

Determinant factors that influence emotional eating behavior in Generation Z

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Abstract

Generation Z faces increasing mental health challenges, often leading to maladaptive coping strategies, such as emotional eating and using food to manage negative emotions. This behavior contributes to poor dietary patterns and a higher risk of noncommunicable diseases. Despite rising concerns, the psychological determinants of emotional eating among Indonesian youth remain underexplored. This study aimed to examine psychological factors

associated with emotional eating in Generation Z. A cross-sectional quantitative study was conducted among 110 Generation Z individuals aged 12–27 years who exhibited a tendency toward emotional eating. The participants were selected using purposive sampling. Three instruments were used for data collection: a demographic questionnaire, psychological factors questionnaire, and Emotional Eater Questionnaire. Data was analyzed using chi-square tests for bivariate associations and binary logistic regression for multivariate analysis, to identify the most influential psychological predictors of emotional eating. Anger, boredom, anxiety, stress, and depression were significantly associated with emotional eating ($p < 0.05$). Stress and boredom are the most influential predictors. Stress and boredom are the key psychological drivers of emotional eating in Generation Z. This maladaptive behavior increases the risk of disordered eating and non-communicable diseases. Interventions that enhance emotional regulation and stress management are crucial to mitigate these risks.

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Introduction

Emotional eating has emerged as a growing behavioral concern among Generation Z – individuals born during a time of rapid technological advancement – who are often described as intelligent, creative, or explorative.¹ This behavior, defined as consuming food in response to negative emotions, such as sadness, anxiety, or stress, serves as a coping mechanism to relieve psychological discomfort.² Physiologically, stress triggers the release of Corticotropin-Releasing Hormone (CRH), which can suppress appetite. However, under prolonged stress, the body produces cortisol, a hormone that increases appetite and cravings for high-calorie foods.³ This biological response often leads to emotional eating and changes in eating behavior, as individuals seek comfort through food. Emotional eating in adolescents is closely tied to broader mental health challenges and serves as a coping mechanism for emotional distress such as anxiety, depression, boredom, and despair.⁴ According to the National Adolescent Mental Health Survey (2022), one in three Indonesian adolescents (34.9%), or about 15.5 million, reported experiencing mental health issues in the past year, while one in 20 (5.5%), or approximately 2.45 million, was diagnosed with a mental disorder, with anxiety being the most prevalent.⁵ As a form of psychological self-defense, many adolescents turn to food to manage their emotions, a behavior that may provide temporary relief but has detrimental long-term consequences, including disrupted eating patterns, weight gain, and a deepening cycle of emotional and psychological strain.⁶⁻⁹ Emotional eating is strongly linked to increased risks of binge eating, eating without hunger, and higher BMI, which increases the likelihood of obesity over time.¹⁰⁻¹² It is also associated with poor dietary habits, such as a high intake of added sugars and fats, contributing to physical health issues such as high cholesterol, hypertension, cardiovascular disease, diabetes, and eating disorders such as bulimia nervosa and binge-eating disorder.¹³ Moreover,

depression is a significant contributor to emotional eating, as supported by studies by Rezatiara and Fayasari, which demonstrate a strong correlation between depressive symptoms and emotional eating behavior.¹⁴ Persistent emotional eating not only increases the risk of chronic diseases but may also evolve into severely disordered eating behaviors, including bulimia and anorexia nervosa, potentially leading to malnutrition if left unmanaged.¹⁵

The Indonesian government and researchers have recognized the growing challenges of unhealthy eating behaviors among the youth. Efforts have been made to promote nutritional education and healthy eating campaigns, particularly in schools, and public health initiatives. However, research indicates that these interventions often focus on general healthy eating and nutrition, with less emphasis on the psychological determinants of eating behavior, such as emotional eating.^{16,17} Studies have identified key factors influencing unhealthy eating in Gen Z individuals, including socioeconomic status, cultural influences, peer pressure, taste preferences, food accessibility, and a lack of nutritional awareness or education.^{16,17} Some research has also examined menu anxiety and its impact on food choices and nutritional status among Gen Z in urban areas.¹⁸ Most existing studies have focused on broader unhealthy eating behaviors or attitudes toward local cuisine, without directly addressing the psychological and emotional triggers unique to this demographic and region. In addition, amid the ongoing mental health crisis affecting Generation Z, which may indirectly influence their behaviors and coping mechanisms, individuals in this cohort often experience transitional challenges including difficulties in adaptation, disordered eating, and emotional eating. Therefore, this study aimed to explore the psychological factors that may influence emotional eating behavior among Generation Z.

Materials and Methods

Research design

This quantitative study employed a cross-sectional design to examine the influence of psychological factors, including anger, boredom, despair, anxiety, stress, and depression, on emotional eating behavior among Generation Z people in Bekasi City.

