

## Developing a Structural Model for Predicting Body Dysmorphic Disorder Based on Anxiety Sensitivity with the Mediating Role of Fear of Negative Evaluation in Women with a Body Mass Index of 30 or Higher

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### ABSTRACT

**Purpose:** This study aimed to develop and test a structural model predicting the level of body dysmorphic disorder (BDD) based on anxiety sensitivity, with the mediating role of fear of negative evaluation among women with a body mass index (BMI) of 30 or higher.

**Methods and Materials:** The study employed an applied, quantitative, and descriptive–correlational design using a structural equation modeling (SEM) approach. The statistical population comprised women with a BMI  $\geq 30$  who attended diet therapy centers and health houses in Tehran during 2023–2025. Using multi-stage cluster and convenience sampling, 391 respondents were selected. Data were collected through three standardized instruments: the Modified Yale–Brown Obsessive–Compulsive Scale for Body Dysmorphic Disorder (Goodman et al., 2017), the Anxiety Sensitivity Index (Floyd et al., 2005), and the Brief Fear of Negative Evaluation Scale (Leary, 1983). Data analysis was performed using SPSS version 27 and SmartPLS version 3.3, with validity confirmed through content and construct measures and reliability through Cronbach’s alpha, composite reliability, and McDonald’s omega.

**Findings:** The results indicated that anxiety sensitivity had both direct and indirect effects on body dysmorphic disorder, with fear of negative evaluation serving as a significant mediator. The standardized total path coefficient ( $\beta = 0.867$ ) revealed that anxiety sensitivity strongly predicted BDD severity through this mediating mechanism. All path coefficients were statistically significant at the 0.01 level ( $t > 2.58$ ), confirming the hypothesized relationships. The model demonstrated acceptable fit indices, supporting its structural validity.

**Conclusion:** Anxiety sensitivity and fear of negative evaluation play crucial and interconnected roles in explaining the development and maintenance of body dysmorphic disorder among women with obesity.

**Keywords:** body dysmorphic disorder, anxiety sensitivity, fear of negative evaluation

## 1. Introduction

Body image and self-perception have long been recognized as significant determinants of psychological well-being. Among the disorders stemming from body dissatisfaction, *body dysmorphic disorder* (BDD) is one of the most severe and debilitating forms, characterized by excessive preoccupation with perceived flaws in appearance, often leading to distress, functional impairment, and repetitive behaviors such as mirror checking or skin picking (Greenberg et al., 2023). BDD is increasingly observed in women with higher body mass index (BMI), for whom body dissatisfaction may intersect with social pressures, anxiety sensitivity, and fear of negative evaluation, reinforcing maladaptive cognitive and emotional patterns (Navidi Moghadam & Samradjah, 2022). Understanding the psychological mechanisms underlying BDD, especially anxiety-related constructs such as *anxiety sensitivity* and *fear of negative evaluation*, is essential for the development of effective interventions and prevention strategies.

Anxiety sensitivity, defined as the fear of anxiety-related sensations based on beliefs that such sensations have harmful physical, psychological, or social consequences, plays a central role in emotional disorders (Smits et al., 2024). High anxiety sensitivity has been linked with greater vulnerability to anxiety, obsessive-compulsive, and body image-related disturbances (Raines et al., 2022). Individuals with elevated anxiety sensitivity may misinterpret normal bodily sensations as threatening, fostering hypervigilance toward perceived flaws in appearance and triggering intrusive concerns about body imperfection (Aghaei Mazraji & Najafi, 2023). Previous research suggests a bidirectional relationship between anxiety sensitivity and obsessive-compulsive symptoms, where heightened physiological arousal and cognitive distortions reinforce maladaptive behaviors (Krebs et al., 2020). Within the framework of BDD, anxiety sensitivity may act as a cognitive vulnerability factor, influencing emotional reactivity and the individual's tendency to magnify perceived bodily imperfections.

A closely related construct, *fear of negative evaluation* (FNE), refers to apprehension and distress about being judged unfavorably by others. It has been identified as a transdiagnostic factor contributing to anxiety disorders, social phobia, and BDD (Gao, 2025). Individuals high in FNE are prone to overestimating others' scrutiny of their appearance and may engage in avoidance or safety behaviors, such as excessive grooming or social withdrawal

(Cooper & Brownell, 2020). The anticipation of negative social feedback amplifies self-focused attention and self-criticism, perpetuating body dissatisfaction (Geukens et al., 2022). Empirical findings reveal that FNE mediates the relationship between interpersonal anxiety and various psychosocial outcomes, such as academic stress, perfectionism, and emotional dysregulation (Abhar Zanzanj et al., 2020; Meyers, 2023). In the context of BDD, this mechanism suggests that individuals with higher anxiety sensitivity may experience greater fear of evaluation, which in turn exacerbates dysmorphic concerns.

