

Knowledge and Awareness of Patients about Periodontal Treatment in Karnataka, India

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ABSTRACT

Aim: The initiation and progression of common periodontal diseases depend mainly on human behavior, and the control of these diseases can be easily achieved because the etiologic factors are well documented. The aim of the study was to explore and gain an understanding of patients' views on their periodontal conditions, their attitudes to oral health and expectations of treatment, as well as their knowledge toward periodontal treatment with the help of a questionnaire survey.

Materials and methods: The present study was done on patients reported to most of the hospitals with a dental outpatient department and private dental clinics in Bellary, Karnataka, India, in 2016 (January–June). A random sampling method with convenient sample size was used. A total of 370 patients (males = 210, females = 160) were included in this study. A structured questionnaire was prepared both in English and in Kannada to facilitate completion and to get better understanding of the questions by the respondents'. The questionnaire contained 14 questions about attitude of patients toward periodontal treatment their demographic details.

Results: About 63.8% females who participated in this randomized study were fearful about the periodontal therapy and most of the females visit dentist once or twice in her life. Out of 160 females, 75.6% patients delayed or turned down treatment because of fear, whereas from 210 males, 36.2% patients delayed or turned down treatment because of fear. Data of this survey showed that females are more fearful about periodontal treatment.

Conclusion: The significant associations that were found between some of the self-care behaviors and oral hygiene levels document the important role of patient-centered oral health assessment in periodontal care. Utilization of dental services in this country should, therefore, be improved not only by improving the availability and accessibility by manpower arrangements but also to a great extent by increasing people's awareness and knowledge of their own dental problems and by attempting to change their attitudes and behavior in relation to oral health care.

Keywords: Behavior, Brushing, Fear, Pain, Periodontal treatment.

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INTRODUCTION

Periodontal diseases, if untreated, can lead to tooth loss.¹ The bacterial plaque is the main etiology of periodontal diseases, while many other factors, such as hormonal changes, diabetes, poor nutrition, smoking, and stress may affect the initiation and progression of gingival and periodontal diseases. The initiation and progression of common periodontal diseases depend mainly on human behavior, and the control of these diseases can be easily achieved because the etiologic factors are well documented.²

It is generally agreed that microorganisms residing in the periodontal pockets are responsible for periodontitis. Approximately 500 taxa inhabit periodontal pockets, which provide a moist, warm, nutritious and anaerobic environment for microbial colonization and multiplication. The abundance and diversity of periodontal pocket microorganisms depend upon several factors, including effectiveness of oral hygiene procedures, pocket depth, flow of gingival crevicular fluid, type of interacting microbes and viruses, transmission rate of microbes from other individuals, and the antimicrobial efficacy of the host immune response.³

There is less population-based data on attitude toward periodontal treatment in Karnataka, so it is important to do a recent study that will help dentists to improve the understanding of patients about periodontal diseases and reduce the myths of the general population about periodontal treatment. The aim of the study was to explore and gain an understanding of patients' views on their periodontal conditions, their attitudes to oral health and expectations of treatment, as well as their knowledge toward periodontal treatment with the help of a questionnaire survey.

MATERIALS AND METHODS

The present study was done on patients who reported to most of the hospitals with a dental outpatient department

Table 1: Distribution of sample size according to sex and age of the population

<i>Sex-wise distribution (n = 370)</i>	<i>Frequency (%)</i>
Sex	
Male	210 (56.75)
Female	160 (43.25)
Total	370 (100)
<i>Age-wise distribution (n = 370)</i>	<i>No. of patients (%)</i>
Age (years)	
15–30	85 (22.9)
31–45	132 (35.7)
46–60	99 (26.7)
Above 60	54 (14.7)

Table 2: Distribution of sample size according to occupation of the population

<i>Occupation-wise distribution (n = 370)</i>	
<i>Occupation</i>	<i>No. of patients (%)</i>
<i>Females (n = 160)</i>	
Housewife	117 (73)
Job	43 (27)
<i>Males (n = 210)</i>	
Laborer/farmer	52 (24.8)
Teacher	38 (18.1)
Job	76 (36.2)
Retired	8 (3.8)
Student	36 (17.1)

and private dental clinics in Bellary, Karnataka, India, in 2016 (January–June). A random sampling method with convenient sample size was used. People of different socioeconomic and educational status visit the hospital and dental clinic for their dental care needs. A total of 370 patients (males = 210, females = 160) were included in this study. A structured questionnaire was prepared both in English and in Kannada to facilitate completion and to get better understanding of the questions by the respondents. The questionnaire contained 14 questions about attitude of patients toward periodontal treatment and their demographic details. The questionnaires were handed to the patients during their regular dental visits. All the respondents were informed about the aims and objectives of the study. Those who were not willing to give informed consent were excluded from the study. After completion of the questionnaire, oral health education was given to the patients regarding the methods of toothbrushing and oral hygiene practices.

