

Original Article

Developing a causal model of Body Dysmorphic Disorder with Obsessive-Compulsive Disorder: the mediating role of distress tolerance

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Abstract

Considering the high coexistence of obsessive-compulsive disorder with body dysmorphic disorder, the present study aimed to develop a causal model of Body Dysmorphic Disorder Based on Obsessive-Compulsive Disorder symptoms with the mediating role of distress tolerance. The design of the current research was descriptive and correlational. The statistical population of the present study was all the students of Urmia University in the first semester of 2022-2023, 354 of them were selected using multi-stage cluster sampling. They completed the Distress Tolerance Scale (DTS), the Yale-Brown Obsessive-Compulsive Scale Modified for Body Dysmorphic Disorder (BDD-YBOCS), and the Obsessive-Compulsive Inventory-Revised (OCI-R). The data were analyzed using structural equation modeling. AMOS-24 and SPSS-24 software were also used to analyze the data. Findings confirm the role of obsessive-compulsive disorder in causing symptoms of body dysmorphic disorder. Additionally, distress tolerance plays a mediating role in the relationship between body dysmorphic disorder and obsessive-compulsive disorder. The current pathological model can help better understand the role of distress tolerance in psychopathology and the effectiveness of cognitive behavioral therapy for individuals with the spectrum of obsessive-compulsive disorders, including body dysmorphic disorder.

Keywords

Body Dysmorphic Disorder
Obsessive-Compulsive Disorder
Distress Tolerance

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Introduction

Conceptualization of body dysmorphic disorder due to the recent and controversial classification of this disorder in the new spectrum of obsessive-compulsive and related disorders in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (2013) has become an area of interest for many researchers. People with this disorder experience a preoccupation with perceived or imaginary defects in their appearance, and this mental preoccupation causes prominent clinical distress or destruction of important functional areas of a person. If a slight physical abnormality exists, the person's worry and distress about it are exaggerated and distressing, and this mental preoccupation also causes repetitive behaviors, including repeatedly looking in the mirror (Malcolm et al., 2018). Ramos et al. (2019) report

that people with body dysmorphic disorder have a higher history of committing suicide and undergoing cosmetic surgery compared to people without the disorder. Veale et al. (2016) have reported the prevalence of this disorder as 1.9% in adults, 2.2% in adolescents, 7.4% in adolescents with psychiatric disorders, and 5.8% in adults with psychiatric disorders. Ehsani et al. (2012) in Iran also indicated that this disorder is most prevalent among individuals aged 20 to 50 years and 20.7% of them have a history of visiting psychological and psychiatric clinics. Also, 17.2% of patients had a history of cosmetic surgery, of which 20% were dissatisfied and 80% were satisfied with the cosmetic surgery.

A review of research literature indicates that there are similarities between body dysmorphic disorder and obsessive-compulsive disorder (Sündermann and Will, 2017; Malcolm et al., 2018; Malcolm et al., 2021). In this

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regard, [Malcolm et al. \(2018\)](#) report that there are similarities between body dysmorphic disorder and obsessive-compulsive disorder in the broad characteristics of the disease, including the age of onset, the course of the disease, the severity of symptoms and the level of functional impairment, as well as high perfectionism and high fear of negative evaluation. However, insight into body dysmorphic disorder is weaker than in obsessive-compulsive disorder, and the intensity of social anxiety and emotional disorders generally is higher than in obsessive-compulsive disorder. [Labuschagne et al. \(2013\)](#) have also pointed out the common aspects of these two disorders from a neurological perspective. Similar to people with obsessive-compulsive disorder, individuals with body dysmorphic disorder spend a significant amount of time engaging in ritualistic behaviors, including excessive grooming, frequent checks of their body and face in the mirror, excessive makeup, and hiding imperfections and their appearance defects using clothes and jewelry ([Phillips, 1998](#)). The results of several studies indicate that the symptoms of body dysmorphic disorder are highly prevalent in people with obsessive-compulsive disorder ([Frías et al., 2015](#); [Ramos et al., 2019](#)).

