Factors influencing parent satisfaction in a children’s emergency department: prospective questionnaire-based study

R Pagnamenta,1 J R Benger1,2

ABSTRACT

Objective: To identify the factors considered by parents to be most important in determining overall satisfaction with care in a children’s emergency department, and to assess whether these factors are influenced by the child’s age and triage category.

Design: A prospective questionnaire-based study of parents attending a paediatric emergency department with their child.

Setting: Bristol Royal Hospital for Children, Bristol, UK.

Participants: The parent or next of kin adult accompanying a child to the emergency department during the study period.

Outcome measures: The primary outcome measure was the response to the questionnaire. The secondary outcome analysed responses according to the child’s age and triage category.

Results: During the sampling period questionnaires were distributed to the parent or accompanying adult of 247 children, of which 225 (91%) were completed. The most important factors were: a clear explanation of the child’s diagnosis and treatment plan; the ability of a parent to stay with their child at all times; rapid and adequate pain relief; and staff attitude. These factors significantly outranked waiting times and other process issues. The age and triage category of the child did not influence these preferences.

Conclusion: Despite recent emphasis on waiting times and emergency department throughput in the UK, parents still value the clinical interaction above process issues when their child visits an emergency department. Current efforts to reduce the time spent by children in an emergency department must not undermine the core service values that are most appreciated by parents, and which will lead to the greatest satisfaction.

In the UK, National Health Service (NHS) organisations are increasingly required to measure and act upon patient satisfaction. Although satisfaction may in itself be a good indicator of quality of care, emergency department clinicians have not always viewed these outcomes as synonymous, deeming it acceptable for a patient to wait several hours to see a doctor so long as the treatment they eventually receive is of a high standard. Recent government initiatives, particularly the target that 98% of patients should spend less than 4 h in an emergency department, have placed new emphasis on the patient experience and process issues within emergency care. However, waiting times are only one feature of healthcare provision. The development of more meaningful measures of satisfaction using the active participation of healthcare consumers is a more important goal.

The emergency department is an important setting in which to assess patient satisfaction. It provides the first and only experience of the hospital service for many individuals, and has thus been described as a key determinant of a hospital’s reputation.

A number of previous studies have looked at patient satisfaction within the emergency department, but most have focused on adult patients. Much less is known about the satisfaction of parents accompanying a child to the emergency department, and research published to date has come mainly from Australia and North America. No study of parent satisfaction from a UK emergency department has been published since the implementation of a 4 h waiting time target in England.

We aimed to identify the factors that parents believe are most important when determining overall satisfaction with the care of their child in an emergency department, and to assess whether these factors are influenced by the child’s age and triage category. With the recent implementation of a 4 h waiting time target in England, we felt that such information would be timely and capable of informing future policy.

METHODS

The study took place in the emergency department of the Bristol Royal Hospital for Children during 2005. The hospital provides the main paediatric inpatient and outpatient services for central and southern Bristol, and the paediatric emergency department sees 25 000 children a year.

We estimated that 250 parents would be a representative sample of our population. This is approximately 1% of our annual attendance, or the number of children seen in the emergency department during a 72 h period. To allow one researcher to survey this number of patients, a representative sampling approach was used, recruiting participants between 08.00 and 24.00 h over 2 weeks, including both weekdays and weekends. Questionnaires were not distributed between patients between 08.00 and 24.00 h over 2 weeks.

Accepted 5 December 2007

Emerg Med J 2008;25:417–419. doi:10.1136/emj.2007.050005

417
24.00 and 08.00 h because few children attend the emergency department during this time.

The researcher used a standard verbal introduction to explain the study to parents, and a written information sheet was provided. These explanations emphasised that the questionnaire (see Appendix 1 available online) was anonymous and designed to establish the factors considered by parents to be most important in determining overall satisfaction with care in a children’s emergency department. It was stressed that we were not asking about their satisfaction with that particular visit. We specifically enquired about nine factors found to be important in previous research. Individuals were asked to rate the importance of each factor on a 100 mm visual analogue scale. The tenth and final question asked parents to identify any additional factor that they felt was important. Individuals were requested to leave completed questionnaires in one of two boxes in the emergency department.

Parents of children who were assessed as Manchester triage category 1 (most urgent) were excluded from the study due to anticipated difficulties with requesting this group to complete a questionnaire. Parents whose first language was not English were also excluded since the use of translators was beyond study resources. It was not possible for a questionnaire to be completed when there was no accompanying adult. Parents presenting for the second time during the study period were not requested to complete another questionnaire.

Parent responses were measured on the 100 mm visual analogue scale and recorded as a three-digit number. Mean scores for each question were then calculated. The children were divided into two prespecified groups according to age (≤2 years vs >2 years) and two prespecified groups according to Manchester triage category (categories 2 and 3 vs categories 4 and 5).

Data from the questionnaires were entered into an Excel spreadsheet and analysed by the researchers using descriptive statistics and t testing.

