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RESEARCH ARTICLE

EVALUATION AMONG HEALTH CARE PROFESSIONALS AND GENERAL PUBLIC ON THE SCOPE OF MAXILLOFACIAL SURGERY: CROSS SECTIONAL STUDY

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Abstract

Objectives: Oral and Maxillofacial surgery (OMFS) is a dental speciality which is bridged between medicine and dentistry. This department deals with the anatomical region of head and neck region. OMFS has evolved from ages just not ending with tooth extraction.The aim of the study was to survey the knowledge of OMFS among medical, dental interns and general population.

Material and methods: An organized survey twenty clinical questionnaire was framed and was asked to medical and dental interns as well as general public.173 participants took part in this survey of which 27 were general public, 80 were medical interns and 66 were dental interns. The data were formulated using Microsoft excel, the results were analyzed, percentage of the population were taken into consideration.

Results: The results were tabulated and percentage of the populations were analyzed. Medical and dental interns recognized that most of the treatments are mainly treated by maxillofacial surgeons

Conclusions: The study brought to light that dental interns are aware of the treatments what OMFS does. There is still lack of knowledge among general population. So the current concept of oral surgery should be aware so that the interns gain ample knowledge in this field and ensure correct referral of all the patients.

Introduction:-

Maxillofacial dentistry is a bridging department between dentistry and medicine. In Spite of growing awareness and knowledge around the globe about what Maxillofacial surgeon's are capable of handling, there is still a lack of knowledge about what this speciality of surgeons do.Many think that this is the branch in dentistry which only deals with the extraction of teeth. Apart from extraction of teeth this is a speciality in dentistry that focuses on diagnosis and treatment modalities in head and neck region. In early day's where this speciality had restricted to dento alveolar surgery and basic Maxillofacial trauma. Currently Maxillofacial surgeons can manage congenital craniofacial deformities which includes full range of treatment for cleft lip and palate, head and neck pathology (benign and malignant) with reconstruction using local flaps and microvascular free tissue transfer, Orthognathic surgeries, Temporomandibular surgeries, bone grafts, salivary gland disorders, facial space infections.

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This speciality also offers an array of treatments including distraction osteogenesis, cosmetic procedures, implant dentistry and surgical management of complex prosthodontics problems[1].

Disparities remain regarding proper recognition of OMFS surgical procedures among healthcare professionals. The recognition of our speciality and the treatment that we offer to the patient's is still a mystery to a large number of people. As a consequence, the health care professionals need to have the necessary knowledge and understanding the scope of practice of what OMFS specialty does and timely referral of patients to the OMFS specialty, for prompt assessment and treatment.

The aim of the study was to conduct a questionnaire based study to know the current level of awareness and knowledge about OMFS speciality among general public and healthcare professionals and educate them.

Material And Methods:-

This cross sectional survey consisting of twenty clinical situations questionnaires was designed and each questionnaire was given five options to choose which specialty was appropriate. The questionnaire was given to three groups (healthcare professionals divided into two groups, one group medical and second group dental and the third group is general public).The subjects were asked to select against the speciality they thought were the most appropriate to deal with. The specialities were Plastic surgeons, Ear nose throat surgeon's (ENT), Maxillofacial surgeons, General surgeons and others.The questionnaires were then reviewed, evaluated and analyzed. The study consists of 173 subjects of whom 80 were medical interns, 66 were dental interns and 27 were general public.

Table 1:- Questions which were put forward to assess the knowledge among general public, medical and dental interns.

1)	Facial bone fractures are treated by
2)	Trauma to the teeth are treated by
3)	Lacerations on the face are treated by
4)	Nasal bone fractures are treated by
5)	Tongue tie (Ankyloglossia) are treated by
6)	Lesions of the tongue are treated by
7)	Facial space infections are treated by
8)	Biopsy of theoral lesions are treated by
9)	Lumps in the oral cavity (mucocele, ranula) are treated by
10)	Salivary gland tumors are treated by
11)	Sailoliths are treated by
12)	Benign lesions of the oral cavity are treated by
13)	Malignant lesions of the jaw are treated by
14)	Temporomandibular joint disorders are treated by
15)	Lock jaw (TMJ dislocation) are treated by
16)	Reconstruction of the jaw defects can be done by
17)	Jaw corrections (orthognathic surgeries) are done by
18)	Cleft lip and palate are treated by
19)	Cosmetic procedures (blepharoplasty, Rhytedectomy, chemical peels, lobuloplasty, Botulinum injections, Hair therapy (FUEand FUT,PRP therapy) jowl corrections) are done by
20)	Microvascular reconstruction of the jaw are done by

