



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

The Relationship Between Emotional Eating Behavior Awareness and Body Image of Women in Turkey During the Covid-19 Pandemic Period

Covid-19 Pandemi Döneminde Türkiye'de Kadınların Duygusal Yeme Davranışı Farkındalığı ile Beden İmgesi arasındaki İlişki

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Abstract:

Individuals eat food in response to their emotions. It is aimed to examine the relationship between emotional eating behaviors and body perception of women. This correlation study was conducted with 210 women in 2022-2023. The Information Form, Dutch Eating Behavior Questionnaire and The Body Image Scale were administered online through a structured questionnaire created in Google Forms. IBM SPSS v26® software was used in the analysis of the data. 124 of the participants (59%) are between 18-25; 23 of them (11%) are between 26-33; 28 of them (13.3%) are between 34-41; 18 of them (8.6%) are between 42-50; and finally 17 of them (8.1%) are above 51 years old. The variables body image and emotional eating were found to be strongly correlated. It was concluded that there is a significant relationship between body image and emotional eating. It was concluded that there was no positive correlation between body image and emotional eating, negative correlation between restrictive eating and body image, and no significant correlation between external eating and body image.

Keywords: Emotional eating, Body image, Women, Pandemic period, Covid-19

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Öz:

Bireyler duygularına tepki olarak yemek yerler. Kadınların duygusal yeme davranışları ile beden algısı arasındaki ilişkinin incelenmesi amaçlanmaktadır. Bu korelasyon çalışması 2022-2023 yıllarında 210 kadınla gerçekleştirildi. Bilgi Formu, Hollanda Yeme Davranışı Anketi ve Beden İmajı Ölçeği, Google Forms'da oluşturulan yapılandırılmış bir anket aracılığıyla çevrimiçi olarak uygulandı. Verilerin analizinde IBM SPSS 26.00 yazılımı kullanılmıştır. Katılımcıların 124'ü (%59) 18-25 yaş arasındadır; 23'ü (%11) 26-33 yaş arasındadır; 28'i (%13,3) 34-41 yaş arasındadır; 18'i (%8,6) 42-50 yaş arasındadır; 17'si (%8,1) 51 yaş üzerindedir. Beden imajı ve duygusal yeme değişkenlerinin güçlü bir şekilde ilişkili olduğu bulundu. Beden imajı ile duygusal yeme arasında anlamlı bir ilişki olduğu sonucuna varılmıştır. Beden imajı ile duygusal yeme arasında pozitif, kısıtlayıcı yeme ile beden imajı arasında negatif, dışsal yeme ile beden imajı arasında ise anlamlı bir ilişki olmadığı sonucuna varılmıştır.

Anahtar Kelimeler: Duygusal yeme, Beden imajı, Kadın, Pandemi dönemi, Covid-19,

Introduction

Following China, Italy emerged as the first country where the COVID-19 pandemic rapidly proliferated, resulting in adverse consequences. The interplay of stress, anxiety, and depression arising from this situation has also impacted eating behaviours (Cecchetto, C., Aiello, M., Gentili, C., Ionta, S., and Osimo, S. A., 2021; Cevizci and Akyunus, 2022). In times of heightened negative affectivity, it becomes crucial to comprehend the impact of the COVID-19 pandemic and the associated isolation measures on eating behaviours. Moreover, there is a need to further explore the relationship between emotional eating, emotional dysregulation, and the impaired ability to identify emotions.

Emotional eating serves as a response to negative emotions, representing a behavioural tendency. Its significance in eating behaviours is on the rise, particularly in the context of weight loss attempts (Chesler, 2012). Body image is subjective, defined as an individual's evaluation of their own appearance (Chesler, 2012). As body dissatisfaction encompasses negative feelings about one's body and/or appearance (Thompson et al., 2004; Braet and Van Strien, 1997), it can trigger non-hunger-related eating as a response to negative emotions.

The objective of this study is to scrutinise the correlation between women's emotional eating behaviours and their body images. Additionally, the study aims to investigate and assess whether the primary variables exhibit significant differences based on sociodemographic factors. Summary, there are very few studies on women in the literature and it is thought that it will make a significant contribution to the literature in this sense. The aim of our research; to examine the relationship between women's emotional eating behaviors and body images. In addition, in our study, it is to examine and evaluate whether the main variables differ significantly according to sociodemographic variables.

Methods

Ethical approval for this study was granted by the Ethics Committee of Istanbul Gelişim University on August 18, 2022, with the reference number 2022-13.

The present study adopts a cross-sectional study design. The chosen research method involves the implementation of an online survey to collect data from participants. This decision was made to provide participants with a comfortable environment for responding, ensuring the confidentiality and anonymity of their input. The online

platform facilitates participants in sharing their insights and experiences at their convenience, ultimately improving the overall quality of the data collected.

The survey instrument was meticulously designed to extract specific information relevant to the research questions. Participants were presented with a series of structured questions tailored to address the objectives of the study. This method allowed the research team to gather a diverse range of responses from a sizable and geographically dispersed participant pool.

