

PERCEPTION OF ORAL AND MAXILLOFACIAL SURGERY AMONG HEALTH CARE PROFESSIONALS IN LAHORE

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Abstract

Objective: To find out the perception of Oral and maxillofacial surgery among health care professionals

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in Lahore. This study also aims to establish the level of knowledge about oral and maxillofacial surgery among dental, medical and paramedical professionals.

Method: This cross sectional survey study was conducted at Oral and Maxillofacial Surgery Department of King Edward Medical University/Mayo Hospital. The medical and dental students were selected from Allama Iqbal medical College, De'montmorency College of dentistry / Punjab dental hospital, Lahore Medical and Dental College.

Results: The result showed that 94% participants think OMFS can treat jaw fracture. Almost 72% participants have opinion that Oral and Maxillofacial Surgery (OMFS) treats oral cancer. 60% think TMJ could be treated by OMFS. About cleft lip and palate 53% participant opt for OMFS. For dental implants however 80% think OMFS deal with it. 31% think OMFS can deal with cosmetic surgeries of the face. For craniofacial anomalies 32% participants think OMFS treat it. 69% would prefer OMFS for lump in mouth. Among 100 about 45% think OMFS treat lump in neck. 36% will refer patient of nasal fracture to this specialty. 70% think specialty can deal with maxillary deficiency. 71% consider OMFS for mandibular deficiency treatment. 59% think OMFS can manage mandibular reconstruction.

Conclusion: Dental practitioners know oral and maxillofacial surgery to a larger extent, medical students, general practitioners, paramedical staff and even the dental students are not fully aware about the expertise of this specialty.

Key words: Perception, oral and maxillofacial surgery, Health care professionals, Lahore.

Introduction

The specialty of dentistry for diagnosis and management of facial traumas, third molar problems, and implants, congenital and developmental pathologies of oral and facial region is called oral and maxillofacial surgery. OMFS (Oral and Maxillofacial Surgery) acts like a bridge between medicine and dentistry. In order to give proper treatment to their patients' health care professionals need to have proper knowledge about OMFS. This study was carried out to know as well as establish level of knowledge of Oral and Maxillofacial Surgery among health care professionals. To investigate perception of Oral and Maxillofacial Surgery, 500 questionnaires were sent to BDS students, MBBS students, dental surgeons, medical practitioners and paramedical professionals. The questionnaires covered 21 clinical conditions in different specialties (OMFS, ENT, and Plastic Surgery) and option of others. A good level of knowledge is required about these specialties to answer the questions asked to health care professionals. With each passing day people are becoming more health conscious and trying to know about different medical specialties.

In spite of the fact that health care professionals are not fully aware of Oral and Maxillofacial Surgery in Pakistan, we don't have any evidence to support this perception. Oral and Maxillofacial Surgery receives referrals from medical, dental as well as from emergency departments. Initially Oral and Maxillofacial Surgery was being performed by the other medical professionals but with time it evolved as specialty of dentistry. This is only field of dentistry closely related to medical and surgical departments. Our dental and medical colleagues need to have profound knowledge about the specialty so that they can make right decisions regarding patient's healthcare.

Materials and Methods

This is cross sectional survey study carried out at the oral and maxillofacial surgery department of King Edward Medical University from October 2011 to January 2012.

The participants were divided in to 5 groups: BDS students, MBBS students, dental surgeons, general practitioners and paramedical staff. The students were

selected from King Edward Medical University, Allama Iqbal Medical College, De'montmorency College of Dentistry and Lahore medical and dental college. The dental surgeons and medical professionals were selected randomly from Mayo hospital and Punjab dental hospital.

The questions were designed in to two parts. In the first part, the participants were inquired to indicate the conditions and treatment they think OMFS deals with. The second part consists of 29 clinical conditions including trauma, pathology, cosmetic, reconstructive, temporomandibular joint problems and third molar problems. The options given were: ENT, Plastic Surgery, OMFS and others. The participants were asked to indicate from list of clinical conditions, the surgery they would expect to treat them.

