

BARRIER OF DENTAL SERVICES PROVIDED IN PUBLIC HEALTH CENTRE AND REGULAR DENTAL VISITS

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ABSTRACT

Background: This study had an objective to evaluate the type of patients, disease pattern and services provided in public health centre.

Materials & Methods: A cross-sectional study was conducted among all the study subjects who were visiting dental OPD of PHC, Gudavishnoi, and Jodhpur. This study was carried out for the period of 4 month that is month of July 2014- Oct 2014. **Results:** Only 12.4% of study subjects were visiting the clinic regularly for recall cheque up. There is significant association between reasons for not visiting dentist in the Public health centre with different age groups. There is significant association between reasons for visiting dentist in PHC with educational status illiterate individuals have transportation difficulties in relation to missed and cancelled visits.

Conclusion: Studies have revealed that the levels of education as well as financial status are some of the important factors in utilization of dental care.

KEYWORDS: Dental service; public health; dental visit

INTRODUCTION

Health centre or public health centre is consisting of group of general practitioners and nurses. General care as well as dental care will be provided, but at some centres expanded care will also be provided such as internal medicine, paediatric, women's care, family planning, pharmacy, lab, and more. In 2006, the National Association of Community Health Centres implemented a model for offering free, rapid HIV

testing to all patients between the ages of 13 and 64 during routine primary medical and dental care visits.^[1] Various factors playing vital role in causation of among them factor cited are dental diseases in rural India ,inadequate or improper use of fluoride products and a lack of knowledge about oral health and hygiene, and systemic infrastructure deficiencies that prevent proper screening and dental care of oral diseases, especially in rural areas.^[2] Additionally, only 2% of dental specialists are trained in community dentistry, the specialization that would typically practice in rural areas.^[3] The low number of dentists in rural areas, a distribution perpetuated by the current landscape of professional oral health training, is a significant barrier to access for rural village residents. In order to reach these goals, the National Oral Health Care Programme was established in 1998, targeted at providing oral health care through primary prevention and strengthening existing oral health care set up.^[4] The strategies contained within the Programme primarily focus on prevention such as education and screening, as well as proposed mobile oral clinics and a nationwide oral health surveillance system.^[4,5] The focus on primary and secondary prevention stems.

Barriers to Disease Mitigation Efforts

Currently, all existing efforts address one portion of the continuum of care - primary, secondary, or tertiary - without confronting the entire continuum. As previously discussed, there are significant barriers to accessing dental services in India, including the high cost for services, long travel to reach a dentist, and extremely low dentist to population ratio. Because of these barriers, screening programs alone are not

Table 1: Distribution of study subjects according to reason for visiting dentist in the Public health centre

Variable	Attendance of patient in the Public health center (n)	Percentage (%)
Are you visiting the clinic for the recall checkup regularly?		
Yes	31	12.4 %
No	113	45 %
What are the reason for the missed/ cancelled visit-		
No Reason	13	5.2 %
Guardian scheduling	10	4 %
Transportation difficulties	35	13.9 %
Forgot / arrived too late	10	4 %
Others	44	17.5 %
Lack of time	1	0.4%
Are you satisfied with the treatment provided in public health centre		
Yes	195	77.7 %
No	55	21.9 %
If not then, what is the reason for this?		
Complications after taking treatment	12	4.8%
Long waiting period	17	6.8%
No relief in symptoms	27	10.8%
No proper attendance	2	0.8%
Others	0	0%
If the public health centre was not present , how you would have solve the dental problem		
Go to the higher centre for treatment	78	31.1 %
Local health experts	55	21.9 %
Medicine shop person	83	33.1 %
Remain unaffected	35	13.9 %
Have any Medical specialties referred you to the dental health centre?		
Gynecology	01	0.4%
Surgery	00	0%
Medicine	25	10%
Skin	00	0%
All of the above	00	0%
None of the above	225	89.6%

comprehensive enough to have any significant impact on the prevalence of oral health in India. Identifying cases of poor oral health without providing any follow-up care, or providing a referral for a treatment that is both far away and expensive, simply raises the prevalence of disease, as more cases will be identified through screening. Additionally, it is unethical to identify a disease in a person when treatment is not accessible.^[6] For these reasons, screening alone simply cannot begin to address oral health in India. Keeping all the above points in view, a study was carried out aiming to see the “barriers of dental services provided in public health centre. We conducted our study in public health centre located at rural area near Jodhpur city at GudaVishnoi village, as no other previous study

has been done yet. This study had an objective to evaluate the type of patients, disease pattern and services provided in public health centre.

