Relationship of Academic Stress and Emotional Eating with Obesity in Universitas Teuku Umar Nutrition Students

[1]Dinda Rahma Yanti, [2]Hanif Muchdatul Ayunda, [3]Sufyan Anwar, [4]Nasrianti Syam

[1]Department of Nutrition, Faculty of Health Sciences, Universitas Teuku Umar, Indonesia,
rahmayantidinda3@gmail.com
[2]Department of Nutrition, Faculty of Health Sciences, Universitas Teuku Umar, Indonesia,
hanifmuchdatul@utu.ac.id
[3]Department of Public Health, Faculty of Health Sciences, Universitas Teuku Umar, Indonesia,
sufyan.anwar@utu.ac.id
[4]Department of Nutrition, Faculty of Health Sciences, Universitas Teuku Umar, Indonesia,
nasriantisyam@utu.ac.id
Coresponding author: Hanif Muchdatul Ayunda, e-mail: hanifmuchdatul@utu.ac.id

ABSTRACT

Final-year students often experience academic stress, impacting their concentration, motivation, and thesis completion. Additionally, emotional eating has known negative health consequences, with a significant link between depression and weight gain. This quantitative study aimed to explore the relationship between academic stress levels, emotional eating, and the incidence of obesity among 163 final-year nutrition students at Universitas Teuku Umar. Univariate and bivariate tests were conducted for analysis. The findings revealed a significant relationship between academic stress and obesity (p-value = 0.004 < 0.05), with a moderate correlation strength of 0.485. Similarly, a significant relationship was found between emotional eating and obesity (p-value = 0.000 < 0.05). Furthermore, a simultaneous significant relationship between academic stress, emotional eating, and obesity was identified (Chi-Square Asymp Sig = 0.004 < 0.005). The logistic regression model was deemed suitable (Sig value = 0.996 > 0.05), indicating its effectiveness in predicting the observed classifications. The independent variables explained 59.9% of the dependent variable, with other factors accounting for the remainder. In conclusion, academic stress and emotional eating significantly influence the incidence of obesity among final-year nutrition students at Universitas Teuku Umar.

Introduction

Based on the 2018 Indonesian Basic Health Research (Riskesdas) data, the prevalence of nutritional status categorized by Body Mass Index (BMI) among individuals aged over 18 years was as follows: underweight (9.3%), normal weight (55.3%), overweight (13.6%), and obese (21.8%). Furthermore, the prevalence of obesity among the central Indonesian population aged over 15 years was reported at 31.0%, while in Aceh Province, the obesity prevalence was 30.2% (Riskesdas, 2018).

According to the Regulation of the Minister of Health (Permenkes, 2014), dietary patterns refer to the approach or effort in regulating the quantity and types of food consumed, which includes providing information aimed at maintaining health, ensuring nutritional status, and preventing or aiding in the recovery from illness. A proper dietary pattern should be accompanied by a balanced nutritional intake, which refers to the fulfillment of nutrient requirements that are adjusted to the body's needs and obtained through daily food consumption (Almatsier, 2001).

Emotional eating has been shown to have various negative impacts on health. Van Strien et al. (2016) found a significant association between depression and weight gain, with emotional eating acting as a mediating factor linking these two concepts. Furthermore, emotional eating has also been identified as a mediator in the relationship between stress and diet quality (Bell et al., 2021).

Changes in nutritional status can be identified through Body Mass Index (BMI) measurements. BMI is a screening method used to assess body composition based on weight and height, calculated using the BMI formula. Generally, BMI is applied to assess the nutritional status of adults. It is classified into several categories, including underweight, normal weight, overweight, and obesity. These changes in nutritional status can be influenced by various factors, such as stress and sleep quality (Allen, 2020).

Stress is a physical and emotional response that occurs when environmental changes require an individual to adapt (Ministry of Health of the Republic of Indonesia, 2018). According to Manginte (2018), stress is defined as an internal state that is

potentially harmful and uncontrollable, triggered by physical demands, environmental conditions, or social situations—this includes university students. In the final phase of their studies, senior students are required to fulfill academic obligations such as writing a thesis or completing a final project.

