

Barriers to Restorative Care among Patients Visiting Satellite Centres of Dental College in Panchkula, Haryana

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ABSTRACT

Introduction: From the epidemiological data, in India, the prevalence of dental caries is 50% to 60%, and its Absolute Prevalence is expected to increase. The perception of the community about restorative treatment may influence access to treatment. Attention must be paid to identifying these barriers and creating sufficient demand for dental care.

AIM: To study the barrier of restoration care among dental patients visiting satellite centers of Dental College in Panchkula, Haryana.

Material and methods: A total of 142 dental patients attended satellite centers of dental college in Panchkula, Haryana in Feb 2022. A pretested questionnaire was used. The data was then analyzed using SPSS 24.

Result: 41.5% of people fear visiting a dentist, making it one of the barriers of restoration. Nearly 48% have responded that restorative treatment is painful. In addition to this respondents getting treatments in the dental clinic are also influenced by how much experience a dentist has. 77.5% of the respondents have a fear when a student who has lesser experience will be treating them in a dental clinic.

Conclusion: The education of the patient plays an important role in reducing the barriers for restorative care that the patients may face.

Keywords: Barriers, Restorative Care, Patients

INTRODUCTION

India is one of the world's largest democracies with a population of 1.38 billion people. Nevertheless, it is disheartening to know that very few people avail regular dental care, as oral conditions are not life-threatening the use of dental services is more discretionary than the use of either physician or hospital services.¹ Regular dental visit should be emphasized. This is possible only when we identify various barriers that the patients are facing to come to the dentist.²

Studies conducted in different countries indicate that barriers to accessing oral restorative health care services are many and interactive, and vary in different communities. They include financial care providers, fear and anxiety, low priority regarding restorative care and transportation factors, beliefs and attitudes of patients, and cultural issues.³⁻⁹

Knowledge and perceptions of the community about the treatment of various dental conditions, the cost of treatment, the distance of the clinic, and self-reporting may influence access to treatment. Although dental care is a part of primary health care in India, dental care services are available in very few states at the primary health care level. Patients are not

covered under any type of insurance and so restorative care can be heavy on their pockets.¹⁰

Dental insurance and psychology for patients are considered by the dentist as barriers to providing dental care. A person with dental insurance is more likely to visit the dentist than a non-insured person¹¹. People in India are still arrested in traditional rituals and superstitions which changed their psychology toward seeking dental treatment.

Since dental patients seek oral care, they are the best people to express opinions about barriers that they face during this process. Thus, identifying barriers to the utilization of restorative care as perceived by patients is regarded as a way of eliciting baseline data essential in efforts to increase the level of restorative care in the country.

This study aimed to identify barriers to restorative care as perceived by dental patients attending satellite centers of Swami Devi Dyal dental college, Panchkula.

MATERIAL AND METHODS

The universe of the study population was comprised of dental patients who visited satellite centers of Swami Devi Dyal dental college and hospital Panchkula, Haryana for dental treatment. Since this variable cannot be ascertained to allow calculation of sample size, instead the sampling frame chosen from CHC Shahzadpur, PHC Pathreri, and ITBP Bhanu.

The questionnaire was based on a previously validated and published questionnaire given by Vanka et al. The test-retest correlation coefficient ranged from 0.95 to 0.99. The Cronbach's alpha ranged from 0.65 to 0.75. It consists of itemized statements about the beliefs of patients, cost, pain,

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Socioeconomic status		Age group		Gender	
		Below 30 years	Above 30 years	Male	Female
Upper High	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
High	6 (4.2%)	4 (2.8%)	2 (1.4%)	4 (2.8%)	2 (1.4%)
Upper Middle	21 (14.8%)	15 (10.6%)	6 (4.2%)	13 (9.2%)	8 (5.6%)
Lower Middle	100 (70.5%)	68 (47.9%)	32 (22.6%)	59(41.4%)	41 (28.9%)
Lower	15 (10.5%)	12 (8.4%)	3 (2.1%)	9 (6.3%)	6 (4.2%)
Total	142 (100%)	99 (69.7%)	43 (30.3%)	85 (59.9%)	57 (40.1%)

Table-1: Demographic details

Have you ever visited a Dentist?	Yes	No	Total
Age: Below 30 years	87	12	99
	87.87%	12.13%	100%
	72.0%	57.0%	69.7%
Age: Above 30 Years	34	9	43
	79.0%	21.0%	100%
	28%	43.0%	30.3%
Total	121	21	142
	85.2%	14.8%	100%
	100%	100%	100%

Table-2: Respondents visit a dentist

Reason for a visit	Frequency (%)
Regular Check-up	40 (33.0%)
Pain	75 (62.0%)
Swelling	6 (5.0%)
Total	121 (100%)

Table-3: Reason for a visit to the dentist

Past-Experience	Frequency (%)
Good	87 (72%)
Bad	34 (28%)
Total	121 (100%)

Table-4: Respondents past experience with the dentist

fear, and satisfaction of the patient with the dentist.

