

Prevalence of Body Dysmorphic Disorder among Female Patients Seeking Cosmetic Procedures

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Abstract

Background: Body dysmorphic disorder (BDD) is a psychiatric illness in which one's with minimal or non-existing defect in appearance shows significant distress and impairment in behavior and psychosocial functioning. Patients with body dysmorphic disorder seeking cosmetic surgery are usually unsatisfied with the outcomes of the surgery; this is why it is an important subject to be focused on. Moreover, physicians should consider the assessment of body dysmorphic disorder before undergoing any cosmetic procedures.

Objective: To assess Body Dysmorphic Disorder in patients undergoing cosmetic procedures, and to improve the awareness of Body Dysmorphic Disorder among the providers of cosmetic treatment.

Methods: This is a cross sectional study design, using the scale of body dysmorphic disorder modification of the Y-BOCS (BDD-YBOCS) adult version, consisting of 12 items regarding preoccupied thoughts of the participants and the effect on their lives. This scale individual respond to the light of the 5-point Likert-Type scale. We received 220 sample after distributing the questionnaire in different online platforms among females living in the eastern province of Saudi Arabia.

Results: A total of 220 females participated in this cross-sectional study, 45 of them had Body Dysmorphic Disorder (prevalence rate of 20.5%) which shows a significant worrying percentage. Moreover, the results indicate that Body Dysmorphic Disorder is more among participants in the (20-35) year's old age group. Furthermore, it shows a positive correlation between Body Dysmorphic Disorder and females seeking cosmetic procedures.

Conclusion: we recognized that one-fifth of the participants were diagnosed with Body Dysmorphic Disorder. Whereas higher rates among those who underwent cosmetic procedures were detected. Therefore, we recommend implementing a Body Dysmorphic Disorder screening tool for patients seeking cosmetic procedures before undergoing it.

Keywords: body dysmorphic disorder, cosmetic procedures, eastern province, saudi arabia

Introduction

Body Dysmorphic Disorder is a DSM-V psychiatric illness characterized by concerns with minimal or non-existing defects in appearance, shows significant distress and impairment in behavior and psychosocial functioning. These concerns can be as minimal as skin picking, checking mirrors, grooming activities, applying make-up, excessive exercise, camouflaging with clothes, comparing others' appearances, and questioning others' compliments about self-appearance. Or as severe as undergoing unnecessary cosmetic procedures repeatedly and "do it yourself procedures".

In general population, Body Dysmorphic Disorder is estimated to effect

1-2% [1]. However, it is substantially higher among those seeking cosmetic procedures [2]. Moreover, almost 76% of Body Dysmorphic Disorder patients visit a plastic surgeon to undergo a cosmetic procedure [3]. Furthermore, 60% of body dysmorphic disorder patients undergo unneeded cosmetic surgeries because of minimal or non-existing imperfections in appearance [4]. While 82% of Body Dysmorphic Disorder patients are unsatisfied with the outcome of their procedures [5]. This is why it is an important subject to be focused on and identified correctly. Because the appropriate management of these patient not to undergo a cosmetic procedure but to get a psychiatric evaluation. Body Dysmorphic Disorder is usually under detected due to uncommon, unusual, and lack of screening of this disorder [3]; This is way physicians

should consider the assessment and screening of Body Dysmorphic Disorder before undergoing any cosmetic procedures.

Methods

We conducted a community based cross-sectional study design in the eastern province of Saudi Arabia between (November,2020 - April,2021). Ethical approval was obtained from the institutional review of Imam Abdulrahman bin Faisal University, Dammam, Saudi Arabia. We used the scale of body dysmorphic modification of the Y-BOCS (BDD-YBOCS). It consists of 12 items regarding preoccupied thoughts of the participants and the effects on their lives. In this scale, individuals responded to the light of 5-point Likert-type scale. Our target was approximately 200 female participants living in the eastern province of Saudi Arabia. We collected 220 questionnaires from 220 participants who were randomly selected by distributing the questionnaire in different online platforms. In order to create an online survey, we used Google forms to help us make our questionnaire and share it easily to the best possible number of participants in randomized method to our direct target. There were some limitations and obstacles that we faced in our survey which limit its accessibility to the best possible number of participants.

