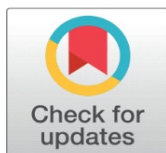


FACTORS AFFECTING COSMETIC SURGERY AMONG YOUNG ADULTS IN MUMBAI

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ABSTRACT

This study investigates the factors influencing the decision-making process of young adults in Mumbai regarding cosmetic surgery. By combining quantitative surveys and qualitative analyses, the research explores the impact of mental health, self-image consciousness, family support, social acceptance, and other variables on individuals' choices to undergo cosmetic procedures. The findings highlight the intricate interplay of psychological, social, and cultural factors driving the rising popularity of cosmetic surgeries among young adults in Mumbai. The study emphasizes the importance of a holistic approach to comprehend these influences and suggests the development of targeted interventions to foster positive self-image and overall well-being in this demographic.

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1. INTRODUCTION

India is witnessing a significant up-trend in cosmetic procedures due to growing public awareness, accessibility, and technology. The global cosmetic surgery market is currently worth \$55.65 Bn (INR 6 lac crore), growing at a CAGR of 12%. With rising disposable incomes, more Indians are now seeking cosmetic procedures for longer-lasting visual appeal. Today, about 8-10 lac cosmetic procedures happen in India every year, making India the 6th most preferred medical tourism destination for cosmetic procedures globally. India offers affordable

cosmetic procedures with costs up to 30-50% lower than those in developed countries.

The field of cosmetic surgery has seen a massive transformation in recent years. There has been much research to study why people undergo these elective cosmetic surgeries. As these procedures have grown rapidly in popularity and acceptance, understanding the motivations and psychological profiles of patients has become important to understand.

Traditionally, it is assumed that people who have undergone cosmetic surgeries display a strong psychopathological profile, but, [Ferraro et al. \(2005\)](#) challenged this assumption, showing how people who undergo these surgeries do not display such profiles.

However, a paradox is created because [Sarwer et al. \(1998\)](#), in his study, proved that there existed Body Dysmorphic Disorder (BDD) among patients. These two studies are conflicting in nature and hence create a need to further study the variable of self-image using tools like the MBSRQ-AS Questionnaire. The study of this variable shall aid us in achieving a comprehensive comprehension of the psychological underpinnings of those seeking cosmetic interventions.

Moving on, [Pentina et al. \(2009\)](#) confirms the motivating role of self-concept discrepancy in young women seeking cosmetic procedures. The findings of this study show that family-based social support reduces the effect of perceived self-discrepancy on the choice of cosmetic surgeries, whereas social support from friends amplifies the effect. This study only sheds light on women going through the procedure and not men. Hence, further study is required to get the bigger picture of the social support variable.

With a market size of 6 lac crores for cosmetic surgery, the cosmetic surgery numbers are going up day by day. However, with the increase in these numbers, social acceptance of cosmetic surgery in the Indian cultural context remains complex. [Alghamdi et al. \(2023\)](#) throw some light on the impact and acceptance of cosmetic surgery. Their cross-sectional study of 3007 women found a 10% prevalence of cosmetic procedures, with higher rates among older, married, and more educated/affluent participants. Despite the surprisingly high prevalence, they observed below-average acceptance levels on the validated Acceptance of Cosmetic Surgery Scale. Their study provides key insights into the evolving cultural views of cosmetic surgery in Saudi Arabia. This would serve as a basis for our research and analysis of global perspectives on social acceptance of cosmetic surgery, relevance to Mumbai, gaps in current research, and how the present study will address these gaps.

Building on these studies with inconsistent findings regarding the mental health of cosmetic surgery seekers, our research aims to conclusively assess the influence of mental health and self-image drivers behind patients opting for these optional procedures. [Babadi et al. \(2018\)](#) tried to figure out which factors affected the patient's decision to go ahead with the cosmetic surgery through a descriptive study. One of the biggest drawbacks of the research paper was that all the data was qualitative and the research was not backed by numerical data. Hence, this paper will attempt to give quantitative data on the same variable.

[Zadehmohammad & Maleki \(2015\)](#) used Rogers' self-concept. This is "the organized, consistent set of perceptions and beliefs about oneself." Carl Rogers' self-concept is a central theme in his humanistic theory of psychology. It encompasses an individual's self-image (how they see themselves), self-esteem (how much value they place on themselves), and ideal self (the person they aspire to be). [Zadehmohammad & Maleki \(2015\)](#) uses this concept to understand how people's

mental health affects their decisions regarding cosmetic surgery. A questionnaire of 25 questions was circulated and filled by patients to understand their responses. By doing this they got answers directly from the source (patients) hence their data is more accurate.

