

## Original Research Article

# Oral health care-seeking behaviour and influencing factors among 18-34 years old women in Kochi, India

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## ABSTRACT

**Background:** Oral health, though an integral part of general health, is accorded low priority and remains an issue of neglect. Women during their reproductive years suffer from various oral problems that warrant timely utilization of care. Understanding factors affecting health-seeking behavior is necessary. The objective of this study was to determine the personal level and system-level factors that affect utilization of oral health care among 18-34 year-old women visiting a dental health care facility.

**Methods:** A cross-sectional questionnaire-based study was conducted among 18-34 year old women. Participants were recruited using convenience sampling from a tertiary dental health care facility. A Chi-square test was used to determine the association of sociodemographic variables on factors affecting the utilization of oral care.

**Results:** A total of 194 responses were obtained. The mean age of study participants was  $27.1 \pm 5.2$  years. Around 62% of women suffered from multiple dental problems in the past year of which tooth decay and swelling of gums were most common. About 68% of them sought treatment with a dentist. Half of the respondents were themselves responsible for making health care decisions. 55% of the participants reported barriers in availing dental care. The cost of dental treatment, fear of pain, and lack of time were the most commonly reported barriers.

**Conclusions:** Oral health-seeking behaviour among women was found to be good with regard to dental attendance. Personal level barriers were greater than system-level barriers in availing dental care.

**Keywords:** Barriers, Oral health, Women

## INTRODUCTION

Oral health has long been recognized as an integral part of general wellbeing and a contributory factor to the quality of life. It is an important but overlooked component of overall wellbeing among children and adults. Oral health problems such as dental caries, periodontitis, and oral cancers are widely prevalent across the globe.<sup>1</sup> With the increasing life expectancy of the Indian population, oral health plays a critical role in improving the quality of life of an individual.<sup>2</sup> The prevention and the promotion of oral health and disease

have been established as high priority by the World Health Organization.<sup>2</sup>

Health Seeking Behaviour (HSB) involves the action to be taken by an individual to preserve or regain good health.<sup>3</sup> HSB is also a decision-making process influenced by individuals and/or household behaviour, community norms, expectations, and also by the provider or system-related characteristics.<sup>4</sup> As health seeking behaviour is influenced by the individual self, diseases, and the availability and accessibility of health services, it is often regarded as a determinant of health outcomes in a community.<sup>5-7</sup> In both developing and developed

communities, poor attentiveness regarding oral health has been particularly seen among the deprived group.<sup>8</sup> There is very low utilization of oral health care services and visits for a dental-care is only undertaken for symptomatic reasons. Hence, health care seeking behaviour can be viewed as a complex phenomenon working at individual, family and community levels.

In addition to the ability of the patient to pay, access to dental care is determined by sociodemographic factors, including age, sex, education level, and place of residence all of which impact overall and oral health.<sup>9</sup>

Several barriers exist for seeking oral care which arise from several factors. Among the major barriers that have been consistently reported in literature are individual attitudes, oral health behaviour and fear of dental procedures which can be considered as personal level factors.<sup>1,10</sup> System-level barriers are mainly the accessibility, availability, and affordability of health.<sup>10,11</sup>

Women during their reproductive years suffer from various oral problems.<sup>12</sup> But most of these go unreported and not screened. It has been reported that there is unmet need for oral care during pregnancy and dental visits are considerably low.<sup>13</sup> Health-seeking behaviour must be increased and encouraged to improve women's oral health. Gender differences have shown to influence actual access to health care, including treatment.<sup>14</sup> It is important to identify and understand the health-seeking behaviour in women of reproductive age. For the present study, the age group of 18-34 was selected because it is the period when women are highly vulnerable to various oral morbidities.

The primary purpose of this study was to evaluate self-reported oral health attitudes, the behaviour of women aged 18-34 years in a tertiary care hospital in Kerala, South India.

## METHODS

This cross-sectional questionnaire-based study was conducted in a tertiary care hospital in Kerala, India during November 2019 to February 2020. Data was collected using a 17-item structured questionnaire adapted from a previous study.<sup>15</sup> The questionnaire was validated by the original authors and permission was granted for its use for the present study.

Study participants included women aged 18-34 years attending the health care facility either as a patient or a by-stander. Participants were selected using a convenience sampling strategy. Those not willing to participate were excluded from the study.

The investigator –administered questionnaire consist of three parts viz. demographic details (age, educational status, occupation, area of residence), oral health-seeking behavior ( any dental problems in past 12 months, routine dental checkup, last dental visit, type of dental institution

for treatment, distance to nearest healthcare facility) and perceived barriers (individual-level and system-level) to availing oral health care.

