



Eating Patterns, Emotional Regulation, and Mental Well-Being among University Hostel Students: A Correlational Study

Arslan Asghar¹, Aqila Unbrin², Saba Ehsaan³, Sumbal Fatima⁴, Nazma Noreen⁵

¹ Student, Lahore Leads University, Lahore, Pakistan.

² Principal Clinical Psychologist, Punjab Institute of Mental Health, Lahore, Pakistan.

³ Ph.D. Scholar, Government College University of Lahore, Pakistan.

⁴ Psychologist, Al Shifa Hospital, Pakistan.

⁵ Lecturer, Bahria University Lahore. Pakistan.

ARTICLE INFO

Article History:

Received: November 25, 2025

Revised: March 15, 2026

Accepted: March 16, 2026

Available Online: March 17, 2026

Keywords:

Eating Patterns
Emotional Regulation
Mental Well-being
University Students

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

This study examined the relationships between eating patterns, emotional regulation, and mental well-being among university students residing in hostels. A quantitative correlational design was employed with a sample of 120 students aged 18–25 years. Standardized measures, including the Three-Factor Eating Questionnaire (TFEQ), Emotional Regulation Questionnaire (ERQ), and Warwick–Edinburgh Mental Well-being Scale (WEMWBS), were used to assess the relationship. Results indicated a significant positive relationship between healthy eating patterns and mental well-being ($r = .58$, $p < .01$), while emotional regulation was moderately positively associated with well-being ($r = .33$). Unhealthy eating patterns showed a weak negative association with emotional regulation ($r = -.17$). Gender differences revealed that female students reported higher mental well-being than males, although no significant differences were found in eating patterns or emotional regulation. Birth order was not a significant predictor of emotional regulation. These findings highlight the importance of promoting healthy eating and emotional regulation to enhance students' psychological well-being.

© 2026 The Authors, Published by iRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: sabaehsaan1@gmail.com

1. Introduction

University life is a significant different lifestyle and environmental changes that may have an impact on students' physical and psychological well-being. Pupils who are living in hostels are vulnerable because of shifting daily routines, such as classes, academic stress, and limited access to take nutritious from food (Papadaki et al., 2007). Eventually, these factors contribute to bad eating habits (El Ansari, Suominen, & Samara, 2015). It has been concluded that psychological and behavioral factors affect the style of eating patterns, like delaying the eating or missing the meal which affect the level of satisfaction and develop the dysfunctions such as including cognitive constraint and disinhibition. Cognitive restraint is conscious focus on food intake, on the other hand, disinhibition leads to overeating in managing the level of emotional or environmental causes. It has been concluded that

maladaptive eating patterns such as disinhibition linked to mental health issues develop unhealthy coping mechanisms (Lowe & Butryn, 2007; Stice, Fisher, & Martinez, 2004). Emotional management, like food behaviors, has a large impact on psychological outcomes. Emotional regulation is the process by which humans monitor, assess, and modify their emotional reactions (Gross & John, 2003). Adaptive tactics, such as cognitive reappraisal, have been associated to better mental health outcomes, whereas maladaptive strategies, such as emotional repression, have been linked to anxiety, depression, and decreased well-being (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Gross & John, 2003).

Mental health is a concept that consists of emotional, psychological, and social functioning, as well as life satisfaction and well-being of the individual (Diener et al., 1999; Seligman, 2011). Research concluded that good eating habits are linked with mental well-being, on the other hand, bad eating habits enhance chance of mental health issues such as psychological distress. Additionally, emotional regulation is a crucial feature that affects the well-being and it leads to good resilience and psychological stability (Gross & John, 2003). Hence, the connection between eating habits, emotional control, and mental health is complex. Emotionality leads to behavior issues such as poor eating habits, on the other hand, healthy eating styles promote emotional stability and well-being. There are international researches and less ingenious work in the Pakistani context, especially in university students who are living in hostels. Hence this study is focusing on the relationship between eating habits, emotional control, and mental health among university hostel students.

