

Original Research Paper

Dental Phobia among National Guard Employees at Central Region

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Dental phobia among National Guard employees has not been evaluated and resolved. Questionnaire forms were prepared to measure the causes of the fear of dental clinics. The questionnaire was distributed in the major hospital in King Abdulaziz dental center and all dental clinics of primary health care of the National Guard. We determined cases of fear such as anesthesia injection, sounds of instruments, and material odor, these are the major causes of phobia. Treatment plan explanation can reduce phobia. Also, we found that females have more fear than males which agrees with previous researches. The result of our study is to enlighten patients and give a long time to explain the treatment to reduce fear.

Keywords: Dental phobia, Anesthesia, National Guard.

INTRODUCTION

Dental Phobia is traditionally defined as an irrational severe fear that leads to avoidance of the feared situation, object, or activity, even though the Greek word "Phobia" simply means fear. Exposure to the feared stimulus provokes an immediate anxiety response, which may take the form of a panic attack⁽²¹⁾. It also refers to extreme fear of dental treatment and stimuli associated with this procedure "Kristin Hauket et al."⁽¹⁾

Dental phobia is a subjective state of feeling or reaction to a known source of danger that lies in the subconscious negative expectations, which are often linked to earlier traumatic experiences, negative attitudes in family, fear of pain and trauma, perception of an unsuccessful treatment and painful previous treatment are reported to be the major factors of fear reactions.⁽²⁾ Dental phobia also refers to a patient's response to stress that is specific to dental situations.⁽⁵⁾ It is also known as a traumatic experience that causes muscle tension, heart rate, or skin conductance.⁽⁴⁾ Also, it has been identified as a major obstruction barrier to seeking dental care among some patients.⁽¹⁹⁾

Phobia itself is a cognitive, emotional, and physical reaction to a dangerous situation or rather the anticipation of a threat.⁽¹⁰⁾ In addition, it is a state of distress in anticipation or presence of perceived danger or fear of pain. It has been described as a state of distress related to a very specific type of stimulus namely pain by Vanwijk and Hoogstraten in 2003.⁽¹⁶⁾ Dental

phobia among national Guard employees that received dental treatment has not been evaluated. The aim of this study is to evaluate the causes of Dental Phobia and to compare if there is a sex difference in the perception of phobia between males and females. This study is also aimed to evaluate if the age of the patients is a critical influence in Dental Phobia.

MATERIAL AND METHOD

The questionnaire form was prepared. The distribution of the questionnaire started from 2/2/2008 to 9/4/2008 and it included age, sex, education level, and questions about fear, some of these questions were the feeling before entering the dental clinic and what the major cause of fear and the major kind of treatments that cause phobia to patients. The questionnaire formed was distributed by researchers in five different places: Dental center, Um Alhumam, Yarmook, Dirab, and one inside a major hospital in the waiting area in Riyadh city. After collection of the filled questionnaire forms, only Completed filled forms were included in our study. 270 of the questionnaire were distributed and the response rate was 206 (76.2%). The forms were collected and the data collected was entered into the SPSS system for statistic analysis.

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RESULTS

The sample included 206 participants response to questionnaire 100(48.5%) males and 106 (51.5%) females (Table 1) .and there age range between 10-50 (Fig. 1) . In our study (Table 2) shows that 91 from our study sample were graduated 53 were females and 39 were males..Also, 97 from our sample they feel slight fear 44 males and 53 females while 25 very feared 6 males and 19 females (Table 3). The most common cause of the fear due to pain (90) 40 males and 50 females and the second cause of fear due to previous experience is (66) 31 males and 35 females, and 26 fear from other people experience 18 males and 8 females, 24 fear of clinic's nature 11 males and 13 females (Table No. 4).

111 Fear from the sound of the instruments 57 males and 54 females , 56 fear from dental procedures, 27 males and 29 females and the 23 fear from the substances odor 8 males and 15 females (Table No. 5). Also 31 feel dizziness 7 males and 24 females, 7 crying 2 males , 5 females and 2 females was fainted (Table No. 6). 98 From the sample fear from anesthesia injection 48 males 50 females, 28 Fear When seated on the dental chair 9 males and 19 females (Table No. 7). 74 Feeling of fear when pains accompany the dental treatment 28 males and 46 females.