Results

The participants response is shown in table 1 through table 6. According to table 1 the result showed that 94% participants think OMFS can treat jaw fracture. Only 72% participants have opinion that OMFS treats oral cancer. Only 60% think TMJ could be treated by OMFS. About cleft lip and palate 53% participant opt for OMFS. For dental implants however 80% think OMFS deal with it. 31% think OMFS can deal with cosmetic surgeries of the face. For craniofacial anomalies only 32% participants think OMFS treat it. 69% would prefer OMFS for lump in mouth. Among 100 about 45% think OMFS treat lump in neck. 36% will refer patient of nasal fracture to this specialty. About 70% think specialty can deal with maxillary deficiency. 71% consider OMFS for mandibular deficiency treatment. About 59% think OMFS can manage mandibular reconstruction.

Discussion

Pakistan majority of health care professionals do have knowledge of oral and maxillofacial surgery but they are not fully aware of range of oral and maxillofacial surgery. Oral and maxillofacial surgeons are not only treating jaw fractures, dentalveolar trauma but also performing treatment of pathological conditions regarding salivary glands, craniofacial anomalies, facial deformity and oral cancer patients. Reconstruction of defects after oral surgery is being done by wide range of local and micro vascular flaps. This specialty is also working to improve the facial esthetics of the patients

Table 1: Participants response to the question what an oral and maxillofacial surgeon does? (N = 100).

Conditions	Dental Students	Medical Students	Dental Surgeon	Medical Practitioners	Paramedical Professionals
Fracture of jaw	92	95	96	90	96
Oral cancers	47	61	97	77	78
TMJ disorders	71	56	97	41	35
Cleft lip and palate	66	52	90	25	34
Dental implants	98	43	99	80	82
Cosmetic surgeries of face	37	29	64	12	15
Craniofacial anomalies	49	21	66	03	23
Lump in mouth	33	81	92	74	69
Lump in neck	18	43	76	51	39
Nose fracture	28	79	34	29	14
Maxillary deficiency	56	80	89	45	84
Mandibular deficiency	67	80	80	45	83
Mandibular reconstruction	67	81	80	51	17

Table 2: Medical students responses to the question: which surgeon would you expect to treat the following? (N = 100)*

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cut on face	69	03	18	10
Cut on tongue	09	23	49	19
Mandible fracture	00	10	85	05
Maxillary fracture	00	07	91	02
Dentoalveolar fracture	00	08	77	15
Nasal fracture	03	81	13	03
Zygomatic complex fracture	02	14	72	12
Orbital bone fracture	05	20	34	41
Black eye	06	24	15	54
Bleeding from ear and nose	03	92	02	03
Swelling on face	12	15	39	34
Swelling in neck	06	54	11	29
Cancers of cheek	06	20	56	18
Cancers of tongue	00	31	64	05
Cancer of sinuses	02	58	30	10
Biopsy of oral lesion	01	26	63	10
TMJ disorders	00	13	61	26

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Difficulty/inability in mouth opening	00	24	60	16
Difficulty in breathing through nose	00	89	01	10
Cosmetic surgery of nose	72	33	03	01
Facial deformity/asymmetry	74	02	24	00
Rhinoplasty	31	66	03	00
Cleft lip and palate	47	14	37	02
Mandibular deficiency	05	05	85	05
Mandibular excess	08	02	84	06
Maxillary deficiency	02	00	84	14
Maxillary excess	02	00	85	13
Third molar problems	00	00	100	00
Dental implants	00	00	99	01

Abbreviations: ENT, Ear, Nose and Throat; OMFS: Oral and Maxillofacial Surgeon; TMJ, Temporomandibular Joint.
*percentage of Participants

Table 3: Dental students responses to the question: which surgeon would you expect to treat the following? (N = 100)*

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cut on face	73	00	20	07
Cut on tongue	03	01	94	02
Mandible fracture	00	01	98	01
Maxillary fracture	00	00	98	02
Dentoalveolar fracture	00	00	98	02
Nasal fracture	05	47	41	07
Zygomatic complex fracture	04	03	86	07
Orbital bone fracture	14	07	57	22
Black eye	02	21	53	23
Bleeding from ear and nose	00	73	11	16
Swelling on face	16	04	30	50
Swelling in neck	09	11	26	54
Cancers of cheek	02	00	96	02
Cancers of tongue	01	01	96	02
Cancer of sinuses	01	05	88	06
Biopsy of oral lesion	06	00	74	20
TMJ disorders	00	02	97	01
Difficulty/inability in mouth opening	00	00	93	07