A concern regarding this paper is the variability in how it was perceived. The output generated different conclusions for various individuals, leading to a lack of uniformity. To correct this, it is imperative to establish a standardized scale for measuring the impact of mental health.

2. RESEARCH METHODOLOGY

The relevant information regarding the factors affecting patients' decisions to undergo cosmetic surgery was gathered through the employment of a multimodal methodological approach. A Google Form-based survey was developed, incorporating well-established psychometric scales such as the HADS and MBSRQ, to collect quantitative data. This quantitative data was then subjected to statistical analysis, with chi-square tests being performed to determine the extent to which the examined variables, including mental health, family support, social acceptance, and self-image, influenced the primary topic of interest - patients' decisions to undergo cosmetic surgery. Furthermore, qualitative techniques, including in-depth interviews, focus group discussions, and projective methods, were utilized to obtain more nuanced insights into the complex psychological, social, and interpersonal dynamics underlying participants' decision-making processes.

3. SAMPLE DISTRIBUTION

Demographic Analysis		
Total Respondents, n=90		
Gender		
Male	36	40.00%
Female	54	60.00%
Age Group		
Under 18	2	2.22%
18-22	73	81.11%
23-27	14	15.56%
28-32	1	1.11%
Considering Cosmetic Surgery		
No	38	42.22%
May be	28	31.11%
Yes	24	26.67%

The sample consists of 90 respondents. The gender distribution shows that 60% of the respondents are female (54 individuals) and 40% are male (36 individuals). The age group breakdown indicates that the majority of the respondents (81.11%) are in the 18-22 age range, followed by the 23-27 age group (15.56%), and a small percentage of under 18 (2.22%) and 28-32 (1.11%) age groups. Regarding the consideration of cosmetic surgery, 42.22% of the respondents have no plans, 31.11% are undecided or may consider it, and 26.67% are planning to undergo cosmetic surgery.

4. HYPOTHESIS TESTING

To determine whether the association between two qualitative variables is statistically significant, researchers must conduct a test of significance called the Chi-Square Test. We've done so with various categories of our variables.

Chi-square (χ^2) testing is a widely used statistical method in research to determine the statistical significance of the relationship between two or more categorical variables. It is a statistical hypothesis test that is used to determine if there is a significant difference between the observed (actual) values and the expected (theoretical) values.

One of the primary applications of chi-square testing in our cosmetic surgery research is the assessment of goodness of fit. We used this test to evaluate whether the observed data fits a hypothesized or expected distribution. This is particularly useful when investigating the factors that are responsible for people undergoing cosmetic surgery.

Another important application of chi-square testing in our cosmetic surgery research is the analysis of independence between variables. We used this test to assess whether factors such as age, gender, family support, mental health, social acceptance, and self-image are independent of one another.

5. FINDINGS OF THE RESEARCH

5.1. MENTAL HEALTH

1) Mental Health and Age

H0: There is no association between Mental Health and Age

H1: There is an association between Mental Health and Age

Observed Table				
	Abnormal	Borderline	Normal	Grand Total
Under 22	45	12	18	75
Above 22	5	5	5	15
Grand Total	50	17	23	90

Expected Table				
	Abnormal	Borderline	Normal	Grand Total
Under 22	41.67	14.167	19.167	75
Above 22	8.33	2.833	3.833	15
Grand Total	50	17	23	90

P-Value = 0.29

Since p-value > 0.05, we fail to reject H0.

This means there is not enough evidence to state if the two variables are associated.

2) Mental Health and Gender

H0: There is no association between Mental Health and Gender

H1: There is an association between Mental Health and Gender

Observed Table				
	Abnormal	Borderline	Normal	Grand Total
Female	34	12	8	54
Male	16	5	15	36
Grand Total	50	17	23	90

Expected Table				
	Abnormal	Borderline	Normal	Grand Total
Female	30	10.2	13.8	54
Male	20	6.8	9.2	36
Grand Total	50	17	23	90

P-Value = 0.02

Since the p-value < 0.05, we can reject H0.

This means there is an association between gender and mental health.

