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## RESEARCH ARTICLE

### REASONS FOR AVOIDING ORTHODONTIC TREATMENT AMONG DENTAL AND NON DENTAL STUDENTS: A QUESTIONNAIRE STUDY

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#### ABSTRACT

**Aim:** The study aimed to assess reasons for avoiding orthodontic treatment among dental students and non dental students with malocclusion requiring orthodontic treatment. **Materials and Methods:** One hundred and fifty dental and one hundred and fifty non dental students who would fall into IOTN (Index of Orthodontic Treatment Need) index grade 3, 4 and 5 answered a semi structured questionnaire containing 4 questions which records their awareness and concern about malocclusion and reasons for avoiding orthodontic treatment. **Results:** The results showed a discrepancy in the response between dental and non-dental students. For the first, second and third questions both groups showed statistically significant difference in the response. There was no statistically significant difference between dental and non dental groups for the overall response received with respect to fourth question though the reasons mentioned for not seeking orthodontic treatment showed wide variations. Long duration and pain/discomfort are the most common reasons for avoiding orthodontic treatment in dental and non-dental students were respectively. **Conclusion:** There is a necessity to educate both the dental and non-dental students regarding recent advances in orthodontic treatment which decreases treatment duration and factors determining treatment duration and extent and amount of pain encountered during orthodontic treatment but the non-dental students should be more educated when compared to dental students.

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#### INTRODUCTION

Malocclusions, i.e., dental occlusion problems, are the result of orofacial adaptability to various etiological factors, which result in various implications ranging from aesthetic dissatisfaction to changes in speech, mastication, swallowing, TMJ dysfunction and orofacial pain (King, 1974). Malocclusions rank third among worldwide Public Health Dental Disease Priorities, first and second being the tooth decay and periodontal diseases respectively. Data from the Third National Health and Nutrition Examination Survey and western European studies suggest that two thirds to three

fourths of adults have some form of malocclusion, with consequences for not only physical well-being but also impairment of quality of life by affecting function, appearance, interpersonal relationships, socializing, self-esteem, and psychological well-being. According to the World Health Organization, the main oral diseases should be subjected to periodic epidemiological surveys. Knowledge of a population's epidemiological situation is vital for planning and providing prevention and treatment services (Marques and Pordeus, 2009). Opinions based studies or surveys are most frequently practiced in the field of research. These are the types of studies, where the data is collected from the subjects either in the form of a questionnaire, personal interviews, and telephonic interviews or via online services like web or E-mail

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networks. The results of the survey done with the help of the questionnaires are always subjective and generally depend on the response gained from the respondents. Most studies of adult orthodontic patients relating their malocclusion and oral health-related quality of life found that malocclusion in adults has a remarkable impact on oral health-related quality of life. Patients report lower levels of self-esteem and are self-conscious due to their negative dental esthetic perception and social appearance. Being aware of fact that we need orthodontic treatment many of patients avoid it because of reasons such as long duration of treatment, pain during treatment, subjective fear, fear of relapse, expenses, etc. Outcome of orthodontic treatment depends on many factors, one of it is patient’s attitude towards treatment, so there is need to conduct a study to predict patients attitude to orthodontic treatment, as there is a relationship between the complaints, acceptance and results of treatment (Beckwith, 1999). The aim of present study was to assess patient’s reasons for avoiding orthodontic treatment among dental students and non dental students for practice management of orthodontic patients.

**MATERIALS AND METHODS**

This is a cross-sectional semi-structured questionnaire based survey. In this present study total 600 Dental and Non Dental students were screened and IOTN Index 55 (Index of Orthodontic Treatment Need) was recorded. Out of them 150 Dental students and 150 Non Dental students who would fall into IOTN index grade 3, 4 and 5 were invited to participate in Questionnaire survey.

**The Questionnaire tool consisted of following questions**

- Do you know that you have irregular / gaps / overlapping/forwardly placed teeth requiring braces/clip treatment?
- Is the condition of your teeth affecting your appearance?
- Have you been to the braces specialist?
- Reason for not taking braces/clip treatment?

