

ORAL HYGIENE PRACTICE AND AWARENESS AMONG PAKISTANIS IN RIYADH, SAUDI ARABIA

¹MUHAMMAD FUAD KHAN BANGASH, BDS, MPH

²JAMROZ KHAN, BDS, MCPS, PGDD (Post Graduate Diploma in Dentistry-Prosthetic)

³AMJAD HANIF, BDS, MSC

ABSTRACT

The aim of this study was to assess the oral hygiene practices and evaluate oral health related knowledge of Pakistani community residing in Riyadh Saudi Arabia. It was a descriptive cross sectional study carried out in Pakistani community. A total number of 125 male individuals were approached. A questionnaire was designed and data were collected through interviewing the Pakistani community. This study was conducted from May 2010 to July 2010. Response rate was 100%. The data were analysed using SPSS.

It was found that out of sample of 125 subjects 118(94.4%) used different methods for cleaning their teeth, while 7% (5.6%) did not clean their teeth at all. The methods used for cleaning included tooth brush by 30.5% of people, miswak (wooden stick) was used by 38.1% while 44.1% of study group used a combination of tooth brush and miswak (wooden stick). Alternative methods of cleaning such as using fingers and dandasa (bark of walnut tree) were recorded in 1.7% people. The study revealed that oral hygiene practices of the study group were not satisfactory as majority of the subjects were not observing recommended oral hygiene practices. It was concluded that optimum dental hygiene practices should be encouraged in people by community dental education.

Key Words: Oral hygiene practices, Pakistani community in Riyadh.

INTRODUCTION

Poor oral health can have detrimental effects on general health.¹ Many studies indicate that oral disease is likely precursor to a variety of diseases² and can be regarded as a public health problem due to its wide spread existence and considerable social impact. These influences lead in turn to diminished quality of life. In order to reduce negative impacts of oral disease, it is essential to reduce harmful oral health practices. The standard of oral hygiene practices can be improved by appropriate oral health education programs.³

Tooth decay (dental caries) is a very common dental disease. It may be reduced by controlling etiological factors such as cariogenic diet and poor oral hygiene. In the last 50 years the incidence of dental caries has been reduced significantly due to health promotion programs and also with the addition of fluoride in toothpastes and drinking water. This de-

clining trend clearly indicates that tooth decay can be minimized by controlling risk factors.³ In Pakistan majority of the population suffer from oral diseases such as periodontitis and dental caries and preventive oral health care services are not available. Shortage of oral health professionals, non-existence of routine preventive oral health services and lack of dental equipment contribute to poor oral health of the community.⁴

Very little information is available about the oral health and dental treatment needs of urban Pakistanis.⁵ Most of the studies have been conducted on school children in which DMFT scores were not very significant but oral hygiene status was alarming.⁶ Oral health status is affected by geographic location, gender, education and economic status. Urban residents, males and those with high socioeconomic status seek dental care more often in comparison with rural residents, those with low socioeconomic status and females.⁴ Iqbal et al in 2006 evaluated the oral health status of community belonging to low socioeconomic status ranging from 15-60 years old and found that low socioeconomic status and illiteracy were the main causes of poor oral health. Information about the oral hygiene practices and oral health related knowledge in the community is regarded as an essential basis for

¹ Asst Professor Community Dentistry, Peshawar Dental College, Warsak Road, Peshawar Cantt.

² Asst Professor & HOD Dental Materials

³ Asst Professor Dental Materials.

Received for Publication: April 04, 2013

Revision Received: May 2, 2013

Revision Accepted: May 12, 2013

planning dental health awareness programs, provision of dental care facilities and personnel resources.⁴

The present study was under taken in order to collect preliminary data about oral hygiene practices, awareness and attitude of the Pakistani community living in Riyadh to oral health care. This information, in addition to the clinical data on oral hygiene practices, will be of great help in the development and monitoring of dental health promotion strategies.

METHODOLOGY

Subjects included in the study were 125 male Pakistani residents of Riyadh Saudi Arabia belonging to different occupational fields. Local mosques of Riyadh were chosen to select random Pakistani individuals for filling out the questionnaires, hence making it a community based study. The study was completed in a period of four months. Convenient sampling was the technique of choice for this study. Females were not included in the study as it was not convenient to interview them in the absence of a male family member due to government policies. Children also were not included in the study because of limited time period since it was time consuming to identify Pakistani children in different schools of Riyadh. The study design was descriptive cross sectional. This design was chosen considering the time period and human resources that were available and supported by the budget. Since the subjects under assessment were male working community therefore it was easier to plan and budget for a cross sectional study. A detailed questioner was designed to know about the dental hygiene practices of the subjects. Variables included the name, age, sex, address, occupation, methods of cleaning, brushing frequency, use of miswak, cleaning material, awareness of dental diseases, frequency of visiting the dentist, reasons for not visiting the dentist and source of information of dental diseases. Data were collected by interviewing the subjects through questionnaire and were analysed using SPSS version 10. Consent was taken from all the subjects that were seen and response rate of the individuals was 100%.

