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Barriers to Restorative Care as Perceived by Patients Attending Government Hospitals in Udaipur, Rajasthan

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ABSTRACT

Objective: To determine the barriers to restorative care as perceived by dental patients attending government hospitals in Udaipur, Rajasthan. **Material and Methods:** A closed ended structured interview was conducted among 242 patients attending government hospitals of Udaipur city Rajasthan, India. The 11-item questionnaire was administered by a trained interviewer. The questionnaire reliability was assessed by using Test-Retest and the values of measured Kappa (k) was 0.86 and Weighted Kappa (k_w) was 0.9. Internal consistency of questionnaires was assessed by applying Chronbachs-Alpha (α) and the value of α=0.78 was measured. The effect of socioeconomic status on beliefs and misinformation on restorative care, lack of knowledge on restorative care and past experience with dental treatment was assessed by applying one way ANOVA. P value of P≤0.5 was adopted. **Results:** Statistical association between past dental visits and beliefs and misinformation about restorative care was observed (P≤0.05). Past dental visit and past experience with dental treatment were significantly associated with each other (P≤0.05). **Conclusion:** Oral health care services have long been used as indicator of oral health-related behavior. It was concluded that associations between past dental visits and beliefs and misinformation about restorative care, past dental visit and past experience with dental treatment, association between misconception on restorative care and past dental visit are significant barriers to restorative care as perceived by dental patients.

Key-words: Socioeconomic Status; Dental care; Oral health Care.

INTRODUCTION

Epidemiological studies have shown high prevalence of dental diseases. Despite the pervasive need for treatment, less than half of the adult population visits the dentist every year [1]. Data collected over the past few years have shown that about 36% of the general population visit the dentist every year. A smaller percentage of them twice yearly [2].

Oral health care services have long been used as indicator of oral health-related behavior [3]. Regular home oral care and dental check-ups are important, but it appears that in spite of information on adequate dental care provided by dental professional and the mass media many people fail to take these precautions [4]. Beliefs, perceptions and attitudes of individuals towards modern medical and dental services are influenced by the community's traditional or alternative healing systems. The interaction between these factors will ultimately affect the utilization pattern [5].

Studies conducted in different countries indicate that barriers to accessing oral health care services are many and interactive, and vary in different communities. They include financial, care provider, fear and anxiety, low priority regarding oral care and transportation factors, beliefs and attitude of patients and cultural issues [6-12]. Since dental patients are expected to seek oral care, they are the best people to express opinions about barriers they face during the process of seeking oral care [13].

India is one of the world's largest democracies, with a population of one billion inhabitants. It is a rapidly developing nation and is making great progress in Information Technology (IT), finance and living standard. Nevertheless, it is very sad to know that very few people believe in regular dental care. The inverse care law states that about 80 percent of the Indian population lives in rural areas, most of them do not have access to health care services, while only 20 percent of India's dentists serve the large population of rural areas. It is believed that 80 percent of dentists are serving in cities where only 20 percent of the populations live. Although the dentist / population ratio is high in cities or urban areas, people still do not show regular dental care or dental attendance. Use of dental services is more discretionary than use of either physician or hospital services because oral conditions are not life threatening [14].

Hence, the present study was carried out to determine the barriers to restorative care as perceived

by dental patients attending government hospitals of Udaipur, Rajasthan, India.

MATERIAL AND METHODS

The study was conducted in two government hospitals using pretested questionnaire in the period from July and august 2011. A closed ended structured interview was conducted among 242 patients attending government hospitals of Udaipur city Rajasthan, India.
The time spent in each interview was 8-10 minutes. About 15 interviews were conducted each day. Ethical clearance was obtained from the ethical committee of the Darshan Dental College and Hospital, Udaipur.

Before starting the study, permission was obtained from the head medical officer of the three hospitals. Among these hospitals, permission to conduct survey was granted by only two hospitals. The study questionnaire was conducted among the patients present on the day of survey by trained and calibrated interviewers. Informed voluntary consent was obtained from all participants.

Questionnaire Pretesting

The questionnaire was pretested by conducting a pilot study including 20% of the study participants. The questionnaire reliability was assessed by using Test-Retest and the values of measured Kappa (k) was 0.86 and Weighted Kappa (kw) was 0.9. Internal consistency of questionnaires was assessed by applying Chronbachs-Alpha (α) and the value of α=0.78 was measured.

Item 11 of the questionnaire was administered by a trained interviewer. The questionnaire consisted of four parts with questions related to past dental visits of the study participants, knowledge about restorative care, past experience with dental treatment, beliefs and misinformation on restorative care.

Independent variables knowledge about restorative care, past experience with dental treatment and beliefs and misinformation on restorative care were determined by applying chi-square test, and the relationship between these variables with socioeconomic status was verified by applying the chi-square test. The socioeconomic status was classified as upper high, high, upper middle, lower middle, poor, and very poor. The per capita income was classified according to prices in 1961 [15]. The effect of socioeconomic status on various dependent variables such as age group, gender, and past dental visits was also determined by chi-square test. The effect of socioeconomic status on beliefs and misinformation on restorative care, lack of knowledge on restorative care and past experience with dental treatment was assessed by applying one way ANOVA. P value of P≤0.5 was adopted.

RESULTS

Table 1 shows the effect of the socioeconomic status on various independent variables; most of study participants aged 21-40 and 41-60 years, that is, 18.3% and 26.1% belong to lower middle class. There is no statistical association between socioeconomic status and age group (P≥0.05). Most males and females {(79(32.8%)} and {(45(18.7%)} also belong to the lower middle class and there was no statistical association between gender and socioeconomic status (P≥0.05). Among all, 21(8.7%) study participants belonging to lower middle class visit the dentist in a period longer than 6 months. There is no statistical association between socioeconomic status and last dental visit (P≥0.05).