RESULTS

The study ran for a total of 78 h over the course of 2 weeks. Forty-two of the 289 children who attended the emergency department during the survey period were excluded, most commonly because the parent’s first language was not English. A total of 247 parents or accompanying adults were therefore given a questionnaire as they left triage; 225 responses were collected, giving an overall response rate of 91% (225/247). Of the returned questionnaires, 44% were completed during office hours (09.00 to 17.00 h Monday to Friday), 35% on weekday evenings and 21% at weekends. The majority (65%) of questionnaires were completed by parents of children in Manchester triage category 4, with 22% in triage category 3 and 10% in category 2. The remaining 5% were in triage category 5 or not recorded.

Questions 1–9

Parents considered all the suggested factors to be important. Table 1 shows the mean score, standard deviation and 95% confidence intervals for the factors presented in questions 1–9. A clear explanation of the diagnosis and treatment plan for their child’s condition, being able to stay with their child at all times, the provision of rapid and adequate analgesia and staff attitude were the factors ranked highest in importance. These four factors were ranked as significantly more important than waiting time to see a doctor (p<0.01, t test), which was itself scored significantly higher than total time spent in the emergency department (p<0.01, t test).

Question 10

An additional factor was viewed as important by 37% of questionnaire respondents. Of these responses, the most frequently cited factor was the provision of parking with good access and signage to the emergency department (16% of respondents). Next most frequent were: atmosphere (14%); being well informed with clear explanations and updates on waiting time (12%); and friendliness/approachability of staff (11%). Other factors mentioned included: speed of treatment (8%); non-judgemental attitudes (5%); treatment quality (5%); aftercare (5%); early reassurance (4%); and a well-functioning triage system (2%).

DISCUSSION

Despite the UK government’s recent emphasis on overall time spent in the emergency department and the amenability of this target to routine measurement, it is not the most important factor for parents accompanying an ill or injured child. It will come as no surprise to experienced emergency department staff that clear explanations, unrestricted access to their child, adequate pain relief and an appropriate staff attitude are all ranked by parents ahead of time and process issues. Even then, time to see a doctor is considered to be significantly more important than total time spent in the emergency department (p<0.01, t test). In the nine closed questions asked, only departmental facilities ranked lower than total time in the children’s emergency department, and this was not influenced by the age or triage category of the child.

Our results are broadly in keeping with similar studies conducted in other developed countries. A survey of parent satisfaction in an Australian children’s emergency department published in 1995 showed that less satisfied parents tended to wait longer for medical consultation and reported poor information at discharge. Similarly, communication, information and shorter times to see a doctor were rated as the most important factors influencing satisfaction by parents attending an emergency department with their child in Oregon, USA in 2002.

An explanation of what to expect (including waiting time) was more important in our study than total time spent in the emergency department, suggesting that frequent updates regarding waiting time may be more important than the waiting time itself. This finding is supported by a number of

| Factor                                           | Mean (SD) score | 95% Confidence intervals |
|--------------------------------------------------|-----------------|----------------------------|
| Waiting time to see a doctor                     | 7.8 (1.9)       | 7.6 to 8.1                 |
| Total time spent in the ED                       | 7.0 (2.1)       | 6.8 to 7.3                 |
| Explanation of what to expect (including wait time) | 7.5 (2.0)       | 7.2 to 7.8                 |
| Provision of facilities for children             | 6.9 (2.3)       | 6.6 to 7.2                 |
| Comfort and safety of the waiting area           | 7.7 (1.9)       | 7.5 to 8.0                 |
| Being able to stay with your child at all times   | 9.1 (1.2)       | 9.0 to 9.3                 |
| Quick and adequate pain relief                   | 9.0 (0.9)       | 8.9 to 9.1                 |
| Explanation of diagnosis and treatment           | 9.2 (0.9)       | 9.1 to 9.3                 |
| Attitude of ED staff                            | 8.7 (1.5)       | 8.5 to 8.9                 |

ED, emergency department.

* Neither the age of the child nor their triage category had any significant effect on the score or ranking of these nine factors.
studies carried out in adults. Two such studies have concluded that perceptions regarding waiting times predict overall patient satisfaction, but actual waiting times do not. Another study in 2005 concluded that perceived (not actual) waiting time to receive treatment and courtesy and thoroughness of the staff were predictors of satisfaction in an emergency department. If throughout pressures have a negative impact on the aspects of care that parents value most highly, then initiatives focused on time alone may actually decrease satisfaction. This is all the more likely in a paediatric setting where a caring approach and clear explanations have been found to be particularly important in improving interpersonal aspects and quality of care.

Studies of parent satisfaction should aim to benefit children as well as adults. More satisfied parents are likely to have a positive effect on their children as patients, but it is also possible to compare the factors that matter most to children with those that matter to their parents. This may prove to be a useful area for further research, as well as assessing the effects of specific interventions designed to address key determinants of parent satisfaction such as communication, interaction and the provision of prompt analgesia.