In higher education, students often face various academic pressures that can lead to stress. Academic stress is a condition that arises from high academic demands, such as excessive assignments, difficult examinations, and pressure to maintain academic performance. This type of stress can affect multiple aspects of students' lives, including their eating patterns. One common response to academic stress is emotional eating, which refers to the tendency to eat in response to negative emotions rather than physiological hunger (Ramadhani & Mastuti, 2022).

Based on preliminary survey results obtained through interviews conducted by the researcher with five final-year nutrition students at Universitas Teuku Umar, it was found that three out of five students admitted experiencing weight gain during their time in college. The primary cause of this weight gain, as revealed by the initial survey, was poor dietary habits. The eating behaviors identified by the researcher included eating in response to academic stress due to a high volume of assignments, snacking while working on coursework, and eating due to anxiety before or while awaiting exam results. The consumption of food or beverages not driven by physiological needs but rather triggered by negative emotions is referred to as emotional eating.

This study is limited in scope by focusing specifically on academic stress. Based on the identified problems described earlier, the research question formulated is as follows: Is there a relationship between the level of academic stress and emotional eating with the incidence of obesity among final-year students? Therefore, the objective of this study is to analyze the relationship between academic stress levels and emotional eating with the incidence of obesity among final-year nutrition students at Universitas Teuku Umar.

Method
This study employed a quantitative research approach using a cross-sectional design. Quantitative research is based on the positivist philosophy and is used to examine specific populations or samples. Data collection is conducted using research instruments, and the data are analyzed quantitatively or statistically, with the aim of testing predetermined hypotheses (Sugiyono, 2019).

The type of research applied in this study is associative (correlational) research, which aims to identify the relationship or influence between two or more variables. In this study, the associative analysis was conducted to determine the relationship between academic stress levels and emotional eating with the incidence of obesity among final-year nutrition students at Universitas Teuku Umar.

The population in this study consisted of final-year nutrition students from the 2021 cohort at Universitas Teuku Umar, totaling 163 individuals. The sampling method used was non-probability sampling with a total sampling technique, in which all members of the population were included as the sample. In this study, the sample size was determined by including the entire population of final-year nutrition students at Universitas Teuku Umar, resulting in a total sample of 163 participants. The analytical tools used in this study included univariate analysis, bivariate analysis, and logistic regression testing. The data were obtained through the distribution of questionnaires and were collected in quantitative form. The quantitative values were constructed using a Likert scale, which is a method for measuring attitudes based on the distribution of respondents' responses as the basis for understanding the measured variables (Sugiyono, 2019).

The Likert scale scoring method used in this study is as follows:

Table 1. Likert Scale

Score	Response	Value
1	Strongly Disagree	1
2	Disagree	2
3	Neutral	3
4	Agree	4
5	Strongly Agree	5

source: Teguh, (2005).

After the data were coded, they were analyzed using univariate and bivariate tests. In addition, logistic regression analysis was conducted to assess the model's feasibility, which was evaluated using the Hosmer and Lemeshow Goodness of Fit Test. This test evaluates the null hypothesis that the empirical data fit the model (i.e., there is no significant difference between the model and the observed data, indicating a good model fit). If the p-value is less than or equal to 0.05, the null hypothesis is rejected, indicating a significant difference between the model and the observed data—suggesting that the model does not adequately fit. Conversely, if the p-value is greater than 0.05, the null hypothesis is not rejected, indicating that the model is a good fit and capable of predicting the observed data (Hosmer, 2013).

Results
1. Respondent Characteristics Based on Gender
Table 2. Characteristics by Gender

No	Gender	Frequency	Percentage (%)
1	male	6	3.7
2	female	157	96.3
Total		**163**	**100**

Source: Processed Data, SPSS (2024).