MATERIALS AND METHOD

A cross-sectional study was conducted among all the study subjects who were visiting dental OPD of PHC, Gudavishnoi, and Jodhpur. This study was carried out for the period of 4 month that is month of July 2014 - Oct 2014. The data was collected by using pretested questionnaire. Patient who were not willing to respond to the questionnaire were excluded. Ethical approval was obtained from the ethical committee of vyas dental collage and hospital, Jodhpur and informed consent was taken from PHC as well as from study subjects. Prior to the start of study, subjects were informed regarding the research work.

Table 2- Association between age and reason for visiting dentist in the Public health centre

Variable	Age						Chi square-value	p-value	S/NS
	>10 Years	10-20 years	20-30 years	30-40 years	40-50 years	< 50 years			
Are you visiting the clinic for the recall checkup regularly?									
Yes	0	2	6	7	8	8	3.001	0.698	NS
No	3	12	25	21	18	34			
What are the reason for the missed/ cancelled visit-									
No Reason	2	10	1	0	0	0	106.746	0.000	S
Guardian scheduling	0	0	0	0	3	7			
Transportation difficulties	1	1	12	7	6	8			
Forgot / arrived too late	0	0	4	4	0	2			
Others	0	1	8	10	8	17			
Lack of time	0	0	0	0	1	0			
Are you satisfied?									
Yes	7	27	45	40	36	40	3.463	0.629	NS
No	0	6	15	12	8	14			
If not then, what is the reason for this?									
Complications after taking treatment	9	25	16	6	20	2	26.301	0.035	S
Long waiting period	10	16	11	11	6	1			
No relief in symptoms	7	17	20	16	19	4			
No proper attendance	7	3	5	11	9	0			
Others	0	0	0	0	0	0			
If the public health centre was not present , how you would have solve the dental problem									
Go to the higher centre for treatment	0	1	4	4	1	2	17.354	0.630	NS
Local health experts	0	0	5	4	1	7			
Medicine shop person	0	4	6	4	7	6			
Remain unaffected	0	1	0	1	0	0			
Have any Medical specialties referred you to the dental health centre?									
Gynecology	0	0	0	0	1	0	12.999	0.224	NS
Surgery	0	0	0	0	0	0			
Medicine	4	6	1	4	10	0			
Skin	0	0	0	0	0	0			
All of the above	0	0	0	0	0	0			
None of the above	29	55	51	40	43	7			

A pretested questionnaire was used to collect the data regard dental services, socio-economic status and demographic factors responsible for barrier. The questionnaire was filled in the presence of the dentist posted in PHC. The questionnaire reliability was checked by taking 30 individuals in consideration prior to data collection after that in total 251 study subject's data was collected. The collected data was retrieved by using excel sheet and was transferred into suitable statistical

software SPSS version 20 , Pearson'S Chi-square test, p and step wise logistic regression were calculated for the analysis. P-value <0.05 was kept as statistically significant.

RESULTS

Table 1 showed the distribution of study subjects according to reason for visiting dentist in the Public health centre. Only 12.4% of study subjects were visiting the clinic regularly for recall cheque up and 13.9% of study subjects

Table 3: Association between educational status and reason for visiting dentist in the Public health centre

Variable	Education					Chi square-value	p-value	S/NS
	Illiterate	Primary School	High School	Graduate	Professional			
Are you visiting the clinic for the recall check up regularly?								
Yes	12	7	6	6	0	0.688	0.876	NS
No	40	24	30	19	0			
What are the reason for the missed/ cancelled visit-								
No Reason	0	3	10	0	0	40.967	0.000	S
Guardian scheduling	9	1	0	0	0			
Transportation difficulties	12	9	5	9	0			
Forgot / arrived too late	2	3	4	1	0			
Others	16	8	11	9	0			
Lack of time	1	0	0	0	0			
Are you satisfied?								
Yes	57	47	56	35	0	6.903	0.141	NS
No	20	14	9	11	1			
If not then, what is the reason for this?								
Complications after taking treatment	23	12	17	25	1	42.615	0.000	S
Long waiting period	9	13	22	11	0			
No relief in symptoms	24	27	21	11	0			
No proper attendance	21	9	5	0	0			
Others	0	0	0	0	0			
If the public health centre was not present , how you would have solve the dental problem								
Go to the higher centre for treatment	4	2	4	2	0	23.266	0.107	NS
Local health experts	8	3	1	5	0			
Medicine shop person	10	10	3	3	1			
Remain unaffected	0	0	1	1	0			
Have any Medical specialties referred you to the dental health centre?								
Gynecology	1	0	0	0	0	6.885	0.549	NS
Surgery	0	0	0	0	0			
Medicine	11	3	8	3	0			
Skin	0	0	0	0	0			
All of the above	0	0	0	0	0			
None of the above	65	58	57	44	1			

