

ORIGINAL ARTICLE

Prevalence of Emotional Eating Among Students of UBAS

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Conflict of Interest

All the authors have no conflict of interest

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Abstract

Background

Emotional eating is one of the main contributors to the emergence of many Global Public Health Challenges. External and Internal social and environmental stimuli sometimes fascinate and encourage individuals to eat more unhealthily.

Objective

The current study aims to determine the prevalence of emotional eating among a private medical university.

Methods

A cross-sectional quantitative study was conducted by using a validated questionnaire. A sample size of 175 students from the private university was taken. The Emotional Eating Questionnaire (EEQ) was utilized for data collection purposes. SPSS version 26 is utilized for the statistical analysis of the data.

Results

Emotional eating was most common among students aged 22 years. Males (54.34%) showed a higher prevalence of emotional eating than females (48.06%). A significant association was observed between the variables emotional eating and BMI ($p=0.05$), with a higher prevalence among overweight students.

Conclusion

The key findings of the current study demonstrated that emotional eating is very common among university students influenced by stress, academic pressure, and daily habits.

Keywords: Emotional eating, Eating habits, Eating disorders, Overeating, Prevalence

Introduction

Emotional eating emerged as a global public health problem. Emotional eating very commonly belongs with overeating. Many adverse emotions are manifest as a result of external stimuli, like irritability, stress response, and depression, which may lead to overeating (1). It has a deep association with both psychological and physical problems, i.e., malaise, efforts in weight control, and binge eating, etc. In emotional eating, an external stimulus, such as the food, is ingested. Emotional stimuli such as ennui, sadness, or sometimes stress encourage emotional eaters to eat instead of genuine hunger (2)

Emotional eating is an extensive global issue, with a high prevalence that manifests in different regions of the world. In Europe and North America, 30 to 47%

adults engaged with emotional eating behaviors. They welcomed obesity and inappropriate eating. (3). In Asia, emotional eating has an association with urbanization, an abrupt change in dietary patterns and habits, and with rising levels of psychological health issues. China and South Korea report 25% to 40% of young adults, especially university students, are more engaged in binge eating due to academic and social factors (4).

In fast-evolving countries, this effect is of particular concern, where the traditional dietary habits are frequently replaced by fast food eating habits, which further enhances the threat of obesity and serious metabolic disorders. It also addresses serious challenges, including wider psychosocial issues of

modernization, not just a change that affects eating habits (5). In countries with limited and moderate economic resources, emotional eating is an emerging concern; however, investigations have revealed that cases are not being properly reported. That's why emotional eating is an ambiguous contributor to many hurdles (6).

People experience destructive criticism and negative judgments, which abrade the feelings of fear and negative judgment. These individuals develop a fear of social situations. Hormonal variations and body shape aspects also encourage someone to eat more. As a result, loneliness leads them towards binge eating, as they are deprived of social support (7). According to the biopsychosocial model, a holistic framework is developed, which indicates an individual's attitude evolves from the combination of emotions and thinking styles, and social influence, all of which affect the eating habits (8).

Individuals are more likely to eat ultra-processed foods (UPFs) due to a lack of knowledge about nutrient-dense food, and they unintentionally choose energy-dense food. Sleep has a direct relation with emotional eating, as people may suffer from Night Eating Syndrome (NES), which is linked to psychopathological features, and being subjected to emotional eating behaviors (9). Individuals who get less than 7 hours of sleep daily eat emotionally due to certain factors like lack of sleep stress, tiredness, and anxiety, who become emotional eaters (10).

Emotional eaters are non-deliberating eaters. They unintentionally eat in bulk quantities instead of recommended amounts, such as sugary and fatty foods. This leads to unintended weight gain and risk of other chronic illnesses like diabetes and additional heart problems (11). A person in a low mood encounters several difficulties, resulting in sustained overeating and binge behavior. Several risk factors are associated with this type of emotional eating behavior. It is seen that emotional eating is a dominant cause of the worst health and harmful weight gain in young people (7). Academic pressures, financial strains, social and cultural strains, and homesickness, which possibly affect individuals' quality of life (QOL), are also serious issues that encourage emotional eating (12).