Results:-

The responses of the participants are shown in table 2 and 3 along with the percentage of each question's by the three groups. All most every participant were familiar with all the departments.The majority of the subjects participated in this survey opted maxillofacial surgery as their prior option for the given questionnaire which was then dominated by plastic surgeons and ENT (Ear Nose Throat surgeons). Most medical interns were aware of maxillofacial surgery.

Table 2:- The table shows the percentage of three groups for each questions above.

S no	Question was related to	General public (n=27)	Medical interns(n=80)	Dental interns(n=66)	Combined (N=173)
1	Facial bone fracture	13(48.15%)	70(87.5%)	64(96.97%)	147(84.97%)
2	Trauma to the teeth	17(62.96%)	65(81.25%)	59(89.39%)	141(81.5%)
3	Lacerations on the face	12(44.44%)	51(63.75%)	52(78.79%)	115(66.47%)
4	Nasal bone fractures	11(40.74%)	42(52.5%)	46(69.7%)	99(57.23%)
5	Tongue tie (ankyloglossia)	11(40.74%)	56(70%)	49(74.24%)	116(67.05%)
6	Lesions of the tongue	13(48.15%)	52(65%)	48(72.73%)	113(65.32%)
7	Facial space infections	12(44.44%)	58(72.5%)	62(93.94%)	132(76.3%)
8	Biopsy of the oral lesions	13(48.15%)	59(73.75%)	56(84.85%)	128(73.99%)
9	Lumps in the oral cavity (Mucocele, Ranula)	16(59.26%)	60(75%)	59(89.39%)	135(78.03%)
10	Salivary gland tumors	14(51.85%)	59(73.75%)	59(89.39%)	132(76.3%)
11	Sailolith	16(59.26%)	59(73.75%)	53(80.3%)	128(73.99%)
12	Benign lesions of the oral cavity	11(40.74%)	58(72.5%)	56(84.85%)	125(72.25%)
13	Malignant lesions of the oral cavity	13(48.15%)	69(86.25%)	63(95.45%)	145(83.82%)
14	Temporomandibular joint disorders	15(55.56%)	69(86.25%)	60(90.91%)	144(83.24%)
15	Lock jaw (TMJ dislocations)	14(51.85%)	69(86.25%)	60(90.91%)	143(82.66%)
16	Reconstructions of the jaw defects	15(55.56%)	67(83.75%)	59(89.39%)	141(81.5%)
17	Jaw corrections (orthognathic surgeries)	15(55.56%)	71(88.75%)	60(90.91%)	146(84.39%)
18	Cleft lip and palate	15(55.56%)	63(78.75%)	55(83.33%)	133(76.88%)
19	Cosmetic procedures	15(55.56%)	44(55%)	39(59.09%)	98(56.65%)
20	Microvascular reconstruction of the jaw	19(70.37%)	60(75%)	59(89.39%)	138(79.77%)

Table 3:- The table shows the percentage of people who choose OMFS for each question above (N=173).

The table shows the percentage of people who choose OMFS for each question above (N=173)		
S.no	**Question was related to**	**Percentage of people opted OMFS**
1	Facial bone fracture	147(84.97%)
2	Trauma to the teeth	141(81.5%)
3	Lacerations on the face	115(66.47%)
4	Nasal bone fractures	99(57.23%)
5	Tongue tie (ankyloglossia)	116(67.05%)
6	Lesions of the tongue	113(65.32%)
7	Facial space infections	132(76.3%)
8	Biopsy of the oral lesions	128(73.99%)
9	Lumps in the oral cavity (Mucocele, Ranula)	135(78.03%)
10	Salivary gland tumors	132(76.3%)
11	Sailolith	128(73.99%)
12	Benign lesions of the oral cavity	125(72.25%)
13	Malignant lesions of the oral cavity	145(83.82%)
14	Temporomandibular joint disorders	144(83.24%)

