Assessment of Pre and Post dental treatment Anxiety among Saudi Arabian population

*Abdulrahman Alatram[1]

ABSTRACT

AIM: To estimate the prevalence and associations of dental anxiety and to find out the methods to relieve anxiety in a sample of the Saudi Arabian population. **MATERIAL & METHODS:** Four hundred subjects from Saudi Arabia of different age groups were evaluated by a questionnaire. **RESULTS:** A majority of the subjects (80%) were accompanied by a friend or relative to the dental clinic. 70.5% of the subjects were anxious or afraid to go to a dental clinic but 76.7% of the subjects said that they were more relaxed after spending sometime in the clinic. The factors which relaxed them were presence of accompanying person and communication with the dentist whereas communication with other patients in the waiting area and the ambience of the clinic were not major factors. 32% of the subjects found that the treatment procedure during their first appointment was painful. Most of the patients found visit to a dental clinic was better than that to a general hospital. Most of the subjects (89.3%) responded that their overall experience about their first dental visit was good or fair and only 10.7% said that it was poor. 61.3% of the subjects were willing to go back to the same dentist. **CONCLUSION:** The prevalence of dental anxiety was high (70.5%). The apprehension seen towards dental treatment is based on misconceptions and fear of the unknown. My suggestion is to conduct awareness camps in localities and organize school trips to allay the fear of unknown.

الملخص

الأهداف: تحديد معدل انتشار ومسببات القلق الناتج من مشاكل الاسنان , ولمعرفة وسائل تخفيف هذا القلق في عينة من السعوديين. **المنهج:** تم تقييم 400 شخص سعودي من مختلف الاعمار بواسطة استبيان. **النتائج:** أغلب المشاركين (80%) حضروا لعيادة الاسنان برفقة صديق او قريب . 70,5% من المشاركين كانوا قلقين وخائفين للذهاب الي عيادة الاسنان , ولكن 76,7 من المشاركين شعروا بالراحة والاسترخاء بعد الجلوس لبعض الوقت بعيادة الاسنان. من اسباب استرخاء المشاركين وشعورهم بالارتياح وجود المرافق وايضا التواصل مع طبيب الاسنان وليس تواصلهم مع المرضي الاخرين او وجودهم في بيئة العيادة . 32% من المشاركين افادوا بوجود الم خلال المعالجة في اول موعد . زيارة عيادة الاسنان افضل من زيارة المستشفى العام لدي أغلب المشاركين . 89,3% من المشاركين افادوا ان تجربتهم في الزيارة الاولي لعيادة الاسنان كانت جيدة وفقط 10.7% كانت تجربتهم سيئة. 61.3% من المشاركين رغبوا في العودة لمراجعة نفس طبيب الاسنان **الإستنتاج:** معدل انتشار القلق الناتج من مشاكل الاسنان عالي (70.5%) . وهذا القلق والخوف بني علي المفاهيم الخاطئة والخوف من المجهول. نقترح حلقات توعية في المناطق وتنظيم رحلات للمدارس لرفع الخوف من المجهول

INTRODUCTION

Dental treatment is an integral part of health care system. In dental hospital it is noticed that most of the patients are anxious during the appointments. The prevalence of dental anxiety has been shown to range between 4 and 20% in the general population of industrialised countries [1-3]. Fear is the distressing emotion aroused by danger or pain, real or imagined. When fear becomes irrational it becomes a phobia. Dental anxiety may in some cases progress on to become a phobia [4]. Sometimes it is difficult to manage a patient in the dental clinic psychologically. Dental anxiety partially limits, or completely prevents, utilisation of oral health care services [5, 6]. Patients are apprehensive for simple dental procedures. This apprehension prevents them from visiting the dental clinic when the dental disease is at an initial stage and they visit dental clinic only when the disease has reached an advanced stage and more aggressive treatment approach is required for the treatment. This affects the oral health and quality of life .When professional care is provided, it is often given under general anaesthesia without consideration of the aetiological factors behind dental fear. Ideally, the

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*Correspondence: a.atram@mu.edu.sa
[1]Assistant Professor, College of Medicine, Majma'ah University

management of patients with dental anxiety requires psycho-behavioural and sedation procedures [7, 8] as alternatives to general anaesthesia. Such techniques have been shown to improve patient capacity to cope with dental care over time [9].

