	100.0	100.0

The majority of participants, 53.1%, experienced mild anxiety, followed by moderate anxiety, 40.6%, and severe anxiety, 6.3% each. These results indicate that most clinical clerkship students experience mild to moderate levels of anxiety.

Table 4. Spearman's Bivariate Analysis

Variables	SD	Mean	r	p
Diet	3.42	13.87	0.68	< 0.001
Anxiety	0.61	1.53	0.68	< 0.001

The level of anxiety (anxiety) of clinical clerkship students has an average (mean) value of 1.53 and a standard deviation (SD) of 0.62. The diet level has a mean value of 13.88 and a standard deviation of 3.43, according to descriptive analysis and Spearman correlation test. With a Spearman correlation coefficient (r) of 0.681 and a significance value (p) of 0.000 ($p < 0.01$), bivariate analysis showed a significant relationship between anxiety level and diet. These findings suggest that higher anxiety correlates with greater disordered eating; this relationship is considered strong and positive.

Table 5. Crosstabulation of Anxiety with Gender

		Anxiety		
		Lightweight	Medium	Weight
Gender	Female	24	24	3
	Men	10	2	1

Of the 64 respondents, the majority of women (51 people) experienced anxiety in the following levels: 24 people (47.1%) experienced mild anxiety, 24 people (47.1%) experienced moderate anxiety, and 3 people (5.9%) experienced severe anxiety. On the other hand, out of 13 male respondents, 10 people (76.9%) experienced mild anxiety, 2 people (15.4%) experienced moderate anxiety, and 1 person (7.7%) experienced severe anxiety. This result shows that although the majority of female and male respondents were in the mild anxiety category, there were more women with moderate anxiety than men.

This study revealed a significant relationship between the level of anxiety and diet in clinical clerkship students of Universitas Prima Indonesia (UNPRI). Using the cross-sectional analytical observational method and Spearman's bivariate analysis, this study recorded a correlation coefficient (r) of 0.681, indicating a strong positive relationship between anxiety and diet (Jones et al., 2023). This means that the higher the anxiety level of university students, the greater the disturbance that occurs in their eating patterns.

This result is relevant given that the majority of respondents, 53.1%, were in the mild anxiety category, while 40.6% had moderate anxiety, and 6.3% suffered from severe anxiety. Meanwhile, most of the respondents were women (79.7%), who statistically had a higher tendency to experience moderate anxiety than men.

The mental health of medical students is a global issue that continues to attract attention due to its impact on their ability to undergo medical education and practice (Jones et al., 2023). Previous research has shown that anxiety has a wide-ranging impact on eating patterns, both quantitatively and qualitatively, including overconsumption, neglect of essential nutrients, and disruption of eating schedules (Maghfira et al., 2023) (Budiyanti et al., 2021). In the local context, UNPRI students face additional pressures from family and community expectations as well as academic demands, making it urgent to understand the relationship between anxiety and diet.

Causes of Problems

Anxiety in medical students can be influenced by various factors, including:

- a. Academic Pressures: Medical students are required to understand complex material, undergo high-pressure exams, and face demanding clinical environments (Dhinata & Lumbuun, 2021).
- b. Social Expectations: Pressure from family and society can create additional anxiety that affects emotional stability (Putri, 2020).
- c. Unbalanced Lifestyle: Irregular diet, frequent consumption of fast food, and lack of sleep affect physical and mental health status (Mufidah & Soeyono, 2021).

Problem Solution

To address this issue, some steps that can be taken include:

- a. Stress Management Education: Students can be taught stress management techniques, such as progressive muscle relaxation or mindfulness exercises, which have been shown to effectively reduce anxiety (Sofiyani & Anisah, 2023).
- b. Nutrition Assistance: Providing nutrition consultation to help students maintain a balanced diet, including avoiding fast food that worsens mental health conditions.

- c. Psychosocial Support: Educational institutions can provide counselling services and support groups to help students deal with academic and social pressures.
- d. Improved Academic Policies: More humanized study load arrangements and provision of adequate break time can reduce students' anxiety levels.

Impact if Solution is Implemented

The implementation of this solution can have a significant positive impact, including:

- a. Improved Mental Health: With better stress management, college students can reduce symptoms of anxiety that impact diet.
- b. Nutritional Balance: A regular and balanced diet can improve cognitive and physical function, helping students cope with academic demands.
- c. Academic Productivity: Students who are physically and mentally healthier tend to be more productive and able to achieve better academic results.

The results of this study are in line with the findings of Firdausy et al. (2022), which showed that unhealthy eating patterns are associated with high levels of student stress. However, this study strengthens its novelty by focusing on the specific relationship between anxiety and diet in medical students, who have rarely been the main subject of previous studies. It makes a novel contribution to the literature by highlighting the importance of integrated interventions between mental health and nutritional management (Jones et al., 2023).

This study showed a strong association between anxiety and diet in medical students. The findings emphasize the need for a holistic approach in addressing student health, including strategies to manage anxiety and improve their diet (Karimullah, 2023). By implementing the mentioned recommendations, educational institutions can improve students' well-being and support them in facing academic and social challenges.