Emotional eating also has a strong impact on adolescents and adults, especially those who are emotionally weak and dealing with multiple challenges in academics and in their social lives (13). Involving oneself in these experiences gives rise to negativity, leading to unhealthy coping strategies, e.g., including emotional eating. These stressors exacerbate the bad outcomes of unhealthy eating behaviors in

young students (14). Certain modifications in daily routines, incorporating positive strategies, proper education, and interventions, aid in overcoming and mitigating emotional eating in individuals. (15)

The current objective is to determine the emotional eating prevalence among students of a private university, that signify ways in which major emotional and environmental factors impact individuals, especially at a young age, and their contribution to the sociodemographic factors in emotional eating.

Methodology

Research Design and Methodology

3.1 Study Design

The cross-sectional study was performed by utilizing a validated questionnaire, the Emotional Eating Questionnaire EEQ for this study.

3.2 Settings

The study was undertaken on the UBAS premises.

3.3 Participants

Inclusion criteria

Undergraduates from UBAS, aged between 18 and 25, were allowed to participate in the study.

Exclusion criteria

Students younger or older than 18-25 & postgraduate students are not included.

3.4 Data sources/ measurements

- Demographic data (Age, Gender, BMI)
- EEQ is used as a standard tool.

Score

Value "0" = Never; Value "1" = Sometimes; Value "2" = Generally; Value "3" = Always.

For Clinical Practice

- **Score (0–5):** Non-emotional eater
- **Score (6–10):** Low emotional eater
- **Score (11–20):** An emotional eater
- **Score (21–30):** Very emotional eater

3.5 Bias

- To reduce bias, Random sampling was conducted.

3.6 Sample size

The sample size of this research is 175. Only those participants who are willing by themselves.

3.7 Statistical Method

Descriptive statistics and inferential statistics (chi-square test) were applied to explore the relationship between emotional eating and demographic factors such as age, gender, and BMI, using SPSS version 26.

Results

Table No.1 illustrates the age-wise distributions in terms of frequency and percentage. This table no.1 shows that the age group with the highest frequency was 21 years old; 66 individuals representing 53.1% of the population. The lowest frequency is observed in the age group of 25; 2 individuals comprising only 1.1% of the population. The age group 21-year-olds (37.7%), 22-year-olds (24.6%), and 23-year-olds (13.7%) make up a significant portion of the total population. The sample is predominantly composed of individuals in the middle of the age range, with fewer younger and older participants. In Table No.2, the gender distribution demonstrated that most of the

participants are females (73%) among a sample size of 175 individuals in comparison with males (26%), as mentioned in Table No.2 This indicated that females make up more than three-quarters of the sample. Table No.3 shows the distribution of BMI levels among 175 individuals, categorized into four groups: underweight, normal, overweight, and obese. Obese participants comprised 4.0% of the total sample. A huge number from the total sample size falls under the normal BMI (58.9%), while 32% of the sample size falls inside the underweight category. Table No.4 shows that the total number of emotional eaters is the largest (49.7%). 10.3% of the participants are very emotional eaters, while only 12.6% of the participants are not emotional eaters.

