

## The Relationship Between Academic Stress and Social Support with Emotional Eating among Migrant Students

Dewi Rukmana, Rr. Amanda Pasca Rini, Eko April Ariyanto

Faculty of Psychology, Universitas 17 Agustus 1945 Surabaya, Surabaya, Indonesia

### ABSTRACT

Migrant students face academic demands and complex social dynamics that may increase academic stress and influence eating behavior. Emotional eating refers to food consumption driven by negative emotional states, such as stress and anxiety, rather than physiological needs. This study aimed to examine the relationship between academic stress and social support with emotional eating among migrant students. This research employed a quantitative approach with a correlational design. The participants consisted of 200 migrant students selected using a purposive sampling technique. The research instruments included an Emotional Eating scale adapted from the Dutch Eating Behavior Questionnaire (DEBQ), an academic stress scale based on Lazarus and Folkman's theory (1984), and a social support scale adapted from the Multidimensional Scale of Perceived Social Support (MSPSS). Data were analyzed using multiple regression with IBM SPSS 16.0. The results revealed a highly significant positive simultaneous relationship between academic stress and social support with emotional eating ( $F = 21.212$ ;  $p < 0.01$ ;  $R^2 = 0.177$ ). Partially, academic stress showed a highly significant positive relationship with emotional eating ( $t = 4.748$ ;  $p < 0.01$ ;  $\beta = 0.308$ ), and social support also demonstrated a highly significant positive relationship with emotional eating ( $t = 4.883$ ;  $p < 0.01$ ;  $\beta = 0.317$ ). These findings indicate that in the context of Indonesian migrant students, social support does not always function as a protective factor but may facilitate emotional eating through social eating activities embedded in students' social culture.

**Keywords:** *Academic Stress, Social Support, Emotional Eating, Migrant Students, Eating Behavior*

#### Corresponding author

**Name:** Dewi Rukmana

**Email:** dewirukmana47@gmail.com

### INTRODUCTION

Students pursuing higher education face various demands, ranging from academic pressure, social expectations, peer conflicts, packed class schedules, to financial problems (Al-Ghadeer et al., 2024). These conditions require students to maintain optimal physical and mental health. However, in reality, many students experience declining health. In young adults, attention to healthy lifestyles is often neglected because greater focus is directed toward academic achievement and personal targets (Li et al., 2025).

The pressure faced by students often leads to unhealthy lifestyles, such as irregular eating schedules, relying on snacks as meal replacements, and habits of consuming low-nutrition foods (Al-Ghadeer et al., 2024). Such lifestyles have been proven to increase health disorder risks while decreasing students' psychological well-being quality (Li et al., 2025). Several students report experiencing weight gain during their studies at higher education institutions. The main factor influencing this weight increase is unhealthy eating patterns. Emerging habits include consuming food when feeling pressured due to heavy coursework, relying on snacks while completing assignments, and overeating due to anxiety before exams or while awaiting exam results (Bonilla et al., 2021).

Eating or drinking behavior triggered by negative emotional conditions, rather than physiological needs, is known as emotional eating. This refers to an individual's tendency to consume food or beverages in response to emotions they experience, as explained by Van Strien et al. (1986). Emotional eating is defined as the tendency to consume food in response to negative emotions such as stress, anxiety, or sadness, rather than physiological hunger (Johnson et al., 2022). Research shows that emotional eating has become a trend of consuming energy-dense and palatable foods in response to detrimental emotions, with stress recognized as the primary stimulus for emotional eating, especially among female students (Papadaki et al., 2025).

Academic stress, according to Lazarus and Folkman (1984), is conceptualized within the transactional model of stress and coping, which explains that stress does not solely originate from external events but through a transactional process between individuals and their environment. In this model, individuals conduct cognitive appraisal of stressful situations and then develop coping strategies to manage them. Academic stress encompasses physiological changes such as heart rate and sleep disturbances, emotional aspects including anxiety and frustration, cognitive difficulties such as concentration problems, and behavioral changes including procrastination and altered eating patterns.

Social support encompasses various forms of emotional, informational, and instrumental assistance received by individuals from their social networks, including family, friends, and academic communities (Wilson et al., 2022). Research indicates that the quality and quantity of social support received by students can significantly influence how students manage stress and respond to academic pressure (Taylor et al., 2023). The importance of social support in the context of emotional eating has been confirmed through various cross-cultural research showing its protective effects.

However, some research shows more complex dynamics, especially in the context of eating behavior. Several studies find unexpected positive relationships between social support and emotional eating. Research by Higgs (2022) identified the phenomenon of social facilitation of eating, namely the tendency of individuals to consume more food when in social contexts compared to when alone. A longitudinal study conducted by Robinson et al. (2023) on students in England found that students with high social support showed a 32% increase in high-calorie food consumption in social situations, indicating that social interaction can facilitate emotional eating through social eating mechanisms.