have the Transportation difficulties as the reason for the missed/ cancelled visit and 17.9% gave other reasons like being a girl, elderly patients and children. 77.7% of study subjects satisfied with the treatment provided in public health

centre. Only 10.8% subjects felt no relief in the symptoms .A total of 33.1% of study subjects accepted that they would solve the dental problem by medical shop person and 13.9% will remain untreated if the public health centre was not

Table 4: Association between Socio economic status and reason for visiting dentist in the Public health centre

Variable	Socio economic status					Chi square-value	P-value	S/NS
	Upper	Upper middle	Lower middle	Upper Lower	Lower			
Are you visiting the clinic for the recall checkup regularly?								
Yes	1	2	15	5	8	16.006	0.003	S
No	15	24	46	21	6			
What are the reason for the missed/ cancelled visit-								
No Reason	1	1	4	5	1	33.082	0.033	S
Guardian scheduling	1	1	4	4	0			
Transportation difficulties	1	8	14	7	5			
Forgot / arrived too late	1	3	5	1	0			
Others	11	11	19	3	0			
Lack of time	0	0	0	1	0			
Are you satisfied?								
Yes	19	37	83	36	19	1.674	0.795	NS
No	6	14	20	11	4			
If not then, what is the reason for this?								
Complications after taking treatment	3	3	3	2	1	13.026	0.671	NS
Long waiting period	2	5	8	1	1			
No relief in symptoms	1	6	8	8	4			
No proper attendance	0	1	1	1	0			
Others	0	0	0	0	0			
If the public health centre was not present , how you would have solve the dental problem								
Go to the higher centre for treatment	15	33	27	3	0	125.601	0.000	S
Local health experts	2	2	35	13	3			
Medicine shop person	8	13	38	18	5			
Remain unaffected	0	3	4	13	15			
Have any Medical specialties referred you to the dental health centre?								
Gynecology	0	0	0	1	0	5.747	0.676	NS
Surgery	0	0	0	0	0			
Medicine	3	5	10	6	1			
Skin	0	0	0	0	0			
All of the above	0	0	0	0	0			
None of the above	22	46	94	40	22			

present and only 10% of study subjects referred by the medicine department to public health centre. Table 2 showed that there is significant association between reasons for not visiting dentist in the Public health centre with different

age groups. The most common reason which was found in the study was other like being a girl, elderly patients, children and no access to transportations (X²- 106.746, 26.301. p-value 0.000, 0.035 respectively). Table 3 showed that

Table 5: Association between gender and reason for visiting dentist in the Public health centre

Variable	Gender		Chi square- value	p-value	S/NS
	Male	Female			
Are you visiting the clinic for the recall check up regularly?					
Yes	23	8	1.701	0.427	NS
No	73	40			
What are the reason for the missed/ cancelled visit-					
No Reason	8	5	9.418	0.493	NS
Guardian scheduling	4	6			
Transportation difficulties	22	13			
Forgot / arrived too late	7	3			
Others	31	13			
Lack of time	1	0			
Are you satisfied?					
Yes	119	76	1.848	0.604	NS
No	34	21			
If not then, what is the reason for this?					
Complications after taking treatment	8	4	11.389	0.496	NS
Long waiting period	14	3			
No relief in symptoms	12	15			
No proper attendance	2	0			
Others	0	0			
If the public health centre was not present , how you would have solve the dental problem					
Go to the higher centre for treatment	46	32	23.402	0.005	S
Local health experts	38	17			
Medicine shop person	50	33			
Remain unaffected	20	15			
Have any Medical specialties referred you to the dental health centre?					
Gynaecology	1	0	4.673	0.586	NS
Surgery	0	0			
Medicine	14	11			
Skin	0	0			
All of the above	0	0			
None of the above	139	86			

there is significant association between reason for visiting dentist in PHC with educational status illiterate individuals have transportation difficulties in relation to missed and cancelled visits. (χ^2 -40.967. p-value 0.000, respectively). Primary school individuals were unsatisfied in relation to no relief in symptoms (χ^2 - 42.615. p-value 0.000, respectively). Table 4 showed that there is significant association between reasons for visiting dentist in PHC with Socio-economic status. Lower middle group individuals have more visits in relation to visiting the clinic for the recall check-up regularly, the reason for the missed/ cancelled visit and solution of dental problem in the absence of PHC's. (χ^2 -16.006, 33.082, 125.601. p-value -0.003, 0.033, 0.000, respectively). Table 5 showed that there is