3) Mental Health and Consideration to Undergo Cosmetic Surgery

H0: There is no association between Mental Health and Consideration to Undergo Cosmetic Surgery

H1: There is an association between Mental Health and Consideration to Undergo Cosmetic Surgery

Observed Table				
	Abnormal	Borderline	Normal	Grand Total
Maybe	19	6	3	28
No	16	8	14	38
Yes	15	3	6	24
Grand Total	50	17	23	90

Expected Table				
	Abnormal	Borderline	Normal	Grand Total
Maybe	15.56	5.29	7.16	28.01
No	21.11	7.18	9.71	38
Yes	13.33	4.53	6.13	23.99
Grand Total	50	17	23	90

P-Value = 0.12

Since p-value > 0.05, we fail to reject H0.

This means there is not enough evidence to state if the two variables are associated.

5.2. FAMILY SUPPORT

1) Family Support and Age

H0: There is no association between Family Support and Age

H1: There is an association between Family Support and Age

Observed Table			
	High	Low	Grand Total
Under 22	38	37	75
Above 22	6	9	15
Grand Total	44	46	90

Expected Table			
	High	Low	Grand Total
Under 22	36.67	38.33	75
Above 22	7.33	7.67	15
Grand Total	44	46	90

P-Value = 0.45

Since the p-value > 0.05, we fail to reject H0.

This means there is not enough evidence to state if the two variables are associated.

2) Family Support and Gender

H0: There is no association between Family Support and Gender

H1: There is an association between Family Support and Gender

Observed Table			
	High	Low	Grand Total
Female	21	33	54
Male	23	13	36
Grand Total	44	46	90

Expected Table			
	High	Low	Grand Total
Female	26.4	27.6	54
Male	17.6	18.4	36
Grand Total	44	46	90

P-Value = 0.0201

Since the p-value < 0.05, we can reject H0.

This means there is an association between gender and family support.

3) Family Support and Consideration to Undergo Cosmetic Surgery

H0: There is no association between Family Support and Consideration to Undergo Cosmetic Surgery

H1: There is an association between Family Support and Consideration to Undergo Cosmetic Surgery

Observed Table			
	High	Low	Grand Total
Maybe	14	14	28
No	13	25	38
Yes	17	7	24
Grand Total	44	46	90

Expected Table			
	High	Low	Grand Total
Maybe	0.007071	0.006763	28
No	1.674668	1.601856	38
Yes	2.364015	2.261232	24
Grand Total	44	46	90

P-Value = 0.019

Since the p-value < 0.05, we can reject H0.

This means there is an association between family support and consideration to undergo cosmetic surgery.

5.3. SOCIAL ACCEPTANCE

1) Social Acceptance and Age

H0: There is no association between Social Acceptance and Age

H1: There is an association between Social Acceptance and Age

Observed Table			
	High	Low	Grand Total
Under 22	41	34	75
Above 22	10	5	15
Grand Total	44	46	90

Expected Table			
	High	Low	Grand Total
Under 22	42.5	33	75
Above 22	8.5	6.5	15
Grand Total	44	46	90

P-Value = 0.39

Since the p-value > 0.05, we fail to reject H0.

This means there is not enough evidence to state if the two variables are associated.

2) Social Acceptance and Gender

H0: There is no association between Social Acceptance and Gender

H1: There is an association between Social Acceptance and Gender

Observed Table			
	High	Low	Grand Total
Female	37	17	54
Male	14	22	36
Grand Total	51	39	90

Expected Table			
	High	Low	Grand Total
Female	30.6	23.4	54
Male	20.4	15.6	36
Grand Total	51	39	90

P-Value = 0.01

Since the p-value < 0.05, we can reject H0.

This means there is an association between gender and Social Acceptance.

3) Social Acceptance and Consideration to Undergo Cosmetic Surgery

H0: There is no association between Social Acceptance and Consideration to Undergo Cosmetic Surgery

H1: There is an association between Social Acceptance and Consideration to Undergo Cosmetic Surgery

Observed Table			
	High	Low	Grand Total
Maybe	21	7	28
No	11	27	38
Yes	19	5	24
Grand Total	51	39	90

Expected Table			
	High	Low	Grand Total
Maybe	15.87	12.13	28
No	21.53	16.47	38

Yes	13.6	10.4	24
Grand Total	51	39	90

P-Value = 0

Since the p-value < 0.05, we can reject H0.

This means there is an association between social acceptance and consideration to undergo cosmetic surgery.

5.4. SELF-IMAGE

1) Self-Image and Age

H0: There is no association between Self-Image and Age

H1: There is an association between Self-Image and Age

Observed Table			
	High	Low	Grand Total
Under 22	44	31	75
Above 22	5	10	15
Grand Total	49	41	90

Expected Table			
	High	Low	Grand Total
Under 22	40.833	34.167	75
Above 22	8.167	6.833	15
Grand Total	49	41	90

P-Value = 0.07

Since, p-value > .05, we fail to reject Ho.

