

# Pattern of Utilization of Dental Services in Public Teaching Hospital of Karachi

1. Marium Azfar 2. Nosheen Khawar 3. Adnan Anwar Sukkurwala

1. Asstt. Prof. of Community Dentistry, Jinnah Sind Medical University, Karachi 2. Asstt. Prof. of Dental Material, FJDC, Karachi 3. Senior Registrar of Community Dentistry, FJDC, Karachi

## ABSTRACT

**Objective:** To describe the configuration of consumption of Facilities offered by the Public Teaching Hospital in Karachi.

**Study Design:** Cross-sectional study

**Place and Duration of Study:** This study was conducted at the OPD of Dr. Ishrat ul Ibad Institute of Oral Health Sciences, Karachi from December, 2011 to June, 2012.

**Materials and Methods:** The preformed questionnaire was distributed in the OPD. A total of 579 patients attending the OPD of the Public Teaching Dental Hospital Dr. Ishrat ul Ibad Institute of Oral Health Sciences.

**Results:** Our study demonstrated that mean were in the age group 20 – 39 yrs. 56.5%, while slightly more than 30 per cent were between the ages 40 – 59 yrs. About 11.9% of the subjects were over 60 years old. However, no significant difference was found between the age groups and the gender ( $p>0.05$ ).

**Conclusion:** Our study concluded that application of facilities in the people is poor. The mainstream of the people for dental approach were for the treatment of severe symptoms rather than for preventive measures. Motivation and proper awareness are required to use existing services.

**Key Words:** Utilization, Dental Visits, Tooth Ache, Oral Hygiene.

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## INTRODUCTION

The concentration of the existing study was on the reasons effected the application of the dental services by local populations in teaching hospitals of Karachi. Earlier surveys on the utilization of dental services in Western-European countries were look over and it was found that features such as sex, age, education, and income had been shown to impact the use of dental services. The utilization thru the "consumers" of medical and oral care has long been used as one of the indicators describing important aspects of people's health related behavior. Many studies have been conducted to why, how and how often people utilize health care services and the factors determining their utilization behavior<sup>[1]</sup>

Studies conducted in many countries have shown that sex, age, occupation, and socio-economic status were some of the most influential predictors of utilization of dental service.

In addition to these variables, the oral health position, the level of oral health information, the approaches toward oral health care, the dentist-patient affiliation and the family were also found to influence people's utilization.<sup>[2,3]</sup> Vast dissimilarities are in health status

including oral health between metropolitan and urban people in India and other developing countries.<sup>[4]</sup>

It is highlighted by the WHO Oral Health Program that combination of effort for oral health upgrade into general health is maximum important for national and public health programs. The association between oral health and general health is noticeable in older people, and this was most lately highlighted in a policy paper<sup>[5]</sup>

How the work for improved oral health of older people in the world could strengthen. Because of the continuing demographic development, the focus is on older people. Within the next 30 years, 80% of elder people universally will live in developing countries.<sup>[6]</sup> Where there is restricted contact to health care matched with developed countries. Even in India with large personnel maximum people do not contact the basic oral health care.<sup>[7]</sup> In these developing countries, the upgrade of health and oral health must be measured in a much wider sense within the setting of national and community public health plans, without trusting on dental professionals where there is inadequate access to health care paralleled with developed countries. The dentist to population ratio is 1:10,000 in urban areas however it extremely decreases to 1:150,000 in rural areas.<sup>[8]</sup> There can be no doubt that studies on the utilization of health care services in the future will be part of a larger social-medical investigations in which disciplines such as Epidemiology, Cultural Anthropology, Sociology, Behavioral Sciences and Statistics will be represented in a multidisciplinary team approach<sup>[9]</sup>

**Correspondence:** Dr. Marium Azfar.

Assistant Professor of Community Dentistry,  
Jinnah Sind Medical University, Karachi, Pakistan  
Cell No.: 0300-2387931

E-mail: mariumazfar0791@gmail.com

This can lead to the growth of undesirable approach toward dentist or dental treatment and therefore cause in non-utilization of dental services.<sup>[10]</sup>

Poor oral health leads to poor nutrition, and both these factors create a vicious cycle, which may lead to the overall deterioration of health. Though oral-dental health problems are hardly life threatening, but they affect the quality of life. Dental diseases are costly to treat, but simple to prevent. Oral disease is the fourth utmost costly condition to treat in most developed countries.<sup>[11]</sup> If we have to generate consciousness and permit on the welfares of durability of teeth across the society, dental profession should pay attention on to the strategy in order to have beneficial dental insurance schemes for the common people.<sup>[12]</sup>

## MATERIALS AND METHODS

The cross sectional study was held in the department of operative Dr. Ishrat ul Ibad Institute of Oral Health Sciences. Data was collected on perceived oral health status, number of visits to the dentist in the last 12 months, aims for the visit (e.g. dental checkup, tooth repair, dental scaling, tooth extraction, having a prosthesis made, and painful tooth or gums). The reasons for not visiting the dentist included, for example., high cost of treatment, inconvenient consulting hours, fear of the dentist/dental tools, ignorance regarding where to go, lack of transportation, language barrier, long waiting time, and difficult to time out.

