

Body Dysmorphic Disorder Symptoms and its Correlates with Social Anxiety among Omani Youth

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ABSTRACT

Body dysmorphic disorder (BDD) is a psychological condition wherein individuals preoccupy themselves with one or more imaginary or exaggerated defects in their appearance. The symptoms of the disorder are significantly distressing causing functional and social impairment. Individuals with BDD suffer from social anxiety. The study aimed to assess BDD symptoms among Omani youth and its correlates with social anxiety. Data was collected through a validated self-report screening measure- the Body Dysmorphic Disorder Questionnaire (BDDQ) and the Social Anxiety scale which consisted of both Arabic and English versions. The sample consisted of 100 Omani youth aged 18 to 40 years. Results indicate that 6% (n=6) of individuals met the criteria of likelihood to have BDD symptoms. Correlation results show a significant and moderate positive correlation between BDD symptoms and social anxiety. Results from the t-test indicate a significant difference in BDD symptoms in terms of gender, with females showing higher symptoms of BDD; but there was no significant difference in social anxiety scores between females and males. Additionally, individuals who did not engage in any form of physical activity displayed higher BDD symptoms than those who exercised daily. The study implies the importance of screening BDD symptoms and related body concerns to avoid clinically significant distress associated with social anxiety disorders, depression, and other behavioral problems.

Keywords: Body dysmorphic disorder, social anxiety, Oman, youth, BDDQ

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INTRODUCTION

Body Dysmorphic Disorder (BDD) is a psychological disorder characterized by an excessive preoccupation with perceived flaws or defects in one's physical appearance, which are often imagined or exaggerated. Body areas of concerns include skin (imagined acne, wrinkles and scars), hair (thinning or excess facial hair) or the shape and size of the nose. Women tend to focus more on the complexion, hips, breasts, and legs, while men tend to focus more on height, penis length, or body hair (Perugi et al., 1997). Some men experience a preoccupation with having smaller body build or being less muscular which may be attributed to muscle dysmorphia.

A preoccupation with appearance can interfere in many ways with occupational and social functioning. Individuals with BDD often experience high levels of shame, anxiety, and depression about their appearance. This is met with many common behavioral responses. Some may avoid contact with others because they are deeply concerned about being evaluated on the basis of their appearance, and sometimes these fears are compelling, making the

individual confined to his home. About 40% of people with this disorder are unable to work (Didi, Menard, Stern, et al., 2008).

Body dysmorphic disorder shares many characteristics with social anxiety such as social avoidance, anxiety in anticipation, and distress in social situations (Pinto et al, 2005). BDD often starts in adolescence and affects social, academic, and personal development (Phillips, 2009). Studies have shown that social anxiety is significantly correlated to body dysmorphic disorder (Pinto et al, 2005) (Liao et al, 2009). However, to date no studies have been conducted in Oman that explores the relationship between body dysmorphic disorder and social anxiety. This study aims to fill this gap by exploring the prevalence of body dysmorphic disorder symptoms among the Omani youth; analyze gender as a variable in differences in scores of body dysmorphic disorder symptoms; explore the relationship between body dysmorphic disorder symptoms and social anxiety among the Omani youth; and the impact of various demographic factors on BDD and social anxiety.

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REVIEW OF LITERATURE

Studies show similarities between social learning and cognitive behavioral therapy models relating to BDD. Both models focus on the effect of social learning and early life experiences in improving thoughts and attitudes of body image such as the parents, friends, relatives, influencers of social media including harmful memories like bullying and teasing. The Neziroglu model focuses on social learning and conditioning (Neziroglu et al., 2007), whereas the Veale model emphasizes the priority of the individual's cognitive image process and behaviors (Veale, 2003).

In recent years, researchers have sought to better understand the factors contributing to social anxiety by developing comprehensive models that consider cognitive, meta-cognitive, and behavioral aspects. Studies have examined the theoretical and empirical evidence supporting the role of these factors in social anxiety. Cognitive factors have long been implicated in social anxiety (Beck, 1976). Cognitive theory emphasizes the role of underlying assumptions and dysfunctional attitudes in driving negative thought patterns, which can contribute to social anxiety. Bandura (1997) also highlights the importance of self-efficacy; wherein low self-efficacy often results in increased dependence on others for approval and heightened social anxiety. Additionally, Dryden & Neenan (2004) discuss the role of fear of negative evaluation in worsening social anxiety, given that individuals with this fear are prone to perfectionism and irrational beliefs about their performance in social situations. Meta-cognitive factors have also been identified as key contributors to social anxiety.

