

## ORAL HYGIENE AWARENESS AMONG THE PATIENTS VISITING THE DENTAL CENTERS OF A RURAL AREA OF THE PROVINCE PUNJAB, PAKISTAN

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### ABSTRACT

*Background and Objective:* Oral diseases are a major public health concern because they affect the individual's quality of life and create burden to the healthcare system. This study was carried out to assess the oral hygiene awareness and practices amongst the people of underdeveloped areas of Mianwali Isa khail, Daoudkhail and Sikandrabad.

*Methods:* This study was conducted among patients attending the THQ Isa Khail and RHCs of Daoudkhail and Sikandrabad. A questionnaire was given to each one of them. The patients from both rural as well as urban background were included.

*Results:* The results of the study showed that 31% people use brush and 20% use miswak 6% use charcoal while 41% do not clean their teeth at all. Majority of the subjects (90%) visited the dentist only when dental problem arises.

*Conclusion:* There is a lack of oral hygiene awareness, limited knowledge of oral hygiene practices and their effect on systemic health. There is an urgent need for comprehensive educational programs to promote good oral hygiene and impart education about correct oral hygienic practices in remote areas of Mianwali.

*Keywords:* Oral hygiene, Awareness, Rural areas, Pakistan.

### INTRODUCTION

Good oral hygiene is an important factor in maintaining an optimum oral health. Oral diseases are a major public health concern because they affect the individual's quality of life and create burden to the healthcare system.<sup>1</sup> According to the World Health Organization (WHO), "Promotion of oral health is a cost-effective strategy to reduce the burden of oral disease and maintain oral health and quality of life."<sup>2</sup> The possible etiological factors which lead to the oral diseases are genetic predispositions, developmental problems, poor oral hygiene and traumatic incidences.<sup>3</sup> Oral hygiene behavior and seeking oral health care are dependent depend on a number of factors. Patients comply better with oral health care regimens when informed and positively reinforced. Lack of information, awareness and personal attitude are among the reasons for non-adherence to oral hygiene practices.<sup>4</sup> Furthermore, oral health attitude and beliefs are also significant factors for oral health behaviour of the people. As mentioned earlier that people's oral health behavior is significant for the prevention and care of oral diseases. Their oral health behaviour is directly related to actual tooth brushing; inter dental cleaning and dental visiting. The oral hygiene habits of a particular population

are dependent on its cultural background, religious norms, awareness of the problems that a lack of hygiene causes, knowledge of the existence of particular cleaning tools, education levels and socio-economic status.<sup>5</sup> There is variable data available in the literature from different developed and developing countries on oral health practices and habits. These days, most Japanese have a great interest in oral hygiene. A national survey in Japan in 1993 showed that 95% of Japanese brush their teeth every day. Oral hygiene practices are prevalent also in our neighboring countries like China.<sup>6</sup> Toothbrushing is practiced habitually by most Chinese, although a small proportion of elderly people do not brush their teeth regularly. In a report from USA Amish population, it has been highlighted that 2.6 percent of the population showed never having brushed their teeth.<sup>7</sup> A study from Tanzania reported that up to the age of 15 years, 92% of the children do brush their teeth every day.<sup>8</sup> In Saudi Arabia, a study on school children revealed that 83 per cent used a toothbrush while 16 percent used miswak.<sup>9</sup> Another study on secondary school students from Riyadh confirmed that 10 percent of non-smoker students never brushed their teeth.<sup>10,11</sup>

In the light of the above literature review the auth-

ors have perceived the need of conducting a survey in the remote rural areas of the province Punjab. Mianwali is the border district of Punjab and has its areas in contact with the province KPK (Khyber PakhtunKhua). It is an underdeveloped district of this region and major Tehsils/Towns included in it are Isakhel, Daoudkhel and Sikanderabad. No previous study on this topic had been conducted in these areas regarding oral hygiene and awareness in people. As two of the authors worked in THQs of this area and came to know about the poor oral health of the people living there, therefore this study was planned. The objectives of this study were to assess the oral hygiene awareness amongst the people of underdeveloped areas of Mianwali as Isa khail, Daoudkhail and Sikandrabad and also to learn about their oral hygiene practices and dental visiting habits.

