

# Exploration of Cosmetic Factors Contributing to Rhinoplasty among Both Genders in Iraqi Kurdistan

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## ABSTRACT

*The most outstanding feature of face is the nose which is in furthering than any other feature to facial characteristics. Furthermore, the appealing aspects of the nose are an essential olfactory organ. Over and beyond the aesthetic and functional aspects the client's reaction to his/her own nose as well as the reaction of the people around to it impacts to the psychic characteristics. A non-probability purposive sample of this cross-sectional descriptive study consisted of 100 young male and female in Kurdish ethnicity, their ages ranged between 21-25 years. The main objective of the study is conducted to assess the cosmetic factors, contribute to Rhinoplasty among both genders at Raparin District. The data collecting period were during the (December 15th, 2019 to January 5th, 2020). A self-administration questionnaire was used for data collection and it was designed according guidelines, literatures, and articles concerning Rhinoplasty; which consisted of 26 variables. Data were analyzed using SPSS Version 23. The study results revealed that most of participants (67%) were female when only (17%) of them were married, however, more than half (67%) were students. Whenever, they about (56%) were barely sufficient in their monthly income. Moreover, about (61%) of participants interested to surgically alter the appearance of their nose, closely two-third (74%) of participants wanted to surgically change the function of their nose. Therefore, almost (87%) of participant relatives have been operated with Rhinoplasty. Also, the study demonstrated there is a statistically*

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*significant relationship between cosmetic factors contributing to Rhinoplasty with age ( $p=0.035$ ) and occupation ( $p=0.037$ ). When, there were strongly statistically significant association between cosmetic un-functional factors contributing to Rhinoplasty with level of education ( $p=0.003$ ). The study recommended to plastic surgeons evaluate patients carefully before Rhinoplasty surgery to get rid of unnecessary surgeries because there are lots of complications related to Rhinoplasty and the psychological needs of the patients who undergo Rhinoplasty should be considered.*

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## 1. INTRODUCTION

Rhinoplasty is one of the most universally carry out cosmetic surgery procedures for both aesthetic as well as functional purposes according to the statistical analysis of the American Society of Plastic Surgeons [1, 2]. As well as, the nose reshaping is considered one of the most challenging ones among the different cosmetic procedures. This surgery is that a wide proportion seeks this type of cosmetic procedure which has associated with rhinal disease, such as nasal obstruction due to septal deviation or sinusitis and allergic rhinitis [3]. Beside with limits error, accurate techniques for an excellent functional and aesthetic outcome are essential [4, 5].

The determining of successful Rhinoplasty results are leading to patient's satisfaction and improvement in the quality of life [6]. Satisfaction of patient varies based on a number of characters such as gender, age, culture, education level, ethnicity, and particularly, the level of patient's thoughts [7]. When, the Plastic Surgeons' concept of surgical outcome may be different from patients' expectation [8].

While, the nasal deformities pay attention to these features, recognize them as consider a surgical correction, or stigma. Motivation to request a well-looking after changing of the nose often remains doubtful in Rhinoplasty candidates, psychological characteristics may be expected [9]. Beside of cosmetic Rhinoplasty, nasal blockage is a common presenting complaint to the plastic surgeon. It has been estimated that more than one-quarter of those with rhinal obstruction seek surgical treatment for their issues [10].

Contrary to its difficulty, one of the most common cosmetic maneuvers which performed by plastic surgeons is a remains Rhinoplasty. In 2014, aesthetic Rhinoplasty globally has recorded as the 5th most common cosmetic operation procedure with over 850,000 [5]. Rhinoplasty also in the US of America was arranged as the 5th most popular aesthetic surgery, with close to 145,000 Rhinoplasty achieved in 2014, an increment of 6.5% as 1997 [4]. In latter few decades, self- watching, media awareness, and improvement in surgical operations have increased in Asia which lead to raising Rhinoplasty significantly. As well as, this attitude has been noticed among both male and female gender frequently among young age group [11].

Pursuant to the Association of American Plastic Surgeons, 3.8 million cosmetic surgeries were performed from 2003 to 2012, which compared to 1997, 299% increased [12]. In Middle East countries such as Saudi Arabia, Rhinoplasty recently representing 30% of all aesthetic procedures [13]. As well as, the neighboring countries such as Iran is a top ranked globally in the world regard to the number of cosmetic surgeries; therefore, among cosmetic surgeries tendency to Rhinoplasty also in Iran is more than other countries [14, 15].

