

Utilization of Dental Services by Patients Visiting Dental College and Private Dental Clinics of Twin Cities of Chhattisgarh

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Abstract

Objectives: The present study was undertaken with the aim to assess the utilization of dental services by patients visiting dental college and private dental clinics of Durg-Bhilai.

Methodology: The present study is focused on patients visiting dental college and private dental clinics of Durg-Bhilai to provide information on utilization of services. Data on the assessment of dental care services were recorded on a pre-tested specially designed close-ended questionnaire by face-to-face interview of the patients.

Results: The study was carried out on a total of 544 patients visiting dental college and private dental clinics of Durg-Bhilai. The most common reason for choosing any dental care facilities is the better service which was reported by 102 (47.2%) patients of private dental clinics and 139 (42.4%) of dental college followed by the second common reason, that is, reasonable cost reported by 50 (23.1%) and 107 (32.6%) patients.

Conclusion: Utilization of dental services differs across the sample and the pattern of use can serve as indicators of oral health-related behavior and beliefs. Thus, it is important to make them aware by educating them about the good oral health and motivating them to use the services available for them so that they can lead an overall healthy life.

Key words: Utilization, Barriers, Need, Demand, Dental health care

INTRODUCTION

The duty of dentists is to adequately and efficiently provide oral health-care services to a population growing at large and to specially cater to the need of the underserved populations. The ultimate goal is, therefore, to deliver dental care facilities to all people regardless of their financial status, geographic location, or health status.^[1,2]

General health cannot be attained or maintained without good oral health that is why the mouth is regarded as a

mirror and the gateway to health. The two leading dental diseases, that is, caries and periodontal disease, are common health problems, affecting nearly everyone during his or her lifespan. However, it can be prevented through simple and effective measures at all stages of the life course, both at the individual and population levels. Hence, to prevent the disease at an early stage, it is important to design the health-care system which will maintain and improve the health outcomes.^[3-6]

Andersen defined three main concepts explaining the use of health services; namely, predisposing factors, enabling factors and the need for the use of services.^[7] Good access to health services means the provision of “appropriate services in the right place and at the right time.” Access to health services is considered as one of the social justice determinants and a scarce resource which is dependent on the fair distribution of services through suitable planning.

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Furthermore, access to health resources has been taken into consideration as an indicator of public health.^[8,9]

It is said that a healthy body and healthy mouth go hand in hand; the same is for the health services and dental health services. If good dental health is to be attained, integration is required between the dentist and the patient.^[10] It has been reported that despite requiring treatment <50% of patients refer to the dentists because of the barriers to access dental care.^[8,11-13]

Utilization studies can serve as an important tool to know the factors that initiate and hinder dental service utilization.^[14] In developed countries, dental care services are properly designed with highly sophisticated techniques, but in developing countries like India with 70% of the rural populations, there is an acute shortage of oral health personnel and lack facilities and equipment, materials, supplies, and maintenance. Thus, dental visits are infrequent and the capacity of the systems is generally limited to pain relief, emergency care, and tooth extraction.^[15,16]

At present, in India, there are more than 267 dental schools, producing approximately 19,000 dental graduates per year. Despite this, even the most basic oral health education and simple interventions are unavailable to the vast majority of the population, especially the rural and urban poor.^[17] Thus an efficient health-care system is needed which can identify possible risk factors whose modification could reduce the incidence of disease and illness in the future.^[18,19]

Hence there is a definite lack of valid and reliable information about the factors affecting utilization of dental care services in Chhattisgarh state. The present study was undertaken with the aim to assess the utilization of dental services by patients visiting dental college and private dental clinics of Durg, Bhilai.

MATERIALS AND METHODS

Study Design

This is a time bound, descriptive cross-sectional study carried out in 2016 over a period of 2 months, that is, from February to April. For this proposed study, Durg, Bhilai city was included in the study.

Sample Size Estimation

For such studies, the universe of the study populations comprises people who are potential users of dental services within the study area. Since this variable cannot be ascertained to allow the estimation of sample size, so we will interview all the patients visiting Dental College and Private Dental Clinics of the study area over the period of 2 months.

Sampling Procedure

In Durg-Bhilai area, there are two Dental Colleges and 40 Indian Dental Association (IDA) registered private dental clinics. Data will be collected from the selected study areas of Durg and Bhilai.

Selection of dental college

Among the two dental colleges one dental college, that is, Rungta College of Dental Sciences and Research, Bhilai was randomly selected using a flip of coin method.

Selection of private dental clinics

Among 40 Indian Dental Association registered dental clinics, 20 clinics were randomly selected through lottery dip method to ensure randomness. This formed the entire skeleton of the study through which data were collected regarding the study.

Questionnaire

The questionnaire was designed after reviewing the literature about factors affecting utilization of dental services along with barriers to the same. Questionnaire included general and sociodemographic characteristics of the study. The questionnaire comprises close-ended questions regarding self-perception of oral health, visits to dentists, and self-perceived oral health problems. The questionnaire also focused on the emphasis given by the study subjects toward dental treatment and their level of satisfaction with the previous and existing dental care services in the set-up.