This means there is not enough evidence to state if the two variables are associated.

However, when tested on smaller categories for age, the data suggested an association between age and self-image consciousness.

2) Self-Image and Gender

H0: There is no association between Self-Image and Gender

H1: There is an association between Self-Image and Gender

Observed Table			
	High	Low	Grand Total
Female	34	20	54
Male	15	21	36
Grand Total	49	41	90

Expected Table			
	High	Low	Grand Total
Female	29.4	24.6	54
Male	19.6	16.4	36
Grand Total	49	41	90

P-Value = 0.04

Since p-value < 0.05, we can reject Ho.

This means there is in fact an association between gender and self-image consciousness

3) Self-Image Consciousness and Consideration to Undergo Cosmetic Surgery

H0: There is no association between Self-Image and Consideration to Undergo Cosmetic Surgery

H1: There is an association between Self-Image and Consideration to Undergo Cosmetic Surgery

Observed Table			
	High	Low	Grand Total
Maybe	17	11	28
No	19	19	38
Yes	13	11	24
Grand Total	49	41	90

Expected Table			
	High	Low	Grand Total
Maybe	15.24	12.76	28
No	20.69	17.31	38
Yes	13.07	10.93	24
Grand Total	49	41	90

P-Value = 0.68

Since p-value > 0.05, we fail to reject Ho.

This means there is not enough evidence to state if the two variables are associated.

6. DISCUSSION

The findings from our research reinforce the existing literature on the association between gender and self-image consciousness. The study by [Grabe et al. \(2008\)](#) supports our finding that gender and self-image consciousness are linked and that current media exposure has had a negative impact on the self-esteem of young women.

However, the longitudinal study by [Mellor et al. \(2010\)](#) challenges our finding, suggesting that age and self-image consciousness are not associated and that one's self-image consciousness diminishes with age as the focus shifts to more functional aspects.

Interestingly, the projective techniques employed in our study revealed that most participants agreed that cosmetic surgery was a step too far and that other methods to raise self-esteem should be exhausted first. This finding, in tandem with research by [Ferraro et al. \(2005\)](#), suggests that self-image consciousness may not be a primary motivating factor for undergoing cosmetic surgery, contrary to common assumptions.

Our analysis also revealed that the decision to undergo cosmetic surgery is influenced by various practical considerations, such as cost, side effects, and job requirements. Consistent with the findings of [Alghamdi et al. \(2023\)](#), we observed that the rate of cosmetic surgery tends to be higher among individuals from higher socioeconomic classes, those who experience minimal side effects, and those whose professions require a certain physical appearance.

Furthermore, our research aligns with the study by [Chen et al. \(2019\)](#), which highlights the association between the use of various social media and photo-editing applications and the prevalence of cosmetic surgeries. Specifically, we found that participants who engage with social media platforms that emphasize physical appearance (e.g., Tinder, Snapchat) are more likely to be associated with cosmetic surgery, compared to those who use social media that do not prioritize physical attributes (e.g., LinkedIn, WhatsApp).

Additionally, our findings suggest that higher cosmetic surgery acceptance is prevalent among the younger age group (18-22 years), who have been extensively exposed to unrealistic beauty standards through their engagement with social media platforms.

The chi-square test conducted in our study revealed no significant association between willingness to undergo surgery, age, and mental health. However, our research has reinforced the impact of gender on mental health, in line with existing literature.

The focus group discussion with psychology students provided valuable insights into the role of mental health in the decision-making process of cosmetic surgery patients. The students believe that many individuals undergo cosmetic surgery to fit into societal norms and fulfil a need to belong, while those suffering from Body Dysmorphic Disorder (BDD) often resort to these procedures to address their perceived flaws. The students suggested the introduction of psychologists who could help save patients who do not require surgery, thereby reducing the prevalence of unnecessary procedures.

In conclusion, our research has shed light on the multifaceted factors influencing the decision to undergo cosmetic surgery, including gender, self-image consciousness, social media usage, practical considerations, family support, social acceptance and mental health. The insights gained from this study highlight the need for a comprehensive and holistic approach to understanding and addressing the complex issues surrounding cosmetic surgery. Further research, addressing the limitations of the current study, could provide more nuanced perspectives and guide the development of effective interventions to promote healthy self-image and well-being.

CONFLICT OF INTERESTS

None.

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