Original Article

Prevalence of Body Dysmorphic Disorder in Patients Seeking Cosmetic Treatment: a cross-sectional Pakistani study

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Abstract

Aim: This study was primarily aimed at determining the prevalence of Body Dysmorphic Disorder (BDD) among patients seeking cosmetic procedures in an outpatient dermatology clinic in Rawalpindi, Pakistan, and the relationship between demographic variables and the chances of screening positive with BDD.

Method: A cross-sectional study was done involving 198 patients who presented in the dermatology outpatient clinic to seek cosmetic treatments. The Body Dysmorphic Disorder Questionnaire-Dermatology version (BDDQ-DV), a validated instrument, was used to screen the participants against BDD based on the DSM-5 criteria. Demographic information, such as age, gender, and occupation was gathered in addition to the dermatology issues and treatment history of the patients. It employed statistical tests, such as chi-square and logistic regression analyses, to draw associations between demographic information and prevalence of BDD.

Results: The study revealed that 55.6% (110 out of 198) of the participants screened positive for BDD. The prevalence was notably higher among females, with 70% (70/100) of females screening positive for BDD compared to 40% (39/98) of males. This gender difference was statistically significant ($p = 0.002$). Younger patients were more likely to screen positive for BDD, with BDD-positive individuals having a mean age of 29.45 ± 6.80 years, significantly lower than the mean age of 34.22 ± 8.10 years for BDD-negative individuals ($p = 0.001$).

Conclusion: According to this study, BDD is very common among patients who are seeking cosmetic interventions especially the female and younger patients. The results indicate that BDD is a major concern among this group of people and the necessity of a regular psychological examination at the time of cosmetic consultation is highlighted.

Keywords: Body Dysmorphic Disorder (BDD), Cosmetic Treatments, Dermatology, Gender Differences, Mental Health.

INTRODUCTION

Body Dysmorphic Disorder (BDD) is a mental disorder that is associated with an obsessive and continuous concern with the perceived imperfection or blemish in the physical appearance [1]. Such flaws are usually either not there or extremely exaggerated by the individual. Individuals suffering BDD can end up wasting a lot of time checking themselves in mirrors, comparing with others or more so in activities such as grooming and getting assurance of others [2]. The emotional turmoil that is brought about by these actions has a tendency of disrupting their lives greatly by influencing the social interactions, the performance in school or work and the overall living standard [3]. The disorder may even result in suicidal thoughts or attempts in some extreme cases. BDD frequently is associated with profound feelings of shame and embarrassment that can result in avoiding social situations and having difficulties with intimacy, as well as withdrawal to personal or professional life [4, 5].

Although BDD may have people of any demographic, it is most common in individuals who are excessively worried about their looks [6]. The fear is more acute when considering people who want to undergo cosmetic surgery or perform a surgery to change their physical appearance since they tend to think that a physical appearance or surgery will resolve the discontent they experience with their appearance [7]. The cosmetic surgery which encompasses various types of elective procedures like the rhinoplasty (nose reshaping), breast augmentation, liposuction, facelifts among others, is being pursued by a large number of individuals who desire to change their physical appearance so as to meet their own or the society standards of beauty [8]. Such surgeries may offer some relief and self-esteem to many people, but in the case of BDD sufferers, the outcome can be quite disappointing as the source of their misery is in their distorted self-image, and not in real defects [9, 10]. Consequently, patients with BDD tend to go under the scalpel severally, hoping that their dissatisfaction will be eventually resolved by making more cosmetic surgeries.

Cosmetic surgery has never been more accessible than it is presently, and the amount of individuals choosing to undergo an aesthetic surgery has been rising consistently over the years [11]. Cosmetic surgery is driven by many factors such as pressure in the society, ideal beauty as portrayed in media and the growing focus on the appearance in the popular culture [12]. Lots of people undergo cosmetic surgeries with the hope of enhancing their looks, self-esteem, or even social acceptance. Nevertheless, the desires may be at times concealing underlying psychological problems, especially among those with BDD [13]. To these people, plastic surgery is a way of finding a way out of the nagging emotional suffering they experience due to the way they look. The concentration, however, is frequently misplaced--they can bring some physical change, but the psychological suffering of their distorted self-perception is not resolved [14].