However, no study was conducted in Iraqi Kurdistan to determine the incidence and/or prevalence to primary and/or secondary Rhinoplasty. The evaluation and assessment of the epidemiology of Rhinoplasty could be useful as a guideline to prevent or treat such damages and complications as well as the outcomes.

The aims of the previous literatures are to recognize major psychic disorders as well as evaluation of Rhinoplasty outcome. Furthermore, the principal purpose of the present study is to conduct exploration of the cosmetic factors which are contributed to Rhinoplasty among both genders in Iraqi Kurdistan Region.

## **2. METHODS AND MATERIALS**

### ***Study design and setting***

A quantitative design, cross-sectional - descriptive study which is conducted on young males and females in Raparin district in Sulaimani province, Kurdistan Region of Iraq that has been implemented to demonstrate the cosmetic factors which contribute to Rhinoplasty during the November 15th, 2019 to January 5th, 2020.

### ***Sample of the study***

Non-probability (purposive sample) technique was applied to collect data from (33) males and (67) females who accepted to participate in this study. Both gender who are available at the time of data collection was included. Original questionnaire was developed after comprehensive literature review and articles later translated to Kurdish language by a native speaker. A last questionnaire version was agreed on, it was validated in a pilot that tested the clarity and relevance of the statements by ten experts.

### ***Data sources/ measurement***

In addition to that, the socio-demographic characteristics, the self-administered questionnaire was designed according guidelines, literatures, and articles concerning Rhinoplasty, which eleven questions were asked to assess cosmetic factors as well as ten questions focused on cosmetic un-functional factors towards Rhinoplasty. The questionnaire was consisted of 5 point Likert scale, with the options of (1 = not at all, 2 = somewhat, 3 = moderately, 4 = very much, or 5 = completely) for first part when for second part was (1 = not a problem, 2 = fairly problem, 3 = moderate problem, 4 = very problem, or 5 = severe problem). The first fifteen forms were completed for the pilot study was conducted with Cronbach alpha ( $r = 0.81$ ).

### ***Data collection and Analysis***

Self-administered questionnaire was used to collect the data from the people with Rhinoplasty. The participants were responded the prepared questionnaires by themselves. The (100) questionnaires were filled in some different private clinics at both cities Ranya and Qaladiza.

For the statistical data analysis, the mean, standard deviation, and interquartile range were calculated. Kolmogorov-Smirnov test and Q - Q plot used for checking normal distribution of data with an estimated 95% confidence interval. A t-test, Mann - Whiney test, chi - square test, and ANOVA test used to compare between the subgroups based on test for the normal distribution of data which was categorized into two categories: aesthetic factors and cosmetic un-functional factors. The questionnaire was labeled and coded by the researchers; data was reviewed for accuracy and completeness and analyzed using SPSS 23 (IBM Corp. Released 2013).

### ***Ethics considerations***

This paper is the outcome of the Bachelor Science research project approved by the Ethics Committee of the University of Raparin / College of Nursing. Before collecting data, verbally consent was obtained from each participant. The respondents were informed about the purpose

of the study and that participating in this study was voluntary. Furthermore, the participants were told that their answers were kept confidential and only used for research purposes.

### 3. RESULTS

The result showed study finding.

A hundred young individuals in both genders engaged this study. Participant's mean age (+ SD) was 23.90 + 5.01 years old, ranging from 16 to 41. Table (1) Showed that highest age of the patients was between (21 – 25 years) (39%), about (67%) of them were Female, when only (17%) of participants were married. However, more than half (68%) were student. Whenever, about (56%) were barely sufficient in their monthly income.

**Table 1:** Socio- demographic descriptive (n = 100)

Variables	Categories	No.	(%)
Age (Years)	≤ 20	28	28.0
	21 – 25	39	39.0
	≥ 26	33	33.0
Gender	Male	33	33.0
	Female	67	67.0
Marital Status	Single	82	82.0
	Married	17	17.0
	Divorced	1	1.0
Level of Educational	Primary school	6	6.0
	Secondary school	9	9.0
	High school	16	14.0
	Institution	23	23.0
	College	41	41.0
Occupation	Employed	12	12.0
	Unemployed	20	20.0
	Student	68	68.0
Monthly Income	Sufficient	23	23.0
	Barely sufficient	56	56.0
	Insufficient	21	21.0

**Table 2:** General questions regarding Rhinoplasty

Variables	Categories	No.	(%)
Would you like to surgically alter the appearance of your nose?	Definitely	61	61.0
	Possible	27	27.0
	Probably not	4	4.0
	No	8	8.0
Would you like to surgically change the function of your nose?	Definitely	74	74.0
	Possible	16	16.0

	Probably not	5	5.0
	No	5	5.0
<b>Any of your relatives have been operated with Rhinoplasty?</b>	No	13	13.0
	Yes	87	87.0

Table (2) revealed that about (61%) of the participants interested to surgically alter the appearance of their nose. However, almost two third (74%) of participants wanted to surgically change the function of their nose. Moreover, majority participant's relatives (87%) have been operated with Rhinoplasty.

