**International Journal of Education and Cognitive Sciences**
*Volume 4, Number 4, 52-62, January 2024*
https://iase-ijeas.com
ISSN: 3041-8828

# The Mediating Role of Body Self-Concept in the Relationship Between Self-Compassion and Emotional Eating in Individuals with Obesity

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*Keywords:*
*Emotional Eating, Self-Compassion, Body Self-Concept, Obesity*

**Purpose**: This research aimed to investigate the mediating role of body self-concept in the relationship between self-compassion and emotional eating in individuals with obesity.
**Materials and Methods**: The study employed a cross-sectional correlational design. The population consisted of all individuals with obesity in Tehran in the year 2019, from which 378 participants were selected through convenience sampling in two stages. The study utilized the Emotional Eating Scale (Dutch, 1986), the Self-Compassion Scale (Neff, 2003), and the Body Self-Concept Scale (Marsh, 1996), all of which have acceptable reliability and validity. SPSS-V24 and Lisrel-V8.8 software were used for data analysis. Structural equation modeling was also applied to test the research hypotheses.
**Findings**: The findings indicated that the model had a good fit. Furthermore, the results showed that the structural model of self-compassion on emotional eating, with the mediating role of emotional processing, in individuals with obesity has a significant relationship.
**Conclusion**: Therefore, the findings support the presence of underlying psychological mechanisms in the occurrence of obesity. Accordingly, attention to these variables in prevention and designing more appropriate treatments provides aid to researchers and therapists.

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## Introduction

The role of obesity in various diseases, which is the focus of health systems worldwide, along with its psychological, social, and economic consequences, has caused this issue to be recognized as an epidemic and a global threat to health (Davine, Kim, & Miljkovic, 2020). The World Health Organization (2019) defines obesity as an abnormal or excessive fat accumulation that may impair health. According to reports from this organization, more than 40% of adults are overweight, and over 15% of these individuals are obese. Despite extensive efforts to control obesity, its prevalence has more than doubled worldwide between 2000 and 2018. In Iran, the prevalence of overweight is reported to be 48% in men and 52% in women, with 11.3% of men and 18.7% of women being obese (Ranjbar Noshari, 2017). Recent data from the Centers for Disease Control and Prevention also indicate that this problem, especially among young people, is expanding, such that about 60.3% of people aged 20 to 39 are overweight or obese (Ogden, Carroll, Kit, & Flegal, 2014). Moreover, some studies suggest that overweight and obesity occur at an alarming rate in this group (Cahill, Haire-Joshu, Cade, Stein, Woolf, Moley, & Klein, 2018) and are associated with further weight gain in the future (Milaneschi, Simmons, van Rossum, & Penninx, 2019). There are concerns that early onset of obesity is associated with less improvement and more adverse outcomes (Arkaya, Karabulutlu, & Kalick, 2018), such as increased mortality and a number of chronic diseases, including coronary artery disease, type 2 diabetes, cancer, hypertension, stroke, sleep apnea, respiratory problems, and arthritis (Newmarch, Wheeler, & Casserly, 2019). Thus, body weight is considered one of the important variables in individual differences that has a pervasive impact on all aspects of life. Although it is mostly involved in physical health, it is also associated with various negative psychological processes such as depression and anxiety (Kiro, Randeva, Tsigos, Kaltsas, & Weickert, 2018).