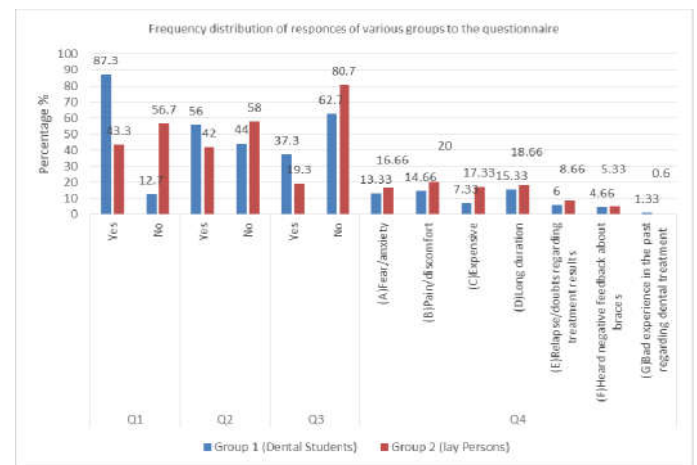
Questions One, Two and Three were dichotomous questions where students had to choose between yes or no. Fourth one was a simple closed ended question type and students were asked to select one answer from a defined list of choices. (Table 1). Data were analyzed using the statistical software program SPSS version 22.

**RESULTS**

The response rate is 100% as every one of study sample completed questionnaires in any of the groups. Table 1. Shows percentage distribution and comparison between the both groups. For the first question 87.3% of dental students and 43.3% non-dental students found that they have malocclusion requiring orthodontic treatment. Second question 56% of dental students and 42% of non-dental students reported being dissatisfied with the way their teeth appear in the mouth. Third question 37.3% dental and 19.3% non-dental students reported that they have not been to orthodontist. Fourth question 36% of dental students agreed long duration and 33.33% of non-dental students agreed pain/ discomfort as their reason for not taking orthodontic treatment Graph 1. Shows frequency distribution and comparison between both groups.

**Table 1. Frequency distribution and comparison between the both groups**

Question	Answer	Group 1 (Dental Students)	Group 2 (lay Persons)	Chi sq value	P value
1. Do you know that you have irregular / gaps / overlapping/forwardly placed teeth requiring braces/clip treatment?	Yes	131 (87.3%)	65 (43.3%)	64.109	<0.001**
	No	19 (12.7%)	85 (56.7%)		
2. Is the condition of your teeth affecting your appearance?	Yes	84 (56%)	63 (42%)	5.882	0.015*
	No	66 (44%)	87 (58%)		
3. Have you been to the braces specialist?	Yes	56 (37.3%)	29 (19.3%)	11.967	0.001**
	No	94 (62.7%)	121 (80.7%)		
4. If No, reason for not taking braces/clip treatment?	(A) Fear/anxiety	25 (16.66%)	20 (13.33%)	22.830	0.001**
	(B) Pain/discomfort	44 (29.33%)	50 (33.33%)		
	(C) Expensive	11 (7.33%)	26 (17.33%)		
	(D) Long duration	54 (36%)	25 (16.66%)		
	(E) Relapse/doubts regarding treatment results	7 (4.66%)	12 (8%)		
	(F) Heard negative feedback about braces	7 (4.66%)	16 (10.66%)		
	(G) Bad experience in the past regarding dental treatment	2 (1.33%)	1 (0.6%)		



**Graph 1. Percentage of distribution of response of dental and non dental students to the questionnaire**

**DISCUSSION**

Our study intended to evaluate reason for not taking orthodontic treatment by dental and non-dental students with malocclusion requiring treatment through questionnaire. In our study we have found that dental students have more awareness about orthodontic treatment than had non-dental students pertaining to first three questions. About the first question, 87.3% dental students and 43.3% non-dental students knows that they have malocclusion requiring orthodontic know treatment. Second question, 56% dental students and 42% non-dental students accepted that condition of the teeth affecting their appearance. Third question, 37.3% dental students and 19.3% non-dental students had visited orthodontist for malocclusion correction. Though dental students have more awareness, there is statistically significant difference had in the responses to the fourth question in both the groups (P=0.001). Both groups have their own reasons for avoiding orthodontic treatment. 36% had of dental students agreed that long duration was the reason for avoiding orthodontic treatment and 29.33% pain/discomfort was the second most reason for avoiding orthodontic treatment in dental students. Pain/discomfort was the reason for not taking orthodontic treatment in non-dental students with 33.33%. Our results agree with those of Kandi D et al. (2016) who conducted study agreed with 302 dental students to assess the reasons for avoiding orthodontic treatment found that long duration was most common reason