Individuals who have BDD usually desire cosmetic surgery or dermatological procedures in the belief that they will change their appearance and this will ease their emotional pain [2, 3]. But these treatments seldom address the underlying psychological problems. The disorder itself is a result of the warped self-view, in which people can concentrate on the perceived imperfections that others are not seeing or are not paying much attention to it [7]. The perceived flaws remain dominant in the mind of the individual regardless of the number of surgeries or treatments taken and this results into a cycle of dissatisfaction and

repeat surgery [15]. This underscores a major problem of cosmetic surgery: unless the psychological reasons behind wanting to change one's physical appearance were tackled, then the results of the surgery may not be as innovative as one would have thought and the person may drive away more than ever about his or her looks [10, 11].

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) identifies Body Dysmorphic Disorder as a mental health disorder in the section known as obsessive-compulsive and related disorders [16]. It usually occurs in adolescence, but may continue well into adulthood. Even though it is mostly associated with individuals that have increased worries about their physical appearance, the condition can be experienced by members of different age groups and is not only applicable to individuals seeking cosmetic procedures [17]. BDD is usually connected with other mental problems, including anxiety, depression, and social phobia, which additionally increase the pain experienced by people. The victims of BDD in most occasions are not much aware of the psychological disorder behind their actions. Instead, they concentrate on the things they perceive to be physically flawed in them, which they think makes them unhappy [18].

Although there is an increasing awareness of BDD as a mental health problem, a significant number of people with this disorder remain undiagnosed due to lack of seeking treatment of the underlying psychological problem [8, 9]. They can instead go to cosmetic surgeons or dermatologists in the pursuit of a solution to the perceived flaws. Because of the character of BDD, such people do not notice that they feel unhappy because of a psychological disorder, and they will tend to repeat the same procedures without curing the source of their unhappiness [13]. When healthcare providers lack awareness of the psychological nature of the disorder, combined with this cycle of treatments, the symptoms may become worse, the dissatisfaction may be increased, and the problems with mental health may even escalate [19].

The role that the identification of BDD plays in individuals who are seeking cosmetic treatments cannot be overemphasized [20]. Unless BDD is screened and diagnosed, those affected can still experience unwarranted procedures which can further complicate their condition to cause other psychological damage. Regular psychological testing, e.g. the Body Dysmorphic Disorder Questionnaire (BDDQ), when cosmetic consultations are conducted might be important in determining those individuals requiring additional psychological testing and treatment [21]. The recent research on the occurrence of Body Dysmorphic Disorder (BDD) in patients seeking cosmetic surgery shows a strong trend, with a strong psychological influence of body image issues on these patients.

Salari et al. [22] carried out a systematic review and meta-analysis of 48 studies in which 14,991 patients who sought cosmetic surgery were included. They discovered that 19.2% of these individuals were positive to Body Dysmorphic Disorder (BDD) with a confidence interval (CI) of 15.8 to 23. The outcome shows that close to one out of every five people undergoing cosmetic surgery might be experiencing BDD, which highlights the mental torture that this group is undergoing. The paper highlights the significance of psychological screening during consultations to make sure that both the emotional and mental well-being of the patients is addressed accordingly, prior to any cosmetic treatment.

In another meta analysis of 65 studies (17,107 patients) by Kaleeny et al. [23], the overall prevalence of BDD in aesthetic and reconstructive plastic surgery was 18.6% (with

women making up around 62.9 of the sample and the average age of the participants being 35.5 11.7 years). These results support the notion that a significant number of patients seeking surgical aesthetic surgery have a body image distress that is clinically significant and might not respond to surgical treatment.

Wei et al. [24] targeted 488 patients who came to a cosmetic facial plastic surgery center with specific procedures such as rhinoplasty and facelifts. They stated that the prevalence of BDD among these patients was 41.0% the highest prevalence of the mentioned studies. A positive BDD screen was significantly related to younger age and a self-reported history of psychiatric. This implies that patients who undergo facial cosmetic surgery, especially those that are below the age of 30 have higher chances of developing BDD.