Study participants

This study employed a non-probability sampling technique using purposive sampling as specific inclusion criteria were applied, making not all individuals eligible to become research participants. In total, 110 respondents were included in this study. The sample size was calculated using the Lemeshow formula, which is appropriate for large, relatively unstable populations. The inclusion criteria were individuals belonging to Generation Z (aged 12–27 years) who exhibited signs of emotional eating. These signs include a sudden onset of hunger, eating in response to psychological discomfort or pressure, using food as a coping mechanism for emotional distress, and frequent eating without experiencing genuine physical hunger.

Data collection and instrument

Data was collected using a structured questionnaire completed directly by the respondents, either through in-person distribution or Google Forms. The research instrument underwent prior testing for validity and reliability, and was confirmed to be both valid and reliable. Three standardized questionnaires were used as measurement tools to assess the research variables.

Demographic Data Questionnaire

This questionnaire collected basic demographic information, including age, gender, and place of residence

Psychological Factors Questionnaire

This instrument was designed to assess six psychological factors associated with emotional eating behavior: anger, boredom, despair, anxiety, stress, and depression. Each factor was measured using seven items, totaling 42 randomly distributed items. Responses were rated on a 4-point Likert scale ranging from 0 to 3, with the following interpretation: 0 = never, 1 = sometimes (1–2 times per week), 2 = often (3–4 times per week), and 3 = always (>4 times per week).

Emotional Eating Questionnaire

This instrument was adapted from the Emotional Eater Questionnaire, developed by Garaulet *et al.* (2012). The questionnaire was modified to suit the local language and context, including revisions to eliminate ambiguous wording. It consists of 10 items assessing reduced control of overeating behavior, the types of food consumed, and feelings of guilt associated with emotional eating. Responses were measured on a 4-point Likert scale ranging from 0 (never) to 3 (always), following the same frequency intervals as the psychological factor questionnaire.

Data analysis

Univariate analysis was conducted using descriptive statistics to summarize the characteristics of each variable. Bivariate analysis was performed to examine the relationships between respondent characteristics (age, gender, and place of residence) and the dependent variable emotional eating. Additionally, the relationships between independent psychological factors—anger, boredom, despair, anxiety, stress, depression, and emotional eating—were assessed. The Chi-square test was employed for bivariate analysis as the data were not normally distributed, necessitating the use of non-parametric methods. Multivariate analysis was conducted to explore the findings of the bivariate analysis at greater depths and to identify the psychological factors that most significantly influenced emotional eating behavior. Given that both independent and dependent variables were categorical, binary logistic regression was used as the appropriate multivariate method. All statistical analyses were performed using IBM SPSS Statistics version 29. A p-value of <0.05 was considered statistically significant

Research ethics

Ethical approval for this study was obtained from the Ethics Committee of the Ministry of Health Polytechnic Jakarta III (registration number: L. B. 02.02/F). XIX.21/4818/2024). Throughout the research process, the principles of research ethics were strictly followed, including informed consent, respect for human rights, beneficence, and non-maleficence.

Results

Distribution frequency demography data

As shown in Table 1, the majority of respondents were adults, accounting for 95 individuals (86.4%), while 15 respondents (13.6%) were adolescents. In terms of gender, 85 respondents (77.3%) were female, and 25 respondents (22.7%) were male. Regarding living arrangements, 59 respondents (53.6%) reported living with their families, whereas 51 (46.4%) did not. These find-

ings indicate that the majority of Generation Z individuals in one of the areas of Bekasi City who exhibit a tendency toward emotional eating behavior are adults, predominantly female, and most commonly live with their families. Table 2 presents the relationship between respondent characteristics and emotional eating behavior. The analysis showed no statistically significant associations between age, gender, residence, and levels of emotional eating. Seven participants reported low emotional eating and eight reported high emotional eating, whereas among mature respondents, 48 had low emotional eating and 47 had high emotional eating ($p=0.571$). Regarding gender, 16 men reported low emotional eating and 9 reported high emotional eating, compared to 39 women with low emotional eating and 46 with high emotional eating ($p=0.063$), suggesting a possible trend toward significance. Regarding residence, among those living with family, 28 reported low and 31 reported high emotional eating, while among those not living with family, 27 reported low and 24 reported high emotional eating ($p=0.585$). As shown in Table 3, all six psychological factors—anger, boredom, despair, anxiety, stress, and depression—were found to have a statistically significant association with emotional eating behavior among Generation Z, as indicated by p -values < 0.05 . The anger factor had a p -value of 0.000 with an odds ratio (OR) of 7.284, indicating that individuals who frequently experienced anger were 7.284 times more likely to engage in emotional eating than those who did not. The boredom factor also showed a significant relationship ($p=0.000$; $OR=19.906$), suggesting a nearly 19.906-fold increased risk of emotional eating among individuals who experienced boredom. Similarly, despair was significantly associated with emotional eating ($p=0.000$; $OR=13.132$), anxiety ($p=0.000$; $OR=6.750$), stress ($p=0.000$; $OR=21.778$), and depression ($p=0.000$; $OR=6.641$). Among these, stress exhibited the strongest associa-