Therefore, psychological phenomena like emotional eating disorders have multifactorial causes, not limited to vulnerability factors but also include protective factors, considering subsequent classes of self-related constructs that play an important role (Holly, Dolbeer, Kirlos, & Whited, 2022). Self-compassion is one of the self-related constructs that acts as a protective factor against emotional eating behaviors (Brenton-Peters et al., 2021). Neff (2009) defines self-compassion as a three-component construct involving human commonality versus isolation, kindness to oneself versus self-judgment, and mindfulness versus over-identification. The trait of self-compassion not only contributes to enhancing positive emotional states but also protects against negative psychological states. Self-compassion is associated with positive emotions but is not merely a form of positive thinking; rather, it involves the ability to hold negative emotions with non-judgmental awareness without suppressing or denying negative aspects of the experience (Evans-Locke & Lee, 2021). Self-compassion is a relatively new method shown by research outcomes to be effective in improving psychological and emotional components of various individuals (Germer, 2023; Altmeyer, 2019; Walsh, Ziminska, Taylor, & Priebe, 2018; Anthony, Dawyer, Andrioti, & Congard, 2018; Yuvaliaszak, Rashid, Williams, & Galamani, 2016; Shoshani, Steinmetz, & Kanat-Maymon, 2016; Proyer, Gander, Wellenzohn, & Ruch, 2016). Moreover, Barnett and Sharp (2016) found in their research that self-compassion has a significant negative correlation with dissatisfaction with body self-concept. Holt-Lunstad and Dick (2014) demonstrated that individuals with high self-compassion scores had less tendency towards behaviors associated with emotional eating. Mehr and Adams (2016) also showed significant correlations between self-compassion and levels of anxiety, depression, and body self-concept.

On the other hand, studies show that emotional eating is negatively related to body self-concept (Myers & Balvoca, 2018). Psychologists today believe that self-self-concept determines individual behavior (Minnot, 2018). Body self-concept is an internal representation of one's outer appearance, encompassing physical, perceptual, and attitudinal dimensions towards oneself. The main dimensions of these attitudes include evaluative appearance components, the importance of internalized ideal appearance, and emotions. Given that one's appearance forms a significant part of their identity, it is immediately evident in many social situations, thus highlighting the importance of this personality construct (Jafarzadeh Dashbolagh, 2017). Moreover, body self-concept as one of the desirable outcomes in most psychological and educational situations is valuable, serving as a mediating variable that can facilitate achieving favorable outcomes for many individuals (Savari & Dehar, 2020). Therefore, if a

disorder forms in individuals' self-self-concept or they fail to understand themselves correctly, it can complicate interactions with others and potentially increase the likelihood of psychological stress and anxiety (Lackman & Nirvana, 2020). In this context, Rodgers, Lowy, Halperin, & Franco (2016) showed in a meta-analysis that there is a significant relationship between emotional eating disorders, body self-concept, and eating pathology. According to the results of the study by Suiykoz (2010), individuals with a negative body perception were more likely to lose weight or be prone to eating disorders.

Therefore, despite numerous studies on the relationship of emotional eating in individuals with obesity, the results are largely contradictory. Kodama and colleagues (2008) attribute this to the neglect of the mediating or moderating role of certain variables. According to research, mediating variables like body self-concept can play an important role. Another reason is that past research has individually examined these phenomena without considering all these variables together in one model. Thus, this research could open a new window for researchers on the psychological dimensions of emotional eating in individuals with obesity, clarify existing contradictions, and create coherence among concepts previously discussed in this field. Given the relationship between eating disorders and emotional eating behavior, it is crucial to identify signs of emotional eating behavior in individuals and employ appropriate treatments. Moreover, since emotional eating is used to manage negative emotions, techniques for healthy and adaptive self-regulation strategies and self-compassion are considered therapeutic necessities. In light of the significant increase in obesity and overweight rates in recent decades, the substantial costs this issue entails for individuals and society, the importance of this phenomenon in individuals and its long-term consequences, and the lack of an appropriate causal model to explain the relationships between variables, research on the psychological correlates of obesity becomes necessary. Therefore, the researcher in this study addresses the following question: What is the relationship between self-compassion and emotional eating mediated by body self-concept in individuals with obesity?

## Methods and Materials

The present study employed a descriptive-correlational research method through structural equation modeling for data collection. The population consisted of both women and men with obesity who visited diet therapy centers and health houses in Tehran during the years 2018-2019. A multistage sampling method was used in this study. In the first stage, using cluster sampling, 7 districts (2, 5, 7, 14, 16, 18, 21) were selected from the 22 districts of Tehran, and from each district, 3 diet therapy centers and 3 health houses were chosen. In the second stage, the sample group was determined based on specific inclusion and exclusion criteria for the research (Inclusion criteria were: 1. Minimum of high school education, 2. Being overweight with a BMI over 25, 3. Willingness to participate in the study. Exclusion criteria included: 1. Pregnancy, 2. Use of psychotropic and psychoactive drugs, 3. Use of weight loss and obesity drugs) and samples were selected from visitors to diet therapy centers and health houses on a voluntary and accessible basis. Regarding the sample size in structural equation modeling, there is no general agreement, but many researchers suggest a minimum sample size of 200 participants (Holter, 1983). In this study, a total sample size of 400 was considered, and data analysis was conducted on 378 questionnaires. It is worth mentioning that participants were informed about the study's objectives, voluntary participation, privacy, confidentiality, the anonymity of responses, and the right to withdraw at any stage of data collection. The following questionnaires were used for data collection:

