

Awareness and Availability of Different Treatment Options in Dentistry among the General Population in Chengalpattu District, Tamil Nadu

Prabhu Subramani, Yuvaraj Baskaran, Anjana Mohan, Sathish Elugundan, Mouniga Pitchaimani

Department of Public Health Dentistry, Asan Memorial Dental College and Hospital, Chengalpattu, Tamil Nadu, India

Abstract

Aim: Oral health problems are common among the general population. People have the habit to undergo dental treatment only during dental pain due to the ignorance. The present study was conducted with the aim to assess the awareness about treatment procedures and various options toward dental treatment among the general population in Chengalpattu District, Tamil Nadu. **Materials and Methods:** A cross-sectional descriptive study conducted among outpatients reporting to Asan Memorial Dental College and Hospital. A self-administered, closed-ended questionnaire was used to assess the awareness and availability of treatment options in dentistry. The results were analyzed using SPSS Software version 23. Statistical analysis was performed by Chi-square test for comparison. **Results:** Among 200 patients, $n = 129$ (64%) were aware of oral prophylaxis as treatment for bad breath and stained teeth. $N = 187$ (93.5%) aware of the treatment of decayed tooth. $N = 192$ (96%) were aware of the treatments for fractured tooth. $N = 188$ (94%) were aware of the treatment options for missing tooth. $N = 177$ (88.5%) were aware of the different orthodontic treatments for malocclusion. **Conclusion:** The majority of the study population investigated, were aware of various treatment options available in dental practice.

Keywords: Awareness, dental caries, dental treatments, knowledge

INTRODUCTION

An effective dental treatment plan is vital to the success of treatment. There are many treatments available in dentistry based on the type of oral disease. These treatments include oral prophylaxis, restorative procedures, preventative procedures, extractions, orthodontics, and prosthetic rehabilitation.^[1] The dentist determines the treatment based on the evaluation of the patient's intraoral condition, dental caries, systemic factors, and socioeconomic status. Influencing factors include periodontal health and dental caries.

The following are different types of treatments in preventive dentistry as follows: fluoride application, varnishes, and pit and fissure sealants. Restorative procedures involve dental cements, amalgams, and composites. Prosthetic rehabilitation procedures include complete dentures, removable partial denture (RPD) and fixed partial dentures (FPD). Periodontal procedures such as scaling and root planning are common in practice.^[2]

Patients' awareness of various treatment options is different based on their locality, socioeconomic status, etc. Most of the patients are unaware of the different treatment options.^[3] Dental treatments may be more successful if the patient knows about different plans. When a patient has knowledge of different dental treatment options, (i.e.) if a young patient comes to a dental clinic with a missing tooth on the anterior, because of a lack of information regarding dental tooth pain and treatment options, patients tend to opt for extractions rather than root canal treatments, followed by fixed prosthetics.^[4,5] In this cross-sectional study, we will discuss awareness and knowledge of different dental treatment options among the public.

Address for correspondence: Dr. Prabhu Subramani,
Department of Public Health Dentistry, Asan Memorial Dental College and
Hospital, Chengalpattu, Tamil Nadu, India.
E-mail: prabhu.dent@gmail.com

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MATERIALS AND METHODS

The cross-sectional descriptive study was carried out among the patients visiting the department of oral medicine at Asan Memorial Dental College and Hospital, Chengalpattu.

The study was reviewed by the Institutional Review Committee of Asan Memorial Dental College and Hospital, and clearance was given. The study sample size was $n = 200$ patients. Patients were selected from both rural and urban populations to participate in our study.

Each one of them received a self-administered, closed-ended questionnaire. The questionnaire included patient age, sex, and further categorized to evaluate the knowledge and attitude on awareness of various dental treatments. Each patients was given 15 min to complete the questionnaire. The results were analyzed using SPSS Software version 23. Statistical analysis was performed by Chi-square test.

RESULTS

A cross-sectional descriptive study was carried out on the patients visiting the department of oral medicine at Asan Memorial Dental College and Hospital, Chengalpattu, regarding patients' age, gender, and further knowledge about awareness on various dental treatments. Among the study participants, the majority were aged between 25 and 40 years $n = 153$ (76.5%) [Table 1]. $N = 200$ were patients participated in this study of which $n = 111$ (55.5%) were male, $n = 89$ (44.5%) were female [Table 2].

Table 3 indicates that $n = 131$ (65.5%) had an history of dental treatment $n = 69$ (39.4%) do not have any dental history. Table 4 indicates that $n = 129$ (64.5%) of people know about bad breath, and $n = 71$ (35.5%) of people do not know about bad breath.