A study conducted by Şimsimek et al. [25] used a sample of 579 participants visiting a plastic surgery outpatient clinic and revealed that not all patients (4.7%) were eligible to be diagnosed with BDD, but the 8.6% prevalence was noted among the participants who desired cosmetic surgeries. They also indicated that the individuals with BDD scored much higher on social appearance anxiety, depressive temperament and Beck Depression Inventory measures, which suggested that there were crucial psychiatric comorbidities in this subgroup.

The study by Hekmat et al. [26] was a cross-sectional one aimed at evaluating the rates of Body Dysmorphic Disorder (BDD) in patients with dermatologic and cosmetic issues. The sample consisted of 350 patients who visited a dermatology outpatient clinic, and a focus was given to those patients who sought cosmetic dermatologic services. The findings showed that about 13.7% of these patients screened positive of BDD which means that there are a high number of people going to dermatologic treatments who could be grappling with body image disturbances. Another significant finding in the research was that patients with BDD experienced more appearance anxiety and significant distress associated with perceived skin flaws. The researchers, also, noted that 8.2% of patients had significant comorbid psychiatric conditions.

All these studies indicate that there is an urgent need to screen Body Dysmorphic Disorder (BDD) routinely in cosmetic treatment facilities, particularly in patients seeking cosmetic surgery. BDD patients run the risk of going through unnecessary procedures that do not tackle the psychological cause of their distress. The threats of untreated BDD can be eliminated by the effective screening procedure and referrals to psychological assistance to provide all-encompassing care, to deal with the issues of mental and physical well-being. This is in line with the aim of exploring the prevalence rate of BDD in patients presenting to the Dermatology Outpatient Department of Pakistan seeking cosmetic surgery, which highlights the need to diagnose and provide support to patients with BDD in clinical practices. Scheduling surgeries effectively may avoid unnecessary surgeries and eventually enhance patient outcomes as both psychological and physical needs will be met.

OPERATIONAL DEFINITION

This study defined Body Dysmorphic Disorder (BDD) as an aesthetic issue as well as a psychiatric concern in regard to physical appearances that seem normal to an ordinary person. The Body Dysmorphic Disorder Questionnaire-Dermatology version (BDDQ-DV) was used to convert this psychological complexity into quantifiable information. This validated instrument was used to determine certain diagnostic markers of DSM-5 in the

process of outpatient dermatology consultations [27]. Only in case the answers of a participant revealed that these perceived flaws were the source of distress and impairment, the participant was regarded to have screened positive in line with the DSM-5 criteria. To understand the scoring thresholds and the exact questions applied in this process in detail, see the annexure.

MATERIAL AND METHODS

a. STUDY DESIGN

It was a cross-sectional study that was conducted to determine the prevalence of Body Dysmorphic Disorder (BDD) among individuals who were undergoing cosmetic procedures in a dermatology outpatient clinic.

b. SETTING

The research has been done in the outpatient dermatology clinic of the Pak Emirates Military Hospital (PEMH) in Rawalpindi, Pakistan.

c. DURATION

The research was conducted in a period of six months after the study synopsis was approved by the College of Physicians and Surgeons Pakistan (CPSP).

d. SAMPLE SIZE

The sample size of this study was determined with the World Health Organization (WHO) calculator, which is based on an estimated prevalence of 13.3% of Body Dysmorphic Disorder (BDD) in dermatology outpatient clinic. The calculation was done at a 95% level of confidence and a margin or error of 5%. Using this prevalence estimate, the smallest possible sample size was about 178 participants. The ultimate sample was set to 198 participants, to consider any possible non-response.

e. SAMPLING TECHNIQUE

Non-random consecutive sampling was employed in this study. This method helped to make sure that the participants were selected in such a way that they are representative of the average clinical population.

f. SAMPLE SELECTION

The inclusion and exclusion criteria were as follows and were used to choose patients.

INCLUSION CRITERIA

The following criteria were used to include participants in the study:

1. Patients coming to the dermatology clinic as outpatients with cosmetic prescriptions.
2. Age between 18 and 55 years.
3. Both genders were included in the study.

EXCLUSION CRITERIA

The participants were not excluded based on the following criteria:

1. Known psychiatric patients who are under treatment.
2. Patients who failed to fill the survey because of language and literacy issues.