BDD is conceptualized as part of the obsessive-compulsive spectrum due to its repetitive behaviors and intrusive thoughts about perceived defects (Lundström et al., 2023). Cognitive-behavioral models emphasize the role of maladaptive beliefs regarding appearance, perfectionism, and attentional biases toward perceived flaws (Greenberg et al., 2023). Furthermore, studies have indicated that early trauma and maltreatment may predispose individuals to develop distorted body image schemas and heightened self-surveillance (Malcolm et al., 2021). Social contexts that value appearance, particularly in cultures emphasizing thinness or attractiveness, can further intensify these vulnerabilities (Hakim et al., 2021). Among women with obesity or high BMI, social stigmatization related to weight becomes a crucial factor, fueling self-consciousness and increasing the risk of dysmorphic cognitions (Batool et al., 2025).

Recent findings have also linked body dysmorphic symptoms to maladaptive emotional regulation strategies and heightened self-awareness in social interactions (Navidi Moghadam & Samradjah, 2022). Individuals with both high anxiety sensitivity and FNE may interpret minor appearance imperfections as indicators of social rejection or personal inadequacy, perpetuating a cycle of negative affect and self-monitoring (Zhi et al., 2023). Studies investigating these interrelations have shown that social anxiety and appearance-based rejection sensitivity mediate the association between exercise adherence and BDD, underscoring the social evaluative component of the disorder (Zhi et al., 2023). Moreover, anxiety sensitivity has been shown to predict avoidance and obsessive tendencies—core behavioral features of BDD—through the amplification of internal physiological and cognitive cues (Aghaei Mazraji & Najafi, 2023).

Theoretical and empirical literature supports a mediating model in which FNE serves as a psychological bridge between anxiety sensitivity and BDD symptoms. Research

by (Raines et al., 2022) demonstrated that interventions targeting anxiety sensitivity can indirectly alleviate obsessive-compulsive symptoms, implying that reducing cognitive fear responses may attenuate maladaptive evaluative processes. Similarly, findings from (Smits et al., 2024) on the efficacy of anxiety-focused behavioral interventions (e.g., exercise-based treatments) revealed reductions in anxiety sensitivity and improved emotion regulation, suggesting potential benefits for appearance-related anxiety. The interplay between anxiety sensitivity and evaluative fears also extends to broader domains of psychosocial functioning. For instance, individuals with high anxiety sensitivity report greater social avoidance and distress when anticipating evaluation, leading to maladaptive coping and reinforcement of self-focused anxiety (Shin & Rodebaugh, 2023).

Psychotherapeutic advancements further highlight the modifiability of these constructs. Cognitive-behavioral therapy (CBT) and mindfulness-based approaches have shown efficacy in reducing maladaptive cognitive processes associated with BDD (Bahreini et al., 2021; Greenberg et al., 2023). Internet-based CBT interventions (BDD-NET) implemented within public health systems have also demonstrated promising outcomes, offering scalable treatment options for individuals who may face barriers to traditional therapy (Lundström et al., 2023). Similarly, Acceptance and Commitment Therapy (ACT) has been applied to modify negative body image beliefs by fostering psychological flexibility and reducing experiential avoidance (Suryanigtyas, 2023). These approaches underscore that interventions targeting cognitive distortions, evaluative fears, and anxiety sensitivity are central to addressing the multifaceted etiology of BDD.

Moreover, neurocognitive research has begun to elucidate how emotional memory and attentional biases contribute to the persistence of dysmorphic concerns. A study by (Duken et al., 2024) found that individuals with dysphoria exhibit distortions in episodic and affective memory that may maintain maladaptive self-referential beliefs. These biases likely interact with fear-based cognitions and reinforce preoccupation with perceived bodily flaws. Similarly, (Meyers, 2023) emphasized that interpersonal trust inversely relates to FNE, suggesting that lower levels of perceived social safety may heighten vigilance toward negative evaluation. The cognitive-affective interplay among these variables points to a self-reinforcing system in which anxiety sensitivity feeds into

fear of evaluation, ultimately sustaining BDD symptomatology.