In addition to cognitive and meta-cognitive factors, behavioral factors such as avoidance and safety behaviors have been shown to play a role in maintaining social anxiety. Clark and Wells (1995), and Rapee and Heimberg (1997) emphasize that avoidance of feared situations and reliance on safety behaviors can hinder emotional recognition and acceptance, prolonging social anxiety.

Recent empirical studies have sought to integrate cognitive, meta-cognitive, and behavioral factors in models of social anxiety disorder (Shahbazirad et al. 2016). Moreover, indirect relationships between these factors were also found to be significant, suggesting that a complex interplay exists between cognitive, meta-cognitive, and behavioral factors in maintaining social anxiety disorder. In conclusion, the literature suggests that cognitive, meta-cognitive, and behavioral factors play a significant role in the development and maintenance of social anxiety disorder. Hakim et al., (2021), found an obvious relationship between BDD and gender. Female participants show more BDD symptoms associated with skin and waist compared to male participants assessed by the chi-square test. Phillips et al., (2005) found no significant difference between BDD patients of men and women.

METHODOLOGY

This research examined the rate at which Body Dysmorphic Disorder (BDD) symptoms is present among the Omani youth population and its association with Social Anxiety. The study also investigated the influence of gender and other demographic factors on BDD and SAA. A non-probability convenience sampling method was used as a sampling method where a selection of samples from the population are selected in a way that is more accessible for the researcher. The sample of the study included Omani youth aged between 18 to 40 years. A license agreement was established between the researchers and the author of the BDDQ scale. The permission to use the BDDQ scale was restricted to 100 samples for academic and research purposes due to funding limitations. The sample included 73 females, and 27 of males across varied socioeconomic statuses, and educational levels. Inclusion criteria included males and females aged between 18 to 40 years and Omani nationality. Individuals who are non-Omanis, below 18 and above 40 years of age were excluded. The mode of data collection was through online Google forms and pen and paper-based survey. The BDDQ scale was developed by Katharine A. Phillips in the year 2005 (Phillips, 2005) and a license agreement was signed by both the parties. Permission to use the scale was provided for 100 samples, restricted for academic and research purpose. Measure for Social Anxiety (Social Phobia)—Adult scale by the American Psychiatric Association (APA, n.d) comprised of ten questions were used to measure the anxiety scores. Experts translated the English version of the scale into Arabic, and the Arabic translation was then translated back to English to ensure accuracy.

RESULTS

The total respondents of the present study were 100 Omani youth. The number of females were 73 and 27 were males. Majority of the participants in the study comprised of women (73%). The sample included Omani youth between ages 18 to 40 years. The age category 18 – 29 years constituted a majority of the sample at 64% and 36 people are from age category of 30 to 40 years. Individuals with a bachelor's degree constitute a majority of the population (68%) followed by higher education diploma (18%). Individuals with high school diploma made 10% of the sample and Master's degree constitute 4% in total. A total of 78% of the sample comprise of individual from middle class followed by 13% from lower class, and 9% from upper class. Furthermore, participants were asked if they have undergone any cosmetic procedures in the past such as cosmetic dental, cosmetic facial surgery etc. Majority of the participants (78%) reported not having undergone any cosmetic procedure in the past.

Table 1 Participant responses on BDDQ questions

BDDQ Questions	Yes	%	No	%
1. Are you worried about how you look?	49	49%	51	51%
2. If yes: Do you think about your appearance problems a lot and wish you could think about them less?	40	40%	60	60%
3. Is your main concern with how you look that you aren't thin enough or that you might get too fat?	22	22%	78	78%
4. How has this problem with how you look affected your life?				
4.a. Has it often upset you a lot?	31	31%	69	69%
4.b. Has it often gotten in the way of doing things with friends, dating, your relationships with people, or your social activities?	17	17%	83	83%
4.c. Has it caused you any problems with school, work, or other activities?	12	12%	88	88%
4.d. Are there things you avoid because of how you look?	24	24%	76	76%

The participants' responses to the "yes" and "no" questions have been outlined in Table 1. When asked if they are worried about how they look, a total of 49% of the participants reported being worried. If they answered "yes," the follow up question asked if they wished they could think about their appearance problems lesser. A total

of 40% responded "yes" to this question. Majority of the participants (78%) are not concerned if they are not thin enough or that they might get too fat. The BDDQ scoring criteria was used to assess the number of individuals who met the criteria for likeliness to have BDD.