In this regard, in the research of [Frías et al. \(2015\)](#), the rate of lifelong comorbidity of obsessive-compulsive disorder with body dysmorphic disorder in samples with an initial diagnosis of body dysmorphic disorder has been reported to be almost three times higher than samples with an initial diagnosis of obsessive-compulsive disorder. (27.5% vs. 10.4%). However, other mental disorders, such as social phobia or depression, seem more likely to be comorbid in both disorders. Also, the empirical evidence about the genetic factors for the comorbidity of these two disorders is still not conclusive. [Ramos et al. \(2019\)](#) also reported a high prevalence of body dysmorphic disorder and moderate to severe obsessive-compulsive symptoms among rhinoplasty candidates. On the other hand, body dysmorphic disorder is considered one of the obsessive-compulsive spectrum disorders, and the most prominent distinction between them is the difference in the focus area of obsession and compulsion ([Sündermann and Will, 2017](#)). Also, the evidence of a significant relationship between body dysmorphic disorder and obsessive-compulsive disorder has been challenged, because claims based on similarities between the two disorders have been confirmed in a handful of studies ([Malcolm et al., 2018](#)).

Obsessive-compulsive disorder (OCD) is a chronic and incapacitating condition, often characterized by severe symptoms ([Nejati et al., 2024](#)). The spectrum of obsessive-compulsive disorders and their related disorders is one of the controversial topics that has attracted the attention of many researchers. Obsessive-compulsive disorder is characterized by obsessive thoughts, actions, or both. Obsessions include recurrent and persistent thoughts, desires, or ideas that are experienced in an intrusive and unwanted manner, while compulsions are repetitive behaviors or mental acts that a person feels compelled to perform in response to an

obsession or according to rules that must be carefully implemented, and the 12-month prevalence of this disorder in different populations has been reported to be about 1.1% to 1.8% ([Crone et al., 2023](#)) and its prevalence increased with the beginning of the epidemic of Coronavirus ([Vellozo et al., 2021](#)). This disorder is a type of neuropsychological disorder that often begins in childhood or early adulthood and has a severe negative impact on a person's social, occupational, and cognitive functions ([Abramovitz et al., 2019](#)). Research has shown that the rate of suicide in people with obsessive-compulsive disorder is about 1.4% to 7% ([Tyagi and Bandis, 2021](#)). A review of the research literature shows that the etiology of obsessive-compulsive disorder is multifactorial and it is the result of the interaction of genetic factors ([Park et al., 2020](#)), physiology ([Ferreira et al., 2020](#)), psychological ([Cassar et al., 2021](#)) and personality traits ([Bey et al., 2020](#)).

Although a clear relationship between body dysmorphic disorder and obsessive-compulsive disorder has been mentioned to some extent ([Malcolm et al., 2021](#); [Ramos et al., 2019](#)), direct relationships can only partially explain this connection. Therefore, more research is needed to understand the similarity between these two disorders and the complex mechanism through which these two disorders fall into the same spectrum, so the mediating mechanisms such as distress tolerance are claimed ([Robinson & Friston, 2014](#); [Oakes et al., 2017](#); [Worden et al., 2019](#)). Distress tolerance often refers to the perceived people's ability to resist negative emotions ([Simons and Gaher, 2005](#)) and also a kind of behavioral ability to persist, in the face of internal distress states that are provoked by some stressful situations. Distress may be the result of physical and cognitive processes whose representation occurs in the form of emotional states, which are often characterized by the desire to act to get rid of emotional events ([Gullo et al., 2022](#); [LeyRo et al., 2010](#)). Considering that people with body dysmorphic disorder experience obsessive thoughts related to appearance and repetitive behaviors such as excessively checking themselves in the mirror, and cleaning to cope with these uncomfortable thoughts, it can be said that this avoidance pattern is related to this disorder. ([Oakes et al., 2017](#)).

Individuals with low distress tolerance, such as those with obsessive-compulsive disorder who struggle to control their obsessive thoughts and behaviors, may adopt coping strategies to avoid negative emotions or perceived negative consequences ([Robinson & Friston, 2014](#)). In this regard, [Matheny et al. \(2017\)](#) indicated that the symptoms of body dysmorphic disorder were associated with distress intolerance. People with this disorder engage in unavoidable or compulsive behaviors to avoid or reduce the distress caused by their apparent anxiety. A review of the research literature in this field indicates that low distress tolerance is one of the pathological factors in body dysmorphic disorder ([Matheny et al., 2017](#); [Khoshini, et al., 2019](#)) and obsessive-compulsive disorder ([Hillman et al. 2022](#); [Wheaton Ward, 2020](#); [Lin et al. 2020](#), [Worden et al. 2019](#), [Laposa et al. 2015](#)).