RESULTS

The sample population comprised of 125 individuals. Table 1 shows that 94.4% were cleaning their teeth while 5.6% replied in negative. About 23% of the subjects responded that they were using miswak while 29% replied that they were using tooth brush for maintaining oral hygiene (Figure 1). No significant difference was observed between percentage of tooth brush users and miswak users however percentage of subjects using both miswak and tooth brush was higher than other

groups. (Figure 2) shows that a major portion of sample was not following regular twice daily regime of tooth brushing. The number of individual using tooth brush once daily and twice daily were almost equal. Figure 2 also indicates that only a portion of the sample was observing oral hygiene practices at appropriate timings. Majority of the subjects replied that they were using miswak before prayers as device for cleaning their teeth (Table 2). It is evident from this study (Figure 3) that study group were aware of dental problems such as caries (39.7%) and periodontal disease (30.2%) but still would neglect the importance of maintaining oral hygiene. It was observed that only 27% of the subjects paid a visit to their dentist out of which 24.6% went only when they experience pain. A large proportion of the subjects (23.8%) did not visit the dentist at all (Figure 4). The number of people not visiting the dentist due to carelessness and financial reasons was considerably higher as compared to other factors such as apprehension of dental treatment or pain (Figure 5). A significant proportion of the subjects obtained information about oral hygiene from school while considerable number of individuals also reported that they received information about oral health care from electronic media and dentist.

DISCUSSION

The present study reflects the dental hygiene practices and awareness in Pakistani community residing in Riyadh. The sampling technique used in this study was convenient sample which had its limitations. To our knowledge no such studies have been conducted in Pakistani community in Riyadh in the past.

The aim of current mechanical and therapeutic approaches is to promote healthy dental and periodontal tissues by modifying oral microflora. Regular professional care and current oral hygiene measures appropriately used are capable of virtually preventing caries and most periodontal disease and maintaining oral health.⁵ Studies have shown that the frequency of tooth brushing had a significant association with caries prevalence.⁶ Tooth brushing habits were observed by majority of respondents (75%). This finding is consistent with another study³ conducted in Pakistan which reported 85.6% individuals used tooth brush to maintain their oral hygiene. However major portion of the sample was not following recommended regime of brushing twice daily. In spite of brushing being the most accepted method for elimination of plaque,⁷ still its efficacy is affected by type of brush, effective technique, frequency and timing of brushing. In a study conducted in Japan frequency of tooth brushing was found to be twice daily among the participants.⁸ Oral health knowledge, attitude and practices are associated with education and socioeconomic status.³ Im-

TABLE 1: FREQUENCY OF CLEANING

		Frequency	%age	Valid %age	Cumulative %age
Valid	Yes	118	93.7	94.4	94.4
	No	7	5.6	5.6	100
	Total	125	99.2	100.0	