15	Lock jaw (TMJ dislocations)	143(82.66%)
16	Reconstructions of the jaw defects	141(81.5%)
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18	Cleft lip and palate	133(76.88%)
19	Cosmetic procedures	98(56.65%)
20	Microvascular reconstruction of the jaw	138(79.77%)

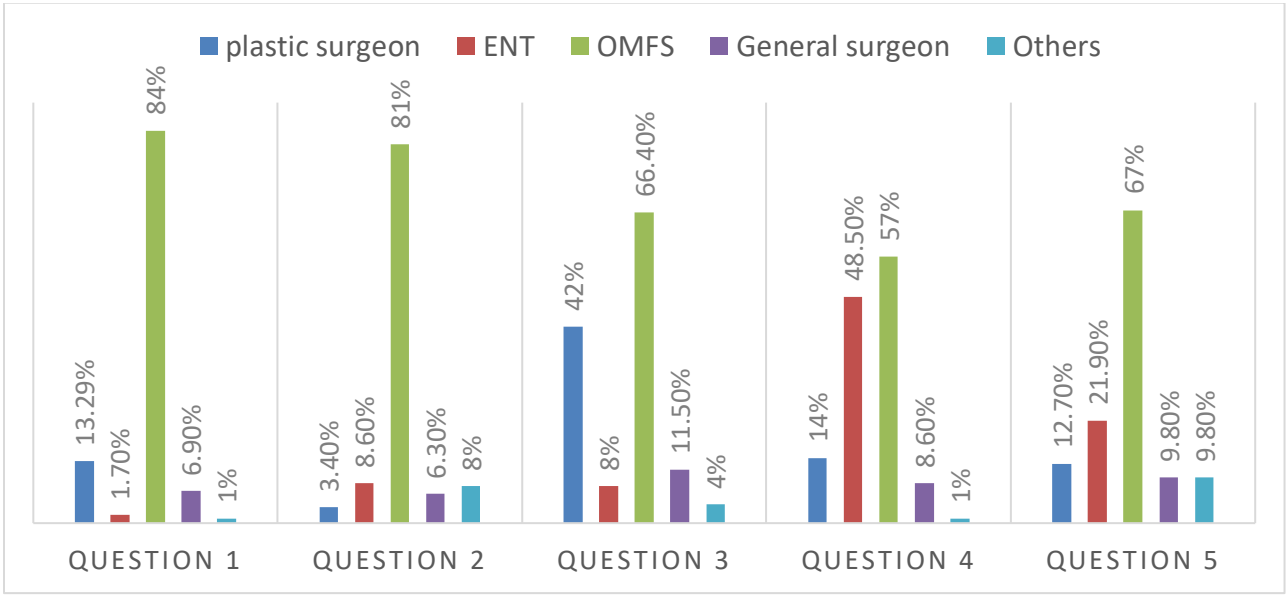

Chart 1:-

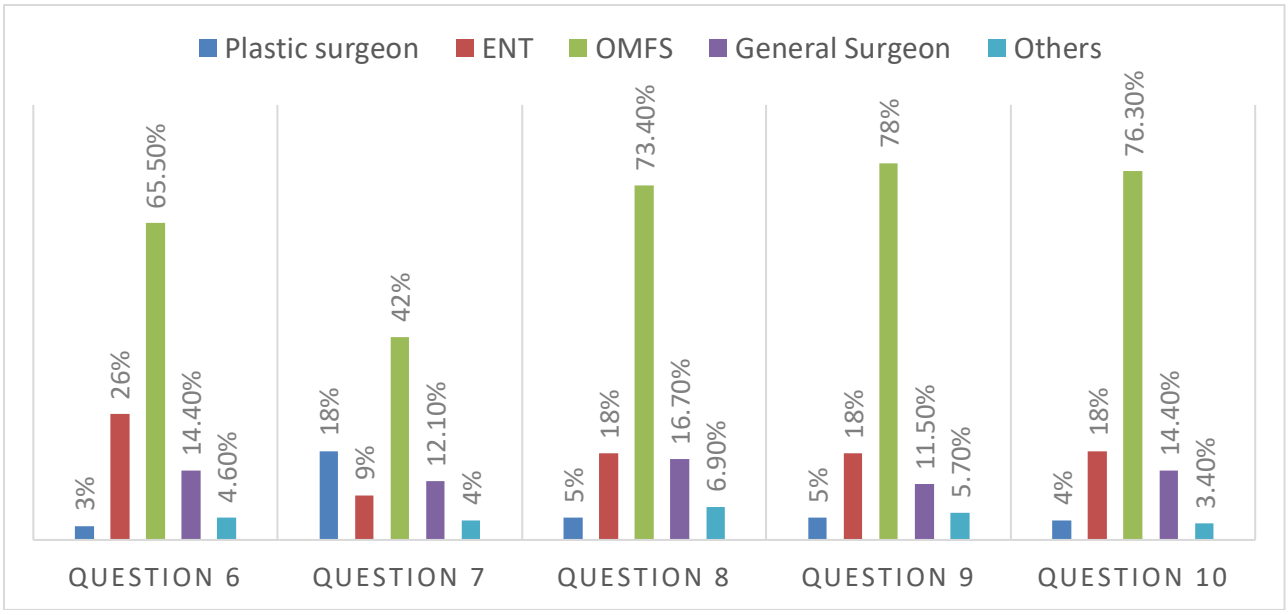

Chart 2:-

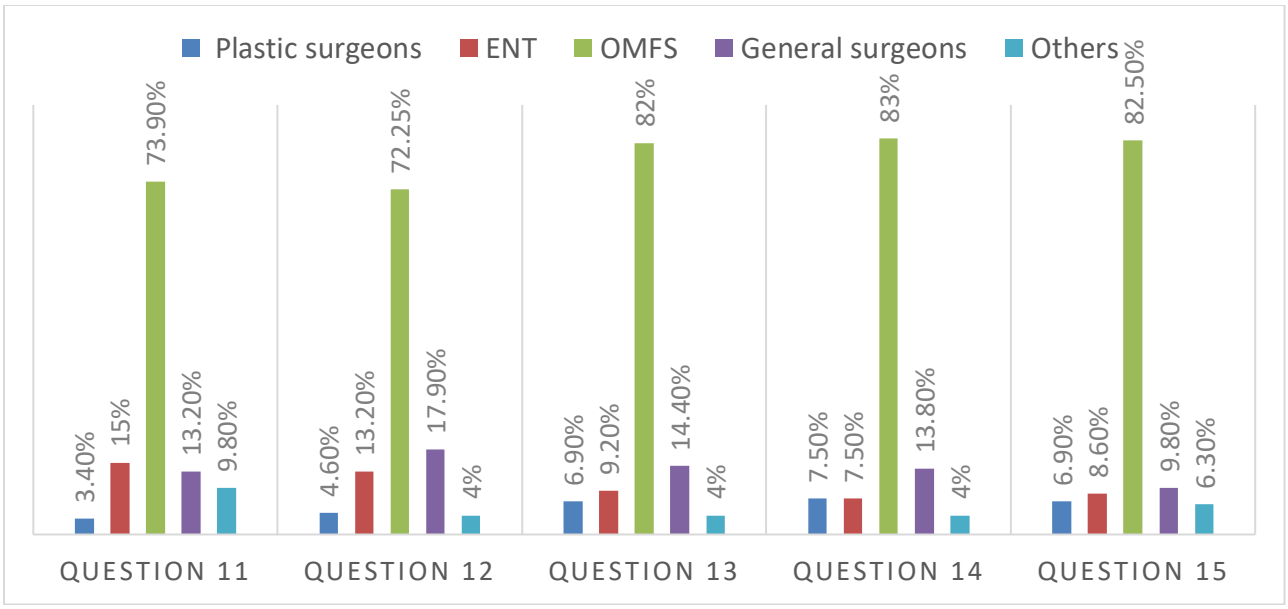

Chart 3:-

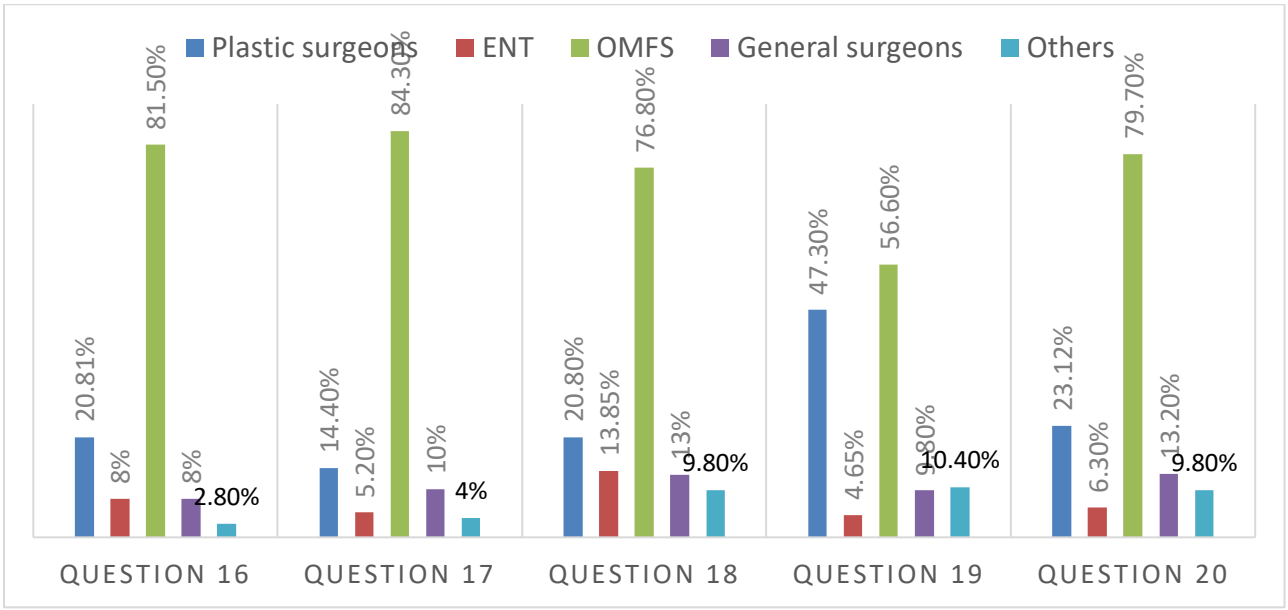

Chart 4:-

Chart 1,2,3 and 4 represents the response of the subjects to the questionnaire.

Discussion:-

Lasting from the ages oral and maxillofacial surgery is one of the oldest branch that interrelates with medicine and the surgery, with the literary works of Hippocrates, Aristotle and Sushratha who described the dental extraction and wiring techniques for maxillofacial fracture management[2,3]. Oral surgery is one of the oldest branches which were stated in 1957 