

Patient Awareness and Acceptance of Periodontal Therapy: A Questionnaire Based Study

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Abstract:-

Aim: A pilot study was conducted to test and develop a questionnaire which covers patients knowledge, level of understanding towards periodontal therapy and also their attitude towards practice of oral hygiene and to assess the reasons for non-compliance of patients towards dental treatment.

Materials and method : after due ethical clearance , a total of 100 patients visiting the outpatient department of periodontology, A.J institute of dental sciences, Mangalore were explained about the study and were asked to mark their response typed in scale to the questionnaires prepared priorly. The study was conducted for a period of 3 months .A total of 20 questions were divided into 3 sections to know about patient knowledge about gum diseases , attitude towards dental treatment , practice of oral hygiene measures and to assess the reasons for the non compliance of patients towards dental treatment . The response were recorded on a 5 point Likert scale. The options given were strongly agree(SA), agree(A), neither agree nor disagree, disagree(D) and strongly disagree(SD).. Simple descriptive statistics were applied to describe the study variables

Results: Data collected showed that about 61% among the population had knowledge about periodontal diseases and around 70.6 % population had a positive attitude towards periodontal therapy .Almost 59% of participants were aware about the oral hygiene practices but only 14% of themstrongly agreed that it is necessary to visit dentist once in 6 month. On analyzing the reasons for non compliance of patients towards dental treatment ,it was mainly due to cost and pain while undergoing the treatment. Patients visited mainly due to bad breadth, yellowish discolouration of teeth, sensitivity and because of pain.

Conclusion: This questionnaire based study showed that we need to create more awareness among population regarding the various types of periodontal diseases ,emphasize on advantages of advanced treatment options and how the treatment helps in preventing further periodontal destruction. To address the non compliance due to cost ,patient's canaware to avail reduction for various treatment charges with the help of their utility cards .The fear of pain can be diminished by proper counselling and educating the professionals on innovative painless treatment procedures.

Keywords:- awareness, level of understanding, knowledge, periodontal therapy.

I. INTRODUCTION

Gingivitis and periodontitis are associated with a negative impact on quality of life , exerting a significant influence on aspects related to the patients' function and esthetics.¹ Periodontitis is a multifactorial inflammatory disease caused by microorganisms leading to irreparable periodontal tissue damage progressing to tooth loss and impaired masticatory function.Periodontitis is a constant potential source of infection and has been considered as a separate risk factor for cardiovascular, endocrine, musculoskeletal , cancer, rheumatoid arthritis and reproductive system related abnormalities.

During past two decades many studies evaluated satisfaction of various patient groups with dental care, trying to assess factors that motivate patients to seek for dental treatment.²

Compliance is the extent to which persons' behaviour coincides with medical or other health-related advice. It is well known that successful long term periodontal therapy requires exceptional patient compliance to a periodontal maintenance program. Despite substantial efforts to improve compliance, Wilson et al, reported that patient compliance improved to only 32%. Factors, such as time constraints, prolonged treatment plans, and perceived unimportance of periodontal maintenance therapy (PMT), have been noted as factors contributing to poor patient compliance.³

The success of nonsurgical, surgical, and supportive periodontal therapy is associated with patient compliance. The prognosis of patients is critically dependent on patients' attitude, desire to retain natural teeth, willingness, and ability to maintain good oral hygiene.⁴Unlike endodontic lesions, periodontal lesions are primarily painless.⁵ Thus, painless nature of disease along with the lack of awareness and knowledge leads to the perceived unimportance of periodontal therapy which may hinder the patient compliance.

Assessment of dental care satisfaction, patient's expectations as well as their behaviour could be a helpful tool in creating a motivation model for the population that would stimulate individuals to seek for regular and qualitative dental care. More aware a patient, better will be his/her compliance with dental treatment and appointments.

The aim of conducting this study is to understand the level of awareness of periodontal treatment among a group of population and reasons for their non-compliance towards dental treatment.

II. MATERIALS AND METHODS

Ethics: The study conducted on the patients coming to the outpatient department outpatient Department of Periodontology, at A. J. Institute of dental sciences, Mangalore, after obtaining ethical clearance from the Institutional Ethics Committee.

Study design: A structured questionnaire consisting of twenty questions was given to 100 patients after obtaining their informed consent. The questions included in the survey were divided into 4 phases.

Phase 1 : 9 questions were related to the patients knowledge about periodontics

Phase 2: 6 questions were based on patients understanding the role of periodontal therapy

Phase 3 : 3 questions were related to the patients awareness on oral hygiene measures.