Based on the data analysis, out of the 163 respondents studied, the majority were female, totaling 157 individuals or 96.3% of the entire

sample. Meanwhile, male respondents accounted for only 6 individuals, representing 3.7%.

2. Respondent Characteristics Based on Age
Table 3. Characteristics by Age

No	Age	Frequency	Percentage
1	< 20 years	16	9.8
2	21 - 22 years	145	89.0
3	23 - 24 years	2	1.2
4	25 - 26 years	0	0.0
5	> 27 years	0	0.0
	Total	**163**	**100**

Source: Processed Data, SPSS (2024)

The largest age group was 21–22 years old, comprising 145 respondents or 89%. This was followed by respondents under the age of 20, totaling 16 individuals (9.8%), and those aged 23–24 years, totaling 2 individuals (1.2%). There were no respondents aged 25 years or older.

3. Respondent Characteristics Based on Body Weight
Table 4. Characteristics by Body Weight (BW)

No	BB (Kg)	Frequency	Percentage (%)
1	< 50	84	51.5
2	51 - 55	40	24.5
3	56 - 60	19	11.7
4	61 - 70	15	9.2
5	> 71	5	3.1
	Total	**163**	**100**

Source: Processed Data, SPSS (2024)

Most respondents in this study had a body weight (BW) of under 50 kg, totaling 84 individuals or 51.5% of the total sample. Respondents with a body weight of 51–55 kg numbered 40 individuals (24.5%), those weighing 56–60 kg totaled 19 individuals (11.7%), 61–70 kg included 15 individuals (9.2%), and those weighing over 70 kg amounted to 5 individuals (3.1%).

4. Respondent Characteristics Based on Height
Table 5. Characteristics by Height

No	Height (cm)	Frequency	Percentage (%)
1	< 150	49	30.1
2	151 - 155	58	35.6
3	156 - 160	39	23.9
4	161 - 170	16	9.8
5	> 171	1	0.6
	Total	**163**	**100**

Source: Processed Data, SPSS (2024).

Regarding height (HT), most respondents had a height of 151–155 cm, totaling 58 individuals or 35.6%. This was followed by respondents with a height below 150 cm, totaling 49 individuals (30.1%), those with a height of 156–160 cm, totaling 39 individuals (23.9%), a height of 161–170 cm with 16 individuals (9.8%), and only 1 respondent (0.6%) with a height above 171 cm.

Table 6. Univariate Test Results

Characteristic	Frequency (n = 163)	Percentage (%)
Academic Stress		
Lower Level	5	3,1
High Level	158	96,9
Emotional Eating		
Normal	0	0,0
light	75	46,0
Moderate	48	29,4
Severe	25	15,3
Very Severe	15	9,2
Obesity Incidence		
Severely Underweight	3	1,8
Underweight	16	9,8
Normal	125	76,7
Overweight	10	6,1
Obese	9	5,5

Meanwhile, the results of the univariate analysis showed that for the academic stress variable, most respondents experienced a high level of academic stress, totaling 158 individuals or 96.6% of the total sample. For the emotional eating variable, most respondents fell into the light category, totaling 75 individuals (46.0%), followed by the moderate category with 48 respondents (29.4%). As for the obesity variable, most respondents were classified as having a normal nutritional status, totaling 125 individuals or 76.7%.

DISCUSSION
1. The Relationship Between Academic Stress and the Incidence of Obesity
Based on the results of the bivariate analysis, the relationship between academic stress and the incidence of obesity yielded a p-value of 0.004, which is less than 0.05. Therefore, it can be concluded that there is a statistically significant relationship between academic stress and obesity. The correlation coefficient obtained was 0.485, indicating a moderate strength of association between academic stress and the incidence of obesity.

This finding is consistent with the results of a study by Miliandani & Meilita (2021), entitled "The Relationship Between Stress Levels and the Incidence of Obesity Among Final-Year Students at the Faculty of Health Sciences, As-Syafi'iyah Islamic University, East Jakarta, 2021." The study found a significant relationship between stress levels and the nutritional status of final-year students at the Faculty of Health Sciences, UIA Jakarta.

