

# Assessment Of Patient Compliance After Nonsurgical Periodontal Therapy

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## Abstract:

### Aim and objective:

Periodontal maintenance therapy is indispensable for patients with history of periodontal conditions. Recall visits are considered as an integral part of periodontal therapy. One of the challenges encountered by the clinicians is the noncompliance of patients for maintenance therapy. The aim of the study is to evaluate the factors that potentially affect the compliance of periodontal patients after nonsurgical periodontal therapy

### Methodology:

A total of 100 patients who got treated for periodontal conditions but have not reported for further follow up were taken for the study. A set of ten relevant questions for noncompliance were framed and put forth to the patients through telephonic conversation and they were suggested to choose reason for their noncompliance.

### Results:

Majority of the patients (34%) reported that they cannot take leave from work for recall visits. Approximately 26% cited the reason as travel inconvenience/ relocation and around 23% of the patients reported that they were feeling good and consider no further treatment as necessary.

### Conclusion:

According to the findings, nearly half of periodontal patients fail to comply because they are unable to take time off work or because travelling is inconvenient. The noncompliance indicators are population specific which should be identified and modified for the benefit of the patients.

**Key words:** Noncompliance, Nonsurgical periodontal therapy, Patient compliance, Periodontal maintenance, Recall visits, Supportive periodontal therapy.

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## Introduction:

Periodontal disease is an immuno-inflammatory disease that leads to the destruction of periodontal tissues resulting in tooth loss.<sup>[1]</sup> Active periodontal therapy comprises of various non surgical and surgical procedures, however recurrence and reinfection after therapy are not uncommon. Hence frequent monitoring of the patient and clinical condition through supportive periodontal therapy (SPT) protocol is a prerequisite to control inflammation of the periodontal tissues. Periodical professional assistance is regarded mandate for the maintenance of periodontal health which is directed at regular elimination of bacterial accumulation. If a patient does not receive appropriate SPT at the prescribed intervals, periodontal disease can progress in terms of attachment loss and tooth loss despite completion of APT. <sup>[2,3]</sup> Hence recall visits are considered as an integral part of periodontal therapy.

Compliance of patients reporting for supportive periodontal therapy is often as low as

50%.<sup>[4]</sup>In general, most patients do not comply with clinician's instructions like prescribed therapy and appointment schedule.<sup>[5]</sup> Although clinicians are also responsible for recall maintenance visits of the patient, they can only partially control the compliance of patients. Patients compliance is affected by a number of factors such as age, socioeconomic status, fear of dental treatment, lack of information, perception of the clinician and decision making process. <sup>[6]</sup>

Appointment compliance of patients during maintenance phase plays a crucial part in ensuring the stability of the periodontal condition. Various studies have established the importance of complying with periodontal maintenance to control progression of periodontitis and the loss of tooth.<sup>[2,7-9]</sup> It is important to identify the factors that plays a key role in preventing the appointment compliance of the periodontal patients visiting our dental clinics. Hence this questionnaire study has been undertaken with aim of evaluating the factors that affect the compliance of periodontal patients after nonsurgical periodontal therapy.

### **Materials and Methods**

This questionnaire study was approved by the institutional review board and the approval number is SRMU/M&HS/SRMDC/2021/S/005. The questions were framed based on the routine concerns and obstacles of the patient to report for recall visits. The participants of this study were former patients of Department of Periodontics in the Dental college. One hundred patients who got treated for various periodontal conditions in the department but have not reported for further follow up were identified. The study participants comprised of 59 males and 41 females. Among them, 34 patients were diagnosed with Generalised Chronic periodontitis, 48 with localised Chronic periodontitis and 18 patients with gingivitis. The patient demographic and treatment details were retrieved from the case records.

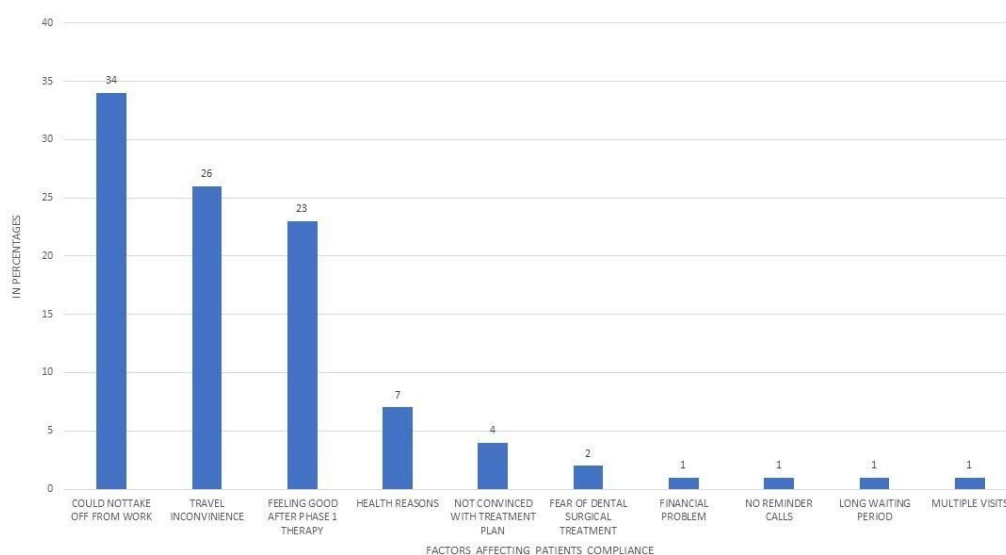
The study participants were contacted through telephone and a verbal consent to participate in the questionnaire study was obtained. A set of ten relevant questions which were possibly the common reason for not reporting to periodontal recall visits were framed. The questions were drafted in such a way that the first six questions were concerned with patient related constraints and perceptions and the last four questions were related to problems associated with dental clinics. These questions were put forth to the patients and they were suggested to choose the reason for their noncompliance towards appointment schedule. (Table 1) Response from a total of 100 patients was noted and the data was compiled and analysed in the study.