Table 2 Demographics of participants who met the criteria for BDD Symptoms vs participants who did not meet the criteria

Demographics		Case Status			
		Met criteria for BDD (N=6)		Did not meet criteria for BDD (N=94)	
		n	Percentage	n	Percentage
Gender	Female	6	100%	67	71%
	Males	0	0%	27	29%
Age	18 - 29 years	6	100%	58	62%
	30 - 40 years	0	0%	36	38%
Educational level	High school diploma	0	0%	10	11%
	Higher education diploma	0	0%	18	19%
	Bachelor's degree	5	83%	63	67%
	Master's degree	1	17%	3	3%
Socioeconomic status	Lower class level	1	17%	12	13%
	Middle class level	5	83%	73	78%
	Upper class level	0	0%	9	10%
Have undergone cosmetic procedure	Yes	1	17%	12	13%
	No	5	83%	73	78%
Frequency of exercise/sports activity	Not at all	4	67%	31	33%
	Weekly	2	33%	45	48%
	Daily	0	0%	18	19%

Out of a sample of 100 participants, 6% of the individuals (n=6) met the criteria for likeliness to have symptoms of BDD. Table 4.1.8 outlines the comparisons of the various demographic characteristics in relation to meeting the criteria for BDD. The findings state that the individuals who meet the criteria for likeliness to have BDD symptoms are females (100%) and fall between the ages

18 to 29 years of age (100%). Furthermore 83% of these individuals hold a bachelor's degree and fall under the middle-class level of socioeconomic status. Additionally, 83% of them have never undergone any cosmetic surgery in the past and 67% do not exercise or engage in any sports activities.

Table 3 Correlation between BDDQ scores and Social Anxiety scores

		BDDQ	SA
BDDQ	Pearson Correlation	1.000	0.332**
	Sig. (2-tailed)		0.001

	N	100	100
SA	Pearson Correlation	0.332a	1.000
	Sig. (2-tailed)	0.001	
	N	100	100
**05 level			

Table 4 Independent t-test for BDDQ scores based on gender

Variable	Group	t	df	Sig. (2-tailed)
BDDQ	Female Male	4.24	98.00	0.000

DISCUSSION

The study used a validated self-report screening measure, namely the Body Dysmorphic Disorder Questionnaire (BDDQ) to determine the likeliness of BDD among individuals. The results indicated that approximately 6% of the participants in the sample indicated a likeliness of having BDD. Similar studies have determined a prevalence rate of 8.8% in Saudi Arabia (Alghamdi et al., 2022), 4.8% in Turkey (Cansever et al., 2003), 19.1% in Iran (Barahmand, 2015) and 2.4% in the USA (Koran, L. M. et al., 2008). The present study's BDD rate falls within the range of BDD rates in the region, but is significantly higher than the global weighted prevalence of BDD (1.9%) (Veale, 2016). The higher prevalence rate might be attributed to the use of a self-report screening measure. It is important to consider the possibility of overdiagnosis when solely relying on a self-report measure (Philips, 2005).

Females reported significantly higher scores of BDD symptoms compared to males. Research has shown that societal beauty standards often place greater emphasis on female appearance, leading to increased body dissatisfaction and vulnerability to BDD symptoms (Grant et al., (2005), Buhlmann et al., (2009). This finding highlights the importance of considering gender as a crucial factor in the manifestation of BDD symptoms. The results are consistent to the study conducted in Saudi Arabia (Alghamdi et al., 2022) which also found higher levels of BDD among females compared to males. However, this differs from the study conducted in the USA (Phillips et al., 1997) which found no significant difference in the prevalence of BDD among males and females. A possible explanation for this variance could be due to cultural factors in the region, where emphasis is placed on women's physical appearance in order to attract a suitable marriage partner. Mental health professionals should be aware of the gender differences in BDD symptoms when assessing, diagnosing, and treating individuals with BDD. Tailoring psychological and clinical interventions as per gender may enhance treatment outcomes of individuals affected by BDD.