Table No.1: Age Frequency and Percentage

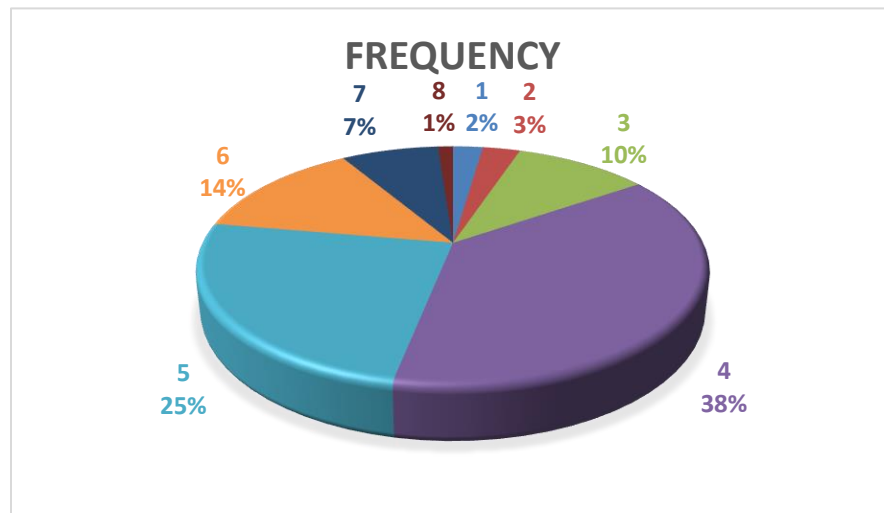


Table No.2: Gender Frequency and Percentage

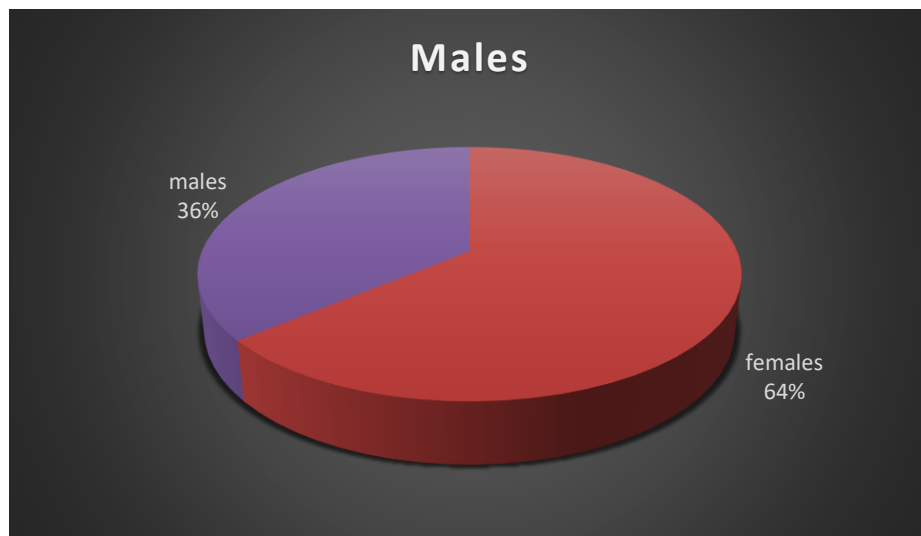


Table No.3: BMI Frequency and Percentage

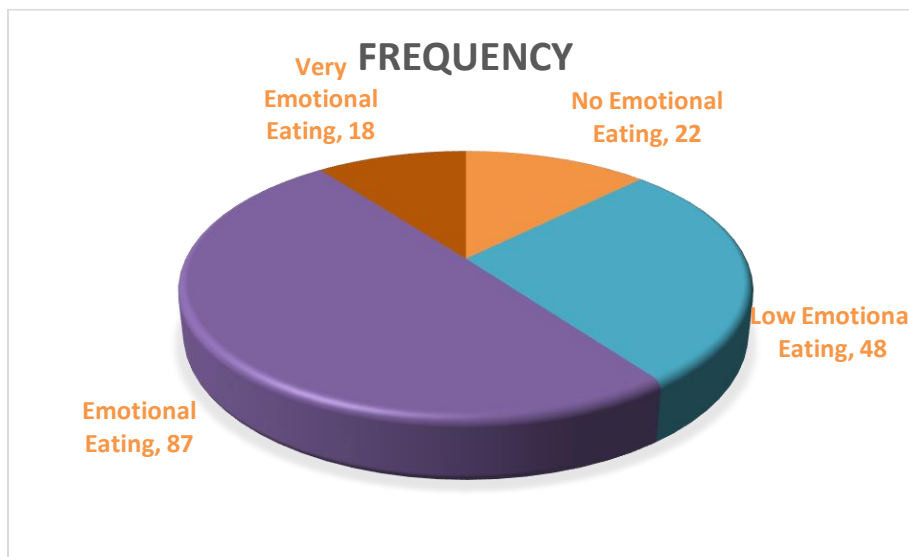
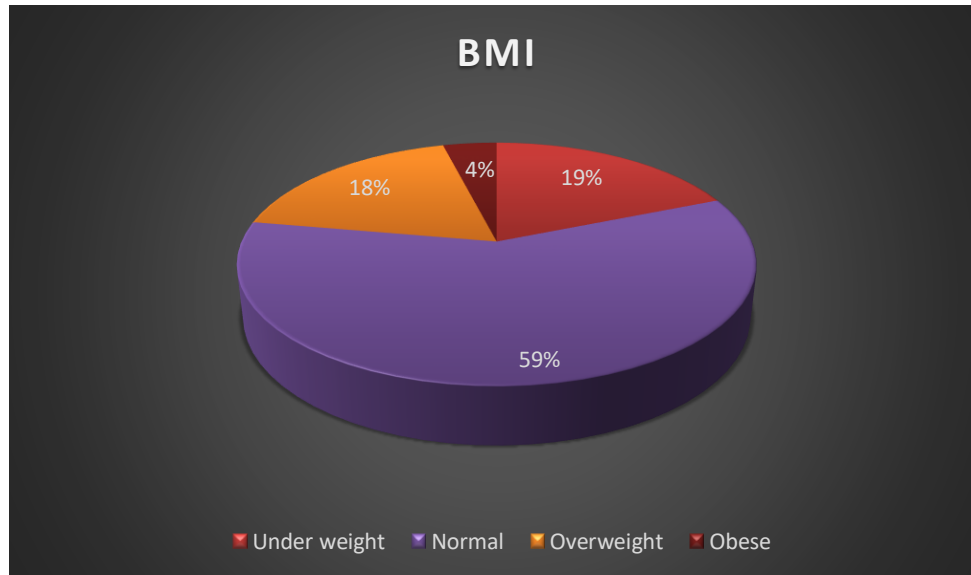


