Levels of Body Dysmorphic Disorder (BDD) Incidence in Individuals Seeking Rhino Plastic Surgery

Maryam Hassanpour, Abdolali Ya’ghoubi and Mahbobeh Faramarzi

Clinical Psychology, Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran

Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran

Social Determinants of Health Research Center Babol University of Medical Sciences, Babol, Iran

Abstract: The present study aims at comparing the incidence of Body Dysmorphic Disorder (BDD) among individuals who have undergone rhinoplasty surgery and general population in the city of Ghaemshahr. The study is comparative by nature and the participants have been selected through a convenience sampling procedure. The sample consisted of a group of 100 patients who were going to undergo rhinoplasty surgery in Ghaemshahr rhinoplasty surgery clinic and a control group of 100 general populations who were not going to undergo such a surgery. The two groups were match in terms of such variables as age, education, occupation and marital status. The Revised Yale-Brown Obsessive Compulsive Scale was used as the research questionnaire and the X^2 and t tests were used for statistical analysis. The results indicated that the patients seeking rhinoplasty surgery had shown more cases of BDD incidence (11 times more) than members of the control group (56% vs. 5%). Furthermore, the mean incidence of the BDD has significantly been higher in the members of the rhinoplasty group than that of the members of the control group (±20.41 vs. ±11.03). So, the results suggest that it is necessary to preoperatively diagnose the BDD as early as possible in the individuals who are going to undergo rhinoplasty surgery.

Key words: Rhinoplasty surgery · Dysmorphic Disorder (BDD)

INTRODUCTION

Rhinoplasty surgery is one of the most widespread operations throughout the world for which there is an increasing number of applicants [1]. In recent years, the number of applications for rhinoplasty has increased among the Iranian people [2] to the extent that in contrast to many other countries, rhinoplasty surgery is nowadays the most prevalent beauty operation in Iran [3]. The patients who undergo a rhinoplasty surgery are more at risk of the body dysmorphic disorder (BDD) and are more dissatisfied with their appearance in comparison with patients who undergo other types of beauty surgery [4].

Understanding the boundaries between a common desire for the betterment of one’s appearance and the neurosis is very important. Individuals’ excessive dissatisfaction with their appearance may conceal their pathologic psychic states and the ignorance of such states may lead to serious medical consequences [5]. A large number of research works have already shown that there are various psychological factors involved in the individual’s desire for undergoing a beauty operation [See, for example, 6-11]. The most pervasive disorders in patients seeking rhinoplasty surgery include body dysmorphic disorder (BDD) (5-15%), narcissism (25%) and histrionic personality disorder (9.7%) [12].

Ehasani et al., [13] have studied the incidence of BDD in patients dissatisfied with their levels of beauty who have referred to Razi Dermatological Hospital of Tabriz and have reported that the incidence of BDD have been 33.3% among such patients and that 20.7% of them have already gone to a psychiatrist or a psychologist.

BDD entails ruminating with an imaginary physical deficiency or an exaggerated involvement in a slight physical defect leading to a disorder in the individual’s life. The most pervasive concerns relate to facial defects, especially those of particular components of one’s facial
complexion. The symptoms are so painful that a half of individuals suffering from such a disorder declare that they have already thought of suicide and a quarter of them do undergo plastic surgeries [14].

BDD is widely pervasive in individuals seeking plastic surgery and is often accompanied with major clinical disorders including major depression disorder, obsessive compulsive disorder, social phobia, panic disorder and drug abuse [2, 15-20].

Research works have shown that rhinoplastic surgery applicants who do not suffer BDD would experience a considerable post-operation improvement with their body images [21, 22]. Moreover, retrospective studies have shown that rhinoplastic surgeries in individuals suffering BDD have not only led to a dissatisfaction rate of 70% with the results of the operations, but that such an operation may also lead to the increase of complaints, threatening and aggressive behaviour against the surgeons involved [5, 23, 24].