The online survey method offers efficiency in data collection, unencumbered by geographical constraints or time zones. Participants had the flexibility to engage with the survey at their own pace and convenience. This methodological approach greatly contributed to accumulating a substantial volume of data, enhancing the robustness of the results.

Conclusively, the selection of the online survey method was driven by the priorities of participant comfort, confidentiality, and convenience. It not only ensured the comprehensive collection of data necessary for effectively addressing the research questions but also bolstered the credibility and validity of the study results.

Participants

The data collection process was concluded with 210 participants, and all responses were deemed eligible for inclusion in the study. The entire participant cohort identified themselves as female. Among them, 124 participants (59%) fell within the 18-25 age range, 23 participants (11%) were aged between 26-33, 28 participants (13.3%) were in the 34-41 age group, 18 participants (8.6%) were aged 42-50, and, 17 participants (8.1%) were above 51 years old. Data were gathered through Google Forms, with participation being entirely voluntary on the part of the respondents.

Materials**Personal Information Form**

Through the use of the demographic form, respondents were queried about their age, education level, income level, relationship status, psychiatric diagnoses, any medical diagnoses, as well as weight and height.

Dutch Eating Behaviour Questionnaire

The Dutch Eating Behaviour Questionnaire (DEBQ) was designed to assess eating behaviours of individuals and, in this study, was employed to evaluate the eating patterns of

the participants. Developed by Van Strein et al. in 1986, it was adapted for Turkish usage by Bozan in 2009. The scale utilises a 5-step Likert scale for scoring. In the present study, the reliability score, calculated based on 33 items, yielded a high reliability coefficient ($\alpha = .96$). An illustrative item from the scale is, "If you gain weight, do you eat less than usual?"

Body Image Scale

The Body Image Scale (BIS) was created to measure an individual's satisfaction with various parts and functions of their body. Developed by Secord and Jourard in 1953, it was later adapted for Turkish use by Hovardaoglu in 1992. Utilizing a 5-step Likert scale for scoring, participants are asked to rate their satisfaction with different body parts, such as eyes or hair, on a scale from 1="I like it a lot" to

5="I don't like it at all". In this study, the reliability score, calculated across 40 items, demonstrated high reliability with a coefficient of $\alpha = .95$.

Procedure

After securing permission from the Ethics Committee of Istanbul Gelisim University (Date: July 28, 2022, No: 2022-12), data was collected through Google Forms via online announcements. The scales, on average, required 15 minutes to complete. Subsequently, the collected data underwent analysis using Pearson's correlation test on SPSS software.

Results

Table 1. Correlations between variables

	1	2	3
1.Body Image			
2.Emotional Eating	.180**		
3.Restrictive Eating	-.148**	.427**	
4.External Eating	.045	.616**	.282**

** p<.01

The analysis revealed strong correlations between certain variables. Specifically, body image and emotional eating showed a significant correlation ($r(180) = .009, p < .01$). Similarly, body image and restrictive eating exhibited a strong correlation ($r(-148) = .033, p < .01$). Additionally, emotional eating and restrictive eating were strongly correlated ($r(427) = .000, p$

$< .01$), as were emotional eating and external eating ($r(616) = .000, p < .01$). Further, restrictive eating and external eating displayed a strong correlation ($r(282) = .000, p < .01$). In contrast, no correlation was found between body image and external eating ($r(45) = .521, p > .05$).

Table 2. Correlation between body image and body mass index (BMI).

	Body Mass Index
Body Image	.145*

* p<.05

Moreover, the variables body image and BMI were found to be correlated ($r(145) = .037, p < .05$).

Table 3. Correlations between variables

	1	2	3
1.BMI			
2.Emotional Eating	.401**		
3.Restrictive Eating	.240**	.427**	
4.External Eating	.014	.616**	.282**

** p<.01

The regression equation, which was determined as LSAS for the dependent variable and as antecedent-focused emotion regulation skills and reaction-oriented emotion regulation skills for the independent variables, is shown in Table 3. In Table 1, besides the significance of the regression equation, which of the independent variables is statistically significant and the coefficients of these

variables are given. The coefficient of determination (R2) was calculated as 0.027 and F was found to be significant ($p=0.002<0.05$). Accordingly, it was determined that antecedent-focused emotion regulation skills were effective on social anxiety at a significance level of 0.05. In the model; It is seen that a one-unit increase in

antecedent-focused emotion regulation skills causes a 0.361-unit decrease in social anxiety.

The analysis revealed strong correlations between BMI and emotional eating ($r(401) = .000, p < .01$) as well as between BMI and restrictive eating ($r(240) = .000, p < .01$). A strong correlation was observed between emotional eating and restrictive eating ($r(427) = .000, p < .01$), and similarly, between restrictive eating and external eating ($r(282) = .000, p < .01$). Emotional eating and external eating also displayed a strong correlation ($r(616) = .000, p < .01$). Conversely, BMI and external eating did not show a correlation ($r(14) = .837, p > .05$).