Phase 4: 3 questions were based on the utilization of dental services. which helped in assessing the reasons for non compliance of patients towards periodontal therapy.

The response were recorded on a 5 point Likert scale.

- **Inclusion criteria** :Study participants who were residing in Mangalore city.
- **Exclusion criteria** :Study participants who did not consent to be a part of the study

III. LIKERTS SCALE

Agree
Strongly agree
Neither agree nor agree
Disagree
Strongly disagree

Table 1: 5 point likerts scale

Statistical analysis : Data was coded and entered into excel sheet, to maintain the data quality. Simple descriptive statistics were applied to describe the study variable.

IV. QUESTIONARE

1. With which complaint are you most likely to visit a dentist. Lost teeth can be replaced by implants
 i) Pain ii) Bleeding gums iii) Mobility iv) Tooth loss
 v) Sensitivity vi) Bad breath vii) Difficulty in chewing
 viii) Appearance ix) Swelling

2 .Do you avoid dental consultation Yes No
 if yes
 i) Fear of ii) Cost iii) Pain iv) Multiple v)
 Unware about vi) Not understood vii) Student doing
 Injection appointments disease the explanation

3. Patient is willing for Dental treatment? Yes
 No Give reason?

1. Bleeding gums is the first sign of gum disease
 i)Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

2.Gums are supporting structures of the teeth
 i)Strongly disagree ii) Disagree iii) Neither agree or
 disagree iv) Agree v) Strongly agree

3. Consulting dental specialist is required once you start
 noticing bleeding gums
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

4. Periodontal disease leads to tooth loss
 i)Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

5. Diabetes is related to progression of gum disease
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

6. Smoking can aggravate gum disease
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

7.Gum disease can be risk factors of cardiac events
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

8. Progressive gum disease can lead to early delivery in
 pregnant women
 i) Strongly disagree ii) Disagree iii) Neither agree or
 iv) Agree v) Strongly agree

9. Certain medications can cause gum enlargement
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

10. Prompt gum treatment can prolong the life of your teeth
 1) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

11.. Prompt gum treatment will reduce the mobility of
 your teeth
 1) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

12. Lost gum tissue can be reformed by bone grafts and soft
 tissue grafts
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

13. Newer technologies like lasers are being used in gum
 treatments
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

14 Lost teeth can be replaced by implants
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

15. Tartar/ Calculus deposits (which is the initiator of gum
 disease) need to be removed regularly(once in 6 months) by
 dental professionals

16. Homecare(Brushing of your teeth and flossing) is
 sufficient for maintaining gum health
 i) Strongly disagree ii) Disagree iii) Neither agree nor
 disagree iv) Agree v) Strongly agree

17. Visiting your dentist once in 3-6 months post periodontal therapy is required

- i) Strongly disagree ii) Disagree iii) Neither agree nor disagree iv) Agree v) Strongly agree

18. With which complaint are you most likely to visit a dentist. Lost teeth can be replaced by implants

- i) Pain ii) Bleeding gums iii) Mobility iv) Tooth loss v) Sensitivity vi) Bad breath vii) Difficulty in chewing viii) Appearance ix) Swelling

19 .Do you avoid dental consultation Yes
No if yes

- i) Fear of ii) Cost iii) Pain iv) Multiple v) Unaware about vi) Not understood vii) Student doing Injection appointments disease the explanation

20. Patient is willing for Dental treatment?
Yes No Give reason?

smoking , as 39% strongly believed that it aggravates gum disease.38 % among them agreed that certain medications can cause gum enlargement. Participants awareness on various periodontal treatment modalities were satisfactory as 48% believed that gum treatment will prolong teeth life, 64 % knew about LASERS and 65% agreed that implants can replace lost teeth.48 % knew that consulting dental specialist is required once you start noticing bleeding gums. Even though 59 % had good practice of oral hygiene, among them only 14% strongly believed that calculus had to be removed once in 6 months.

The descriptive statistics of the study showed a mean value of 23.0800, 7.0100 and 15.3400 for participants knowledge, practice and level of understanding towards periodontal therapy, standard deviation values were 3.58 , 2.6 and 1.7 respectively. The statistics showed that the participants were aware about the periodontal therapy and have a positive attitude towards the same, but were comparatively reluctant to practice the proper oral hygiene measures.

