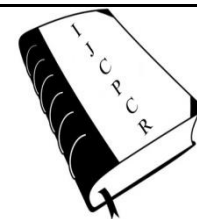




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TO STUDY KNOWLEDGE REGARDING MALOCCLUSION AMONG MEDICAL STUDENTS IN PUDUCHERRY

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ABSTRACT

Medical students should have some basic knowledge about malocclusion, because they are the future general practitioners who give primary care for all health-related complaints. Awareness about malocclusion and orthodontics is necessary to provide a comprehensive treatment. Orthodontic problems are not emergency so it is often overlooked by health professionals as less important. However various studies show that malocclusion has significant impact on the psycho-social health of the affected person. Malocclusion is the third most common oral health in the world, which is associated with inadequate oral hygiene, periodontal diseases, temporomandibular disorders, speech problems, mouth breathing and many more complications. Etiological factors range from genetic, ethnic and environmental factors. Recent studies show increased prevalence of malocclusion. This cross-sectional study involves medical students who come for clinical postings in dental department of various medical colleges in Puducherry by simple random sampling technique. Self-administered questionnaire is prepared and distributed to collect information.

Key words: Malocclusion, Facial profile, Incompetent lips, Awareness, Diastema, Crowding of teeth.

INTRODUCTION

The goal of orthodontic treatment is to attain optimal occlusion within the framework of function, stability and esthetics.[1] The oral-facial region is usually an area of significant concern for the individual because it draws the most attention from other people in interpersonal interactions and is the primary source of vocal, physical, and emotional communication.[2] As a result, patients who seek orthodontic treatment are concerned with improving their appearance and social acceptance, often more than they are with improving their oral function or health. [3]Enhancing these aspects of quality of life is an important motive for undergoing orthodontic treatment.[4]

Regardless of age, patients and their parents or caregivers expectations about improvements in oral function, esthetics, social acceptance, and body image are important for both general dentists and orthodontists to consider when advising patients about these procedures and during the treatment process.[5] Malocclusion can be defined as

an occlusion with mal-relationship between the arches in any of the planes or anomalies in tooth position beyond the normal limits are considered one of the most common oral diseases [6]. Orthodontic anomalies have been associated with psychosocial distress poor periodontal condition and impaired masticatory function and so should be regarded as a health problem. While there is evidence that certain features such as traumatic deep overbite, unprotected incisors and impacted teeth may adversely affect the longevity of the dentition, the relationship of dental irregularity to periodontal disease, caries and mandibular dysfunction is less certain.

MATERIAL AND METHODS

A study was conducted on medical students selected from various regions of Puducherry. A questionnaire consisting of 20 questions was handed to the

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students willing to participate in the present study to assess their knowledge about the principles of malocclusion. The medical students selected based on those who are completed their dental clinical postings. Students are randomly selected. [7] The questionnaire were validated by the subject experts on the basis of pre validated questionnaire based.

Inclusion Criteria:

Pre final year students completed dental posting.

Exclusion Criteria:

First year students and second year students.

The subjects are divided into three groups. Each group has 30 students. Third year and final year medical students as group I, Internstudent as group II, post graduate students as group III.

Ethical Considerations

The study was approved by ethical committee of Sri Lakshmi Narayana Institute of Medical Sciences, Pondichery and Pondichery Institute of Medical Sciences, Pondichery [Ref no: IGIDSIRB2015NRP21PGVAPPD; approved on 6/05/2017]. All participants had given written informed consent to participate in the study.

The study proposal was submitted to SLIMS and PIMS for ethical clearance. In this concern, it has been stated to the students that there is no direct benefit of their participation in the study; however, knowledge gained from the study may lead to the prevention and treatment of malocclusion (general population benefits) and about the confidentiality, that no information about the participants, or provided by them during the research will be disclosed to others without their written permission.

Table 1

Pre-piloted validated self-administered questionnaire

- 1. Do you know what is malocclusion?
a) Yes b) No
- 2. Can you access abnormal tooth position?
a) Yes b) No
- 3. Do you know about facial profile?
a. Yes b.No
- 4. Can you find out abnormal facial profile?
a) Yes b) No
- 5. Can you access abnormal lip position?
a) Yes b) No
- 6. Do you know the normal position of tongue in oral cavity?
a) Yes b) No
- 7. Does tongue position influence the tooth alignment?
a) Yes b) No
- 8. Does breathing pattern influences tooth position?
a) Yes b) No
- 9. Do you know that inflamed adenoids, tonsils have significant role to play in tooth alignment?