by Thoma in his paper titled 'History of Oral Surgery'[4].The name Oral surgery was changed to oral and Maxillofacial surgery in 1975 by the American Association with a goal to more clearly define the scope of practice of the field to the general public[5].

Oral and Maxillofacial surgeons who are qualified today were able to treat simple dentoalveolar surgery, Maxillofacial trauma to a wide variety of treatments which includes surgeries to Craniofacial deformities, Temporomandibular disorders, Salivary gland lesions, Orthognathic surgeries, Benign and malignant oral lesions

followed by reconstruction with local flaps to microvascular reconstruction of the jaw defects. Inspite of all these, it is very peculiar to see that neither the public nor the medical community realize the role of OMFS and fail to understandwhat the speciality has to afford them.

Patient usually reaches to their general medical practitioners, emergency departments or dentist with pathologies or abnormalities requiring to an Oral and Maxillofacial surgeon. Basic knowledge of the speciality should be given to our medical colleagues for the benefit of the patient in making in informed decisions. Also, the general public can benefit from knowing OMFS scope so that they can request appropriate referral[6].

Jensen stated that almost all medical speciality have overlapping scope to some extent causing possible confusion when choosing an appropriate speciality to case management[7].

Majority of the medical and dental students were aware of surgical field of the OMFS and would refer them for specified condition listed in the questionnaire. This finding was similar to the studies conducted by Rangarajan et al.[8] who demonstrated that for specified conditions related to oral and maxillofacial region being recognized by dental students as within domain of oral and maxillofacial surgeon.