Cross-cultural findings further support the universality of these mechanisms. For example, (Chin et al., 2024) conducted a systematic review of brief mindfulness, embodiment, and cognitive interventions that effectively reduced state anxiety, suggesting the relevance of transdiagnostic mechanisms such as attentional regulation and emotional awareness across populations. Meanwhile, (Hearon & Harrison, 2021) found that anxiety sensitivity, along with personality traits, predicted levels of physical activity and sedentary behavior, illustrating its behavioral manifestations. Likewise, (McKay et al., 2020) demonstrated that interoceptive anxiety during the COVID-19 pandemic was moderated by disgust sensitivity, a construct closely associated with bodily awareness and contamination fears—paralleling features observed in BDD.

From a developmental perspective, adolescence and early adulthood represent vulnerable periods for the onset of body dysmorphic and anxiety-related disorders. Changes in self-esteem, peer comparison, and social acceptance drive heightened self-consciousness, which can interact with evaluative fears (Geukens et al., 2022). Individuals with greater anxiety sensitivity may become increasingly reactive to social threats, internalizing societal beauty standards and forming rigid, perfectionistic body ideals (Janghorban Laricheh, 2019). The co-occurrence of anxiety sensitivity and fear of evaluation in these populations underscores the need for early identification and intervention before maladaptive cognitive and behavioral patterns become entrenched.

Integrative models of BDD suggest that both internal vulnerabilities (such as anxiety sensitivity) and external social factors (such as evaluative threat) must be considered to comprehensively understand the disorder's etiology (Malcolm et al., 2021). As (Gao, 2025) emphasized, fear of both negative and positive evaluation can shape the emotional experience of social interactions, highlighting the complexity of evaluative anxiety. This multidimensional understanding of FNE underscores its centrality not only in social anxiety but also in appearance-based conditions like BDD, where individuals often experience both fear of rejection and discomfort with attention.

Taken together, the reviewed literature demonstrates a consistent association between anxiety sensitivity, fear of negative evaluation, and body dysmorphic symptoms across different populations and methodologies. The integration of findings from clinical, cognitive, and neurobiological

perspectives highlights a coherent model wherein anxiety sensitivity functions as an antecedent variable that fosters evaluative fears, which in turn mediate the emergence and maintenance of BDD. Addressing these interconnected constructs through targeted interventions—ranging from cognitive-behavioral to acceptance-based therapies—may enhance both prevention and treatment outcomes for women with high BMI, who often experience compounded psychosocial challenges due to societal stigma and internalized body dissatisfaction.

Based on this theoretical and empirical background, the present study aims to develop and test a structural model predicting the level of body dysmorphic disorder based on anxiety sensitivity, with the mediating role of fear of negative evaluation in women with a body mass index of 30 or higher.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This research, in terms of its purpose, is an applied study; in terms of data collection, it is quantitative; and in terms of analysis, it is descriptive in nature and employs a correlational design using the structural equation modeling (SEM) method. The statistical population of the present study consisted of all women with a body mass index (BMI) of 30 or higher who visited diet therapy centers and health houses in Tehran during 2023–2025. The sampling procedure was conducted in two stages using the available sampling method. In the first stage, through multi-stage cluster sampling, 7 out of the 22 municipal districts of Tehran were selected, and from each district, 3 diet therapy centers and 3 health houses were chosen.

The sample group was determined according to the inclusion and exclusion criteria of the study. The inclusion criteria included: (1) having at least a high school diploma, (2) being overweight with a BMI greater than 30, and (3) willingness to participate in the research. The exclusion criteria included: (1) pregnancy, (2) use of medications that cause weight gain or obesity, and (3) incomplete responses to the questionnaires. Finally, the participants were selected using the available sampling method from the clients of the selected diet therapy centers and health houses.

There is no universal agreement regarding the minimum sample size required for structural equation modeling. However, many researchers suggest that a minimum of 200 participants is adequate for SEM. In the present study, a total sample size of 400 participants was considered. It should be

noted that three participants were excluded due to not returning the questionnaires, and six were excluded due to incomplete responses. Thus, the final sample size consisted of 391 participants.

