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## Original Research Article

# Knowledge and awareness about oral and maxillofacial surgery in medical professionals and general public: A questionnaire-based survey

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### ABSTRACT

**Aim:** The aim of this study is to assess the knowledge and awareness of oral and maxillofacial surgery among the medical professionals and general public.

**Materials and Methods:** An online questionnaire-based survey containing 20 questions was circulated to medical professionals, medical undergraduates, dental professionals, dental undergraduates, general public and their responses were recorded.

**Results:** The results showed that medical professionals were aware that the speciality of oral and maxillofacial surgery (OMFS) exists but weren't fully aware about the scope of the field, whereas the general public had no idea about the treatments offered by the speciality. Dental students had awareness about the field but weren't fully updated on the various treatments in the field of oral and maxillofacial surgery.

**Conclusion:** Despite all the progress in the field of Oral and maxillofacial surgery, a large fraction of the general population is unaware of the speciality and its scope. Among the medical students and fraternity, very few know about the OMFS speciality but are unaware of the expertise the speciality has to offer. Dental fraternity, too aren't updated on the recent advances in the field of OMFS. Awareness among the general public is the least. Knowledge and awareness of the scope of oral and maxillofacial surgery can improve the success and promptness of delivery of health services. In order to ensure proper referral of patients, the speciality needs to broaden its horizon.

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## 1. Introduction

The field of oral and maxillofacial surgery is a continuously evolving branch. Over the past 60 years, there has been a tremendous amount of advancement in the speciality which provides a wide range of treatment for many diseases, injuries and defects in the head, neck, face, jaws and the hard and soft tissues of the oral(mouth) and maxillofacial (jaws and face) region such as the removal of impacted teeth, placement of dentalimplants, intraoral bone grafting, and

removal of pathology in the oral cavity, facial cosmetic surgery, cleft lip and palate surgery, orthognathic (corrective jaw) surgery, facial trauma and reconstructive surgery and head and neckcancer surgery. The speciality also deals with non-surgical problems affecting the oro-facial region such as the management of facial pain, oral mucosal diseases and infections.<sup>1</sup>

Despite the advancement in the field of OMFS, there seems to be a limited amount of knowledge and awareness regarding the speciality. Patients regularly present to their general practitioners, dentists or emergency departments with problems that require expertise of

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specialists in oral and maxillofacial surgery. Our medical colleagues need to have the necessary knowledge and understanding about the scope of the speciality for a timely referral of patients to the specialist, for prompt assessment and treatment.<sup>2</sup> This short survey aims to assess the perception and awareness of<sup>1</sup> medical professionals (undergraduates, postgraduates and medical practitioners),<sup>2</sup> dental professionals (undergraduates, postgraduates and dental practitioners) and<sup>3</sup> general public towards the field of oral and maxillofacial surgery and correlating the results.

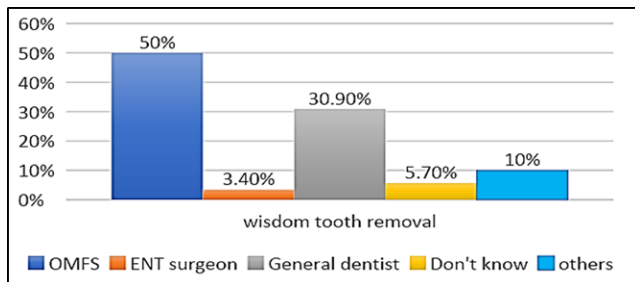
**2. Materials and Methods**

The short survey was conducted for a period of 6 months. An online questionnaire form containing 20 simple questions (Table 1) regarding different treatment scenarios and containing different medical specialities like plastic surgeon, general surgeon, ophthalmologist, ENT surgeon, OMFS among others and also including “don’t know” in the options was circulated and their responses were recorded. Around 176 responses were recorded. Out of 176 people, 60 were general public, 71 were dental professionals, and 45 were medical professionals.

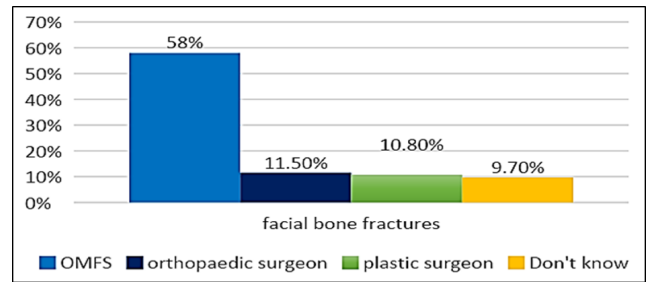
The questionnaire was intended to determine the percentage of respondents who would choose the correct speciality and also determine the percentage of awareness towards the speciality among the three groups.

