

Patients' Perception Towards Periodontal Therapy: A Cross-Sectional Survey

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ARTICLE INFO



Keywords:

Patient perception, Questionnaire survey, Periodontal therapy

ABSTRACT

Background: Numerous studies have explored periodontal therapy in terms of success and failures. However, the perceptions of patients towards periodontal therapy have not been extensively studied and are not well understood. Thus, this descriptive study investigates patients experience and satisfaction through use of pretested questionnaire. It also assessed patients' motivation and awareness towards the general oral hygiene.

Materials & methodology: This survey was conducted in 4 different dental colleges in Bangluru, Karnataka from April 2014 to January 2015. One hundred patients who underwent any form of surgical periodontal therapy were included in the survey. They were given the questionnaire 1-week post operatively. Later, all the responses were tabulated and subjected to statistical analysis.

Results: The results showed average awareness (56%) regarding dental health among patients. However, once they underwent treatment, they were highly motivated (85%) about both these objectives. Around one-third patients (30%) experienced heavy morbidity 1 week post operatively. Majority of the patients (41%) were comfortable with local anesthesia administration but felt uncomfortable with the duration of anesthesia (47%). When comparing non-surgical periodontal therapy with surgical periodontal therapy the non surgical group showed higher level of satisfaction (90% vs. 47%). Also, the pain experienced was more for surgical group (61% vs. 35%).

Conclusion: Although patient perceptions and preferences may influence the treatment decision making, there has been limited research in this field. This short survey was an attempt to look into this perspective and take the results into consideration while practicing.

Introduction

Patient-based outcomes (PBO) or "true endpoints" are subjective measures, which capture patients' perspectives of disease, or therapy and complement conventional clinical (surrogate) measures.¹ True endpoints are outcomes that directly measure how a patient feels, functions or survives. True endpoints are tangible to the patient. True endpoints are sometimes referred to as *clinically relevant endpoints, clinically meaningful endpoints, terminal endpoints, or ultimate endpoints*. Surrogate endpoints are intangible outcomes used as a substitute for a true endpoint. Typical surrogate endpoints in periodontal research include

anatomic measures (e.g. probing depth), measures of inflammation, microbiological measures, and immunologic measures. Surrogate endpoints are often objective because they can be measured by the clinician (rather than relying on self-report by patients) or by laboratory methods. Surrogate endpoints are sometimes referred to as *intermediate endpoints, biological markers, or biomarkers*.²

Traditionally, periodontal disease has been defined and measured using surrogate markers, most commonly – pocket probing depth (PPD) and clinical attachment

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Fig. 1: Questionnaire for the survey

- Q.1) How many times do you visit a dental clinic in a year?
 Q.2) Were you aware of various gum surgeries before visiting the dental clinic?
 Q.3) Will you suggest others about various gum surgical procedures and its benefits?
 Q.4) Will you undergo the same procedure in different region of your mouth, if needed?
 Q.5) How will you rate the local anesthetic injection administration?
 Q.6) What will you say about the duration of the surgical procedure?
 Q.7) How was your experience after non-surgical gum treatment?
 Q.8) How was your experience after surgical gum treatment?
 Q.9) How was your experience 1 week post gum surgery?