Dental fear and anxiety may have a complex and multifactorial psychological aetiology. Most dental providers are well versed in treating pain with pharmacological tools but very few understand and address the underlying fears of the patient [10].The aims of this study were to estimate the prevalence and associations of dental anxiety and to find out the methods to relieve anxiety in a sample of the Saudi Arabian population. Although similar studies have been done previously, most of the studies have focussed on a given set of population for example university students or adolescent females [11, 12].

MATERIALS AND METHODS

A simple random sampling method was chosen for this study. 20 dental students of college of dentistry – Majmaah University, who belonged to different regions of Kingdom of Saudi Arabia were chosen, they were explained about the purpose of the study. Each student was given 20 questionnaires, the students then interviewed the subjects belonging to their respective areas during vacations. This helped us to get a representative sample from different regions of Saudi Arabia. As the questionnaire was administered by trained dental students, all 400 questionnaires were complete and were included in the study.

The study included only those subjects who had undergone dental treatment and the questionnaire was administered after treatment. As the subjects were answering the questionnaire under free will and were free to choose not take part in the study, there were no ethical implications and hence ethical approval was not obtained.

Questionnaire consisted of seventeen questions which were divided in to four sections. The first section had questions which were related to subject's apprehension before visiting a dental clinic. Section 2 consisted of questions that were related to change in attitude during and after treatment. Questions in section 3 were related to their experience during treatment. The last set of questions was designed to evaluate the subjects' views after treatment.

Table 1: Quesstionnaire with results

No	Question	Response of Subjects		
1	At what age did you visit to dental clinic first time?	18- 30 years 63%		30-45 years 37%
2	Who accompanied you to the dental clinic?	Friend or relative 80%		Alone 20%
3	Were you anxious or afraid to go to the clinic?	Yes 70.5%		No 29.5%
4	If yes what was the reason for your fear?	Friends Family member experience 80.5%		Self research 19.5%
5	What made you anxious?	Fear of pain 54.6%	Appearance and sound of the instruments, injection or light 34.4%	Dental personnel (dentist or assistant) 11%
6	After spending some time in the dental clinic, were you less anxious (relaxed) than earlier?	Yes 76.7%		No 23.3%
7	Did the presence of accompanying person help you to relax?	Yes 74.6%		No 25.4%
8	Did the communication with dentist help you to relax?	Yes 80.1%		No 19.9%
9	Were there any audio visual aids to help you relax?	Yes 48.2%		No 51.8%
10	Did the communication with other patients in the waiting area help you to relax?	Yes 40.1%		No 59.4%
11	Did the ambience/ surrounding help you to relax	Yes 54.4%		No 45.6%
12	Did you receive any oral injection during the first dental visit?	Yes 64.7%		No 35.3%
13	Was the oral injection more painful than extra oral injection?	Yes 65%		No 35%
14	Was the treatment procedure during their first appointment painful?	Yes 32%		No 68%
15	How was your dental experience as compared to hospital visit for a non dental procedure?	Better than hospital visit 55%	Hospital visit better than dental visit 21%	Both were same 24%
16	How do you rate the first dental experience?	Fair 55.1%	Good 34.2%	Poor 10.7%
17	Would you like to go back to the same dentist?	Yes 61.3%		No 38.7%

The answers were tabulated and descriptive analysis was done to arrive at the results.

