

**SCOPE AND AWARENESS OF ORAL AND MAXILLOFACIAL
SPECIALITY AMONG PROFESSIONALS**

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ABSTRACT:

Oral and Maxillofacial Surgery (OMFS), a dentistry specialty recognized by the Federal Dentistry Board in the mid-1960s, is responsible for the diagnosis, and clinical and surgical treatment of traumatic, congenital,

developmental and iatrogenic lesions in the maxillofacial complex. Even today, difficulties are experienced owing to the lack of knowledge of the general public and health professionals concerning the scope of OMFS.

A questionnaire survey of the perception of OMFS amongst 300 members of the under graduate dental students, post graduate dental students, under graduate dental teachers and post graduate dental teachers of GITAM Dental College and Hospital is presented. Closed-ended format questions were designed to assess understanding of the range of conditions managed by Oral surgeons. The main objective was to ascertain how knowledgeable the dental students, and teachers were about the diverse scope of surgical procedures that the oral and maxillofacial surgeon performs, and to improve the prognosis of different diseases.

INTRODUCTION:

The name of a specialty is the most important “ambassador” for its scope of practice, and it is imperative to compare the use of oral and maxillofacial surgery with oral & maxillofacial surgeons.

The specialty “Oral and Maxillofacial Surgery” has existed since ancient times. The major recognition of this specialty as a surgical specialty of the head and neck can be dated back to the 1st World War, when the deformed faces were covered by masks instead of being surgically reconstructed.

Oral and Maxillofacial surgeons have a unique expertise in the management of maxillofacial trauma. This is due to the advanced training of these specialists in both dentistry and medicine.

However, the recognition of our specialty and all that we can offer patients is still a mystery to a large number of the general public at large. A greater progress must be made in educating the medical and dental students as well as the laypersons if the specialty of Oral and Maxillofacial Surgery (OMFS) is to be practiced in its full scope.

Oral and Maxillofacial surgery (OMFS), a dentistry specialty recognized by the Federal Dentistry Board in mid-1960s, is a branch that encompasses the diagnosis, clinical and surgical treatment of traumatic, congenital, developmental and iatrogenic lesions in the maxillofacial complex.

AIMS AND OBJECTIVES:

The aim of the present study was to find out current levels of awareness of the specialty of OMFS among under-graduate, post- graduate dental students and under-graduate and post graduate dental teachers.

Ensuring that they understand the OMS’s surgical scope of practice may provide multiple benefits:

- 1) It may attract them to pursue their post- graduation in the hope of becoming an OMS; 2) if they pursue other health fields in their post –graduation, they might refer more patients to OMSs in appreciation of the OMS’s scope;
- 3) It may attract more students willing to pursue an academic career.

The purpose of this study was to determine if students and teachers perception of an OMS's scope of practice would change when using the term Oral and Maxillofacial Surgeon instead of Oral Surgeon.

The specific objectives of the study were to determine if:

- 1) The use of Oral and Maxillofacial surgeon would provide a significant advantage over oral surgeon,
- 2) Post graduate students, under graduate and post graduate teachers were fully aware of an OMS's scope of practice,
- 3) Under- graduate students were aware of an OMS's scope of practice.

MATERIALS AND METHODS:

Four different groups were sent a questionnaire, to which an explanatory letter was attached. The four groups were: under-graduate dental students, post- graduate dental students, under-graduate dental teachers and post-graduate dental teachers of GITAM Dental College and Hospital.

Questionnaires were randomly distributed to a total of 300 students and teachers in every department of the college.

The questionnaire was contained on one side of A4 paper and it included 9 vertical columns and 4 main horizontal columns. The vertical columns contained eight specialist's (surgeons) and the horizontal column contained two major treatment procedures:

1. Trauma
2. Maxillofacial pathology

Finally, the participants were asked to indicate, from a list of eighteen conditions and treatments, which or all of the eight specialists they would expect to deal with them.