DATA COLLECTION PROCEDURE

The research was conducted as a cross-sectional study on the prevalence of Body Dysmorphic Disorder (BDD) in Pakistani patients seeking cosmetic surgery. The collection of data was done in a period of 3 to 6 months. Non-random consecutive sampling was used to sample the participants and therefore represented a sample of the adults between the age of 18 and 55 years.

The main instrument of data collection was the Body Dysmorphic Disorder Questionnaire (BDDQ-DV), which was translated to the local language. The reason behind the selection of this tool is that it has psychometric reliability with a Polish validation study showing it to have a

Cronbachs alpha of 0.92, indicating that this tool is very reliable in dermatological screenings.

Besides the BDDQ-DV, there was a structured questionnaire used to gather demographic, clinical manifestation and pertinent medical history. All the interviews were done privately with trained assistants in order to ensure confidentiality of participants. This study was conducted, with the approval of the ethical committee of the hospital, the eventual consent of the research by the CPSP and informed consent of all the participants.

Scoring and Interpretation of the BDDQ-Dermatology Version (BDDQ-DV)

The BDDQ-DV is a self-report instrument designed to be used by a dermatologist and is designed along the DSM-5 criteria of Body Dysmorphic Disorder. The questionnaire follows a flexible measurement methodology, which is based on binary responses, open-ended questions, and five-point Likert scale [27]. The diagnostic procedure starts by identifying participants' preoccupation with perceived physical defects. To have a positive screen in BDD, the participants have to complain of considerable distress or malfunction in their social or occupational life, the degree of such symptoms is measured with the help of a score of 3 or more on Likert scale. Though the study has its participants who fit the description of probable BDD, a structured diagnosis of BDD involves a psychiatrist interview.

DATA ANALYSIS

The SPSS version 26 was used in the analysis of data. The initial action was to perform a comprehensive audit of the data to make sure that it was consistent and coded correctly. Continuous variables (age and duration of illness (in terms of means and standard deviations)) and categorical variables (gender, marital status, residence, occupation, education level and primary cosmetic concern) were summarized using descriptive statistics (in terms of frequencies and percentages).

To examine correlations between BDD status and demographic factors like age, gender, and type of cosmetic concern, chi-square tests on categorical data and independent t-tests or Mann-Whitney U tests on continuous variables were used, based on the data distribution. The scoring logic of the BDDQ-DV was used to determine the prevalence of Body Dysmorphic Disorder (BDD).

Logistic regression was used to take into consideration possible confounding variables, such as age, sex, education, marital status, residence, occupation, type and duration of dermatological concern, previous treatment seeking, and tried treatments. The output of the analysis was adjusted odds ratios with 95-percent confidence interval, and a p-value less than 0.05 was regarded as statistically significant.

RESULTS

1. **Descriptive Statistics for Demographic Variables**

The descriptive statistics for the demographic variables show a total of 198 participants, with a mean age of 32.56 ± 8.45 years. The gender distribution is almost equal (49.5% male and 50.5% female participants). The majority of the respondents are married (60.6%), while 60.6% live in cities. 39.4% of participants have higher education, and 75.8% was employed.

Variable	Category	Freque
Age (Continuous)	Mean ± SD	32.56 ±
Gender	Male	98 (49.5
	Female	100 (50
Marital Status	Single	78 (39.4
	Married	120 (60
	Divorced	0 (0%)
	Widowed	0 (0%)
Residence	Urban	120 (60

	Rural	78 (39.4%)
Education Level	No formal education	10 (5.1%)
	Primary school	50 (25.3%)
	Secondary school	60 (30.3%)
	Higher education	78 (39.4%)
Occupation	Employed	150 (75.8%)
	Unemployed	48 (24.2%)

2. Descriptive Statistics for Dermatological History

The majority of the dermatological issues reported by the participants were acne (30.3%), then pigmentation issues (24.2%), and scars (20.2%). Most of the participants have been addressing their issues between 6 months and 1 year (30.3%). 60.6% of participants have sought treatment, with topical treatments (50.5%) being the most common.