Fig 1: Comparison of tooth cleaning devices used by the subjects

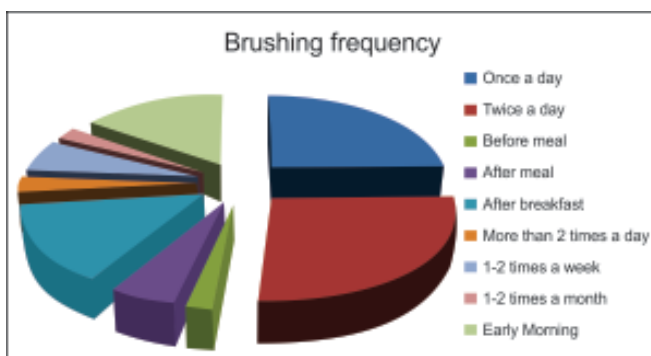


Fig 2: Pie diagram showing the frequency of using tooth brush for cleaning teeth

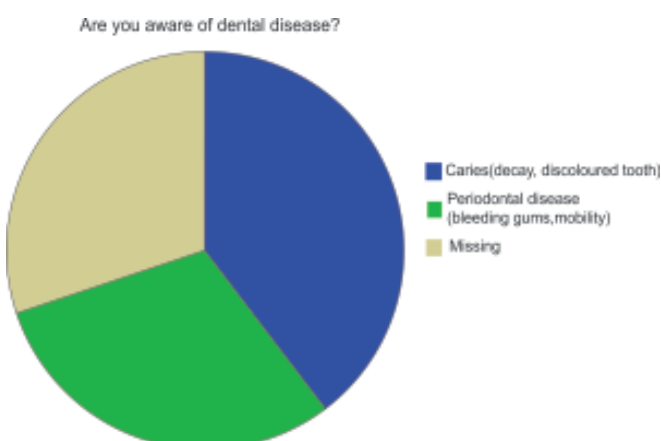


Fig3: Diagram showing awareness of people about dental diseases

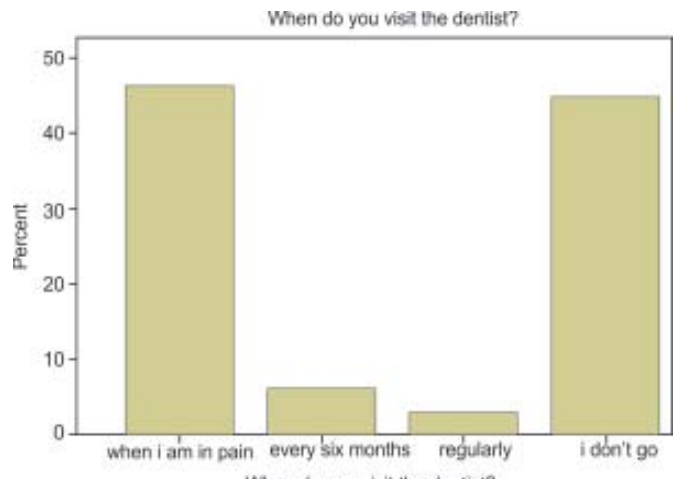


Fig 4: Illustrates the percentage of how often the subject paid a visit to dentist

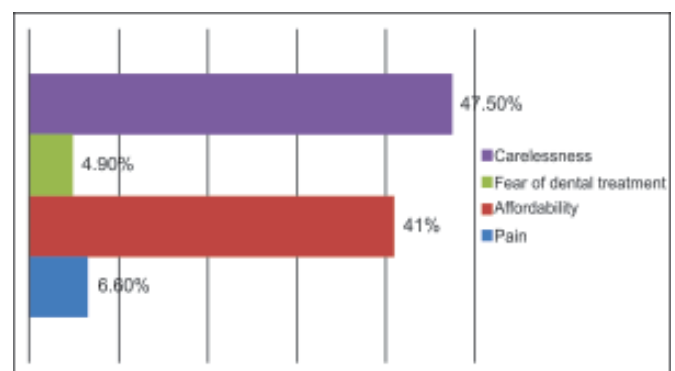


Fig 5: Reasons why the subjects did not visit the dentist

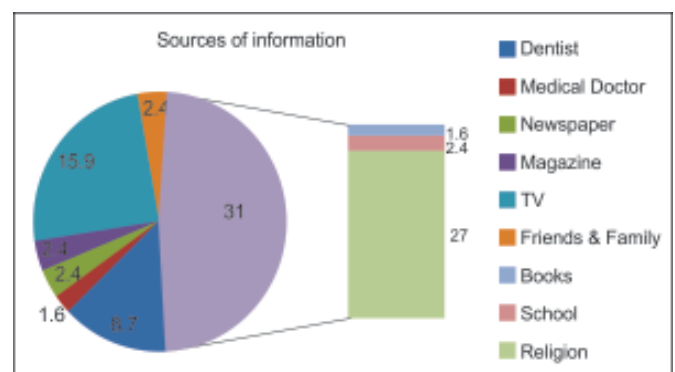


Fig 6: Illustrates the different sources of information that people obtain regarding dental hygiene.

proper tooth brushing habits might be due lower education level and low socioeconomic status as majority of individuals belonged to this group.

From this study it was found that 78% of the subjects were using miswak as a device to clean their teeth either alone or in conjunction with toothbrush. This is an indication that religion plays an important role in the life of a person if he/she is uneducated and

unaware of the complexities of dental problems. The use of wooden stick has been encouraged by the WHO as an efficient means of dental cleanliness.^{9,10,11} Few studies have been reported on the cleaning effectiveness of miswak. In trials with children in Ethiopia and adolescents in Nigeria the wooden stick appeared to be as effective as the tooth brush in removing plaque.^{12,13} A cross sectional study in Ghana among adults revealed higher plaque and gingival bleeding in miswak users as compared to tooth brush users. However no such difference was observed among children aged 15-17 years in Tanzania.¹⁴

It was also noted that out of all the subjects under study, only 45.9% visited the dentist and that too mostly when they were facing any dental problem while only a small proportion of the total sample visited the dentist regularly. Bangash et al reported that those patients who were educated by their dentists about the oral hygiene were more careful and were following healthy oral hygiene practices as compared to those individuals who were not educated by the dentist.¹

