Journal of Oral Health & Community Dentistry

ORIGINAL ARTICLE

Parent Satisfaction with Emergency Dental Services at a Pediatric Dental Clinic in the West Indies

Visha V Ramroop[1], Rahul S Naidu[2], Avind Harracksingh[3], Ramaa L Balkaran[4]

ABSTRACT

Purpose: This study aimed to evaluate levels of parental satisfaction with dental care at a hospital based pediatric dental clinic.

Methods: Cross sectional questionnaire-based survey of 115 parents/guardians of children attending a pediatric dental clinic. Demographic information collected in a self-administered modified version of the *Dental Visit Satisfaction Scale* questionnaire. Overall level of satisfaction with care measured on a response scale ranging from very satisfied to not satisfied. Parents' opinions regarding specific aspects of the visit also assessed.

Results: Majority (82%) of respondents were female. 48.8% were between the ages 31- 40. 52% participants had at least secondary school education. 90 % were very satisfied with their child's treatment. Parents were most satisfied with the explanation of their child's problem and perceived level of competency of the dentist.

Conclusion: Levels of satisfaction with this service were high and seem to be related primarily to the quality of dentist- patient interaction.

Keywords: Patient satisfaction, Emergency dental care, Pediatric Dentistry

[1]DDS, MSc.
School of Dentistry, Faculty of Medical Sciences
The University of the West Indies,
Trinidad and Tobago

[2] BDS, DDPH, MSc, MFDS
School of Dentistry, Faculty of Medical Sciences
The University of the West Indies,
Trinidad and Tobago

[3]DDS, MSc.
School of Dentistry, Faculty of Medical Sciences
The University of the West Indies,
Trinidad and Tobago

[4]DDS
School of Dentistry, Faculty of Medical Sciences
The University of the West Indies,
Trinidad and Tobago

Contact Author

Dr. Visha V Ramroop
vishara19@yahoo.com

J Oral Health Comm Dent 2012;**6**(3)121-125

INTRODUCTION

Major barriers to receiving dental care include anxiety, cost and aspects of the dental visit (1). These findings have been supported by more recent research which has also identified patient satisfaction as another potential barrier to dental care (2). Patient satisfaction has been defined as an assessment of the extent to which perceptions and expectations regarding health care have been met (3). Patient satisfaction is in turn affected by a wide array of factors including patient expectations (4), the cost of care (5-7), the relationship between the dentist and the patient (5,7-9) as well as the physical environment and facilities (7,9).

The extent to which patients are satisfied with services provided play an important role in promoting patient compliance with follow up recommendations including attendance for follow up visits (3, 10-13). Research also suggests that emergency dental care provision can be a major determinant of consumer satisfaction with the quality of dental services (14). Given the evidence available to us today with respect to the potential impact of patient satisfaction on access to dental care, it is important to assess levels of parental satisfaction and their overall perception of dental treatment of their children.

International data on patient satisfaction with emergency dental services is limited, particularly for pediatric care. Available literature suggests that issues of availability and accessibility of emergency dental services are of primary concern among patients

(15,16). The pediatric emergency clinic of the University of the West Indies in Trinidad is a non-fee paying, walk-in clinic for children up to the age of sixteen. Care is provided by dental interns under the supervision of registered dentists. These interns are in a one year mandatory training post as a requirement for registration with the local Dental Council. Previous research has shown that the main users of the clinic are families from lower socioeconomic groups and from the local catchment area with most patients attending for dental trauma and caries related pain and infection (17).

This paper attempts to describe the level of satisfaction among parents of children attending this clinic.

METHOD

Consecutive parents/guardians of children attending for treatment at the emergency clinic at UWI were invited to complete a pre-tested self administered modified version of the Dental Visit Satisfaction Survey. The parents were asked to complete the questionnaire by the receptionist in the waiting room at the end of their child's visit. No names were required on the form and to further ensure anonymity and confidentiality the parents were asked to deposit all completed forms in a box provided in the waiting area. The participants were also made aware by the receptionist that the study investigators were available on request for any clarifications. Information was collected about parent demographics as well as the child's previous dental experience. Participants were also encouraged to give written comments. Approval for the study was obtained from the hospital administration. Data were collected over a three month period and analyzed using SPSS Version 14.0

Table 1: Reason for the dental visit (n=115)

Reason for the dental visit	%
Broken tooth	26.8
Injury to mouth	8.0
Swelling of the face	2.7
Bleeding gum	2.7
Other	7.1
Pain	17.9
Follow up / Routine Treatment	32.1

Table 2: How satisfied are you with what the dentist did today? n=114

Overall level of satisfaction	%
Very satisfied	90.4
Somewhat satisfied	9.6

RESULTS

Response Rate

All 115 parents who were invited to participate in the study, completed questionnaires yielding a response rate of 100%.