RESULTS

A total of 400 responses were analyzed and tabulated (Table 1), as the questionnaire was interviewer administered 100% response rate was achieved. All the respondents belonged different parts of Saudi Arabia and were between18 to 45 years of age. The questions 1-5 were designed to ascertain the attitude of the subjects towards dental treatment prior to their visit to the dental clinic. It was noticed that irrespective of the age group 80 % of the subjects were accompanied by a friend or relative to the dental clinic. 70.5% of the subjects were anxious or afraid to go to a dental clinic; among these subjects 80.5% were afraid after hearing about dental experiences of friends and family and not because of any firsthand experience. 54.6% of the subjects said that they were anxious because they expected the procedure to be painful, whereas 34.4% were afraid of the dental chair, equipment's and oral injections. Only 11% were afraid of the dental personnel (Figure 1).

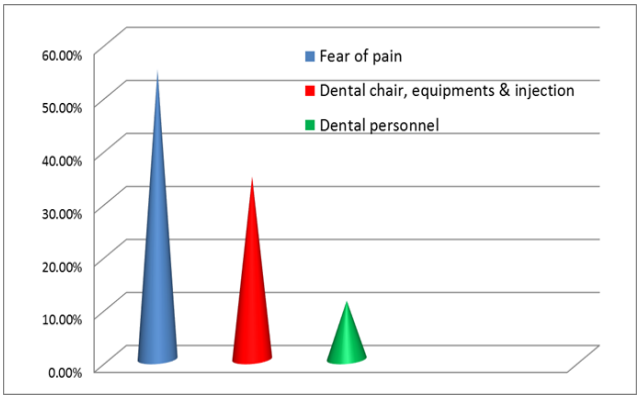


Figure 1: What made you anxious?

The questions 6-11 were designed to assess any change in attitude and the reasons for change, during or after the treatment. 76.7% of the subjects said that they were more relaxed after spending sometime in the clinic. Among these persons, 74.6 % said that the presence of accompanying person was an important factor in helping them to relax. 80.1% said that communication with the dentist helped them to relax. 51.8% of the subjects did not find any audio-visual aids which could help them to familiarize with the treatment procedures, which could help to ally their anxiety. Communication with other patients in the waiting area and the ambience of the clinic were not major factors and only 40.1% and 54.4% respectively found them to be of any help (Figure 2). Questions 12-14 were designed to evaluate the experience of the subjects during treatment. 64.7% of the subjects received oral injection during their first appointment and 65% of them said that oral injection was more painful than any other injection taken elsewhere on the body (extra oral). 32% of the subjects said that the treatment procedure during their first appointment was painful.

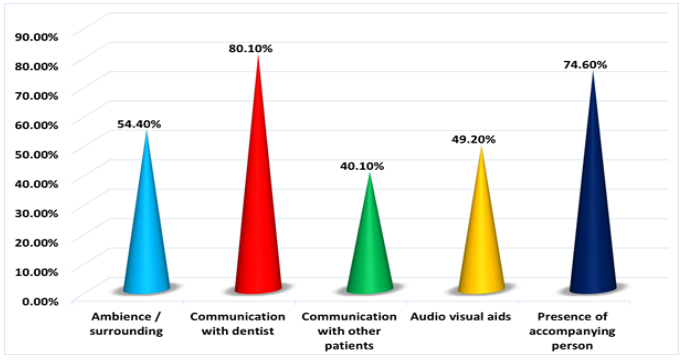


Figure 2: Factors help subjects to relax after some time

Questions 15-17 were designed to check for the patient's views and attitude post treatment. 55% of the patients found that the visit to a dental clinic was better than that to a general hospital, whereas 21% said that the hospital visit was better and 24% found both to be the same (Figure 3). 89.3% of the subjects responded that their overall experience about their first dental visit was good or fair and only 10.7% said that it was poor (Figure 4). 61.3% of the subjects were willing to go back to the same dentist. As this was a descriptive study, no statistical tests were used. Only the percentages of responses were calculated.

DISCUSSION

In dental practice it is seen that the number of people with dental problems and the number of people who seek dental treatment voluntarily is highly disproportional [13], even when the dental treatment is easily available to the general population. The reason for this discrepancy may be psychological barriers which exist due to misconceptions about dental treatment.