Often due to the relatively complex mechanism of body dysmorphic disorder, little research has been done on the pathology and cognitive processes involved in it, including distress tolerance (Matheny et al., 2017) and comorbid disorders with this disorder, such as obsessive-compulsive disorder. On the other hand, conflicting results have been reported regarding the relationship between these two disorders (Sündermann and Will, 2017; Castle et al., 2021). For this reason, until recent years, it was not classified as a distinct disorder in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders. This issue highlights the necessity of training dentists, dermatologists, and cosmetic surgeons for initial diagnosis and referral of these people to psychologists and psychiatrists because these specialists are the primary point of referral for patients with body dysmorphic disorder to treatment centers. On the other hand, since this disorder is associated with the emotion of shame, it is possible that the affected person does not provide an accurate and comprehensive report of his symptoms during the diagnosis. Therefore, the present research was conducted to investigate the mediating role of distress tolerance in the relationship between body dysmorphic disorder and obsessive-compulsive disorder and determine the direct and indirect effects of these constructs on each other. This research is in the form of a mediator model to investigate the role of distress tolerance as a mediator of the relationship between Body Dysmorphic Disorder and obsessive-compulsive disorder.

Method

Participants

The current research is fundamental in terms of its purpose and descriptive-correlational in terms of data collection. The statistical population of the current research includes all students of Urmia University in the first semester of the academic year 2022-2023, which were about 16320. The minimum required sample size for the current research was calculated based on the widely used N critical Holter index, and this value was obtained as $CN=314$ for the hypothetical model of the research and based on the latent and visible variables. Also, considering the minimum required sample size when the visible variables of the model are between 10 and 15 variables, the sample size should be between 200 and 400 people (Kline, 2010). Therefore, the total sample selected in this research was 354, which was randomly selected from the four educational groups of humanities, technical, basic sciences, and agriculture using the multi-stage cluster sampling method, then, three majors from each faculty, two classes from each major, and 16 students from each class were randomly selected based on the class list. Finally, data from 354 participants were analyzed. The following tools were used to measure research variables:

Instrument

Distress Tolerance Scale (DTC):

This instrument is an 11-item scale developed by

Simons and Gaher (2005) to assess distress tolerance. The items of this tool are scored on a five-point Likert scale from 1 (strongly agree) to 5 (strongly disagree) and also include four subscales of tolerance, I can't deal with my feelings of distress, absorption (when I'm disturbed and distressed I always think about how bad I feel) appraisal of the tolerance of disturbance and distress is always a very difficult task for me) and regulation (I am willing to do anything to prevent appearing of my feelings). On this scale, high scores indicate a greater ability to withstand emotional distress, while low scores reflect distress intolerance (Silverman, 2020). Cronbach's alpha coefficient for the dimensions of tolerance, assimilation, evaluation, and adjustment are 0.72, and 0.82 respectively. 0, 0.78 0.70, and 0.82 for the whole scale have been met (Ehsani et al., 2012). Shams et al. (2010) also reported Cronbach's alpha 0.67. Retest reliability coefficients for the whole scale 0.81 and 0.71, 0.69, 0.77, and 0.73 were reported for the tolerance, absorption, evaluation, and adjustment subscales, respectively.

The Yale-Brown Obsessive-Compulsive Scale Modified for Body Dysmorphic Disorder (BDD-YBOCS):

This scale is a revised version of the Yale-Brown Obsessive Compulsive Scale, first designed by Phillips et al. (1998), which assesses the severity of symptoms of body dysmorphic disorder (repetitions, insight, and avoidance) during the past week and has 12 items that are rated on a 5-point Likert scale from 0 (no symptoms) to 4 (severe symptoms). Phillips et al. (1998), in their study on 121 individuals with body dysmorphic disorder, reported that BDD-YBOCS includes three factors: (1) repetitions (obsessions and compulsions), (2) insight, and (3) avoidance. These researchers have reported a suitable rater and retest reliability for this questionnaire. Test-retest reliability within one week was good. Cronbach's alpha coefficient was obtained for internal consistency of 0.80, which indicates the high consistency of this scale. According to Rabiee et al. (2008), this tool had a significant relationship with the body satisfaction scale in the range between 0.20 and 0.33. These results indicate the appropriate concurrent validity of this scale, and Cronbach's alpha coefficients of 0.93 were obtained for the entire scale. The results showed that this scale has good validity and reliability in this sample. The correlation of this questionnaire with the Padova questionnaire and body satisfaction scale was 0.58 and 0.33 respectively.