Table No.4: Food Frequency and Percentage

The results presented in Table No.5 represent the distribution of emotional eating across different age groups. According to the findings, most participants fall into the category of emotional eating (49.71%). The highest frequency of emotional eating is observed among participants aged 22 years (60.46%), indicating that emotional eating tends to peak during early adulthood. In contrast, younger participants aged 18 years old exhibit levels of emotional eating. Table No. 6 illustrates the cross-tabulation of emotional eating

levels according to gender. The findings show that emotional eating was more prevalent among males (54.34%) as compared to females. Females also showed a high proportion of emotional eating (48.06%), but slightly lower than that of males. Low emotional eating was observed in 27.9% of females and 26.08% of males. Table no.7 represents the cross-tabulation between BMI and emotional eating. Participants with normal and higher BMI have a relationship with emotional eating. Most respondents

were classified as overweight (57.6%) individuals. Among normal weight participants (51.5%) frequently show emotional eating was more common; 19 students were emotional eaters, and only 6 showed low levels.

Underweight individuals displayed a low frequency of emotional eating, hence study findings shows emotional eating is frequently seen with increased BMI.

		No Emotional Eating %	Low Emotional Eating %	Emotional Eating %	Very Emotional Eating %	Total %
Age	18	25	75	0	0	100
	19	0	40	60	0	100
	20	11.11	33	50	5.5	100
	21	16.67	24.24	50	9.09	100
	22	6.97	23.25	60.46	9.3	100
	23	4.16	33.3	50	12.5	100
	24	30.76	15.38	23.07	30.76	100
25	0	50	50	0	100	
Total		12.57	27.42	49.71	10.28	100

Table No.6: Cross-tabs with Gender

		No Emotional Eater %	Low Emotional Eater %	Emotional Eater %	Very Emotional Eater %	Total %
Gender	Male	10.86	26.08	54.34	8.695	100
	Female	13.17	27.9	48.06	11.11	100
Total		12.5	27.4	49.7	10.4	100

Table No.7: Crosstab with BMI

		No Emotional Eater %	Low Emotional Eater %	Emotional Eater %	Very Emotional Eater %	Total %
BMI	Underweight	25.0	37.5	37.5	0	100
	Normal	9.7	28.2	51.5	10.7	100
	Overweight	6.1	18.2	57.6	18.2	100
	Obese	28.6	14.3	42.9	14.3	100
Total		12.6	27.4	49.7	10.3	100

The Chi-square test is used here to examine the association between emotional eating levels. The results yielded a Chi-square *p-value* of age is 0.21 for age and gender is 0.89 for gender, which is much greater than 0.05, indicating that there is no

statistically significant correlation among variables, as their value is greater than the built standard. Despite this, the *p-value* of BMI is 0.05, which is statistically significant.

Parameters	<i>p-value</i>
Age	0.21
Gender	0.89
BMI	0.05

Discussion

The study was conducted among private university students to check the level of standing while choosing specific confounders. The purpose was to determine whether participants fell into the category of emotional eating or not when certain social and environmental triggering factors were present. Other factors also influenced the dietary habits of students, such as psychological factors, which can include emotional eating in response to stress and anxiety.