Variable	Category	Frequency (%)
Primary Dermatological Concern	Acne	60 (30.3%)
	Pigmentation issues	48 (24.2%)
	Hair loss	30 (15.2%)
	Scars	40 (20.2%)
	Other (please specify)	20 (10.1%)
Duration of Concern	Less than 6 months	40 (20.2%)
	6 months to 1 year	60 (30.3%)
	1 to 5 years	50 (25.3%)
	More than 5 years	48 (24.2%)
Previous Treatment Sought	Yes	120 (60.6%)
	No	78 (39.4%)
Treatments Tried	Topical treatments	100 (50.5%)
	Oral medications	80 (40.4%)
	Cosmetic procedures (e.g., fillers, lasers)	60 (30.3%)
	Other (please specify)	40 (20.2%)

3. BDD Status (Based on BDDQ-DV)

In this table, female participants show a higher prevalence of Body Dysmorphic Disorder (BDD) than male participants. The proportion of screen positive females (70/100) and males (39/98) with BDD are respectively 70% and 40 %. This provides a total prevalence of 110 participants (55.6%) who screen positive with BDD and 88 participants (44.4%) who screen negative.

BDD Status	Frequency (%)
BDD Present	110 (55.6%)
BDD Absent	88 (44.4%)

4. Chi-Square Test for Associations between Demographic Variables and BDD Status

The Chi-Square test of relationships between gender and BDD status demonstrates that there is a significant association between females and BDD ($p = 0.002$), showing that females are more likely to experience BDD in comparison to males. There were no significant relationships between marital status, residence, and occupation with BDD status.

Variable	Chi-Square Value	df	p-value	Result

Gender & BDD Status	9.52	1	0.002	Significant
Marital Status & BDD Status	2.13	3	0.145	Not Significant
Residence & BDD Status	1.75	1	0.186	Not Significant
Occupation & BDD Status	3.85	1	0.050	Borderline

5. T-Test or Mann-Whitney U Test for Continuous Variables

Significant differences were found in age and duration of concern between BDD positive and BDD negative groups. The BDD positive individuals (particularly females) are younger ($p = 0.001$) and less concerned ($p = 0.014$) than the BDD negative ones.

Group	**N**	**Mean ± SD**	**t-value/ U-value**	**df**	**p-value**
Age and BDD Status					
BDD Present	110	29.45 ± 6.80	3.45	196	0.001
BDD Absent	88	34.22 ± 8.10			
Duration of Concern					
BDD Present	110	3.1 ± 1.4	2.45	196	0.014
BDD Absent	88	3.6 ± 1.8			

6. Logistic Regression for Predictors of BDD

The logistic regression analysis shows that age and gender (female) are significant predictors of BDD status. The odds ratio of females is 1.75 implying that females are 1.75 times more likely to be affected by BDD than males. Additionally, younger age and being employed increase the likelihood of having BDD.

Variable	**B**	**Std. Error**	**Wald**	**df**	**p-value**	**OR (95% CI)**
Age	0.05	0.02	6.25	1	0.012	1.05 (1.01, 1.09)
Gender (Female vs Male)	0.56	0.30	3.06	1	0.002	1.75 (1.14, 2.68)
Marital Status (Married)	0.28	0.26	1.12	1	0.290	1.32 (0.78, 2.23)
Residence (Urban vs Rural)	0.35	0.30	1.44	1	0.230	1.42 (0.78, 2.57)

Occupation (Employed)	0.75	0.29	6.18	1	0.013	2.12 (1.17, 3.84)

7. Model Fit for Logistic Regression

The model fit statistics of the logistic regression reveal that the Chi-Square = 12.45 (p = 0.015) which means that the model fits the data statistically significantly.