**MATERIALS AND METHODS**

An observational, descriptive, hospital-based epidemiological study was conducted among patients attending the dental departments of THQ Isa khail and RHCs of Daoudkhail and Sikandrabad. The permission was obtained from the medical superintendents of these health units to carry out this research. A self-administered closed ended questionnaire written in English/Urdu language was given to each one of them.

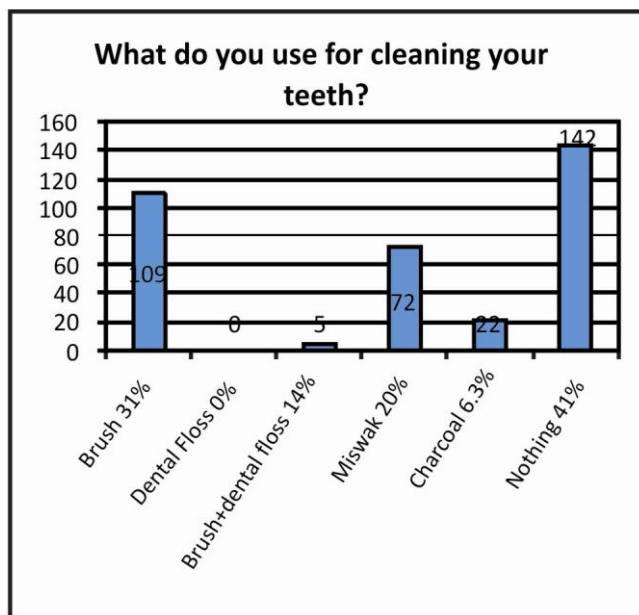
The questionnaire included general information related to the patient's name, age, sex, education, occupation and residence. The questionnaire was further categorized to evaluate the knowledge and practice related to their oral hygiene. The patients were asked what they know about oral hygiene, how they clean their teeth, what the duration of teeth cleaning is and how often they visit the dental clinic for their dental problems. All the patients visiting to the dental departments of the above mentioned THQ and RHCs during one month time were included by using convenience sampling method. Educated and illiterate, male and female patients between 18 to 75 years of age were included. The patients who were not willing to fill the questionnaire for any reason were excluded from the study. A total of 350 patients were selected according to the selection criteria of the study and questionnaire was presented to them. The patients were assisted by one dental hygienist so that illiterate patients were able to fill the questionnaire. The dental hygienists in all the centers were educated and trained about the objectives of the study. Their queries about the questionnaire were addressed so as to establish the inter examiner reliability. The consent was taken from the patients and the purpose of the study was explained clearly to every patient. All the information was kept confidential and was used only for the purpose of publication. Responses from the patients were evaluated in terms of numbers and percentages and presented in the form of tables and pie charts.

**RESULTS**

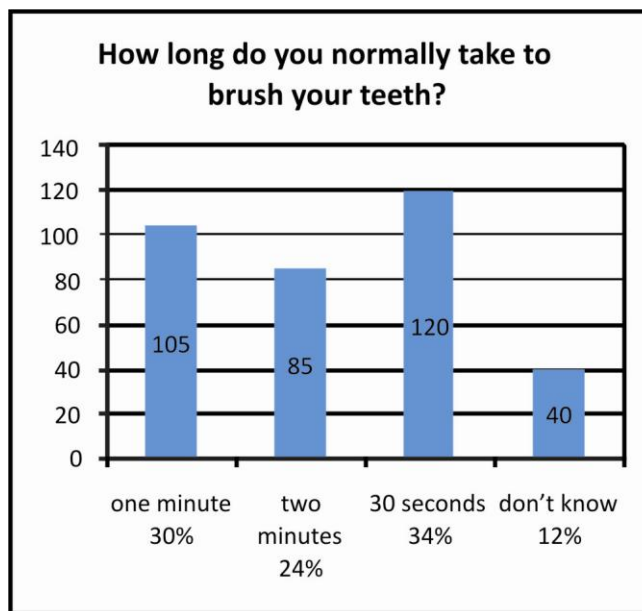
What do you use for cleaning of your teeth? The answer to this question was that 31% people use brush and 20% use Miswak, 6% use charcoal while 41% uses nothing to clean their teeth (Table 1).