**Study limitations**

Questionnaires were not distributed between midnight and 08:00 h because attendance figures are low during this time. However, the study could have been extended to include these children. Parents of children assessed as triage category 1 were excluded from the study, and only 10% of the study sample came from children in category 2. Parents of more unwell children are less likely to take part in satisfaction studies because they are more anxious and engaged in their child’s treatment. It could therefore be argued that the sample was not fully representative of patient mix. However, previous research has found that parents of children with more urgent conditions tend to be more satisfied with the care they receive in the emergency department. Our results reflect the views of parents of less urgent cases who are also least likely to be satisfied with their experiences.

The overall response rate was encouraging at 91%. This is high compared with many studies of similar design, but obtaining further information regarding non-responders would have helped to identify differences between respondent and non-respondent groups.

**CONCLUSION**

Despite recent emphasis on waiting times and emergency department throughput in the UK, parents still value the clinical interaction above process issues when their child visits an emergency department. Emergency departments seeking to improve the parent experience should concentrate on communication (including the likely waiting time), analgesia, staff attitude and ensuring that the parent and child do not become separated. An understanding of the key factors that determine satisfaction will alleviate the anxiety associated with a visit to the emergency department for both parent and child, and improve the overall quality of care.

Current efforts to reduce the time spent by children in an emergency department must not undermine the core service values that are most appreciated by parents and which will lead to the highest satisfaction. Indeed, excessive attention to throughput targets may jeopardise the provision of those factors (such as adequate explanations and positive staff attitudes) that parents rank most highly.

**Acknowledgements:** The authors thank the nursing staff of the Emergency Department, Bristol Royal Hospital for Children, particularly Sister Pauline Chinnick, for their assistance with this study.

**Funding:** This study received funding from the Bristol Academic Department of Emergency Care which is supported by the Anthony Hopkins Memorial Prize awarded by the College of Emergency Medicine.

**Competing interests:** None.

**Ethics approval:** Approval for the study was obtained from the Gloucestershire Research Ethics Committee (05/02005/29).

**REFERENCES**

1. **Department of Health.** Involving patients and the public in healthcare: a discussion document. London: Department of Health, 2001.
2. **Thomas LH,** Bond S. Measuring patient’s satisfaction with nursing. J Adv Nurs 1996;23:747–56.
3. **Benger JR,** Taylor C. Patient satisfaction in emergency medicine. Emerg Med J 2003;21:528–32.
4. **Lammy D.** Reforming emergency care; for patients. Emerg Med J 2003;20:112.
5. **Stuart PJ,** Parker S, Rogers M. Giving a voice to the community: a qualitative study of consumer expectations for the emergency department. Emerg Med J 2003;19:768–75.
6. **Turnberg L.** Foreward. In: Fitzpatrick R, Hopkins A, eds. Measurement of patients’ satisfaction with their care. London: Royal College of Physicians, 1993.
7. **Brown K,** Sheehan E, Sawyer M, et al. Parent satisfaction with services in an emergency department located at a paediatric teaching hospital. J Paediatr Child Health 1995;31:435–9.
8. **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.
9. **Davis JE.** Children in accident and emergency: parental perceptions of the quality of care, part 1. Accid Emerg Nurs 1995;3:14–8.
10. **Department of Health.** National Service Framework for Children, Young People and Maternity Services: Core Standards. London: HMSO, 2004.
11. **Brown AD,** Sandoval GA, Levinson C, et al. Developing an efficient model to select emergency department patient satisfaction improvement strategies. Ann Emerg Med 2005;46:3–10.
12. **Arendt KW,** Sadosty AT, Weaver AL, et al. The left-without-being-seen patients: what would keep them from leaving? Ann Emerg Med 2003;42:217–23.
13. **Thompson DA,** Yarnold PR, Williams DR, et al. Effects of actual waiting time, perceived waiting time, information delivery, and expressive quality on patient satisfaction in the emergency department. Emerg Med J 1996;13:857–65.
14. **Nerney MP,** Chin NH, Jin L, et al. Factors associated with older patients’ satisfaction in an inner-city emergency department. Ann Emerg Med 2001;38:140–5.
15. **Sun BC,** Adams J, Dov EJ, et al. Determinants of patient satisfaction and willingness to return with emergency care. Ann Emerg Med 2000;35:426–34.
16. **Boudreaux ED,** Friedman J, Chansky ME, et al. Emergency department patient satisfaction: examining the role of acuity. Acad Emerg Med 2004;11:162–8.
17. **Darby C.** Patient/patient assessment of the quality of care. Ambul Pediatr 2002;2:345–8.
18. **Boudreaux ED,** Any RD, Mandy CV, et al. Determinants of patient satisfaction in a large, municipal ED: the role of demographic variables, visit characteristics, and patient perceptions. Am J Emerg Med 2002;18:394–400.