The eight specialists included: ENT surgeon, plastic surgeon, oral and maxillofacial surgeon, general surgeon, orthopedic surgeon, neurosurgeon, dental surgeon and others.

The eighteen different conditions and treatment included: **Trauma**- cut on face, fractures of upper and lower jaw, fracture of frontal bone, fracture of cheek bone and nose, fracture of orbit. **Maxillofacial pathology**- TMJ dysfunction, cancer of tongue, mole or lump on face, removal of salivary gland, cysts and tumors of jaws, infection of facial space.

RESULTS:

In the present study, 300 questionnaires were distributed to the under-graduate's students, under-graduate teachers, post-graduate students and post-graduate teachers of RAMA Dental College and Hospital, Kanpur. A total of 262 respondents gave a completely answered the questionnaire, while 38 respondents gave incompletely answered questionnaire.

TABLE 1 : SEX DISTRIBUTION OF RESPONDENTS

SEX	FREQUENCY	PERCENT
MALE	80	30.5
FEMALE	182	69.5
TOTAL	262	100.0

Out of 262 respondents, 69.5% were females and rests were males.

FIGURE 1: SEX DISTRIBUTION OF RESPONDENTS

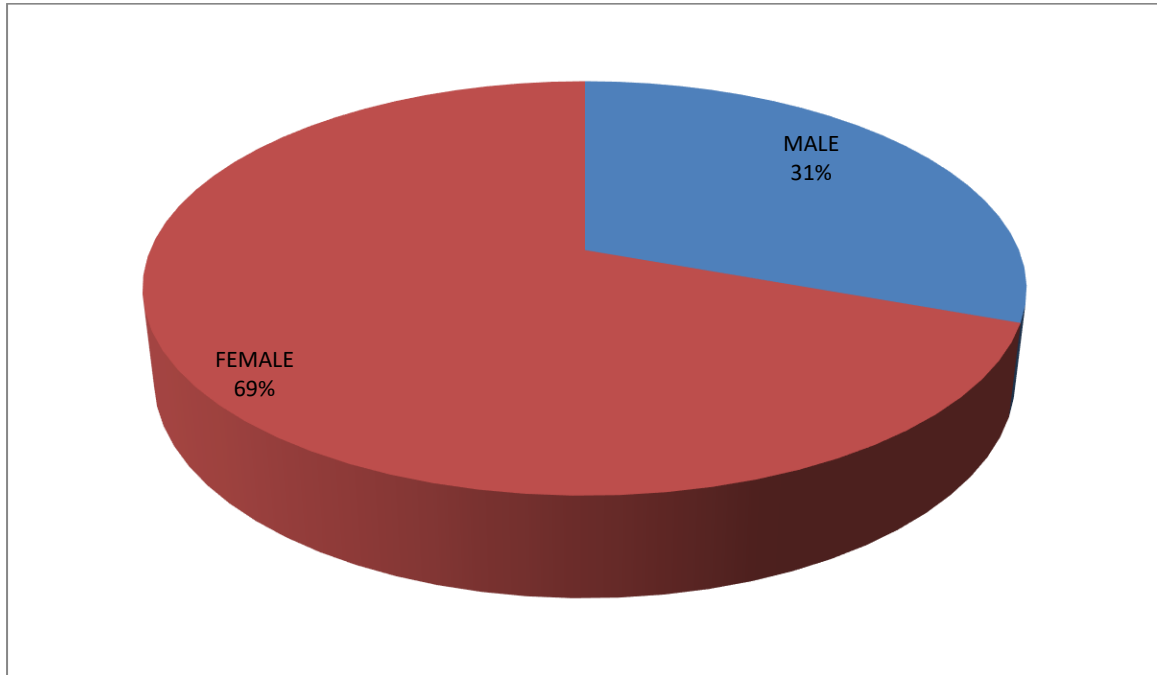


TABLE 2 : DISTRIBUTION OF RESPONDENTS ACCORDING TO DESIGNATION

RESPONDENT	FREQUENCY	PERCENT
UNDER GRADUATE	155	59.2
HOUSE SURGEON	52	19.8
POST GRADUATE	42	16.0
UG TEACHER	4	1.5
PG TEACHER	9	3.4
TOTAL	262	100.0