In response to question regarding barriers preventing them to seek dental care, 47.50% reported careless attitude as the main reason for not visiting the dentist, 41% pointed out financial reasons for their unmet oral health needs while apprehension of dental treatment and pain accounted for 4.90% and 6.60% respectively. This is in line with another study which reported busy routine and careless attitude as one of the major factor for not visiting the dentist.³ Other major barriers to oral health include socioeconomic factors, such as inability to pay out of pocket or the problems of access that involve transportation and the need to take time off from work.¹⁵ Socioeconomic status has a profound effect on general health and health behaviours. Low socioeconomic status directly influences oral hygiene standards and attitudes to dental care and this study population belongs to low socioeconomic background.⁶ Therefore apart from the perceived need, financial considerations are also important, indicative of the fact that not many people can afford the treatment unless subsidized by government or perhaps made free altogether.

The lack of oral health awareness accounts for over 90% of all untreated oral diseases including caries and periodontal disease. Oral health knowledge deficit and absence of toothache are responsible for delays in seeking dental treatment.⁴ In this study it was found that the school plays a pivotal role in developing oral health awareness while health care professionals and media are also the major sources for providing oral health related knowledge. Due to limited resources available for health sector, it is essential to adopt preventive strategies requiring fewer resources.⁶ Furthermore it is evident from this study that oral health

interventions through school can improve oral health practices among adult population. It is acknowledged that the sample in this study was a convenience sample which may or may not represent the whole population.

CONCLUSION

The current study clearly indicates that the oral hygiene practices of the study population were not satisfactory. The recommendation for the future policy is that there is a great need of health education and promotion programmes to educate and motivate population towards oral health. The objectives can be achieved by utilizing all the resources which play role in promoting oral health related knowledge and healthy oral hygiene habits such as educational institutions, health care personnel, both print and electronic media.

REFERENCES

1. Bangash RY, Khan A, Tariq KM, Rasheed D. Evaluation of tooth brushing technique and oral hygiene knowledge at AFID, Rawalpindi. *Pak Oral Dent J.* 2012; 32: 124-27.
2. Malik AR, Aslam M, Malik S. Patient awareness about the risk factors and the prevention of dental diseases. *Pak Oral Dent J.* 2012; 32: 300-303.
3. Attaullah, Khan M, Khan AA. Oral health related knowledge, Attitude and practices among patient –A study. *Pak Oral Dent J.* 2010; 30: 186-91.
4. Bille K, Aslam M, Khan A. Government of Pakistan –Ministry of Health /WHO –Pakistan .Oral health in Pakistan A Situation analysis. Pakistan: Ministry of Health; 2003.
5. Shujaat NG, Idris SH. Oral hygiene practice and awareness in rural areas of Lahore. *Pak Oral Dent J.* 2012; 32: 283-87.
6. Nazir R, Hussain A, Kaleem M. Oral health status and malocclusion in flood affected and internally displaced children in Pakistan. *Pak Oral Dent J.* 2012; 32: 110-14.
7. Yousaf A, Aman N, Manzoor MA, Yasmin R. Comparison of powered and manual toothbrushes in removal of plaque. *Pak Oral Dent J.* 2012; 32: 120-23.
8. Rizvi KF, Amanat N, Nazir R. Oral Hygiene habits among patients attending tertiary care dental unit. *Pak Oral Dent J.* 2012; 32: 275-78.
9. Kooray T. The use of chewing sticks in preventive oral hygiene .*Clin Prev Dentistry* 1983; 5: 11-4.
10. Elvin –Lewis M, et al. The dental health of chewing stick users in southern Ghana. Preliminary Findings. *J prev Dent* 1982; 6: 151-9.
11. Asadi SGR, Asadi ZG. Chewing sticks and the oral hygiene habits of the adult Pakistani population. *Int Dent J* 1997; 47: 275-8.
12. Olsson B. Efficiency of traditional chewing sticks in oral in oral hygiene programme among Ethiopian school children. *Community Dent Oral Epidemiol.* 1978; 6: 105-9.
13. Sote EO, The relative effectiveness of chewing sticks and tooth brush on plaque removal. *African Dental Journal* 1987; 1: 48-53.
14. Norman S, Mosha HJ. Relationship between habits and dental health among rural Tanzanian children. *Community Dent Oral Epidemiol.* 1989; 17: 317-21.
15. Gilani SI, Tanveer F, Afridi S. Oral health assessment and barriers to seek care in internally displaced persons from bajour agency, Pakistan. *Pak Oral Dent J.* 2012; 32: 115-19.