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Assessment of perceived oral health care needs, barriers to accessing oral health care services and its utility among dal lake dwellers

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Abstract

Background: Oral health is a close part of general health and there are large numbers of factors that affect the oral health of an individual such as attitude, awareness, literacy etc. The present study was carried out to measure oral health care needs, barriers to access, and utility among inhabitants of Dal Lake.

Materials and Methods: A community based cross sectional study was conducted on 190 subjects living around Dal Lake according to our knowledge. A pre

tested and validated questionnaire having questions under three different sections for perceived oral health needs, utility and barriers was given to each of the subject. Statistical analysis was performed using the SPSS package version 21.0 (IBM). Number, percentages, and Chi-square test were used to do the necessary calculations. $P < 0.05$ was used to denote the statistical significance.

Result: Out of total subjects 59.5% were male and 40.5% were female. When availed about the most common problem for visiting dentist in the past year it was that 84.7% of subjects visited to dentist for tooth decay or cavitation. High cost of service (33.2%) was cited as the main reason for not seeking dental care by majority of the subjects. 58.9% of subjects does not bother about seeking dental care from general dentist or specialist dentist.

Conclusion: Oral health related conditions of subjects are not good. There is an urgent need for comprehensive educational programs to promote good oral health and impart oral health education so that barriers to oral health can be reduced and utility of services can be increased.

Keywords: Access barriers, oral health, oral hygiene awareness, oral hygiene practices, Inhabitants

Introduction

Oral health is an important aspect of overall health and a valued asset for everyone. Oral disorders are among the most frequent non-communicable diseases that impact a wide range of people. Because of its incidence, socioeconomic component, expensive treatment, and lack of awareness, it is a major public health issue [1]. The following is a summary of how community health needs assessments are used: Measuring disease burden, identifying patterns of need in the population, determining the needs and priorities of populations with a focus on areas of unmet need, setting goals to address these needs, quantitative estimation of all health care needs of populations, and deciding how to use resources. Need, in Bradshaw's opinion, can be classified into three categories: Experts and professional staff determine the normative necessity. The term "perceived (felt) need" refers to an individual's estimate of their health-care needs. A perceived need that has led to action for acquiring services is known as expressed need [2].

Previously, educated opinions were the most popular assumption and approach for assessing need. Prescriptive need, according to, served as the foundation for health-care interventions and initiatives. However, evidence has repeatedly pointed out flaws in relying solely on this approach and considering it to be the best and most comprehensive need assessment tool, including: flaws in reliability and objectivity, neglecting psychosocial aspects and concepts of quality of life, lack of patient acceptance, disregard for consumer rights, and unrealistic treatment projections [2,3].

Furthermore, need assessments should take into account the impact of illness on individuals, levels of dysfunction, and patient views and attitudes [4]. As a result, paying attention to demand and perceived need has become more vital. A large number of research have been undertaken on this topic all around the world, with some even demonstrating that perceived need has a higher importance than expert assessment [2].

Aside from being aware of perceived requirements, recognizing the barriers to oral health care access will enable us to take the steps necessary to overcome them. Knowing varied societal perspectives on oral health care preferences and utility, such as favourite services in terms of preventive or treatment, payment methods for dental fees, and preferred gender of dentist, can aid

policymakers in appropriate planning of oral health care services delivery.

Despite the growing importance of evidence-based decision-making, there was no survey for assessment of perceived oral health care needs among Dal lake inhabitants (those who live around the Dal Lake) in Srinagar has been conducted yet. This study is done to measure oral health care needs, barriers to access, and utility among inhabitants of Dal Lake.

Material and methods

Study population and ethical clearance: A community based cross-sectional study was conducted on the inhabitants of Dal lake i.e. those people who live around that area. Ethical clearance was obtained from the Ethical Committee of Surendera dental college and research institute for conducting the study and permissions weretaken from local authority for conducting survey. A pilot survey was conducted on 50 subjects to judge the aptness of the questionnaire, and it was found that an average of 10 min was needed to answer all the questions.

Study sample

A convenience sampling technique was used to pick 190 subjects for the study. Individuals over the age of 12 were included in the study so that they could completely comprehend the questionnaire. Subjects were informed and explained the goal of the investigation, and those who freely consented to participate in the study and supplied written consent were asked to complete the questionnaire using the response format provided in the questionnaire.