V. RESULTS

Hundred participants completed the questionnaire. The data collected were subjected to analysis 61% of participants were aware about the periodontal diseases. 70% of them showed interest and were positive towards periodontal therapy. 59% were aware about oral hygiene practices .56% of participants agreed that bleeding gums is the first sign of periodontal disease. Patients awareness regarding periodontal disease and their association with systemic conditions like diabetes, cardiac events and pregnancy was 39%, 33 % and 12% . The participants were aware about the risk factors of

SL	QUESTIONS	SA	S	NA/ND	D	SD	TOTAL
1.	Bleeding gums is the first sign of gum disease	23	56	15	4	2	100
2.	Periodontal disease leads to tooth loss	12	42	24	13	9	100
3.	Consulting dental specialist is required once you start noticing bleeding gums	16	48	16	17	3	100
4.	Gums are supporting structures of the teeth	18	60	14	6	2	100
5.	Diabetes is related to progression of gum disease						100
6.	Smoking can aggravate gum disease	7	39	30	13	11	100
7.	Gum disease can be risk factors of cardiac events	12	33	27	18	10	100
8.	Progressive gum disease can lead to early delivery in pregnant women	11	12	24	31	22	100
9.	Certain medications can cause gum enlargement	20	38	28	7	7	100
10.	Prompt gum treatment can prolong the life of your teeth	13	62	13	10	2	100
11.	Prompt gum treatment will reduce the mobility of your teeth	17	48	13	18	4	100
12.	Lost gum tissue can be reformed by bone grafts and soft tissue grafts	4	9	45	29	13	100
13.	Newer technologies like lasers are being used in gum treatments	19	45	22	10	4	100
14.	Lost teeth can be replaced by implants	14	51	28	7	0	100
15.	Tartar/ calculus deposits	22	54	16	7	1	100
16.	Homecare	15	60	20	5	0	100
17.	Visiting your dentist once in 3-6 months post periodontal therapy is required	14	35	27	10	14	100

Table 2: frequency/ percent in % to determine patients knowledge, practice and level of understanding towards periodontal therapy

VI. DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge	100	14.00	33.00	23.0800	3.58358
Level of understanding	100	11.00	23.00	15.3400	2.64468
Practice	100	3.00	11.00	7.0100	1.77237

Table 3: descriptive statistics showing the mean and standard deviation of patient’s knowledge, practice and level of understanding towards periodontal therapy

