

Assessment Of Preferred Day For Dental Visits Among Pediatric Dental Patients

Research Article

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Abstract

The practice of modern pediatric dentistry requires delivery of quality care. The appointment scheduling lies at the intersection of efficiency and timely access to health services. Timely access is important for realizing good medical outcomes. The aim of the study is to evaluate the preferred day chosen for dental care among pediatric dental patients. It is a university setting study, case sheets of paediatric patients reported were reviewed. Information about the patient's Name, age, Day of reporting to the college were collected. The obtained data was entered in MS excel based on day wise i.e Sunday, Saturday and weekday in a methodical manner and imported in SPSS software. Chi square test was applied and level of significance set at $p < 0.05$. The results have proved that 2 to 6yrs old preferred visiting a dentist on sunday, 7-11 yrs preferred saturday and 12 to 17yrs old preferred visiting on all three days saturday, sunday and weekdays. There was a statistically significant association between age group and day preferred ($P < 0.05$). While comparing gender and day preferred it was found that Male patient flow was higher during Saturdays (26.5%). Female patient flow was higher during Sundays (16.5%). There was a significant association between gender and day preference for dental visits among the pediatric population. As weekends are more preferred for dental visits among children, the real challenge would be to provide maximum possible levels of satisfaction to the patients in relation to all aspects of the health care delivery system so that the needs of the patients can be met on time which will avoid the delay in dental treatment.

Keywords: Appointment; Dental Care; Children; Day Preference; Patient Need.

Introduction

Children are the country's greatest resources [1, 2]. Pediatric dentistry is a unique speciality of dentistry as the patient, in the said case a child patient, cannot come alone to the dental clinic for his/her treatment but has to be brought by parents who seek dental care for their child. Most children often consider dentists as pain imparting tooth puller primary responsibility of pediatric dentists to provide quality oral health care to patients [3, 4]. Studies show dental care for children should be given at certain times of the day. This helps pediatric dentists to establish a friendly relationship with children thereby combat fears and deliver effective and efficient treatment [5, 6]. Factors that may have contributed for performing better dental care includes convenient hour of the

day to dental clinic, having rested child, being aware of the lack of fatigue, thirst, and hunger of the children studies show that appropriate appointment for kid's oral care between 10:30 to 12:00 in the morning and 17:00 to 19:00 in the early hours of evening [7, 8]. This is because in the early hours of the morning, children suffer sleepiness, nagging and uncooperative to dental treatment [9, 10].

Another factor that influences dental day preference among pediatric patients is parental reflect national institute, if parents or carers have access to but persistently fail to obtain, national health system treatment for their child's dental care [11, 12]. Many studies report that socio-economic and ethnic differences play a role in obtaining appropriate dental care. Instead of adults choosing

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appropriate dental appointments for children, it would be beneficial to accept day and time preference of children [13, 14]. Studies have been conducted all over the world in an effort to devise and study patient appointment scheduling systems based on preferred day and the effectiveness of these systems in improving the quality of practice as also the level of patient satisfaction. The appointment scheduling lies at the intersection of efficiency and timely access to health services. Timely access is important for realizing good medical outcomes. Since there is a lack of clarity in factors such as parents preferences towards day, time factor, there is a quality of life in negligence of pediatric dental visits in our population. Previously our team has a rich experience in working on various research projects across multiple disciplines The [13-27]. Hence the aim of the study is to evaluate the preferred day chosen for dental care among pediatric dental patients.

Materials And Methods

Study setting

This study was conducted in a university setting. Approval was obtained from the institutional Ethical committee.

Sampling

It is a retrospective study, data collected from June 2019 - April 2020. Totally 1000 case sheets were reviewed. Cross verification of data was done by the presence of additional reviewers through photographic evaluation. Consecutive sampling done to minimise sampling bias. It was generalised to patients below 18 years reported to the institution.