Basic tools used for the study was, including examination instrument and mask, gloves. Inclusion criteria in this study were all patients coming to OPD for dental services who were willing to participate in the study. Exclusion criteria in this study was those dental patient who are mentally retarded, suffering from some systemic disease and unwilling to participate in the study. Total 579 subject were included in the study. Questions such as their oral health associated information, approaches, oral hygiene behaviors, and the consumption of dental services.

The characteristic of all the patients in the descriptive analysis was studied. The categorical variables like gender were presented as proportions.

The analysis of the data was carried out on the using the Statistical Package for Social Sciences - Version XII (SPSS-XII). Frequency distribution tables of each coded variable shall be obtained. Frequency distribution tables of each coded variable shall be obtained. Chi-square test will be used to compare results from different groups. Relationship between the groups was assessed at confidence interval of 95% and  $p > 0.05$ .

## RESULTS

**Demographic Profile:** The gender and age distribution of participants of the study is given in the table-1. The

majority of the participants in the study were in the age group 20 – 39 yrs. 56.5%, while slightly more than 30 per cent were between the ages 40 – 59 yrs. About 11.9% percent of the subjects were over 60 years old. However, no significant difference was found between the age groups and the gender ( $p > 0.05$ ).

Table 1 shows that about two quarters of the participants in the study were married.

**Table No.1: Demographic Profile**

		N	%
Gender	Male	234	40.4
	Female	345	59.6
Marital Status	Single	248	42.8
	Married	331	57.2
Age Group	20-39 Years	327	56.2
	40-59 Years	183	31.6
	60-79 Years	69	11.9
Total Subjects		579	

**Dental Service Utilization Behavior:** According to results twenty seven percent of the participants reported that they use dental services on a regular basis while seventy three percent of participants said that they do not utilize the free dental services on a regular basis (Table 2).

**Table No.2: Do you visit the Dentist on a regular basis?**

Age Group	%		Frequency		
	Yes	No	Yes	No	Total
20-39 yrs.	28.4	71.6	93.0	234.0	327
40-59 yrs.	23.0	77.0	42.0	141.0	183
60-79 yrs.	31.9	68.1	22.0	47.0	69
Total	27.1	72.9	157.0	422.0	579

Approximately ninety four percent participants reported that they have visited the public dental hospital before; table also shows almost equal distribution between the age groups.

**Table No.3: When did you last visit a Dentist (%)**

Age Group	< 12 Month Ago	1-2 Years Ago	2-3 Years Ago
20-39 Yrs	35.52	49.8	15.0
40-59 Yrs	37.7	41.5	20.8
60-79 Yrs	33.3	52.2	14.5
Total	35.8	47.5	16.8

Thirty six per cent of the contributors informed that they regularly visited the dentist, less than 12 months after the last visit. Another 47 per cent reported 12 - 24

months. Seventeen per cent reported that visits were usually spaced by more than two years (Table-3).

Eighty one percent of participants reported they visited a licensed private dentist last time. Only 17% participants visited a public dental hospital or government dentist last time. And approximately 2% participants reported to visit a non-licensed dental practitioner.

As to the reason for the last visit, 29 percent of the participants reported that they just went for a tooth cleaning or scaling. Broken teeth and toothache were the other main reasons given by the participants (17% and 18%, respectively) for their last visit to the dentist. Sixteen percent of the subjects went to see the dentist for tooth extraction (Table 4).

**Table No.4: Why did you visit the dentist last time?**

Positive Response	Count	%
I had toothache	108	18.6
I had a broken tooth	102	17.6
I had a broken filling	105	18.1
I had a gum problem	97	16.7
To have clean my teeth	167	28.8
For tooth extraction	97	16.7
To get my teeth straighten	105	18.1

Ninety two percent of participants were of the opinion that the public dental service is beneficial. Sixty five percent gave a reason that dentist made the appointment in the last visit and fifty three percent visited the hospital because the service is free of charge. (Table-5)

**Table No.5. Why do you visit the Public Hospital**

Positive Response	Count	%
The Public Dental Service scheme is beneficial	531	47.7
It is because the dentist made the appointment with me after the last visit.	377	65.1
It is free of charge	310	53.5

**Table No.6: If you have dental problems, please tell us what are the problem(s)?**

Positive Response	Count	%
A swelling inside the cheek or lips	57	9.8
A broken tooth	70	12.1
A broken filling	151	26.1
Gum boil, sinus	35	6.1
Gingival inflammation	159	27.5
Apthous ulcers	97	16.7
Bad breath	272	46.9
Bleeding gums	102	17.6
Toothache	210	36.2
Loose teeth	51	8.8
Dental calculus	171	29.5

Most important dental problems from the patient's point of view was reported as bad breadth forty seven

percent, followed by toothache thirty seven percent and dental calculus thirty percent respectively (Table 6).