- a) Yes b) No
- 10. Can you find out malocclusions on clinical examination when patients report with any other complaint?
a) Yes b) No
- 11. Do you theknow that abnormal tooth position compromises oral hygiene?
a) Yes b) No
- 12. Are you aware that abnormal teeth,jaw position has psycho social impact in patients?
a) Yes b) No
- 13. Can you differentiate between normal and abnormal teeth and jaw relation?
a) Yes b) No
- 14. Do you know what is gummy smile?
a) Yes b) No
- 15. Are you aware about signs and symptoms of malocclusion?
a) Yes b) No
- 16. Do you know about the ideal age for correction of malocclusion?
a) Yes b) No
- 17. Do you know thebenefits of early treatment for malocclusion?
a) Yes b) No
- 18. Do you know that crooked teeth may cause temperomandibular joint pain?
a) Yes b) No
- 19. Can you find out the reason for this abnormal clinical condition?
a) Yes b) No
- 20. Do you explain the importance of correcting the abnormalities to the patients?
a) Yes b) No

STATISTICS:

The data was analyzed as frequency and percentages.

RESULTS:

The study population consisted on 90 participants who answered the questionnaire with 20 questions. The questions are numbered as Q1 to Q20 for convenient sake and results are represented in percentages as shown in Figures 1-2.

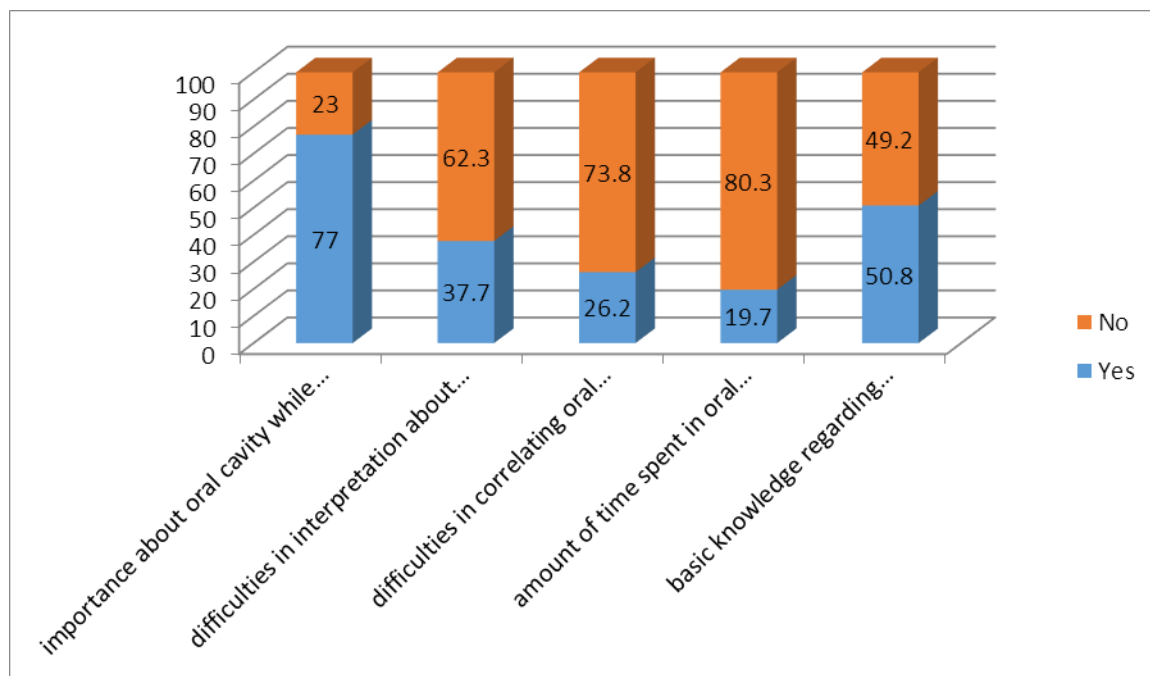
The majority of the medical students have given 10-15 minutes of time (Q1) and around 83% of them gave importance to interacting with patients about the dental problems (Q2). The medical students who finished their dental clinical postings have obtain knowledge about dentistry (24.6), prior to postings (Q10). Most of participants have (42.6%)differentiating between normal and abnormal condition in oral cavity(Q19).

