

DENTAL PHOBIA AMONG ORTHODONTIC PATIENTS

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ABSTRACT

A Phobia is an intense, unpleasant feeling which may prohibit patients from orthodontic treatment. To evaluate different types of dental phobia in patients undergoing orthodontic treatment. Descriptive cross-sectional study. Peshawar Dental College Hospital, Peshawar. Duration of study was from August, 2014 to February, 2015.

Both males and females reporting for orthodontic treatment that consented to participate in the study were included. All patients were interviewed regarding their fears about the said treatment using structured questionnaire. The information was classified into 3 groups as strongly phobic, moderate phobic and not phobic.

A total of 110 patients were selected for the study. Strong phobia was observed in 56 %, moderate in 18 % whereas 26 % were not having phobia. Besides, dental phobia was same at different stages of treatment, higher in the adolescent age and more in females as compared to males. Confidence to ask questions from the dentists was observed in 20 % patients. Eighty percent patients were satisfied from the attitude and way of treatment of the orthodontists.

Orthodontists should recognize the existence of dental phobia in patients coming for treatment. To reduce phobia, they need to develop skill to communicate effectively with the patients before undertaking any treatment.

Key Words: Dental Phobia, Orthodontic Patients, Peshawar.

INTRODUCTION

Phobia is the unrelenting fear of a situation or an activity. It is common in health services particularly in dentistry¹. It varies with the types of dental services and attitude of the dentists. Moreover, phobia is more prevalent in woman,² particularly the young individuals.³ As dental care services generally need multiple visits and interventional procedures are involved which is usually the main cause of dental phobia and subsequently delay in the dental treatment, resulting in poor oral health.⁴ Poor oral health and delay in treatment usually lead to dental diseases and or further aggravation of existing disease.

In orthodontic treatment, age is of crucial importance. The delay in the treatment can lead to chewing and digestion difficulties, speech impairments and abnormal wear of tooth surfaces in addition to psychosocial problems. The common hindrances in orthodontic treatment

are the cost, dietary restrictions, maintenance of oral hygiene and difficulties in routine social life.

It is therefore, essential that orthodontists should explain all these aspects in detail before starting the long term procedure/treatment to alleviate the fear and answer all the questions of the patients. The patients in Peshawar are comparatively less dentally educated, having different life style, living environment, personal hygiene, and quality/ habits of diet as compared to developed world. So they should need more care regarding the subject. The aim of the present study was to find the various types of dental phobia among patients undergoing the orthodontic treatment at Peshawar Dental College Hospital, Peshawar.

METHODOLOGY

This descriptive cross sectional study was conducted in Peshawar Dental College (PDC)/hospital, Peshawar. Patients from the Peshawar City and its surrounding villages are availing the treatment facilities from the OPD's of this college.

Sample Size Calculation:

Prevalence	= 50%
Confidence Interval (CI)	= 90%
α Error	= 10%

Formula for sample Size = $Z\alpha^2P(1-P)/d^2 = 96$

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10% was taken as non-response, so the total size calculated was 106, rounded to 110.

Sampling method:

Convenience sampling.

Inclusion criteria:

- Patient age group 11-20 years undergoing orthodontic treatment.
- Patient any significant dental history

Exclusion criteria:

- Patient with any systemic disease, and syndromic patients
- Generalized dental problem
- Patient having any psychiatric diseases

Intervention Procedure:

The study was approved by the local ethical research committee of the institute. The participants were informed about the objectives of the study and assured them of the confidentiality of the investigated information. After that, a written consent was taken from all the participants. Patients of both genders who fulfilled our inclusion criteria disregarding their malocclusion were included in the study. The age of included subjects was 11-20 years.

The patients were randomly selected (Table 1) and were interviewed in their mother language. The structured interview was conducted on different occasions like one day prior to visit the dentist, when sitting in the waiting room of the dentist, then sitting on the

dentist's chair before and after procedure. Phobia were graded as Nil/No if score is (1-4), Moderate/Little (5-12) and Strong/High (13-20).⁵ Information regarding age, gender, duration/stage of treatment, types of phobia was elicited from each of the participants. They were also asked regarding confidence of asking question, dentist's way of treatment, instructions regarding effect and consequences of treatment. The average interview time was 10 minutes.

Statistical analysis:

Data were analyzed by using SPSS version 10. Quantitative variables were presented in the form of Mean \pm SD and qualitative variables in the form of frequency distribution and percentages.

