

Physical Appearance Concern Questionnaire (PACQ) in Iranian population

Katayoun Khademi*

University of PayameNoor, Tehran, Iran

Asgar Dadkhah, PhD.

University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

Vahid Kazemi, MD.

Islamic Azad University (Tehran Medical branch)

Objectives: The purpose of this study is to make questionnaire for screening body dysmorphic disorder sufferers in cosmetic clinics.

Method and Materials: A sample of 150 female patients with age average 29.4 years completed Physical Appearance Concern Questionnaire. It has been used as screening tool for screening patients with body dysmorphic disorder symptoms in cosmetic clinics.

Results: Result of reliability analysis ($\alpha=0.908$) and validity have shown the effectiveness of this questionnaire for recognizing individuals with BDD symptoms.

Conclusion: Physical appearance concern questionnaire can be used in cosmetic clinics for identifying BDD sufferers among clients, with score for the severity of symptoms.

Keywords: Physical appearance; Iranian; Physical appearance concern questionnaire

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Introduction

Body dysmorphic disorder (BDD) is a partly common and sometimes serious psychiatric illness that is probably undetectable and also it is classified as a somatoform disorder in *DSM-IV-TR*. Actually there is no assurance that body dysmorphic disorder has been belonged to somatoform category and beside that we can't completely consider it in obsessive-compulsive disorder, it can be supposed to be in a spectrum (1).

Maybe activity front striate systems and visual cortex involve in severity of BDD (2,3) and related with symptoms of obsessive thoughts and compulsive behaviors (2, 4).

One of the most striking characteristic of this disorder is a preoccupation with an imagined defect in appearance or inappropriate concern with a slight physical flaw. Their main focus areas are usually the face, head, skin, hair, nose and etc. Although any body part can be involved in sufferer's preoccupations. By definition, body dysmorphic

disorder causes excessively distress or impairment in social functioning (5-7).

Body dysmorphic disorder with an onset in adolescence (4) influences 1-2% of the general population (8-11).

Range of prevalence for BDD patients in both inpatients and outpatients are 13%-15% and for the community is 0.7%-2.4% (5).

In a study in plastic surgery settings, the rate of 7% has been reported (12) and 12% patients screened positive for this disorder in dermatology setting (13) and It is 3 to 16% in dermatological and cosmetic surgery patients (14,4).

It seems to be essential for dermatologists to ask some questions for checking the existence of BDD like how much time they spend thinking about their perceived flaws each day or whose concerns cause clinically significant distress (15).

Often sufferers from BDD tend to have cosmetic surgery for body part related to source of distress and with considering the high rate of this type of

* All correspondence to: Katayoun Khademi, E-mail: <kv_853@yahoo.com>

patients (16), screening this disorder with using questionnaire in cosmetic clinics is suitable to avoid unsatisfying surgical outcomes (15).

It is also fundamental that dermatologists be trained to detect patients with symptoms of BDD, because they are in a key position to separate sufferers and refer them to psychiatrist (4). The current study has prepared Physical Appearance Concern Questionnaire as screen tool for searching body dysmorphic disorder sufferers in cosmetic clinics among women patients.

Materials and Method

All participants were female and wanted to have cosmetic surgery like lip enhancement, rhino-plasty, breast augmentations, buttock augmentation, liposuction and etc. Most of them (70%) were single and age average was 29.4 years.

The physical appearance concern questionnaire (PACQ) has been used as screening tool for indentifying patients with body dysmorphic disorder symptoms.

Because of the high rates of co morbidity in patients with BDD, clinical interview seems to be necessary. Therefore, patients who diagnosed for BDD based on filled questionnaires were interviewed. The findings from the clinical interview have shown that PACQ could be useful tool for screening BDD patients.

The Physical Appearance Concerns Questionnaire (PACQ) has been prepared as screen tool for searching patients with BDD in cosmetic clinics. The PACQ consists of 12 items that asks about features of BDD.

The four sample items of PACQ have been listed below:

- 1- How much time do you spend each day thinking about your appearance?
- 2- Do you think that your physical concerns are excessive?
- 3- Do your appearance-related thoughts or behaviors cause you a lot of anxiety, sadness or shame?
- 4- Do you have problem in making or keeping relationships?

The result shows existence of BDD with the score of severity of disorder.

This study was administered to 150 subjects in cosmetic clinics in Tehran, Iran. All of them complained of a defect in either one feature or several features of her body.

All statistical procedures were carried out using SPSS statistical software (version 18 for windows).

Results

This 12-Item questionnaire assessing body dysmorphic disorder symptoms and graded by Likert scale (1=least impaired, 5=most impaired), the score is achieved by summing Q1-12. The total scores range from 12 to 60 with a higher score reflecting greater impairment and likelihood of diagnosis of BDD without clinical interview. Answers are among none, mild, moderate and severe. Validity of the questionnaire has been approved by number of university professors.

Reliability analysis resulted in an internal consistency of Cronbach's $\alpha=0.908$ with corrected item total ranging from 0.54 to 0.76. Scale mean for each item deleted is between 21.12, 22.46 and variance rang changes from 65.75 to 70.45. All scale mean variance and Cronbach's Alpha with correlations have been shown in table 1.