Parent/ Guardian and Patient Characteristics

The majority of participants (71%) were between the ages of 31 and 50 and 82% were female. Approximately two thirds of the parents/guardians had secondary level schooling. 74% of the children in this survey had received prior dental treatment with 42% having attended for either fillings or extractions. 38% of parents considered their child's dental health at best to be fair. The primary reasons for the visit to the emergency clinic were for pain (17.9%), broken tooth (26.8%) or for follow-up or routine treatment (32.1%). (Table 1)

Dental Satisfaction

When asked "how satisfied were you with what the dentist did today?" 90% of the parents/guardians said that they were very satisfied (Table 2). The majority of parents seemed to be satisfied with the technical competence, communication skills and chair-side manner of the dentists (Table 3). The DVSS item about the dentist's thoroughness in performing the procedure seemed to have lower satisfaction scores as only 86% of participants answered positively when responding to this question. In addition 21% of parents/guardians either had no opinion or disagreed with the statement that the dentist knew how upset their child was about the possibility of pain.

Written Comments

Forty- nine patients offered written comments. These comments were grouped into three categories: clinical staff, arrangement of services, general comments. Of the 49 comments, 41 were positive and eight were negative. Half of the negative comments were related to the arrangement of services. Details of some of these comments are listed in Table 4.

DISCUSSION

Patient satisfaction has been defined by some authors as the health care recipient's cognitively–based evaluation of, and affectively–based response to the important aspects of the structure, process and the result of their service experience (5, 6). Studies aimed at investigating patient satisfaction more often than not tend to report high levels of satisfaction regardless of the nature of the service being evaluated (18,19). Several explanations have been offered for this including reluctance by patients to report dissatisfaction for fear of being identified (20), as well as a social desirability bias which cause patients to give a perceived acceptable response to questions pertaining to quality if service. (18) Additionally it is possible that patients' re-

Table 3: Percentage in agreement with DVSS Statements

DVSS Statements	%	n
After talking with the dentist I knew the condition of my child's mouth	94.7	113
The dentist told me all I wanted to know about my child's dental problem	91.1	112
I really felt my child was understood by the dentist	94.6	112
I really felt the dentist knew how upset my child was about the possibility of pain	79.0	105
The dentist was thorough in doing the procedure	85.7	112
The dentist was too rough when working on my child	2.7	113
The dentist seemed to know what he/she was doing during my child's visit	97.3	113

sponses are sometimes a reflection of their gratitude for the service provided rather than an assessment of it (18,21).

While this present study is subject to some of these same criticisms it is also possible that the high levels of satisfactions which were reported are due to other factors relating to accessibility, organization and affordability of our emergency services as well as the training and skills of our dental interns.

Demand for services

Of note is the finding that almost one third of our sample (32.1%) had attended for routine / follow up treatment (Table1). Our emergency services were originally geared towards allowing our dental interns to gain experience in the treatment of dental emergencies among pediatric patients. Once the acute dental problem had been dealt with the patients were expected to either seek follow up treatment privately or at health centres or be put on to a waiting list for assignment to the student clinic. However over the years the demand for enrollment onto the student clinic has increased resulting in a consequent increase in the numbers of patients on the waiting list. This increase in demand for our services may be related to the way that dental services in Trinidad, particularly in the government sector are arranged.

Dental care in Trinidad and Tobago is provided by both dental practitioners through their private practices as well as by dentist and dental nurses through government clinics. At the government clinics dental care for children up to the age of 12 is provided by the dental nurses and includes the provision of preventive, restorative and extraction service. Children above the age of twelve are treated by dentist and care for this group is usually confined to extractions and in some instances a limited amount of restorative care. It is possible that this arrangement of care among the public dental clinics coupled with the generally high cost of care being offered at private clinics has contributed to the high levels of demand for the services provided at our clinic.