### 2.2. Measures

a) The Modified Yale-Brown Obsessive-Compulsive Scale for Body Dysmorphic Disorder (BDD-YBOCS) developed by Goodman et al. (2017): This scale is a revised version of the Yale-Brown Obsessive-Compulsive Scale designed by Goodman et al. (2017) to assess the severity of body dysmorphic disorder symptoms (repetitive behaviors, insight, and avoidance) over the past week. It includes 12 items rated on a 5-point Likert scale ranging from 0 (no symptoms) to 4 (severe symptoms). Phillips et al. (1997), in a study of 125 patients diagnosed with BDD, reported that the modified Yale-Brown Scale for BDD had a three-factor structure, including (1) repetitions (obsessions and compulsions), (2) insight, and (3) avoidance. They reported acceptable inter-rater and test-retest reliability for this questionnaire. The test-retest reliability over a one-week period was  $r = .88$ . Cronbach's alpha coefficient for internal consistency was .80, indicating high internal coherence. The questionnaire showed a positive correlation with the Global Assessment of Functioning (GAF) in the DSM ( $r = .51$ ) and appropriate diagnostic validity compared to the Brief Psychiatric Rating Scale ( $r = .19$ ). In the study by Rabiei et al. (2009), this instrument showed significant correlations with the Body Satisfaction Scale ranging from .25 to .33, confirming its concurrent validity. Cronbach's alpha coefficient for the total scale was .93. The reliability coefficients based on Cronbach's alpha, split-half, and Guttman methods were .93, .83, and .92, respectively, and the correlations of this questionnaire with the Padua Inventory and the Body Satisfaction Scale were .58 and .33, respectively (Bahreini et al., 2021).

b) The Anxiety Sensitivity Index (ASI) by Floyd et al. (2005): The Anxiety Sensitivity Index (ASI) was developed by Floyd et al. (2005) and contains 16 items grouped into three components: (1) fear of physical concerns (items 1–8), (2) fear of cognitive dyscontrol (items 9–12), and (3) fear of publicly observable anxiety (items 13–16). It is scored on a 5-point Likert scale ranging from 0 (very little) to 4 (very much). There are no reverse-scored items. The total score is obtained by summing all item scores, with possible scores ranging from 0 to 64. Higher scores indicate greater anxiety sensitivity. Floyd et al. (2005) reported internal consistency

reliability coefficients ranging from .80 to .90, with test–retest reliability coefficients of .75 after two weeks and .71 after three years, demonstrating its stability as a personality construct. The index was standardized in Iran by Moradi Manesh, Mir Jafari, Goodarzi, and Mohammadi (2007). The reliability coefficients using internal consistency, test–retest, and split-half methods were .93, .95, and .97, respectively, for the total scale. The subscale reliabilities ranged between .76 and .96. Convergent validity was supported through concurrent administration with the Symptom Checklist-90-Revised (SCL-90-R), yielding a correlation coefficient of .56 (Moradi Manesh et al., 2007).

c) The Brief Fear of Negative Evaluation Scale (BFNE) by Leary (1983): The short form of the Fear of Negative Evaluation Scale includes 12 items that assess individuals' levels of anxiety in anticipation of possible negative evaluations. It is rated on a 5-point Likert scale ranging from 1 (not at all true) to 5 (almost always true) (Abhar Zanjanj et al., 2020). Items 2, 4, 7, and 10 are reverse-scored. Higher scores indicate higher levels of anxiety and fear. The instrument has been translated and psychometrically validated in Iran. Cronbach's alpha coefficients were reported as .47 for negatively worded items (2, 4, 7, 10), .87 for positively worded items (1, 3, 5, 6, 8, 9, 11, 12), and .84 for the total scale. Moreover, construct validity was

confirmed using factor analysis, with goodness-of-fit indices as follows: for the one-factor model,  $\chi^2/df = 2.02$ , AGFI = .90, and RMSEA = .056; and for the two-factor model,  $\chi^2/df = 2.00$ , AGFI = .96, and RMSEA = .032. Other Iranian studies reported Cronbach's alpha coefficients ranging from .80 to .82 (Garavand et al., 2011). International studies have also confirmed high reliability, with Cronbach's alpha coefficients of .95 and .87. In the present study, Cronbach's alpha coefficient for the total scale was .91, confirming high internal consistency.

### 2.3. Data Analysis

In the inferential section, given the nature of the research hypotheses, structural equation modeling (SEM) was employed for hypothesis testing. It should be noted that data analysis was performed using SPSS version 27 and SmartPLS version 3.3.

## 3. Findings and Results

The following table presents the main constructs of the study based on the data collected through questionnaires, described using indicators of mean, standard deviation, skewness, and kurtosis.