Data collection

Subjects were given a pretested and validated questionnaire [5] as part of a door-to-door survey. While the questionnaires were being filled out, the investigator was there at all times to ensure that the concerned respondent fully understood the questions as well as the possible answers.

Questionnaire

A closed ended questionnaire written in English language was given to each one of them. Beside demographic data (age, sex, employment, last level of education completed) the questionnaire included questions about perceived oral health care needs including dichotomous questions about perceived need for 12 most common oral problems in the past year with “yes, no” response, extent of individual perceived needs for oral health care based on the numeric rating scale question from 0 (not required) to 10 (Extreme need) and multiple choice questions about history of last dental visit and place of receiving the dental service. Domain of barriers to oral health care access included a filter question about meeting all the oral health care needs with “yes, no” response and seven questions of possible barriers to meet the oral health care needs including: high dental cost, fear of dentalprocedures, fear of infection transmission in dental visit, lack of sufficient time for dental visit, not caring to go to the dentist and feeling no need, with the rating scale “somewhat agree, somewhat disagree, strongly agree, strongly disagree, no idea” and numeric rating scale question about extent of dental fear from 0 (no fear) to 10 (extreme fear). The last domain was four multiple choice questions about service utility and preferences in terms of paying dental fees, gender of dentist, kind of services received in terms of prevention or treatment, and general dentist or dental specialist [6].

Statistical analyses

The data was first transferred to Microsoft Excel and results were statistically analyzed using SPSS package version 21.0 (IBM) in terms of percentages. For other descriptive statistics, Chi-square test was used to test

significance of association between two factors, $p < 0.05$ was selected to denote statistical significance.

Results

This present study was done on 190 subjects among which age was variable. Subjects within the age group of 61 and above were highest (23.6%). Out of total subjects 59.5% were male and 40.5% were female. Maximum number 66.8% had their last level of education as under graduation. Approximately 91.1% among them were employed (Table 1).

When availed about the most common problem for visiting dentist in the past year it was that 84.7% of subjects visited to dentist for tooth decay or cavitation and least common problem was tooth mobility with 27.9%. Maximum number of subjects (43.7%) visited to dentist one year ago. Mean ± S.D score of total subjects for severity of need of dental treatment (score 0-10) was found to be 7.32 ± 1.4 (Table 2).

Comparison was done between gender and perceived need for 12 most common oral problems in the past year and it was found that 57.5% of male and 71.4% of female faced problem of defective tooth fillings or crown and result was statistically significant with p value equal to 0.05 (Table 3).

When asked about the access barriers, high cost of service (33.2%) was cited as the main reason for not seeking dental care by majority of the subjects whereas fear of dental procedures (33.1%) was cited as the second common barrier which prevented them to avail oral health care (Table 4).

When questions were asked about oral health care services preferences of inhabitants of Dal lake it was found that 58.9% of subjects does not bother about seeking dental care from general dentist or specialist dentist, 57.4% of subjects went to dentist for both prevention and treatment options. 65.3% of them think it does not matter whether the dentist is male or female and 80.5% of subjects prefer to pay fees by personal payments methods rather than insurance or any other method (Table 5).

Discussion

Oral health is a necessary and fundamental component of overall wellness. We, as dental health experts, recognize that oral health is a standard of oral and linked health tissues that let a person to eat, speak, and socialize which is free of active sickness, suffering, or shame, and adds to overall happiness of people. All of these truths must be understood in order to live a healthy and longer life [6].

The highly reported tooth problem was decay tooth which being a common condition should logically have forced them to visit a dentist, but nearly half of the subjects having problems had not visited a dentist. This might indicate that subjects don't bother about their oral health. Majority of them said that they visited a dentist only when they felt they needed it. A vast difference has been reported in other studies [7] between the normative need and the felt need of the subjects, where 75% of the subjects were assessed as requiring dental treatment, whereas only 22% of them perceived any need. History of last dental visit shows that most of the subjectshad last visited to dentist one year ago which is similar to study done on South-Indian population [8]. This study shows significant difference between the dental visit for tooth filling by females as compared to males under perceived need for the most common oral problem in the past years and retains similarity to study done on Norwegians in 2003 [9].

