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An investigation of self-esteem perceived by university students undergone Rhinoplasty surgery in Sulaimani city

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Abstract

Background and objective: This study investigates self-esteem among university students who underwent rhinoplasty surgery to assess its impact on their perceived self-worth and explore associations with personal and demographic factors.

Methods: A qualitative descriptive cross-sectional design was employed. A purposive sample of 100 undergraduate students from the old campus of the University of Sulaimani participated. Data was collected using a self-reported questionnaire consisting of sociodemographic questions and the Rosenberg Self-Esteem Scale (RSES). Data analysis was performed using SPSS version 23, applying descriptive and inferential statistics.

Results: The findings indicated that 83% of participants had normal self-esteem, 13% reported high self-esteem, and 4% experienced low self-esteem. No significant associations were found between self-esteem and demographic factors such as gender, age, marital status, or economic status (P >0.05). However, the participants' academic year showed a statistically significant relationship with self-esteem (P = 0.034).

Conclusion: Rhinoplasty may improve self-esteem for some individuals, but its influence varies across demographic profiles. These results underscore the importance of psychological assessments before and after cosmetic surgeries and highlight the need for interventions to foster positive body image beyond physical alterations.

Keywords: Rhinoplasty; Self-esteem; University students; Rosenberg Self-Esteem Scale; Cross-sectional study; Sulaimani City; Body image; Cosmetic surgery.

Introduction

The term self-esteem comes from a Greek word meaning "reverence for self"; the self pertains to humans' values, beliefs, and attitudes about themselves.(1) Self-esteem means the evaluation one makes toward the self, about self-worth, self-respect, and self-acceptance, as well as the extent to which one holds positive or negative views about oneself.(2,3) The psychologist Adler understood self-esteem in terms of deriving superiority that motivated people to reach higher levels of social status. Rosenberg also viewed self-esteem as a favorable or unfavorable attitude people have about themselves due to the influence of culture and society.(4)

The scar model of the evolutionary approach conceived that low self-esteem derives from negative emotions resulting in the formation of more negative self-esteem evaluations and possible depression.(5,6) In addition, it is well documented that a negative body image is associated with a range of adverse health outcomes, including low self-esteem and depressed mood.(7,8) Body image value describes the extent to which one is satisfied with one's physical appearance.(9) According to the model, those whose self-esteem highly depends on their appearance and those with significant body dissatisfaction levels will consider cosmetic surgery.(10,11)

In addition, cosmetic rhinoplasty is one of

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the most common facial plastic surgeries.[12] Furthermore, rhinoplasty can profoundly affect an individual's self-esteem.[13] The face is a crucial anatomical structure that determines identity perception, and each facial component is significant for facial harmony; the nose, due to its central position, greatly impacts an individual's appearance. Physical appearance plays a major role in social interactions.[14,15]

Facial beauty is considered an important component of human attractiveness, and attractive faces activate reward centers in the brain, resulting in self-fulfilling validation.[16]

Research on self-esteem has expanded and highlighted its significance in understanding human behaviour and mental health.[17] The current study aimed to investigate the perceived self-esteem levels among students at Sulaimani University who have undergone rhinoplasty surgeries and to explore the association with personal factors.

Methods

Study design and setting:

The present study was a qualitative descriptive cross-sectional design at the University of Sulaimani. This old campus comprises the College of Medicine, Nursing, Dentistry, Pharmacy, and Islamic Science in Sulamani City, Kurdistan region, Iraq.

Ethical Consideration:

The study received approval from the Scientific Committee of the College of Nursing, University of Sulaimani. An official letter from the College of Nursing was submitted to all colleges in the University of Sulaimani's old campus to ensure cooperation and facilitate data collection. Verbal consent was obtained from all participants, and the study's aim and objectives were clearly explained. Participants were informed of their right to withdraw at any time, and their information was kept confidential.

The Sample: A non-probability purposive sampling method was employed to select the study sample. The sample size was determined to be 100 with a confidence interval of 95%, as a previous study reported that rhinoplasty prevalence was 10% among university students.[15] The sample was selected from October 2023 to December 2023.