The questionnaire was distributed among 150 dental patients. We selected the sample of patients who attended the satellite centers for nearly 1 month. Out of 150 patients, 142 patients have given consent. Inclusion criteria in our study, are patients who visited us for restorative dental care and gave consent to respond to our questionnaire which was attached to each questionnaire and explained the reason for the study. Ethical approval was obtained from the ethical committee of SDDD College and Hospital.

Data Analysis and Statistical method: All the collected data were entered into the computer, using SPSS, Version 24(IBM). All the questions on the barriers had a dichotomous choice for patients with a yes or no response. The null hypothesis, that the following are not barriers for patients has been tested through SPSS using a one-sample binomial test. The binomial test is used here because there are two possible outcomes (ie, barrier/ no barrier).

RESULTS

The sample consists of 142 dental patients, the majority of

which belong to the age group below 30 years,99(69.7%) were females, and 85(59.9%) were male. The majority of study participants were from the Lower middle class 100(70.5%), followed by Upper Middle 21(14.8%), lower 15(10.5%), and High class 6(4.2%). Table1

Eighty-five percent (121out of 142) of the respondents have already visited a dentist, Table 2. Out of 121 who visited the dentist, 62% of respondents visited for pain, 33% for a regular check-up, and 5% for swelling (Table 3). The majority of the respondents had a good past experience making it 72% of the lot (Table 4).

A total of 44.5% of people fear visiting a dentist. Dentist anxiety and fear impact the desire to receive dental care of 38.7% of the respondents. Response to the question on the cost being a barrier indicates 59.8% for if the cost of dental treatment will impact the desire to receive dental care and 60.5% for the fee of the restoration is high. Nearly 48% have responded that restorative treatment is painful.77.5% of the respondents have a fear of getting treatment from a student with lesser experience in the dental clinic. (Table 5)

The Binomial test was used for two possible outcomes (ie barrier/ no barrier) in the study and the test result has identified the following as the barriers: fear of consulting a dentist, dental anxiety, cost of treatment, the fee of restoration, and experience of a dentist (Table 6)

DISCUSSION

In this study, we have concentrated on subjective reasons that act as barriers for regular dental care because the individual himself is mainly responsible for his regular restorative dental care.

In India, patients sometimes do not visit consistently on appointments. So to avoid the possibility of one person's filling the questionnaire twice, the intake period was limited to one month and dental practitioners were requested to take

Independent Variable	Yes	No	Total
Do you have a fear of Dentist? Below30 years	44 44.5% 78.5%	55 55.5% 64%	99 100% 69.7%
Above 30 years	12 28.0% 21.5%	31 72.0% 36%	43 100% 30.3%
Total	56 39.4% 100%	86 60.6% 100%	142 100% 100%
Does dental anxiety or fear to impact your desire to receive dental care? Below30 years	44 44.5% 80%	55 55.5% 63.3%	99 100% 69.7%
Above 30 years	11 25.5% 20%	32 74.5% 36.7%	43 100% 30.3%
Total	55 38.7% 100%	87 61.3% 100%	142 100% 100%
Does the cost of dental treatment impact your desire to receive dental care? Below30 years	59 59.5% 69.4%	40 40.4% 70.1%	99 100% 69.7%
Above 30 years	26 60.5% 30.6%	17 39.5% 29.9%	43 100% 40.3%
Total	85 59.8% 100%	57 40.2% 100%	142 100% 100%
If you have ever gone for restoration, do you think the restoration fee was high? Below30 years	57 57.5% 66.3%	42 42.5% 75.0%	99 100% 69.7%
Above 30 years	29 67.5% 33.7%	14 32.5% 25.0%	43 100% 30.3%
Total	86 60.5% 100%	56 39.5% 100%	142 100% 100%
Was your restorative treatment painful? Below30 years	51 51.5% 75%	48 48.5% 64.8%	99 100% 69.7%
Above 30 years	17 39.5% 25%	26 60.5% 35.2%	43 100% 30.3%
TOTAL	68 47.9% 100%	74 52.1% 100%	142 100% 100%
Does fear that a student is treating stop you from coming to the clinic? Below30 years	81 81.8% 73.6%	18 18.2% 56.3%	99 100% 69.7%
Above 30 years	29 67.5% 26.3%	14 32.5% 43.7%	43 100% 30.3%
Total	110 77.5% 100%	32 22.5% 100%	142 100% 100%
Table-5: Barriers to restorative care			