Table 2 shows the effect of various barriers for visits to dental clinics by study participants. Most of the study participants 95 (39.4%) who reported that extraction is the only service provided by the government do not visit the dentist. There is statistical association between past dental visits and beliefs and misinformation about restorative care (P≤0.05). About 78 (32.4%) study participants reported that tooth restoration is painful and is the main reason for not visiting the dentist. Past dental visit and past experience with dental treatment is significantly associated with each other (P≤0.05). About 121 participants (50.2%) that reported that dentist charge high fees for restoration do not visit to dentist. There is significant association between past dental visit and high fees for restoration (P≤0.05). 161(66.8) participants skipped the dental treatment reported that they or their relatives skipped visits to dentist due to misinformation about the nearby dental clinics. Misconception on restorative care and past dental visit are significantly associated with each other (P≤0.05).

Table 1. Association of socioeconomic status with age, gender and past dental visits.

SES	Age group				Gender		Past dental visit		
	1-20	21-40	41-60	61-80	Male	Female	Never Visited	Less than 6 months	More than 6 months
Upper high	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
High	0 (0.0)	8 (3.3)	2 (0.8)	0 (0.0)	7 (2.9)	3 (1.2)	5 (2.1)	1 (0.4)	4 (1.6)
Upper middle	4 (1.7)	16 (6.6)	13 (5.4)	3 (1.2)	23 (9.5)	13 (5.4)	29 (12.0)	0 (0.0)	7 (2.9)
Lower middle	10 (4.1)	44 (18.3)	63 (26.1)	7 (2.9)	79 (32.8)	45 (18.7)	94 (39.0)	8 (3.3)	29 (12.0)
Poor	5 (2.1)	31 (12.9)	31 (12.9)	4 (1.7)	54 (22.4)	17 (7.1)	59 (24.5)	3 (1.2)	9 (3.7)
P value		0.34			0.33			0.19	

Table 2. Effect of various barriers on past dental visit and frequency of visit.

Barriers	Visit to dental clinic			P value
	Not visited N (%)	Less than 6months N (%)	More than 6 months N (%)	
Extraction is the only service available				
Agree	95 (39.4)	2 (0.8)	13 (5.3)	
Don't agree	36 (14.9)	3 (1.2)	30 (12.4)	**P= 0.00**
Don't know	56	0 (0.0)	6 (2.5)	
Restoration of tooth is painful				
Agree	78 (32.4)	2 (0.8)	25 (10.4)	**P=0.00**
Don't agree	17 (7.1)	3 (1.2)	14 (5.8)	
Don't know	92 (38.2)	0 (0.0)	10 (4.1)	
Dentist take high fee for restoration				
Agree	121 (50.2)	4 (1.7)	25 (10.4)	**P= 0.00**
Don't agree	25 (10.4)	0 (0.0)	20 (8.3)	
Don't know	41 (17.0)	1 (0.4)	4 (1.6)	
Missed any restorative service because of lack of clinic that restore teeth				
Agree	161 (66.8)	2 (0.8)	63 (26.2)	**P=0.02**
Don't agree	12 (5.0)	2 (0.8)	9 (3.8)	
Don't know	14 (5.8)	1 (0.4)	12 (5.0)	

DISCUSSION

As shown in various models, social factors are important, but here we concentrated on subjective reasons that act as barriers for regular dental care, because the individual himself is the main responsible for his regular dental care and dental attendance [16].

The present study showed significant association between past dental visits and knowledge about restorative care (P≤0.05). The finding was previously confirmed by studies showing significant association between past history of dental visit and lack of knowledge on restorative care (P≤0.01) [13]. Another study has reported that knowledge about the causes of dental problems and attitude of respondents may influence the dental treatment-seeking behavior [17].

In the present study, there was significant association between past dental visit and past experience with dental treatment (P ≤ 0.05). Previous study has reported significant association between past dental visit and past experience with dental treatment (P≤0.01) [13]. Cost was ranked as the highest barrier to seeking urgent oral care aimed at relieving pain through tooth extraction, among rural villagers in Tanzania [11]. The present study showed no statistical association between socioeconomic status and dental visit.

In a similar study, perceived cost of treatment as per community survey was four to ten times higher than the actual cost as recorded from the facility survey. This could be because patients had to pay for many other direct and indirect expenses that were usually associated with treatment, but were not counted as per the recommended government costs. High cost could be a major factor for delaying dental treatment [17]. This finding indicates that barriers to restorative care related to lack of knowledge, beliefs and misinformation on restorative care could also be addressed by increasing the number of clinics rendering restorative care [13]. The present study demonstrated significant association between misconception on restorative care and past dental visit (P≤0.05).

There can be no doubt that patient charges affect the use of dental services as found in previous studies [4,18]. Some authors have reported that dental visits may be influenced by dental health status, expectation about the dental care value, income and dental care price. Socio-economic constraints were reasons for irregular dental visits [2,19]. In the present study, there was no statistical difference between socio-economic status and dental visit.

The limitations of the present study were that the respondents who were educated and cooperating were included and it is difficult to know whether willing respondents were truly representative. Finally, it is important to establish dental care use patterns to help planning public health programs. Long delays in seeking necessary dental care are evidence that there are many factors undermining the translation from perceived need into effective demand.

CONCLUSION

Oral health care services have long been used as indicator of oral health-related behavior. It is concluded that associations between past dental visits and beliefs and misinformation about restorative care, past dental visit and past experience with dental treatment, association between misconception on restorative care and past dental visit are significant barriers to restorative care as perceived by dental patients.

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