**3. Results**

Demographic data was analysed. The responses of participants to the questions included in the survey was reported. (Table 2) To the question about wisdom tooth extraction, 50% of participants were aware that oral and maxillofacial surgeons perform the procedure, while 30.90% opted for a general dentist. (Figure 1) Treatment of facial cuts/injuries showed 42% of participants opting OMFS, 24.4% plastic surgeons, and 11.4% general surgeons. For facial bone fractures 57.4% choose OMFS, 11.4% orthopaedic surgeons, and 10.8% plastic surgeons. (Figure 2) Management of eyeball injuries or orbital floor fractures showed a majority by 37.5% for OMFS, following 33% for ophthalmologists.

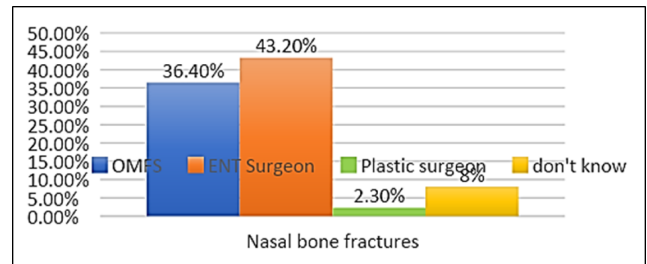


**Fig. 1:** Awareness about wisdom tooth removal

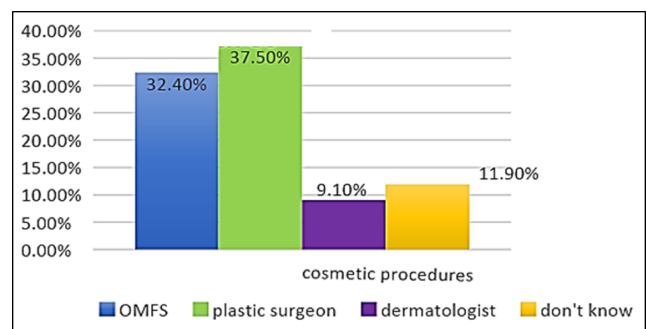


**Fig. 2:** Graph showing the responses to treatment of fractures related to facial bone

Reduction of nasal bone fractures ENT surgeons lead with 43.2%, while 36.4% chose OMFS.(Figure 3) 52.8% participants opted OMFS for facial swelling treatment, 13.6% among the crowd didn’t know who treats facial swellings, 9% opted general surgeons, 8% dermatologists followed by 7.4% plastic surgeons. Majority of the participants chose OMFS for jaw deformities which are 58.5%, 10.8% of the participants didn’t know who deals with jaw deformities and 9.7% opted general dentists. For a question on cleft lip and palate, 48.9% opted OMFS, 18.2% of the respondents didn’t know, 12.5% opted plastic surgeons.(Figure 7) 46% of respondents opted OMFS for management of oral cancers, while, 25.6% chose oncologists and 10.8% were not aware.



**Fig. 3:** Graph showing the responses recorded for reduction of nasalbone fractures



**Fig. 4:** Graph showing the responses recorded for cosmetic/esthetic procedures

With regard to management of facial space infections, most of the respondents chose OMFS accounting for 45.5%, 18.2% unaware who to approach, 11.9% opted for dermatologists. ENT surgeons would be approached by many participants for sinus problems - 40.3%, followed by OMFS 35.2%, 10.2% oblivious of who to consult.(Figure 6)

