

Dental Phobia as a Barrier to Oral Health

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Abstract

Objective

The objective of the study was to assess the barriers to oral health in population in Punjab Province, Pakistan.

Material and Methods

It was cross-sectional descriptive questionnaire-based study in which 300 people residing within the city of Lahore were selected using convenience sampling technique.

Results

Among 300 respondents, the majority (about 61%) had dental related problems like toothache, sensitivity, caries, gum bleeding etc. More than half (56%) of respondents visited dentist only 'in case of pain'. 78% of respondents preferred to visit qualified dentist. 73 % of respondents paid attention on dental instruments sterilization. About 35% respondents avoided visiting dentists due to fear of infectious diseases and 62.7% avoided due to external material or tools going in their mouth. About 28% respondents were afraid of injection and majority (70%) was afraid of pain. Almost 35% respondents did not visit dentist due to long distance. Among the respondents, 31% had dental phobia.

Conclusion

Dental phobia is a particular form of fear that is anticipated to begin from early childhood and may or may not regress as age progresses. It acts as a barrier to dental care and treatment for a consistent proportion of the population. The study shows that dental phobia acts as a barrier in receiving dental treatments.

Key Words Dental phobia, tooth extraction, sterilization.

INTRODUCTION:

Dental phobia is a particular form of fear that may begin from early childhood, intensity of which may regress or progress with age. The fear restrains patients from visiting qualified

dentists and as a result the oral health care is compromised affecting their overall health. The dental phobia acts as a barrier to dental care and treatment for a consistent proportion of the population. Anticipation of fear of pain during and after the dental treatments, injections, tooth extraction, external materials or instruments going inside the mouth, catching communicable diseases including hepatitis B, HIV etc., and or fear of using unhygienic or unsterilized dental instruments during the treatments act as barriers that inhibits the patients from seeking dental care and treatment. In addition, non-availability of dental services near their homes, long distances a person is to travel to reach dental clinics, non-availability of qualified dentists, high dental charges and time-consuming visits to the dental clinic are some of other barriers that hinder dental treatments.

METHODOLOGY:

A population-based cross-sectional design was used to collect data by convenience sampling technique and draw evidence-based results from a total of 300 male and female population in Lahore. Considering the nature of the study, households that had at least one male and one female member within the age group of 10-65 years were selected for the study. The population was selected who can fairly understand and express their feelings on personal dental anxiety experiences and behaviors. A survey questionnaire was developed keeping in view the scope and objective of the study. The questionnaire was pre-tested on 5 male and 5 female respondents. As a result of the feedback the questionnaire was revised and then finalized.

A careful process was undertaken to collect data from the intended respondents. First, the researcher concisely introduced the objectives of the research and invited the participants. After taking the consent, the questionnaire was administered to the participants. The questionnaire contained a set of questions, allowing the participants to fill in the questionnaire in accordance to any possible dental fears and their personal past dental treatment experiences.

The participants who could not read and write were assisted based on their thoughts, experiences and feedback by the researcher who was filling the questionnaire for them. Population was considered eligible who live within Lahore city of Punjab province and represent age groups of 10 to 65 years. Data was entered in computer software SPSS 16.0 using Mini tab tools. The data were counter checked, cleaned and statistically analyzed with same software. Frequencies and percentages were calculated and data was presented in tables and graphs.

Verbal consent to participate in the study was taken from both male and female respondents. Privacy and confidentiality of all respondents was maintained at all costs in accordance with principles laid down in Helsinki Declaration of Bioethics.

RESULTS: -

A total of 300 people were selected for the study, out of these 136 (45.3%) respondents were males and 164(54.7%) were females (Figure1). The largest age group of male and female respondents 97 (32.3%) was up to the age of 20 years, 90 (30%) were 21-40 years old, 65 (21.7%) respondents were 31-40 years old, 25 (8.3%) were 41-50 years old and 23 (7.7%) respondents were more than 50 years old (Figure 2).

