



# **Hypochondriasis in Patients Seeking Revision Rhinoplasty**

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## **Abstract**

**Background:** Revision rhinoplasty is one of the most complicated surgeries. However, there is a lack of information about the psychological status of the non-traumatic revision rhinoplasty candidates.

**Purpose:** The purpose of the present research is to investigate the frequency of hypochondria among these patients.

**Methods:** This cross sectional study was conducted with 57 patients seeking revision rhinoplasty from June 2015 to July 2016 in two university hospitals. There were 57 candidates of revision rhinoplasty and 45 participants in the control group, from which 33 (32.4%) were male and 69 (67.6%) were female. The control group was selected by simple random sampling from patients visiting the otolaryngology clinic who had no previous type of cosmetic surgery. The data were analysed using the software program SPSS, performing a MANOVA test.

**Results:** Among 102 participants in our study, 57 (55.88%) were candidates of revision rhinoplasty with 11 (19.30%) male and 46 (80.70%) female patients. The average age was 25.56±6.52 years old among the patients. Most of the patients (78.94%) were between the age of 19 and 34. There was a significant difference between the group seeking revision rhinoplasty and the control group in the total score of hypochondria, appearance-related mind's preoccupation and fear/worry sub-scale (p<0.0001).

**Conclusion:** Our results indicated a high prevalence of appearance-related mind's preoccupation, fear/worry and hypochondria among revision rhinoplasty candidates. Our data showed that decision on seeking revision rhinoplasty is a personal opinion, which may not be affected by friends and family.

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## INTRODUCTION

Revision rhinoplasty is one of the most complicated surgeries (1). For a patient, becoming satisfied with the outcome of a surgery is very important; that's because nose is in the center of the face and it has a key point on facial appearance (2). Regardless of surgeons' idea about the outcome of the primary operation, number of applicants for secondary rhinoplasty is increasing (3). Some literatures even suggest 15% revision in patients having an expert surgeon (4). Among cosmetic/aesthetic procedures, revision rhinoplasty candidates are more likely to comprehensive psychological evaluation (5). A few reasons, such as veil practicing and social limitations for Islamic

woman (6),low self-esteem, environmental effects (7), easy access to and increasing cosmetic surgery acceptance of such procedures and media commercials having for perfect body/appearance (8) are mentioned as motives for seeking rhinoplasty. Prior studies indicated a high prevalence of psychological disorders among cosmetic surgery candidates. However, a lack of information about psychological the non-traumatic rhinoplasty candidates exists. The purpose of the present research is to investigate the frequency of hypochondriasis among these patients.

#### **PATIENTS and METHODS**

The current study was a cross-sectional study with 57 patients seeking revision rhinoplasty from June 2015 to July 2016 in two university hospitals in Tehran, Iran. Our research was under the approval of institutional ethics review board of Shahid Beheshti University of Medical Sciences. All revision rhinoplasty candidates were asked to participate in this study. The control group was selected simple random sampling from patients visiting the otolaryngology clinic who had no previous type of cosmetic surgery. There were 57 candidates of revision rhinoplasty and 45 participants in the control group, from which 33 (32.4%) were male and 69 (67.6%) were female. All participants took part voluntarily and completed an informed written consent. Data from the patients who requested secondary surgery due to medical pathological problems and/or any type of trauma and who were unlikely to complete Hypochondriac Test (AHT) questionnaire were excluded.

A demographic questionnaire was given to the participant to obtain the data about age, gender, and marital/educational/occupational status. Moreover, AHT was also completed by all the participants. AHT is a questionnaire consisting 45 questions, in two major sub-

categories of appearance-related mind's preoccupation and fear/worry. Different researches utilised this questionnaire among Iranian population and it was approved to be reliable and valid by test-retest agreeability of 0.677 (9).

The data were analysed using the software program SPSS statistics, version 16.0 (SPSS Inc.). To determine the significant difference between average results, we performed a MANOVA test. The significant level was considered less than 0.05.

# **RESULTS**

Of 102 participants in our study, 57 (55.88%) were candidates of revision rhinoplasty with 11 (19.30%) being male and 46 (80.70%) being female. The average age was 25.56±6.52 years old with a minimum of 18 and maximum of 43. Most of the patients (78.94%) were between the age of 19 and 34 (table 1). A control group consisting of 22 men and 23 women were selected from patients visiting otolaryngology clinic with no prior history of cosmetic surgery. Twenty-eight patients (49.12%) were college graduates, followed by high school, elementary and postgraduate. Most of the revision rhinoplasty group were single (n=30, 52.63%) and students (n=33,57.89%).