Obsessive-compulsive Inventory- revised (OCI-R):

This questionnaire, designed by Foa et al. (2002) is an 18-item scale designed to assess the severity of obsessive-compulsive symptoms in clinical and non-clinical populations. This scale has 6 subscales, washing subtests with questions 2, 10, and 21, checking with

questions 4, 5, 13, 15, and 20, ordering with questions 8, 17, 19, obsession with questions 1, 11, 14, 18, hoarding with questions 3, 7, 16 and neutralization with questions 6, 9 and 12. In this questionnaire, the participants are asked to choose one of the items and indicate their agreement with the level of discomfort with each statement caused them in the past month, on a five-point scale. (0 = never to 4 = too much). The total score of the questionnaire is between zero and 72. Cronbach's alpha coefficient for the overall scale is equal to 0.85 for the verification subscale, 0.66, the ordering subscale 0.69, the obsession subscale 0.72, the washing subscale 0.69, the hoarding subscale 0.63, and neutralization subscale 0.50 has been obtained. Also, its retest validity has been calculated using the Spearman correlation coefficient between 0.74 and 0.91 for the obsessive-compulsive disorder group and between 0.57 and 0.67 for the control group (Mohammadi, 2008). The internal consistency for the whole scale is 0.91, and for the subscales of checking, ordering, washing, and neutralization, it is 0.86, 0.72, 0.79, 0.82, 0.63, and 0.71, respectively. The test-retest reliability with a two-week interval was 0.81 and significant at the 0.1 level (Mohammadi et al., 2008). The study of Asadnia et al. (2021), used Cronbach's alpha for internal consistency of the questionnaire, and the coefficient was 0.92.

Procedure

In the present study, first, the necessary permits to conduct the research were obtained from the university. After obtaining the necessary permits, researchers

visited Urmia University during the first semester of the 2022-2023 academic year to distribute the questionnaires to students. To obtain the informed and free consent of the participants, the purpose of the research and how it was clearly explained to the participants, and after obtaining the consent, the questionnaires were provided to them. The entry criteria were: being a student, not taking psychiatric drugs, agreeing to participate in the research, and having enough time to answer the questionnaires. Exclusion criteria included the use of psychiatric drugs and unwillingness to complete the questionnaires. The research was conducted in compliance with the principle of confidentiality and keeping the secrets of the participants. Any publication of data or information obtained from the participants is based on their informed consent and they were given the choice to write down their email addresses in the questionnaires if they wish to receive the results.

Results

In this study, 243 people (66.4%) were women and 123 people (33.6%) were men. 87 people (23.6 percent) under-diploma, 157 people (42.9 percent) diploma, 5 people (1.4 percent) had an associate's, 71 people (19.4 percent) bachelor, 21 people (5.7 percent) Master's degree and 3 people (8%) had a Ph.D. The average age of the sample was 41.81 years and the standard deviation of age was 5.98. Table 1 shows the mean, standard deviation, skewness, and kurtosis of the variables used in the research.

Table 1. Central and dispersion indices to check the normality of data distribution N=271

Variables	mean ±	standard deviation of Kurtosis	skewness
Dissatisfaction	28.27±7.65	0.10	- 0.83
Interference	27.94 ± 9.21	-0.43	- 1.54
Evaluation	13.73 ± 5.91	1.15	0.86
Body deformity	69.94±15.64	-0.14	-0.62
Tolerance	10.76 ± 2.73	-0.97	- 0.20
Absorption	10.23 ± 3.01	0.38	- 0.37
Adjustment	9.91± 3.89	0.87	2.51
Intolerance of distress	30.91± 6.51	0.25	0.58
Washing	1.76 ± 3.17	0.27	- 1.41
checking	2.44±4.76	0.36	-0.92
ordering	3.36 ± 1.58	0.02	1.30-
Obsession	1/69±4/02	0.09	-06/01
Accumulation	1/58±3/18	0.21	- 0.21
Neutralization	3.64 ± 1.72	0.23	- 1.38
Obsessive Compulsive	22.01 9.67	0.10	1.24

