

THE ROLE OF FACTORS CONTRIBUTING TO ORAL AND DENTAL HEALTH STATUS

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ABSTRACT

The objective of the present study was to find various reasons or factors which contribute to poor oral and dental health.

This study was carried out in three months from Sept to Nov 2009. One hundred and thirty five subjects were included in this study by convenience sampling method. A proforma was made to record the information. One hundred and five subjects (77.8%) were educated while 22.2% were uneducated. The participants belonged to good, satisfactory and poor socioeconomic classes (12.6%, 51.9% and 35.6% respectively. Negligence was the main reason for poor oral and dental health (44.4%) followed by unawareness (26 %). Education and socioeconomic condition had no significant effect on the oral and dental health (P-value 0.713 and 0.061 respectively).

Key words: Oral health, Dental fear, Dental neglect

INTRODUCTION

Dental neglect has been found to be a predictor of poor oral health in children and adults, as measured by indices of caries, toothache and number of teeth lost.¹⁻² These patients have no routine check ups and have longer periods of time since the last dental appointment. In addition to poor oral health, dental neglect is also associated with increased oral functional limitations, social and physical disabilities.³ Such individuals also have lowered perception of their overall quality of life.⁴ Regular preventive dental attendance is a contributor to the oral health status of people of all ages. Studies have shown that preventive dental care leads to better oral health outcomes and gains in quality of life.⁵

There may be several reasons due to which an individual will either not visit dentist for routine check up or visit only when oral health problem arises. Socio-economic conditions of the patient, education, dental fear, lack of dental facilities, or merely negligence are some of them. Studies have shown that regular dental attendance is more prevalent among groups with higher socioeconomic status.⁶ Decrease in the prevalence of caries and periodontal diseases and higher level of dental health was found in young adolescents belong-

ing to higher socioeconomic strata.⁷⁻¹⁰ Poor dietary consumption was found to be responsible for poor oral health and increased incidence of caries in low-income African-Americans.¹¹ Oral and dental health study in pregnant Australian women shows that lack of knowledge about oral and dental health was strongly linked to women with lower education and socioeconomic background.¹²

Generally fear is defined as an individual response to a real threatening event or dangerous situation to protect his or her life.¹³ There are so many patients present who did not go to dentist because of dental fear. Most of these patients have some kind of bad experience with dentist since childhood.¹⁴⁻¹⁶ In children dental fear has been reported to be very high (43%).¹⁷ Such patients may have been mishandled on their first visit to the dentist. Despite reduction in pain associated with dental visits and an increased awareness of dentists about the importance of building trusting relationships, dental fear remains a major issue of dental clinicians and their patients.¹⁸

METHODOLOGY

This study included 135 subjects (male and female) attending Dept. of Operative Dentistry, Khyber College of Dentistry, Peshawar, for treatment, in the

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period of three months (Sept. to Nov. 2009). A proforma was prepared to record the information regarding oral and dental health with special reference to extensive dental decay. Subjects were selected on convenience sampling method. Those having grossly carious teeth (one or more than one cusp missing) with or without pulp exposure were included and teeth with enamel or minimal fissure caries were excluded. Permission was taken from ethical committee of Khyber College of Dentistry and written consent was obtained from the subjects. The confidentiality was maintained by not disclosing personal data of the subjects. Staff members were involved in collecting information from the subjects and they were calibrated to bring uniformity in the selection of subjects. Chi-square test was applied to know significance wherever needed.

TABLE 1: SHOWS THE FREQUENCY AND PERCENTAGE OF THE INVOLVED TEETH

Tooth No	Frequency	Percentage
Anterior Maxillary Teeth (Incisors and Canine)	7	5.2
Posterior Maxillary Teeth (Premolars and Molars)	56	41.5
Anterior Mandibular Teeth (Incisors and Canine)	3	2.2
Posterior Mandibular Teeth (premolars and molars)	69	51.1
TOTAL	135	100

TABLE 2: SHOWS THE FREQUENCY AND PERCENTAGE REASONWISE

Reasons for delay	Frequency	Percentage
Unaware	35	26
Socioeconomic Status	13	9.6
Lack of dental facilities	3	2.2
Other side available	16	11.9
Negligence	60	44.4
Apprehension	8	5.9
Total	135	100

RESULTS

Out of 135 subjects, 100 (74.1%) were male while 35 (25.9%) were female. Among 135 subjects, 105 (77.8%) were educated (at least higher secondary school) while 30 (22.2%) were uneducated.

The subjects belonged to different socioeconomic classes. Seventeen (12.6%) belonged to good socioeconomic class while 70 (51.9%) had satisfactory status and 48 (35.6%) were poor (income 5000 or below per month).

In most of the cases, maxillary and mandibular posterior teeth were involved, i.e. 41.1% and 51.1% respectively (Table 1).