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Difficulty in breathing through nose	00	79	10	11
Cosmetic surgery of nose	83	06	09	02
Facial deformity/asymmetry	45	04	47	04
Rhinoplasty	40	31	22	07
Cleft lip and palate	20	00	77	03
Mandibular deficiency	05	00	84	11
Mandibular excess	03	02	86	11
Maxillary deficiency	00	00	96	04
Maxillary excess	00	00	97	03
Third molar problems	00	00	99	01
Dental implants	00	00	100	00

Abbreviations: ENT, Ear, Nose and Throat; OMFS, Oral and Maxillofacial Surgeon; TMJ, Temporomandibular Joint.
 *percentage of Participants

Table 4: Dental practitioners responses to the question: which surgeon would you expect to treat the following? (N = 100)*

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cut on face	58	00	38	04
Cut on tongue	05	00	92	03
Mandible fracture	00	00	98	02
Maxillary fracture	00	00	98	02
Dentoalveolar fracture	00	00	99	01
Nasal fracture	07	28	58	07
Zygomatic complex fracture	03	00	87	10
Orbital bone fracture	06	01	81	12
Black eye	03	05	76	17
Bleeding from ear and nose	00	71	25	04
Swelling on face	14	00	79	07
Swelling in neck	01	18	74	07
Cancers of cheek	02	00	84	10
Cancers of tongue	01	00	89	05
Cancer of sinuses	00	23	66	11
Biopsy of oral lesion	00	01	90	09
TMJ disorders	00	00	96	04
Difficulty/inability in mouth opening	00	00	89	11
Difficulty in breathing through nose	00	84	16	00

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cosmetic surgery of nose	79	05	16	00
Facial deformity/asymmetry	12	00	80	08
Rhinoplasty	78	13	09	00
Cleft lip and palate	25	00	71	03
Mandibular deficiency	02	00	98	00
Mandibular excess	02	00	98	00
Maxillary deficiency	00	00	98	02
Maxillary excess	00	00	99	01
Third molar problems	00	00	99	01
Dental implants	00	00	97	03

Abbreviations: ENT, Ear, Nose and Throat; OMFS, Oral and Maxillofacial Surgeon; TMJ, Temporomandibular Joint.
*percentage of Participant

Table 5: Medical practitioners responses to the question: which surgeon would you expect to treat the following? (N = 100)*

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cut on face	90	00	05	05
Cut on tongue	67	06	16	11
Mandible fracture	00	03	94	04
Maxillary fracture	00	00	95	05
Dentoalveolar fracture	00	02	81	17
Nasal fracture	00	67	20	13
Zygomatic complex fracture	00	00	96	04
Orbital bone fracture	01	09	77	13
Black eye	01	09	25	64
Bleeding from ear and nose	01	45	10	44
Swelling on face	12	00	74	14
Swelling in neck	03	12	54	31
Cancers of cheek	00	02	93	05
Cancers of tongue	00	03	90	07
Cancer of sinuses	00	54	30	16
Biopsy of oral lesion	00	00	95	05
TMJ disorders	00	02	80	18
Difficulty/inability in mouth opening	00	02	72	16
Difficulty in breathing through nose	03	61	10	26
Cosmetic surgery of nose	91	03	05	01

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Facial deformity / asymmetry	79	04	11	06
Rhinoplasty	52	44	02	02
Cleft lip and palate	74	04	12	10
Mandibular deficiency	19	04	74	03
Mandibulae excess	08	04	79	09
Maxillary deficiency	06	02	83	09
Maxillary excess	00	02	83	09
Third molar problems	00	00	99	01
Dental implants	00	00	99	01