Ethical approval

The study was commenced after approval from the scientific review board, and the ethical clearance was obtained from the ethical committee of the University with the following ethical approval number- SDC/SIHEC/2020/DIASDATA/0619-0320

Data Collection

Inclusion criteria of the study includes patients below 18 yrs who had reported to the Department of Pedodontics and Preventive dentistry, Saveetha Dental College. Patient records with congenital diseases, medical emergency conditions, traumatic injuries, Incomplete or censored data were excluded from the study. Infor-

mation about the patient's Name, age, gender, Day of reporting to the college were collected. The obtained data was entered in MS excel based on day wise i.e Sunday, Saturday and weekday in a methodical manner and imported in SPSS software.

Analytics

IBM SPSS 2.0 software was used for data analysis. Independent variables included in the study were systemic disease, age, gender of the subject. Dependent variables included patient preference, holiday. Descriptive statistics and Chi square test were applied and level of significance set at $p < 0.05$.

Results And Discussion

In the current study, 855 paediatric patients participated after considering the exclusion criteria. The bar graph represented in figure 1 represents association between age group and day preference where 2 to 6yrs old preferred visiting a dentist on sunday (9.27%), 7-11 yrs preferred saturday (29.49%) and 12 to 17yr old preferred visiting all three saturday (4.07%), sunday (3.84%) and weekday (3.05%). There was a statistical significant difference between age group and day preferred ($p < 0.05$). (Table 1). While comparing gender and day preferred it was found that Male patient flow was higher during Saturdays (26.5%). Female patient flow was higher during Sundays (16.5%). There was significant correlation between gender and day preference for dental visits among the pediatric population ($p < 0.05$) (Figure 2). Among weekdays, male preferred on weekdays of about (13.79%) and females (8.59%). (Table 2).

Children are the country's greatest resources. Scheduling of appointments based on the preferred day is of utmost importance in a pediatric dental setup. It is mandatory to deliver quality health care in an effective and efficient manner to child patients. In addition, scheduling an appointment based on their preferred day for a child patient directly correlated to the parental preference. Timely access among children is important for realizing good medical outcomes. The world over, various systems have been devised and studied to improve the appointment scheduling systems based on their preferred day so as to render quality treatments to patients on time. Most of the systems have concluded that through appointment scheduling, preferred day can help to improve the quality of health care delivery, not all the systems have the Sunday access to pediatric dental care which fulfill the need of a child on time as they are school going. Also the parental pref-

Figure 1. The graph shows association between age and day preference, where X axis denotes the age group and Y axis denotes number of patients. Age group of 2 to 6 years preferred Sunday (blue) for dental visits. 7 to 11 years preferred Sunday (blue) and Saturday (green). There was a significant association between age group and day preference. (Pearson chi square=14.713, $p = 0.023$, $p < 0.05$, statistically significant). 2 to 11 yrs old children reported preferably on weekends for dental visits.

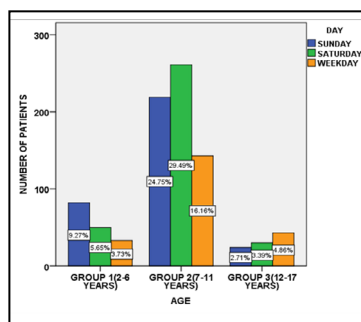


Figure 2. The graph represents association between gender and day preference, where X axis denotes the gender and Y axis denotes number of patients. It was observed that boys predominantly preferred Saturdays (green) while the girls (blue) preferred Sundays. There was a significant association between gender and day preference for dental visits among the pediatric population (Chi square tests, $p = 0.042$, $p < 0.05$, statistically significant).

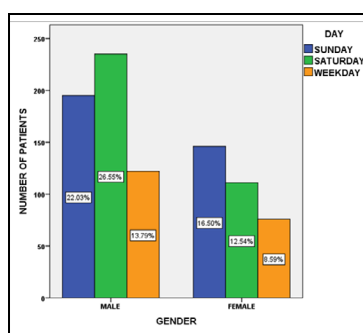


Table 1. Table represents association between age groups and day preference.