**Table 1**

*Descriptive Statistics of Research Variables Based on Central Tendency, Dispersion, and Distribution Indicators (Sample Size = 391 Respondents)*

Variable	Mean (Likert Scale)	Total Mean	Standard Deviation	Skewness	Kurtosis	Minimum	Maximum
Body Dysmorphic Disorder	3.31	39.72	0.83	-0.36	-0.11	12	60
Anxiety Sensitivity	3.52	56.32	0.78	-0.06	0.37	16	80
Fear of Negative Evaluation	3.26	39.12	0.71	-0.04	-0.19	12	60

According to the above table, the variables of the study can be interpreted as follows: overall, the mean values on the Likert scale indicate that the level of anxiety sensitivity (Mean = 3.52) is higher compared to the other variables. The standard deviations, representing the dispersion of data around the mean, range from 0.71 to 0.83 across variables, indicating relative homogeneity in responses. The skewness and kurtosis statistics for different variables provide information about the shape of their distributions; for

instance, body dysmorphic disorder shows a negative skewness, indicating a right-tailed distribution.

To assess discriminant validity, two approaches were applied: the Fornell–Larcker criterion and the cross-loading test. The Fornell–Larcker criterion states that the square root of the average variance extracted (AVE) of each construct should be greater than its correlations with other constructs. The table below presents the Fornell–Larcker evaluation results for the study variables.



**Table 2**

*Fornell–Larcker Criterion Evaluation for Study Variables*

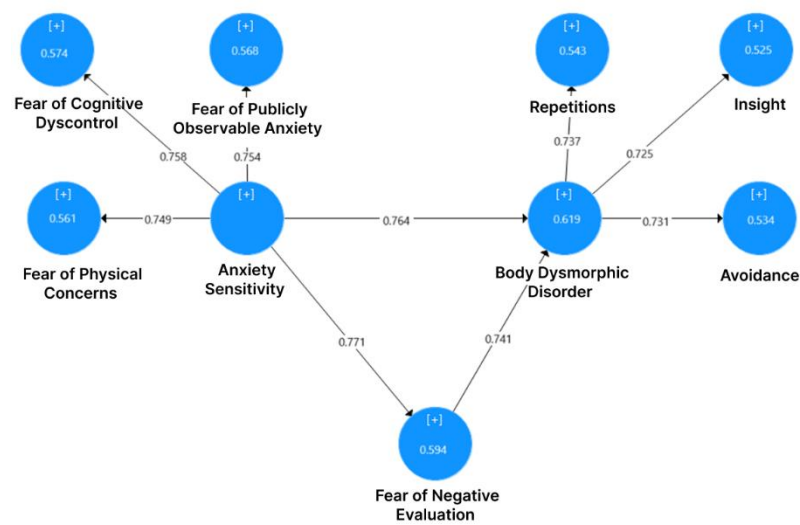
Variable	1	2	3
1. Body Dysmorphic Disorder	0.854		
2. Anxiety Sensitivity	0.791	0.883	
3. Fear of Negative Evaluation	0.684	0.677	0.860

As shown in the above table, the square root of the AVE for each variable is greater than its correlations with the other

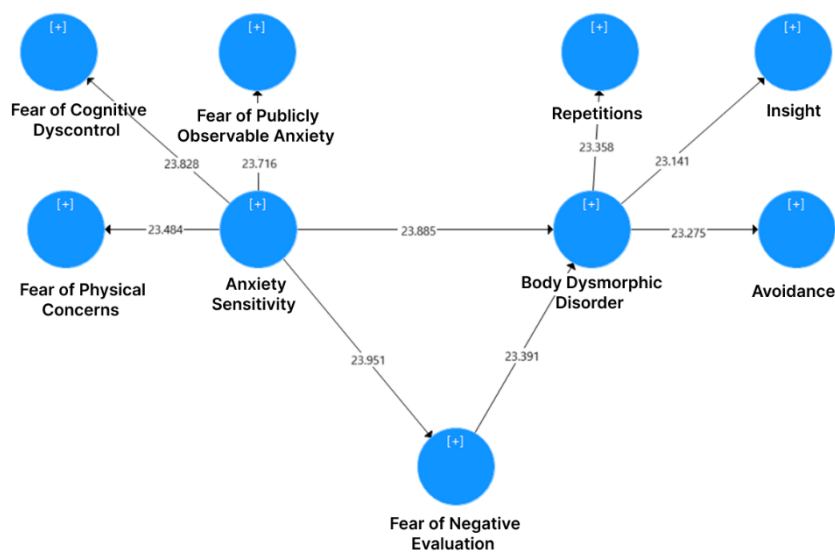
variables. Therefore, the discriminant validity of the model is confirmed.