Table 7. The Relationship Between Academic Stress and Obesity Incidence

Academic Stress	Obesity Incidence					Total	p-value	Correlation
	Severely Underweight	Underweight	Normal	Overweight	Obese			
Lower Level	0 (0,0%	1 (0,6%)	4 (2,5%)	0 (0,0%)	0 (0,0%)	5 (3,1%)	0,004	0,485
Hight Lever	3 (1,8%)	15 9,2%)	121 (74,2%)	10 (6,1%)	9 (5,5%)	158 (96,9%)		
Total	3 (1,8%)	16 (9,8%)	125 (76,7%)	10 (6,1%)	9 (5,5%)	163 (100%)		

This finding is also supported by a study conducted by Fitriyani (2023), entitled "The Relationship Between Stress Levels and the Incidence of Obesity Among Final-Year Undergraduate Students at the Faculty of Nursing, Unissula." The analysis also showed a significant relationship between stress levels and the incidence of obesity.

Stress can affect an individual's food intake and nutritional status. During periods of stress, a person may either overeat or experience a reduced appetite, both of which can lead to changes in nutritional status (Nurkhopipah, 2017). This occurs because stress increases cortisol levels in the body, which can slow down metabolism. As a result, the rate of calorie burning decreases, making it more difficult to lose weight and potentially causing weight gain (Manginte', 2018). Stress is not a direct factor in altering Body Mass Index (BMI), but it can influence changes in eating patterns and food preferences through stress-coping mechanisms (Serin & Şanlıer, 2018). Stress is also commonly experienced by university students, with sources often stemming from academic demands, including both external pressures and self-imposed expectations. During periods of stress, individuals may experience changes in appetite. Those who are overweight or obese are more likely to engage in emotional eating as a coping response, often consuming foods high in calories and fat (Tinnie, 2013).

2. The Relationship Between Emotional Eating and the Incidence of Obesity

The analysis conducted using SPSS showed that emotional eating is associated with the incidence of obesity among final-year nutrition students at Universitas Teuku Umar. This is supported by a p-value of 0.000, which is less than 0.05, indicating a statistically significant relationship between emotional eating and the incidence of obesity.

These findings are consistent with the results of a study conducted by Laili (2023), in which bivariate analysis revealed a significant relationship between academic stress and the incidence of obesity (p = 0.015), between emotional eating and obesity (p = 0.001), and between dietary patterns and obesity (p < 0.001). Furthermore, multivariate analysis showed that academic stress, emotional eating, and dietary patterns contributed to 27.2% of the variation in nutritional status. The remaining 72.8% was influenced by other factors not included in the tested model.

Table 8. The Relationship Between Emotional Eating and Obesity Incidence

Emotional Eating	Obesity Incidence					Total	p-value	Correlation
	Severely Underweight	Underweight	Normal	Overweight	Obese			
Normal	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)		
Light	3 (4,0%)	9 (12,0%)	60 (80,0%)	3 (4,0%)	0 (0,0%)	75 (100%)		
Moderate	0 (0,0%)	6 (12,5%)	35 (72,9%)	2 (4,2%)	5 (10,4%)	48 (100%)	0,000	0,449
Severe	0 (0,0%)	1 (4,0%)	18 (72,0%)	3 (12.0%)	3 (12,0%)	25 (100%)		
Very Severe	0 (0,0%)	0 (0,0%)	12 (80,0%)	2 (13,3%)	1 (6,7%)	15 (100%)		
Total	3 (1,8%)	16 (9,8%)	125 (76,7%)	10 (6,1%)	9 (5,5%)	163 (100%)		