The sample size was calculated based on the results of the previous study.<sup>15</sup> A routine visit to the dental care facility was chosen as the indicator for appropriate health-seeking behavior.

With a proportion of 67.5% with a 10% allowable error, the minimum sample size was estimated to be 194. The study was approved by the Institutional Review Board and a written informed consent was obtained from all willing participants.

The obtained data were coded, tabulated, and analyzed using IBM SPSS Version 21. Descriptive statistics (response to items of the questionnaire) were expressed as frequencies and percentages.

Association of study variables with socio-demographic factors was analyzed using Chi-square test. A p value of less than 0.05 was considered statistically significant.

## RESULTS

### Demographic characteristics

A total of 194 respondents were obtained. Demographic details of study participants are provided in Table 1. The mean age of the study participants was 27.18±5.13 years. The age ranged from 18-34 years. Of these majority of respondents (44.8%) belonged to urban locales and were of the age 25- 34 years (69.1%). Most of the study participants were qualified as graduates (54.6%) and employed in the private sector (41.2%).

**Table 1: Socio-demographic characteristics of study participants.**

Variable	Frequency	Percent
<b>Age</b>		
18-24 years	60	30.9
25-34 years	134	69.1
<b>Education</b>		
Schooling	88	45.4
Above schooling	106	54.6
<b>Occupation</b>		
Not working	14	7.2
Government	22	11.3
Private	80	41.2
Student	33	17.0
Housewife	45	23.2
<b>Place of residence</b>		
Urban	87	44.8
Towns	83	42.8
Rural	24	12.4
Hilly	0	0.0

**Table 2: Oral health seeking behaviour of study participants.**

Characteristics	Frequency	Percent
<b>Who is primarily taking decisions related to treatment to be sought?</b>		
Father	17	8.8
Mother	30	15.5
Husband	47	24.2
Family members	6	3.1
Others (Myself)	93	47.9
<b>Routine dental check-up</b>		
Yes	159	82.0
No	35	18.0
<b>How long has it been since you last saw a dentist?</b>		
Never received any dental care	2	1.0
Less than 6 months	72	37.1
6-12 months	73	37.6
More than 1 year but less than 2 years	23	11.9
2 or more years but less than 5 years	15	7.7
5 or more years	9	4.6
<b>The main reason for your last visit to the dentist</b>		
Consultation/advice	50	25.8
Pain or trouble with teeth, gums or mouth	22	11.3
Filling teeth	31	16.0
Extraction of teeth	12	6.2
Cleaning teeth	31	16.0
Preventive care	14	7.2
Filling and cleaning teeth	1	0.5
Others*	29	14.9
<b>Others specified</b>		
Incision and medication	1	0.5
Broken tooth	1	0.5
Incision and drainage	2	1.0
Medication	1	0.5
Ortho treatment	11	5.7
RCT	14	7.2
RCT crown capping	1	0.5
<b>Type of dental institution last go for treatment</b>		
Government dental college	5	2.6
Private dental college	69	35.6
Government hospital	16	8.2
Private hospitals	12	6.2
Private dental clinic	89	45.9
Not visited any dental institution	3	1.5
<b>Distance to dental healthcare facility by walking ?</b>		
Less than 5 minutes	5	2.6
5 to 10 minutes	12	6.2
11 to 20 minutes	55	28.4
More than 20 minutes	122	62.9
<b>Treatment in dental clinics</b>		
Cheap	1	.5
Affordable	52	26.8
Expensive but not a burden	100	51.5
Very expensive	40	20.6

Continued.

Characteristics	Frequency	Percent
<b>Arranging money for treatment in dental clinic</b>		
Camp/government institution	4	2.1
Insurance	1	.5
From own income	95	49.0
Depend on other family members income	94	48.5
<b>Switched care provider between treatments in the past 1 year.</b>		
Yes	158	81.4
No	28	14.4
Not applicable (for first dental visit)	7	3.6
<b>If yes switching takes place between</b>		
Public to the private provider.	12	42.9
Private to public providers/dental college.	2	7.1
Private to another private provider.	14	50.0

### Health seeking behaviour

Out of the 194 study participants, more than half of the respondents (56.7%) reported tooth sensitivity and change in color of gums as their problems in past 12 months. About 12.4% of study respondents reported hole in their teeth as their problem in 12 months. Majority of respondents reported that they visited a dentist for treatment of their oral problems (68%) while some of them undertook home remedies (15.5%). For 36.5% of respondents, family members advised solutions to solve their dental problems and 40.2% of respondents took the decision by themselves (Table 2).