39 fear from Criticize teeth brushing 13 males 26 females and 53 males and 23 females not feel of fear of embarrassment (Table No. 8). 93 of the study sample who represented 59 males, 34 females didn't feel of fear while 19 males and 34 females of the sample had dyspnea during treatment 13 males 23 females of the sample feared of finding much water inside mouths, 9 males and 15 females feared of swallowing the instruments or remainder of medical substances (Figure No. 2). 7 males and 36 female fear if dentist is male while 13 males and 5 females fear if the dentist is a female and 80 males and 65 females the phobia not attributed to the dentist gender in (Table 9).

From 74 of our sample 25 males and 49 females fear from tooth extraction and 60 fear from root canal treatment 35 males and 25 females, 15 fear from filling 6 males and 9 females (Table No. 10).Also we found that 21 males and 42 females from the study sample feared of dental clinic only (Figure No. 3). The explaining of dental treatment procedures reduced the phobia to 50 males and 76 females as in (Figure 4).

16 males and 20 females they go when they feel of pain and 25 males and 33 females remembered the dental clinic and the pain which accompanied with dental treatment , while 5 males and 7 females feeling fear when see or meet the dentist outside his clinic also we find in (Table No. 11) that 50 males and 55 females satisfied about the dentist while 15 males and 14 females unsatisfied . Also we found from the study sample 30 males and 30 females the dentist's shape play attention of felt of fear or security compared with 53 males and 60 females who didn't feel of fear or security due to the dentist's shape.

DISCUSSION

The relation between age group and phobia level of patients in our study sample; fear was 26.2% in age (31-40 yrs), 21.3% in age 10- 20yrs, and 9.2% in age (41 – 50 yrs) while in "Hulya Erten et al" in Turkey in 2006, the fear was 8.99% in age (36-49

yrs), 8.75% in age (16-21 yrs) and 8.32% in age (50+ yrs). Anesthesia injection causes phobia in 48(48%) males and 50 (47.17%) females from our sample study, while in Florida "Heft MW et al" in 2007 found 21(20.4%) males and 53(35.8%) females from 254 (his sample study) feared Anesthesia. Our study found that 25(25.0%) males and 49 (46.2%) females fear extraction, 35 (25.0%) males and 25(23.5) females fear root canal treatment, 6(6.0%) males and 25(23.5%) females fear Filling and drilling in a tooth while in "Heft MW et al" in 2007 in Florida found that 21(20.2%) males and 44 29.7%) females fear extraction, 48(47.5%) males and 100(68.0%) females fear root canal treatment, 32(31.1%) males and 9 (8.4 %) females fear Filling and drilling in a tooth. In our study, 9 (9.0%) males and 19 (17.9 %) females fear when sitting on the dental chair, this phobia related to the supine position which is supported by "Salvatore Settineri" in 2005, which showed that women avoid dental care due to fear of tilted back position of chair and women suggested that new designs to make the chair position more comfortable would be used.

In our study 57(57.0%) males and 54 (50.9%) females feared the sound of instruments while 71(68.9%) males and 69(46.9%) females were found by "Heft MW et al" in 2007 in Florida. 5 males and 2 females (3.40%) did not go to the dentist in our study, this low number is due to patients canceling or not appearing for appointments (4.9%). Our study found that 46 (43.4%) females fear pain that accompany dental treatments than 28 (28.0%) males, 26 (24.5%) females criticize tooth brushing more than 13 (13.0%) males and males do not have fear or embarrassments, this difference explained that females are more sensitive and more aware about what dentists think about oral hygiene than males.

In our study, we found that 19 (17.9%) females fear more than 6 (6.0%) males. 7 (7.0%) males and 24 (22.6%) females feel dizziness and nausea, 2 (2.0%) males 5 (4.7%) females had got a fit of crying, and 2 females faint. But "Lisa J. Et al" found in their study in the U.S in 2007 that women were more phobic than men. Women (19.3%) and Men (16.3%) had increased muscle tension and the rapid respiration rate for Men was (14.4%) and for women (20.2 %). Dyspnea during the treatment is one of the major causes of fear during the treatment, and in our study, about 19 (19.0%) in males and 34 (32.0%) in females. In our study, 63 (30.5% of the sample) feared dental clinics only 45 (21.8 %) feared hospitals. In general 14(6.8%) feared clinics. In our study, 7 (7.0%) males and 36(34.0%) females feared male dentists.