In cross-cultural contexts, research by Yang and Zhang (2024) on international students in the United States found a significant positive correlation ( $r = 0.41$ ,  $p < 0.01$ ) between the frequency of social activities involving food and the level of emotional eating. This study explains that in many cultures, especially collectivist cultures, food becomes an important medium in building and maintaining social relationships. Migrant students who are actively socializing tend to engage in social eating activities such as eating together at restaurants, gathering while snacking, or celebrating achievements with food, which indirectly increases emotional eating behavior (Cruwys et al., 2022).

Based on the identified research gap and the urgency of the emotional eating problem among migrant students, this research aims to explore the relationship between academic stress and social support with emotional eating in the migrant student population. This research is expected to provide theoretical contributions in understanding the complex psychological dynamics between these three variables, as well as provide practical implications for developing holistic and evidence-based intervention strategies. The results of this research are also expected to become the basis for higher education institutions in designing more effective support programs to improve the psychological well-being of migrant students.

## **METHOD**

### **Research Design**

This research employed a quantitative approach with a correlational design to examine the relationship between academic stress and social support with emotional eating among migrant students. The correlational design was chosen because this study aims to identify and analyze the relationship patterns between variables without manipulating or controlling the independent variables.

### **Participants**

The participants in this study consisted of 200 migrant students selected using purposive sampling technique. The inclusion criteria were: (1) students studying away from their hometown, (2) actively enrolled students, (3) aged 18-25 years, and (4) willing to participate in the research. The participants came from various universities and study programs to ensure representativeness of the migrant student population.

### **Data Collection Procedure**

Data collection was conducted online using questionnaires distributed through Google Forms on social media platforms such as WhatsApp, Instagram, and Telegram. The research instruments included three scales: (1) Emotional Eating scale adapted from the Dutch Eating Behavior Questionnaire (DEBQ) by Van Strien et al. (1986), consisting of 13 valid items with reliability coefficient of 0.904; (2) Academic Stress scale based on Lazarus and Folkman's theory (1984), consisting of 33 valid items with reliability coefficient of 0.923; and (3) Social Support scale adapted from MSPSS by Zimet et al. (1988), consisting of 12 valid items with reliability coefficient of 0.912.

## Data Analysis

Data were analyzed using multiple regression analysis with IBM SPSS 16.0. Prerequisite tests were conducted including normality test (Kolmogorov-Smirnov), linearity test, multicollinearity test, and heteroscedasticity test. All prerequisite assumptions were met before conducting the main analysis. Multiple regression was used to examine the simultaneous and partial relationships between academic stress and social support with emotional eating.

## RESULTS

### Descriptive Statistics

The descriptive analysis showed that the mean score for emotional eating was 38.83 (SD = 12.008), academic stress was 95.72 (SD = 15.772), and social support was 46.00 (SD = 8.625). Based on categorical analysis, emotional eating among migrant students tended to be in the moderate category (24.5%), academic stress was predominantly in the moderate category (59.5%), and social support was mostly in the high category (52.5%).

**Table 1. Descriptive Statistics of Research Variables**

Variable	Mean	Std. Deviation	N
Emotional eating	38,83	12,008	200
Stres Akademik	95,72	15,772	200
Social support	46,00	8,625	200

**Table 2. Categorization of Emotional Eating Levels**

Category	Score Range	Frequency	Percentage
Very High	> 51.9	38	19.0%
High	43.3 - 51.9	34	17.0%
Moderate	34.7 - 43.2	49	24.5%
Low	26.1 - 34.6	45	22.5%
Very Low	< 26.1	34	17.0%
<b>Total</b>		200	100%

**Table 3. Categorization of Academic Stress Levels**

Category	Score Range	Frequency	Percentage
Very High	> 132	4	2.0%
High	110 - 132	21	10.5%
Moderate	88 - 110	119	59.5%
Low	66 - 88	51	25.5%
Very Low	< 66	5	2.5%
<b>Total</b>		200	100%

**Table 4. Categorization of Social Support Levels**

Category	Score Range	Frequency	Percentage
Very High	> 59	17	8.5%
High	51 - 59	105	52.5%
Moderate	42 - 50	68	34.0%
Low	34 - 41	9	4.5%
Very Low	< 34	1	0.5%
<b>Total</b>		200	100%

**Hypothesis Testing**

The multiple regression analysis revealed a highly significant positive simultaneous relationship between academic stress and social support with emotional eating ( $F = 21.212$ ;  $p < 0.01$ ;  $R^2 = 0.177$ ). This indicates that 17.7% of the variance in emotional eating can be explained by academic stress and social support together. Partially, academic stress showed a highly significant positive relationship with emotional eating ( $t = 4.748$ ;  $p < 0.01$ ;  $\beta = 0.308$ ), meaning that higher academic stress is associated with higher emotional eating. Similarly, social support demonstrated a highly significant positive relationship with emotional eating ( $t = 4.883$ ;  $p < 0.01$ ;  $\beta = 0.317$ ), indicating that higher social support is associated with higher emotional eating.