RESULTS

A total of 370 patients agreed to participate and responded to the questionnaire. Approximate time required for a participant to fill out the questionnaire ranged from 15 to 20 minutes. Out of 370 patients, 210 (56.75 %) were males and 160 (43.25%) were females (Table 1).

In this study, most of the patients [about 99 (26.7%)] were between 46 and 60 years and 132 (35.7%) were between 31 and 45 years followed by 54 (14.7%) were of age above 60 years (Table 1). Patients with different occupation participated in the study (Table 2).

Result of this survey concluded that females are more illiterate than males in this area. In this study, from total female participants, 57.5% were illiterate, whereas about 81.6% males were educated and working at present (Table 3).

Out of 370 subjects, 245 were brushing regularly, while 125 subjects did not brush regularly due to some reasons (Table 3). This study showed that the major reasons for

Table 3: Distribution of sample size according to education and oral hygiene measures performed by population

<i>Education level</i>	<i>Illiterate (%)</i>	<i>Educated (%)</i>
<i>Sex</i>		
Males (210)	46 (21.9)	164 (78.1)
Females (160)	92 (57.5)	68 (42.5)
<i>Frequency of toothbrushing</i>	Yes	No
<i>Sex</i>		
Males (210)	123	87
Females (160)	134	26
<i>Reasons</i>	<i>Numbers of patients</i>	<i>Percentage</i>
<i>Reasons for brushing in patients who brushed regularly (n = 245)</i>		
Prevention of dental caries	124	50.6
Prevention of halitosis	24	9.8
Esthetic reasons	38	15.5
Prevention of plaque formation	26	10.6
Oral/dental health and cleanliness	24	9.8
Pain relief	9	3.7
<i>Reasons for no brushing (n = 125)</i>		
Lack of time	27	21.6
Tiredness	12	9.6
Carelessness	48	38.4
Dentinal hypersensitivity	7	5.6
Having pain	18	14.4
Expenses	13	10.4

compliance with brushing were prevention of dental caries (50.6%) and esthetic reasons (15.5%) (Table 3). Most of the subjects mentioned that the main reason for not brushing was carelessness (38.4%) and the least important reason was expenses (10.4%) (Table 3).

About 63.8% females participate in this randomized study were fearful about the periodontal therapy and most of the females visited dentists once or twice in their life (Table 4). Out of 160 females, 75.6% patients delayed or turned down treatment because of fear, whereas from 210

Table 4: Fearful attitude of patients about receiving periodontal treatment

<i>Fearful attitude of patients about receiving periodontal treatment (n = 370)</i>	Yes (%)	No (%)
<i>Sex</i>		
Males (210)	56 (26.7)	154 (73.3)
Females (160)	102 (63.8)	58 (36.2)
<i>Number of patients who delayed or turned down periodontal treatment because of fear (n = 370)</i>		
<i>Sex</i>		
Males (210)	76 (36.2)	134 (63.8)
Females (160)	121 (75.6)	39 (24.4)
<i>Number of patients who underwent any periodontal procedure in their life</i>		
<i>Sex</i>		
Males (210)	153 (72.8)	57 (27.2)
Females (160)	66 (41.3)	94 (58.7)

males, 36.2% patients delayed or turned down treatment because of fear. Data of this survey showed that females are more fearful about periodontal treatment (Table 4).

About 72.8% males and 41.3% females underwent periodontal treatment. Males are having more positive attitude toward dental treatment in this area (Table 4). Females are more illiterate in this area so about 78.1% female participants believed in the myth that scaling causes tooth mobility. Most of the females avoid periodontal treatment due to this myth (Table 5).

Out of the total population, only 10.9% males and 28.1% of females experienced pain or discomfort after periodontal treatment (Table 6). Results of this study showed that females are more stressed about periodontal treatment than men (Table 6).