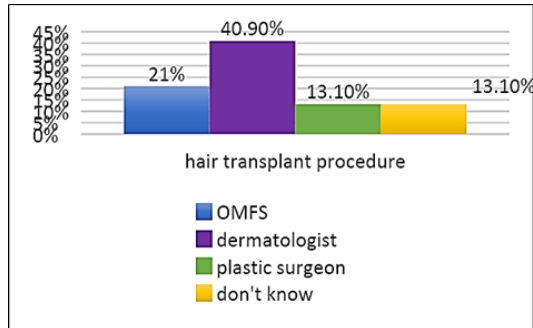


Fig. 5: Graph showing the responses recorded for hair transplant procedure

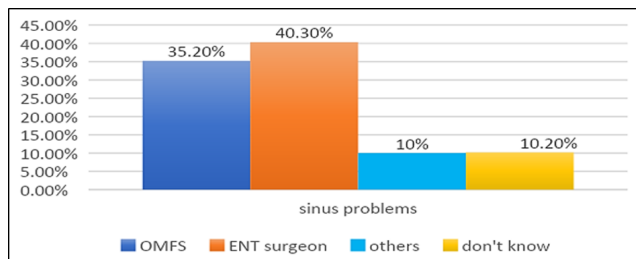


Fig. 6: Graph showing the responses recorded for treatment of sinus problems

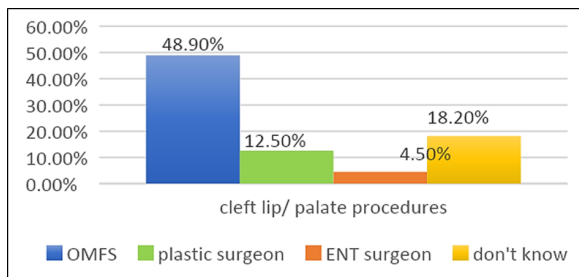


Fig. 7: Responses recorded for cleft lip/palate procedures

When treating TMJ problems, 46% of participants wanted OMFS to treat, 22.2% chose orthopaedic surgeons, while 15.9% were heedless. For cosmetic/aesthetic surgeries, 37.5% picked plastic surgeons, 32.4% chose OMFS, 11.9% were unfamiliar, 9.1% chose dermatologists.(Figure 4)

Management of facial/cranial bone deformities, 51.7% liked to consult an OMFS, 13.1% were unfamiliar, 11.4% would consult an orthopaedic surgeon and 10.2%

chose plastic surgeons. Only 21% knew OMFS perform hair transplantation, majority of the participants think dermatologists are ideal for the procedure - 40.9%, 13.1% chose plastic surgeons and 13.1% didn't know. (Figure 5)

Majority of the participants were unaware of management of obstructive sleep apnoea - 30.1%, 21.65 chose OMFS, 16.5% would approach ENT surgeons and 13.1% general surgeons. For injured/cut tongue, 46% liked an OMFS for treatment; while 19.3% chose ENT surgeon and 14.8% didn't know. 29% of respondents wanted an OMFS to treat swelling of head and neck, 20.5% were unaware and 19.3% chose general surgeon over an ENT surgeon 18.8%. For salivary gland diseases, 43.8% chose OMFS, 18.2% chose ENT surgeon, 17% of respondents were unaware and 7.4% chose general surgeon. 50.6% of the participants were aware that for treating a child with inability to open mouth OMFS came into play, while 16.5% were unfamiliar and 13.1% chose ENT surgeons.

Table 1: Questionnaire for awareness of OMFS speciality

1	Which doctor / surgeon will perform removal of wisdom tooth?
2	Who will suture facial cuts / injuries?
3	Who will treat facial bone fractures?
4	Who will treat eyeball injuries/ orbit bone fractures?
5	Who will treat nasal bone fractures?
6	Who will treat facial swellings?
7	Who will treat jaw deformities?
8	Who will treat cleft lip and palate?
9	Who will treat oral cancer?
10	Who will treat facial space infections?
11	Who will treat sinus problems?
12	Who will treat TMJ Joint problems?
13	Who will do cosmetic/ aesthetic surgeries?
14	Who will treat facial/ cranial bone deformities?
15	Who will do hair transplantation?
16	Who will treat obstructive sleep apnoea?
17	Who will treat injured/ cut tongue?
18	Who will treat swellings of neck?
19	Who will treat salivary gland diseases?
20	Who will treat child with inability to open mouth?

#### 4. Discussion

Oral and maxillofacial surgery is a branch of dentistry which bridges the gap between the medical and dental field. In 1975, the official name of this speciality was changed from oral surgery to oral and maxillofacial surgery,<sup>3</sup> the goal was to more clearly define the scope of practice of the field to the public. Since then, there has been a significant argument, whether this objective has been accomplished. To answer this question better, it is important to study the knowledge and awareness of the medical practitioners.<sup>4</sup>

The scope of the OMFS improved from simple surgical procedures such as dentoalveolar surgeries and basic