significant association between reason for visiting dentist in PHC and gender. Male individuals have more reason in relation to solution of dental problems in absence of PHC. (χ^2 -23.402. p-value -0.005, respectively). Table 6 show Stepwise Regression Analysis in barriers in Utilization of services. Significant Regression was found in age, Occupation and Socio economic status. (R-0.383, 0.412, 0.352.p-value -0.000, 0.000, 0.000, respectively).

DISCUSSION

The enjoyment of highest attainable level of health is a fundamental right of every human being without discrimination based on race, religion, socioeconomic condition. There are several challenges faced in the delivery of oral health care services to the rural population such

Table 6: Stepwise Regression Analysis showing barriers in Utilization of services

Variables	Mean	Standard Deviation	R-Value	p-Value	Significance
Age	41.354	19.129	0.383	0.000	Significant
Gender	1.351	0.480	0.260	0.080	Non-Significant
Education	2.451	1.274	0.612	0.357	Non-Significant
Occupation	2.451	1.274	0.412	0.000	Significant
Socio economic status	2.812	1.061	0.352	0.000	Significant

as deficiency of manpower, poor accessibility, affordability, and availability. The utilization of health care services depends upon health attitudes, social structure, and social demographic factors along with affordability and accessibility and the need for use of services.^[1] In many developing countries like India, it is often difficult for the rural population to get access to oral health services. So the present study was conducted to evaluate the type of patients, disease pattern and services provided in public health centre. The study subject include 251 samples located at rural area near Jodhpur city at Gudabishnoi village. It was found that most of the patients attending the public health centre were in the age group of 20-30 years (24.3%). Service were less utilized by the children and adult <20 years which were not in agreement with other studies.^[1-3] It may reflect the attitude of the older individuals toward their oral health and of the parents toward the oral health of their children. The utilization of dental services was found to be higher in females compared to males which is in accordance with findings of other studies.^[1,3-6] It may be due to the fact that Females have a greater tendency to expect good outcome from dental attendance and also because most of the females were housewives they could attend the outreach programs, while men were bread earners hence were not available at their homes. A total of 55.0% patients attending PHC were illiterate or had primary education. The study showed similarity to a study carried out by shelja *et al.*^[7] 41.4% of the study population belongs to lower middle class. Socio-economic status of a person plays an important role in his/her willingness towards dental care.^[7-9] The information regarding socio-economic factors belonged to lower class (9.6%) and people belongs to government services (12.4%) explaining the non-utilization of the services. The most common cited reason for not visiting the PHC yet was no perceived need (13.3%) and the problem is been

solved by local health experts or medical shop person (33.1%) which is similar to the study done by E. Schwarz *et al.*^[10] In our present study, 63.3% of total study sample did not provided a reason for failing to attend the confirmed appointments and 26.7% of study subjects gave many other reason which is not similar to the study done by nancy *et al.*^[17] Our qualitative results on reasons for missed appointments suggest that many urban participants and caregivers did not highly prioritize dental care amid their other responsibilities. Previous studies showed that caregivers' dental health beliefs mediate structural barriers to seeking care, such as transportation difficulties, work schedules, school absence policies, and stressful daily life events.^[18-20] Studies have revealed that the levels of education as well as financial status are some of the important factors in utilization of dental care.^[21,22] Socio-economic status of a person plays an important role in his/her willingness towards dental care.^[23,24] The information regarding socio-demographic factors revealed that the most of the subjects were illiterate (30.7%), belonged to lower middle group (41.4%) and unemployed (34.7%) explaining the non-utilization of the services.

CONCLUSION

In present study stepwise Regression Analysis in barriers in Utilization of services were also taken and significant Regression was found in age, Occupation and Socio economic status. Hence in order to improve the dental attendance, the barriers have to be identified and controlled by appropriate education and intervention. The results indicate that there is a need to motivate people giving them information but paying attention to the individual reasons which restrict their behaviour. The limitation of the present study was localization of the study; therefore, to determine the relative effects of the barriers, further investigation should be conducted. In order to gain a better understanding of how

people use dental services and why, other structural and oral health variables need to be studied.

CONFLICT OF INTEREST & SOURCE OF FUNDING

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