The criteria for the sample selection were undergraduate college students at the University of Sulaimani, an old campus of both sexes who had previously undergone rhinoplasty surgery. The students with a previous history of plastic surgery were excluded from the study.

The study Instrument:

The required data were collected using a self-reported questionnaire developed by the researcher of this study and translated into the Kurdish language through a forward-backward procedure. The questionnaire consisted of two parts. The first part included sociodemographic data of the students, which comprised age, gender, marital status, residential area, economic status, and course of years. The second part was the Rosenberg self-esteem scale (RSES).[18]

The RSES measures self-esteem level, consisting of ten items each with a 4-point Likert-type scale, ranging from strongly agree = 3, disagree =1, and strongly disagree = 0. The other five items (No.3,5,8,9 and 10) are rated in reversed framed direction as strongly agree = 0, agree = 1, disagree = 2, and strongly disagree = 3. This scale is one widely used measure of self-esteem in nursing studies.[4]

The scoring interpretation of the scale is that the minimum total scale is zero and the maximum is 30, with scores indicating higher self-esteem. The scoring information is < 15 low self-esteem, 15-24 normal average, and ≥ 25 high self-esteem.

A panel of seven experts evaluated the validity of the Kurdish version of the questionnaire, confirming its clarity and adequacy for the meaning of the study

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variable. In addition, a Cronbach alpha of 0.92 showed that the scale was reliable.

Data collection:

The hard copy of the questionnaire was given to the participant and then returned to the researcher, who ensured that all answers were completed to reduce the amount of missing data. The questionnaire took 15 to 20 minutes to answer all items.

Statistical Analysis:

The Statistical Analysis Package for Social Science (SPSS) version 23 software was used to analyze the data collected from the participants. The description statistics included frequency and percentage, and the inferential statistics used Cronbach alpha to measure the reliability of the questionnaire, and the chi-square to find an association between self-esteem level the sociodemographic factors. The *P*-value of 0.05 was used as the cut-off point for statistical significance.

Limitation of the study: This study's data was limited to five colleges at the University of Sulaimani's old campus. Due to the difficulty of reaching participants, the self-esteem level before rhinoplasty surgery was not measured.

Results

Table 1 shows the participant's sociodemographic data. The majority (69%) are between the 17-21 age group and female (71%) and unmarried 94% regarding residential areas 72% of them from urban only 4% from rural areas. The total reveals that 66% of participants had sufficient economic status.[20] Regarding course years the results indicate that a high percentage 30% was related to the participants in the 4th course, followed by 26% in the second year, and the last percentage 5% was related to the 6th year.

Table 1 Demographic characteristics of the study sample

Characteristics of participants	Frequency	Percentage
Age		
18-22	69	69%
23-27	31	31%
Gender		
Male	29	29%
Female	71	71%
Marital status		
Single	94	94%
Married	6	6%
Residential area		
Urban	72	72%
Suburban	24	24%
Rural	4	4%
Economic status		
Sufficient	66	66%
Barely sufficient	34	34%
Insufficient	0	0%
Course of year		
1st years	6	6%
2nd year	26	26%
3rd year	21	21%
4th year	30	30%
5th year	12	12%
6th year	5	5%
Total	100	100%

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Table 2 shows that item 3 has the highest participation for the response "Strongly agree," representing 53%, while items 2 and 5 have the least participation, each representing 4% for the response "Strongly agree." Regarding the response "Agree," question 1 has the highest participation at 62%, and the least participation is in item 9, representing 7%. For the response "Disagree," the highest participation is in question 4, representing 51%, while the least participation is 2% in questions 3 and 7. Additionally, the table indicates that for the response "Strongly disagree," question 9 has the highest participation at 45%, whereas question 3 has the least participation, representing 0%.

