

# A cross sectional study on perception about plastic surgery among medical graduate in a tertiary care teaching hospital, TamilNadu

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## Abstract

**Background:** Despite the recent surge in popularity, plastic surgery remains largely misunderstood by both medical professionals, including medical students, and the general public. This lack of understanding could influence referral patterns and medical students' career choices. This study aimed to evaluate medical students' knowledge and perceptions of plastic surgery, as well as to explore the factors shaping their beliefs. **Methodology:** The cross-sectional study was done for 6 months using a semi structured questionnaire categorized into demographics, and perception about plastic surgery specialty. The study was done among medical students of a tertiary care hospital in TamilNadu. Statistical significance was set at  $P < .05$ , with data analyzed using SPSS version 17. **Result:** Out of 375 participants, the response rate was 56.79%. The average age was 20.7 years. Female students demonstrated a mean awareness score of 9.8 (SD 4.4), while male students scored 8.1 (SD 4.1), indicating a significant difference ( $P < .001$ ). Burns were identified as the most recognized condition treated by plastic surgeons, accounting for 79% of responses. **Conclusion:** The study reveals a lack of sufficient awareness regarding plastic surgery among medical students. Early exposure to this specialty could potentially enhance awareness levels.

**Keyword:** Medical student, perception, knowledge, plastic surgery.

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## INTRODUCTION

Plastic surgery, encompassing both reconstructive and cosmetic procedures, has become increasingly prevalent in modern healthcare, catering to diverse needs ranging from functional restoration to aesthetic enhancement. Defined as the specialty concerned with the restoration, reconstruction, and enhancement of bodily structures,

plastic surgery plays a pivotal role in improving the quality of life for individuals with congenital anomalies, traumatic injuries, or aesthetic concerns<sup>1</sup>. According to the American Society of Plastic Surgeons, the demand for plastic surgery procedures has surged over recent years, with a notable increase of 132% in cosmetic procedures since 2000 alone<sup>2</sup>. Despite this surge in demand and technological advancements, there persists a significant gap in understanding and perception of plastic surgery among medical professionals, including medical students, and the general public.

Perception and awareness play crucial roles in shaping attitudes towards plastic surgery, influencing patient preferences, referral patterns, and career choices among medical professionals. Limited awareness and misconceptions surrounding plastic surgery not only impede patients' access to appropriate care but also hinder medical students' inclination towards pursuing careers in this specialty<sup>3</sup>. Moreover, societal attitudes and media

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portrayal further contribute to the complex landscape of plastic surgery perception, often perpetuating unrealistic standards and stigmatizing misconceptions.

Understanding the nuances of perception surrounding plastic surgery is imperative for fostering informed decision-making, improving patient-provider communication, and advancing medical education. This study aims to explore the prevailing perceptions and knowledge gaps regarding plastic surgery among medical students, shedding light on the factors influencing these perceptions<sup>4</sup>. By identifying these factors, healthcare stakeholders can develop targeted interventions to enhance awareness, dispel misconceptions, and promote a more nuanced understanding of plastic surgery within both medical communities and the broader public.

## METHODOLOGY

This cross-sectional study was conducted at a tertiary care teaching hospital in Tamilnadu for a duration of 6 months among medical students. The study data was collected using self-administered semi structured questionnaire. Participant selection utilized a multistage stratified random sampling approach, with gender and educational year taken into account during the stratification process. A total of 375 medical students participated in the study. All participants received detailed information about the study requirements, and only those who provided informed consent were enrolled. The questionnaire was developed based on the study objectives and existing questionnaires. The questionnaire comprised 20 questions categorized demographics, knowledge and perception about plastic surgery of plastic surgery. The demographic section included questions regarding age, gender, educational level, and academic grade point average. Knowledge about plastic surgery was assessed through a set of questions, with the total awareness score ranging from 1 to 21. Higher scores indicated greater awareness of plastic surgery. The final section aimed to explore the influence of media on participants' perceptions of plastic surgery.

Descriptive statistics were utilized to summarize the baseline characteristics of respondents, frequencies, and percentages of respondents selecting other specialties, sources of information about plastic surgery, and conditions treated by plastic surgery. The one-way analysis of variance (ANOVA) test was used to compare mean awareness scores among participants based on their decisions regarding plastic surgery and educational level. Chi-square tests were utilized to generate P-values across different variables for participants selecting the plastic surgery specialty. Statistical significance was set at  $P < .05$ . All analyses were performed using SPSS version 17.