Discussion

Body perception plays a crucial role in shaping individuals' self-confidence, with negative body image potentially contributing to conditions such as depression, anxiety, and fear of negative evaluation. Consequently, these factors may hinder overall well-being and health (Wang et al., 2019). In the context of this study, a noteworthy result emerged—there exists a significant relationship between body image and emotional eating. Specifically, the analyses revealed no positive correlation between body image and emotional eating, a negative correlation between restrictive eating and body image, and no significant correlation between external eating and body image. A comprehensive review of relevant literature supports these results. Bogaz et al.'s (2019) study, for instance, found a positive relationship between emotional eating behaviour and restrictive eating and external eating behaviour. However, no relationship was identified between restrictive eating and external eating behaviour, aligning with broader literature trends.

Examining further literature, a study by Nernekli (2017) involving university students echoed the significance of the relationship between body image and emotional eating. Researchers commonly define body image as a subjective evaluation based on an individual's own perception (Thompson, 2004). Furthermore, the relevant studies highlight that fostering the development of robust emotion regulation skills, implementing early preventive measures against overweight/obesity, and nurturing body satisfaction during middle childhood can serve as positive cognitive, behavioural, and/or psychological factors. These factors may act as protective mechanisms, potentially deterring children from engaging in emotional eating as they progress into adolescence (Van Strien, 2018). Various study results revealed the Emotional Eating Scale (EES) to be a valid measure of emotional eating. Notably, the connection between emotional eating and binge eating has been observed to be moderated by body image flexibility (Duarte, C., and Pinto-Gouveia, 2015). In a study by Coskun in 2011, the eating attitudes of male adults interested in bodybuilding sports were compared to those of a control group not involved in such sports. Interestingly, individuals in the control group exhibited higher restrictive eating scores compared to those in the study group. Moreover, among individuals in the study group, extrinsic eating subgroup values—indicative of consuming more food influenced by externally perceived factors such as smell, appearance, and taste—were found to be higher than in the control group (Coskun, 2011). Aslan's 2001 study explored the impact of media on body image and eating behaviours, concluding that individuals experiencing anxiety tend to exhibit more irregular eating behaviours (Aslan, 2001). Collectively, these studies

underscore the significant influence of body image on eating attitudes, emphasizing that negative body image is associated with detrimental eating behaviours. Additionally, it is well-established that body dissatisfaction contributes to various psychological disorders, while unhealthy dietary practices increase the risk of developing eating disorders (Demir, 2006).

The analysis of the relationship between BMI and emotional eating revealed that individuals with higher body mass indexes had elevated levels of emotional eating. Additionally, upon examining the correlation between BMI and body image, it was observed that individuals with higher body mass indexes experienced challenges with their body images. When considering the literature, Nernekli's study established a connection between BMI and emotional eating, indicating that individuals with higher body mass indexes tend to have increased levels of emotional eating (Nernekli, 2017). Uskun and Sabapli's study in 2013 concluded that individuals, even if their weight is not within the normal range, can exhibit positive changes in their eating attitudes if they perceive their weight as normal (Uskun and Sabapli, 2013). Another study by conducted Aslan in 2001 highlighted the association between BMI, body image, and eating behaviours. Other studies have demonstrated a robust relationship between body dissatisfaction and BMI, indicating that as BMI increases, so does the level of body dissatisfaction (Eker, 2006). The examination of anxiety levels related to BMI and body image also revealed that individuals with higher body mass indexes experienced heightened anxiety about their body images (Nernekli, 2017). Furthermore, Nernekli's study identified a significant relationship between BMI and low body perception, underscoring the intricate interplay between body mass indexes and individuals' perceptions of their bodies (Nernekli, 2017).

Conclusion

In conclusion, the present study showed a strong correlation between body image and emotional eating. According to this result, two significant recommendations emerge: firstly, the integration of mental health services into primary healthcare services is advised, and secondly, conducting similar studies across diverse time periods would contribute to a more comprehensive understanding of these relationships. Given the observed association between increasing body mass index and challenges with body image, it is suggested that prevention and control programs targeting obesity from childhood may play a crucial role in averting both body image issues and emotional problems in individuals. This proactive approach aligns with the notion that addressing obesity early on can positively impact mental well-being and body perception.

Journalism Ethics

The researchers diligently adhered to journalism ethics considerations throughout the study, ensuring a high standard of ethical conduct. Key ethical issues, including but not limited to plagiarism, informed consent, abuse, duplicate publication and/or submission, and redundancy, were thoroughly addressed and observed.

Declarations

Ethics Approval and Consent to Participate

Ethics approval for this study was obtained from Istanbul Gelişim University's Ethics Committee on August 18, 2022 (Decision No: 2022/13). Prior to their participation, participants were provided with and approved informed consent forms.

Consent for Publication

Not applicable

Availability of Data and Materials

Not applicable.

Competing Interests

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The author declares that no competing interests in this manuscript.

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Authors' Contributions

NE and SK made equal contributions to outreach, data collection, literature review, statistical analysis, and article writing

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