The results of Table 1 show that none of the research variables have serious deviations from the normal distribution, the kurtosis of the distribution of scores is within the range of -2 to 2, and the skewness is within the range of -3 to 3. Therefore, the data distribution can be assumed to be normal. The variance inflation factor (VIF) was used for the linear relationship between the

predictor variables whose values were smaller than 10 for each of the variables. Also, the tolerance statistic of this research showed approximately 0.2. Frequency tables were used to identify single-variable outlier data, but no outlier data was identified. Table 2 shows the correlation matrix of research variables.

Table 2. Correlation matrix of research variables

Research variables	1	2	3
Body Dysmorphic Disorder	1		
Distress Intolerance	**0.402	1	
Obsessive-Compulsive Disorder	**0.282	**0.313	1

According to the results of Table 2, there is a positive and significant relationship between body deformity disorder and distress intolerance with obsessive-compulsive disorder at the level of 0.01. To answer the main question of the research: Is the model for

explaining marital satisfaction about flexibility and the mediating role of family boundaries suitable with empirical data? Structural equation modeling and AMOS software version 26 were used. The most important fit indices are reported in Table 3.

Table 3. Fit indices in the model

The obtained value	x 2/df	GFI	AGFI	NFI	CFI	RMSEA
	2.54	0.91	0.91	0.92	0.94	0.07
	less than	higher than	higher than	higher than	higher than	less than
Acceptable limit	3	0.9	0.9	0.9	0.9	0.1

According to the good characteristics of the fit reported in Table 3, the fit of the obsessive-compulsive disorder prediction model is relatively good, and the conceptual model presented from the perspective of the model's fit

indicators provides a suitable framework for examining marital satisfaction. Figure 1 shows the tested pattern of the current research along with the standard coefficients of the paths.

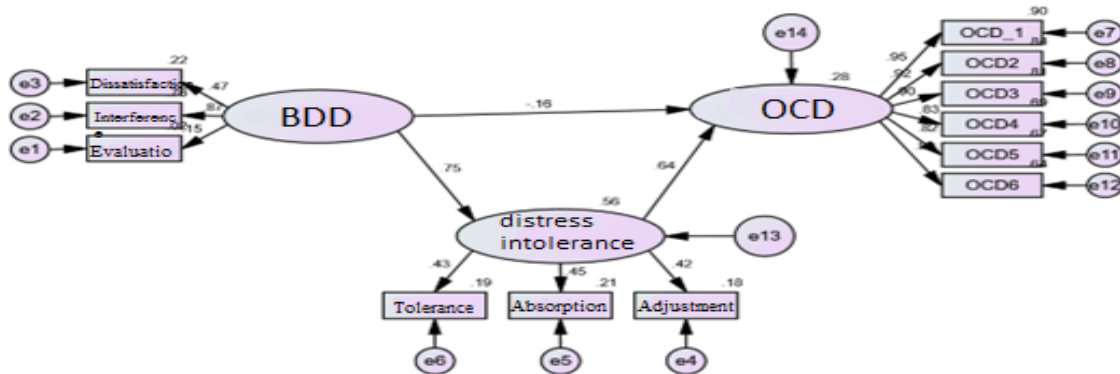


Figure 1. Modified model for obsessive-compulsive disorder with path coefficients

As seen in Figure 1, the existence of a relationship indicates the direct and indirect effect of body dysmorphic disorder on obsessive-compulsive disorder.

In Table 4, the direct effects of the variables are reported.

Table 4. Direct path coefficients of BDD and distress intolerance on OCD

Direct Paths	Beta Coefficient (β)	Standard Error (S.E)	Critical Ratio (C.R.)	Significance
BDD \rightarrow Distress Tolerance	0.749	0.680	1.980	0.048
BDD \rightarrow OCD	-0.155	0.499	-0.570	0.569
Distress Tolerance \rightarrow OCD	0.636	0.303	2.138	0.032

According to Table 4, the direct paths between body dysmorphic disorder and distress intolerance (p (0.048) β (0.749)) are not significant and with obsessive-compulsive disorder (0.569) p (β (0.155)) are not significant. To investigate the mediating effect of

distress intolerance in the relationship between body deformity disorder and obsessive-compulsive disorder, the bootstrap test was conducted using a macro program.