As a result of the increasing numbers of patients trying to obtain care at our clinic we have expanded the services provided through the emergency department to include routine dental check-ups as well as follow up care for select cases depending on the patient need, level of compliance and medical history. This move may have increased access to care for patients who were otherwise unable to access care.

Affordability of services

Research has shown that cost of dental care can act as major barrier to the receipt of such care (1, 2) and may in fact lead to non attendance or delay in seeking care (2). Much of the confusion and uncertainty surrounding the cost of dental care has been shown to be related to the fear of the potential cost of treatment rather than the actual cost (1,2).

Services offered at our dental school are free of charge for children under the age of sixteen, thus eliminating cost as a barrier to the parents of patients at our clinic and perhaps contributing to higher levels of satisfaction among this group.

Technical competence

The majority of patients (97.3%) in this study seemed to be satisfied with the technical competence of the dentist that treated their child (Table3). Technical competence though identified in many studies as being a key determinant of patient satisfaction has also been found to be difficult to evaluate from the patient's perspective (22) who instead tend to rely on other less technical aspects of treatment when formulating a judgment of dental services (23).

While the high levels of satisfaction with technical competence in this study may in part be a reflection of the structure and organization of our dental school curriculum which allows students to begin clinical work in their third year of study and gain three years of clinical experience before they enter their internship it is more likely to be as a result of less tangible characteristics of the service such as interpersonal factors including 'communication', 'caring' and 'information-giving' (24).

Interpersonal factors

Even more important to some patients than technical competence is the chair side manner of their dentist (25) which relates to the dentist ability to reassure and comfort the patient while remaining honest about the diagnosis. In this present study 94.6% of parents were confident that their child was really understood by the attending dentist (Table 3). This finding bodes well for the services provided at our clinic as previous research has identified 'sensitivity toward children' as a critical factor in a patient's assessment of the service (26).

The social relationship between the dental care provider and the patient is important in establishing a good rapport between both parties. This element of verbal communication is important as it enables dentists to glean information from the patient in order to adequately diagnose and treat the patient and this in turn allows the dentist to explain the nature and treatment of a dental problem to their patients (8, 12, 27). Patients who receive explanations about their presenting complaint feel more in control of the situation (12, 27).

In our present study, parents/guardians were very happy with the explanations they received from the attending dentist with 94.7% of them saying that they knew the condition of their child's mouth after talking to the dentist (Table 3). This finding is noteworthy as communication skills have been shown to be important in limiting patient dissatisfaction and by extension any liability claims which may ensue (28). Several international studies have indicated that dentist – patient relationship is always significantly and positively correlated with levels of satisfaction among users of dental services (8, 29-31).

Dental anxiety

The dentists' ability to respond to and manage their patient's fear has been shown to be an important factor in influencing patient satisfaction in a number of studies (32-35).

In contrast to the extremely high levels of parental satisfaction in relation to factors

such as dentists' technical and communication skills as well as chair side manners, a comparatively smaller percentage (79%) of parents in this study felt that the dentist was aware about their child's fear of pain (Table 3). Further analysis revealed that of the 21% who did not respond positively to this statement, 18% had no opinion about the dentist's appreciation of their child's fear of pain. The responses from these statements were cross tabulated against the reason of the child's visit and it was found that out of the 19 parents who had no opinion regarding this statement, eight of them had brought their child for routine care/follow visit. It is possible that the reason for the child's visit may have impacted on the parents' response to this question, since parents may have considered routine screening as non invasive with little potential for provoking fear in their child. Also, patients attending for follow up treatment may have had time to acclimatize to the dental environment leading the parents to not consider fear of pain as a factor in their management.

Arrangements of services

Another area where satisfaction levels were found to be comparatively lower than in other areas was in relation to the time spent in the waiting room, with 84.5% of parents indicating that the waiting time was acceptable. The relative dissatisfaction with this aspect of our service was again highlighted by the written comments offered by some respondents with four out of eight negative comments being related to waiting times (Table 4). This finding is broadly in keeping with those of other similar studies in both dental (36) and medical settings (20,37). This may be explained in part by the expansion of our services to include check-ups and routine care which though it increases access to care also increases the time spent waiting to be seen. One way to possibly improve waiting times would be to develop a system of triage whereby patients are seen in order of urgency rather than on a first come first serve basis. Alternatively patients for check-ups could be booked on specific days rather than throughout the week, thereby reducing the daily patient load so that emergency cases could be dealt with more urgently. However it has been suggested that any measures to reduce waiting times of children in emergency departments must not be taken at the expense of the core service values that are most appreciated by patients such as a caring approach and clear explanations of the child's problem (38). In fact it has been found that a clear explanation of what to expect (including waiting times) is more important than the time spent waiting (38) and frequent updates regarding waiting time may be more important than waiting time itself. Therefore parents can be made aware on registration for the clinic that treatment is provided by dental interns who are still undergoing training and who may not perform procedures as quickly as private practitioners. Also reception staff should become more involved in monitoring patient turnover and updating parents on how soon they could be seen.