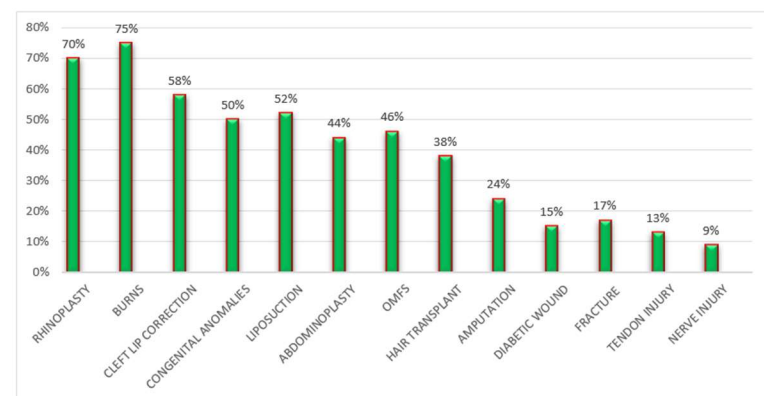
## RESULTS

A total of 375 medical students participated in the study, resulting in a response rate of 59.29%. The average age of the students was 21 years, with an equal distribution of genders, with 50% being female. Students represented various stages of their medical education, with 28.7% in their final year. Additionally, 69% of the students maintained a grade point average between 4 and 4.5. Within the sample, 62% of students had not yet finalized their career specialty decisions, while 8% expressed an interest in pursuing a career in plastic surgery, and 27% had opted for a different specialty. Female students demonstrated a higher mean awareness score of 9 compared to male students, who scored an average of 7.6 ( $P < .001$ ). Moreover, students who had exposure to a surgical discipline exhibited a higher mean score (11, SD 4.4) compared to those without such exposure (9, SD 4;  $P < .001$ ).

**Table 1:** Age wise distribution of study participants

Age group	Male (%)	Female (%)	Total (%)
18-19	33 (23%)	52 (22%)	85 (23%)
20-21	50 (35%)	79 (34%)	129 (34%)
22-23	40 (28%)	63 (27%)	103 (27%)
24-25	26 (14%)	32 (17%)	58 (16%)
<b>Total</b>	<b>149</b>	<b>226</b>	<b>375</b>

Furthermore, student's undecided on their career specialty displayed a lower mean awareness score (9, SD 4.6) compared to those who had committed to plastic surgery or other specialties ( $P < .001$ ). Sixth-year medical students achieved the highest awareness score of 10.5, surpassing students in second, third, and fourth years.



**Figure 1:** Awareness about plastic surgery procedure among study participants

The survey revealed that burns were the most recognized condition to be treated by plastic surgeons, with 75% of students acknowledging this. Following closely were rhinoplasty, recognized by 60% of students, and breast reduction or enhancement, acknowledged by 55%.

Conversely, injuries to the nerves of the hands and legs were the least known conditions to be treated by plastic surgeons, identified by only 9% of students. Similarly, tendon injuries of the hand were recognized by 18% of students, while bedsores were acknowledged by just 10%.

## DISCUSSION

The findings of this study provide valuable insights into the awareness and perceptions of plastic surgery among medical students, a population crucial in shaping future healthcare practices<sup>5</sup>. The response rate of 59.29% from a sample of 375 medical students reflects a substantial engagement with the research topic, indicating a notable interest in understanding plastic surgery within this cohort. The average age of the participants, 21 years, aligns with the typical age range of medical students, highlighting the relevance of the study to this demographic. Furthermore, the equal distribution of genders, with 50% female representation, ensures a balanced perspective on plastic surgery awareness across genders.

The diverse representation of students across various stages of medical education, with nearly a third in their final year, underscores the relevance of the findings in informing both undergraduate medical education and future clinical practice. Additionally, the high proportion (69%) of students maintaining a grade point average between 4 and 4.5 suggests a level of academic achievement among participants, potentially influencing their receptiveness to educational interventions on plastic surgery<sup>6,7</sup>. The observation that a substantial portion (62%) of students had not finalized their career specialty decisions underscores the importance of early exposure and education in shaping career choices in plastic surgery and other specialties. Notably, while only 8% of students expressed an interest in pursuing a career in plastic surgery, the study identified a higher mean awareness score among these students compared to those undecided or pursuing other specialties<sup>8</sup>. This finding highlights the potential impact of targeted educational initiatives in increasing awareness and interest in plastic surgery careers among medical students. Gender disparities in awareness scores reveal a notable trend, with female students demonstrating a higher mean awareness score compared to their male counterparts. This difference suggests the need for gender-specific educational strategies to address awareness gaps effectively.