Table 5 indicates that $n = 8$ (4.0%) of people does not know about the treatment of bad breath, $n = 62$ (31%) of people replied brushing as a treatment, $n = 47$ (23.5%) said mouth wash as a treatment for bad breath, $n = 83$ (41.5%) people response scaling as treatment of bad breath.

Table 6 indicates that $n = 144$ (72%) people responded oral prophylaxis as a treatment for stained teeth, $n = 19$ (9.5%) people responded bleaching as a treatment for stain/discolored teeth, $n = 6$ (3%) of people responded veneering as treatment for stains/discolored teeth. $N = 31$ (15.5%) people do not know about the treatment for stains/discolored teeth.

Table 7 indicates that $n = 62$ (31%) of the people responded fluoride application as the treatment for prevention of dental caries. $N = 55$ (27.5%) of people responded pit and fissure sealant as a treatment for prevention of dental caries. $N = 83$ (41.5%) of people do not know about the treatment for prevention of dental caries.

Table 8 indicates that $n = 124$ (62%) people responded tooth filling as a treatment for black dot on the teeth, $n = 30$ (15%) of people ignore the treatment if there is no pain, $n = 37$ (18.5%)

Table 1: Distribution of the study participants according to age

Age (years)	Frequency (%)
18-25	25 (12.5)
26-35	99 (49.5)
36-50	54 (27.0)
51-60	17 (8.5)
>60	5 (2.5)
Total	200 (100.0)

Table 2: Distribution of the study population according to gender

Gender	Frequency (%)
Male	111 (55.5)
Female	89 (44.5)
Total	200 (100.0)

Table 3: History of dental treatment among the study population

Dental history	Frequency (%)
Yes	131 (65.5)
No	69 (34.5)
Total	200 (100.0)

Table 4: Treatment for bad breath

Treatment bad breath	Frequency (%)
Yes	129 (64.5)
No	71 (35.5)
Total	200 (100.0)

Table 5: What is the treatment for bad breath

Bad breath treatment	Frequency (%)
Don't know	8 (4.0)
Brushing	62 (31.0)
Mouthwash	47 (23.5)
Scaling	83 (41.5)
Total	200 (100.0)

Table 6: Treatment for stains/discolored teeth

	Frequency (%)
Oral prophylaxis	144 (72.0)
Bleaching	19 (9.5)
Veneering	6 (3.0)
Don't know	31 (15.5)
Total	200 (100.0)

of people responded scaling as a treatment for black dot on the tooth, $n = 9$ (4.5%) of people responded none of the abovementioned treatment.

In Table 9, $n = 95$ (47.5%) of people responded tooth filling as a treatment for decayed tooth. $N = 64$ (32%) of people responded root canal (RCT) treatment for tooth decay, $n = 28$ (14%) of people response extraction as a treatment for decayed tooth, $n = 13$ (6.5%) people do not know about the treatment.

Table 10 indicates that $n = 145$ (72.5%) people responded tooth filling as a treatment for broken front teeth. $N = 33$ (16.5%) people responded crowns as treatment for broken front teeth. $N = 14$ (7%) people responded extraction as treatment for broken front teeth. $N = 8$ (4%) people responded do not know about treatment for broken front teeth.

Table 11 indicates that $n = 72$ (36%) people responded extraction as treatment for pain in a carious teeth. $N = 90$ (45%) people RCT treatment for pain in a carious teeth. $N = 29$ (14.5%) people responded filling as treatment for pain in a carious teeth. $N = 9$ (4.5%) people responded do not know about treatment for pain in a carious teeth.

Table 12 indicates that $n = 110$ (55%) people responded medication as treatment for swelling in carious teeth. $N = 67$ (33.5%) people RCT treatment for swelling in a carious teeth. $N = 14$ (7%) people responded extraction as treatment for swelling in carious teeth. $N = 9$ (4.5%) people responded do not know about treatment for swelling in carious teeth.

Table 13 indicates that $n = 42$ (21%) people responded RPD as treatment for replacing missing front teeth. $N = 93$ (46.5%) people responded FPD as treatment for replacing missing front teeth. $N = 53$ (26.5%) people responded implant as treatment for replacing missing front teeth. $N = 12$ (6%) people responded do not know about the treatment.

Table 14 indicates that $n = 55$ (22.5%) people responded RPD as treatment for replacing missing back teeth. $N = 94$ (47%) people responded FPD as treatment for replacing missing back teeth. $N = 42$ (21%) people responded implant as treatment for replacing missing back teeth. $N = 9$ (4.5%) people responded do not know about treatment for replacing missing back teeth.