The presence of dental anxiety among general population is a known fact; its prevalence varies depending on the sample population [14]. In my study I found that majority of the subjects were afraid/ anxious to go to the dental clinic, the reason for this

fear was the impression created by peers and family members about dental treatment and not based on actual knowledge gained either by research on the internet or by accompanying someone to the dental clinic. Many of the respondents also said that they were afraid because they expected the treatment to be painful and were anxious of sitting alone on the dental chair, and the instruments. Hence we can infer that the pre-visit anxiety is mostly due to fear of the unknown and general population needs to be made aware of the dental procedures.

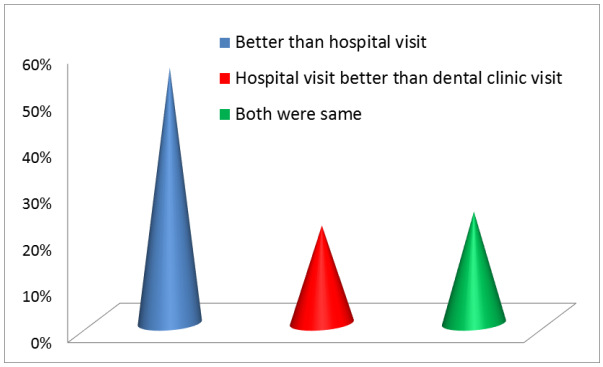


Figure 3: How was your dental experience as compared to hospital visit for a non dental procedure?

When the subject was asked about their anxiety or fear after spending sometime in the dental clinic, surprising a huge proportion of the people said that they were more relaxed. Many factors like communication with the dentist, who explained the procedure or reassurance by the accompanying person also helped them to relax. One important point noted in our study was that more than half of the subjects said that there were no audio-visual aids available in the clinic. In previous studies it is reported that the presence of charts or videos which explain various treatment procedures in the waiting area helps to allay the fear in the patient and makes him more receptive to treatment [15]. Studies have also shown that communication with the dentist helps in behavior management of the patient [16] which was also proved in this study.

Even though majority of the subjects said that they received oral injection during their first dental appointment, they also said that except for the injection, they did not find the treatment procedure to be painful. I suggest that oral injections during first visit should be avoided but if the need for the injection is justified, then minimizing the pain may also make the patient more comfortable.

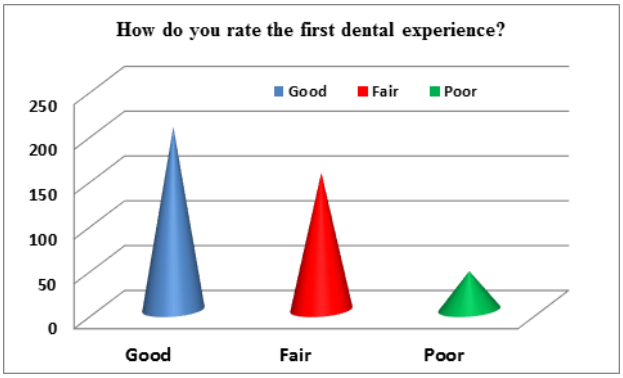


Figure 4: How do you rate the first dental experience?

Majority of the respondents found the visit to a dental clinic to be better than visit to the general hospital and the overall experience was rated to be good or fair by a large number of subjects. This suggests that once the patient is familiar with the treatment procedures and dental clinic, he/she is not scared or afraid of the dental procedure or dentist.

CONCLUSION

Based on the findings of this study I can conclude that the prevalence of dental anxiety was high (70.5%). The apprehension seen towards dental treatment is majorly based on misconceptions and fear of the unknown. Hence in order to reduce dental anxiety among general population my suggestion is to conduct awareness camps in localities and organize school trips to allay the fear of unknown. Additionally the dentist can also make the patients experience better by speaking to the patient in his office and familiarizing with him before taking him to the dental chair.

CONFLICT OF INTEREST

There were no financial and personal relationships with other people or organization that could inappropriately influence this work

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