2. Methodology

2.1. Research Design

In this current study, a quantitative, cross-sectional correlational design was used to investigate the relationships among eating patterns, emotional regulation, and mental well-being among university hostel students.

2.2. Participants

The sample consisted of 120 university students (65 females, 55 males) aged between 18 and 25 years, recruited from various universities in Lahore, including Punjab University, COMSATS, Lahore Leads University, and Government College University (GCU). All participants had been residing in hostels for a minimum of six months.

2.3. Sampling Technique

A non-probability purposive sampling technique was employed to select participants based on accessibility and predefined inclusion criteria.

2.4. Inclusion and Exclusion Criteria

2.4.1. Inclusion Criteria:

- Students enrolled in BS, MSc, or MPhil programs
- Age range: 18–25 years
- Hostel residency for at least six months

2.4.2. Exclusion Criteria:

- Students without prior hostel living experience

2.5. Instruments

Three-Factor Eating Questionnaire (TFEQ) (Stunkard & Messick, 1985): Developed by Stunkard and Messick in 1985, the Three-Factor Eating Questionnaire (TFEQ) is a popular self-report assessment tool used to evaluate eating behaviors. Disinhibition (difficulty controlling eating in reaction to stimuli), Hunger (eating in response to emotions rather than hunger), and Cognitive Restraint (conscious control over food intake) are the three dimensions. Higher scores indicate stronger propensity toward the corresponding eating

behaviors. Scores are computed by averaging responses to related questions. In particular, higher Disinhibition and Hunger scores indicate emotional and uncontrolled eating, whereas higher Cognitive Restraint levels indicate stronger control. The TFEQ was initially created to investigate eating habits and weight control. It has now been standardized, offering cutoffs and standards to ascertain relative status within particular groups or the overall population.

Emotional Regulation Questionnaire (ERQ) (Gross & John, 2003): A 10-item self-report measure called the Emotional Regulation Questionnaire (ERQ) evaluates how each person regulates their emotions. It assesses two subscales: Suppression (4 items), which evaluates the deliberate concealment or denial of emotional responses, and Reappraisal (6 items), which measures the propensity to reinterpret emotional events. A seven-point Likert scale is used by participants to score the items (1 being strongly disagree and 7 being strongly agree). Greater use of the corresponding tactics is indicated by higher scores. While suppression is linked to worse results, reappraisal is linked to improved mental health. The ERQ has established convergent and discriminant validity and shown strong reliability ($\alpha = 0.79$ for Reappraisal and $\alpha = 0.73$ for Suppression) (Gross & John, 2003).

Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Stewart-Brown et al., 2009). A self-report questionnaire consisting of 14 items, the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) evaluates psychological dimensions of positive mental well-being in adults. functioning, emotional health, and interpersonal connections. Participants use a 5-point Likert scale to score 14 statements, such as "I have been feeling optimistic about the future" (1 = Never, 5 = Always). Good mental health leads to higher scores range from 14 to 70. Stewart-Brown et al. (2009) was developed WEMWBS, which has the good concurrent validity, test-retest reliability ($r = 0.83$), and internal consistency ($\alpha = 0.89$).

2.6. Procedure

First, for this study, ethical approval was obtained before the data collection. The data was collected through online platforms, and informed consent was also provided. Participants were informed about study purpose, and give them the right to withdraw at any time by maintaining confidentiality. Data was collected by using standardized tools.

3. Data Analysis

Data were analyzed with SPSS. Descriptive statistics (frequency, mean, and SD) were calculated. Pearson correlation analysis was used to investigate correlations between variables. Gender differences were assessed using independent sample t-tests, whereas differences among birth order groups were investigated using one-way ANOVA.