### Barriers to oral health care

Almost half (45.4%) of the respondents did not report any barriers faced for receiving dental/oral care. Among them who did, fear of pain during treatment (36.8%), cost of treatment (34%), lack of time (32%) and fear of injections (34%) were the major barriers. Accessibility reported as difficulty in arranging transportation (14.2%) and availability elicited as far away dental facility (16%) were other barriers reported. Current age (1.9%), fear of contracting infectious diseases (2.8%), and disturbing dental noise (3.8%) were the minor barriers faced (Figure 1).

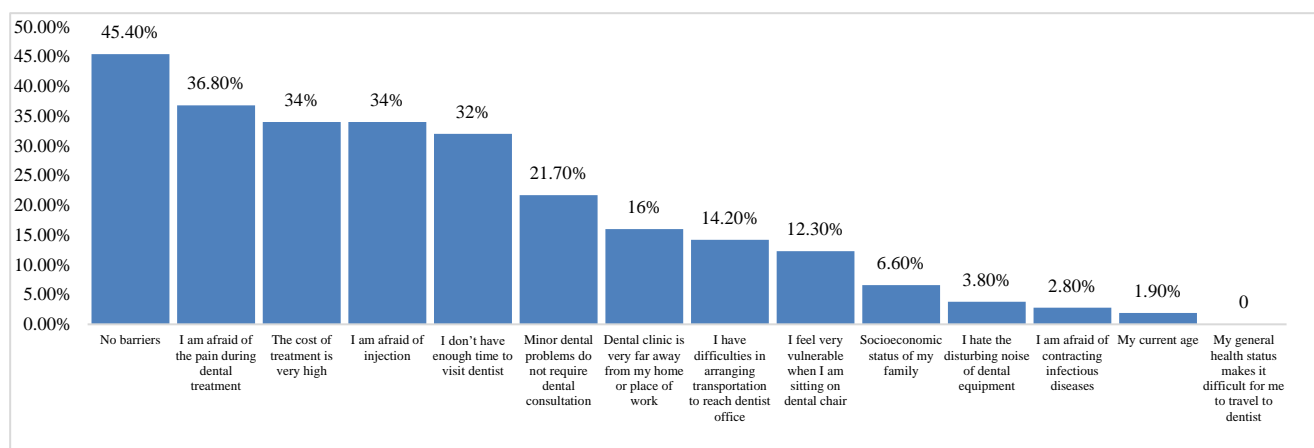


Figure 1: Barriers for oral health care.

Routine dental check-up (visit to the dentist once in every six months) was associated with higher levels of

education ( $p=0.002$ ). However, there was no association with place of residence or occupation (Table 3).

Table 3: Association of study variables with health-seeking behaviour and barriers to oral health care.

Variables	Health-seeking behaviour		Chi square value	P value
	Routine dental checkup			
	No (%)	Yes (%)		
Education				
Schooling	80 (90.9)	8 (9.1)	8.726	0.002
Above schooling	79 (74.5)	27 (25.5)		

Continued.

Variables	Health-seeking behaviour		Chi square value	P value
	Routine dental checkup			
	No	Yes		
Occupation				
Not working	12 (85.7)	2 (14.3)	8.771	0.067
Government	15 (68.2)	7 (31.8)		
Private	69 (86.3)	11 (13.8)		
Student	23 (69.7)	10 (30.3)		
Housewife	40 (88.9)	5 (11.1)		
Residence				
City limits	66 (75.9)	21 (24.1)	4.234	0.120
Towns	73 (88.0)	10 (12.0)		
Rural	20 (83.3)	4 (16.7)		
Age				
18-24 years	47 (78.3)	13 (21.7)	0.772	0.247
25-34 years	112 (83.6)	22 (16.4)		

An analysis of effect of independent variables viz. age, educational level and place of residence did not have any statistically significant association with any major type of barriers experienced by the respondents.

## DISCUSSION

To analyse the performance of a health care system and to make it more accessible and responsive to women particularly in developing countries, it is imperative to study the health-seeking behaviors and factors determining utilization of health care services.<sup>16</sup> This study was an attempt to understand the oral health-seeking behaviour and its associated factors among women aged 18-34 attending a tertiary care hospital.