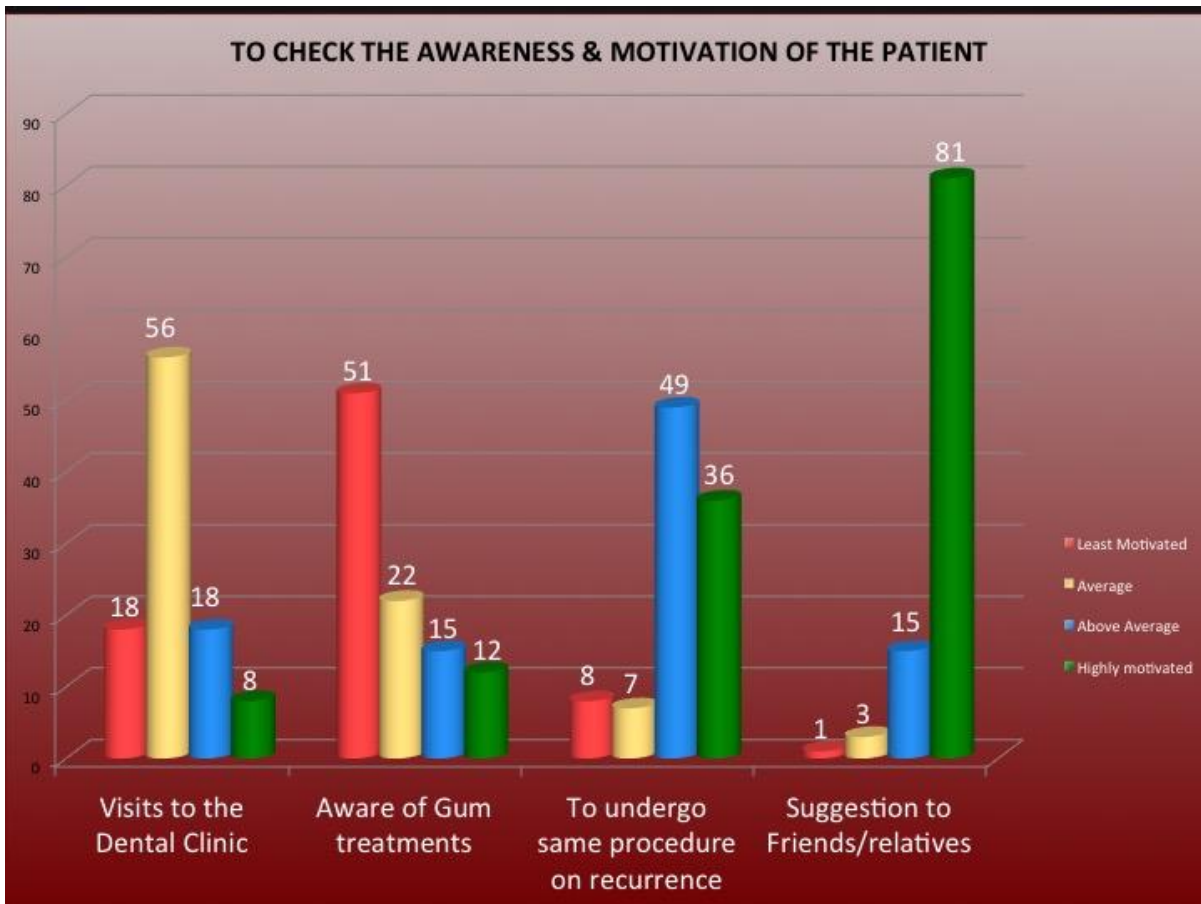


Fig. 2: To check the awareness & motivation of the patient

loss (CAL) However, true end points are reported to be more relevant to patient's daily lives than objective changes in PPD or CAL. Patient-based outcomes were identified as a research priority at the 2003 World

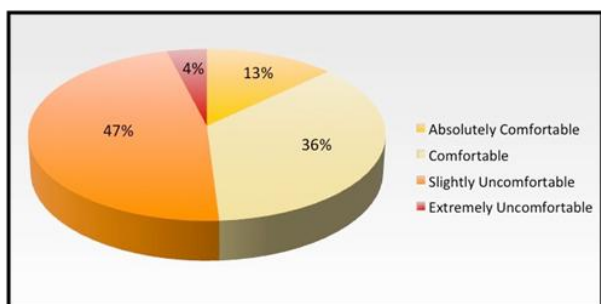


Fig. 3a: Duration of Surgical Procedure

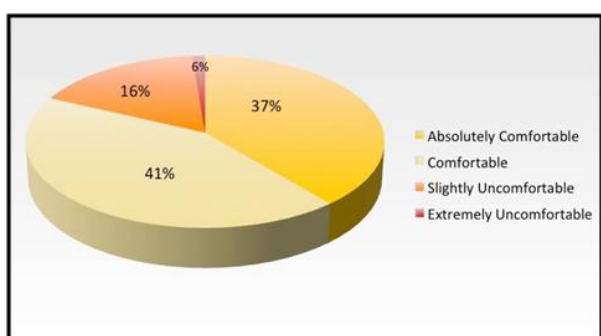


Fig. 3b: Local Anesthesia Administration

Workshop on Emerging Science in Periodontology.³ Assessment of PBOs is important in periodontal therapy as patients' opinions may differ from traditional clinical endpoints. While there is sound evidence to support the clinical efficacy of both non-surgical and surgical therapy for treatment of periodontal disease in adults, there is limited data on their PBOs.⁴