Table 5. Bootstrap Results of the Relationship Between Body Dysmorphic Disorder and Obsessive-Compulsive Disorder with the Role of Distress Tolerance

Indirect Pathway	Path Coefficient	Boot	95% Confidence Interval
BDD \rightarrow Distress Tolerance \rightarrow OCD	0.175	0.046	Lower Bound 0.092

Based on Table 5, the bootstrap results are given. In this method, if the upper and lower limits of this test are

both positive or both negative and zero does not fall within these two limits, then the indirect causal path will

be significant. This rule applies in the case of body dysmorphic disorder to obsessive-compulsive disorder with the role of distress intolerance. Therefore, it can be said that distress intolerance plays a mediating role in the relationship between body dysmorphic disorder and obsessive-compulsive disorder.

Discussion

The present study was conducted aiming to investigate the mediating role of distress tolerance in the relationship between body dysmorphic disorder and obsessive-compulsive disorder. The research results showed that there is a significant relationship between body dysmorphic disorder and obsessive-compulsive disorder. This finding is in line with the results of previous research in this field (Sündermann and Will, 2017; Malcolm et al., 2018; Malcolm et al., 2021). In explaining this finding, it can be said that obsessive thoughts in body dysmorphic disorder lead to the occurrence of some obsessive behaviors such as constant control and inspection of the face and other body parts, which is accompanied by frequent and unnecessary referrals to specialized skin and dental treatments. These unnecessary actions not only lead to spending a lot of time and money but also in many cases, aggravate the symptoms of this disorder. People with body dysmorphic disorder often spend hours performing ritualistic behaviors such as excessive cleaning, repeated mirror-checking, extreme makeup, and covering perceived defects with clothing or jewelry. Frequent checking and reassurance-seeking from others increase their doubts, and ultimately intensify obsessive-compulsive symptoms (Malcolm et al., 2018; Mufassery et al., 2023). Since people with body dysmorphic disorder are highly focused on perceived body defects, they struggle to correct their obsessive beliefs even when receiving positive feedback from others. Therefore, in most cases, in response to personal perceptions of their appearance, like people with obsessive-compulsive disorder, they take measures to reduce their anxiety. Hiding or covering the target organ, avoiding being in social situations, skin peeling, or repeated reassurances to leave unpleasant environments are all among these compulsive behaviors. Although performing these behaviors temporarily relieves the patient's anxiety, it increases his mental preoccupation with his problem over time (Malcolm et al., 2021).

Also, the findings of the present study showed that there is a significant relationship between body dysmorphic disorder and distress tolerance. This result is in line with the results of previous research in this field (Khoshini et al., 2019; Matheny et al., 2017; Laposa et al., 2015). In the explanation of the obtained results, it can be said that the intolerance of distress affects the processes of self-regulation, cognitive evaluation, and disturbing physical or emotional state (Gullo et al., 2022). As a result, the person constantly tries obsessively to avoid negative feelings and distorted and disturbing thoughts. Since people with symptoms of body dysmorphic

disorder also have obsessive thoughts related to appearance and repetitive behaviors, intolerance of distress can be considered as one of the factors involved in body dysmorphic disorder.

Another finding of the present study confirmed that obsessive-compulsive disorder has a significant relationship with distress tolerance. This finding is in line with the results of previous research in this field, including Hillman et al. (2022), Wheaton and Ward (2020), Lin et al. (2020), Simons et al. (2005). It seems that many obsessive-compulsive symptoms emerge as a means to avoid anxiety. Obsessive behaviors and thoughts are meant to stop a person's bad mood and distress. Also, the context of many obsessive thoughts is related to strong emotions such as aggression, anger, lust, and disgust (Asadnia et al., 2021). As these thoughts become intense and the process of blocking these thoughts is prolonged, it may reflect the basic intolerance of these emotions in the person, possibly this intolerance of negative emotions leads to the necessary need for compulsive behaviors in the obsessive person. Therefore, it can be said that distress tolerance is the capacity to experience and tolerate a negative psychological state, and people who have low distress tolerance are likely to be overly reactive to stress and distress, with obsessive-compulsive disorder being one of them (Lin et al., 2020).