**Table 2:** The table shows the percentage of people who chose OMFS for each question above

S.No	Question Was Related To	Percentage of People Opted OMFS
1.	Wisdom Tooth Extraction	50% (88)
2.	Facial Cuts And Injuries	42% (75)
3.	Facial Bone Fractures	57.4% (101)
4.	Eyeball Injuries	37.4% (66)
5.	Reduction of Nasal Bone Fractures	36.4% (64) (ENT-43.2%)
6.	Facial Swelling	52.8% (93)
7.	Jaw Deformities	58.5% (103)
8.	Cleft Lip And Palate	48.9% (86)
9.	Oral Cancers	46% (81)
10.	Facial Space Infections	45.5% (80)
11.	Sinus Problems	35.2% (62) (ENT-40.3%)
12.	Tmj Problems	46% (81)
13.	Cosmetic/ Esthetic Surgeries	32.4% (57) (Plastic Surgeons -37.5%)
14.	Facial/ Cranial Bone Deformities	51.7% (91)
15.	Hair Transplantation	21% (37) (Dermatologists-40.9%)
16.	Obstructive Sleep Apnea	21.6% (38) (Unaware-30.1%)
17.	Injured/Cut Tongue	46% (81)
18.	Swelling of Head and Neck	29% (51)
19.	Salivary Gland Disorders	43.8% (77)
20.	Inability To Open Mouth In Child	50.6% (89)

maxillofacial trauma to more advanced procedures like management of pathologies of head and neck (both benign and malignant), bone grafting, craniofacial surgery, TMJ surgery, cleft lip and palate, facial deformities correction, aesthetic facial surgery, implant surgery, etc.<sup>1</sup> Also, OMFS deals with non-surgical difficulties affecting the orofacial area like the treatment of facial pain or oral mucosal disease.<sup>5</sup> Patients usually reach to their general medical practitioners, emergency departments or dentists with pathologies or abnormalities requiring referral to an oral and maxillofacial surgeon.<sup>1</sup> Basic knowledge of the speciality should be given to our medical colleagues for the benefit of the patients in making informed decisions. Also, the general public can benefit from knowing OMFS scope so that they can request appropriate referrals.<sup>6</sup>

The study demonstrated that most of the medical/dental students; medical/dental practitioners have heard the name of the speciality. Apparently, however, some students and professionals were not aware of the wide surgical scope of the speciality.

The public also has little knowledge about the full scope of OMFS. This might be attributable to the long and complicated name for the speciality. Other factors may include a lack of publicity by the media, along with oral and maxillofacial surgery being based in dentistry rather than in medicine. There is a tremendous overlap between the specialties of ENT, plastic surgery, and OMFS, with no definite procedure specific to each speciality. Each surgeon is credentialed for a surgical procedure or consultation, depending on his or her level of training and expertise.<sup>7</sup>

Very few studies have been carried out regarding the awareness of the OMFS speciality. In the study conducted

by:

Hunter et al. demonstrated that not surprisingly, most professionals like dental and medical students have heard of OMFS, but only a few realize the full scope of the speciality. They attribute this to a lack of publicity in the media, along with the fact that OMFS is grounded in dentistry rather than in medicine.<sup>7</sup>

Laskin et al. evaluated the knowledge of 12 different specialties to determine whether such unfamiliarity is true only for OMFS, or whether it occurs with other specialties also. The result of their study shows that every effort should be made to inform the public about what OMF surgeons do.<sup>8</sup>

Rocha et al. in Brazil conducted a similar study to investigate the perception of the speciality by healthcare professionals, but found good level of knowledge of the scope of OMFS, and concluded that speciality needs to broaden its horizons in the education of medical and dental students, as well as the general public to ensure the correct referral of all patients.<sup>9</sup>

Parnes stated that the governing bodies of the American Association of Oral and Maxillofacial Surgery formed a task force to discuss a possible name change for the speciality. Any change from the current name was rejected at that time. One of the concerns over changing the name was that another speciality of dentistry or medicine might adopt the abandoned name.<sup>10</sup> Ameerally et al. stated that if patients are to receive the optimal treatment for oral and facial problems, dental and medical practitioners need to have a better understanding of what their speciality has to offer. Their study in England concluded that up to 79% of the general population had not heard of OMFS, and around

74% did not understand its role and scope. OMFS has a long and complicated Latin name, and health coordinators have to be informed of the importance of this speciality in the management of complex and diverse problems within a well-defined anatomical area.<sup>11</sup>

Ifeacho et al.<sup>10</sup> years later compared their results with those of Ameerally et al. and found that recognition of OMFS among the general public and health professionals had increased (21–34%), but the speciality had improved only marginally.<sup>10</sup> Compared the results of Ifeacho et al. with those of our results, recognition of the speciality had increased from 34% to 42.61%.