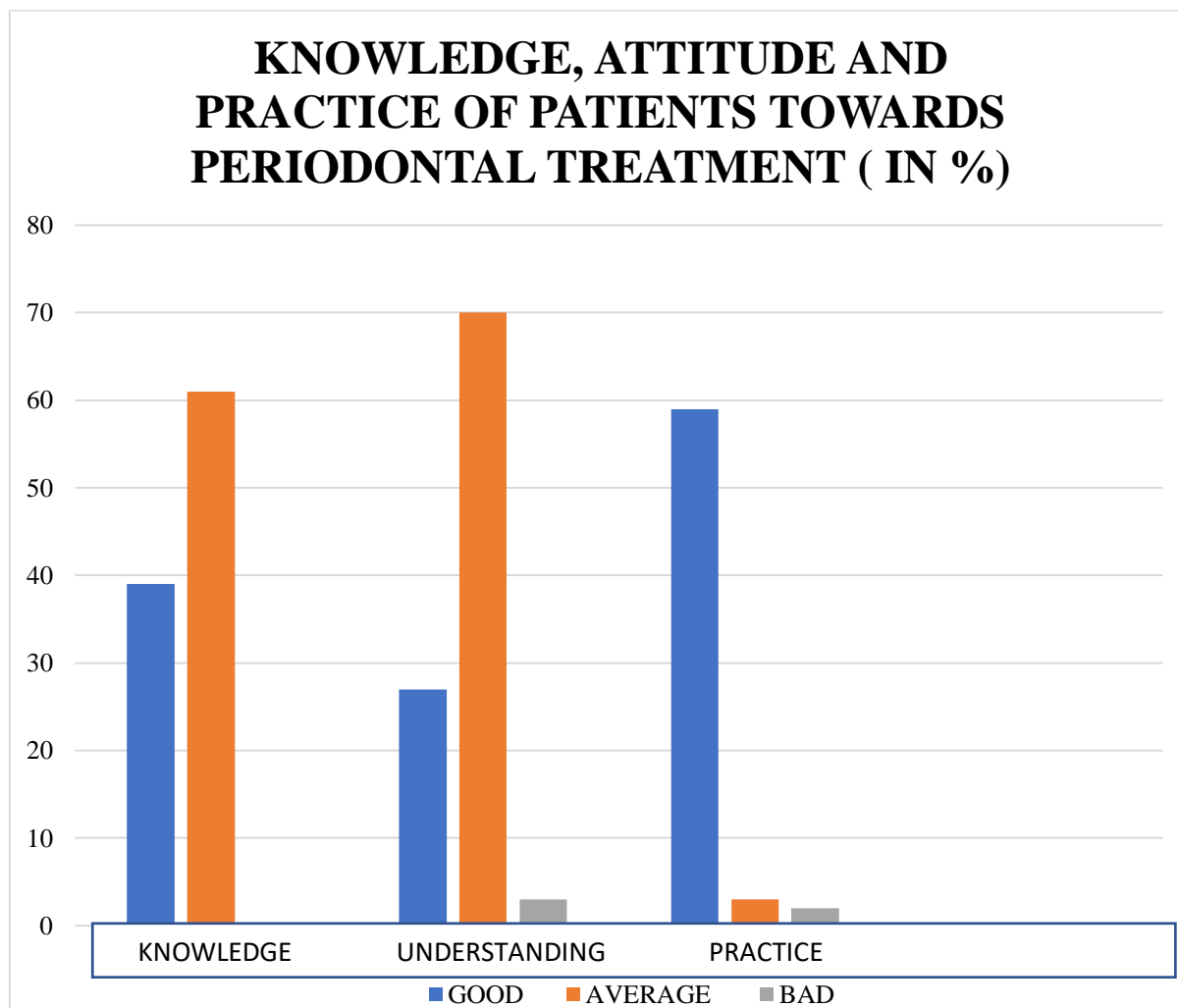


Fig. 1: bar diagram depicting patients knowledge, practice and level of understanding towards periodontal therapy

VII. DISCUSSION

Oral hygiene is rationally related to the attitude, practice, and the amount of awareness a person has towards it. Having proper knowledge of oral hygiene will enhance one to practice them promptly. However, without having the correct habit and mindset put into practice, a person’s oral hygiene may be hampered.⁷

This study was conducted to have an estimation on knowledge, level of understanding towards periodontal therapy and practice of oral hygiene measures for the maintenance of regular periodontal health among a group of 100 subjects who visited the outpatient department of periodontology, A.J Institute of dental sciences, Mangalore. It also helped in assessment of various reasons for non compliance of participants towards dental treatment.

With respect to the study ,most of the participants had a good practice of oral hygiene .Among the 9 questions assessing the knowledge towards periodontal therapy ,around 79%(SA+A) participants were aware that bleeding gums are a sign of gum disease and most of them had visited the department for the same reason. Around 69 %(SA+A) of participants knewthat smoking negatively influences the oral tissues. Considering the oral health attitude, it has been observed that oral hygiene has mostly remained as a neglected field and a social problem. Majority of the people are unaware about the relationship between oral hygiene and systemic disorders. Most diseases show their first appearance through oral signs and symptoms and they remain undiagnosed or untreated because of this missing awareness.⁷In the present study 30.5% were aware about the interrelationship between systemic conditions (

diabetic, cardiac, various drug induced gingival enlargements ,pregnancy) and periodontal diseases

The participants knew about lasersand Implants, mostly because of the social medias platforms like tv, advertisements and posters put up in the public . But only a small percentage knew about the bone grafts and soft tissue grafts.The current study showed that only 14% of the study population reported visiting a dentist once in 6 months. This is contrary to the study conducted by Nagarajappa et al⁸ and Parveen et al⁹ ,which stated that 42.5 and 52.5% of the study population visited a dentist during last 6 months. This might be due to their lack of awareness on importance of periodontal maintenance therapy.

The participants havevisited the department mostly because of bleeding gums, bad breath, teeth sensitivity, pain and also because of mobile tooth/teeth. Some of them were hesitant to take up the treatment due to fear of injection, pain and mostly the cost. Fear and pain can be managed by dental counselling and using painless treatment modalities. Education regarding benefits of complete periodontal therapy with maintenance recall visits is essential to bring in awareness and motivation amongst public.

VIII. LIMITATIONS OF THE STUDY

- Limited sample size of 100 participants
- The study didn't include socioeconomic and demographic characteristics.

IX. CONCLUSION

Within limits of this study, it can be concluded that publicmust be made aware about the link between systemic diseases and periodontal health. We as health professionals should bring in about the awareness regarding various regenerative procedureds for long term results and also emphasize on maintenance protocol through education and by using innovative tools for better compliance.

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