tion, indicating that individuals experiencing stress were over 21.778 times more likely to engage in emotional eating behaviors. These findings demonstrate that all assessed psychological factors are significant predictors of emotional eating tendencies in Generation Z. Based on the results presented in Table 4, multivariate analysis using binary logistic regression revealed that among the six psychological factors examined, stress emerged as the most influential factor associated with emotional eating behavior. The stress variable demonstrated a statistically significant association ($p=0.000$, $p<0.05$) with an Odds Ratio (OR) of 8.751. This indicates that individuals experiencing stress are approximately 8.75 times more likely to engage in emotional eating than those who do not experience stress. Therefore, it can be concluded that stress was the most dominant psychological factor influencing emotional eating behavior among Generation Z in this study.

Discussion

This study found a significant relationship between six psychological factors (anger, boredom, despair, anxiety, stress, and depression) and emotional eating behavior among Generation Z.

Anger factor

The findings indicated a positive relationship between anger and emotional eating, with results showing that individuals who frequently experience anger are approximately seven times more likely to engage in emotional eating behavior. This finding suggests that anger functions as a potent emotional trigger, often in response to perceived threats or stressors. These results align with prior research, which has shown that individuals who engage in

Table 1. Frequency distribution of demographic data (n=110).

| Characteristic | Kategorisasi | Frequency (n) | Percentage (%) |
|----------------|--------------------|---------------|----------------|
| Age | Teenager | 15 | 13.6 |
| | Mature | 95 | 86.4 |
| | Total | 110 | 100 |
| Gender | Man | 25 | 22.7 |
| | Women | 85 | 77.3 |
| | Total | 110 | 100 |
| Residence | Living with family | 59 | 53.6 |
| | Not with Family | 51 | 46.4 |
| | Total | 110 | 100 |

Source: Primary Data Analysis, 2024.

Table 2. Relationship between respondent characteristics and emotional eating behavior.

| Characteristics | Emotional eating | | p |
|-----------------|------------------|--------|-------|
| | Low n | High n | |
| Age | | | |
| Teenager | 7 | 8 | 0.571 |
| Mature | 48 | 47 | |
| Gender | | | |
| Man | 16 | 9 | 0.063 |
| Women | 39 | 46 | |
| Residence | | | |
| With family | 28 | 31 | 0.585 |
| Not with family | 27 | 24 | |

emotional eating during episodes of anger perceive food consumption as a temporary coping strategy to distract themselves from or soothe negative emotions.¹⁹ Moreover, emotional eating may serve as a form of emotional suppression, reducing the likelihood of reactive or impulsive behaviors that could arise from an unmanaged anger.¹⁵ These findings underscore the importance of fostering emotional regulation skills among Generation Z. Developing effective anger management strategies may help reduce reliance on emotional eating as a maladaptive coping mechanism, thereby lowering the risk of obesity and related health complications. Furthermore, this evidence highlights the need for targeted health promotion interventions that focus on emotional regulation, particularly in adolescents and young adults, as part of comprehensive efforts to promote mental well-being and healthy eating behaviors.

Boredom factor

The findings indicate that boredom is significantly associated with emotional eating behavior, with individuals who frequently experience boredom having approximately 19 times the risk of engaging in emotional eating. Individuals who are bored often struggle to find meaningful activities, leading them to use food as a distraction or a coping mechanism. This is consistent with previous studies showing that boredom is one of the most potent emotional triggers for eating more so than other negative emotions.^{20,21} Emotional eating driven by boredom often stems from feelings of emptiness, where eating is used to relieve monotony or to fill a per-

ceived psychological void.²² Supporting this, other studies have identified boredom as a primary driver of emotional eating, with boredom scoring higher than other emotions as a motivating factor.²³ These findings suggest the importance of encouraging Generation Z to engage in enjoyable and stimulating activities to mitigate boredom. Furthermore, this study underscores the need for targeted interventions that specifically address boredom, not only to enhance psychological well-being but also to promote healthier dietary behaviors.

Despair factor

The findings indicate a positive relationship between despair and emotional eating. Specifically, the results showed that individuals experiencing despair were 13.1 times more likely to engage in emotional eating.

Despair is commonly defined as a sense of failure and loss of hope that often triggers various negative emotional states. These emotions may contribute to emotional eating behaviors.¹⁵ This aligns with previous studies indicating that emotional eating can be driven by negative affect, including despair, especially in response to overwhelming demands.³ Furthermore, individuals with poor emotion regulation skills are more susceptible to emotional eating, particularly when facing body image dissatisfaction or psychological stress.¹⁰ These findings suggest that members of Generation Z may benefit from structured group discussions as a strategy to address and manage emotional challenges.