How long do you normally take to brush your teeth? The results of this answer showed that 30% people brush for one minute, 24% brush for two minute, 34% brush for 30 sec while 14% didn't know the exact time of brushing (Table 2).

How often do you visit your dentist? The results of this were that 7% people visit the dentist once a year,



**Table 1:**



**Table 2:**

3% visit twice a year while 90% of the people visit their the dentist only when in pain (Table 3).

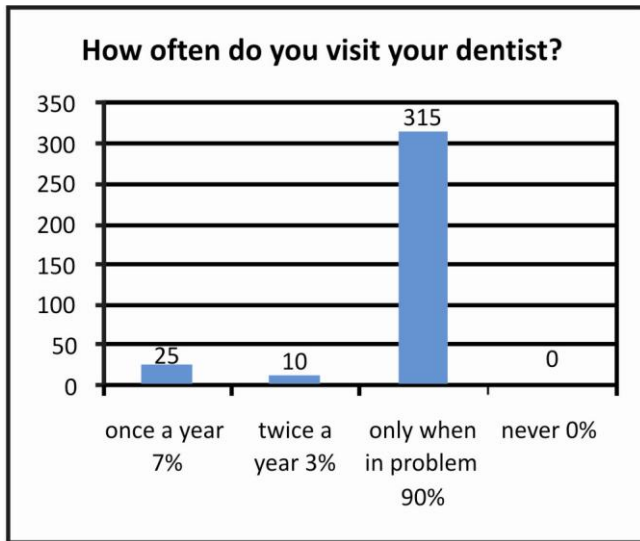


Table 3:

Not cleaning your teeth everyday can cause? The results showed that 15% people say its causes tooth decay, 20% say it causes bad breath, 52% say it causes both tooth decay and bad breath while 15% people don't know (Table 4).

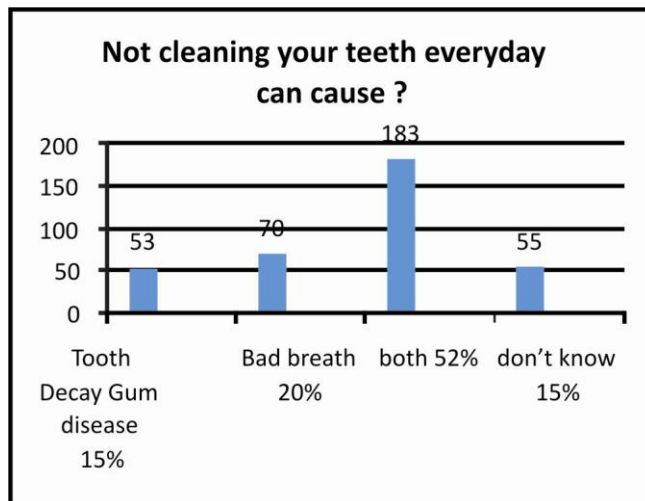


Table 4:

Do you think it's essential to visit your dentist after 6 month? The results showed that 80% people think it's good to visit the dentist after 6 month, while 15% people were not sure about this (Table 5).

How often do you brush your teeth each day? 57% people answered that they brush their teeth once a day, 14% brush twice a day, 6% brush more than twice a day while 23% people brush less than once a day (Figure 1).