Question	Significant	Decision
Do you have a fear of Dentist?	0.015	Reject the null hypothesis
Does dental anxiety or fear impact your desire to receive dental care?	0.009	Reject the null hypothesis
Does the cost of dental treatment impact your desire to receive dental care?	0.023	Reject the null hypothesis
If you have ever gone for restoration, do you think the restoration fee was high?	0.015	Reject the null hypothesis
Was your restorative treatment painful?	0.675	Retain the null hypothesis
Does fear that a student is treating stop you from coming to the clinic?	0.000	Reject the null hypothesis
Null hypothesis: The categories defined (1 & 2) occur with probabilities of 0.5 each.		
Table-6: Null hypothesis test for the barriers		

necessary measures.

The cost was ranked the highest barrier to seeking oral urgent care, aimed at relieving pain through tooth extraction among rural villagers in Tanzania.¹² It was also ranked as the primary barrier that prevented Nairobi University students in Kenya from visiting a dental clinic and avoiding natives of the West Indies for not receiving care rendered by a qualified dental professional.¹³ In the current study, response to the question on the cost being a barrier indicates 59.8% for if the cost of dental treatment will impact the desire to receive restorative dental care.

The most important reason for patients visiting the dental clinic in our study was pain as also in the study conducted by Vanka et al¹⁴, which is in contrast to a study conducted by Samorodnitzky – Naveh et al.¹⁵

In the study by Cooper and Monson¹⁶ and Vanka et al, the patients were very satisfied with the restorative care provided. Similarly, in the present study, the majority (72%) of respondents are satisfied with the restorative treatment.

This study indicates very specifically that most patients are concerned about the qualification and experience of the dentist including other important barriers such as cost, fee for restoration, pain, and fear, etc. It is imperative for the dental institutions giving dental education to explain the identified barriers and action to be taken to remove these barriers from the minds of patients.

Knowledge and perceptions of the community about the treatment of various dental conditions may influence access to treatment. Attention must be paid to creating sufficient knowledge regarding this in their minds.

Patients have to be educated that pain during treatment is temporary. To the patients who are concerned about the fear of approaching a dentist as a barrier have to be explained that the dentist is a problem solver. The dental community as a whole has to adopt steps to solve the problems of barriers. For example, if cost is a barrier for the majority of the patients, the dental community has to adopt measures to reduce the overall cost.

The instrument used in the present study can serve as a useful tool in studying barriers to restorative care in countries that have similar socio-economic profiles to those of India. This study aimed to identify barriers to restorative care, as perceived by dental patients. The outcome should be useful to authorities and professionals planning programs aimed at increasing restorative care thus improving oral health.

Different barriers can be categorized into three broad categories- educational, institutional, and personal. Educational barriers can be addressed by dentists working in clinics, by giving information on the importance of restorative treatment. The ongoing school health programs can be utilized to impart education to school children.

Institutional barriers also need to be addressed to improve the restorative care scenarios in the country. This requires the need to address dental practitioners and adopt a restorative care approach. “the first come, first served” rule can be adopted by clinics.

Regular education meetings should be orchestrated for dental practitioners in order to address the experience with the dental treatment, for example, pain management as a part of dental treatment procedures. Very little can be done directly about personal barriers, but there is a chance that if educational and institutional barriers are adequately addressed, personal barriers may reduce automatically.

The limitation of the present study was that 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 plan public health programs.

CONCLUSION

Oral health care services have long been used as an indicator of oral health barriers. Dentists have to distinguish between perceived and real barriers to choosing restorative treatments. The education of the patient has a very key role in reducing the barriers for restorative care. Specific efforts targeted to increase awareness of oral health are required. A wider range of restorative care facilities must be made available at subsidized costs, to improve access to restorative care.

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