for avoiding orthodontic treatment (Kandi *et al.*, 2016). The duration of orthodontic treatment depends on many factors like severity of malocclusion, growth pattern of patients and compliance of patients, number of operators involved. Longmont *et al* conducted a study to identify some of the primary factors that influence orthodontic treatment duration. Pre-treatment records and all treatment progress notes were examined for 140 of the most recently and consecutively completed patients in five orthodontic offices. Thirty-one variables related to patient characteristics, diagnostic factors, modality of treatment, and patient cooperation was evaluated. Average treatment time was 28.6 months with a range of 23.4 to 33.4 months among the five offices. They reported that the number of missed appointments, the number of replaced brackets and bands, the number of treatment phases, oral hygiene, and the prescription of headgear wear during treatment were factors that influence treatment duration.

Our results were non concordant with Marques LS *et al* who conducted a study to assess the desire for orthodontic treatment through a questionnaire with sample consisting of 14 to 18 years age school children. Results showed that the majority of the Brazilian<sup>2</sup> adolescent's desired orthodontic treatment with 78% and 69% of the parents reported that their children were not in orthodontic treatment due to the high costs involvement. It is clear from the existing literature that all orthodontic procedures such as separator placement, arch wire placement, activations, application of orthopaedic forces and debonding produce pain in patients.

It is also clear that fixed appliances produce more pain than removable or functional appliances and there exists little correlation between applied force magnitude and pain experienced. The various discomforts experienced by patients after appliance placement are often described by them as feelings of pressure, tension, soreness of the teeth, and pain as such (Ngan *et al*, 1989). It is well-known that an individual's 'physiological and psychological susceptibility' can become a significant factor in the intensity of tissue discomfort caused by the physical effects of appliances.

It has been reported that the pain experienced by patients does not seem to be directly related to the magnitude of force exerted but relies heavily on the psychological well-being of the individual (Dubner, 1968) Sergl *et al.* (1998) reported a very distinct correlation between a patient's attitude towards treatment and discomfort felt after appliance insertion (Sergl *et al.*, 2000).

## REFERENCES

- Beckwith, F. R. 1999. An evaluation of factors affecting duration of orthodontic treatment. *Am J Orthod Dentofacial Orthop.*, 115:439-47.
- Kandi, D.D., Gulve, N. and Patani, S. 2016. The Prevalence of Malocclusion in Dental Students and Reasons for Avoiding Orthodontic Treatment: *International Journal of Oral Health and Medical Research*, | ISSN 2395-7387 | JAN-FEB | VOL 2 | ISSUE 5.
- King, E. 1974. Relapse of orthodontic treatment. *Angle orthod* vol.44 No.4.
- Lew, KL. 1993. Attitudes and perceptions of adults towards orthodontic treatment in an Asian community. *Community Dent Oral Epidemiol.*, 21; 31-5.
- Marques, L S. and Pordeus, I A. 2009. Factors associated with the desire for orthodontic treatment among Brazilian adolescents and their parents *BMC Oral Health*, 9:34
- Mavreas, D. and Athanasios, E. 2008. Athanasiou. Factors affecting the duration of orthodontic treatment: a systematic review. *European Journal of Orthodontics*, 30, 386–395.
- Neely, M. L., Miller, R. and Sharron, E. 2017. Effect of malocclusion on adults seeking orthodontic treatment. *Am J Orthod Dentofacial Orthop.*, 152:778-87.
- Sergl, H. G., Klages, U. and Zentner, A. 2000. Functional and social discomfort during orthodontic treatment-effects on compliance and prediction of patients adaption of personality variables. *European journal of orthodontics*, 22,307-315.
- Sidlauskas, A. and Lopatiene, K. 2009. The prevalence of malocclusion among 7–15-year-old Lithuanian schoolchildren. *Medicina (Kaunas)*, 45(2).

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