Table 2 Distribution of the sample according to Rosenberg's self-esteem scale

No.	Items	Frequency (%)			
		Strongly agree No. (%)	Agree No. (%)	Disagree No. (%)	Strongly disagree No. (%)
1.	Overall, I'm satisfied with myself.	33 (33)	62 (62)	4 (4)	1 (1)
2.	A times I think I am not good at all.	4 (4)	33 (33)	37 (37)	26 (26)
3.	I feel that I have several good qualities	53 (53)	45 (45)	2 (2)	0 (0)
4.	I can do things as well as the other people	33 (33)	12 (12)	51 (51)	4 (4)
5.	I feel I do not have much to be proud of.	4 (4)	17 (17)	41 (41)	38 (38)
6.	I certainly feel useless at times.	5 (5)	15 (15)	41 (41)	39 (39)
7.	I feel that if I am at least on an equal plane with others.	36 (36)	58 (58)	2 (2)	4 (4)
8.	I wish I could have more respect myself for myself.	22 (22)	33 (33)	25 (25)	20 (20)
9.	All in all, I am inclined to feel that I am a failure.	5 (5)	7 (7)	43 (43)	45 (45)
10.	I take an appositive attitude toward myself.	42 (42)	46 (46)	7 (7)	5 (5)

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Table 3 shows the perceived self-esteem levels as evaluated by the studied students who had undergone rhinoplasty. The table indicates that 83 (83%) of the students had an average of normal self-esteem, followed by 13 (13.0%) who had high self-esteem, and only 4 (4%) students had low self-esteem levels.

Table 4 demonstrates the relationship between the socio-demographic data of the sample and their levels of self-esteem. Regarding the age group in the study, the majority of participants aged 18-21 years have normal self-esteem, representing 57%, while 10% have high self-esteem, and only 2% have low self-esteem. For those aged 23-27 years, 26% have normal self-esteem, 3% have high self-esteem, and 2% have low self-esteem.

According to the gender identity of the participants, 60% of females have normal self-esteem 9% have high self-esteem and only 2% have low self-esteem furthermore the table shows that 23% of males have normal self-esteem, 4% have high self-esteem, and 2% have low self-esteem levels. Concerning current residential areas, urban participants have the highest percentage of normal self-esteem (60%), whereas rural participants have the lowest (3%). High self-esteem is also highest among urban participants (9%), and no rural participants reported high self-esteem. Low self-esteem is most common among urban participants (3%), with no suburban participants reporting low self-esteem.

In addition, economic status shows that 27% of participants with sufficient economic status have normal self-esteem, 6% have high self-esteem, and 1% have low self-esteem. For those with barely sufficient economic status, 56% have normal self-esteem, 7% have high self-esteem, and 3% have low self-esteem. Table 4 also indicates a statistically significant relationship between students' course year and their level of self-esteem (P = 0.034), but no statistical relationship was found between other socio-demographic characteristics and their level of self-esteem (P >0.05).

Table 3 Distribution of the levels of self-esteem of the sample with 3 scales by frequency AND percentage

Self-esteem scale	Frequency	Percentage
low self-esteem <15	4	4%
normal self-esteem 15-25	83	83%
high self-esteem >25	13	13%
Total	100	100%

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Table 4 The relationship between the socio-demographic data and the self-esteem levels of the studied sample

Variables	Low self-esteem <15		Normal self-esteem 15-25		High self-esteem >25		Total	Chi-square	*P* Value
	F	%	F	%	F	%			
Age									
18-22	2	2	57	57	10	10	69	1.06	0.588
23-27	2	2	26	26	3	3	31		
Total	4	4	83	83	13	13	100		
Gender									
Male	2	2	23	23	4	4	29	0.943[a]	0.624
Female	2	2	60	60	9	9	71		
Total	4	4	83	83	13	13	100		
Marital status									
Single	4	4	77	77	13	13	94	1.307[a]	0.520
Married	0	0	6	6	0	0	6		
Total	4	4	83	83	13	13	100		
Course year									
First course	0	0	6	6	0	0	6	11.314[a]	0.034
Second course	3	3	20	20	3	3	26		
Third course	0	0	17	17	4	4	21		
Fourth course	1	1	23	23	6	6	30		
Fifth-course	0	0	12	12	0	0	12		
Six course	0	0	5	5	0	0	5		
Total	4	4	83	83	13	13	100		
Residency									
Urban	3	3			9	9	72	6.189[a]	4
Suburban	0	0	20	20	4	4	24		
Rural	1	1	3	3	0	0	4		
Total	4	4	83	83	13	13	100		
Economic status									
Sufficient	1	1	27	27	6	6	34	1.080[a]	2
Barely sufficient	3	3	56	56	7	7	66		
Insufficient	0	0	0	0	0	0	0		
Total	4	4	83	83	13	13	100		

a: denotes that the Chi-square test included adjusted calculations due to small sample sizes or combined categories to meet test assumptions.