Variables	Day Preference of pediatric patient						Statistical Values
	Sunday		Saturday		Weekdays		
Age (in yrs)	n	(%)	n	(%)	n	(%)	Pearson Chi square = 14.713 P value = 0.023*
Group 1(2-6 yrs)	90	-9.20%	52	-5.60%	43	-3.70%	
Group 2(7-11 yrs)	197	-24%	259	(29.4%)	133	-16.10%	
Group 3(12-17 yrs)	41	-3.80%	33	(4.07%)	37	-3.10%	

*(statistically significant)

Table 2. Table representing association between gender and day preference.

Variables	Day preference of Pediatric dental Patients				Statistical values
	Male		Female		
Days	n	(%)	n	(%)	
Sunday	274	(22.30%)	180	(16.50%)	Pearson chi square value= 6.357
Saturday	175	(26.50%)	76	(12.50%)	
Weekdays	111	(13.79%)	69	(8.50%)	P value=0.042*

*(statistically significant)

erence to bring their child for dental visits during Saturday and Sunday are comparatively higher than weekdays specially in case of working parents. Hence the parental satisfaction with these system quite higher.

In our study the middle school group 7 to 11 yrs of age preferred both Sunday and Saturday at the highest when compared to the week days. This clearly shows unmet dental needs, little attention has been given to promotion of oral health and primary prevention of dental disease by parents in this group of population. This is supported by study by Stare et al which 45.1% of children denied dental care due to parental neglect where the causative factor was found to be working parents [28, 29, 6, 30, 31, 8].

Based on gender, the prevalence of male group of Pediatric patients visited more on Saturday, while the females visited Sunday the highest which shows statistical significant difference among gender, this is in accordance with another study done by Dodd et al which states adolescent female patients required accompaniment of friends or parents to dental clinic. [32, 33, 20] hence majority of

girl parents preferred Sunday where they can accompany on Sunday leisurely due to reason behind working parents. Also, many patients feel safe and relaxed in the presence of their parents which will tend to co-operate well for dental treatments. [34, 35].

In the present study most of the children preferred weekends predominantly Sundays than weekdays which is in accordance with the study done by Crosby et al which recognized that during weekdays children themselves prioritize working, playing with their friends, going to school than visiting dentists [36, 18]. Obstacles for upper school children to dental visit is school work however prioritizing dental care over school differs for children to children. Contrary to results Crocombe reported that some children wanted to visit dental clinics during school time [37, 26].

Appointments during weekday either before or after school time makes children tired and sleepy [38, 39]. Therefore both the time of the dental appointment and the length of the visit was important for participants' motivation to keep their appointment at the dental clinic [40]. Another possible obstacle reported transporta-

tion difficulties. Many parents take their children to the dentist with greater transportation difficulty taking several buses to get to the clinic as nearby access on Sunday becomes at most difficult [39, 41, 30]. Our institution is passionate about high quality evidence based research and has excelled in various fields [42-52]. Based on the results of the present study other systems also should consider paediatric dental care and access towards appointments on Sundays to provide effective treatment among the pediatric population on time without delay. Most research on appointment scheduling using different parameters like occupation of parents and their correlation with parent satisfaction needs to be conducted.

Conclusion

Within the limits of our study, it was found that the middle school group children aged 7 to 11 yrs preferred both Sunday and Saturday for dental care. Most of the 2 to 6 yrs old children reported on Sunday for dental care. This study revealed that parents who felt overloaded in daily life did not prioritize taking their children for dental care during weekdays. Day of dental appointments play an important role in motivating Pediatric patients to keep their appointment at the dental clinic. Hence other systems also consider paediatric dental care and appointments on Sundays to provide effective treatment among the pediatric population without any delay.

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Authors Contribution

Jessy P contributed to study conception and design, data collection, analysis and interpretation and drafted the work. S.Keerthika contributed to data interpretation, study design and data collection. Santhosh Kumar contributed to study conception and design and data collection. All authors critically reviewed the manuscript and approved the final version.

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