RESULTS

Literacy rate was same in both genders. Majority of the patients (89%) were school going, few (08%) were inter level college students and only 03% were illiterate. Most of the patients were in the age range 13 to 18 years.

A high proportion (56%) showed strong/high phobic attitude, 18% moderate/little phobia and 26% had no phobia. Braces discomfort was common in both genders, followed by social phobia, observed in 74 and 42 subjects respectively.

Eighty percent patients were happy from the way of treatment of dentists. While 20% patients criticized the dentist, had complain on opinion of the dentists regarding the poor status of the teeth. 11% females and 09% males showed self-confidence of asking questions

TABLE 1: DISTRIBUTION OF PARTICIPANTS BY AGE AND STAGES OF TREATMENT

Age range	Leveling and alignment stage	Space closure, open bite reduction, deep bite correction stage	Finishing stage	Total No. of cases
11-12	06	09	03	18
13-14	08	15	06	29
15-16	05	14	05	24
17-18	07	13	03	23
19-20	03	09	04	16

TABLE 2: PATTERN OF PHOBIA BY SEX AMONG ORTHODONTIC PATIENTS

Type of phobia	Male	% age	Female	%age
Psychological Phobia	15	11.19	20	13.61
Social Phobia	21	15.67	21	14.29
Braces Discomfort able Phobia	36	26.86	38	25.85
Pain Phobia	11	8.21	14	9.52
Infection Phobia	09	6.72	10	6.80
Lengthy Procedure Phobia	17	12.69	16	10.89
Treatment Cost Phobia	08	5.97	07	4.76
Anesthetic Phobia	11	8.21	14	9.52
Past negative experience of friends	06	4.48	07	4.76

to dentists. Few patients had phobia due to past worse experience of their friends and the response was same irrespective of gender.

DISCUSSION

Phobia is the major hindrance in the orthodontic treatment. In the present study, we found that 56% subjects had strong phobia. The reason for the figure may be comparatively less basic health education, young age and lack of knowledge regarding the treatment in our population. A study in USA carried out general dentistry phobia estimated that 75% of US adults experienced some degree of dental fear ranging from mild to severe.⁵ Phobia was observed more in the age group 13 to 18 years similar to other studies which showed that most dental phobias started before the age of 20 years⁶ with higher percentage of phobias between ages of 15-19 years.⁵

Both braces discomfort and social phobia were common in the participants of the current study. The possible reason is that youngsters usually have no patience for the long treatment and do not like the braces in the social life. The present study reported the level and types of phobia in patients undergoing orthodontic treatment only; therefore our results were not comparable with the previous studies due to specific nature of our patients.^{5,7}

In current study, 6 males and 7 females developed phobia from their friend's opinion about dental treatment which is also observed in other studies in which patient developed dental fear after they hear about someone else's traumatic experience or negative views of dentistry.⁸ Twenty percent of our patients reacted strongly against the embarrassing comments of dentist for poor status of patient's teeth. This reaction between males and females was the same, similar results were reported one previous study.⁵

Patients generally develop fear and get phobia by looking at the instruments in the dental clinic. Quakes and semiskilled dental care providers have less elaborate instruments in comparison to sophisticated arrangements in qualified dental clinics, hence have minimum phobia among their patients.⁶

On the issue of taking liberty of asking questions to dentist, 11% females and 09% males showed self confidence in doing so. Females showed more courage than males to cross-question the dentist and getting their points clarified.

In developed countries now the psychologists join dentist, which have shown significant reduction in dental fear resulting in satisfactory dental treatment

outcomes.^{9,10} The ultimate goal of orthodontist should be, to make the visits comfortable, relaxed and improve doctor-patient relationship. This will help him not only share basic information regarding treatment but will also minimize dental fear during painful procedures.¹¹

CONCLUSION

- Orthodontists should recognize the existence of dental phobia in patients coming for treatment. To reduce phobia, they need to develop skill to communicate effectively with the patients before undertaking any treatment.
- To decrease communication gap patient should be encouraged to ask questions regarding duration of treatment, level of pain during treatment and dietary changes.
- Mother tongue of a patient should be used to make patient understand about all the pros and cons of orthodontic treatment.

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CONTRIBUTION BY AUTHORS

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| 1 Shahab Adil: | Title and design selection. Final draft of article approved. |
| 2 Khalid Hassan Khan: | Data collection and analysis. Methodology |
| 3 Kawish Syed: | Revision of the article draft/ discussion |