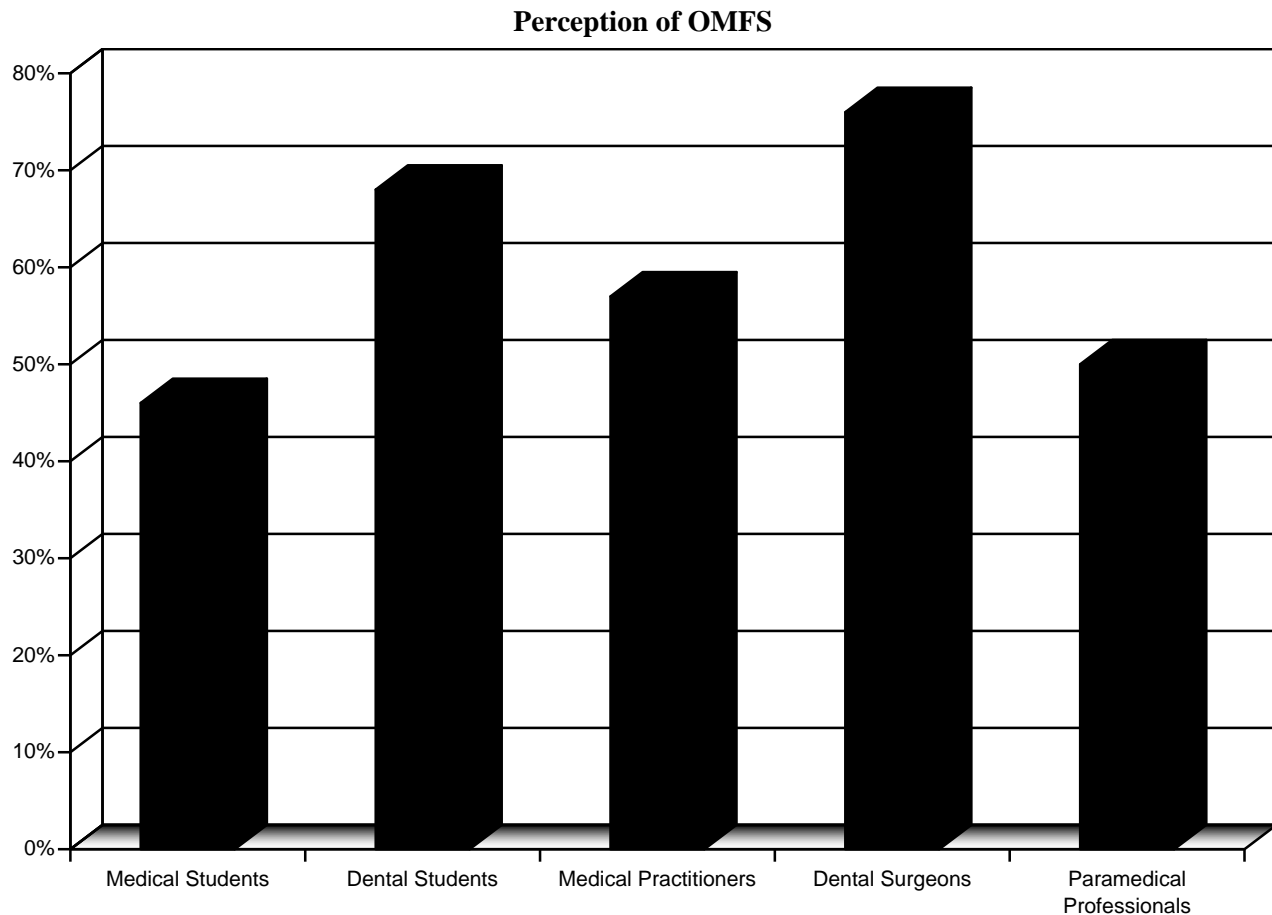
Abbreviations: ENT, Ear, Nose and Throat; OMFS, Oral and Maxillofacial Surgeon; TMJ, Temporomandibular Joint.
*percentage of Participants

Table 6: Paramedical professionals responses to the question: which surgeon would you expect to treat the following? (N = 100)*