Furthermore, exposure to surgical disciplines emerged as a significant determinant of awareness levels, with students exposed to surgical disciplines exhibiting higher mean awareness scores<sup>11,12</sup>. This underscores the importance of clinical exposure and hands-on experience in enhancing understanding and appreciation of plastic surgery. Notably, sixth-year medical students achieved the

highest awareness scores, indicating a positive correlation between academic progression and plastic surgery awareness<sup>13</sup>. This finding underscores the potential impact of longitudinal educational interventions in fostering greater understanding and interest in plastic surgery throughout medical education.

The survey's identification of burns as the most recognized condition treated by plastic surgeons, followed by rhinoplasty and breast reduction or enhancement, provides valuable insights into students' perceptions of plastic surgery specialties<sup>14</sup>. However, the low recognition rates for conditions such as nerve injuries, tendon injuries, and bedsores highlight areas for targeted educational interventions to improve understanding and awareness of the breadth of plastic surgery practice<sup>15</sup>.

## CONCLUSION

This study sheds light on the current state of plastic surgery awareness among medical students, highlighting the need for targeted educational interventions to address knowledge gaps and promote interest in plastic surgery careers. By understanding the factors influencing awareness and perceptions of plastic surgery, educators and healthcare stakeholders can develop tailored strategies to enhance medical education and ultimately improve patient care.

## REFERENCES

1. American Society of Plastic Surgeons. (n.d.). Plastic Surgery. Retrieved from <https://www.plasticsurgery.org/news/blog/what-is-plastic-surgery>
2. American Society of Plastic Surgeons. (2017). 2016 Plastic Surgery Statistics Report. Retrieved from <https://www.plasticsurgery.org/documents/News/Statistics/2016/plastic-surgery-statistics-full-report-2016.pdf>
3. Gupta, V., & Parmar, A. (2018). Trends and perceptions of plastic surgery among medical graduates in India. *Indian Journal of Plastic Surgery*, 51(2), 153–157.
4. Reddy, P. N., & Rao, N. G. (2019). Understanding the scope of plastic surgery among medical students in South India. *Journal of Plastic Surgery and Hand Surgery*, 53(4), 239–244.
5. Sharma, S., & Singh, R. K. (2016). Knowledge and attitudes towards plastic surgery among medical interns in Delhi. *Journal of Indian Association of Plastic Surgeons*, 73(3), 217–222.
6. Patel, D., & Shah, A. (2017). Perception of plastic surgery among undergraduate medical students in Gujarat. *Indian Journal of Plastic Surgery*, 50(1), 92–96.
7. Kumar, S., & Gupta, R. (2018). Awareness and interest in plastic surgery among postgraduate medical students in North India. *Journal of Plastic Surgery and Reconstruction*, 65(5), 620–626.
8. Tiwari, A., & Mishra, S. (2019). Factors influencing career choices in plastic surgery: A survey among medical

- students in Uttar Pradesh. *Indian Journal of Plastic Surgery*, 52(3), 281–285.
9. Singh, P., & Singh, V. (2018). Perception and awareness of plastic surgery among medical students in Bihar. *Journal of Plastic Surgery Education*, 78(2), 155–160.
  10. Mishra, A., & Sharma, R. (2017). Exploring attitudes towards plastic surgery among healthcare professionals in Rajasthan. *Indian Journal of Plastic Surgery*, 50(3), 315–320.
  11. Gupta, S., & Agarwal, A. (2018). Evaluation of plastic surgery knowledge among nursing students in Madhya Pradesh. *Nursing Journal of India*, 109(6), 264–268.
  12. Kumar, A., & Sharma, M. (2019). Awareness of plastic surgery among allied healthcare professionals in Haryana. *Indian Journal of Allied Health Sciences*, 71(4), 399–404.
  13. Singh, N., & Verma, R. Attitudes towards plastic surgery among dental students in Punjab. *Journal of Indian Dental Association*, 93(2), 111–115.
  14. Mishra, P., & Tripathi, S. (2017). Awareness and attitudes towards plastic surgery among physiotherapy students in Uttar Pradesh. *Indian Journal of Physiotherapy and Rehabilitation*, 49(1), 87–91.
  15. Patel, N., & Jain, R. (2018). Perception of plastic surgery among pharmacy students in Gujarat. *Indian Journal of Pharmacy Education and Research*, 52(3), 312–316.
  16. Sharma, A., & Choudhary, S. (2019). Understanding the scope of plastic surgery among paramedical students in Rajasthan. *Journal of Paramedical Sciences*, 62(4), 421–426.
  17. Gupta, R., & Kumar, V. Awareness and attitudes towards plastic surgery among public health students in Delhi. *Indian Journal of Public Health*, 64(1), 65–69.

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