Out of 262 respondents, majority (59.2 %) were undergraduates and minority were PG teachers 3.4 %

FIGURE 2: DISTRIBUTION OF RESPONDENTS ACCORDING TO DESIGNATION

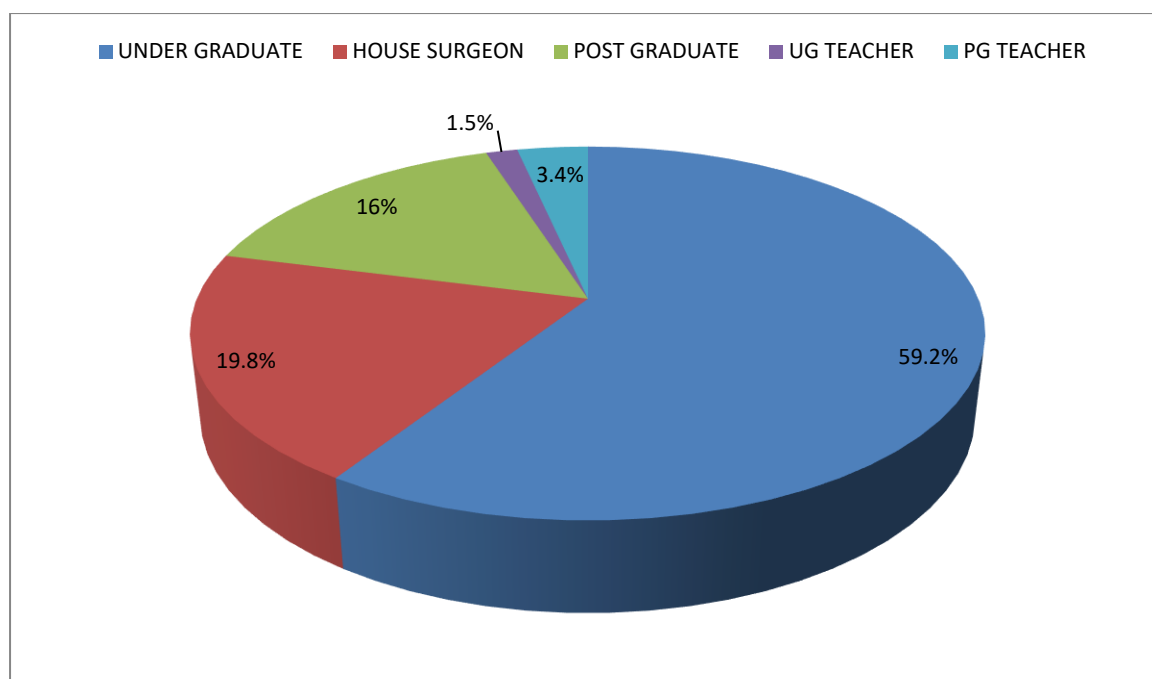


TABLE 3: TRAUMA VERSUS RESPONDENT

WHICH SURGEON WOULD YOU EXPECT TO TREAT	UNDER GRADUATE	HOUSE SURGEON	POST GRADUATE	UG TEACHER	PG TEACHER	TOTAL
ENT SURGEON	2 (1.3)	0(0.0)	0(0.0)	0(0.0)	1(11.1)	3(1.1)
PLASTIC SURGEON	70(45.2)	38(73.1)	26(61.9)	2(50.0)	5(55.6)	141(53.8)
ORAL & MAXILLOFACIAL SURGEON	52(33.5)	5(9.6)	11(26.2)	2(50.0)	3(33.3)	73(27.9)
GENERAL SURGEON	30(19.4)	9(17.3)	5(11.9)	0(0.0)	0(0.0)	44(16.8)
OTHERS	1(0.6)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	10(0.4)
TOTAL	155(100.0)	52(100.)	42(100.0)	4(100.0)	9(100.0)	262(100.0)