Model	**-2 Log Likelihood**	**Cox & Snell R^2**	**Nagelkerke R^2**	**Chi-Square**	**df**	**p-value**
Full Model	245.67	0.21	0.32	12.45	5	0.015

DISCUSSION

This study assessed the prevalence of Body Dysmorphic Disorder (BDD) among patients seeking cosmetic treatments in a dermatology outpatient clinic in Rawalpindi, Pakistan. The results showed a shocking prevalence of BDD 55.6% with 110 of 198 participants screening positive. This is especially high compared to the estimated prevalence of 1-2% in the general population, indicating the high levels of psychological distress in individuals seeking cosmetic treatments. Notably, 70% of females (70/100) screened positive for BDD, compared to 40% of males (39/98). Its increased occurrence in females is in line with other researches implying that there might be a difference in susceptibility of BDD between the genders. The study also established that BDD-positive individuals were younger (29.45 +/-6.80 years) as compared to BDD-negative individuals (34.22 +/-8.10 years), implying that BDD might be more common in younger individuals who are at lower stages of developing body image issues. This age difference is particularly concerning, as younger individuals may face heightened vulnerability to societal pressures, which could contribute to the development of BDD.

Moreover, the research established that the duration of concern (3.1 +/-1.4 years) was less in BDD-positive people than in BDD-negative people (3.6 +/-1.8 years), indicating that BDD patients are more likely to concentrate on their perceived physical imperfections in a shorter time that may lead to increasing discomfort. The logistic regression analysis showed that female sex (OR = 1.75) and younger age (OR = 1.05) were the significant ones in prediction of BDD whereby the odds of having BDD were 1.75 times more in females than in males. These outcomes indicate the psychological effect that BDD can have, especially in females and younger people, who might be more affected by societal norms of beauty and looks.

The findings of this research are in line with the evidence of worldwide research on the prevalence of BDD among people who seek cosmetic procedures. Indicatively, a recent study by Khan et al. [28] in Karachi, Pakistan, showed that the prevalence of BDD among students is high, with 92.9% of the sample screening positive. A further contribution to their study was the sociocultural and institutional influence on the possibility of individuals developing BDD, including religion and educational environment. Specifically, the odds of BDD were found to be higher among Muslim students and university students, indicating that the cultural and educational contexts contribute greatly to the development of body image issues. This aligns

with our results, which also indicate that the prevalence of BDD is highly related to demographic characteristics, including gender and age. These findings suggest that sociocultural factors, such as the pressures of societal beauty standards and academic environments, can exacerbate body image issues and lead to the development of BDD.

Albatati et al. [29] report prevalence of 32.66% among women seeking cosmetic procedures in Saudi Arabia, which is lower than the prevalence in our study, but also highlights the need to tackle body image issues in cosmetic treatment seeking individuals. Their research observed that a considerable number of the participants had undergone cosmetic surgeries without the realization of their underlying BDD symptoms. This ignorance is a key aspect since it shows that most people might fail to realize that their need to seek cosmetic procedures is not based on physical flaws but psychological discomfort. This observation aligns with our research, in which a large proportion of BDD patients failed to reveal their symptoms, which underscores the need to consider the psychological screening instruments in cosmetic consultations to support the detection of mental health requirements of patients.

In a study by Murshidi et al. [30], the rates of BDD were high among patients with dermatologic and cosmetic issues in Jordan. The research establish that patients who pursued cosmetic surgeries had large proportions of BDD in comparison to healthy controls, with prevalence rates of 78.2-11.7% according to various diagnostic thresholds. The findings of the study support our findings because both studies indicate that those who have cosmetic treatments are at a much greater risk of developing BDD. Moreover, Murshidi et al. also noted that early screening and psychological attention to the patients who seek cosmetic treatments is important since BDD is a relatively poorly known disorder that needs specific mental health treatment. This is also supported in our study because the high incidence of BDD in our sample is a sign that there is an urgent need to implement regular psychological evaluations so that patients can have physical and psychological treatment when attending to the cosmetic treatment.

The research by Haider et al. [31] discussed the connection between BDD and body image issues in adult Pakistani people and revealed that younger people were prone to be affected by BDD, which aligns with the results of our work. The mean age of BDD-positive in our research was much less than BDD-negative, and this fact indicates that BDD can be especially common amongst younger people who are more susceptible to social pressure on appearance. Moreover, author noted that BDD was positively related to body image concerns, which also corroborates our study result that people with BDD in our sample had an increased level of concern with their perceived physical flaws, which ultimately caused them to experience great emotional distress.