Table 15 indicates that $n = 151$ (75.5%) people responded removable orthodontic treatment for malposed teeth. $N = 26$ (13%) people responded fixed orthodontic treatment as treatment for malposed teeth. $N = 23$ (11.5%) people responded do not know about treatment for malposed teeth.

DISCUSSION

The purpose of this study was to determine public awareness about the availability of various dental treatments. Patients' awareness of various treatment options is different based on their locality, socioeconomic status, etc. Most of the patients were unaware of the different treatment options.

According to Jain *et al.*, 10% of the patients' uses mouthwash for treatment of bad breath and 80% of the patients noticed bad breath. As comparison with our study, $N = 129$ (64.5%) patients know about the treatment for bad breath. $N = 47$ (23.5%) of the patients responded mouthwash solution for bad breath. In our

Table 7: Which of the following help in prevention of caries

Treatment procedure	Frequency (%)
Fluoride application	62 (31.0)
Don't know	83 (41.5)
Sealant	55 (27.5)
Total	200 (100.0)

Table 8: If you find black dot on teeth, what you will do?

	Frequency (%)
Tooth filling	124 (62)
Ignore if no pain	30 (15)
Scaling	37 (18.5)
None of the above	9 (4.5)
Total	200 (100.0)

Table 9: What you will do if half teeth are decayed?

	Frequency (%)
Tooth filling	95 (47.5)
RCT	64 (32)
Extraction	28 (14)
Don't know	13 (6.5)
Total	200 (100.0)

RCT: Root canal treatment

Table 10: Treatment for broken front teeth

	Frequency (%)
Filling	145 (72.5)
Crown	33 (16.5)
Extraction	14 (7.0)
Don't know	8 (4.0)
Total	200 (100.0)

Table 11: Pain in carious teeth

	Frequency (%)
Extraction	72 (36)
RCT	90 (45)
Filling	29 (14.5)
Don't know	9 (4.5)
Total	200 (100.0)

RCT: Root canal treatment

study, $n = 62$ (31%) responded brushing as treatment for bad breath. The variation of 13.5% of higher response of mouth wash as treatment for bad breath in our study attributes to more knowledge among study population compared to their study.^[6]

According to Yunus Khan, knowledge about dental caries was reported in $n = 213$ (53.3%) cases. On comparison with our study, $n = 124$ (62%) of patients were responded about the knowledge of dental caries and tooth filling as a treatment for

Table 12: Swelling in carious teeth

	Frequency (%)
Medication	110 (55)
RCT	67 (33.5)
Extraction	14 (7.0)
Don't know	9 (4.5)
Total	200 (100.0)

RCT: Root canal treatment

Table 13: Preferred choice for replacing missing front teeth

	Frequency (%)
RPD	42 (21)
FPD	93 (46.5)
Implant	53 (26.5)
Don't know	12 (6)
Total	200 (100.0)

RPD: Removable Partial Denture, FPD: Fixed Partial Denture

Table 14: Preferred choice for replacing missing back teeth

	Frequency (%)
RPD	55 (27.5)
FPD	94 (47)
Implant	42 (21)
Don't know	9 (4.5)
Total	200 (100.0)

RPD: Removable Partial Denture, FPD: Fixed Partial Denture

Table 15: Treatment for malposed teeth

	Frequency (%)
Removable orthodontic treatment	151 (75.5)
Fixed orthodontic treatment	26 (13.0)
Don't know	23 (11.5)
Total	200 (100.0)

dental caries. In our study, we responded about the treatment of dental caries in addition to knowledge about dental caries, compared to their study in which only knowledge about dental caries was explained.^[7]

According to Doumani, $n = 78$ (38%) of patients have knowledge and awareness about root canal treatment. As comparison with our study, $n = 90$ (45%) of the patients RCT as treatment for tooth pain.^[8]

According to Hussain, 60.6% of patients were known about FPD as treatment for replacement of missing teeth, 54.2%

of patients responded RPD, and 5.5% of patients as dental implants. As comparison with our study, $n = 94$ (47%) of patients know about FPD as treatment for replacement of missing teeth, $n = 55$ (27.5%) of patients responded RPD, and $n = 42$ (21%) of patients responded dental implants as treatment for missing teeth. The variation of 13.6% between these two studies attributes to the socioeconomic status of our study population.^[9]

According to Mane, 70% of patients responded with knowledge about treatment for malaligned teeth. On comparison with our study, $n = 177$ (88.5%) of patients responded with knowledge about treatment for orthodontic treatment.^[10]

CONCLUSION

The majority of the study population investigated, were aware of various treatment options available in dental practice.

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Conflicts of interest

There are no conflicts of interest.

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