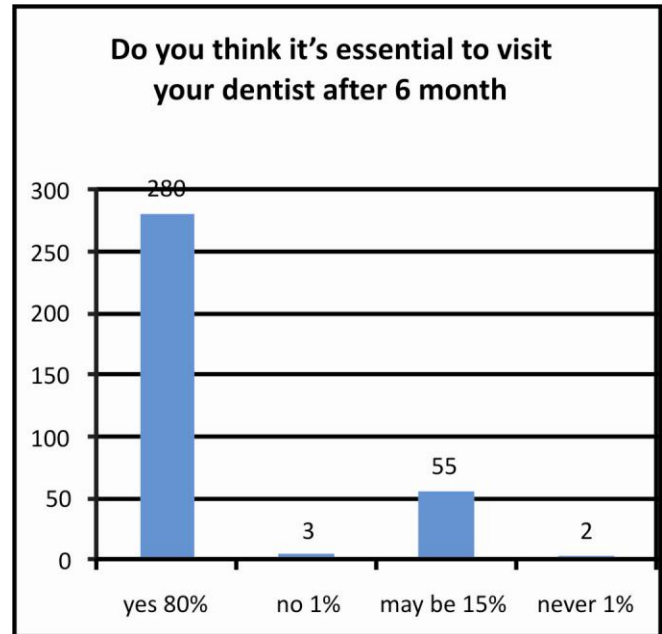


Table 5:

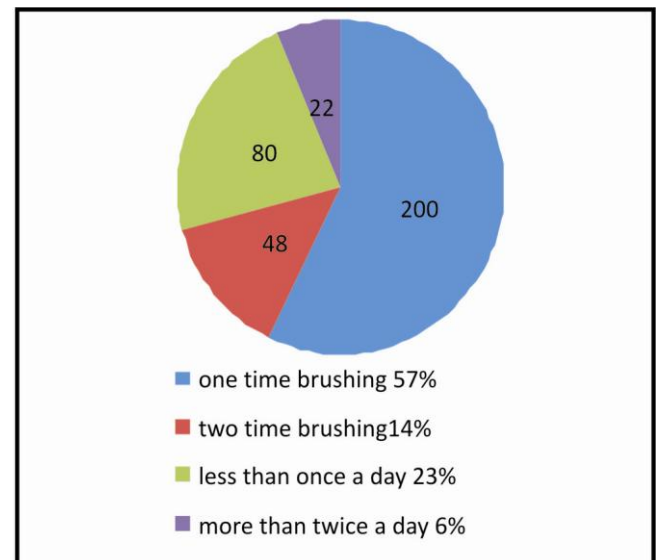


Fig. 1: How often do you brush your teeth each day?

How often do you floss your teeth each day? The results showed that 5% people floss once a day while 95% people had never used floss in their life (Figure 2).

**DISCUSSION**

Oral health care is of primary importance in general health care.<sup>12</sup> The effective tooth cleaning practices are indicative of positive oral health behavior whereas too much consumption of sugary foods and absence of teeth cleaning represent negative health behavior.<sup>13</sup> Regular removal of the plaque is important for the maintenance of good oral and dental health.<sup>14</sup> A consensus statement on oral hygiene concluded that bac-

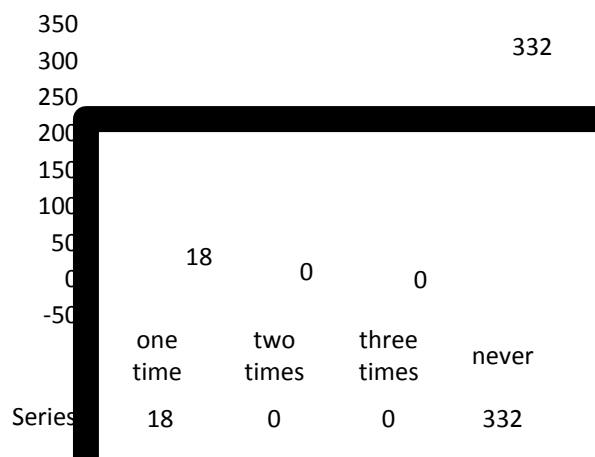


Fig. 2: How often do you floss your teeth each day?