The decision to employ which kind of periodontal therapy for the patients depend on various factors such as severity of the case, practical experience and relevant research.¹ However, the patient preferences often gets neglected. Several studies have emphasized the need to assess "patient-related factors" prior to

making treatment decisions. Patient preferences may also influence the decision making process.

AIMS & OBJECTIVES OF THE SURVEY:

The objective of this survey was to determine:

1. The awareness of various periodontal treatment modalities available for the patients and their motivation regarding these treatments.
2. To observe unfavorable factors experienced by the patient while being treated.
3. To determine the satisfaction levels.

MATERIAL & METHODOLOGY:

The present survey was carried out in four dental institutions in Bangalore, Karnataka from April 2014 to January 2015. Study Population included 100 patients who fulfilled the following inclusion criteria:

- 1) Systemically healthy patients diagnosed with moderate to severe chronic periodontitis and who underwent both non-surgical and surgical treatment (Phase I and Phase II Therapy).
- 2) Patients who underwent any esthetic surgical procedure (gingivectomy or root coverage procedure) or any other gingival surgery (such as Crown Lengthening or a frenectomy procedure).

A carefully prepared questionnaire was given to the patient one-week post operatively when he/she returned for follow up. A set of 9 questions (Fig. 1) was framed in English and Kannada (Regional language) that were closed ended and easily understood. The questions basically pertained to assess patient's motivation and awareness towards the oral health and gingival care. It also assessed pain, sensitivity, morbidity and satisfaction about non-surgical and surgical periodontal therapy. Each question was given appropriate choices where the above mentioned parameters could be measured based on the response.

RESULTS AND OBSERVATION:

The results thus obtained from the questionnaire were tabulated based on the assessing parameter and analyzed. The first parameter being the *patient*

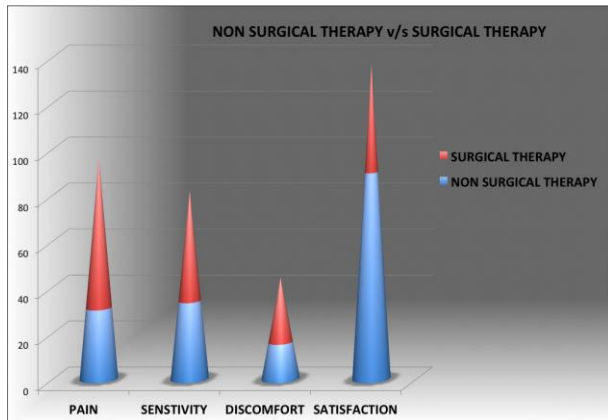


Fig. 4: Comparison of patients' perception in non-surgical therapy vs surgical periodontal therapy.

Awareness and motivation (questions 1-4); 56% of them showed average motivation saying that they would visit a dental clinic only when a problem pertaining to the oral cavity arises, 51% of the subjects were unaware that gum problems exist and about the gum treatments. However, once they underwent the treatment, they showed high motivation regarding future follow-ups (85%) and suggestion to their friends/relatives (81%) (Fig. 2).

While analyzing the second parameter, the *response of the subjects towards periodontal therapy (questions 5-8)*, 51% of the patients found duration of surgical therapy uncomfortable. However, 78% patients did not have much discomfort while local anesthesia administration (Fig. 3a & 3b).

When comparing the two modes of therapy in terms of pain experienced, post operative sensitivity & discomfort and the overall satisfaction with the procedure, non-surgical excelled in each question (Fig.4).