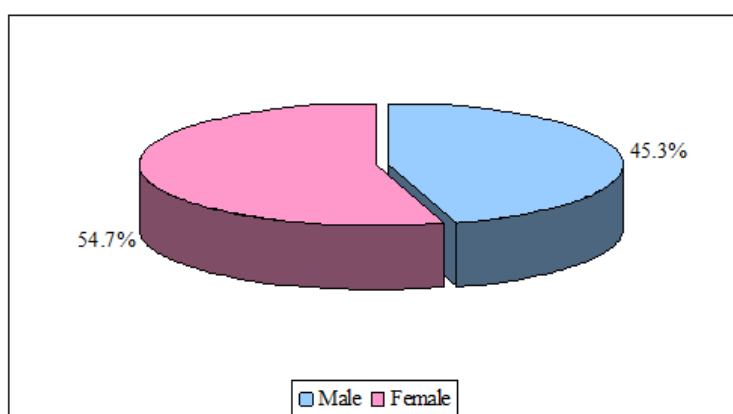


FIGURE 1: FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO SEX

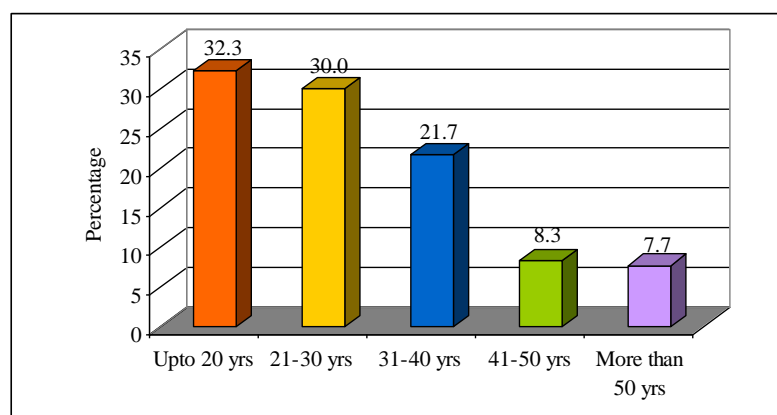


FIGURE 2: FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO AGE

The Table 1 shows that major portion of the respondents 182 (about 61%) had dental related problems including toothache, sensitivity, caries, gum bleeding etc.

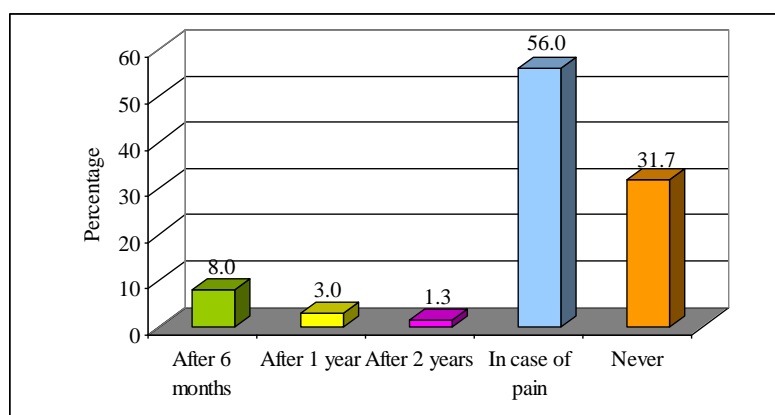
TABLE 1: FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO DENTALRELATED PROBLEMS(Toothache, Sensitivity, caries, Gum Bleeding etc,)

$n = 300$

Dental Related Problem	Frequency	Percentage (%)
Yes	182	60.7
No	118	39.3
Total	300	100.0

It was noteworthy that majority 168 (56%) respondents said that they visit the dentist only in case of pain (Figure 3). Whereas, some 32% of respondents said that they never visit the dentists or dental clinics.

FIGURE-3 FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO NUMBER OF VISIT TO DENTIST



It was inferred that 93(31%) respondents said they have dental phobia (Table 2)

TABLE-2: FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO DENTAL PHOBIA

$n = 300$

Dental Phobia	Frequency	Percentage (%)
Yes	93	31.0
No	182	60.7
Don't know	25	8.3
Total	300	100.0

Looking into different barriers of dental phobia it was interesting to find that 234(78%) respondents preferred to visit qualified dentist (Table3). Whereas, some 17% of respondents do not prefer to visit the qualified dentist.

TABLE-3 FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO PREFERENCE TO VISIT A QUALIFIED DENTIST

$n = 300$

Prefer to Visit Qualified Dentist	Frequency	Percentage (%)
Yes	234	78.0
No	50	16.7
No preference	16	5.3
Total	300	100.0

It was interesting to find that 219 (73%) respondents said they pay attention on dental instrument sterilization (Table4).

TABLE-4 FREQUENCY DISTRIBUTION OF RESPONDENTS ACCORDING TO
ATTENTION PAID TOWARDS DENTAL INSTRUMENTS STERILIZATION

$n = 300$

Dental Instruments Sterilization	Frequency	Percentage (%)
Yes	219	73.0
No	62	20.7
No preference	19	6.3
Total	300	100.0

In addition, it was an important finding that 107 (35%) respondents avoided visiting dentists because they were afraid of infectious diseases (hepatitis etc.) from dental instruments. They were also afraid of external materials or tools going in mouth 33%, fear of tooth extraction(32%), fear on injection(28%), fear of more pain during or after treatment(31%).

Moreover other barriers in visiting dental clinics included fear of frequent or time consuming visits to clinic(38%) and 35% avoided visiting dentist because there was no dental clinic near their home.