**Table 3:** Participant's response rating regarding each Items of aesthetic factors

Items	Not at all Freq = %	Somewhat Freq = %	Moderately Freq = %	Very much Freq = %	Completely Freq = %
How well do you like the appearance of your nose?	12	13	21	28	26
How well do you accurately breathe through your nose?	4	11	31	27	27
Do you feel how well people around and your loved ones like your nose?	8	14	21	41	16
How much do you feel your current nasal shape limits your social and/or occupational activities?	41	18	14	20	7
How confident are you standed up if your nasal shaping changed to be you want it?	13	14	19	32	22
Do you feel that cosmetic surgeries/procedures would have/have had a positive effect on your feelings?	31	13	12	26	18
Are there any celebrities whose image has influenced you to consider cosmetic surgery?	77	13	1	5	4

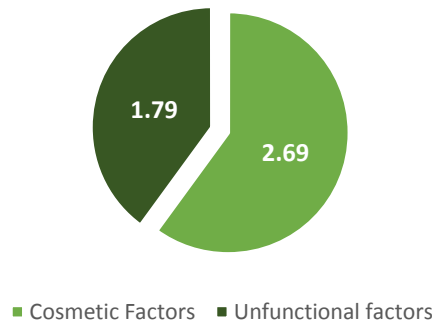
Table (3) showed that the participant's response rating regarding each Items of Cosmetic factors contributing to Rhinoplasty from "not at all to completely".

**Table 4:** Response's rating regarding each Items of cosmetic un-functional factors

Items	Not a problem Freq = %	Fairly problem Freq = %	Moderate problem Freq = %	Very problem Freq = %	Severe problem Freq = %
Nasal congestion or stuffiness	46	34	10	7	3
Nasal blockage or obstruction	39	25	15	16	5
Trouble breathing through your nose	46	22	12	15	5
Trouble sleeping	60	14	18	6	2
Are you snore while you sleep?	70	16	5	5	4
Your snoring after Rhinoplasty	67	21	6	4	2

<b>Headache</b>	51	23	11	9	6
<b>Bleeding</b>	80	16	3	1	0
<b>Sneezing</b>	38	32	13	12	5
<b>Facial Pain</b>	69	15	9	5	2

Table (4) illustrated that the participant's response rating regarding each Items of Un-functional factor contributing to Rhinoplasty from "Not a problem to severe problem."



**Figure 1.** Compared mean between cosmetic factors and un- functional factors

Figure 1 Showed that mean (SD) of aesthetic Rhinoplasty factor was higher than un- functional cosmetic nasal surgery (2.69 (0.53), 1.79 (0.63), respectively).

**Table 5:** Association between some socio-demographic data and Cosmetic factors contributing to Rhinoplasty.

Variables	N	Cosmetic Factors			Cosmetic un-functional Factors		
		Mean (SD)	f/t-test	P-Value	Mean (SD)	f/t-test	P-Value
<b>Gender</b>							
Male	33	2.66 (.57)	-.37	.716	1.76 (.67)	-.376	.707
Female	67	2.7 (.51)			1.81 (.61)		
<b>Age groups</b>							
≤ 20	28	2.62 (.53)	3.49	.035	1.87 (.65)	.40	.668
21 – 25	39	2.58 (.52)			1.73 (.62)		
≥ 26	33	2.88 (.5)			1.81 (.64)		
<b>Marital Status</b>							
Single	83	2.69 (.51)	.15	.880	1.83 (.62)	1.19	.236
Married	17	2.67 (.62)			1.63 (.67)		
<b>Level of education</b>							
School graduated	29	2.71 (.53)	.06	.938	1.76 (.6)	6.02	.003
Institute students	26	2.66 (.57)			1.49 (.45)		
College students	45	2.7 (.52)			2.00 (.67)		
<b>Occupation</b>							
Employed	12	2.83 (.51)	3.40	.037	1.48 (.35)	2.67	.074
Unemployed	20	2.91 (.56)			1.67 (.66)		
Students	68	2.6 (.51)			1.89 (.64)		
<b>Monthly Income</b>							

