

## Assessment of Various Factors Responsible For Missed Dental Appointments among the Patients Attending a Dental College in Telangana India- A Cross-Sectional Study

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### Original Research Article

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#### Article History

*Received: 15.08.2018*

*Accepted: 26.08.2018*

*Published: 30.08.2018*

#### DOI:

10.21276/sjodr.2018.3.8.8



**Abstract:** The mouth is regarded as a mirror and the gateway to health. Various dental treatment modalities frequently require appointments, which are more than one in number for completion of the entire treatment program. Missed dental appointments are an issue which has been noticed for years but very little research has been conducted around it. To assess various factors responsible for missed dental appointments among the patients attending a dental college. A cross-sectional study was conducted among the patients attending various departments of the college. A sample size of 960 was calculated based on the results of the pilot study and the patients who missed their appointment at least once during their treatment procedures were included in the study. A self-structured 19 item questionnaire was used to measure various factors responsible for missing the appointment. The collected data was subjected to statistical analysis by using SPSS version 21.0. Among 960 patients, 53% were females and 46% were males. Various reasons for not attending recall were assessed in patient's perspective and college perspective. Lack of time (63%), fear (62%) were cited to be the most common factors for not attending recall in patients perspective and inconvenient appointment timings (47%) and dissatisfaction with the reception area(44%) were cited to be the most common factor for missing the appointment in college perspective. This study concluded that patients who miss appointments cite the most common reason as lack of time, fear, lack of transportation inconvenient appointment timings. The key in dealing with the issue of missed dental appointment lies in altering patient's psychology during the first appointment. Counselling and motivation is required to be done at first dental visit to reduce the chances of missed appointment.

**Keywords:** Missed dental appointments, Factors responsible, dental college.

### INTRODUCTION

Health is a fundamental human right and a universal human need that is same for people from all cultures and walks of life. General health cannot be attained or maintained without oral health. The mouth is regarded as a mirror and gateway to health. Integration is required between the dental practitioner and the patient if good dental health is to be attained. The various treatment modalities frequently require appointments which are more than one in number for completion of the entire treatment program [1]. Missed dental appointments are an issue which has been noticed for years and can be defined as the absence of a

patient or practitioner at a predetermined time and place without cancellation within 24 hours prior to the appointment. There are times when a patient absolutely must cancel or not show up for a dental appointment due to unforeseen circumstances. However, there are patients who always seem to find an excuse to break or miss their dental appointment [2].

The impact of missed dental appointments is not that simple as they seem to be. Patient is not only denying dental care to himself but also the opportunities are foregone to provide care to other patients. Failed attendance may also have economic impact on

practitioners or organization when scheduled hours go unattended and unpaid while the staff is being paid which results in reduced tangible productivity. In a university setting, the academic requirements, clinical experiences and operating hours of dental students are affected resulting in graduating them without adequate clinical training to meet the dental demands of society [3].

Prior research has documented the factors associated with broken appointments. Most studies have found that patients of forty-five years and over and pediatric patients were most likely to miss their appointments. Other studies found that patients of lower socioeconomic classes and lower education generally have a higher rate of broken appointments [4-6]. In recent studies of failed appointments in Saudi Arabia, numerous factors were reported including lack of time and service, long waiting time in waiting areas, dental fear, and anxiety [7] and other studies have investigated the effect of appointment reminders on attendance rates. Appointment reminders employed in some of the studies were phone calls, text messages, and mailed reminder letters. A randomized controlled study carried out by Fairhurst *et al.*, found that nonattendance rate was 12% in the intervention group that received a text message reminder. On the other hand, the nonattendance rate in the control group that received no reminder was 17% [8].

In many cases, several appointments are necessary to carry out the treatment necessary for good dental care. Therefore, the success of the treatment results is dependent upon whether the patients keep their appointments [1]. In another study it was found that a number of female patients in dental college in Riyadh city failed to keep their appointments, which not only disrupted the scheduling of these patients visits but also diminished the efficiency of the student's clinical and academic performance and eventually caused them to suffer from stress during their training [9-13]. Failed dental appointments result in time loss, a reduction in the productivity of dental treatment, and difficulty for the students to fulfill their academic requirements. Hence this study was undertaken with an aim to assess the most common reasons for missed appointments among the patients attending a dental college.