This study found a significant correlation between BDDQ scores and social anxiety scores at a value of .332. Thus, there is a positive correlation between BDD symptoms and Social Anxiety symptoms for individuals. This indicates the presence or severity of BDD may contribute to

increased levels of social anxiety, and vice versa. The results are consistent with another research that indicate comorbidity of BDD with SA (Pinto et al, 2005) (Liao et al, 2009). The relationship can be attributed to the shared cognitive and affective factors between BDD and SA, such as distorted body image, negative self-evaluation, and fear of negative evaluation from others (Fang et al., (2010), Wilhelm et al., (2013). It is important that clinicians are aware of the comorbidity of these disorders and provide comprehensive assessment and treatment that address both conditions simultaneously.

An independent sample t-test between individuals who have undergone cosmetic surgery and BDD symptoms showed no significant difference between the two variables. This implies that there is no difference in BDD symptoms between individuals who have undergone cosmetic procedures and those who have not. The findings are consistent with research conducted by (Sarwer et al., 2016) where they examined BDD symptoms in individuals seeking cosmetic surgery and found no significant difference in BDD symptoms between preoperative and postoperative patients. These findings indicate that the decision to pursue cosmetic procedures may not be solely driven by BDD-related concerns. Factors such as aesthetic goals, and body image dissatisfaction may play a more crucial role in an individual's decision-making process regarding cosmetic procedures. A systematic review of literature identified that 15.04% of plastic surgery patients had BDD (Ribeiro, 2017) thus implying that the majority of individuals seeking cosmetic surgery do not have BDD.

A one-way ANOVA between frequency of exercise and BDDQ scores yielded a significant difference. The results indicated that individuals who do not exercise have significantly higher scores of BDDQ than individuals who exercise daily. Thus, BDD symptoms are lower in individuals who exercise on a daily basis. This finding is similar to a study conducted in China which found a negative correlation between exercise adherence and symptoms of BDD (Zhi et al, 2023). Exercise has proven to relieve mental health related issues and reduce symptoms of BDD (Hu & Wang, 2017). Thus, the findings necessitate the importance of creating awareness by including exercise to improve well-being.

An independent t-test of SA scores on the basis of gender revealed no significant difference between males and females. A cross-sectional study conducted in Oman

reported that the prevalence of SA in women was 1.3 times higher compared to men (Ambusaidi et al, 2022). However, a similar study conducted on university students in Oman did not find gender differences in the occurrence of social phobia (Alsibani et al, 2022). Therefore, further studies need to be conducted to explore the underlying factors that impact the manifestation of SA between genders among the Omani youth population.

Participants who reported a concern for appearance including those who were likely to exhibit symptoms of BDD and those who were unlikely to, were asked to name the body areas they disliked. A majority of individuals (n=18) reported concerns with their skin (scars, pimples, and skin tone), stomach (n=12), nose, hair and breasts. The DSM-5 lists skin concerns as the most common body concern in individuals with BDD (APA, 2013). Furthermore, a substantial number of participants disclosed avoiding social gatherings due to their body-related concerns.

Participants also reported experiences of bullying in school, low self-esteem, and feelings of embarrassment. The majority of respondents indicated resorting to clothing choices and camera filters as means to conceal or disguise their perceived flaws. Although the majority of the individuals reporting these concerns did not indicate likelihood for BDD symptoms, it is important to seek early intervention to address these concerns. By recognizing and addressing these issues promptly, individuals can potentially prevent the escalation of distress and negative psychological consequences associated with body-related concerns.

CONCLUSION

The study examined the impact of gender on BDD symptoms but did not explore the underlying cultural and social factors that may contribute to these differences. Future research should explore the cultural context and societal norms surrounding body image appearance in Oman to gain a deeper understanding of how they influence the manifestation of BDD. It is important to increase awareness about BDD and educate the general public through educational campaigns, online resources, and community outreach programs. This can help reduce stigma, increase understanding, and promote early recognition and intervention. Promoting body positivity movements can play a significant role in addressing body image concerns associated with BDD. Encouraging acceptance of oneself and others, regardless of factors such as skin tone, body shape, or size, is important. Such initiatives can foster a more inclusive and supportive environment for individuals struggling with body-related concerns. Self-assessment tools for individuals to analyze their symptoms of BDD must be accessible to all. Individuals can gain insights and seek psychological support in a timely manner. Establishing mental health support groups for individuals with BDD related concerns is vital. Mental health professionals can facilitate discussions, and offer guidance on coping strategies. Providing access to such support groups creates a safe

space where an individual feels a sense of belonging, reduces isolation, and improves overall well-being.

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