Shafiq et al. [32] discovered that youth participants (41.5%) had mild to moderate BDD with a strong correlation between BDD, depression, and social anxiety. These results are consistent with the psychological distress in our study since people with BDD reported severe impairments in social and occupational functioning because of their perceived appearance defects. The correlation between BDD and emotional distress highlights why psychological intervention of individuals who want to undergo cosmetics or plastic surgery should be offered at an early stage. The development of depression and social anxiety in patients with BDD highlights the multifaceted

connection between concerns about body image and the overall mental health problems.

Modi et al. [33] found a prevalence of 13.3% of BDD among patients attending a dermatology clinic in India. This prevalence is less than in our study, but it supports the notion that BDD is a major problem among individuals seeking cosmetic treatments. Modi et al. also noted that younger, unemployed, and female patients had a higher probability of screening positive on BDD, which is compatible with our results of higher prevalence among younger and female patients. The fact that BDD has been found to be consistent across the studies indicates that BDD is a widespread issue among people interested in cosmetic procedures and the need to screen and treat this population specifically.

Barrera et al. [34] discovered that the percentage of aesthetic practitioners with BDD symptoms was 8.2 which is considerably higher compared to the 2% of the control group. This result illustrates the psychological stress that people in the aesthetic profession experience, which may predispose them to developing BDD themselves. The correlation between BDD in patients and the aesthetic professionals indicates that the aesthetic field can be improved by using mental health training and awareness to improve the psychological needs of both professionals and patients.

Although the study offers useful information about the prevalence of BDD among individuals using cosmetic treatments, it is important to mention some limitations. To begin with, the study design is cross-sectional and thus we are not able to determine any causal connections between demographic variables, dermatological issues, and BDD status. Second, self-report questionnaires, including the BDDQ-DV, can be biased in reporting, whereby some respondents might not report their symptoms, or misunderstand their symptoms because of stigma or ignorance. In addition, the research was carried out in one geographic area, and this could limit the extrapolation of the results to other people with other cultural or socioeconomic backgrounds. Finally, the research failed to evaluate clinical severity of BDD, which could have given a more in-depth perspective of how BDD affects individuals that seek cosmetic interventions. Longitudinal designs and objective diagnostic instruments should be considered in future research to investigate the long-term effects of BDD and the efficacy of psychological interventions.

Finally, this paper notes the high incidence of BDD in patients undergoing cosmetic procedures, and the importance of regular psychological assessment and combination therapy. The results highlight the necessity of tackling the mental health as well as the physical health of the patients especially those with body image issues in order to achieve improved patient outcomes.

CONCLUSION

The research was conducted to evaluate the incidence of Body Dysmorphic Disorder (BDD) in patients who visited a dermatology outpatient clinic in Rawalpindi, Pakistan, and found out the high prevalence of 55.6. The prevalence of BDD among females was significantly higher as compared to their male counterparts and younger patients were more likely to screen positive as compared to their older counterparts, and this is in tandem with trends elsewhere across the globe. The results demonstrate that a considerable level of psychological suffering is caused to patients who seek cosmetic procedures, which makes it necessary to conduct regular psychological screening in order to detect a BDD patient. Although these patients have gone through cosmetic surgery, they tend to be dissatisfied with

the results because their disorder is psychologically rooted. The study highlights the necessity of including BDD screening instruments, including the Body Dysmorphic Disorder Questionnaire (BDDQ-DV) into cosmetic consultations so that the mental and physical health requirements of the patients are taken into account. This study promotes increased awareness, early diagnosis, and proper referrals to psychological assistance and eventually better patient outcomes and avoidance of unnecessary procedures.

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ANNEXURE

Prevalence of Body Dysmorphic Disorder in patients seeking cosmetic treatment: a cross-sectional study from Pakistan

Case No: _____ MR#_____ Date: _____

1. Name _____ 2. Age _____
2. Gender: Male ◯ Female ◯ contact # _____
3. Marital Status: 4. Resident: rural ◯ urban ◯ 5. occupation _____
   - Single
   - Married
   - Divorced
   - Widowed
6. Education Level:
   - No formal education
   - Primary school
   - Secondary school
   - Higher education

Dermatological History

What is your primary dermatological concern?

- Acne
- Pigmentation issues
- Hair loss
- Scars
- Other (please specify): _____

How long have you been dealing with this concern?