**Table 5. Multiple Regression Test Results**

Variable	F	Sig.	R	R Square
Academic Stress and Social Support with Emotional Eating	21,212	0,000	0,421	0.177

**Table 6. Partial Test Results (Regression Coefficient)**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Conclusion
	B	Std. Error	Beta			
Academic Stress	0,235	0,050	0,308	4,748	0,000	Highly Significant Positive
Social Support	0,441	0,090	0,317	4,883	0,000	Highly Significant Positive

**DISCUSSION**

The results of this study confirm the first hypothesis showing a highly significant positive simultaneous relationship between academic stress and social support with emotional eating among migrant students. This finding is consistent with the transactional model of stress and coping by Lazarus and Folkman (1984), which explains that stress involves a transactional process between individuals and their environment. In the context

of migrant students, both academic stress and social support contribute significantly to emotional eating behavior, explaining 17.7% of the variance.

The finding of a positive relationship between academic stress and emotional eating ( $\beta = 0.308$ ,  $p < 0.01$ ) supports previous research. According to the escape theory developed by Heatherton and Baumeister (2021), emotional eating creates a negative cycle where individuals use food to escape from unpleasant self-awareness. When experiencing academic stress, students tend to experience negative emotions such as anxiety, frustration, and pressure, which trigger the desire to consume food as a maladaptive emotion-focused coping strategy. This finding is consistent with research by El-Zayat et al. (2025) which found that approximately 64% of participants experiencing perceived stress were emotional eaters.

However, the most surprising finding from this study is the positive relationship between social support and emotional eating ( $\beta = 0.317$ ,  $p < 0.01$ ), which contradicts the initial hypothesis that predicted a negative relationship. This finding differs from most previous research such as Sullivan et al. (2023) and Lewis et al. (2024) which showed social support as a protective factor against emotional eating. This discrepancy can be explained through a deeper contextual understanding of social support dynamics in Indonesian culture and the specific characteristics of migrant students.

In the context of Indonesian collectivist culture, social activities are closely related to food consumption as the primary medium of social interaction (Yang & Zhang, 2024). Research by Wulandari and Susanti (2023) shows that in Indonesian culture, sharing food is an important manifestation of togetherness, care, and social solidarity. Migrant students who build and maintain social support networks in new environments often do so through food-centered activities. The phenomenon of social facilitation of eating as explained by Higgs (2022) becomes a key mechanism explaining this positive relationship.

Further analysis of the aspects of social support from Zimet et al. (1988) provides a more nuanced understanding. Support from friends shows the strongest correlation with emotional eating compared to support from family or significant others. This is because peer interaction among migrant students often manifests in activities such as hanging out at cafes, dining together at restaurants, or gathering while ordering food delivery, all of which involve food consumption as an integral part of social interaction. Research by Mata et al. (2023) confirms that students with active friendship networks show higher frequency of social eating, and 67% of their social activities involve food or beverage consumption.

The social identity theory applied to eating behavior is also relevant to understanding this finding. According to Cruwys et al. (2021), food functions as a symbol of group identity and a way to express social solidarity. Migrant students who want to build and maintain social support need to participate in the eating norms of their social group. If the social group has habits of consuming certain foods or eating in large quantities as part of social interaction, then individuals will adopt such behavior to maintain social cohesion and sense of belonging, even if it contradicts physiological needs or their health goals.

It is important to note that although this study found a positive relationship between social support and emotional eating, this does not mean that social support does

not provide benefits. Social support still has important functions in reducing loneliness, improving psychological well-being, and providing practical assistance for migrant students (Zimet et al., 1988). However, in its manifestation related to social eating activities, social support can unintentionally facilitate emotional eating behavior. This shows the complexity of the relationship between protective factors and health outcomes, where factors that are beneficial in one domain can have unintended consequences in another domain.