Table 4: Written comments

Comments related to:	Parentsí comments
Clinical Staff	● Yes. The dentists here are very polite and understanding to patients and parents.
	● They were very gentle in dealing with my child. I believe that the dentist that attended to her know exactly what she was doing.
	● Excellent care by far based on interactions & treatment from other private physicians. Great patient / doctor interaction.
	● I was pleased the way the Doctor spoke to my child and it made my child feel more comfortable and it was easy for him to get the job done.
	● Some of the dentist are very slow they keep us too long on the chair at times
	● Students should be more committed to patients assigned to them (in follow up treatment)
Arrangement of services	● The waiting period is too long to have certain procedures as root canal or operations.
	● The dentist have me waiting very long sometimes more than an hour
	● My comment is that the waiting list is to too long.
	● On the previous visit I got here at 7.30 am, second person to arrive. Somehow I was the second to last person to be attended to, around 10 am.
	● It seems to be very efficient; surroundings are clean, instruments sterile. Very good.
General	● Waiting room is too dull.
	● Waiting room could be less quiet
	● Providing an excellent service
	● Great opportunity for reliable, competent dental care

CONCLUSION

Overall levels of parental satisfaction with services provided at this clinic were found to be quite high particularly in relation to the perceived technical competence, communication skills and chair side manners of the dentists. This may be a reflection of the competency based training that these interns have received. The major area of concern among parents appeared to be the long waiting list for appointments and the time spent in the waiting room. The service appears to be highly valued by users seeking both emergency and routine dental care for their children. With the large numbers of patients seeking to obtain routine dental care through the clinic the use of a triage system may lead to improved waiting times and prioritize those in need of immediate treatment.