This questionnaire was given to experts in the department to check for face validity and necessary corrections were made as per their suggestions. The questionnaire was then translated into local language easily understood by the study population. For the purpose of translating the questionnaire into Hindi, the help of experts was sought and to check the reliability of translation; the Hindi questionnaire was re-translated to English and assessed for any change in the meaning of the questions. The questionnaire was pilot tested on 10 individuals to check for internal consistency (kappa coefficient = 0.91) and also to see if the individuals are able to understand the questions and whether they are having any specific problem answering to the questionnaire.

Ethical Clearance

The ethical clearance for the present study was obtained from the Ethical Committee of Rungta College of Dental Sciences and Research, Bhilai, Chhattisgarh (2016-28).

Permission

The required official permission for the study was obtained from the Dean, Rungta College of Dental Sciences and Research, Bhilai, Chhattisgarh and the

respective Dental Surgeons of the Private Dental Clinics of Durg, Bhilai.

Informed consent

A prior written, voluntary informed consent was taken from each study subject after explaining the nature of the study. Confidentiality and anonymity of the respondents were assured.

Training and calibration of examiner

The single trained examiner carried out the entire interview in the study. The examiner was trained and calibrated in the department of public health dentistry under the direct supervision of the guide before the study. The examiner was trained and calibrated by carrying out interviews on the pre-selected subjects twice at an interval of 1 h. The variability in the two assessments was very low. To validate the findings, some of the subjects were re-interviewed by experienced staff members.

Data Collection

For the purpose of data collection regarding utilization of dental services by patients visiting dental college and private dental clinics of Durg-Bhilai, all the patients aged 18–74 years attending on the particular days of the study (as decided earlier with permissions from the authorities) were invited to participate and those providing consents were included in the study. Patients who did not give consent and patients below 18 years and above 75 years of age were excluded from the study. A detailed schedule of the study was prepared well in advance (weekends and holidays were avoided) and the concerned authorities were informed regarding the study beforehand. On an average, around 10 subjects were interviewed each day. Data on the assessment of dental care services were recorded on a pre-tested specially designed close-ended questionnaire by face-to-face interview of the patients. The investigator gave required information and clarified doubts wherever necessary.

Statistical Analysis

The data collected were entered into MS Office Excel Sheet 2007 and subjected to statistical analysis using the

Statistical Software SPSS version 18.0. Descriptive statistics were used to summarize the results.

RESULTS

The study was carried out on a total of 544 patients visiting dental college and private dental clinics of Durg, Bhilai. The percentage-wise response of patients to some of the questions in the questionnaire is tabulated in Table 1.

The most commonly experienced problem in both the groups was toothache (25.5%) and (32.3%) followed by discoloration of teeth which was experienced by (22.2%) patients of private dental clinics and (16.8%) patients of dental college [Graph 1]. Most of the patients, 155 (71.8%) of private dental clinics and 184 (56.1%) patients of dental college were satisfied with the treatment provided to them. Expensive treatment and time required were the most commonly reported reason for dissatisfaction regarding to dental treatment [Graph 2].

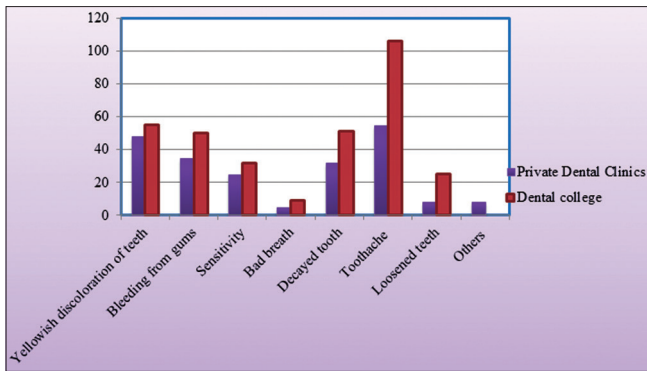
The most common reason for choosing any dental care facilities is the better service which was reported by 102 (47.2%) patients of private dental clinics and 139 (42.4%) of dental college followed by the second common reason, that is, reasonable cost reported by 50 (23.1%) and 107 (32.6%) patients. The most common reason for choosing any dental care facilities is the better service which was reported by 102 (47.2%) patients of private dental clinics and 139 (42.4%) of dental college followed by the second common reason, that is, reasonable cost reported by 50 (23.1%) and 107 (32.6%) patients [Graph 3].