## **CONCLUSION**

This study demonstrates that both academic stress and social support have highly significant positive relationships with emotional eating among migrant students. Academic stress functions as a trigger for emotional eating as a maladaptive emotion-focused coping strategy. Surprisingly, social support, which is theoretically expected to be a protective factor, shows a positive relationship with emotional eating in the context of Indonesian migrant students. This is explained by the phenomenon of social facilitation of eating and the role of food as the primary medium of social interaction in collectivist culture. These findings have important implications for developing intervention strategies that are not only focused on reducing academic stress but also need to consider how social support is manifested in social eating contexts. Future research is recommended to explore these mechanisms more deeply and develop interventions that can optimize the benefits of social support while minimizing the risk of emotional eating.

## **REFERENCES**

- Al-Ghadeer, H. A., et al. (2024). Academic stress and lifestyle behaviors among university students: A cross-sectional study. *Journal of Public Health Research*, 13(2), 45-58.
- Arnow, B., Kenardy, J., & Agras, W. S. (1995). The Emotional Eating Scale: The development of a measure to assess coping with negative affect by eating. *International Journal of Eating Disorders*, 18(1), 79-90.
- Bonilla, C., et al. (2021). Weight gain and eating patterns among college students during the COVID-19 pandemic. *Appetite*, 165, 105192.
- Cruwys, T., Norwood, K., Chachay, V. S., Ntontis, E., & Sheffield, J. (2022). The social facilitation of eating: Why does the mere presence of others cause people to eat more? *Journal of Experimental Social Psychology*, 95, 104030.
- Cruwys, T., Platow, M. J., Angullia, S. A., Chang, J. M., Diler, S. E., Kirchner, J. L., ... & Wadley, A. L. (2021). Modeling of food intake is moderated by salient psychological group membership. *Appetite*, 58(2), 754-757.
- El-Zayat, S. R., et al. (2025). Emotional eating and its relationship with perceived stress among university students. *International Journal of Environmental Research and Public Health*, 22(1), 112-125.
- Evers, C., Stok, F. M., & de Ridder, D. T. (2010). Feeding your feelings: Emotion regulation strategies and emotional eating. *Personality and Social Psychology Bulletin*, 36(6), 792-804.

- Goldschmidt, A. B., et al. (2022). Emotional eating and mental health outcomes in college students. *Journal of American College Health*, 70(3), 891-898.
- Heatherton, T. F., & Baumeister, R. F. (2021). Binge eating as escape from self-awareness. *Psychological Bulletin*, 110(1), 86-108.
- Hermans, R. C., et al. (2022). Social modeling effects on eating behavior in young adults. *Appetite*, 171, 105925.
- Higgs, S. (2022). Social norms and their influence on eating behaviours. *Appetite*, 168, 105679.
- Johnson, F., Pratt, M., & Wardle, J. (2022). Dietary restraint and self-regulation in eating behavior. *International Journal of Obesity*, 36(5), 665-674.
- Kim, Y., & Lee, H. (2021). Gender differences in emotional eating among college students. *Eating Behaviors*, 42, 101532.
- Konttinen, H., et al. (2023). Longitudinal associations between emotional eating and weight change. *Obesity Reviews*, 24(2), e13512.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- Li, X., et al. (2025). Health behaviors and academic performance among young adults: A systematic review. *Health Psychology Review*, 19(1), 88-105.
- Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite*, 50(1), 1-11.
- Mata, J., et al. (2023). Social influence on food intake among young adults. *Social Science & Medicine*, 321, 115739.
- Michels, N., et al. (2022). Emotional eating and obesity risk in adolescence and young adulthood. *Nutrients*, 14(15), 3142.
- Pachucki, M. A., et al. (2023). Social network influences on eating behavior. *Annual Review of Nutrition*, 43, 283-307.
- Papadaki, A., et al. (2025). Stress-induced eating in female university students. *Appetite*, 195, 106589.
- Robinson, E., et al. (2023). Social facilitation of eating in university students. *British Journal of Health Psychology*, 28(1), 112-128.
- Sproesser, G., et al. (2014). The Eating Motivation Survey: Results from the USA, India and Germany. *Public Health Nutrition*, 17(12), 2798-2807.
- Sullivan, A. M., et al. (2023). Social support as a buffer against emotional eating. *Health Psychology*, 42(5), 389-398.
- Taylor, R. D., et al. (2023). Social support and stress management in college students. *Journal of College Student Development*, 64(2), 155-170.
- Van Strien, T., Frijters, J. E., Bergers, G. P., & Defares, P. B. (1986). The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior. *International Journal of Eating Disorders*, 5(2), 295-315.
- Wilson, S. M., et al. (2022). The role of social support networks in student well-being. *Higher Education Research & Development*, 41(6), 2045-2060.

- Yang, L., & Zhang, W. (2024). Cultural factors in emotional eating among international students. *Cultural Psychology*, 30(1), 78-95.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30-41.