REFERENCES

1. Finch H, Keegan J, Ward K. Barriers to the receipt of dental care- a qualitative research study. London: Social and Community Planning Research, 1988.
2. Hill KB, White DA, Morris AJ, Goodwin N, *et al*. National evaluation of personal dental services: a qualitative investigation into patients' perceptions of dental services. *British Dental Journal* 2003;**195**:654-56.
3. Soh G. Patient satisfaction with patient care. *Hawaii Med J* 1991;**50**:149-52.
4. Freeman R. Reflections on professional and lay perspectives of the dentist-patient interaction. *Br Dent J* 1999; **186**:546-50.
5. Newsome PRH, Wright GH. A review of patient satisfaction: 2. Dental patient satisfaction: an appraisal of recent literature. *Br Dent J* 1999;**186**:166-70.
6. Tuominen R, Tuominen M. Satisfaction with dental care among elderly Finnish men. *Community Dent Oral Epidemiol* 1998;**26**:95-100.
7. Goedhart H, Eijkman MAJ, Ter Horst G. Quality of dental care: the view of regular attenders. *Community Dent Oral Epidemiol* 1996;24:28-31.
8. Ter Horst G, Witt CA. Review of behavioral research in Dentistry 1987-1992: dental anxiety, dentist-patient relationship, compliance and dental attendance. *Int Dent J* 1993;**43**:265-78.
9. Wunder GC. Things your most satisfied patients won't tell you. *JADA* 1992;**123**:129-32.
10. Lochman JE. Factors related to patients' satisfaction with their medical care. *J Community Health* 1983;**9**:91-109.
11. Falvo D, Tippy P. Communicating information to patients. Patient satisfaction and adherence as associated with resident skill. *J Fam Pract* 1988;**26**:643-47.
12. Blinkhorn AS, Kay EJ. First impressions: Just what do my patients think of me? *Dental Update* 1999;**26**:16-20.
13. Lewis CC, Scott DE, Pantell RH, *et al*. Parent satisfaction with children's medical care. *Med Care* 1994;**24**:209-15.
14. Williams SJ, Calnan M. Convergence and divergence: assessing criteria of consumer satisfaction across general dental practice, dental and hospital care settings. *Soc Sci Med* 1991;**33**:707-16.
15. Robson K. Perceptions of oral health care services in Bro Taf. Part 1: Patients. Cardiff: Dental public health Unit, Dental School, University of Wales College of Medicine, 1999.
16. Land T, Herring L. User priorities for general Dental Services. York: Centre for Dental Services Studies, York Health Economics Consortium, 1998.
17. Naidu RS, Boodoo D, Perceival T, *et al.* Dental emergencies presenting to a university-based paediatric dentistry clinic in the West Indies. *Int J Paed Dent* 2005;**15**(3):177-84.
18. Levois M, Nguyen TD, Attkkinson CC. Artifact in client satisfaction assessment. Experience in community mental health settings. *Eval Prog Plan* 1981;**4**:139-50.
19. Lebow J. Consumer satisfaction with mental health treatment. Psycho. *Bull* 1982;**91**:244-59.
20. Brown K, Sheehan E, Sawyer M, Raftos J, Smyth V. Parent satisfaction with services in an emergency department located at a paediatric teaching hospital. *J Paediatr Child Health* 1995;**31**:435-39.
21. Nguyen TD, Attkisson CC, Stegner BL. Assessment of patient satisfaction: Development and refinement of a service evaluation questionnaire. *Eval Prog Plan* 1983;**6**:299-314.
22. Zeithaml V, Bitner M. Services marketing. New York: McGraw-Hill, 1996.
23. Abrams R, Ayers C, Vogt Petterson M. Quality assessment of dental restorations: a comparison by dentists and patients. *Community Dent oral Epidemiol* 1986;**14**:317-19.
24. Corah N, O'Shea R. Development of a patient measure of satisfaction with the dentist: The dental visit satisfaction scale. *J Behav Med* 1984;**7**:367-73.
25. Gale EN, Carlsson SG, Eriksson A, Jontell M. Effects of dentists' behavior on patients' attitudes. *JADA* 1984;**109**:444-47.
26. Barnes N. Open wide: an examination of how patients select and evaluate their dentist. *Health Market Q* 1985;**3**:39-49.
27. Freeman R. Communicating effectively; some practical suggestions. *Br Dent J* 1999;187:24.
28. Mellor A, Milgrom P. Dentists' attitudes toward frustrating patient visits: relationship to satisfaction and malpractice complaints. *Community Dent Oral Epidemiol* 1995;**23**:15-19.
29. Quinby DJ, Sheller B, Williams BJ, Grembowski D. Parent Satisfaction with Emergency Dental Treatment at a Children's Hospital. *J Dent Child* 2004;**71**:17-23.
30. Gurdal P, Cankaya H, Onem E, Dincer S, Yilmaz T. Factors of patient satisfaction/ dissatisfaction in a dental faculty outpatient clinic in Turkey. *Community Dent oral Epidemiol* 2000;**28**:461-69.
31. Berg E. Acceptance of full dentures. *International Dental Journal* 1993;**43** (Suppl.1):299-303.
32. Holt V, McHugh K. Factors affecting patient loyalty to dentist and dental practice. *Br Dent J* 1997;**183**:365-70.
33. Chakraborty G, Gaeth G Cunningham M. Understanding consumers' preferences for dental services. *J Health Care Market* 1993;**13**:48-58.
34. Liddell A, locker D. Dental visit satisfaction in a group of adults aged 50 years and over. J Behav Med. 1992; 15:415-427.
35. Locker D, Shapiro D, Liddell A. Negative dental experiences and their relationship to dental anxiety. *Community Dent Health* 1996;**13**:86-92.
36. Berg A, Horev T, Zusman SP. Patient satisfaction, quality indicators and utilization of dental services in Israel. *Harefuah* 2001;**140**:1151-1155,1230.
37. Margaret ND, Clark TA, Warden CR, *et al.* Patient satisfaction in the emergency department- a survey of pediatric patients and their parents. *Acad Emerg Med* 2002;**9**:1379-88.
38. Pagnamenta R, Benger JR. Factors influencing parent satisfaction in a children's emergency department: prospective questionnaire-based study. *Emerg Med J* 2008;**25**:417-19.