CHI SQUARE= 28.16 df = 16 p value = 0.030 * S

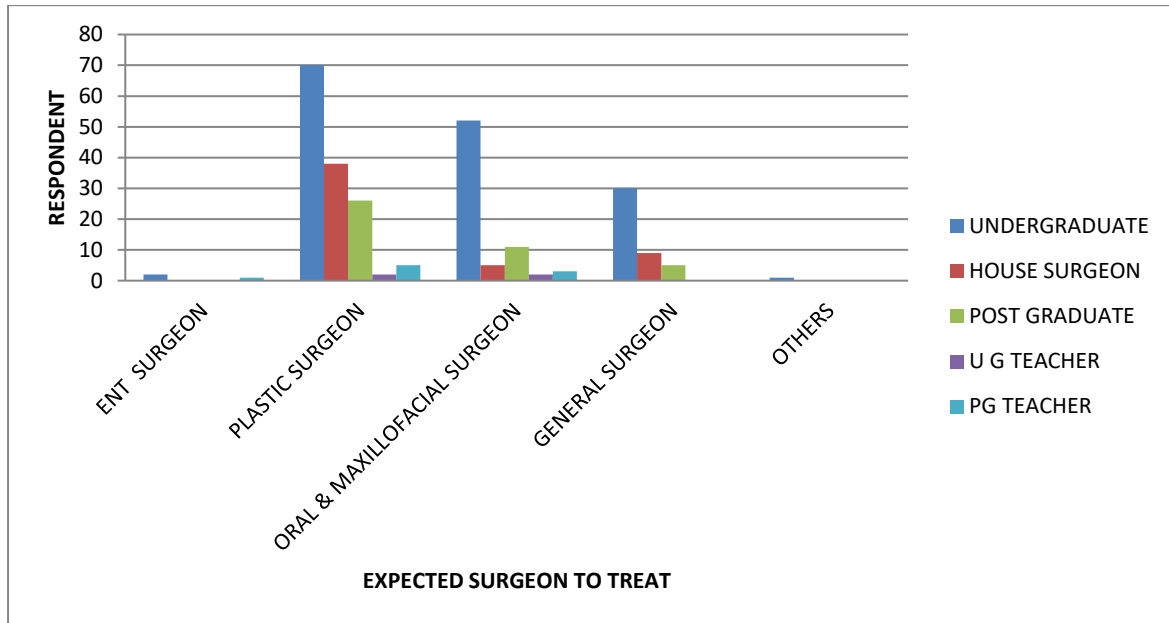
*Figures in the parenthesis denote column percentages.

Oral & Maxillofacial Surgeon was chosen 50.0 % of the time by UG teacher to treat Traumatic conditions.

Oral & Maxillofacial Surgeon was chosen 33.5 % of the time by undergraduates to treat Traumatic conditions.

The difference was statistically significant ($p < 0.05$)