## METHODOLOGY

A cross-sectional study was conducted among the patients attending various departments of the college for a period of one month. A pilot study was conducted among 30 patients prior to the investigation of the study to check the feasibility. All the patients who missed their appointments atleast once during their treatment procedures and willing to participate in the

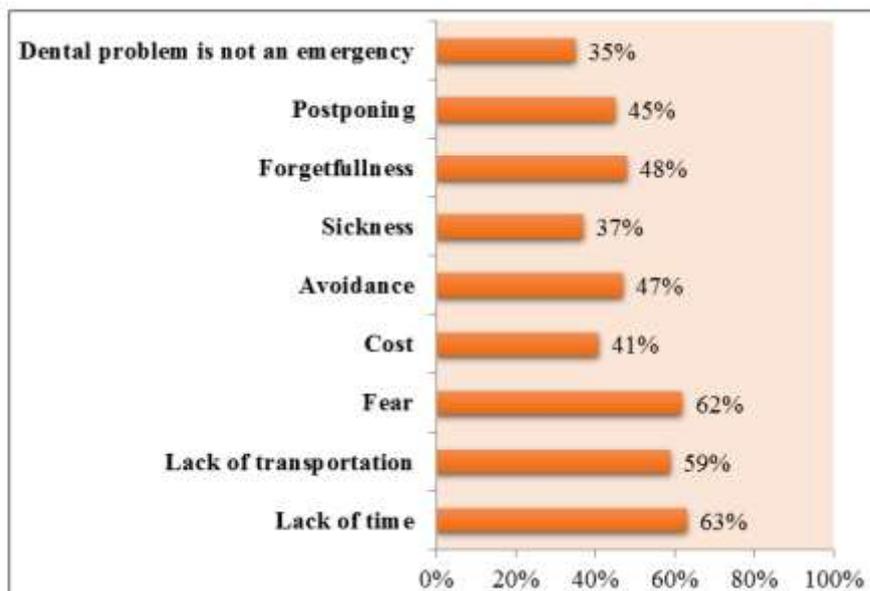
study were included. Informed consent was taken verbally prior to the study from every patient. Ethical approval was obtained from the institutional review board of Sri Sai College of dental surgery. Questionnaire prepared was developed based on previous literature. Reliability and validity of the questionnaire was checked ( $\alpha=0.8$ ). The questionnaire consisted of closed ended questions and obtained information regarding demographics and on various factors responsible for missed dental appointments in patients and college perspective. Data from the patients was collected by self-administering the questionnaire to the literate people and by interview method to the illiterate people. The collected data is subjected to statistical analysis descriptive statistics was used.

## RESULTS

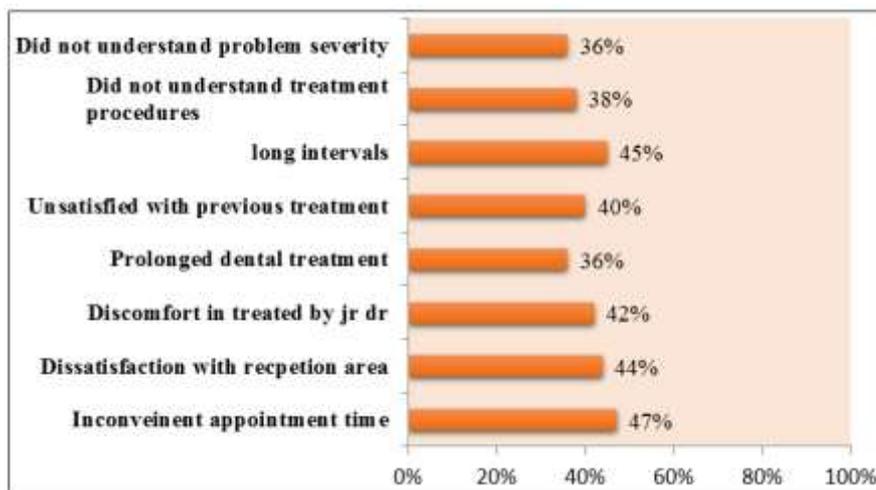
A total of 960 patients participated in the study of which 46% were males and 53% were females and majority of them belong to the age group of 25-35 and most of the participants are farmers by occupation and many of the participants belong to lower middle class. Among these patients factors responsible for missed dental appointments were assessed. There were different reasons revealed by the patients as the cause for missed dental appointments.