Table 1. Reasons for Noncompliance of periodontal patients
1. Cannot take off from work
2. Financial constraints / unaffordable towards dental treatment
3. Feeling good and consider no further treatment is necessary
4. Travel inconvenience/ relocation/ out of station
5. Health reasons
6. Fear of dental surgical treatment
7. No reminder calls
8. Long waiting period
9. Not convinced with the treatment plan/ not satisfied with the treatment
10. Multiple visits

**Results:**

Among the study participants, there were 59 males and 41 females. Majority of the patients of about 34% stated that they could not take off from work to attend the clinics. Some patients nearly 26% cited the reason as travel inconvenience, relocation or out of station for their noncompliance. Around 23% of the patients said that they were feeling good after nonsurgical periodontal therapy and thus consider no further treatment as necessary. (Figure 1)

Seven percent (7%) of the patients were unable to keep the appointment due to health related issues and 4% of the patients were either not convinced with the treatment plan or not satisfied with the treatment. Only 2% of the patients had the fear of undergoing dental surgical treatment. Patients who could not turn up due to financial problem or affordability towards surgical treatment amounted to 1%. About 3% of the patients noncompliance was because of no reminder calls, long waiting period, multiple visits.



**Figure 1.** Factors affecting patient’s compliance in percentages

### **Discussion:**

The goals of the periodontal recall regimens are to prevent or minimize the recurrence and to halt the progression of periodontal disease in patients who have been already treated for periodontal conditions. <sup>[10]</sup> In periodontal clinics, recall visits aims to minimise plaque and bleeding scores to less than 20% , maintaining residual probing depth to < 5 mm and gains in clinical attachment levels. <sup>[11]</sup> In a way, SPT also helps in the identification of other diseases or conditions which requires management. On the other hand, there are also some studies that document the limited effect of patient compliance. <sup>[12,13]</sup> The difference of results between these studies may be caused by existing variables in design of studies and outcomes measured.

Compliance with supportive periodontal care is clearly an essential prerequisite of long-term periodontal stability and maintenance of a functional dentition, <sup>[14]</sup> yet the levels of compliance are often below 50%. The reasons for non-compliance are complex and will vary for individual patients and for the same patient in altered circumstances.

Many studies showed that salaried personals are more satisfied, understanding as well as more interested to periodontal treatment. <sup>[15,16]</sup> Noncompliance was thus high among nonworking personals and lowest among salaried personals. <sup>[16]</sup> This is quite contrary to our study where the majority of the patients (34%) who fail to comply with recall visits were salaried or working people. The reason they cited was that they cannot take off from work as their work timings are not favourable to keep up the dental appointment. Our results are consistent with few other studies where the noncompliance of the patients are because of inability to get off from work. <sup>[17]</sup> Moreover, 26% of the patients found that it was not convenient to travel and some patients have shifted out of station. This is supported by other studies where one of the patient concerns is long distance travelled for dental treatment. <sup>[18]</sup>

In our study, 23% of the patients said that they were feeling good and relieved of the symptoms and hence comfortable after the initial therapy. These patients felt that they do not consider any further treatment as necessary. <sup>[19]</sup> This is quite similar to the study by Mendoza et al. where a significant proportion reported that lack of any discomfort after active therapy made them to abandon further appointments and recalls. <sup>[20]</sup> Several other studies also observed that the compliance with maintenance therapy is determined by underlying patient attitudes, beliefs, and values, rather than other disease characteristics. <sup>[18,19]</sup>

About 7% of patients cited health issues for noncompliance which is in concordance to the study by Casgrove et al. <sup>[21]</sup> Patients who have not reported because of financial difficulties were very less that is, only 1% This may be due to the fact that treatment is provided in the department at a very low cost. Hospital related factors that account for noncompliance of periodontal patients like lack of reminder calls, long waiting period and multiple visits were only 1% for each of the questionnaire item.

Noncompliance is usually common in patients with chronic diseases like periodontitis, as the symptoms of the disease is less severe and thus patients are less motivated to adhere to instructions. The data from our study showed that the noncompliant patients are not giving adequate importance for recall visits until they feel the necessity with obvious clinical signs and symptoms which makes the outcome of the periodontal therapy questionable.

### **Conclusion:**

Compliance to recall visits by the patients is the responsibility of both practitioners and patients. Nearly half of periodontal patients in the study fail to comply because they are unable to take time off work or because travelling is inconvenient. Patients should be educated and motivated adequately towards the importance of periodontal maintenance therapy through appropriate aids. The noncompliance indicators are population specific which should be identified and modified for the benefit of the patients. Further studies with large sample size may be useful in drawing additional conclusions.

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