A) Body Self-Concept Questionnaire (Marsh, 1996): Designed by Marsh in 1996, this questionnaire measures body self-concept through 9 specific subscales and 2 general subscales. The original form includes 70 items, while the newer, shorter version comprises 47 items assessing 11 subscales, including Health (5 items), Body Fat (4 items), Coordination (5 items), Flexibility (4 items), Athletic Competence (4 items), Physical Appearance (4 items), Strength (5 items), Power (4 items), Fitness (3 items), General Body Self-Concept (4 items), and Overall Self-Esteem (5 items). Participants respond to each item on a 6-point Likert scale. The questionnaire demonstrates good internal consistency (Cronbach's alpha coefficients ranging from .78 to .91) and factorial validity (Marsh, 1996). Reliability and validity: The reliability coefficient in Australia was reported between .78 and .89. Marsh (1996) examined the questionnaire's validity through factor analysis, showing all items had factor loadings above .51. Moreover, the instrument's validity and reliability have been confirmed domestically. Safavi Homami et al.

(2016) reported the tool's validity using factor analysis and its internal consistency using Cronbach's alpha (.88) and test-retest reliability (.78). In this study, the questionnaire's factor structure was examined through confirmatory factor analysis, indicating a satisfactory fit with the model (P=.27, df=1.36, GFI=.99, AGFI=.97, CFI=.99, RMSEA=.03). Also, Cronbach's alpha coefficient for the entire questionnaire was .86, and for the subscales as follows: Health .69, Body Fat .71, Coordination .74, Flexibility .68, Athletic Competence .82, Physical Appearance .91, Strength .88, Power .70, Fitness .74, General Body Self-Concept .68, and Overall Self-Esteem .88.

B) Self-Compassion Scale - Short Form (Raes, Pommier, Neff, & Van Gucht, 2011): This questionnaire consists of 12 items and 3 subscales: Self-Kindness versus Self-Judgment (4 items), Common Humanity versus Isolation (4 items), and Mindfulness versus Over-Identification (4 items). Respondents rate each item on a 5-point Likert scale from almost never (1) to almost always (5). Neff, Kirkpatrick, and Rude (2007) obtained Cronbach's alpha coefficients of .87, .95, and .86 in Thailand, Taiwan, and the USA, respectively. Raes et al. (2011) achieved internal consistency coefficients for the subscales as follows: Self-Kindness versus Self-Judgment .85, Common Humanity versus Isolation .82, and Mindfulness versus Over-Identification .86. Raes et al. (2011) also reported the questionnaire's reliability using Cronbach's alpha (.86) and validated it by correlating item scores with their respective subscales, with coefficients ranging from .54 to .76 for Self-Kindness versus Self-Judgment, .52 to .76 for Common Humanity versus Isolation, and .61 to .71 for Mindfulness versus Over-Identification. In Kashanki, Ghorbani, and Hatami (2016), Cronbach's alpha for the scale was reported as .78. In this study, confirmatory factor analysis confirmed the questionnaire's validity (P=.14, df=1.42, GFI=.96, AGFI=.94, CFI=.95, RMSEA=.05). Also, Cronbach's alpha for the entire questionnaire was .86, and for the subscales: Self-Kindness versus Self-Judgment .78, Common Humanity versus Isolation .81, and Mindfulness versus Over-Identification .87.