**Figure 1**

*Graphical Representation of Path Coefficients in the Model*


**Figure 2**

*Graphical Representation of Significance Coefficients in the Model*



To examine the direct and indirect effects of the independent variables on the dependent variable, the total,

direct, and indirect effects for the endogenous variable in the model are reported in the following table.

**Table 3**

*Decomposition of Direct and Indirect Effects for Standardized and Unstandardized Coefficients*

Independent Variable	Dependent Variable	B (Direct)	$\beta$ (Direct)	B (Indirect)	$\beta$ (Indirect)	B (Total)	$\beta$ (Total)
Anxiety Sensitivity	Fear of Negative Evaluation	0.771	0.571	---	---	0.771	0.571
Fear of Negative Evaluation	Body Dysmorphic Disorder	0.741	0.541	---	---	0.741	0.541
Anxiety Sensitivity	Body Dysmorphic Disorder	0.764	0.564	0.536	0.867	1.187	0.867

As shown in the above table, the effect of anxiety sensitivity on body dysmorphic disorder through the mediating role of fear of negative evaluation is indicated by a total standardized coefficient of 0.867. It should be noted that when the significance value exceeds 2.58, the relationship is statistically significant at the 0.01 confidence level.

#### 4. Discussion and Conclusion

The present study aimed to develop and test a structural model predicting *body dysmorphic disorder (BDD)* based on *anxiety sensitivity*, with *fear of negative evaluation* as a mediating variable among women with a body mass index (BMI) of 30 or higher. The findings revealed that anxiety sensitivity exerted both direct and indirect effects on BDD, with the indirect path being mediated by fear of negative evaluation. This suggests that women with high anxiety sensitivity are more likely to experience heightened fear of being judged or criticized by others, which subsequently intensifies preoccupation with perceived bodily defects and leads to dysmorphic concerns. The total standardized coefficient indicated a strong predictive association, confirming the hypothesized mediating model.

The finding that anxiety sensitivity is a significant predictor of body dysmorphic symptoms aligns with a growing body of research demonstrating that individuals who are highly sensitive to anxiety-related sensations are more prone to interpret normal physiological or cognitive experiences as signs of personal or social threat (Aghaei Mazraji & Najafi, 2023; Raines et al., 2022). This maladaptive appraisal process increases vulnerability to disorders characterized by excessive self-monitoring, intrusive thoughts, and perfectionistic standards—features central to BDD. Previous research has shown that anxiety sensitivity is a transdiagnostic risk factor for obsessive-compulsive and anxiety disorders, functioning through

mechanisms of cognitive amplification and avoidance (Hearon & Harrison, 2021; Krebs et al., 2020). The current study's results are consistent with these findings, showing that anxiety sensitivity not only influences internal anxiety processes but also contributes to dysmorphic beliefs when filtered through social-evaluative fears.

The mediating role of *fear of negative evaluation (FNE)* further strengthens the cognitive-behavioral conceptualization of BDD as a socially mediated disorder, where self-perception is shaped by perceived external scrutiny. The present results demonstrated that individuals with higher anxiety sensitivity also exhibited stronger fear of negative evaluation, which in turn predicted greater severity of BDD symptoms. This finding supports the argument that fear of social judgment serves as a bridge between physiological vulnerability and maladaptive self-image (Gao, 2025; Shin & Rodebaugh, 2023). Previous studies have indicated that FNE can trigger body image-related anxiety and lead to repetitive behaviors such as mirror checking or concealment of perceived defects (Abhar Zanjanj et al., 2020; Cooper & Brownell, 2020). The current results confirm that FNE is not merely a co-occurring symptom but a mediating mechanism through which anxiety sensitivity manifests in appearance-related distress.