This study's findings show that emotional eating is observed among students at a private medical University; while the highest frequency of emotional eaters in our sample was observed among 22-year-olds (60.46%), this association was not statistically significant ($p = 0.21$). It reveals that there is no relationship between age and emotional eating. A study conducted in Saudi Arabia among the medical students of age 21.65 ± 1.51 years at King Abdul Aziz University is similar to this recent study, which found no significant correlation between eating disorder (ED) risk and age(16). A cross-sectional study conducted at a tertiary care teaching hospital in Guntur, India, among undergraduate medical students is in contrast with this study, which reported that the students are emotional eaters with a p -value less than 0.001 (17).

Findings with gender based highlighted that statistical results did not demonstrate a significant association between gender and emotional eating ($p = 0.89$). The findings reveal that emotional eating behaviors are observed in both genders; however, male students show a higher percentage than females. Males might be more susceptible due to reactivity to emotions, social norms, and enhanced stress levels. In the era of the pandemic, COVID-19, people at home deal with boredom and frustration, which compels them to eat excess calories. Among the population, male exhibits more emotional eating as opposed to females(19). In contrast to my findings, emotional eating is more frequent in females as compare in men. Emotional eating patterns in women may be due to feelings of sadness and body perception.(20)

A study finding illustrates that a significant association was observed between the variables emotional eating and BMI ($p=0.05$). The analysis of the frequency percentage of normal BMI students is 58.9%; more than half students fall into this category. Out of 175 students, emotional eater participants were (57.6%) overweight, (51.5%) had normal weight, while the overweight students had a higher prevalence.(21)

In the year 2025, a study conducted at a private university in Pakistan demonstrated a connection between emotional eating and BMI, revealing that

increased BMI was associated with a higher score among emotional eating as compared with decreased BMI. In the analysis, overweight students show higher scores on binge eating, and need to focus on dietary patterns (22).

Limitations

Several limitations were noted. The study was limited to a single private institution, which limits external validity. The uneven male-to-female ratio, with a majority of female participants, may have affected the outcomes. Additionally, the study did not include measures of stress, sleep quality, or physical activity, which are known contributors to emotional eating. Future research should incorporate these parameters and include a broader range of the student population to gain deeper insight into emotional eating behaviors.

Conclusion

The findings of the current study demonstrated that emotional eating is very common among university students. Individuals with increased BMI are also emotional eaters. Stress, academic pressure, and daily habits are the main contributors to emotional and binge eating. It influences both the physical and the mental health of individuals. Further investigations are required to overcome emotional eating challenges. Addressing emotional eating at the university level may prevent future health complications.

References

1. Strien T Van. Causes of Emotional Eating and Matched Treatment of Obesity. 2018;
2. Orcid AM. Original Articles. 2024;
3. van Strien T, Kontinen HM, Ouwens MA, van de Laar FA, Winkens LHH. Mediation of emotional and external eating between dieting and food intake or BMI gain in women. *Appetite*. 2020;145.
4. Chai Y, Fu G, Liu Y, Song Q, Xue C, Luo S. The relationship between stress, anxiety and eating behavior among Chinese students: a cross-sectional study. *Front Public Heal*. 2024;12(October):1–8.
5. Ljubić M, Klarin I, Rumbak I, Coli I, Ranilovi J, Dželalija B, et al. Emotions and Food Consumption : Emotional Eating Behavior in a European Population. 2023;1–23.
6. Dakanalis A, Mentzelou M, Papadopoulou SK, Papandreou D, Spanoudaki M, Vasios GK, et al. Depression , anxiety / stress , and dietary patterns : A review of the current clinical evidence. *Nutrients*. 2023;15:1–18.
7. Jalo E, Kontinen H, Vepsäläinen H, Chaput JP, Hu G, Maher C, et al. Emotional eating, health