C) Emotional Eating Scale (Dutch, 1986): This self-report questionnaire includes 33 items and three subscales: External Eating (10 items), Emotional Eating (13 items), and Restrained Eating (10 items). Respondents rate each statement on a 5-point Likert scale from almost never (1) to very often (5). The questionnaire exhibits good internal consistency (Cronbach's alpha coefficients ranging from .80 to .95) and factorial validity (van Strien, Frijters, Bergers, & Defares, 1986). Van Strien et al. (1986) validated the questionnaire through factor analysis, showing all items had factor loadings above .45. Salehi Fadardi, Madah Shoorcheh, and Nemati (2011) first translated and used the questionnaire in research. Various studies reported Cronbach's alpha coefficients for this questionnaire ranging from .82 to .93 (Salehi Fadardi et al., 2011). The internal consistency of its three subscales in Iran for Restrained Eating, Emotional Eating, and External Eating was reported as .91, .95, and .85, respectively (Kechoie, Moradi, Kazemi, & Ghanbari, 2015). In the study by Rabani Parsa (2017), concurrent validity of this questionnaire with the Emotional Eating Scale (Arnow, Kenardy, & Agras, 1995) showed a correlation coefficient of .85 for the Emotional Eating subscale. In this study, the questionnaire's factor structure was examined through confirmatory factor analysis, indicating a satisfactory fit with the model (P=.25, df=1.35, GFI=.99, AGFI=.97, CFI=.99, RMSEA=.03). Also, Cronbach's alpha for the entire questionnaire was .89, and for the subscales: External Eating .89, Emotional Eating .82, and Restrained Eating .86.

Data obtained from the questionnaires were analyzed using SPSS-V24 and Lisrel-V8.8 software. Additionally, structural equation modeling was utilized to test the research hypotheses.

## Findings

In the present study, 36% of the participants were male and 64% were female. 14% of the participants were aged between 20 to 25 years, 23% between 26 to 30 years, 28% between 31 to 35 years, and 35% between 36 to 49 years. Regarding marital status, 41% were single and 59% were married. In terms of educational background, 18% had a high school diploma, 10% had an associate degree, 45% had a bachelor's degree, 23% had a master's degree, and 4% had a doctoral degree. Occupation-wise, 29% were self-employed, 38% had a government job, and 33% were unemployed. Table 1 displays central and dispersion indices related to the variables.

Table 1. Descriptive Characteristics of Research Variables

| Variable | Component | Mean | Standard Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Emotional Eating | External Eating | 3.29 | 0.79 | -0.06 | -0.21 |
| | Emotional Eating | 3.31 | 0.80 | 0.01 | -0.33 |
| | Restrained Eating | 3.21 | 0.81 | 0.15 | -0.22 |
| Self-Compassion | Self-Kindness vs. Self-Judgment | 3.27 | 0.74 | -0.02 | 0.42 |
| | Common Humanity vs. Isolation | 3.24 | 0.79 | -0.03 | 0.41 |
| | Mindfulness vs. Over-Identification | 3.15 | 0.81 | 0.02 | 0.13 |
| Body Self-Concept | Health | 4.22 | 0.61 | -0.56 | -0.07 |
| | Body Fat | 4.28 | 0.62 | -0.88 | 0.66 |
| | Coordination | 4.40 | 0.60 | -1.25 | 1.74 |
| | Flexibility | 4.38 | 0.65 | -1.39 | 1.61 |
| | Athletic Fitness | 4.38 | 0.66 | -1.15 | 1.05 |
| | Physical Appearance | 4.44 | 0.61 | -1.23 | 1.48 |
| | Strength | 4.39 | 0.62 | -1.27 | 0.95 |
| | Power | 4.39 | 0.65 | -1.24 | 1.81 |
| | Fitness | 4.33 | 0.62 | -0.94 | 0.61 |
| | General Body Self-Concept | 4.12 | 0.71 | -0.73 | 0.47 |
| | Overall Self-Esteem | 4.15 | 0.64 | -0.64 | 0.23 |

The table of statistical characteristics provides information such as mean, standard deviation, skewness, and kurtosis for all variables. Additionally, considering the skewness and kurtosis values within a reasonable range for assuming the normality of the data, the assumption of data normality can be proposed and accepted.