The research work by Picavet et al. [2012] showed that the levels of pre-operation BDD had reversely been connected to post-operation satisfaction in the months 3 and 12. They also reported that the levels of BDD symptoms had positively affected the scale criteria of the SDS and VAS thus indicating that the overall quality of life with individuals suffering from severe appearance-dependant daily disorders had been low.

The motives deriving the individuals towards rhinoplasty mostly originate in the psychological issues. The patients suffering from severe psychological disorders or those who have unrealistic expectations from their rhinoplastic surgery are usually dissatisfied with the results of the operation. Since a preoperation diagnosis of psychological disorders can prevent the probability of postoperation complaints and decrease the distress of both the patient and the surgeon [25]. The present paper aims at comparing the incidence of BDD among individuals who have undergone rhinoplastic surgery and general population.

MATERIALS AND METHODS

The study is a descriptive research of a comparative/cause and effect type. The statistical population of the research consists of all individuals who have referred to Ghaemshahr rhinoplastic surgery clinic (Ghaemshahr is a city located in Mazandaran Province, northern Iran) in the spring 1392 (equivalent to the period March 23, 2013 to June 21, 2013). Through a convenience sampling procedure, samples of 100 subjects from individuals seeking rhinoplastic surgery have been involved in this research. In addition, another group of 100 individuals who have been matched with the first group in terms of age, education, occupation and marital status, have been selected to be used as the control group. All these 200 subjects completed both the demographic questionnaire and the Revised Yale-Brown Obsessive Compulsive Scale. The X^2 and t tests were used for statistical analysis.

Research Instrument

Revised Yale-Brown Obsessive Compulsive Scale: This scale is a self assessment instrument consisting of 12 questions aiming at the measurement of both the diagnosis and severity of the disorder in question. It has a two-factor Ranking structure and includes two additional questions. The factors covered by the scale are obsession and compulsions as well as two additional questions concerning attitude and avoidance. The first three questions of the scale form the DSM-IV diagnosis criterion for the BDD. The break point of the scale for the diagnosis of BDD is to attain at least a score of 20 [26]. Both the validity and the reliability of the scale for Iranian university students have already been verified by Rabi’ie et al., 2008 as cited in Rabi’ie et al., 2012[27]. The alpha coefficient has been ranging from 0.87 for the “obsessions” factor to 0.93 for the “obsession and compulsions” factor. Moreover, such alpha coefficients as Cronbach's Alpha, Split-half Coefficient and Gatman’s Coefficient have been concluded for 0.93, 0.83 and 0.92, respectively. The correlation coefficient between such instruments as Padua Questionnaire and Body Satisfaction Scale and the Revised Yale-Brown Obsessive Compulsive Scale has been 0.58 and 0.23, respectively. As for the factor analysis, the two factors “obsessions” and “obsession and compulsions” have accounted for 66% of the questionnaire variance.

Findings: Descriptive findings of the study in regard with the frequency distribution of the subjects’ occupational status, marital status and educational levels in both groups under investigation have been demonstrated in Table 1. There was no significant difference between two groups regard to characteristics.

Table 2 reflects the ratio of individuals suffering BDD in the group consisting of subjects who have already undergone rhinoplastic surgery as opposed to individuals suffering BDD in the group consisting of subjects who have not yet undergone a rhinoplastic surgery.
Table 1: Frequency Distribution of Demographic Characteristics of the Two Groups under Investigation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Marital Status</th>
<th>Education Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indicator</td>
<td>Under High School</td>
</tr>
<tr>
<td>Rhinoplasty Surgery Applicants</td>
<td>Frequency</td>
<td>53</td>
</tr>
<tr>
<td>Control Group</td>
<td>Frequency</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 2: Number of Individuals Suffering BDD in ‘Rhinoplasty Surgery Applicants’ Group vs. ‘Control Group’