The results of this study indicate a significant relationship between emotional eating and the incidence of obesity, in which final-year students who experience emotional eating tend to have a higher likelihood of obesity. Emotional eating can be defined as an excessive tendency to respond to negative emotions through eating. Emotional eating has important implications for both physical and psychological health, including increased nutritional status, the development of eating disorders such as binge eating and bulimia nervosa, as well as depression (Tan & Chow, 2014). Unstable emotional conditions may lead individuals to cope by consuming foods high in calories, cholesterol, energy, or protein, which in turn can result in excessive weight gain. Overeating behavior is a form of maladaptive stress coping, typically classified as emotion-focused coping. Individuals who engage in

emotional eating do so not because they are physically hungry, but as an attempt to regulate their mood and alleviate discomfort caused by stress (Ozier et al., 2007). Theoretically, during stressful conditions, there is an increase in cortisol hormone levels, which significantly affect hunger and appetite (Chao, Jastreboff, White, Grilo, & Sinha, 2017). According to Fadilah, Muniroh, and Zulkarnain (2024), when the adrenal glands release cortisol, it stimulates the metabolism of carbohydrates and fats, triggers insulin release, and regulates blood glucose levels and neuropeptide Y (NPY). Changes and stimulation in these hormonal activities contribute to the sensation of hunger and the tendency to choose foods high in energy, sugar, and fat as a form of stress relief and emotional comfort (Masdar, Saputri, Rosdiana, Chandra, & Darmawi, 2016).

3. The Relationship Between Academic Stress and Emotional Eating with the Incidence of Obesity

Table 9. The Relationship Between Academic Stress and Emotional Eating with Obesity Incidence

	Value	Df	Asymptotic Significance (2-Slided)
Pearsen Chi Square	18.549	12	.004

Source: Processed Data, SPSS (2024).

The analysis results indicate a significant relationship between academic stress and emotional eating with the incidence of obesity. This is based on the obtained Asymp. Sig value of 0.004. Since 0.004 < 0.005, it can be concluded that there is a statistically significant association between the variables. According to the decision rule, if the Asymp. Sig value is less than 0.005, a relationship between variables exists. Conversely, if the Asymp. Sig value is greater than 0.005, no relationship is considered present.

Logistic Regression Test
Model Fit Test
Table 10. Model Fit Test

Hosmer and Lemeshow Test			
Step	Chi Squere	df	Sig
1	.185	4	.996

Source: Processed Data, SPSS (2025).

Furthermore, based on the model fit test table, the significance value obtained was 0.996, which is greater than 0.05. Therefore, the model fit is accepted. This indicates that the logistic regression model is appropriate for use, as there is no significant difference between the predicted classifications and the observed classifications.

Significance Test
Meanwhile, the coefficient of determination based on the Nagelkerke R Square value was 0.599. This indicates that the dependent variable can be explained by the independent variables by 59.9%,

while the remaining 40.1% is explained by other variables not included in the model. Therefore, it can be concluded that academic stress and emotional eating have a substantial influence on the incidence of obesity among final-year nutrition students at Universitas Teuku Umar.

Table 11. Coefficient of Determination

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	36.711ᵃ	.048	.599

Source: Processed Data, SPSS (2024).

These findings are also consistent with the study conducted by Fadilah, Muniroh, and Zulkarnain (2024), entitled "The Relationship Between Stress Levels and Emotional Eating with the Incidence of Obesity Among Final-Year Students." The study found significant relationships between stress levels ($p = 0.040$) and emotional eating ($p = 0.010$) with the incidence of obesity. The study concluded that final-year students with poor nutritional status and obesity tended to experience higher levels of stress and engage more frequently in emotional eating compared to those with normal nutritional status. The researchers recommended that respondents manage their stress, consume healthy foods, and engage in regular physical activity.

In addition, the findings are supported by a study conducted by Roziqil and Puteri (2024), entitled "The Relationship Between Stress and Emotional Eating with Nutritional Status Among Nutrition Students at Universitas Pahlawan Tuanku Tambusai in 2023." The study reported a significant relationship between stress and nutritional status among nutrition students at Universitas Pahlawan Tuanku Tambusai in 2023.