Table 1. Mean, variance and Cronbach's Alpha for each item deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	21.4131	68.687	0.683	0.899
2	21.7933	67.360	0.709	0.897
3	21.4200	64.608	0.631	0.902
4	21.1200	65.757	0.659	0.899
5	22.2867	69.602	0.713	0.899
6	22.0400	65.247	0.765	0.894
7	22.4667	70.452	0.683	0.900
8	22.2733	71.220	0.565	0.904
9	21.5400	66.639	0.541	0.907
10	21.5267	66.640	0.578	0.904
11	22.2933	68.168	0.667	0.899
12	21.8467	66.600	0.645	0.900

The PACQ was found to be a reliable and valid instrument for screening individuals with symptoms of body dysmorphic disorder in cosmetic clinics.

Discussion

To our knowledge, this is the first study in Iran to prepare screening tool (PACQ) for body dysmorphic disorder in cosmetic clinic (dermatology setting and cosmetic surgery).

All questionnaires have been filled by various dimensions of marital status, occupation and type of procedure sought. We recommend that patients with score 36 or more should be referred for further assessment.

Scores between 12 to 36 needs psychological consult for assessing traits of BDD presence. There is no clue of BDD presence for patients with scores under 12.

According to the filled questionnaires, most BDD patients have responded to questions 1, 3, 4, 10 and 9, which mean most concerns are in order as follows: checking appearance, time spending in a day, seeking reassurance from others, requests for surgery, being perfectionist.

Other items in questionnaire like excessive preoccupation, comparing with models, distress, keep or making relationship, avoiding (places, people, and activities), critical view about one's appearance and social impairment are placed in lower priority.

Based on filled questionnaires among patients for cosmetic surgery, 54% have diagnosed for mild, 9% moderate, 3% severe BDD. It seems that BDD prevalence among cosmetic clinic patients are more than rhino-plasty patients in ENT clinics in Tehran, Iran. Fortunately, among BDD patients 81.82% have mild and 5.05% have severe disorder. Actually Subjects were evaluated with Clinical Interview after filling questionnaires for checking co morbid disorders.

Obviously, for a final diagnosis, the clinical interview is required and should be done by qualified therapist with experience in treating body image concerns like BDD.

The results supported the use of the questionnaire as specific screening instrument for BDD in cosmetic clinics.

There are several possible explanations why we found an apparently higher rate of BDD. First, we haven't studied on specific procedure. Second, we selected patients from last season of the year that clinics have had high load of cosmetic surgery.

Third, previous study samples have differed in various ways like gender distribution which may have influenced the results and we just worked on female patients.

There is another inventory in Iran for detecting patients for seeking rhino-plasty surgery named Body Image Concern Inventory (BICI); however it has been studying just for rhinoplasty and has shown 12.2% prevalence in subjects seeking rhino-plasty (17).

Unfortunately there are few researches for BDD in cosmetic clinics in Tehran, Iran. There is another study in Tehran, Iran that has shown 31.5% prevalence for body dysmorphic disorder among 130 patients (mean=26.43, SD=6.29 years) seeking rhino-plasty in ENT clinics by using Body Dysmorphic Questionnaire (24). In another study in 2003 has found 20.7% for BDD in patients requesting rhino-plasty (18).

With considering of developmental research on body dysmorphic disorder in the world in recent years, Iran has received little empirical attention in this area. Thus, further study is required.

Unfortunately questionnaires such as the Body Dysmorphic Disorder Questionnaire (BDDQ) (19) have been validated in a dermatology setting (15) they have not been studied in a cosmetic surgery and also there is no score for the severity of symptoms.

Another questionnaire like BDDQ to develop the Body Image Disturbance Questionnaire (BIDQ) that have been made by Cash and colleagues (20,21) has not been validated in people seeking cosmetic surgery and also it is hard to be accessed.

In study of 17 BDD sufferers, BDD was diagnosed in 5 out of 17 (2). This under recognized is due to the lately being contained in DSM IV, thus, practitioner knowledge is not extensive (19).

In another study has been shown that 76% of BDD patients were dissatisfied of their surgery outcomes (22).

Therefore, it is not predictable how patients will respond to cosmetic surgery outcome, apparently these treatment are unlikely to be sufficient, it is critical that both dermatologist and surgeons screen patients for BDD and refer them for psychiatric treatments (23).

With considering poor global insight and it's correlation with symptom severity in BDD (24), More research is needed in the development of a screening questionnaire for recognizing patients with BDD in cosmetic clinics (18).

Eventually, by improving people awareness of BDD presence, sufferers can receive social support by friends and significant persons in their life, that is related with less severe body dysmorphic disorder symptoms in both gender (Marques, et al., 2011).

Almost all of the researches have been studying in cosmetic clinics or dermatology settings and there is no investigation for people with special needs, thus further research is required in the development of a screening questionnaire or interview for identifying patients with BDD with special needs.

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