Table 2. Correlation Matrix between Research Variables

| Variable | Emotional Eating | Body Self-Concept |
|---|---|---|
| Emotional Eating | 1 | -0.830** |
| Body Self-Concept | -0.733** | 1 |

**p<0.01

As evident from Table 2, the results indicate the presence of correlation between the research variables at the 0.01 level. This means there is a relationship between self-compassion, emotional eating, and body self-concept. Subsequently, to examine the impact of self-compassion on emotional eating with the mediating role of body self-concept in individuals with obesity in a model, confirmatory structural equation modeling is used. For this purpose, after constructing the structure, adding model constraints, and selecting the maximum likelihood method, the model was executed and the following path diagram was obtained.

Table 3. Summary of Important Model Fit Indices

| Index | Abbreviation | Value | Acceptable Fit |
|---|---|---|---|
| Absolute Fit Indices | | | |
| Chi-Square | - | 256.84 | |
| Chi-Square to Degrees of Freedom | X2/df | 2.29 | Less than 3 |
| Goodness of Fit Index | GFI | 0.99 | Greater than 0.90 |
| Incremental Fit Indices | | | |
| Adjusted Goodness of Fit Index | AGFI | 0.96 | Greater than 0.90 |
| Comparative Fit Index | CFI | 0.99 | Greater than 0.90 |
| Parsimonious Fit Indices | | | |
| Root Mean Square Error of Approximation | RMSEA | 0.051 | Less than 0.10 |

Based on the Chi-square and RMSEA criteria, this model provides an appropriate fit to the data. In the table below, the most important and common fit indices are presented. As seen in the table below, all indices have statistical adequacy. Therefore, it can be confidently inferred that the researcher has achieved a relatively complete fit regarding these indices.