Changes in an individual's nutritional status can be influenced by various factors, one of which is stress. The level of academic stress experienced by students, particularly final-year students, affects their psychological condition and can lead to emotional eating — a behavior in which individuals consume excessive amounts of food not due to physical hunger, but to cope with the stress they are experiencing (Syarofi, 2018).

Conclusion
Based on the discussion and data analysis presented in the previous chapters, it can be concluded that there is a significant relationship between academic stress and the incidence of obesity among final-year nutrition students at Universitas Teuku Umar, as indicated by a p-value of 0.004 (< 0.05). The correlation coefficient obtained was 0.485, which indicates a moderate strength of association between academic stress and obesity. Similarly, a significant relationship was also found between emotional eating and the incidence of obesity, with a p-value of 0.000 (< 0.05), suggesting that emotional eating is significantly associated with obesity among final-year nutrition students. Furthermore, a

simultaneous analysis revealed a significant relationship between academic stress and emotional eating with the incidence of obesity, supported by the Chi-Square test result with an Asymp. Sig value of 0.004 (< 0.005). The model fit test yielded a significance value of 0.996 (> 0.05), indicating that the logistic regression model is appropriate and fits the data well, as there is no significant difference between the predicted and observed classifications. The Nagelkerke R Square value was 0.599, meaning that 59.9% of the variation in the dependent variable (obesity incidence) can be explained by the independent variables (academic stress and emotional eating), while the remaining 40.1% is attributed to other unmeasured factors. Therefore, it can be concluded that academic stress and emotional eating have a substantial influence on the incidence of obesity among final-year nutrition students at Universitas Teuku Umar.

References

Allen, C. (2020). Sigmund Freud, Karen Horney, Nancy Chodorow: Viewpoints on Psychodynamic Theory. *The Balance of Personality*.

Almatsier, S. (2001). *Prinsip Dasar Ilmu Gizi*. Jakarta: Gramedia Pustaka Utama.

Al-Musharaf, S. (2020). Prevalence awend predictors of emotional eating among healthy young saudi women during the COVID-19 pandemic. *Nutrients*, *12*(10)

Barseli, M., Ifdil, I., & Nikmarijal, N. (2017). Konsep stres akademik siswa. *Jurnal Konseling Dan Pendidikan*, *5*(3), 143–148.

Bell, B. M., Spruijt-Metz, D., Naya, C. H., Lane, C. J., Wen, C. K. F., Davis, J. N., & Weigensberg, M. J. (2021). The mediating role of emotional eating in the relationship between perceived stress and dietary intake quality in Hispanic/Latino adolescents. *Eating Behaviors*, *42*, 101537.

Chao, A. M., Jastreboff, A. M., White, M. A., Grilo, C. M., & Sinha, R. (2017). Stress, cortisol, and other appetite-related hormones: Prospective prediction of 6-month changes in food cravings and weight. *Obesity*, *25*(4)

Fadilah, N., Muniroh, L., & Zulkarnain, S. (2024). *Hubungan Tingkat Stres dan Emotional Eating dengan kejadian obesitas*. *5*(September), 6512–6521.

Fitriyani, L. (2023). *Hubungan Tingkat Stres Dengan kejadian obesitas Mahasiswa Tingkat Akhir S1 Fakultas Ilmu Keperawatan Unissula*. Universitas Islam Sultan Agung Semarang.

Hosmer. (2013). *Applied Logistic Regression.3rd edn*

John New York: Wiley;

Kariv, D., & Heiman, T. (2005). Task-oriented versus emotion-oriented coping strategies: The case of college students. *College Student Journal*, *39*(1).

Krisdayani, D. D., Agustina, A., & Hanifah, L. (2023). Hubungan Pola Makan, Pengetahuan Gizi Seimbang Dan Sosial Budaya Dengan kejadian obesitas Calon Pengantin. *Gizi Indonesia*, *46*(1)

Manginte", A. B. (2018). Hubungan Antara Stres Dengan kejadian obesitas Mahasiswa Program S1 Keperawatan Semester Viii Stikes Tana Toraja Tahun 2015. *AgroSainT*, *6*(3), 182–192.