Unfortunately, due to a lack of understanding, oral health standards in India continue to be a big issue. The subjects in this study reported a variety of hurdles that kept them away from receiving dental treatment.Subjects

in another study done in Bulgaria reported similar findings [10].However, the findings of a research on Kuwait's adult population found a variety of other access hurdles [7]. High cost of services was one of the important barriers that prevent the patients from visiting the dentist in the present study. These finding are comparable to that of a previous study conducted on patients at a rural dentistry institution [11]. In another study, some writers identified age and financial constraints as significant impediments as receiving dental services [8].

In the present study it was found that subjects does not care whether the dentist is male of female they chose both of them equally which was dissimilar to a study done in England where participants preferred female dentists while two other studies, in Sudan and Turkey, found that patients preferred dentists of their gender, especially females [12].Most of the subjects prefer to pay fees through personal mode of payment which is similar to study done in Tehran and this might be due to the fact that in both countries the organizations providing help for dental treatments are very less and most common mode of payment is monetary system only [13].

There are some limitations to our study like the data was collectively recorded and evaluated for all the inhabitants living there, difference in perception can be there for subjects of different age groups, also the subjects were almost from a same religion or community living in a distant as well as critical part of country so the opinion cannot be generalized for all the people living in other parts of country.

Conclusion

Oral health has been overlooked in the midst of other medical concerns. Its contribution to general health, on the other hand, emphasizes the importance of dental health. It's possible that a lack of access to dental care is exacerbating oral health problems. Delaying preventative and curative dental care might cause issues. As a result, there are more health risks and societal expenses. There are multiple causes that interact to determine the outcome. Access to dental health treatment is inconsistent or limited. Despite the availability of a dental health clinic, the general population is still unable to obtain dental care, demonstrating their neglect. They are uninformed and unconcerned about their dental health. Recognizing social issues and spreading responsibility allow for a wide range of stakeholder interaction, thereby strengthening efforts to alleviate health disparities in communities. On a local, state, and national level, access to care strategies can be implemented. Working with communities, rather than just for them, is a better way to go for a long-term oral health improvement

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Legend Tables

Table 1: Demographic details of inhabitants of Dal Lake

Variables		N (%)
Age (years)	12-20	22 (11.5)
	21-30	37 (19.4)
	31-40	36 (18.9)
	41-50	15 (7.8)
	51-60	35 (18.4)
	61 and above	45 (23.6)
Gender	Male	113 (59.5)
	Female	77 (40.5)
Last level of education	Up to high school	43 (22.6)
	Under graduation	127 (66.8)
	Post-graduation	20 (10.1)
Occupation	Employed	173 (91.1)
	Unemployed	17 (8.9)

Table 2 Distribution of inhabitants according to perceived oral health care needs in past years

Variable		Yes, N (%)	No, N (%)
Perceived need for 12 most common oral problems in the past year	Examination and check-up 1 1 Tooth sensitivity to heat, cold, sweets 1 1 Tooth decay or tooth cavitation 1 1 Bad breath 0.78 1 Defective tooth fillings or crowns 0.78 0.88 Inappropriate and loose dentures 1 1 Trauma or fracture to natural or artificial tooth 0.78 1 Tooth mobility 0.78 1 Toothache 1 1 Problems in tooth appearance: size, color, space, alignment 0.78 0.92 Gum problems: dental calculus, gingival bleeding, swelling, recession 0.78 1 Space due to missing teeth Examination and check-up	152 (80)	38 (20)
	Tooth sensitivity to heat, cold, sweets	137 (72.1)	53 (27.9)
	Tooth decay or tooth cavitation	161 (84.7)	29 (15.3)
	Bad breath	82 (43.2)	108 (56.8)
	Defective tooth fillings or crowns	120 (63.2)	70 (36.8)
	Inappropriate and loose dentures	54 (28.4)	136 (71.6)
	Trauma or fracture to natural or artificial tooth	81 (42.6)	109 (57.4)
	Tooth mobility	53 (27.9)	137 (72.1)
	Toothache	92 (48.4)	98 (51.6)
	Problem in tooth appearance	88 (46.3)	102 (53.6)
	Gum problems	76 (40)	114 (60)
	Space due to missing teeth	132 (69.5)	58 (30.5)
History of last dental visit	1-2 years ago	29 (15.3)	
	2-5 years ago	37 (19.5)	
	I cannot remember	26 (13.7)	
	I never had dental visit	15 (7.9)	
	One year ago	83 (43.7)	
Severity of need of dental treatment (0-10 Score)	Mean ± S.D	7.32 ± 1.4	