DISCUSSION

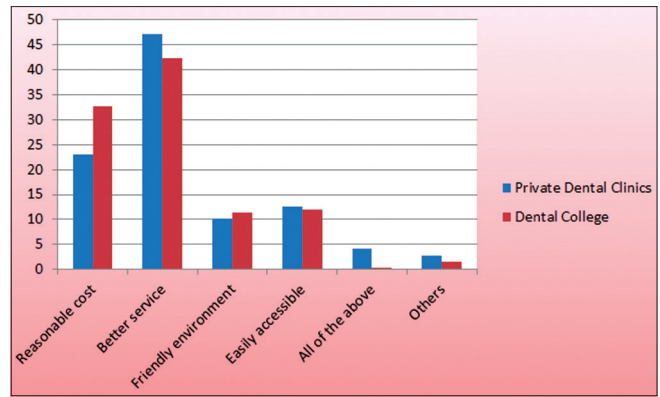
The present study is focused on patients visiting dental college and private dental clinics of Durg, Bhilai to provide information on utilization of services. This study is undertaken by considering the target groups, the time scale for the study and factors that increase compliance of

Table 1: Percentage response of patients to the questionnaire

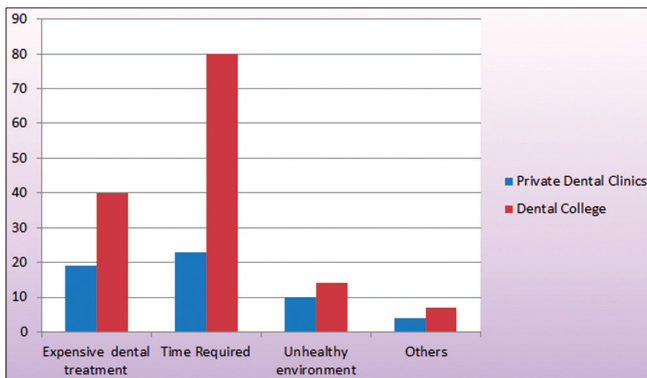
Question	Private dental clinic (%)				Dental college (%)			
	Poor	Fair	Good	Excellent	Poor	Fair	Good	Excellent
How would you rate your oral health?	9.3	50	33.3	7.4	11.3	60.1	25.9	2.7
How often you go to the dentist?	Never	Only at time of pain	Once in 6 months	Once in a year	Never	Only at time of pain	Once in 6 months	Once in a year
	19	55.1	10.6	15.3	22	55.8	10.7	11.6
How important is receiving dental care to you?	Not at all	Some-what	Very important	Only at time of pain	Not at all	Some-what	Very important	Only at time of pain
	6.5	25.5	56.9	11.1	9.8	24.4	49.1	16.8
Where you visited for previous dental-related problems?	Government Hospital	Private Hospital	Dental Clinic	Dental College	Government Hospital	Private Hospital	Dental Clinic	Dental College
	17.1	6.9	44.9	31.1	32.9	8.5	33.2	25.4



Graph 1: Distribution of response regarding previous dental-related problems



Graph 3: Response for choosing the dental care facilities



Graph 2: Reason for dissatisfaction regarding dental treatment

the respondents. Hence, we used an instrument that is less time consuming, that is, a self-administered questionnaire that included the most important components of the dental service utilization.

Majority of the patients in both the study groups considered that receiving dental care is very important, but still a fraction of population considered that receiving dental care is not at all important. This may be due to their belief that dental conditions are not serious or life threatening or may reflect their unawareness or lack of knowledge about the importance of visiting the dentist to maintain good oral health and to avoid the dental diseases.

This study illustrates that the majority of the participants prefer visiting a private dental clinic rather than public dental care facilities for their previous dental-related problems. And also a higher rate of satisfaction was seen among the patient visiting private dental clinics; this may be because of the usual/high quality of dental treatment and comparatively short waiting time. The present study showed that 55.1% patients visiting private dental clinics and 55.8% patients visiting dental college utilized dental care services only for a symptomatic reason, that is, when they feel pain, while only small numbers visited the dentist for regular checkups. This is not a new finding for our environment as oral

health surveys in other regions also showed that visits to dental-care facilities are mostly undertaken for symptomatic reasons rather than for preventive care.^[20,21] This further corroborates previous studies by Al Shammari *et al.*^[22] and Braimoh and Ofili^[23] and Ogunrinde *et al.*^[24]

Long waiting time has been reported as an item of dissatisfaction in literature.^[25,26] In the present study also the time required for the previous dental treatment was the component causing most dissatisfaction among both the study groups. The similar findings were reported by the other studies^[5,22,25] and this finding was in contrast with the study conducted by Jain *et al.*^[27] Hence, by reducing the time spent in the dental center, that is, at the registration desk, waiting time, consultation time, and time with the radiographer would go a long way toward increasing the satisfaction rate of the consumers.

Knowing patients concerns and views about dental care services and ensuring their satisfaction with dental care will ultimately increase the utilization of dental care services, which in turn will promote the desired oral health among the population.

Our study has some inherent limitations: It presents the data from the users of dental services in a system where these services are paid out-of-pocket, thus making the results not generalizable to the systems where dental care is provided in the public system. To address this limitation, comparative studies need to be conducted in different health care systems. The study though carried out on a small sample size still it may provide initial steps in understanding which variables are important in utilization or non-utilization of dental services.

CONCLUSION

Utilization of dental services differs across the sample and the pattern of use can serve as indicators of oral health-

related behavior and believes. In India, people encounter various obstacles in utilization of dental services. These barriers can be removed by motivating people and making them aware of the oral health problem which will develop a positive attitude toward dental treatment.

This study gives an insight into utilization of dental services among the patients visiting private dental clinics and dental college of Durg, Bhilai. Thus, it is important to make them aware by educating them about the good oral health and motivating them to use the services available for them so that they can lead an overall healthy life.

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