This relationship may be explained by the interplay between internal anxiety cues and external social contexts. Individuals with high anxiety sensitivity tend to overinterpret physiological arousal—such as blushing, trembling, or rapid heartbeat—as indicators of social inadequacy, which increases their fear of being evaluated negatively (Smits et al., 2024). In turn, this fear promotes excessive self-consciousness and attentional bias toward appearance-based flaws, leading to compulsive preoccupation and avoidance behaviors characteristic of BDD (Lundström et al., 2023). Consistent with this, (Greenberg et al., 2023) found that cognitive-behavioral therapy for BDD reduces maladaptive beliefs about

appearance partly by addressing evaluative fears and anxiety misinterpretations. Therefore, the mediation observed in this study is theoretically grounded in well-established anxiety and self-evaluation models.

Furthermore, the study's findings resonate with previous evidence that anxiety sensitivity and fear of evaluation share overlapping cognitive and emotional substrates. (Meyers, 2023) reported that trust deficits are associated with heightened fear of negative evaluation, indicating that individuals who perceive the social world as threatening are more prone to self-critical cognition. Similarly, (Geukens et al., 2022) found that adolescents with higher FNE and lower self-esteem experienced greater loneliness and body dissatisfaction, illustrating that evaluative fears influence not only social functioning but also self-perception. These findings collectively reinforce the conclusion that fear of negative evaluation functions as a key mediator between internal anxiety mechanisms and externalized self-image concerns.

The positive relationship between anxiety sensitivity and body dysmorphic symptoms observed here is also consistent with findings from longitudinal and experimental studies. (Raines et al., 2022) demonstrated that interventions reducing anxiety sensitivity lead to significant decreases in obsessive-compulsive symptoms, suggesting that anxiety sensitivity plays a causal role in maintaining maladaptive cognitions. Likewise, (Krebs et al., 2020) identified reciprocal associations between anxiety sensitivity and obsessive-compulsive symptoms in youth, showing that heightened anxiety reactivity can sustain intrusive cognitions over time. Translating these mechanisms into the BDD context, individuals with high anxiety sensitivity may engage in repetitive appearance-related checking behaviors as a maladaptive strategy to alleviate perceived threats. The mediation through FNE further explains why such behaviors are maintained—because the individual's sense of safety depends on imagined social evaluation rather than objective reality.

In support of this mechanism, (Zhi et al., 2023) found that appearance-based rejection sensitivity and social anxiety mediated the relationship between exercise adherence and BDD, highlighting the social nature of body concerns. Similarly, (Batool et al., 2025) reported that body image served as a mediator between social interaction anxiety and sleep disturbances in overweight individuals. These studies collectively support the idea that social-evaluative processes are central to the manifestation of dysmorphic concerns. The present results extend these findings by identifying FNE as

a mediating link that translates internal anxiety vulnerability into externalized body dissatisfaction among women with high BMI.

The observed structural relationships also have implications for understanding gendered and sociocultural dynamics. In many societies, women face greater appearance-based evaluation and internalized beauty norms, making them particularly susceptible to BDD when compounded by anxiety sensitivity and evaluative fears (Hakim et al., 2021; Navidi Moghadam & Samradjah, 2022). The present findings support the notion that women with obesity may experience heightened vigilance toward their bodies due to internalized stigma and social comparison. This aligns with (Malcolm et al., 2021), who found that individuals with BDD frequently reported histories of maltreatment and trauma, suggesting that early experiences of shame and rejection can sensitize individuals to evaluative threats later in life. In this context, anxiety sensitivity may amplify the emotional salience of perceived imperfections, while fear of negative evaluation channels these vulnerabilities into appearance-centered anxiety.

Another interpretation of these findings is offered by the *attentional bias model* of BDD, which posits that individuals with dysmorphic symptoms selectively attend to negative self-referential cues. (Duken et al., 2024) observed that individuals with dysphoria exhibit distorted episodic and affective memory, leading to biased recall of negative feedback and reinforcement of self-critical beliefs. Similarly, (Hearon & Harrison, 2021) found that individuals with higher anxiety sensitivity exhibited maladaptive behavioral patterns, such as avoidance of physical activity, reinforcing sedentary lifestyles and internal preoccupation. When applied to BDD, such attentional and memory distortions may strengthen evaluative fears, creating a feedback loop between anxiety sensitivity and body dissatisfaction.

The study's findings also support the therapeutic value of mindfulness- and acceptance-based interventions, which target both anxiety sensitivity and evaluative fears. Research by (Chin et al., 2024) demonstrated that brief cognitive and mindfulness interventions effectively reduce state anxiety by improving attentional control and emotional regulation. Likewise, (Bahreini et al., 2021) found that mindfulness-based cognitive therapy improved psychological well-being and reduced negative emotions in adolescents with BDD symptoms. These results underscore the potential utility of interventions that cultivate present-moment awareness and reduce self-judgment. Similarly, (Suryanintyas, 2023)



demonstrated the efficacy of Acceptance and Commitment Therapy (ACT) in reshaping body image among individuals with BDD characteristics, highlighting the therapeutic importance of cognitive defusion and value-based living.