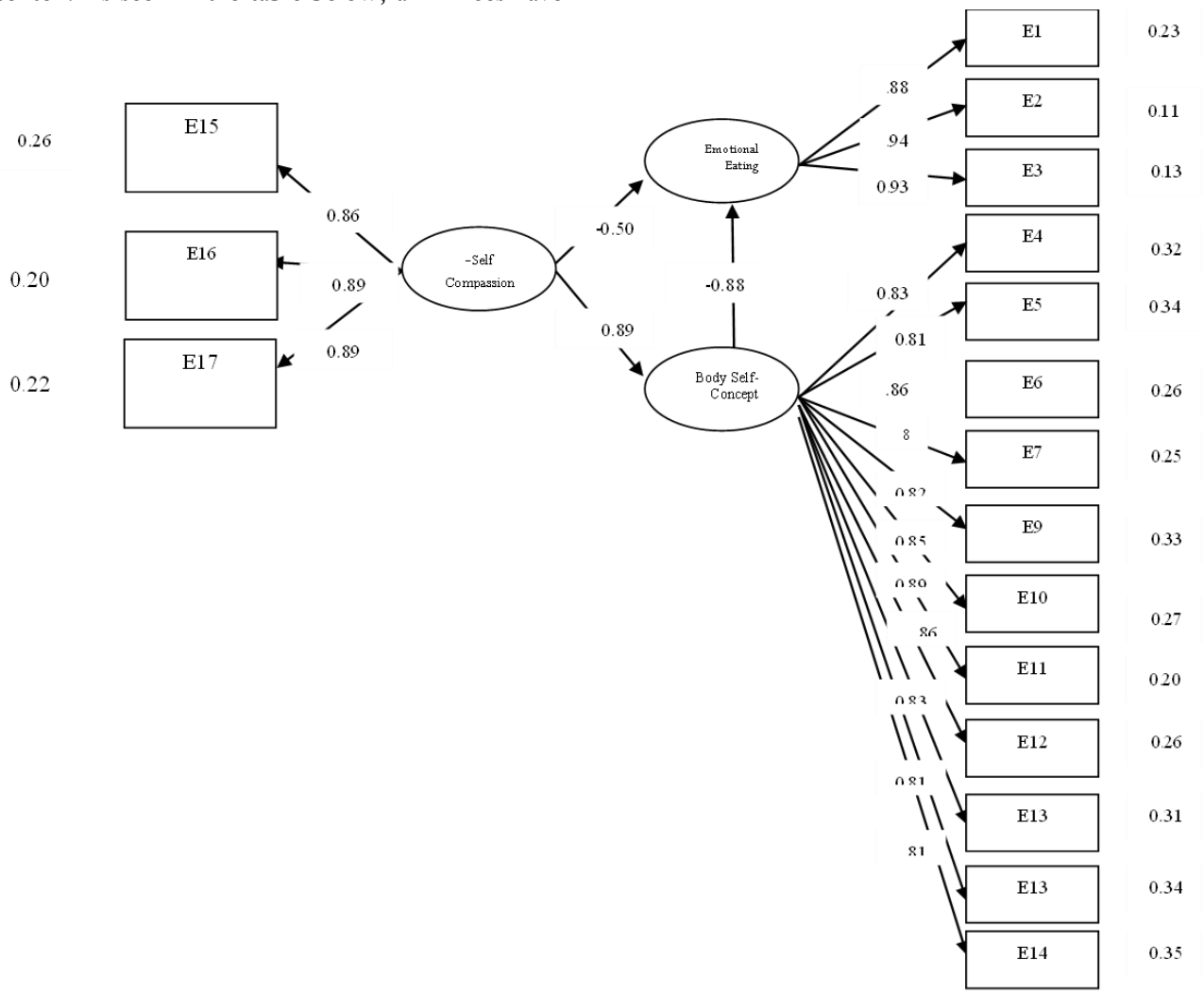


Figure 1. Model with Factor Loadings

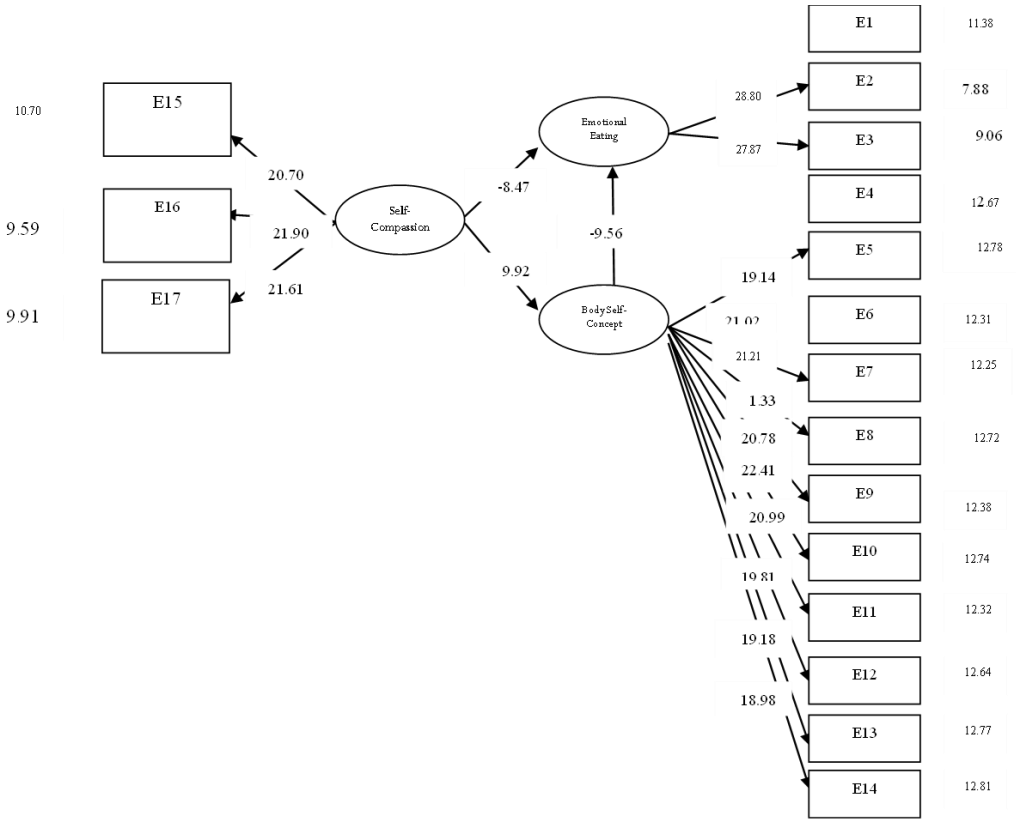


Figure 2. Model with T-Values

Consequently, based on the above figures, it is inferred that self-compassion affects emotional eating with the mediating role of body self-concept in individuals with obesity. Thus, it can be concluded that the hypothesis of the impact of self-compassion on emotional eating with the mediating role of body self-concept in individuals with obesity is accepted. Table 4 presents the path coefficients along with t-values for the fourth sub-hypothesis. As indicated, the paths under test are accepted.