FIGURE 3: TRAUMA VERSUS RESPONDENT



CHI SQUARE= 28.16 df = 16 p value = 0.030 *

TABLE 4: PATHOLOGY VERSUS RESPONDENT

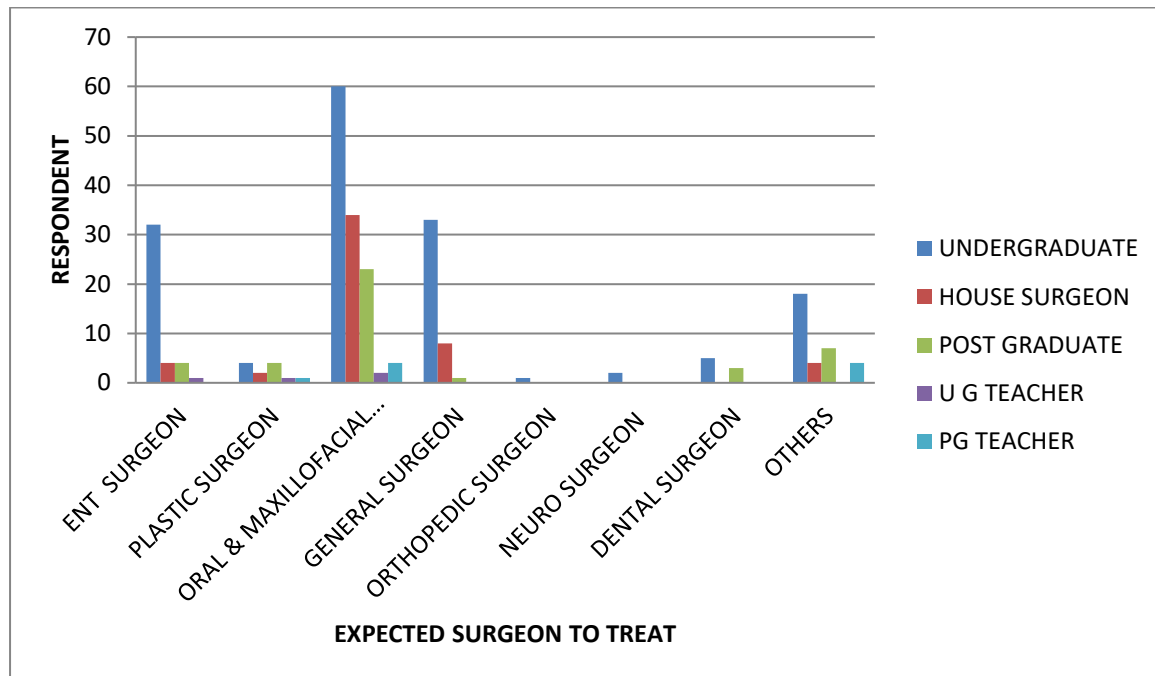
WHICH SURGEON WOULD YOU EXPECT TO TREAT	UNDER GRADUATE	HOUSE SURGEON	POST GRADUATE	U G TEACHER	PG TEACHER	TOTAL
ENT SURGEON	32(20.6)	4(7.7)	4(9.5)	1(25.0)	0(0.0)	41(15.6)
PLASTIC SURGEON	4(2.6)	2(3.8)	4(9.5)	1(25.0)	1(11.1)	12(4.6)
ORAL & MAXILLOFACIAL SURGEON	60(38.7)	34(65.4)	23(54.8)	2(50.0)	4(44.4)	123(46.9)
GENERAL SURGEON	33(21.3)	8(15.4)	1(2.4)	0(0.0)	0(0.0)	42(16.0)
ORTHOPEDIC SURGEON	1(0.6)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.4)
NEURO SURGEON	2(1.3)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(0.8)
DENTAL SURGEON	5(3.2)	0(0.0)	3(7.1)	0(0.0)	0(0.0)	8(3.1)
OTHERS	18(11.6)	4(7.7)	7(16.7)	0(0.0)	4(44.4)	33(12.6)
TOTAL	155(100.0)	52(100.0)	42(100.0)	4(100.0)	9(100.0)	262(100.0)

CHI SQUARE= 47.36 df = 28 p value = 0.013 * S

*Figures in the parenthesis denote column percentages.

Oral & Maxillofacial Surgeon was chosen 65.4 % of the time by PG to treat Pathological conditions .Oral& Maxillofacial Surgeon was chosen 38.7 % of the time by undergraduates to treat Pathological conditions. The difference was statistically significant ($p < 0.05$)

FIGURE 4: PATHOLOGY VERSUS RESPONDENT



CHI SQUARE= 47.36 df = 28 p value = 0.013 * S

DISCUSSION:

In 1975, the official name of this specialty was changed from oral surgery to oral and maxillofacial surgery. Since then, no studies have directly compared how the use of either term affects people's perceptions of an OMS's surgical scope.