When missed appointments were assessed in patients perspective 63.5% of patients stated that they would miss their appointments due to lack of time and 62% of patients stated that they would miss their appointments because they were afraid of the treatment and 59% reported that they miss the appointment due to difficulty in transportation. 48% of patients reported that they would miss the appointment due to forgetfulness and 51% stated that they would postpone the appointment as the pain subsides. 37% stated that they miss the appointment due to sickness and 40% reported that they did not consider dental problem as an emergency and 30% reported that they miss the appointment due to exams as shown in Graph-1.

When missed appointments are assessed in college perspective, 47% reported that inconvenient appointment time and 45% stated that long intervals between the appointment schedules were common reasons for missing the appointments and 40% stated that they were unsatisfied with previous dental experience and 38% stated that they did not understand the problem severity and 37% stated that prolonged treatment procedures are the reasons for not attending and 36% reported that they missed the appointments as they did not understand the treatment procedures and 38% reported that as they did not understand the problem severity they would miss the appointment as shown in Graph-2.



Graph-1: Reasons for missed appointments in patient’s perspective.



Graph-2: Reasons for missed appointments in college perspective

## DISCUSSION

The goal of this study was to identify the reasons for missed dental appointments among patients attending a dental college. In this study majority of the patients who missed their appointments were females when compared with males. These results are similar with the results of the study conducted by Sahar F *et al.*, [7] in which females are more likely to miss their appointments. The reason for this may be attributed to the fact that a higher percentage of married women and housewives were not able to find someone to take care of their children during their appointments and this study showed that the majority of the patients who missed their appointments were in the age group of 25-35. The reason for this may be due to people who belong to this age group were mostly working employees and they may not get leave for attending the appointments. In the present study reasons for missed appointments were assessed in patients and college

perspective. In patients perspective it was found that lack of time and fear of the treatment was the most common reason for non-attendance. As most of the patients come from rural areas and as they are farmers by occupation they reported as lack of time is the common reason for missing the appointment which is similar to a study conducted by Quetish Taani *et al.*, [14, 15] in which fear and lack of time was the major reason for patient’s non-attendance. When missed appointments were assessed in college perspective majority of the patients reported that inconvenient appointment timings and long intervals between the appointments schedules were the most common reasons for missing the appointment which is similar to a study conducted by Badreldin *et al.*, [3]. This might be due to the reason that most of junior dentist who provide the treatment will be busy with the academic works and give the appointments according their convenience. 36% reported the reason for nonattendance is due to

prolonged treatment procedures. As the treatments are provided by the undergraduate students to complete their quotas and time taken to complete the procedure might be more as they may be in a training period which might influence the quality of the treatment provided. 45% of them reported that due to long intervals between the appointment schedules they might miss the appointment. As the students might be busy with their academic works they might give appointments according to their convenience which might influence the patients visit to the hospital. This finding is consistent with the observation of Benjamin-Bauman *et al.* who found that keeping the time between appointments to two weeks greatly enhanced the show rate. This study also showed that forgetfulness and postponing the appointments were also the most common factor for nonattendance which is similar to a study conducted by Trenouth *et al.*, [3] in which forgetting about it and the inability to get time off either from work or school is the reason for missing an appointment. This might be because as pain subsides after the first visit and they may forget and postpone the appointment. This study also showed sickness, dental problem as not an emergency, unable to understand the treatment procedures prolonged dental treatment were cited to be the least common factors for patients nonattendance.

Missed appointments may result in increased provider frustration, decreased levels of provider empathy and lower quality, patient-provider communication. Furthermore, following interventions to limit the prevalence of nonattendance:

- Identifying patients at risk at the first visit by discussing the potential for missed appointments and placing emphasis on obtaining patient contact details.
- Providing hospital contact details and methods of contacting the clinic so that the patient can either reschedule a future appointment or get a new date after a missed appointment.
- A booking notification system whereby all patients who miss an appointment are brought into focus and contacted by the clinic.
- Transport facility evaluation and improvement by the Health Department

## CONCLUSION

The present study concluded that lack of time, fear of treatment, lack of transportation, dissatisfaction with the reception area and inconvenient appointment time were found to be most common factors and prolonged dental treatment, unable to understand the treatment procedures, sickness and dental problem as not an emergency are least cited reasons for non-attendance.

## RECOMMENDATIONS

- The key in dealing with the issue of missed dental appointments lies in altering the patient's psychology during the first appointment.
- Counseling and motivation is to be done at first dental visit to reduce the chances of missed appointments.

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