Negligence was found as a main reason for delay in seeking dental treatment (44.4%) followed by unawareness (26%). Unaware were those subjects who did not notice any carious lesion before it really got symptomatic while other group knew about the problem but intentionally avoided any dental treatment. Sixteen patients (11.9%) neglected their carious tooth because

TABLE 3: SHOWS ASSOCIATIONS OF INCOME LEVEL OF THE PATIENT AND EXTENT OF THE DECAY

		Socioeconomic status of the patient			TOTAL
		Good	Satisfactory	Poor	
Extent of Decay	Grossly Carious with exposure	15	46	39	100
	Grossly Carious without exposure	2	24	9	35
TOTAL		17	70	48	135

P-value = 0.061

TABLE 4: SHOWS ASSOCIATION OF EDUCATIONAL STATUS OF THE PATIENT AND EXTENT OF THE DECAY

		Educational Status of the patient		Total
		Illiterate	Educated	
Extent of Decay	Grossly Carious with exposure	23	77	100
	Grossly Carious without exposure	7	28	35
Total		30	105	135

P-value = 0.713

the other side of the jaw was available for mastication (Table 2)

In this study, socioeconomic status and educational level were found to have no significant effect on the oral health of these subjects, P-value 0.061 and 0.713 respectively (Table 3 and 4).

DISCUSSION

For the provision of preventive and curative services, field surveys are considered important tools to describe the status of dental problems in the community. However, hospital based survey also contribute effectively to identify oral health problems. This study was conducted to determine the role of various factors such as socioeconomic status, education, negligence, lack of dental facilities and apprehension etc on oral and dental health of the patients. Oral and dental health can be predicted from the periodontal condition and caries status of the individual. The study sample was dominated by male subjects (74.1%) because majority of the female were either reluctant or did not want to participate in the study.

In this study good socioeconomic status and education have no significant effect (P-value 0.061 and 0.713 respectively) on oral and dental health. This is in contrast to many other studies which have documented the positive effect of social class and education on dental health. According to a study in Jeddah, low social class had a significantly higher rate of caries in both sexes.¹⁹ Income strongly affects access to services in relation to both private dental services and public dental care which may be characterized by lengthy waiting lists. People with lower income have both increased oral disease experience and more barriers to accessing dental care.²⁰ Research has shown that many people delay dental visiting due to issues of cost.²¹⁻²² No such correlation between social and educated class and good dental health has been found in our study. Since our system of education has a lot of shortcoming and being educated does not mean that he or she will be well aware of the importance of oral and dental health. Therefore, people with good socioeconomic status and education are not willing to spend money on oral and dental health.

Due to lack of trust in hospital sterilization system most of the educated people are afraid of getting viral infection from dental treatment. This may be the reason that a significant number of patients show negligence regarding their oral health or decaying teeth until the teeth got symptomatic. They live along

with their dental problems and this is very apparent from the fact that about 12 per cent of the patients did not seek dental treatment on time because the other side of the jaw was available for mastication. Since this study was conducted in a public sector hospital where almost free dental treatment is provided, the socioeconomic status of the gender in this study may not be comparable with those who can afford to seek dental treatment in private dental clinics. Lack of dental facilities did not count as a reason for delay in dental treatment in this study as most of the patient, who visited Khyber College of Dentistry, were either from Peshawar or nearby periphery.

Although dental fear or phobia plays an important role in maintaining good or bad oral health but in this study only 5.9% patients admitted that dental fear was the reason for delay in treatment. People who were very afraid of going to dentist had more missing teeth than did people with less or no fear.²⁰ Schuller et al found that although there was no significant difference between the DMFT scores of individuals with high or low dental fear, the number of missing teeth was almost 50% higher among high dental fear than among low dental fear people.²³ Avoidance of dental visits not only leads to potential progression of caries or periodontal disease but also prevents people from extinguishing the fearful state as result of non-traumatic dental experiences.²⁰ Jason et al has found 70 per cent of the people were very afraid of going to the dentist, and delayed dental visiting.²⁰ In this study, however fear was not found a significant reason for delay in dental treatment because most of the people especially in this region are either ashamed or not easily admit their fear of seeking dental treatment. In our personal experience dental fear did play a major role in poor oral and dental health in our population. A strong sense of embarrassment, especially following many years of avoidance or ignoring, related to feelings of self-punishment, shame and negative self-image may be an important aspect of a vicious cycle of dental anxiety leading to poor oral and dental health.²⁴⁻²⁵

CONCLUSION

Though education and socioeconomic status have an important role in good oral and dental health, however no such correlation has been found in this study. Facilities regarding dental treatment are good in urban area compared to rural, however due to too much patient load on public sector dental hospitals and long waiting list also add to increasing dental problems. Financial constraint and low level of per capita income

play an important role in negligence regarding oral and dental health. Initially they neglect their oral hygiene because of either fear or lack of knowledge of the importance of oral and dental health, followed by sense of embarrassment when the oral health gets worse.

RECOMMENDATIONS

Education and awareness program regarding the importance of oral and dental health are lacking in this region. The role of dentists become important, however the government and private sectors have to do more to convey the message of importance of oral and dental health and its relation with overall quality of life.

Electronic media can play an important role to convey this message. Various awareness programs at school and college level must be introduced.

Public sector hospitals should be further equipped and facilitated to decrease the timing of long appointments and increase the standards of treatment. Easy access to dental facilities and low cost of the dental treatment may play an important role to improve the oral/dental health and over all quality of life of the people.

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