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Cut on face	67	02	08	23
Cut on tongue	02	43	39	16
Mandible fracture	01	00	87	12
Maxillary fracture	00	01	81	18
Dentoalveolar fracture	01	01	84	14
Nasal fracture	01	82	05	12
Zygomatic complex fracture	03	05	67	25
Orbital bone fracture	04	37	47	12
Black eye	10	40	13	37
Bleeding from ear and nose	02	90	03	05
Swelling on face	22	02	50	26
Swelling in neck	03	69	09	19
Cancers of cheek	01	04	79	16
Cancers of tongue	00	09	79	12
Cancer of sinuses	04	27	43	26
Biopsy of oral lesion	02	09	80	02
TMJ disorders	06	04	83	07
Difficulty/inability in mouth opening	05	11	78	06
Difficulty in breathing through nose	02	84	04	10
Cosmetic surgery of nose	42	36	02	13

Clinical Situations	Plastic Surgeon	ENT	OMFS	Others
Facial deformity/asymmetry	56	12	19	13
Rhinoplasty	47	30	07	14
Cleft lip and palate	35	09	43	13
Mandibular deficiency	02	01	87	10
Mandibular excess	02	01	89	08
Maxillary deficiency	05	01	88	06
Maxillary excess	01	06	79	14
Third molar problems	01	00	86	13
Dental implants	08	01	85	06

Abbreviations: ENT, Ear, Nose and Throat; OMFS, Oral and Maxillofacial Surgeon; TMJ, Temporomandibular Joint.
 *percentage of Participants



by orthognathic procedures. It is quite unfortunate that awareness of this specialty among medical and dental students is quite less. For providing good services to

the patients it is really important for all medical professionals to have good level of information of oral and maxillofacial surgery.

Ameerally¹ et al, demonstrated that if patients are to receive best treatment for oral and facial conditions, dental and medical practitioners need to have a better knowledge of what our specialty deals with. These authors stated that there should be a proper system to educate both public and professionals.

Hunter² et al, demonstrated that it is not surprising that most health care professionals, dental and medical students know about OMFS, but small number of them knows the full extent of the specialty. They said this is due to lack of publicity in media, along with the fact that OMFS is related to dentistry and not the medicine. Iffecho³ et al, 10 years later compared their results with Ameerally et al and found out that recognition of OMFS had increased (21 – 34%), but that the specialty had not improved a lot.

N. S. Rocha⁴ et al, showed that if we consider pathologies, medical students and general practitioners had opinion that head and neck surgeons were more qualified in dealing with benign mandibular tumors and oral biopsy, whereas dental students and dental surgeons would consult OMFS.

Karyston F. Jarosz⁵ et al, suggested that statistically less important in terms of changing dental students' perception, management was within the domain of the oral and maxillofacial surgeon. Almost all the dental students stated that the specialty of OMFS was both medical and dental and that is very important as well.

In the present survey it is shown from table 1 to table 6 that in general participants referred fracture of jaws, third molar related problems, dental implants, TMJ disorders and oral biopsy to OMFS. However results vary among doctors, dental surgeons, students and paramedical staff for other conditions. Dental surgeons and dental students have more knowledge about this specialty. For cut on face only 17% agreed that OMFS can treat this. For nasal fracture most respondents almost 61% referred to ENT. Facial deformity treatment could be done by OMFS was suggested by only 36% participants. For treatment of cleft lip and palate 48% referred to OMFS and 35% referred to Plastic surgeon. These results suggest that perception of the specialty among the health care professionals in Lahore is not well established. It is suggested that greater efforts needs to be made for education of medical and dental students, as well as the general public, if the

specialty is to be practiced to its full potential.^{6,7} The OMFS services in Punjab are centralized in Lahore and not well developed in peripheral areas. Just recently nomenclature of the specialty changed from oral surgery to oral and maxillofacial surgery in the fellowship program i.e. FCPS (oral and maxillofacial surgery).

Conclusion

We can say that this specialty in Pakistan still struggling hard for its recognition among other medical professionals. Better education about the specialty at undergraduate level, more interactive sessions, and seminars to create awareness among medical colleagues is required. Moreover media campaign will also produce good results.

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