Masdar, H., Saputri, P. A., Rosdiana, D., Chandra, F., & Darmawi, D. (2016). Depresi, ansietas dan stres serta hubungannya dengan obesitas pada remaja. *Jurnal Gizi Klinik Indonesia*, *12*(4).

Miliandani, D., & Meilita, Z. (2021). Hubungan Antara Tingkat Stres Dengan kejadian obesitas Mahasiswa Tingkat Akhir Di Fakultas Ilmu Kesehatan Universitas Islam As-Syafi'Iyah Jakarta Timur Tahun 2021. *Afiat*, *7*(1)

Nisa, A. K. (2007). *Hubungan Harga Diri dengan Perilaku Makan Tidak Sehat pada Remaja Putri.*

Nurkhopipah, A. (2017). *Hubungan Kebiasaan Makan, Tingkat Stres, Pengetahuan Gizi Seimbang dan Aktivitas Fisik dengan Indeks Massa Tubuh Mahasiswa S-1 Universitas Sebelas Maret Surakarta*. UNS (Sebelas Maret University).

Oh, M.-H., & Cheon, S. M. (1994). Analysis of academic stressors and symptoms of juveniles and effects of meditation training on academic stress reduction. *Journal of Human Understanding and Counseling*, *15*(1), 63–96.

Ozier, A. D., Kendrick, O. W., Knol, L. L., Leeper, J. D., Perko, M., & Burnham, J. (2007). The Eating and Appraisal Due to Emotions and Stress (EADES) Questionnaire: Development and Validation. *Journal of the American Dietetic Association*, *107*(4).

Ramadhani, I. R., & Mastuti, E. (2022). Buletin Riset Psikologi dan Kesehatan Mental Hubungan antara Stres Akademik dengan Emotional Eating pada Mahasiswa. *BRPKM: Buletin Riset Psikologi Dan Kesehatan Mental*, *2*(1), 686–692.

Roziqil, P., & Puteri, A. D. (2024). *Plenary Health : Jurnal Kesehatan Paripurna Volume 1 Issue 3 2024 Page 365-371 Hubungan Stress Dan Emotional Eating Dengan kejadian obesitas pada mahasiswa Program Studi Gizi Universitas Pahlawan Tuanku Tambusai Tahun 2023*. *1*(3), 365–371.

Serin, Y., & Şanlıer, N. (2018). Emotional eating, the factors that affect food intake, and basic approaches to nursing care of patients with eating disorders. *Journal of Psychiatric Nursing/Psikiyatri Hemsireleri Dernegi*, *9*(2).

Sugiyono, P. D. (2019). Metode Penelitian Kuantitatif Kualitatif dan R&D (M. Dr. Ir. Sutopo. S. Pd. *Alfabeta, Cv*.

Supariasa, I. D. N., Bakri, B., & Fajar, I. (2013). Penilaian status gizi (edisi revisi). *Jakarta: Penerbit Buku Kedokteran EGC*.

Syarofi, Z. N. (2018). *Hubungan tingkat stress dan emotional eating dengan kejadian obesitas pada mahasiswa program studi S-1 Gizi Reguler Tahun Keempat Universitas Airlangga*. Fakultas Kesehatan Masyarakat.

Tinnie, A. (2013). *Hubungan Stres Psikososial Dengan Konsumsi Makan Dan Status Gizi Siswa SMU Methodist-8 Medan*. Tesis. Departemen Gizi Kesehatan Masyarakat FKM USU, Medan.

Van Strien, T., Konttinen, H., Homberg, J. R., Engels, R. C. M. E., & Winkens, L. H. H. (2016). Emotional eating as a mediator between depression and weight 68 gain. *Appetite*, *100*, 216–224.

Wulan, D. A. N., & Abdullah, S. M. (2017). Prokrastinasi akademik dalam penyelesaian skripsi. *Jurnal Sosio - Humaniora*, *5*(1), 1–25.

******