Table 4. Path Coefficients and t-Values

| Path | Path Coefficient | t-Value | Status |
|---|---|---|---|
| Self-Compassion → Body Self-Concept | 0.49 | 9.92 | Accepted |
| Body Self-Concept → Emotional Eating | -0.48 | -9.56 | Accepted |
| Self-Compassion → Emotional Eating | -0.50 | -8.47 | Accepted |

To examine the direct and indirect effects of independent variables on the dependent variable, it is necessary to present the total, direct, and indirect effects for the endogenous variable in the model, which are observable in Table 5.

Table 5. Direct, Indirect, and Total Effects

| Independent Variable | Dependent Variable | Direct Effect | Indirect Effect | Total Effect |
|---|---|---|---|---|
| Self-Compassion | Body Self-Concept | 0.49 | ---- | 0.89 |
| Body Self-Concept | Emotional Eating | -0.48 | ----- | -0.88 |
| Self-Compassion | Emotional Eating | -0.50 | -0.24 (0.49*(-0.48)) | -0.74 |

As can be seen in Table 5, the total effect of self-compassion on emotional eating with the mediating role of body self-concept in individuals with obesity is -0.74.

## Conclusion

The present study aimed to investigate the mediating role of body self-concept in the relationship between self-compassion and emotional eating among individuals with obesity. The findings from the research data indicated that there is a significant relationship between self-compassion and emotional eating with the mediating role of body self-concept in individuals with obesity.

The relationship between self-compassion and emotional eating has been a subject of interest in recent research, particularly in individuals with obesity. The findings from the research data indicate a significant relationship between self-compassion and emotional eating, with the mediating role of body self-concept in individuals with obesity (Taylor et al., 2015). This suggests that self-compassion may play a crucial role in influencing emotional eating behaviors, especially in the context of body self-concept perception. Additionally, the research conducted on individuals with emotional eating behaviors showed that self-compassion plays a mediating role in the relationship between negative self-concept and mental health (Meyer & Leppma, 2019). This highlights the potential impact of self-compassion on mental well-being, particularly in the context of emotional eating and negative self-concept. Furthermore, the role of self-compassion as a mediator of the relationship between negative emotion intensity, negative emotion differentiation, and loss of control eating has also been explored (Bicaker et al., 2022). This indicates that self-compassion may have a moderating effect on the relationship between negative emotions and disordered eating behaviors, providing valuable insights into the potential mechanisms underlying emotional eating. In addition to its mediating role, self-compassion has been associated with various aspects of eating behaviors and body self-concept. For instance, self-compassion has been found to partially mediate the relationship between restrained eating and orthorexia nervosa (Kalika et al., 2022). This suggests that self-compassion may influence the development of specific eating behaviors, such as restrained eating and orthorexia nervosa, through its mediating role.