First, the language barrier, since we performed our study and made the questionnaire in English- to get an effective diagnosis according to DSM-V criteria - and share it to our target population who are Arabic is their

mother language, even though we reached our target number of participants.

Second, the effectiveness of our community based cross-sectional study design which does not have the best value in controlling bias and the survey credibility comparing to Randomized Control Trial and Meta-Analysis.

We analyzed the differences in body dysmorphic disorder (BDD) in terms of some sociodemographic variables (ages, cosmetic procedure, preparation for future cosmetic procedure) as shown in (Table.2).

We organized our data by applying independent group t. test to compare between the two age groups and their association with Body Dysmorphic Disorder (BDD). We analyze and evaluate the results by using Statistical Package for Social sciences (SPSS).

We gathered the information from these questionnaires, and we compered it with our expected results, and we will see if there is a high degree rate between them in the next few paragraphs.

Results

A total of 220 females participated in this cross-sectional study 45 of them had BDD (prevalence rate of 20.5%) And 175 with no BDD (prevalence rate of 79.5%).

As shown in Table 1 and Figure 1.

Category	Cut-off score	n (%)
No BDD	(score < 19)	175 (79.5%)
Participants with BDD	(score ≥19)	45 (20.5%)

Table.1 Prevalence of Body Dysmorphic Disorder Among Cosmetic Procedures Female Patients

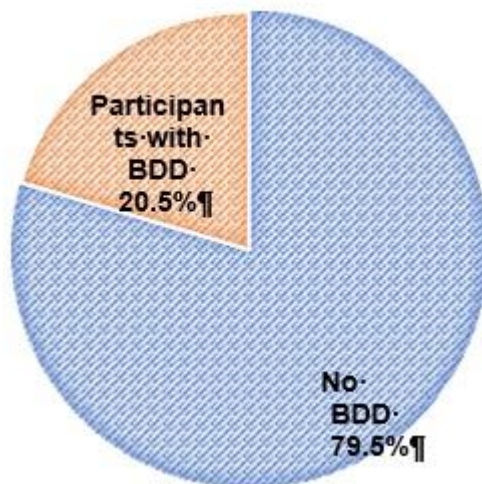


Figure.1 Prevalence of Body Dysmorphic Disorder

Sociodemographic descriptors

We analyzed the differences in Body Dysmorphic Disorder (BDD) in terms of the sociodemographic variables of age, cosmetic procedures, Preparations for future cosmetic procedures. The results indicated that most of the BDD participants were found in the age group of (20-35) years

old more than the age group of (36 – 55) years old. While there were no differences between the participants who underwent the cosmetic procedure and those who did not. Finally, participants who were willing to undergo any cosmetic procedure in the future had a higher score of BDD compared to those who were not willing for it as shown in Table 2 and 3.

Variables	Groups	N	Body Dysmorphic Disorder	
			M (SD)	t (p)
Age	20 - 35 years old	(170)	12.83 (8.21)	2.75 (.007)
	36 - 55 years old	(50)	9.14 (8.22)	
Have you ever had any cosmetic procedure?	Yes	(103)	12.17 (8.09)	0.30 (.765)
	No	(117)	11.83 (8.58)	
Are you willing to undergo any cosmetic procedure in the future?	Yes	(141)	12.96 (8.18)	2.31 (.022)
	No	(79)	10.26 (8.39)	

Table 2. Differences between some sociodemographic variables in Body Dysmorphic Disorder

Variables		Body Dysmorphic Disorder	Number of procedures
Body Dysmorphic Disorder	Pearson Correlation Sig. (2-tailed)	1	.414** .000
Number of procedures	Pearson Correlation Sig. (2-tailed)		1

** $p < .01$

Table 3. Correlation between BDD, and Number of procedures.