In other words, people with obsessive-compulsive disorder with low levels of distress tolerance use maladaptive behaviors such as avoidance and escape to deal with their negative emotions, as well as distress intolerance, emotional reactions, and avoidance and escape behaviors in dealing with Strengthens emotions and physical symptoms; Therefore, distress tolerance may affect several processes related to self-regulation (Gullo et al., 2020). On the other hand, low levels of distress tolerance may be subject to maladaptive responses to distress and distress-provoking situations. As a result, these people may try to avoid negative feelings or annoying situations, which predisposes a person to obsessive-compulsive disorder. Conversely, individuals with higher levels of distress tolerance may be more able to respond adaptively to distress and distress-inducing situations.

Another goal of this study was to investigate the mediating role of distress tolerance in the relationship between body dysmorphic disorder and obsessive-compulsive disorder. As expected, the results of the present study supported the mediating role of this construct. Although no completely consistent research was found in connection with the present research, it can be said that the findings obtained with the results of Matheny et al. (2017), Khoshini et al. (2019), Hillman et al. (2022), Wheaton and Ward (2020), Lin et al. (2020), Simons et al. (2005), Laposa et al. (2015) are relatively aligned. Considering the similarities and degree of coexistence observed between obsessive-compulsive disorder and body dysmorphic disorder (Ramos et al., 2019). In fact, it can be said that a person's inability to regulate emotions leads to

intolerance of distress. (Wheaton and Ward, 2020). This intolerance of distress affects self-regulation processes, cognitive evaluation, and distressing physical or emotional state. As a result, the person is constantly obsessively trying to stay away from his negative feelings, and distorted and disturbing thoughts. Since people with symptoms of body dysmorphic disorder also have obsessive thoughts related to appearance and repetitive behaviors, distress intolerance can be considered one of the contributing factors to body dysmorphic disorder (Hillman et al., 2022).

Therefore, it can be said that obsessive-compulsive disorder creates disturbing thoughts about a person's appearance (Robinson et al., 2014) leads to a decrease in distress tolerance (Matheny et al., 2017), and also causes continuous examination of the face and other body parts, thereby increasing the symptoms of body dysmorphic disorder.

This research has limitations that should be considered. The nature of the present research design, which is correlation type, and the presented documents cannot be considered as causality. The studied sample was also students, which limits the generalizability of the results to other groups. The investigated variables of current research are also limited to several variables such as obsessive-compulsive disorder, body dysmorphic disorder, and distress tolerance, and can not be generalized to other situations. Another limitation of the current research is its cross-sectional nature, which makes it impossible to infer causal relationships between variables. Also, the tools used in the current research were self-report type, therefore, the use of various measurement methods can help to better conceptualize the variables. Due to these limitations, it is recommended that longitudinal studies with follow-up be conducted to determine the causal relationships between personality factors and psychological distress. The current research should be carried out on clinical populations or non-student populations to increase the generalization of the obtained results. Also, to investigate new patterns of relationships, it is suggested that the structural relationships of obsessive-compulsive disorder, body dysmorphic disorder, and distress tolerance should also be done at the levels of the subscales. It is also suggested that the role of personality variables in people with obsessive-compulsive disorder and body dysmorphic disorder should be considered in clinical and interventional trials.

Conclusion

In conclusion, this study highlights the significant relationships between body dysmorphic disorder (BDD), obsessive-compulsive disorder (OCD), and distress tolerance. The findings suggest that obsessive thoughts in BDD lead to compulsive behaviors, exacerbating symptoms and resulting in unnecessary medical interventions. These behaviors, driven by a focus on perceived physical flaws, often fail to alleviate underlying obsessive beliefs, intensifying OCD symptoms. Additionally, low distress tolerance in

individuals with BDD and OCD contributes to a cycle of obsessive-compulsive behaviors aimed at avoiding negative emotions and thoughts. Addressing distress tolerance in therapeutic interventions may help reduce the severity of obsessive-compulsive symptoms and improve overall treatment outcomes.

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