DISCUSSION

In an age of assessment and accountability, the field of periodontics as well as dental hygiene could benefit by

Table 6: Frequency of pain or discomfort felt by population

<i>Following treatment, how many patients felt discomfort or pain</i>	Yes (%)	No (%)
<i>Sex</i>		
Males (210)	23 (10.9)	187 (89.1)
Females (160)	45 (28.1)	115 (71.9)
<i>Number of patients feel more stressed about performing the treatment (%)</i>		
<i>Males (210)</i>		
No	139 (57.6)	
Somewhat stressed	47 (30.4)	
Much stressed	24 (12)	
<i>Females (160)</i>		
No	63 (39.3)	
Somewhat stressed	61 (38.1)	
Much stressed	36 (22.6)	

Table 5: Myth of population about scaling and type of pain they felt during treatment

<i>General myth about scaling</i>		
<i>Sex</i>	Yes (%)	No (%)
Males (210)	154 (73.3)	56 (26.7)
Females (160)	125 (78.1)	35 (21.9)
<i>Type of pain which patients felt</i>		
<i>Type of pain</i>	Number of patients (%)	
<i>Males (210)</i>		
Feeling of pain	14 (6.7)	
Needles	32 (15.2)	
Unsuccessful results	64 (30.4)	
Equipment noise	18 (8.6)	
Anesthesia	8 (3.8)	
Others	74 (35.3)	
<i>Females (160)</i>		
Feeling of pain	68 (42.5)	
Needles	49 (30.6)	
Unsuccessful results	11 (6.9)	
Equipment noise	9 (5.6)	
Anesthesia	23 (14.4)	
Others	0 (0)	

adopting models that emphasize the multidimensional nature of oral problems and by considering patient behaviors and perceptions on oral health.

Although it may be desirable to use a full instrument based on single or multiple health behavior models for a comprehensive assessment, clinicians often experience time constraints posed by active patient care. Therefore, we sought to develop a simple questionnaire that could be completed quickly, yet it would provide information relevant to the planning of periodontal treatment. Our 14-item questionnaire imposed very little burden on the patients; they had little difficulty in completing it.

The present study was done on patients who reported to most of the hospitals with a dental outpatient department and private dental clinics in Bellary, Karnataka, India, in 2016 (January to June). A total of 370 patients (males = 210 and females = 160) were included in this study.

Result of this survey concluded that females are more illiterate than males in this area. In this study, from total female participants 57.5% were illiterate, whereas about 81.6% males were educated and working at present. About 63.8% females who participated in this randomized study were fearful about the periodontal treatment and most of the females visited dentists once or twice in their life. Out of 160 females, 75.6% patients delayed or turned down treatment because of fear, whereas from 210 males, 36.2% patients delayed or turned down treatment because of fear. The result of the American Academy of Periodontology⁴ survey showed males were more fearful about periodontal treatment than females.

Yamamoto et al⁵ conducted a questionnaire for periodontitis screening of 250 Japanese males of age group 50

to 59 years and suggested that the self-reported questions are useful for screening of periodontitis in this age group.

According to Vandana and Reddy,⁶ in their study of 1,029 subjects of Davangere district, incidence of gingivitis and periodontitis was more in females than males.

Saito et al⁷ conducted the pretested 19-item questionnaire comprising three domains: (1) oral hygiene, (2) dietary habits, and (3) perception of oral condition on 65 patients. Results of the study showed that the clinical utilization of the questionnaire facilitates the inclusion of multiple aspects of patient information, before initiation of periodontal treatment. The significant associations that were found between some of the self-care behaviors and oral hygiene levels document the important role of patient-centered oral health assessment in periodontal care.

In another study obtained by Abrahamsson et al,⁸ open-ended interviews were conducted after periodontal examination, but before treatment. The results illustrated that subjects diagnosed with chronic periodontitis felt ashamed and were willing to invest all they had in terms of time, effort, and financial resources to become healthy and to maintain their self-esteem. However, they perceived a low degree of control over treatment decisions and treatment outcome.

Nagarajan and Pushpanjali⁹ in their study population included 216 patients aged between 20 and 44 years who attended the outpatient department of the M.S. Ramaiah Dental College, Bengaluru. The study population was subjected to a self-administered questionnaire (questions regarding bleeding gums, deposits on teeth, receding gums, swelling of gums, loose teeth), which was followed by periodontal examination. Results of the study showed that the awareness of the periodontal problems has been reported to increase with increasing severity of the disease due to the destructive changes that set in.

CONCLUSION

The significant associations that were found between some of the self-care behaviors and oral hygiene levels

document the important role of patient-centered oral health assessment in periodontal care. Utilization of dental services in this country should, therefore, be improved not only by improving the availability and accessibility by manpower arrangements but also to a great extent by increasing people's awareness and knowledge of their own dental disorders and by attempting to change their attitudes and behavior in relation to oral health care.

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