<b>Sufficient</b>	23	2.81 (.43)	1.52	.224	1.9 (.58)	.38	.682
<b>Barely sufficient</b>	56	2.7 (.55)			1.77 (.67)		
<b>Insufficient</b>	21	2.54 (.57)			1.76 (.58)		

In term of association between different variables of some socio-demographic data and mean score of cosmetic factors and cosmetic un-functional factors were shown in (Table 5). The observed finding demonstrated that there were significant relationship between Age groups ( $p = 0.035$ ), Occupation ( $p = 0.037$ ), and cosmetic factors. When, cosmetic un-functional factors was strongly statistically significant with level of education ( $p= 0.003$ ). However, the finding indicated that there were no relation between other variables in socio-demographic profile.

#### 4. DISCUSSION

The most outstanding feature of face is the nose which is in furthering than any other feature to facial characteristics as well as which affects our personality development and body image. Iraqi Kurdistan is a part of developing country and mostly citizens are living in the urban areas. The current study was conducted to explore the cosmetic factors contribute to Rhinoplasty among both genders at Iraqi Kurdistan. Globally, Rhinoplasty one of the most common cosmetic surgery around the world, the current finding also showed that Rhinoplasty is a more popular in Iraqi Kurdistan when majority of participants (87%) had at least one relative who was underwent Rhinoplasty.

Regarding the socio demographic profile the study finding illustrated that the participants were belong to the young people, ranging from 14 – 41. There is a similar with the annual statistical report of American Society of Plastic Surgeon. Which showed that decreased number of Rhinoplasty with getting more elder [1]. Overall, previous studies were conducted in the age range comparable to the current findings.

As it is known, most aesthetic Rhinoplasty participants of the study were female this is ongoing with Zanyar and his colleague's study which demonstrated that majority of Rhinoplasty candidates are females as they are more concerned about their facial appearance [16]. Regarding educational level, study disclosed that mostly had a bachelor's which is also similar with an epidemiological study conducted to Kazemy and his colleagues [14]. These both mentioned results above are together also in line with few studies [14, 17, 18].

As well as, the finding revealed that there was a strongly statistical significant relationship between the level of education and Rhinoplasty based on the Chi-square test ( $P<0.05$ ). Which is almost identical with Kazemy's result [14]. It is on contrary with study conducted to Alsubeeh and her colleagues [13]. Over and above that the study conducted to Loghmani and her colleagues demonstrated that more than half of the high school girls in Kerman, Iran were interested to undergo rhinoplasty. Which is alike to current study outcome [15].

Khanjani et al and Kazemy and his colleagues in two deferent studies disclosed that most aesthetic nose surgery candidates who underwent Rhinoplasty were students which is exactly in line with current study results [14].

The study finding showed that the primary goal of Rhinoplasty is to gain a better form of the nose rather than make its function better. While other studies show that the essential aims of Rhinoplasty are to improve the functional and appearance of the nose for the long life [9]. The current study finding also found that majority of participants liked to surgically make change the form of their nose because it makes them to socially be acceptable. Which is consistent to study conducted to Mansour Salehi and his colleagues showed that improvement in their participant's appearance had a positive effect on surrounding populations [19].

Moreover, the current finding revealed that more than half of participants felt great and more confident when the shape of their nose to be the same as they want. Which is in line with few studies[9, 19]. Therefore, the limitation of our study was short time period due to final term exam when this study was part of bachelor project.

## 5. CONCLUSION

The current study disclosed that highest number of patients undergo Rhinoplasty were females. As well as, almost all participants were young when younger people more practice this surgery to end up with their desired appearance that they demand. The participants liked to surgically alter the appearance of their nose because improvement in their participant's appearance had a positive effect on surrounding populations which makes them to socially be acceptable. However, arguably another common reason for contributing to Rhinoplasty is to improve better nasal functional problems. Overall, study finding showed that most of participant's relatives have been operated with Rhinoplasty. Which means nowadays, nose reshaping is much popular to modern community.

## 6. RECOMMENDATION

Researchers of the current study recommend that the evaluating patients carefully before Rhinoplasty surgery to get rid of unnecessary surgery because there are a wide range of complications related to Rhinoplasty. As well as, the psychological needs of those patients who undergo Rhinoplasty should be considered.

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