terial plaque can cause tooth decay, bad breath and gum diseases; that effective removal of dental plaque can result in the prevention or reduction of these diseases.<sup>12</sup> Mechanical cleaning of the teeth is considered a reliable mean of controlling plaque, provided that cleaning is done thoroughly and performed on a regular basis.<sup>15,16</sup>

The present study was conducted to look into aspects of oral hygiene habits in people of underdeveloped area of Mianwali Punjab.

The results of this study show an acute lack of oral hygiene awareness and limited knowledge of oral hygiene practices and their effects on systemic health. A considerable number of children had poor or fair oral hygiene. Similar results have been reported by Al-Banyan et al<sup>18</sup> in their study of children of National Guard employees in Riyadh.

Table 1 showed 41% of the people use nothing to clean their teeth, 31% use brush while 20% use Miswak. Many people were in favour of using a traditional oral hygiene tool as Miswak. This can be utilized for oral health promotion activities and the target group of oral hygiene neglectors can be persuaded to start with Miswak, which is socially and culturally accepted and religiously motivated. So the 40% population which did not use anything for cleaning of the teeth can be encouraged to start with Miswak at least.

Fig. 1 revealed that 57% people brush once a day while 23% brush their teeth less than once a day. It seemed that a considerable number of people are brushing regularly at least once a day but the effect is not evident in their dental checkup. This can be explained by the results of Table 2 which shows duration of brushing at one time. Tooth brushing for such a short duration cannot result in plaque removal and good oral hygiene.

Fig.2 showed that the concept of flossing is next to zero as 95% people have never flossed in their life. Dental flossing is not common even in the educated

people or the people living in the cities. So this is not going to affect the results of the study.

Table 3 revealed that 90% of the people only come to the dentist when in problem. This is the real area of concern and should be emphasised when planning to make an awareness plan for the masses. The masses should be encouraged and sensitised to visit the dentist at the very initial oral and dental problem so that any advanced disease should be diagnosed and referred for its early management. It is common that patients of these areas visit the tertiary care centers at a very late stage and pose great difficulty in its management.

Table 4 and 5 showed that a considerable number of respondents were aware about the consequences of not cleaning the teeth and 80% responded yes when asked to visit the dentist after six months. It shows their level of awareness but the reasons to visit the dentist when only in pain remains unanswered in this survey. The possible reasons for not visiting the dentist in spite of awareness can be socioeconomic status, social and cultural values and myths, difficult approach to the dental centers or unavailability of dental centers in these areas. This can be researched in another study to know exactly about the reasons of less dental visits.

From the above discussion it can be safely inferred that oral hygiene practices in this population were inadequate and this group of older people had poor access to dental health care on the public health level. An integrated and consolidated approach is needed for awareness of the people and this process of oral health education should include all stakeholders like dental surgeons, local representatives, health department, dental patients and general masses of the area.

Within the limitations of this study it can be safely **concluded** that there is a lack of the oral hygiene awareness amongst the people of underdeveloped areas of Mianwali and their oral hygiene practices and dental visiting habits need to be addressed and modified.

The following recommendations can be given for the improvement of awareness:

- Oral health educational activities should be carried out for the awareness of the people in general.
- All school students should be given knowledge and incentives to improve and develop oral hygiene practices on regular basis.
- The parents and teachers should play a major role in promoting healthy oral habits among students.
- Further research is needed to evaluate the effectiveness of oral hygiene habits and to identify the reasons of not visiting the dentists in spite of problem.

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#### **Conflict of Interest:**

The authors declare no conflict of interest.

#### **Authors' Contribution**

Gulzaib: Concept/methodology. PH: Data collection/results. QA: Introduction/discussion. Z I: Supervision/Proof reading and editing of the manuscript.

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