DISCUSSION: -

Dental phobia is one of the leading public health problems. The prevalence of dental phobia has been studied among different populations during past few decades. Present study was carried out to assess the barriers of dental phobia because of which people avoid getting the dental treatments. To obtain appropriate outcomes, a cohort of 300 respondents was selected in the study. The study comprised the largest age group of male and female respondents 97 (32.3%) was up to the age of 20 years, 90 (30%) were 21-40 years old, 65 (21.7%) respondents were 31-

40 years old, 25 (8.3%) were 41-50 years old and 23 (7.7%) respondents were more than 50 years old. A similar study performed by Kumara Kumara *et al.*, 2013 regarding dental phobia showed that 16.3% patients were up to 30 years old and remaining proportion (83.7%) was more than 30 years of age.

Gender is one of the most commonly reported factors in the extant literature that is associated with differences in dental fear (Liddell & Locker, 1997). Gender differences are also exhibited in the prevalence of most specific phobias (Fredrickson *et al.*, 1996). Liddell and Locker (1997) concluded that gender difference in dental fear might be due to the complex factors involved in men's and women's attitudes toward pain and control. In the present work the subjects under study have demonstrated that females did not show greater dental anxiety than the males.

Dental phobia is a significant cause that discourages people and they do not visit dentist unless they have severe pain or serious issue. It is pertinent to mention here that only 11% respondents visited dentist within one year, 1.3% between 2 years while 56.0% visited in case of pain while 95% respondent did not visit dentist due to dental phobia. A study done by Appukuttan *et al.*, 2013 also showed that 50% respondents visited dentists within one year, 17.9% within two years and 32.1% respondents visited dentists in more than two years. When the **dental phobia** was assessed among respondents, study showed that 31% respondents had dental phobia. It is worth-mentioning here that a major proportion (78%) of respondents preferred to visit qualified dentists. **Visiting qualified dentist** is very much essential that prevents people from infectious diseases.

The importance of proper **sterilization of dental instruments** cannot be overlooked as it helps preventing people from infection. It is also observed that people most of the times do not visit dentists due to fear of non-sterilized instruments. It was very encouraging that majority (73%) of respondents paid attention on dental instruments sterilization. Possible risk of **infection by dental instruments** is a major cause of dental phobia among people and they avoid visiting dentists which intrude the oral health requirements. Study disclosed that 35.7% respondents avoided visiting dentists because they were afraid of catching communicable or infectious diseases (Hepatitis B, HIV etc.) from dental instruments. This corresponds to the findings of study, conducted by Akeel and Abduljabbar (2000) who reported that 35% people were afraid of catching some infections at the dentist's clinic through instruments.

It is seen that people do not visit dental clinics because they have phobia that **external material or tool** will go in the mouth. Study showed that 33% respondent did not visit dental clinic for this reason. A study conducted by Kadaluruet *al.* (2012) showed that only 8.5% people were afraid of dental tools. Study further revealed dental phobia among respondents and found that 32% avoided visiting dentists because they had fear that dentist will **extract their tooth** while 27.7% avoided due to **fear of injection**. It is important to mention that 31.3% respondents avoided visiting dentists owing to fear of pain. The findings of this study are consistent with the study performed by Kakatkaret *al.*, 2011 who elucidated that 30% had fear of painful dental procedure. Dental treatment is considered very costly **and time consuming**. It is pertinent to mention that 38% respondents did not visit dentist as it was regular continuing or time consuming. It important to mention that **long distance** was also one of the factors that discouraged people in acquiring dental treatment. During study it was found that 34.7% respondents avoided visiting dentists because no clinic was near their home. Kakatkaret *al.*, 2011also described in their study that 21.3% respondents did not visit dentists due to long distance.

CONCLUSION

The dental phobia, a particular form of fear, has been found to be a common problem among the respondents. The dental phobia acts as a major barrier to oral health or dental care and treatment. The results of the study showed that most of the respondents had dental related problems like toothache, sensitivity, caries, gum bleeding etc. Frequency of dental visits was found unsatisfactory with majority of the respondents visiting the dentists only ‘in case of pain’.

The study showed that dental phobia exists in the population under study regardless of age or gender and may or may not regress with age. However, the dental phobia including use of unsterilized dental instruments, risk to catching diseases from use of dental instruments, fear of external materials or tools going in mouth, fear of tooth extraction, fear of injection, fear of pain during or after dental treatments, fear of regular or time-consuming visits to dental clinic exists and causes hindrance in getting dental treatments.

In addition, non-availability of dental services near their homes, long distances a person is to travel to reach dental clinics and time consuming visits to the dental clinic are some of other barriers that hinder dental treatments.

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