CONCLUSION

Descriptive analysis showed that the majority of respondents were female (79.7%), with an average age of 22.47 years. Most of the respondents were from the class of 2020 (65.6%). In terms of anxiety, 53.1% of respondents considered it mild, 40.6% considered it moderate, and 6.3% considered it severe. It was shown that the respondents' diets were very different, with a mean of 13.88 and a standard deviation of 3.43. With a correlation coefficient (r) of 0.681 and a significance value (p) of 0.000, bivariate analysis with the Spearman correlation test showed a significant relationship between anxiety and diet.

With a correlation coefficient (r) of 0.681 and a significance value (p) of 0.000, bivariate analysis with the Spearman correlation test showed a significant relationship between anxiety and eating patterns. This indicates a positive relationship, where higher anxiety is associated with greater disordered eating. The results of the crosstabulation between anxiety and gender showed that both men and women generally experienced mild levels of anxiety; however, women tended to be in the moderate anxiety category.

REFERENCES

- Budiyanti, Y., Maidartati, M., & Ningrum, T. P. (2021). Hubungan Kecemasan Dengan Kejadian Gastritis Pada Remaja SMK. *Jurnal Keperawatan BSI*, 9(1), 115–120.
- Dhinata, K., & Lumbuun, N. (2021). Prevalensi Faktor Risiko Ansietas di Mahasiswa Fakultas Kedokteran (FK). *Researchgate. Net, December*.
- Dyrbye, L., & Shanafelt, T. (2016). A narrative review on burnout experienced by medical students and residents. *Medical Education*, 50(1), 132–149.

- Firdausy, A. I., Amanda, K. A., Alfaeni, S. W., Amalia, N., Rahmani, N. A., & Nasution, A. S. (2022). Hubungan Pola Makan Dan Stres Dengan Kejadian Gastritis Pada Mahasiswa Fakultas Ilmu Kesehatan Universitas Ibn Khaldun. *Contagion: Scientific Periodical Journal of Public Health and Coastal Health*, 3(2), 75. <https://doi.org/10.30829/contagion.v3i2.9627>
- Jones, E. O., Tham-Agyekum, E. K., Ankuyi, F., Ankrah, D. A., Akaba, S., Shafiwu, A. B., & Richard, F. N. (2023). Mobile agricultural extension delivery and climate-smart agricultural practices in a time of a pandemic: Evidence from southern Ghana. *Environmental and Sustainability Indicators*, 19, 100274. <https://doi.org/10.1016/j.indic.2023.100274>
- Karimullah, S. S. (2023). Holistic Approach in Islamic Education to Improve Mental Health. *EDUCARE: Jurnal Pendidikan Dan Kesehatan*, 1(1), 1–10.
- Kris-Etherton, P. M., Petersen, K. S., Hibbeln, J. R., Hurley, D., Kolick, V., Peoples, S., Rodriguez, N., & Woodward-Lopez, G. (2021). Nutrition and behavioral health disorders: depression and anxiety. *Nutrition Reviews*, 79(3), 247–260.
- Maghfira, P. I., Setiyowati, E., Putri, N. F., Rokhman, F., Sura, Z. A. M., & Isrina, L. I. (2023). Hubungan Tingkat Kecemasan Terhadap Pola Makan Pada Remaja. *Nusantara Hasana Journal*, 2(9), 124–127.
- Mufidah, R., & Soeyono, R. D. (2021). Pola Makan, Aktivitas Fisik, Dan Durasi Tidur Terhadap Status Gizi Mahasiswa Program Studi Gizi Unesa. *Gizi Unesa*, 1(1), 60–64.
- NurCita, B., & Susantiningih, T. S. (2020). Dampak pembelajaran jarak jauh dan physical distancing pada tingkat kecemasan mahasiswa. *Journal of Borneo Holistic Health*, 3(1), 58–68.
- Price, D. H. (2016). *Cold War anthropology: The CIA, the Pentagon, and the growth of dual use anthropology*. Duke University Press.
- Putra, D. D. (n.d.). *Analisis Dampak Pola Makan Terhadap Kesehatan Mental Dan Fisik*.
- Putri, A. R. (2020). Tinjauan Pustaka Mengenai Perbedaan Derajat Kecemasan Mahasiswa Fakultas Kedokteran Tahap Preklinik Dan Klinik. *Jurnal Ilmu Kedokteran Dan Kesehatan*, 7(1). <https://doi.org/10.33024/jikk.v7i1.2220>
- Sarason, I. G. (2019). Cognitive processes, anxiety and the treatment of anxiety disorders. In *Anxiety and the anxiety disorders* (pp. 87–108). Routledge.
- Sofiyani, D., & Anisah, R. L. (2023). Relaksasi Otot Progresif Menurunkan Ansietas Pada Mahasiswa Kartu Indonesia Pinter (KIP). *Jurnal Ilmiah Keperawatan Dan Kesehatan Alkautsar (JIKKA)*, 2(2), 35–42.



© 2024 by the authors. It was submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).