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 specialty 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 [9].

In the present study, many participants knew about the existence of the speciality, but most of them were ignorant about the procedures performed. While majority believed that surgical speciality should be a part medicine and believed that OMF surgeons are not sufficiently qualified to perform certain procedures.

In the current study all the three groups concluded that trauma to the teeth, lumps in the oral cavity, facial space infections, biopsy of the oral cavity and with respect to oral pathological conditions Medical professionals believed that OMF surgeons are more qualified to treat the problems. Nasal bone fracture due to its anatomical location, these fractures present a distribution between ENT, OMFS and Plastic surgeons are responsible for the treatment and for facial trauma no specification is justified that all the three groups vastly agreed with OMFS were qualified to treat the problems.

Large number of participants believed that oral cancer management and reconstruction can be managed by oral surgeons, while the half of the participants believes that these procedures can be done equally by Plastic surgeons and ENT surgeons.With cleft surgery most participants believed that OMF surgeons are the one who are qualified to manage. Regarding with the Cosmetic procedures both the medical and dental professionals thought these procedures can be equally done by plastic surgeons and OMF surgeons.

Apart from the associative findings the results of our study was not in accordance with the other studies where medical interns were aware of maxillofacial surgeons but were not fully aware about the surgical scope of the field. This simply shows the changing nature of knowledge, among medical professionals.

According to shah et al regional variations exit and surgeons should have a capability to educate their own community and referral circle on the scope of their practice[10].

The present study enlightens the knowledge and awareness among medical and dental interns. General public were not still aware of the specialty about the full scope of speciality. Therefore greater progress must be made in educating the general public as well as health professionals, if the speciality of OMFS to be practiced to its full potential.

Conclusions:-

From this study both the medical and dental interns are aware of the scope towards OMFS, however regarding the cosmetic surgeries medical interns believe that plastic surgeons are the one who were qualified to do the treatment and according to dental interns it is the OMF Surgeons can also deliver this treatment however general population perceive cosmetic procedures are manageable by plastic surgeons. The focus need to be placed in key areas such as

trauma and pathology, where patient care is crucial may be precipitated if all those involved are aware of what OMFS scan perform and the current concept of oral surgery should be aware so that the interns gain ample knowledge in this field and ensure correct referral of all the patients may be greater awareness should be spread among the general population regarding the scope of OMFS. Doing so will help OMFS develop as aspeciality in addition to delivering better care to the public.

Conflict Of Interest:
Nil.

References:-

1. Yesuratnam D, Balasubramanyam S, Nagasujatha D, Vedatrayi T, Rani BU, Pasupuleti A. Acknowledgement of horizon of oral and maxillofacial surgery by health care professionals and general population. Indian J Dent Res. 2020 Mar-Apr;31(2):257-26.
2. Tiwari R, Pendyala C, Gurukarthik G, Bhattacharjee A. History of oral and maxillofacial surgery-a review. IOSR J. Dent. Med. Sci. 2017;16:99-102.
3. Singh V. Sushruta: The father of surgery. Natl J Maxillofac Surg. 2017 Jan-Jun;8(1):1-3.
4. THOMA KH. The history of oral surgery; the oldest specialty of dentistry. Oral Surg Oral Med Oral Pathol. 1957 Jan;10(1):1-10.
5. 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.
6. K, Adalarasan S, Mohan S, Sreenivasan P, Thangavelu A. Are people aware of oral and maxillofacial surgery in India? J Maxillofac Oral Surg. 2011 Sep;10(3):185-9.
7. Jensen CB. The Continuum of Health Professions. Integr Med (Encinitas). 2015 Jun;14(3):48-53.
8. Rangarajan S, Kaltman S, Rangarajan T, Lopez E (2008) The general public's recognition and perception of oral and maxillofacial surgery. Oral Surg Oral Med Oral Pathol Radiol Endod. 106:15 7.
9. Rocha NS, Laureano Filho JR, Silva ED, Almeida RC (2008) Perception of oral maxillofacial surgery by health-care professionals. Int J Oral Maxillofac Surg 37:41–46.
10. 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 0state. J Maxillofac Oral Surg. 2015 Mar;14(1):51-6.