Table 3. The relationship between psychological factors and emotional eating.

| Psychological factors | | Emotional Eating | | p OR |
|-----------------------|---------------|------------------|--------|----------------------|
| | | Low n | High n | |
| Anger | Not angry | 34 | 10 | 0.000 OR = 7.286 |
| | Angry | 21 | 45 | |
| Boredom | Not bored | 39 | 6 | 0.000 OR = 19.906 |
| | Bored | 16 | 49 | |
| Despair | Not Desperate | 38 | 8 | 0.000 OR = 13.132 |
| | Hopeless | 17 | 47 | |
| Worry | Not Anxious | 33 | 10 | 0.000 OR = 6.750 |
| | Worried | 22 | 45 | |
| Stress | No stress | 40 | 6 | 0.000 OR = 21.778 |
| | Stress | 15 | 49 | |
| Depression | Not depressed | 37 | 13 | 0.000 OR = 6.641 |
| | Depression | 18 | 42 | |

Table 4. Multivariate test results of psychological factors that most influence emotional eating behavior.

| Variable | 1 | 2 | p 3 | 4 | 5 | OR |
|-------------|-------|-------|-------|-------|-------|-------|
| Anger | 0.209 | 0.196 | 0.245 | 0.375 | - | - |
| Boredom | 0.002 | 0.000 | 0.001 | 0.001 | 0.001 | 7.399 |
| Despair | 0.401 | - | - | - | - | - |
| Too anxious | 0.210 | 0.168 | 0.340 | - | - | - |
| Stress | 0.003 | 0.001 | 0.002 | 0.000 | 0.000 | 8.751 |
| Depression | 0.167 | 0.220 | - | - | - | - |
| Age | 0.735 | - | - | - | - | - |
| Gender | 0.106 | 0.111 | 0.115 | - | - | - |
| Residence | 0.542 | 0.534 | - | - | - | - |

Anxiety and stress factor

The findings highlight a significant positive association between anxiety and emotional eating, with an odds ratio of 6.7, indicating that individuals experiencing anxiety are approximately six times more likely to engage in emotional eating. Additionally, stress exhibited the strongest association, with individuals experiencing stress 21.7 times more likely to demonstrate emotional eating behavior. This suggests that, among psychological factors, stress has the most substantial influence on emotional eating behavior in Generation Z. These results align with those of previous studies, which have identified emotional eating as a response to stress or as a consequence of inadequate and ineffective coping mechanisms, often manifested by eating more than physiological needs.²⁴⁻²⁶ Stress activates the cortisol response system, which has been linked to unhealthy eating behaviors,²⁷ contributing to the increasing trend of obesity.¹¹ Furthermore, anxiety has been shown to influence eating patterns,^{28,29} indicating a bidirectional relationship in which anxiety can lead to, and be exacerbated by, emotional eating. This study suggests that Generation Z must develop effective stress management and coping strategies to mitigate anxiety and prevent maladaptive eating behaviors. Moreover, it underscores the responsibility of health providers to deliver targeted education on healthy dietary habits tailored to the needs and behaviors of Generation Z.

Depression factor

These findings indicate that depression has a statistically significant relationship with emotional eating. Specifically, Generation Z individuals experiencing depression were 6.6 times more likely to engage in emotional eating behaviors. This suggests that depressive symptoms amplify the vulnerability to unhealthy eating patterns and emotional dysregulation. These results align with those of previous studies showing that depressive symptoms are significantly associated with emotional eating and a higher frequency of consuming energy-dense, nutrient-poor foods.³⁰ Consequently, emotional eaters are at a greater risk of obesity,³¹ and recent studies have highlighted emotional eating as a mediator linking depression with early cardiovascular disease risk.³² This underscores the urgency of integrating mental health screening and emotion regulation strategies into dietary interventions targeted at adolescents and young adults. Addressing emotional eating not only supports psychological well-being but also mitigates long-term physical health consequences.

Conclusions

This study concluded that six psychological factors—anger, boredom, despair, anxiety, stress, and depression—were significantly associated with emotional eating behavior in Generation Z, with stress and boredom demonstrating the strongest effects. These findings suggest that emotional eating serves as a maladaptive coping mechanism in response to emotional distress, increasing the risk of unhealthy dietary patterns, obesity, and related health problems. The strong associations observed underscore the need for integrative youth-centered interventions that combine emotional regulation training, mental health support, and nutrition education. Promoting resilience and healthy coping strategies among Generation Z individuals is essential to address the psychological triggers of emotional eating and to support their overall mental and physical well-being.

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