- behaviours, and obesity in children: A 12-country cross-sectional study. *Nutrients*. 2019;11(2):1–17.
8. Scholarworks S, Dissertations W, Studies D, Foster-Engen L. Biopsychosocial Markers of Impulsive Eating and Emotional Biopsychosocial Markers of Impulsive Eating and Emotional Eating. 2023;
 9. Bargagna M, Casu M. Night Eating Syndrome: A Review of Etiology, Assessment, and Suggestions for Clinical Treatment. *Psychiatry Int*. 2024;5(2):289–304.
 10. Calderón-Asenjo RE, Jalk-Muñoz MC, Calizaya-Milla YE, Calizaya-Milla SE, Ramos-Vera C, Saintila J. Association Between Emotional Eating, Sociodemographic Characteristics, Physical Activity, Sleep Duration, and Mental and Physical Health in Young Adults. *J Multidiscip Healthc*. 2022;15:2845–59.
 11. Pandemic C. Prevalence and Predictors of Emotional Eating among Healthy Young Saudi Women during the. 2020;(March).
 12. Marchena C, Bernabéu E, Iglesias MT. Are Adherence to the Mediterranean Diet, Emotional Eating, Alcohol Intake, and Anxiety Related in University Students in Spain? *Nutrients*. 2020;12(8):1–15.
 13. Malik AR, Hameed M, Fatima M. The nexus between self-esteem, academic stress, and emotional eating behavior among adolescents. 30(1).
 14. Kazmierski KFM, Borelli JL, Rao U. Negative Affect, Childhood Adversity, and Adolescent's Eating Following Stress. 2022;1–20.
 15. Habits DE. *social sciences*. 2023;
 16. Article O, Ghamri RA, Alahmari AM, Alghamdi LS, Alamoudi SF, Barashid MM. Prevalence and predictors of eating disorders: A cross-sectional survey of medical students at King Abdul aziz University , Jeddah. 2022;(August).
 17. Sankuru DF, Pudota S, Sreevalli S, Sreepada S, Sahanasree S. Assessment Of Anxiety Sensitivity , Emotional Eating Behaviour , And Processed Food Consumption Among Undergraduate Medical Students. 2025;11(24):1454–60.
 18. Saima MM. Gender Wise Analysis of the Role of Secondary School Principals with Reference to Emotional Intelligence. 2025;4(2):28–34.
 19. Laskowski NM, Brandt G, Pahlenkemper M, Reque CB, Zaiser C, Paslakis G. in the general population. 2025;(May 2024):254–88.
 20. Thompson SH, Romeo S, Program HP, Carolina S. Journal of Diabetes and Gender and Racial Differences in Emotional Eating , Food Addiction Symptoms , and Body Weight Satisfaction among Undergraduates. 2015;2(2):93–8.
 21. Ashraf M, Chaudhry MA, Ahmad F, Ashraf MZ. Frequency of Overweight and Obesity in Students of Medical College of Lahore. 2012;
 22. Characteristics S, Calderón-Asenjo RE, Jalk-muñoz MC, Calizaya-milla YE, Calizaya-milla SE, Ramos-vera C, et al. Association Between Emotional Eating , Health in Young Adults Association Between Emotional Eating , Sociodemographic Characteristics , Physical Activity , Sleep Duration , and Mental and Physical Health in Young Adults. 2022;2390.

EMOTIONAL EATING QUESTIONNAIRE

1. Do the weight scales have a great power over you? Can they change your mood?

- Never Sometimes Generally Always

2. Do you crave specific foods?

- Never Sometimes Generally Always

3. Is it difficult for you to stop eating sweet things, especially chocolate?

- Never Sometimes Generally Always

4. Do you have problems controlling the amount of certain types of food you eat?

- Never Sometimes Generally Always

5. Do you eat when you are stressed, angry, or bored?

- Never Sometimes Generally Always

6. Do you eat more of your favourite food and with less control when you are alone?

- Never Sometimes Generally Always

7. Do you feel guilty when you eat “forbidden” foods, like sweets or snacks?

- Never Sometimes Generally Always

8. Do you feel less control over your diet when you are tired after work at night?

- Never Sometimes Generally Always

9. When you overeat while on a diet, do you give up and start eating without control, particularly food that you think is fattening?

- Never Sometimes Generally Always

10. How often do you feel that food controls you, rather than you controlling food?

- Never Sometimes Generally Always

SCORING: Value “0” = Never Value “1” = Sometimes; Value “2” = Generally Value “3” = Always

Score between 0–5: You are a non-emotional eater. Score between 6–10: You are a low emotional eater. Score

between 11–20: You are an emotional eater. Score between 21–30: You are a very emotional eater