Table 1. Demographic data of revision rhinoplasty group and control group

	Rhinoplasty group		Control group	
	Numbers	Percentages	Numbers	Percentages
Gender				
Male	11	19.30	22	48. 89
Female	46	80.70	23	51.11
Age				
<19	5	8.77	5	11.11
19-34	45	78.95	24	53.33
>34	7	12.28	16	35.56
Educational status				
Elementary	8	14.04	10	22.22
High school	14	24.56	12	26.67
College graduate	28	49.12	17	37.78
Post-graduate	7	12.28	6	13.33
Occupational				

status				
Students	33	57.90	15	33.33
Employed	16	28.07	22	48.89
Unemployed	8	14.03	8	17.78
Marital status				
Single	30	52.63	11	24.44
Married	25	43.86	33	73.34
Divorced	2	3.51	1	2.22

**Table 2.** comparison between groups based on study variables

Variable	Group	Average	Standard	P-value
			deviation	
Appearance-related	Control	40.82	2.25	< 0.001
mind's preoccupation	Revision rhinoplasty	44.94	3.14	
Fear/worry	Control	11.35	1.00	< 0.001
	Revision rhinoplasty	12.78	1.39	
Hypochondria	Control	52.17	2.52	< 0.001
	Revision rhinoplasty	57.73	2.56	

The revision rhinoplasty group had a higher probability of hypochondria using the AHT in comparison with the control group (table 2). To understand whether we can perform a MANOVA test for statistical significance, we performed a Levene's test, which proved the MANOVA to be applicable. As shown in table 2, there was a significant difference between the two groups in the total score of hypochondriasis, appearance-related mind's fear/worry preoccupation and (p < 0.001)with higher average a hypochondriasis and both of its sub-scales.

# **DISCUSSION**

The purpose of current study was to investigate the rate of hypochondria, appearance-related mind's preoccupation and fear/worry among the revision rhinoplasty candidates. Our patient's demographic status brought us a few comments. In line with other cosmetic studies gender distribution, women designate a higher portion (67.6%) of candidates (3, 10). Also, most of the patients had an age range of 19-34 with an average of 25.56 years, which was similar to the age

reported in other cosmetic studies (7). Having a university degree (49.12%) and/or being unmarried (56.14%) are more prevalent among revision rhinoplasty. This contributes the idea that there may be a marriage motivation for patients seeking revision rhinoplasty.

Historically, there was some concern about environmental effects of friends or family on the decision to undergo cosmetic surgery. To investigate this hypothesis, we performed our test. Recent researchers have shown a high occurrence of hypochondria, body dysmorphic disorders and other psychological disorders among the candidates of cosmetic/aesthetic surgery (5, 11, 12). This result suggests that undergoing a revision rhinoplasty is rather an individual selection than an environmental offer. To the knowledge of authors, this is the first time that such hypothesis is investigated in cosmetic procedures.

According to the general rule that the soft tissues require one year to become mature and that is a desirable time to rehabilitate the probable deformities (13, 14), we encouraged our patients to perform their secondary operation one year after the primary surgery to have enough time to rethink about their

decision to undergo revision rhinoplasty. As other papers demonstrated, the patient's satisfaction is the most important outcome of the cosmetic surgery seekers (2). Although some studies suggest avoiding the cosmetic surgery on patients with personal disorders (4), there is a controversy in secondary procedures. Indeed, these patients should be screened precisely before their first rhinoplasty.

Once a rhinoplasty surgery is performed, it gets harder for the surgeon to select or influence his patient. A thorough assessment by surgeon and/or his colleagues is needed before the first rhinoplasty to reduce non-traumatic/pathological secondary rhinoplasty. Further study on patients' hypochondria, satisfaction and any probable progress in life style after the revision rhinoplasty in a larger sample population is recommended.

#### CONCLUSION

In conclusion, our results indicated a high prevalence of appearance-related mind's preoccupation, fear/worry and hypochondria among revision rhinoplasty candidates. Our data showed that the decision to undergo revision rhinoplasty is a personal opinion, which may not be affected by friends or family. Giving a one-year consultation after the first rhinoplasty is suggested for the patients who are more likely to have mental disorders.

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None declare.

# CONFLICT of INTEREST

The authors declare no conflict of interest.

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