13 (13.0%) males and 5 (4.7%) females feared female dentists. 80 (80.0%) males and 65 (61.3%) females didn't fear dentist gender. We found from a total of 90(43.6%) patients that 40 (40%) males and 50 (47.1%) females mostly feared pain and previous experience become the second etiological factor in fear which is considered by " Heft MW et al". From our results, 18 (9.1%) males and 54 (18.3%) females 72(27.4%) of the study population feared pain. Smell of dental materials is mostly scary to 15(14.1%) females than 8 (8.0%) males. In our study, due to the fact that females are more sensitive to smell, 126 (61%) from our study sample, 50 males (50.0%) and 76(71.7%) females said that the explaining of dental treatment procedures reduced their phobia compared to 48 (23. %), 32(15.5%) males and 16(15.1%) females considered it unimportant.

Table No. (1)

Distribution of gender:

Gender	No.	F
Male	100	48.5
Female	106	51.5

Table No. (2)

Distribution of Education level:

Education	Males	Females	Total
Primary	9	5	14
Intermediate	12	6	18
Secondary	40	42	82
Graduate	39	53	91
Total	100	106	206

Table No. (3)

Distribution of Perception of fear:

Options	Males	Females	Total
I feel of slight fear	44	53	97
I don't feel of fear	45	32	77
Very afraid	6	19	25
I don't go to the dentist	5	2	7
Total	100	106	206

Table No. (4)

Distribution of the cause of the fear :

Options	Males	Females	Total
Fear of pain	40	50	90
Previous experience	31	35	66
Other people's experiences	18	8	26
Fear of clinic's nature	11	13	24
Total	100	106	206

Table No. (5)

The terrified things in the dental clinic:

Options	Males	Females	Total
	F	F	F
The sound of the instruments	57	54	111
Dental procedures	27	29	56
The substances odor	8	15	23
The dentist	8	8	16
Total	100	106	206

Table No. (6)

Do the terrified things let you.....?

Options	Males	Females	Total
Control your fear	91	75	166
Feel of dizziness or disgust	7	24	31
Get a fit of crying	2	5	7
Faint	-	2	2
Total	100	106	206

Table No. (7)

Distribution of Feeling of fear:

Options	Males	Females	Total
When you have anesthesia injection	48	50	98
I don't feel of fear	33	25	58
When you sit on the dental chair	9	19	28
when the dentist begins treatment	10	12	22
Total	100	106	206

Table No. (8)

Distribution of fear when dentist concerned about oral hygiene

Options	Males	Females	Total
	F	F	F
I don't feel of fear or embarrassment	53	23	76
When there are pains that accompany the dental treatment	28	46	74
Criticize your teeth brushing	13	26	39
Criticize the shape of your teeth	6	11	17
Total	100	106	206

Table No. (9)

Distribution of dental phobia attributed to dentist gender

Options	Males	Females	Total
I don't fear of dentist gender	80	65	145
Male	7	36	43
Female	13	5	18
Total	100	106	206

Table No.(10)

Distribution of the fears related to dental procedures

Options	Males	Females	Total
Tooth extraction	25	49	74
Root canal treatment	35	25	60
I don't fear of dental procedures	24	18	42
Fillings and Prosthesis	6	9	15
Treatment of periodontal diseases	10	5	15
Total	100	106	206

Table No.(11)

Distribution of Satisfaction to the dentist:

Options	Males	Females
Satisfied	50	55
Very satisfied	35	37
Dissatisfied	15	14

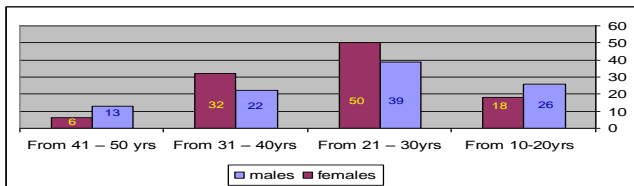
Distribution of age:

Figure (1)

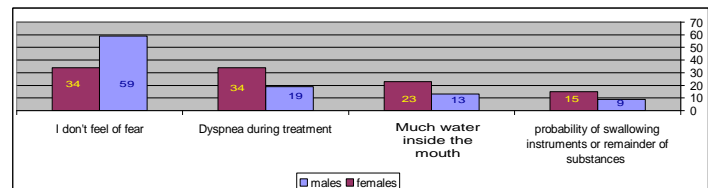
Distribution of fear:

Figure (2)

CONCLUSIONS

- Females feel very fearful before going to the dentist than males.
- The sound of instruments and anesthesia injection are the most common fear which caused phobia in patients.
- Explaining the procedure and known post-consequences reduce phobia.
- Good communication between dentists and patients reduces the patients' phobia and become more relaxed.

CONFLICT OF INTEREST

There is no conflict of interest among the authors.

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