<table>
<thead>
<tr>
<th>Group</th>
<th>Subjects Suffering BDD</th>
<th>Subjects Not Suffering BDD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhinoplasty Surgery Applicants</td>
<td>56</td>
<td>44</td>
<td>100</td>
</tr>
<tr>
<td>Control Group</td>
<td>5</td>
<td>95</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>139</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3: The comparison mean scores in group with and without rhinoplasty surgery applicants

<table>
<thead>
<tr>
<th>Group</th>
<th>Rhinoplasty Surgery Applicants</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>BDD Score</td>
<td>20.41</td>
<td>6.3</td>
</tr>
</tbody>
</table>

As it can be observed in Table 2, in the rhinoplasty surgery applicants Group, 56% of the members have been suffering BDD while in the Control Group, only 5% of the participants have been suffering BDD. The X² value has been 61.35, which indicates that at a significance level of p □ 0.0001, the incidence of BDD in the Rhinoplasty Surgery applicants group is significantly higher than its incidence in the control group.

Results of the comparison between the mean BDD score gained by members of the Rhinoplasty Surgery applicants group and those gained by members of the control group have been reported in Table 3:

Table 3 shows that, the mean BDD score of participants of the rhinoplasty surgery applicants group is significantly higher than that of the control group. (p □ 0.0001).

**DISCUSSION**

Rhinoplasty often results from the individuals’ dissatisfaction with some illusory small defects with their appearance and typically originates in their psychological problems. The research findings indicate that there is a significance difference between the mean BDD scores of the rhinoplasty surgery applicants group and the control group. It means that BDD is more common in the rhinoplasty surgery applicants group. Moreover, according to the research results, the incidence of BDD in the rhinoplasty surgery applicants group is 11 times more than its incidence in the control group (56% vs. 5%).

Such findings have been in line with the findings of research works already done on the topic in question. As an instance, Hsu et al. 2009 [28] had studied the prevalence of body dysmorphic features in patients undergoing cosmetic procedures at the National Skin Centre of Singapore. They had investigated 396 patients and showed that 29.4% of the subjects had been suffering from BDD.

Sarwer and Crerand [29] had also found that while dissatisfaction with one’s body image might motivate the individuals to follow rhinoplasty surgery treatments, such psychological diseases as BDD which are typically characterized by distress with one’s body image, are relatively prevalent among patients seeking rhinoplasty surgery. The central core of such disorders is the “profound fear from one’s lack of attraction” or “the belief in one’s being disgusting” which may derive the individuals to seek beauty surgeries hoping for the treatment of their illusory problems [30].

Primary clinical reports have shown that a large number of BDD patients do not take benefits from rhinoplasty surgery. After the operation, they mostly remain concentrated on the same feature for which they have had operation or, rather, they focus on some other features. Moreover, there is some concern about their probable violence against themselves or against the surgeons involved [31]. Therefore, the physician’s pre-operative abilities in investigating psychological and sociological issues are as important for him and the patient as the techniques to be used during the operation [8].
Such patients more refer to rhinoplastic surgeons and dermatologists than do they refer to psychologists. For that reason, most cases of BDD disorder are diagnosed by rhinoplastic surgeons rather than by psychologists. So, rhinoplastic surgeons are required to be aware of the BDD and the way it is diagnosed. Sahin et al. [25] have proposed that a rhinoplastic surgeon is better to review the following questions preoperatively in order to diagnose the BDD disorder:

- Does the patient have unrealistic expectations from the operation?
- Is the patient going to spend more than he or she can financially afford it?
- Does the patient experience significant social problems in relation to his/her illusory defects? (For example, does he/she experience social isolation?)
- Is the patient dissatisfied with his/her previous surgeries?
- Does the patient have radical concerns about an imaginary dysmorphic defect?
- Is there any body organs or physical appearance components the patient is satisfied with? and
- Do such organs or components compensate for an illusory defect?

On the ground of what was stated above and based upon the findings of the present study, it is finally recommended to preoperatively investigate the psychological status of patients seeking rhinoplastic surgery in order to be able to diagnose cases of psychiatric disorders.

References