The purpose of this study was to determine if students' perception of an OMS's scope of practice would change when using oral and maxillofacial surgeon instead of oral surgeon. The authors hypothesized that using oral and maxillofacial surgeon would provide a significant advantage over oral surgeon.

The specific objectives of the study were to determine if:

1. The use of oral and maxillofacial surgeon would provide a significant advantage over oral surgeon.
2. The senior dental students were fully aware of an OMS's scope of practice
3. The under graduate upper division science students were aware of an OMS's scope of practice.

Andre V. Guerrero et al had undertaken a study among the undergraduate upper division science students to determine the awareness of Oral and Maxillofacial Surgeons among them. The awareness increased significantly from 51 to 55% when an Oral and Maxillofacial surgeon is used instead of Oral Surgeon. In our study the awareness of Oral and Maxillofacial surgeons among the first- and second-year undergraduate

students was far superior in regard to the clinical conditions and the respective surgeon chosen by them for the treatment needs.

According to a study conducted by *Ifeacho S.N et al* only 34% of the public and medical professionals have heard of Oral and Maxillofacial surgeon and none of them expected to treat patients who were unhappy with their facial appearance. In our study 66.7% of dental undergraduate, post graduates and medical and dental teachers have chosen Oral and Maxillofacial Surgeons for cosmetic surgery.

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 our specialty has to offer. OMFS has a long and complicated Latin name, and health coordinators have to be informed about the importance of this specialty. In the present study Oral and Maxillofacial Surgeons scored an absolute majority in clinical situations like dento-alveolar trauma(94%), removal of wisdom tooth(96%), lump of the mouth(84%).

According to a study done by *Christian Herlinet al*, the awareness of maxillofacial surgery as a specialty is wide spread. Indeed, the importance of maxillofacial surgery is clear for General practitioners (GP) and for Dental practitioners (DP) for bone trauma and TMJ disorders, although 30% of the DPs would refer the patients with TMJ disorders to orthodontists. In our study 38.7% of the times the undergraduate's students and 65.4% of the times the post graduate students, PG teachers and UG teachers have chosen Oral and Maxillofacial surgeons to treat pathological conditions, including TMJ trauma.

In a study done by *Nor NAM et al* demonstrated that only 68.6% of the laypersons had heard of the specialty Oral and Maxillofacial surgery. *Ifeacho* compared their results with those of *Ameerally et al* and noticed that recognition of OMFS among the laypersons and healthcare professionals had increased (21-34%) but that specialty had improved only marginally. In our study the treatment of certain conditions like cleft lip and palate deformities demonstrated a difference between dental students and professionals who preferred OMFS for the management of cleft lip and palate, while medical PG and UG teachers, favored plastic surgeons in the same situations.

In a study conducted by *Jarosz et al* certain questions did not possess statistically significant associations. A study proposed by *Rocha et al* from Brazil demonstrated that dental students recognize facial trauma, dentofacial deformities (cleft lip and palate, in particular), mandibular reconstruction, TMJ surgery, 3rd molar removal and dental implant placement as procedures that they would expect to be performed by an oral and maxillofacial surgeon.

According to a study done by *Ashwant Kumar Vadepally et al*, among the medical fraternity and general public, Oral and Maxillofacial surgeons are commonly known as 'dentists' in medical fraternity and as 'surgeons' in dental fraternity. Despite tremendous increase in awareness regarding personal health in India, the specialty of OMFS is still in its infancy. The results of their study showed that only 7% of the general public and 30% of medical professionals approached an OMS for the clinical situations. In our present study Oral and Maxillofacial surgeons was chosen 50% of the times by UG and 33.5% of the times by PG teachers and students..

TRAUMA VERSUS RESPONDENT:

In the present study 52% of the undergraduate students have chosen Oral & Maxillofacial Surgeons for treating trauma of head and neck. 5% of the house surgeons have chosen Oral & Maxillofacial Surgeons, but few of them have chosen ENT Surgeons followed by plastic Surgeons for treating head & neck trauma. 11% of the Post Graduates and 3% of the PG teachers have chosen Oral & Maxillofacial Surgeons for treating trauma.