The consistency between the present findings and prior research strengthens confidence in the mediating model proposed. By showing that anxiety sensitivity contributes to BDD both directly and indirectly via fear of negative evaluation, the study advances theoretical understanding of the pathways through which internal vulnerabilities are translated into specific psychopathological outcomes. The model also highlights how anxiety sensitivity may not be a disorder-specific factor but a *transdiagnostic vulnerability* interacting with context-dependent mediators, such as FNE, to produce diverse psychological manifestations (Gao, 2025; Smits et al., 2024). These results further complement evidence from clinical interventions showing that modifying anxiety sensitivity through exposure or cognitive restructuring yields downstream improvements in body image and social functioning (Lundström et al., 2023).

From a broader perspective, the present findings contribute to ongoing debates about the cognitive-behavioral and neurocognitive mechanisms underlying BDD. The strong path coefficients observed between anxiety sensitivity, fear of negative evaluation, and BDD suggest a hierarchical model in which emotional reactivity initiates cognitive misinterpretations that are maintained through social-evaluative schemas. The combination of these factors can explain why BDD persists despite reassurance or cosmetic interventions—because the root mechanism lies not in the body itself but in the interpretation and social meaning of bodily sensations and judgments (Greenberg et al., 2023). This understanding reinforces the importance of integrating cognitive and social dimensions in both assessment and treatment planning.

In summary, the results of this study demonstrate that anxiety sensitivity significantly predicts body dysmorphic disorder, both directly and indirectly through the mediating role of fear of negative evaluation. This supports the theoretical premise that anxiety sensitivity serves as a fundamental vulnerability that predisposes individuals to dysmorphic and evaluative anxiety. The integration of these constructs into a single structural model provides a more comprehensive understanding of how emotional sensitivity, social cognition, and self-evaluation interact to shape psychological distress among women with obesity.

This study, while providing valuable insights, has several limitations that should be acknowledged. First, the cross-

sectional design restricts causal inference; although the structural model supports directional relationships, longitudinal data would be necessary to confirm temporal precedence. Second, all data were collected through self-report questionnaires, which may introduce social desirability bias or inaccuracies in self-perception. Third, the sample consisted solely of women with a BMI of 30 or higher from Tehran, which may limit the generalizability of results to men or individuals from other cultural and socioeconomic backgrounds. Additionally, potential confounding variables such as depressive symptoms, body satisfaction, or history of trauma were not directly controlled. Finally, although the statistical model fit indices were acceptable, future studies employing multi-group or cross-validation analyses could strengthen the robustness of the findings.

Future studies should employ longitudinal or experimental designs to clarify the causal relationships among anxiety sensitivity, fear of negative evaluation, and body dysmorphic symptoms. Examining these relationships across diverse populations, including men and adolescents, would broaden understanding of gender and developmental differences. Moreover, integrating physiological or neuroimaging measures could elucidate the underlying neural correlates linking emotional sensitivity to evaluative processing. Comparative studies assessing various mediators—such as self-esteem, disgust sensitivity, or perfectionism—could also refine the explanatory model. Finally, intervention-based research exploring the efficacy of cognitive-behavioral, mindfulness, and acceptance-based therapies in modifying anxiety sensitivity and evaluative fear may provide stronger evidence for clinical application.

Clinicians working with individuals presenting body dysmorphic symptoms should assess not only appearance-related beliefs but also underlying anxiety sensitivity and evaluative fears. Therapeutic interventions may benefit from integrating techniques that reduce physiological anxiety misinterpretation and modify fear of social judgment. Psychoeducation about anxiety sensitivity, exposure-based strategies targeting evaluative contexts, and mindfulness exercises that promote body acceptance can enhance treatment outcomes. Furthermore, preventive programs for women with obesity or high BMI should address social stigma and body image pressures while fostering resilience against evaluative anxiety. Integrating these findings into holistic mental health and weight management programs could reduce the psychological burden associated with body dissatisfaction and improve overall well-being.

## Authors' Contributions

All authors significantly contributed to this study.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interest

The authors report no conflict of interest.

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## Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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