QUESTIONS	Non Surgical therapy	Surgical therapy
Pain	31	65
Sensitivity	34	48
Discomfort (other than pain & sensitivity)	16	28
Satisfaction	90	47

For the third parameter i.e., *patients' experience 1 week post surgery(question 9)*, irrespective of the mode of therapy, 40% of the patients found it difficult to maintain oral hygiene, 24% said that they had some abnormal feeling in the treated area and only 8%

reported that they felt their teeth loosened after the surgery (Fig.5).

DISCUSSION:

There is a huge debate whether true endpoints should be used to assess periodontal therapy or not. Subjective true endpoints are almost never used in clinical trials because of the notion that objective surrogates are superior endpoints. However, surrogates can be misleading because the causal pathway connecting the treatment to the surrogate to the true endpoint is often misunderstood. The initiative or the intervention used may be improving one aspect

(intangible parameter) but ultimately deteriorating the final outcome (tangible). The goal of periodontal therapy should be to provide tangible patient benefits and not tangible clinician benefits and therefore, the primary endpoints in periodontal trials should be studied from the patient perspective and not the clinician perspective.¹

This survey was an observational study to better understand the awareness and patients' perception towards periodontal therapy. Questionnaire surveys are subject to participants' reporting biases. Being conducted in educational institutions, the results cannot be generalized as all the procedures were done by post graduate students especially in terms of duration of surgery, LA administration and post operative pain and discomfort.

Lee et al (2002)⁵ in their questionnaire survey reported that the patients' satisfaction did not match with their expectations prior to surgery. Also patients failed to understand the relation between gingival bleeding and periodontitis. In a survey about patients' perception of periodontal therapy in periodontal specialty clinic, very low levels of discomfort with both surgical and non-surgical therapy were reported.⁶

Steenberghe et al (2004)⁷ in their survey to explore patients' discomfort during instrumentation for diagnosis and non-surgical periodontal therapy concluded that subgingival instrumentation causes pain and discomfort (52% reported pain while SRP and 35% during LA administration). These results are not in accordance with our survey. Similarly Tonetti et al (2004)³ described the patients' experience of periodontal surgery, their perceptions of the post-operative period, of the achieved benefits and of the disadvantages encountered. According to their study, the most frequently reported benefits included the

ability to preserve a tooth/dentition and to maintain/improve chewing ability.

These questionnaire surveys do indicate the importance of patients expectation, preferences and perceptions but they cannot be universally applied. Therefore, usage of an index with a more objective intent is advisable. Several indices have been developed and used in few studies to measure the outcome of periodontal therapy.^{8,9,10} Ozcelik et al (2007)¹¹ investigated how different treatment modalities may affect the immediate post-operative quality of life of patients with periodontitis. The results of this study clearly indicated that patient perceptions on the immediate post-operative period were significantly better in the non-surgical group when compared with the surgical group. Shanbag et al (2013)¹ in a systematic review suggested that all forms of non-surgical periodontal therapy can improve the OHRQoL of adult patients with periodontal disease in the immediate (1 week) and long-term (12 months). Apart from the factors analyzed in the present survey, several others may also influence patient satisfaction such as technical competence of the therapist, interpersonal factors (such as communication and empathy with the patient), convenience of patient to undergo the periodontal therapy, previous experience/anxiety, cost of the treatment and facilities availed to the patient. These major factors may have an impact on the satisfaction levels of the patient and may change his/her perception towards the periodontal therapy. These need to be evaluated in future studies.

CONCLUSION & FUTURE IMPLICATIONS:

This survey enquired various patient oriented queries. It was an attempt to view periodontal therapy from patients' perspective. The results obtained cannot be

generalized but need to be considered for future studies. Patient-centered outcomes, such as Quality of Life, are more relevant to patient's daily lives than clinical changes in pocket probing depth or clinical attachment loss. Improvements in Quality of Life, especially in a short time-span, can potentially motivate patients to improve adherence to oral hygiene practices and compliance with maintenance therapy. These factors are critical for the long-term success of periodontal therapy.

Therefore, future studies should adopt tangibles indices to ensure consistency of recording outcomes. Further well-designed prospective cohort studies with long-term follow-up are required to confirm and replicate the findings reported here.

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