Sensitivity of tooth and gum problems were the most frequently reported complaints. Women of reproductive age group generally experience periodontal problems due to changes in hormonal activity.<sup>12</sup> Routine dental visits were reported by 82% of the respondents. When the same response was elucidated by a different question on visit to the dentist in the last 6-12 months, almost 75% of the respondents answered in the affirmative which was an encouraging observation. A similar study done in Ernakulam reported that only 6.9% of the women had visited a dentist in the past one year.<sup>15</sup>

About 40% of the respondents took decisions regarding dental treatments by themselves. This was followed by decisions taken by husband and mother. This is in accordance with a similar study in Ernakulam.<sup>15</sup> Health care seeking behaviour among women has found to be influenced autonomy and freedom of movement.<sup>17</sup> In a progressive society like the Indian state of Kerala which has a women favourable gender ratio and high literacy rate, it is expected that women make individual choices regarding their health care decision making.

Majority of the respondents (68%) visited a dentist for care when faced by oral problems while 15% of them resorted to home remedies. It was also encouraging to

note that only 2% of them preferred self-medication to treat their dental problems. Seeking professional help was higher in this population compared to a study done in central India (53%) and in Kerala (27.7%).<sup>18,15</sup> One of the reasons for this observation could be the availability of abundant dental facilities in the region and increased health awareness among women in the state of Kerala. Seeking care from private sector institutions (dental clinics and private dental colleges) was dominant (81.1%) as com

pared to government hospitals or colleges. This observation was as expected because private sector is the major player in the country for oral health care delivery. The absence of a government dental college in the district where the study was undertaken could be another reason for low utilization from government sector.

In the present study population (21.7%) of respondents opined that care need not be sought for dental problems as they are not very important, in comparison with another previous study 45% of study participants are not considered as very important. Generally, oral health is neglected to the extent that professional dental visits are undertaken only when suffering from pain. There is further need to create awareness that oral health is an integral part of general health.

Almost half of the respondents (45%) did not report of any barriers in availing dental care. Corresponding figures were 36.9% in a study done among women in Ernakulam.<sup>15</sup> Among the barriers, person level factors like fear of dental procedures and injections were the most frequently reported. This factor has been consistently observed as one of the key barriers for availing oral care across many similar studies. Shravani et al.<sup>18</sup> reported a prevalence of fear of dental procedures of 22.5% among women in central India while it was 16.5% in a study done in western region of India.<sup>19</sup> A study conducted in northern part of India reported that 31.5% of their respondents were fearful of dental procedures while the same was 9.1% in a study done in Southern India.<sup>20,15</sup>



Previous literature have shown that fear of dental procedures among women is generally high.<sup>21-23</sup> However, technological advancements and improved treatment methods have now made dental procedures “less threatening” and painless.

High cost of dental treatment was the next most common (34%) barrier faced. Similar findings were observed in studies done by Shravani et al (14.1%), Fotedar et al (10.6%), Gupta et al (26.2%) and Garcha et al (40%).<sup>18-20,24</sup> Dental care in India is primarily provided by the private sector which is largely unregulated.<sup>25</sup> Technological advances and improved materials have also contributed to the rising costs of oral health care. Oral care is provided free of cost or at discounted rates and only in public sector hospitals and dental teaching institutions. Though public sector hospitals only contribute 2% of the oral care, the large number of dental teaching institutions (300+) in the country have been able to deliver affordable services to the poor.

Poor accessibility or distance to the dental care facility has been reported as a barrier in several studies. While almost 50% of respondents in a study conducted in Northern India felt the distance was a concern, this factor was less expressed in the present study (9%).<sup>20</sup> This may be due to the fact that the study setting was situated in an urban area frequented by patients in and around the region with sufficient travel connectivity. However, accessibility is a system-level barrier in the country as dental care in India is highly skewed towards the urban areas and availability of oral care is lacking in primary levels of care.<sup>11,26</sup>

Another person-level barrier that was reported by participants of the present study was lack of time (32%). Lack of time was also reported by 12% of women in the study done by Shravani et al and as high as 40% in study done by Fotedar et al.<sup>18,20</sup> Lack of time could be considered as a proxy indicator for low priority of health care with 21.7% of respondents also opining that minor oral problems do not require professional consultation.

The study was not without its limitations. The study population was recruited from people attending a tertiary dental health care facility and teaching hospital. While the authors acknowledge that a community-based study would have been more appropriate, it was ensured that the study participants were not only patients but consisted of by-standers also.

## CONCLUSION

In summary, the health seeking behaviour among women aged 18-34 years were found to be good with regard to routine dental visits. Barriers were mainly person-level like fear of dental procedures and lack of time. However, cost of dental treatment was a deterrent in availing professional oral care.

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