In general, the present survey demonstrated that most situations involving facial trauma, such as mandible, zygoma, maxilla and dentoalveolar fracture, would most likely be referred to an OMF surgeon. Nasal fracture presented a distribution between OMFS, and ENT. This is justified primarily by the fact that the nasal area is an anatomical site where all three specialties (OMFS, plastic surgeon, ENT) are responsible for treatment and for trauma situations with no specific procedures for each speciality. Similar results were found in previous studies.<sup>7–11</sup> With respect to pathologic conditions, medical students and practitioners believed that head and neck surgeons were more qualified in the treatment of benign mandible tumour and oral biopsy, whereas dental students and practitioners would rather consult an OMF surgeon. In the treatment of maxillary cyst and lump in the mouth most respondents agreed that they would rather consult an OMF surgeon. This suggests that most medical students and professionals recognize OMFS, but they are not clear about what clinical expertise the speciality offers.

Regional variations exist, and surgeons are responsible for educating their own community and referral circles about the scope of their practice, which will depend on training, experience and areas of interest. It is clear that greater progress needs to be made in the education of medical and dental students, as well as the general public, if the speciality of OMFS is to be practiced to its full potential.<sup>8,12,13</sup>

## 5. Conclusion

Organizations in India like the Indian Dental Association (IDA) and Association of Oral and Maxillofacial Surgeons of India (AOMSI) should aim in reaching out to the public in order to better access and deliver efficient quality service. They should take effective efforts for campaigns to educate the health care consumers and providers and for projects to publicize the speciality of dentistry in general and OMFS in particular. Awareness of their medical colleagues could be improved by arranging more interdisciplinary sessions and interdepartmental discussions.

## 6. Source of Funding and Conflict of Interest

None.

## References

1. Reddy K, Adalarasan S, Mohan S, Sreenivasan P, Thangavelu A. Are people aware of oral and maxillofacial surgery in India? *J Maxillofac Oral Surg.* 2011;10(3):185–9.
2. Laskin DM. Considering the patient as well as the problem. *J Oral Maxillofac Surg.* 1993;51(10):1063.
3. Deranian HM. The transformation of the American Association of Oral Surgeons into the American Association of Oral and Plastic Surgeons. *J Hist Dent.* 2008;56(2):79–86.
4. Rastogi S. Awareness of Oral And Maxillofacial Surgery Among - Health Care Professionals - A Cross Sectional Study. *J Clin of Diagn Res.* 2008;2(2):1191–5.
5. Shah N, Patel N, Mahajan A, Shah R. Knowledge, attitude and awareness of speciality of oral and maxillofacial surgery amongst medical consultants of vadodara district in gujarat state. *J Maxillofac Oral Surg.* 2013;14(1):51–6.
6. Vadepally AK, Uppada UK, Agarwal A, Sinha R, Reddy RB. Oral and maxillofacial surgery: Perception of its scope among the medical fraternity and general public. *J Cranio-Maxillary Dis.* 2015;4(1):21.
7. Hunter MJ, Rubeiz T, Rose L. Recognition of the scope of oral and maxillofacial surgery by the public and health care professionals. *J Oral Maxillofac Surg.* 1996;54(10):1227–32.
8. Laskin DM, Ellis JA, Best AM. Public recognition of specialty designations. *J Oral Maxillofac Surg.* 2002;60(10):1182–5.
9. Rocha NS, Laureano JRF, Silva ED, Almeida RC. Perception of oral maxillofacial surgery by health-care professionals. *Int J Oral Maxillofac Surg.* 2007;37(1):41–6.
10. Ifeacho SN, Malhi GK, James G. Perception by the public and medical profession of oral and maxillofacial surgery—has it changed after 10 years? *Br J Oral Maxillofac Surg.* 2005;43(4):289–93.
11. Ameerally P, Fordyce AM, Martin IC. So you think they know what we do? The public and professional perception of oral and maxillofacial surgery. *Br J Oral Maxillofac Surg.* 1994;32(3):142–5.
12. Dodson TB, Guralnick WC, Donoff RB, Kaban LB. Massachusetts General Hospital/Harvard Medical School MD oral and maxillofacial surgery program: a 30-year review. *J Oral Maxillofac Surg.* 2004;62(1):62–5.
13. Subhashraj K, Subramaniam B. Awareness of the specialty of oral and maxillofacial surgery among health care professionals in Pondicherry, India. *J Oral Maxillofac Surg.* 2008;66(11).

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