Table 3 Comparison of gender with Perceived need for 12 most common oral problems in the past year

Variable	Gender				p value
	Male		Female		
	Yes N (%)	No N (%)	Yes N (%)	No N (%)	
Examination and check-up 1 1 Tooth sensitivity to heat, cold, sweets 1 1 Tooth decay or tooth cavitation 1 1 Bad breath 0.78 1 Defective tooth fillings or crowns 0.78 0.88 Inappropriate and loose dentures 1 1 Trauma or fracture to natural or artificial tooth 0.78 1 Tooth mobility 0.78 1 Toothache 1 1 Problems in tooth appearance: size, color, space, alignment 0.78 0.92 Gum problems: dental calculus, gingival bleeding, swelling, recession 0.78 1 Space due to missing teeth Examination and check-up	90 (79.6)	23 (20.4)	62 (80.5)	15 (19.5)	0.883
Tooth sensitivity to heat, cold, sweets	78 (69)	35 (31)	59 (77.6)	17 (22.4)	0.194
Tooth decay or tooth cavitation	95 (84.1)	18 (15.9)	65 (85.5)	11 (14.5)	0.785
Bad breath	55 (48.7)	58 (51.3)	27 (35.5)	49 (64.5)	0.074
Defective tooth fillings or crowns	65 (57.5)	48 (42.5)	55 (71.4)	22 (28.6)	0.05*
Inappropriate and loose dentures	34 (30.1)	79 (69.9)	20 9260	57(74)	0.537
Trauma or fracture to natural or artificial tooth	51 (45.1)	62 (54.9)	30 (39)	47 (61)	0.398
Tooth mobility	32 (28.3)	81 (71.7)	21 (27.3)	56 (72.7)	0.875
Toothache	52 (46)	61 (54)	40 (51.9)	37 (48.1)	0.422
Problem in tooth appearance	82 (72.5)	31 (27.5)	56 (72.7)	21 (27.3)	0.838
Gum problems	61 (79.2)	16 (20.7)	92 (81.4)	21 (18.5)	0.363
Space due to missing teeth	79 (69.9)	34 (30.1)	53 (68.8)	24 (31.2)	0.874

Table 4: Barriers to oral health care access of inhabitants of Dal lake

Question	No idea N (%)	Somewhat agree N (%)	Somewhat disagree N (%)	Strongly agree N (%)	Strongly disagree N (%)
High cost of service	22 (11.6)	64 (33.7)	19 (10)	63 (33.2)	22 (11.60
Fear of dental procedure	31 (16.3)	52 (27.4)	28 (14.7)	61 (32.1)	18 (9.5)

Fear of infection transmission in dental visit	62 (32.6)	75 (39.5)	8 (4.2)	16 (8.4)	29 (15.3)
Not having enough time to go to the dentist	15 (7.9)	64 (33.7)	38 (20)	29 (15.3)	44 (23.2)
I don't feel the need	18 (9.5)	41 (21.6)	56 (29.50	18 (9.5)	57 (30)
I don't care to go to the dentist	27 (14.2)	32 (16.8)	51 (26.8)	4 (2.1)	76 (40)

Table 5: Oral health care services preferences of inhabitants of Dal Lake

Questions	Options	N (%)
Would you prefer a general or specialist dentist	General dentist	24 (12.6)
	Specialist dentist	54 (28.4)
	It does not matter	112 (58.9)
Would you prefer to prevent or treat the oral problems	Prevention	60 (31.6)
	Treatment	21 (11.1)
	Both of them	109 (57.4)
Would you prefer a male or female dentist	Male	33 (17.4)
	female	33 (17.4)
	It does not matter	124 (65.3)
How would you prefer to pay dental fees	Insurance	2 (1)
	Personal payments	153 (80.5)
	Others	36 (18.9)