The correlation analysis shown in table 3. Indicated that here was a positive correlation between the level of Body Dysmorphic Disorder and number of procedures.

In comparison with previous study done in Jeddah which showed that out of 344 participants (19.2%) had positive screening for BDD. Another study conducted in Al- Qassim region revealed that 58 out of 325 (18.6%) patients screened were positive with BDD [6, 7].

Discussion

In our study a percentage of (141 patients; 64.1%) are willing to undergo a cosmetic procedure. How can we tell that they are not a BDD patients? By the usage of (BDD- YBOCS) scale the results showed that the participants who are willing to do a cosmetic procedure in the future had a higher score of BDD.

Body dysmorphic disorder is considered to be a relative contraindication for undergoing cosmetic surgeries, because it is predicted that these patients will not be happy from the results and they will have less satisfaction rate [8] which will lead them to undergo surgeries again and again. Unwanted surgeries can be avoided by increasing awareness to both the physicians and the general public. Also it is preferred to screen the patients before they undergo any procedure.

Our study showed that (45 patients; 20.5%) from 220 participants are positive for BDD. This indicates that there are increased number of body dysmorphic disorder patients in Saudi Arabia. In comparison to other similar studies done in Saudi Arabia, a study that was done in Jeddah in 2020 showed nearly the same results with a percentage of 19.2% positive for BDD [6]. Another study conducted in Al Ahsa in 2019 reported a prevalence of 14.19% among people seeking facial plastic surgery [9]. In 2018 a study done by AlShahwan [10] in Riyadh reported a percentage of 14.1% are BDD among Arab dermatology patients. While 18.6% is a percentage that indicates patients with BDD in a study that was done in Al Qassim region in 2017 among patients who attended dermatology clinics [7]. These results are in the same range of our result and these high percentages could be explained by the fact that the people nowadays are more exposed to social medias and the unrealistic ideas of beauty. Many

factors such as age, gender, education level and marital state can affect these results [11].

We noticed that the younger age group had a higher prevalence for BDD than the older age group. This is consistent with the study done in Al-Ahsa [9] which showed a higher prevalence among young ages, and as mentioned above it can be explained by the fact that they are spending more hours using their phones and browsing social medias and believing the wrong ideas about beauty given to them by the influencers.

Many studies done worldwide about BDD and its relation to plastic surgeries. One of these Studies done in US reported that 9.7% of the participants screened positive for BDD [8]. The discrepancy between this result and our result could be explained by the fact that their research included both genders males and females, while our participants were all females. Another study done also in US showed a percentage of 13.1% of patients undergoing cosmetic surgery and 1.8% of those undergoing reconstructive surgery had BDD [12].

Conclusion

In conclusion, Body dysmorphic disorder is an often severe, impairing disorder. It appears to be common but underdiagnosed. BDD is considered to be a relative contraindication for undergoing cosmetic surgeries. Unwanted surgeries should be avoided among these patients because their satisfaction rate after cosmetic surgeries appears to be low. We recommend to screen the patients before they undergo any plastic surgery. Increasing the public awareness about this disorder will be beneficial and reduce unwanted surgeries.

Limitations and Recommendations

While doing this research we faced some limitations. First, the sample size was limited. Second, the method of the distribution was only via online platforms due to COVID-19 pandemic, so we faced a slow response rate. Third, it was a self-reported scale not a definitive diagnosis. Lastly, the English language of the survey maybe affected the results as most of the participants in our region are Arabic speakers and prefer to answer in Arabic.

Cosmetic surgeries are quite common among Saudi females. To the best of our knowledge, there are few national based studies focusing on BDD have been conducted. Our recommendation is to conduct more national studies, it will help us to gain more knowledge about the relation between cosmetic surgeries and BDD in our region.

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