Table 1: Demographic Characteristics of the Study Sample (N=120)

Variables	f	%
Gender		
Male	57	47%
Female	63	53%
Age		
17 to 21 years	49	41%
22 to 27 years	71	59%
Birth Order		
First Born	38	31%
Middle Born	42	36%
Last Born	34	28%
Only Child	6	5%

Table 1 presents the demographic characteristics of the sample. The sample comprises 47% males and 53% females, indicating a slightly higher representation of females. Regarding age distribution, the sample falls into two distinct categories: 17-21 years (49%)

and 22-27 years (51%). Birth order is also examined, revealing that 31% of The sample is firstborns, 36% are middle-born, 28% are last-born, and 5% are only children.

Table 2: Correlations between Eating Patterns, Emotional Regulation, and Mental Well-Being

Variables	1	2	3
Eating Patterns	----	-0.17	.58**
Emotional Regulation		----	0.33
Mental Well-Being			-----

** $p < 0.01$

The correlation analysis indicates a significant positive relationship between eating patterns and mental well-being ($r = .58$, $p < .01$), suggesting that healthier eating is associated with better mental health. A weak negative relationship was observed between eating patterns and emotional regulation ($r = -.17$). Additionally, emotional regulation showed a moderate positive association with mental well-being ($r = .33$), indicating that better emotional control is linked to higher well-being.

Table 3: Independent t-test of gender difference on Emotional Regulation

Gender	M	SD	t-value
			-4.35
Male	45.3	11.75	
Female	46.2	10.3	

Note: *** $p < 0.001$, M= Mean, SD= Standard Deviation

The table shows an insignificant difference in emotional regulation scores between male and female students ($t = -4.35$, $p > 0.05$). Female students scored slightly higher ($M = 46.2$, $SD = 10.3$) than male students ($M = 45.3$, $SD = 11.75$).

Table 4: Independent t-test of gender difference on Mental Well-being

Gender	M	SD	t-value
			4.18
Male	57.3	8.2	
Female	63.2	8.1	

Note: *** $p < 0.001$, M= Mean, SD= Standard Deviation

An independent samples t-test revealed a significant difference in mental well-being scores between male ($M = 57.3$, $SD = 8.2$) and female ($M = 62.2$, $SD = 8.1$) students, $t = 4.18$, $p < .001$.

Table 5: Independent t-test of gender difference on Mental Well-being

Eating Patterns	Gender	M	SD	t-value
Cognitive Restraint	Male	15.5	4.2	4.18
	Female	14.1	3.4	
Disinhibition	Male	15.21	4.0	1.6
	Female	14.2	3.8	
Hunger	Male	15.7	3.2	-.446
	Female	15.5	2.8	

Note: *** $p < 0.001$, M= Mean, SD= Standard Deviation

An independent samples t-test revealed no significant gender differences in eating patterns. Males scored slightly higher than females on cognitive restraint, but the difference was not statistically significant ($p > .05$). Similarly, no significant differences were found for disinhibition and hunger, with comparable scores across genders. Overall, the findings indicate that eating habits are similar among male and female students.

Table 6: Mean, Standard Deviation, and One-Way Analysis of Variance in Emotional Regulation across birth order groups

Birth Orders	M	SD	F (3,115)	η^2
First Born	43.71	9.9	2.114	.102
Middle-born	49.14	9.8		
Last Born	44.94	11.5		
Only Child	41.83	17.5		

Note: *** $p < 0.001$, M= Mean, SD= Standard Deviation

Table 6 shows the mean emotional regulation scores across birth order groups, with middle-born participants reporting the highest scores, followed by last-born, first-born, and only children. However, one-way ANOVA indicated no statistically significant effect of birth order on emotional regulation ($F(3,115) = 2.114$, $p > .05$). Although not significant, the effect size ($\eta^2 = .102$) suggests that birth order accounted for 10.2% of the variance.