Forty seven percent participants reported that they were afraid of pain, therefore do not visit the dentist on a regular basis. Approximately thirty four percent said waiting time is too long. Thirty percent reported either too far to go or not, had time to go to the dentist. (Table-7)

**Table No.7: Why you have never visited the dentist before?**

Positive Response	Count	%
I do not know the public dental service	23	4.0
I am afraid of the pain	273	47.2
I am afraid of the dentist	79	13.6
It is too far to go	170	29.4
I have not had time to go	173	29.9
I am unable to get off work	76	13.1
Waiting time to see the dentist is too long	194	33.5
I do not like the dentist	17	2.9

## DISCUSSION

A significant amount of data on the dental service utilization, the oral health awareness, the approaches and behaviors of the local population were collected in the present survey. it was accomplished by means of focused interview. A minority of the subject 27% told that they were regular users of public dental services. A large number of proportion of the subject stated that they were irregular users 72% of the services. No significant difference was found between other demographic variables (such as age, marital status) and the type of users. More than 20% of the regular users. These agendas improved provider payment, provided training for dentists and families, educate outreach staff for dealings with families, and provided program direction to dentists and families. Investigators have also suggested increasing access by giving the children with a usual source of dental care <sup>[13]</sup>

However, the motivation or reasons for these asymptomatic, preventive visit were obscure because the government dentist made the appointments with them. About one –third of the irregular users visited a dentist within the last 12 months. . In Malaysia, oral health care is delivered services in both public and private sectors, and the Ministry of Health is the prime organization in providing care to the public. Oral health program for reproductive mothers has been in place since the early 1970 s <sup>[14]</sup>

However, 29 percent of the irregular users had never visited dentist in the past three years. The long time it takes to make an appointment with the Government dentists and perception of no need (no dental problem) were the two main reasons for not visiting a public dental teaching hospital 'bad breath' and 'hole in the

tooth'were the two major problems experienced by the subjects at the time of interview.

Toothache, loose tooth and gingival inflammation were the three problems that most of the interviewees thought required immediate treatment. Dental phobia particularly to dental pain was also informed by some mothers, and it is acknowledged that dental fear and nervousness have important influence on dental care attitude to utilize it.<sup>15-17</sup>

Studies show that females use oral health care services more than males (Jensen, 1976; Heel & Ronstadt, 1975; Schwarz & Hansen, 1976; Douglass et al., 1979; Northern, 1979 Erikson & Hkansson, 1982; Rise & Holst, 1982; Yellowitz et al.1982; Widstrm, 1984).

Widstrrn (1984), investigating dental visiting patterns o Finns & Swedes living in Sweden, found that for both Finnish immigrants and Swedes, women visited dentists more frequently. Females are usually found to reveal higher prevalence rates than males. This finding is normally correct for different cultures with different survival systems and for a wide range of consecutive phases. It may indicate that the influence of gender on the frequency of services utilization is a general phenomenon irrespective of the nationality of the subjects. With respect to the types of services used by the subjects, some studies have shown that women used the preventive and restorative dental services more than men (Tronstad, 1975; Norheim 1979, Yellowitz et al.,1982)

Yellowitz et al., (1982) found that older women had more teeth and were in better condition. Fear of dental treatment was highly reported among the study population; This might be recognized due to the lack of proper oral health education programs for both children and parents, which is associated to the above mentioned reasons rendered dental treatment undesired. Oral health problems are common, costly and painful. Luckily most of them are mainly avoidable.<sup>18</sup>

## CONCLUSION

The present dental care delivery system of public dental hospitals seeks to cover the dental care needs of very different categories of 'consumers' with a standard approach or strategy. This standard and stereotyped strategy which is disease-orientated and curative rather than preventive and health-orientated has been abandoned in many countries. With the growing health-conscience of the people it has proven its ineffectiveness and inefficiency. A review of patient satisfaction studies shows that the characteristics of health care delivery that influence patient satisfaction the most are accessibility<sup>[19,20]</sup>

If the dental care demand and the service utilization by the users increase substantially at the same time as the consumer become more quality-conscientious than care expenditure could sky rockets it has in many countries. It was found that access to the routine of health

services, including dental care, among non-elderly adults declined between 2000 and 2010.

It is, therefore, better to prevent this from happening as early as possible. It is important to conceptualize and design the future delivery system for the public teaching hospitals in a way which stimulates, encourages and rewards regular, asymptomatic visits to the dentist.

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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