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Discussion

The findings of this study reveal that the majority of participants (83%) had normal self-esteem after undergoing rhinoplasty, with 13% reporting high self-esteem and 4% experiencing low self-esteem. These results support the notion that rhinoplasty may positively influence self-esteem in specific contexts. The significant association between self-esteem and the academic year (P = 0.034) suggests that academic progression may have an impact on students' self-perception. However, no significant associations were found between self-esteem and other demographic variables, such as gender, marital status, or economic status (P >0.05).

When comparing these findings to previous studies, a mixed picture emerges. Studies by Obeid et al.[12] and[10] reported marginally higher self-esteem levels in rhinoplasty patients, aligning with the current study's results. These studies highlight the psychological benefits of cosmetic surgery in improving body image and self-esteem. Similarly, research conducted in Iran[17] and Thailand[8] found significant improvements in self-esteem and body image among university students post-rhinoplasty, particularly in the later academic years. These findings reinforce the hypothesis that academic and social development during the university years may amplify the perceived benefits of cosmetic surgery.

In contrast, other studies present differing outcomes.[19] and[20] argued that cosmetic surgery has limited or no significant effect on self-esteem, with some individuals even reporting dissatisfaction post-surgery. Such discrepancies could be attributed to cultural and psychological differences among study populations. In Western contexts, where individuality and acceptance of diverse appearances are emphasized, the psychological benefits of rhinoplasty might not be as pronounced as in collectivist cultures like Kurdistan, where physical appearance often plays a more central role in societal interactions.[6]

Psychological factors may also explain these discrepancies. Participants in the current study did not report pre-operative self-esteem levels, making it challenging to assess whether the surgery directly influenced their self-esteem or whether pre-existing psychological factors played a role. Anxiety, depression, or unrealistic expectations of surgical outcomes might moderate the impact of rhinoplasty on self-esteem, as suggested by.[19]

The association between academic year and self-esteem is a particularly intriguing finding. Fourth-year students exhibited the highest levels of self-esteem improvement post-rhinoplasty. This result may reflect their greater exposure to social pressures or their advanced developmental stage, where self-concept becomes more stable and is influenced by external validation. Studies by[17] and[18] also noted this pattern, emphasizing the importance of considering life stage and academic context in understanding the psychological outcomes of cosmetic surgery.

The findings highlight the limited role of other demographic factors in predicting self-esteem levels post-rhinoplasty. Gender, marital status, and economic status did not exhibit significant associations, diverging from studies like those by,[8] which suggested that financial strain could impact satisfaction with cosmetic surgery outcomes. These differences could be due to the unique cultural and economic context of the current study's population.

Interpretations and Implications

This study underscores the multifaceted nature of self-esteem and its determinants. While rhinoplasty may provide a confidence boost for some individuals, its effects are not universal and are mediated by factors such as academic year and cultural context. The findings suggest that psychological and social interventions should accompany cosmetic procedures to address underlying issues of self-worth and body image.

Future studies should adopt a longitudinal

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design to track changes in self-esteem before and after surgery and explore the moderating role of psychological factors. Additionally, promoting body positivity and offering counselling services to students considering cosmetic surgery could enhance their overall well-being and ensure more realistic expectations of surgical outcomes.

Conclusion

The results of this study showed that the level of self-esteem in college students who underwent rhinoplasty was satisfied and took a positive attitude towards their level, the self-esteem of students in the fourth academic year significantly benefited from the rhinoplasty surgery.

Competing interests

The authors declare that they have no competing interests.

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