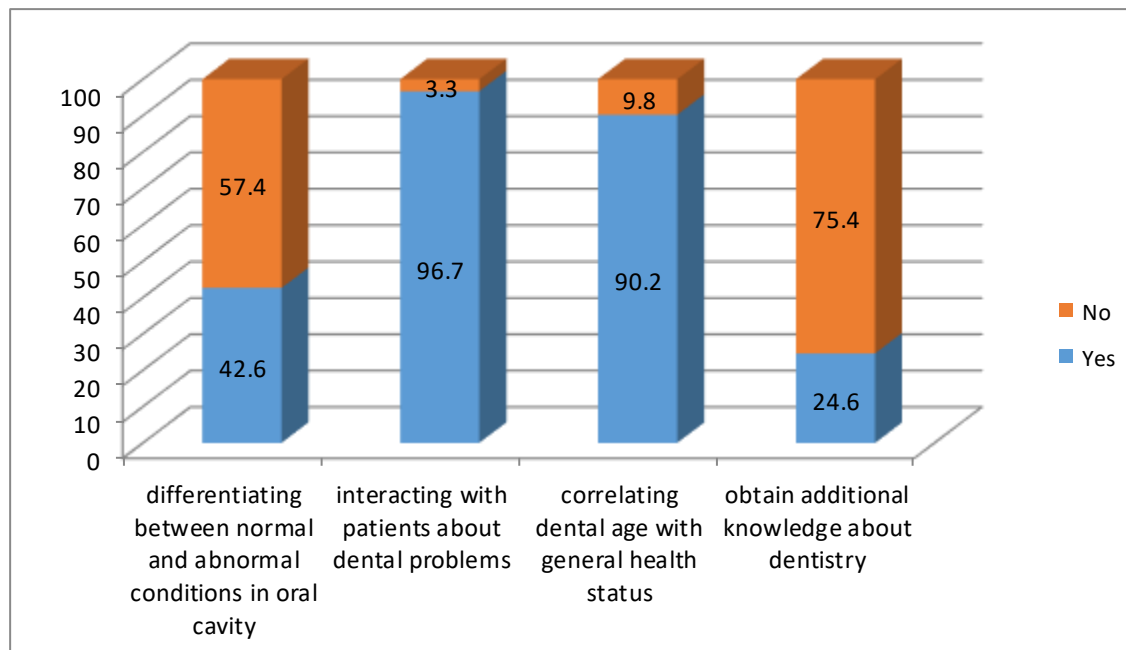
Around 67% of the participants have reported difficulty in recording amount of time spent for oral cavity examination

and 90.2% of medical students were correlating dental age with the gereneral health status of the patients.[8]

Table 1: The fingerprint patterns of control and affected students were compared

Fingerprint patterns	Left hands				Right hands				Both hands			
	NoofControl	Control (%)	No of Affected	Affected (%)	NoofControl	Control (%)	No of Affected	Affected (%)	NoofControl	Control (%)	No of Affected	Affected (%)
Radial loop	64	32.5	42	30	0	0	0	0	64	32.5	42	30
Ulnar loop	0	0	0	0	52	26.5	45	24	52	26.5	45	24
Lateral pocket loop	4	1.5	0	0	2	1.5	2	1.5	3	2	2	1.5
Double loop	8	4	12	2	6	4.5	6	2.5	10	6.5	6.5	7.5
Plain whorl	6	2.5	5	3.5	8	5.5	8	5.5	15	6	15	7
Spiral whorl	6	2.5	10	5	3	0.5	16	1.5	5	6.5	37	17.5
Double cored whorl	6	2.5	15	4	4	1.5	2	4.5	10	2.5	17	8
Elliptical whorl	0	0	6	5	7	0.5	9	5.6	2	6.5	15	7
Central pocket loop whorl	4	2	2	1.5	2	1.5	0	2.5	10	2	14	3
Accidental whorl	2	1.5	0	2	1	2.5	2	0	4	3.4	0	0
Plain arch	6	4	14	5.5	2	0.5	5	2	14	4.5	10	6.5
Tented arch	6	5	5	2.5	6	3.5	2	8	8	5.5	8	4





DISCUSSION

Malocclusion is the third most common oral health problems which is treated worldwide. Hence general practitioners' knowledge is of utmost importance. Treating patients earlier helps in achieving good health standard. [9] Correction of malocclusion with various techniques helps patients to get better pleasing smile/aesthetics, which in turn boosts up their confidence. Majority of medical students had a fair knowledge about the tooth malpositions (77%). [10] Real difficulties encountered by them (73.8%) in identifying malocclusion among the patients. Less time was spent by the students during the dental evaluation (19.7%). Half of the students had knowledge about treatment procedure to correct the malocclusion. The issues such as difficulty in differentiating between normal and abnormal tooth

positions can be resolved by adequate time spent for oral cavity evaluation, interacting with patients undergoing treatment in dental OPD, during their clinical postings. [10-11] The survey had highlighted the importance of their common dental problem, (malocclusion) necessity to correct at the earliest. These issues can be minimized by utilizing available dental consulting services in teaching institutions.

CONCLUSION

Awareness about dental health among medical students brings in significant changes in holistic care given to the general patients who turn up in great numbers to them. This study enlightens them to guide patients for timely dental treatments.

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