Moreover, the relationship between self-compassion and emotional eating has been examined in the context of mindfulness and emotion regulation. Research has shown that self-compassion, mindfulness, and emotion regulation are interconnected constructs that play a role in mitigating disordered eating attitudes and behaviors (Egan et al., 2020). This highlights the complex interplay between self-compassion, mindfulness, and emotion regulation in influencing eating behaviors and suggests potential avenues for intervention and support.In research conducted on individuals with emotional eating behaviors, results showed that self-compassion plays a mediating role in the relationship between negative self-concept and mental health. Some have suggested that self-compassion is associated with healthy eating behaviors such as mindful eating (Walsh et al., 2018) and increased intentions towards healthy behaviors (Anthony et al., 2018). Furthermore, obesity and emotional eating behaviors carry a strong social stigma, thus having self-compassion may assist individuals in actively coping and potentially reducing their consumption if emotional eating is one of their underlying behaviors. Additionally, some evidence indicates that individuals who experienced greater improvements in self-compassion during treatment were more successful in weight loss (Altmeyer, 2019). Generally, it seems that learning the positive aspects of self-compassion through self-compassion related interventions provides individuals with a high body mass index the opportunity to better cope with unpleasant and challenging situations, experience fewer negative emotions towards themselves in response to social pressures, and have a better ability for emotional regulation. Therefore, in explaining these findings based on Holly et al. (2022), it can be said that individuals with high levels of self-compassion are kind to themselves and accept themselves despite their flaws and imperfections, experiencing non-judgmental thoughts. Increasing self-compassion could serve as a protective factor against disordered eating behaviors by enhancing body self-concept self-esteem; individuals with obesity who experience high levels of self-compassion are less likely to engage in negative thoughts and emotions about their physical appearance and instead accept their flaws and imperfections, which leads to increased body self-concept self-esteem and subsequently reduces the tendency towards emotional eating behaviors (Mehr & Adams, 2016).

Additionally, from another perspective according to Yuvaliaszak et al. (2016), it can be stated that in the context of the relationship between self-compassion and emotional eating, self-compassion acts as an important protective factor against the inclination towards

emotional eating behaviors through reducing body dissatisfaction; individuals with high levels of self-compassion are less likely to engage in negative thoughts about their physical appearance and more likely to accept their flaws, which reduces body dissatisfaction and subsequently decreases the tendency towards emotional eating behaviors. Also, various research evidence has shown that fostering self-compassion in individuals who suffer from emotional eating reduces feelings of guilt, self-blame, and negative emotions following the consumption of high-calorie foods (Barnett & Sharp, 2016).

On the other hand, body self-concept is considered one of the desired outcomes in most psychological and educational situations, valued as a mediating variable that can facilitate achieving favorable outcomes for many individuals (Savari & Dehar, 2020). Marsh (2000) demonstrated in his research that body self-concept is a composite of factors related to physical fitness, health, athletic competence, composition, and physical appearance, and there is a high correlation between multiple dimensions of body self-concept and healthy eating behaviors in individuals. Thus, body self-concept represents an individual's self-description and perception of their body shape and condition, and this perception is one of the fundamental factors that facilitate the development of healthy eating behaviors. Furthermore, explaining these findings, it can be articulated that individuals with a positive body self-concept pay more attention to themselves, experience positive experiences, and have a more positive outlook towards themselves. Body self-concept is a multidimensional construct that includes cognitive evaluations of appearance. These evaluations encompass emotional, behavioral, and cognitive assessments, aesthetics, emotion, function, fitness, and health (Rodgers et al., 2016). Such evaluations can lead to a varied perception of body size and form, representing an integrated component of self-awareness, with body self-concept being a crucial construct for understanding this matter (Lackman & Nirvana, 2020). Moreover, body self-concept is not a uniform or specific self-concept; sometimes, due to physical build or certain diseases, individuals may become underweight and may resort to emotional eating to solve this issue.

This study also had limitations that necessitate cautious generalization of the results. One limitation was that the measurement of research variables was solely conducted through self-report tests. In this regard, it is recommended that future studies also utilize other methods, such as interviews. Additionally, the study was only conducted on individuals with obesity. It is suggested that research be replicated on diverse samples, and the cross-sectional nature of the study design limits any causal interpretation of the results. Emotional eating is an important variable for obesity; hence, it is recommended that attention be paid to this aspect in obesity treatment and weight loss, teaching individuals skills to cope with negative emotions to reduce the use of eating as a defensive strategy against anxiety and frustrations. Conducting educational courses with the presence of health psychologists on the application of emotions and feelings in the life of individuals with obesity, assessing their emotions, and managing emotions will be important.

**Acknowledgments**

The cooperation of all participants in the research is thanked and appreciated.

**Declaration of Interest**

The authors of this article declared no conflict of interest.

**Ethics principles**

In this study, ethical considerations such as obtaining full consent from all participants, maintaining confidentiality and secrecy of information, and allowing participants to withdraw from study.

**Authors' Contributions**

All authors contributed equally.

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