4. Discussion

The current study studied the relationships between eating behaviors, emotional regulation, and mental well-being among university hostel students. The findings give the insight regarding the psychological and behavioral factors that affect the students' well-being. The first hypothesis indicated the strong connection between healthy eating styles and mental well-being. This finding is similar with earlier research which has demonstrated that a good diet or food habits enhance the psychological functioning and reduce symptoms of worry. Healthy food boost neurobiological function, as neurotransmitter inflammation reduces, and both connected to enhanced cognitive performance. On the other hand, unhealthy eating styles may enhance psychological distress and reduce well-being. The study also showed a modest positive link between emotional regulation and mental well-being, adding support to recent research that highlights the requirement of adaptive emotional regulation systems in protecting psychological health (Gross & John, 2003). Individuals who can effectively manage their emotional responses are better equipped to cope with stress, which enhances their resilience and overall well-being. Poor emotional regulation, on the other hand, can lead to maladaptive coping techniques like emotional eating and increased psychological distress.

Surprisingly, a weak negative correlation was identified between eating patterns and emotional regulation, showing that persons with inferior eating habits may have less emotional control. This conclusion is consistent with prior research relating emotional dysregulation to dangerous eating practices such binge eating and emotional eating (Lowe & Butryn, 2007; Stice, Fisher, & Martinez, 2004). These findings underscore the relationship's bidirectional character, in which emotional issues can lead to poor eating, and improper dietary practices can impair emotional functioning. The findings showed that no significant variations in eating habits or emotional management between male and female. This gives suggestions of environmental factors, as hostel living situations have a greater effect on these behaviors. Moreover, there is also a large gap with female students regarding the mental health and reporting the high levels in males. This result are not similar with past studies, yet it could be linked to environmental factors as differences in social support, emotional expression and coping mechanisms. Additionally, the current study found no significant variations in emotional regulation among birth orders, on the descriptive measures it showed that middle-born participants scored better. On the other hand, birth order has been linked to affect the personality development, hence, current study showed that its related to emotional regulation, factors, as family or personal experiences have a stronger impact. Hence, generally, findings highlight the association of eating behaviors, emotional regulation, and mental health. The findings offer to a conduct more studies on which emphasize the value of nutrition and psychological components which enhance the student well-being. Moreover, the institution must look about implementing programs that promote appropriate eating habits and teach effective emotional control strategies.

5. Conclusion and Implications

The study highlights the role of healthy eating habits and emotional regulation in enhancing mental health among university students. The result showed that healthy eating habits and emotional control mechanisms are linked with better well-being. There are few limitations, this cross-sectional design limits causal inferences, and the use of self-report measures may create response bias. Additionally, the sample was restricted to dormitory students only from few universities, that limit the findings' generalizability. To better understand these linkages, future research should use longitudinal designs and more varied samples.

References

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217-237. <https://doi.org/10.1016/j.cpr.2009.11.004>
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276-302. <https://doi.org/10.1037/0033-2909.125.2.276>
- El Ansari, W., Suominen, S., & Samara, A. (2015). Eating habits and dietary intake: is adherence to dietary guidelines associated with importance of healthy eating among undergraduate university students in Finland? *Central European journal of public health*, 23(4), 306-313.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Lowe, M. R., & Butryn, M. L. (2007). Hedonic hunger: A new dimension of appetite? *Physiology & Behavior*, 91(4), 432-439. <https://doi.org/10.1016/j.physbeh.2007.04.006>
- Papadaki, A., Hondros, G., A. Scott, J., & Kapsokefalou, M. (2007). Eating habits of University students living at, or away from home in Greece. *Appetite*, 49(1), 169-176. <https://doi.org/10.1016/j.appet.2007.01.008>
- Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh mental well-being scale (WEMWBS): a Rasch analysis using data from the Scottish health education population survey. *Health and quality of life outcomes*, 7(1), 15. <https://doi.org/10.1186/1477-7525-7-15>
- Stice, E., Fisher, M., & Martinez, E. (2004). Eating Disorder Diagnostic Scale: Additional Evidence of Reliability and Validity. *Psychological Assessment*, 16(1), 60-71. <https://doi.org/10.1037/1040-3590.16.1.60>