PATHOLOGY VERSUS RESPONDENT:

Majority of the under graduate students (60%) & only 2% of the under graduate teachers have chosen Oral & Maxillofacial Surgeons for treating pathology of the Head & Neck. 23% of the Post Graduates & 4% of the PG Teachers, have chosen Oral & Maxillofacial Surgeons, where majority of them have opted for surgical oncologists(mentioned in any other category) & Plastic surgeons for treating Head & Neck pathology. 34% of the house surgeons have opted for Oral & Maxillofacial Surgeons for treating Head and Neck pathology.

Oral and Maxillofacial Surgery is a recognized international surgical specialty and it is one of the nine specialties of dentistry.

Oral and maxillofacial surgeons are the surgical specialists of the dental profession. Their extensive education and training, their surgical expertise and unparalleled understanding of esthetics and function uniquely qualify them to treat the conditions, defects, injuries and esthetic aspects of the mouth, teeth, jaws and face. Patients who complain of pain or problems in this area are routinely referred to an oral and maxillofacial surgeon for help.

Their training focuses almost exclusively on the hard (i.e., bone) and soft (i.e., skin, muscle) tissue of the face, mouth, and jaws. Their knowledge and surgical expertise uniquely qualify them to diagnose and treat the functional and esthetic conditions in this anatomical area.

Treatments performed by maxillofacial surgeons include:

- Manage diseases of the teeth and their supporting soft and hard tissues. •
- Surgically reconstruct inadequate bone structure in the jaw area. •
- Evaluate, plan a course of treatment and place dental implants to replace one, two or a mouthful of missing teeth. •
- Expertly treat head and neck trauma and injuries to the face, jaws, mouth and teeth (jaw fractures, cheek bone fractures, nasal fractures, Lefort fractures, skull fractures and eye socket fractures). •
- Diagnose and treat facial pain. •
- Diagnose and treat oral cancer and other diseases in the maxillofacial region. •
- Perform corrective jaw surgery to improve the function and appearance of patients with such conditions as cleft lip and palate, congenital defects, cranial vault malformations such as craniosynostosis (craniofacial surgery) •
- Diagnose and surgically treat obstructive sleep apnea. •
- Diagnosis and treatment of temporomandibular joint (TMJ) disorders. •

- Cosmetic surgery limited to the head and neck: (rhytidectomy/facelift, brow lift/blepharoplasty, otoplasty, rhinoplasty, septoplasty, cheek augmentation, chin augmentation, genioplasty, neck liposuction, lip enhancement, injectable cosmetic treatments, botox, chemical peel etc.) •
- **Tooth Extractions**
- **Wisdom Teeth (Third Molars)**
- **Orthodontic Surgery**
- **Pre-prosthetic Surgery**
- **Dental Implants**
- **Bone Grafting**
- **Sinus Lift:**
- **RECONSTRUCTIVE SURGERY**
- **FACIAL TRAUMA**
- **ORO-FACIAL PAIN**
- **FACIAL INFECTIONS**
- **LESION REMOVAL AND BIOPSY**
- **TMJ DISORDERS**
- **ORAL PATHOLOGY**
- **ORO-FACIAL DEFORMITIES**
- **CORRECTIVE JAW SURGERY**
- **CONGENITAL RECONSTRUCTION**
- **SNORING/OBSTRUCTIVE SLEEP APNEA**
- **FACIAL COSMETIC SURGERY**

CONCLUSION:

Despite advances in OMFS in our country, there are still a large number of patients with untreated head and neck conditions and diseases present since birth who report to Oral and Maxillofacial Surgeons only at an advanced stage owing to lack of awareness, ignorance, or improper referral. The specialty of OMFS is critical for addressing injuries, deformities, and diseases of the maxillofacial region. There is a need to promote and increase awareness regarding the wide spectrum of work being performed by Oral and Maxillofacial surgeons.

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