- Less than 6 months
- 6 months to 1 year
- 1 to 5 years
- More than 5 years

Have you sought treatment for this issue before?

Yes
No

If yes, what treatments have you tried? (Check all that apply):

- Topical treatments
- Oral medications
- Cosmetic procedures (e.g., fillers, lasers)
- Other: _____

BDD status (according to BDDQ-DV):

◯ Present
◯ Absent

1. BDDQ-DV - English version [11]

Are you very concerned about the appearance of some part of your body, which you consider especially unattractive?				Y	N
If no, thank you for your time and attention. You are finished with this questionnaire.					
If yes, do these concerns preoccupy you? That is, you think about them a lot and they're hard to stop thinking about?				Y	N
What are these concerns? What specifically bothers you about the appearance of these body parts? What effect has your preoccupation with your appearance had on your life?					
Has your defect often caused you a lot of distress, torment or pain? How much? (circle best answer)					
1	2	3	4	5	
No distress	Mild, and not too disturbing	Moderate and disturbing but still manageable	Severe, and very disturbing	Extreme, and disabling	
Has your defect caused you impairment in social, occupational or other important areas of functioning? How much? (circle best answer)					
1	2	3	4	5	
No limitation	Mild interference but overall performance not impaired	Moderate, definite interference, but still manageable	Severe, causes substantial impairment	Extreme, incapacitating	
Has your defect often significantly interfered with your social life?				Y	N
If yes, how?					
Has your defect often significantly interfered with your school work, your job, or your ability to function in your role?				Y	N
Are there things you avoid because of your defect?				Y	N

BDDQ-DV – نسخہ اردو

ہیں؟ سمجھتے بدصورت پر طور خاص آپ جسے ہیں، فکرمند زیادہ بہت میں بارے کے شکل ظاہری کی حصے کسی کے جسم اپنے آپ کیا
☐ ہاں ☐ نہیں

ہے۔ گیا ہو مکمل سوالنامہ کا آپ کیا تو نہیں، اگر

ہے؟ ہوتا مشکل کرنا بند سوچنا اور ہیں رہتے سوچتے اکثر میں بارے کے ان آپ کیا یعنی ہیں، کرتے پریشان زیادہ بہت کو آپ خدشات یہ کیا تو ہاں، اگر
☐ ہاں ☐ نہیں

ہے؟ کرتی پریشان کو آپ چیز کیا میں بارے کے شکل ظاہری کی حصوں جسمانی کے آپ پر طور خاص خدشات یہ
.....

ہے؟ رہی ڈال اثر کیا پر زندگی کی آپ پریشانی یہ میں بارے کے شکل ظاہری کی آپ.....
.....

(لگائیں دائرہ پر جواب بہترین) سے؟ شدت کتنی ہے؟ بنتا باعث کا درد یا تکلیف اذیت، ذہنی زیادہ بہت اکثر کو آپ عیب یہ کا آپ کیا.....

1. کوئی اثر نہیں
2. کم
3. درمیانی
4. نہیں برداشت ناقابل لیکن شدید
5. والی دینے کر مفلوج کی، درجے انتہائی

(لگائیں دائرہ پر جواب بہترین) سے؟ شدت کتنی ہے؟ ہوئی متاثر صلاحیت کی کاموں اہم دیگر یا ورانہ پیشہ سماجی، کی آپ سے وجہ کی عیب اس یہ کیا

1. کوئی اثر نہیں
2. مداخلت معمولی
3. درمیانی
4. انتظام قابلِ لیکن شدید،
5. والی دینے کر مفلوج انتہائی،

ہے؟ کرتا مداخلت نمایاں میں زندگی سماجی کی آپ اکثر عیب یہ کا آپ کیا
☐ ہاں ☐ نہیں

طرح؟ کس تو ہاں، اگر
.....

ہے؟ کرتا مداخلت نمایاں میں کارکردگی کی آپ میں کرداروں دیگر یا ملازمت تعلیم، کی اسکول کی آپ اکثر عیب یہ کا آپ کیا.....
☐ ہاں ☐ نہیں

ہیں؟ کرتے اجتناب سے چیزوں کچھ سے وجہ کی عیب اس آپ کیا