

## Original Article

# Assessment of parents' or guardians' satisfaction of in-patient health care provided to their children in a single unit at a tertiary care hospital.

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### Abstract

Patient satisfaction surveys help to measure the staff performance, and it guides to improve the patient retention rate by providing high quality services to the patients. This study was carried out to assess the parents' or guardians' satisfaction of in-patient health care provided to their children and to identify the factors associated with satisfaction.

This prospective cross-sectional study was carried out in the Professorial Paediatric Unit, Teaching Hospital Jaffna. A Sample of 165 parents were interviewed by using a questionnaire. The level of satisfaction was marked by 5-point Likert scale. Data was analysed using SPSSvs 20. Chi square was used to check the association.

Out of the total 165 study participants 93.5% were mothers, 44.8% were in the age group of 31-40 years, and 56.2% studied between grade 6 to grade 11. The mean age of the children was 4.23 years ( $\pm 3.75$ ) and mean duration of hospital stay was 3.64 days ( $\pm 2.4$ ).

The mean global satisfaction score was 4.93( $\pm 0.24$ ), The mean score for the communication with nursing officers and medical officers were 4.85 and 4.87 respectively. For satisfaction of the environment the mean score for cleanliness around the bed and cleanliness of the bathroom were 4.72 and 4.47 respectively. The satisfaction negatively correlated with the educational level of the parents  $X^2(4, N=165) 16.408, p=0.003$ , and duration of the hospital stay  $X^2(3, N=165) 12.237 p=0.007$ .

### Key words

parents' satisfaction, inpatient, healthcare,

### Introduction

One of the important health care goals is to provide high quality services to the patient who are admitted to the hospital. Patient satisfaction is a principal indicator in evaluating the effectiveness of medical care during hospitalization. Therefore, the assessment of satisfaction of the parents during hospitalization of their children is important and relevant.

Patient satisfaction is a valuable tool to measure the overall health quality. It also helps to provide top level patient services, to measure the staff performance, to know about unhappy patients and the reason for it, to improve the patient care experience and to improve the patient retention rate.

Patient satisfaction is correlated with important outcomes, such as good compliance, decreased utilization of medical services, less malpractice litigation and better prognosis (1)

But there are, challenges in measuring the patient satisfaction of hospital care using questionnaires, because quality of care is difficult to quantify and define. In addition to this there is no widely accepted tool to measure the patient satisfaction.

There are few study instruments used to measure the patient experience of hospital care, such as Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), Quality from the Patients' Perspective (QPP), Quality from the Patients' Perspective Shortened (QPPS), Picker Patient Experience Questionnaire (PPE-15), Patient Experience Questionnaire (PEQ), NHS Inpatient Survey Scottish Inpatient Patient Experience Survey (SIPES), Hong Kong Inpatient Experience Questionnaire (HKIEQ),

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Patient Experiences with Inpatient Care (I-PAHC). (2) Some are assessing in-patient and others are out-patient. Most of them are assessing communication with doctors and nurses and other aspect of care. There is no universally accepted tool to assess parent satisfaction when children are admitted to the ward.

A study done in five hospitals under NHS Trust in patients aged 18 and over, within one month of discharge from hospital by postal survey identified that 90% were satisfied with the in-patient care and the major determinant of patient satisfactions were physical comfort, emotional support and respect for patient preference. (3)

A Multi cantered study done to assess the degree of satisfaction of the family members when their relatives are admitted to the intensive care unit revealed majority of the family members were satisfied with overall care with overall decision making. The greatest satisfaction was identified in the area of nursing skill and competence, respect to the patient and pain management. Least satisfaction was identified in the area of waiting room atmosphere and frequency of physician communication. (4)

A Study done in National Hospital of Sri Lanka to assess patient satisfaction with nursing care and related hospital services, and association between satisfaction and patient characteristics reveals that 81.8% of study populations were satisfied with interpersonal care and 89.7% were satisfied with efficiency and competency and 89% were satisfied about comfort and environment and 59% were satisfied in the aspect of cleanliness (5)

A study done at the Teaching Hospital, Karapitiya Sri Lanka at an outpatient department to assess the patient satisfaction on health services and assess the relationship between satisfaction level and explanation factor revealed only 10.4% of the study populations were highly satisfied with the medical services and 89.6% showed low satisfaction. The satisfactions in the aspect of courtesy, quality of care, physical environment and convenience were 45.8%, 44.2%, 41.8% and 24.7% respectively.(6)

There were no studies available in Northern part of the

Sri Lanka to assess the parents' satisfaction when the children were admitted. Assessing the satisfaction of parents will allow us to make the necessary changes to optimise the quality of care provided to the children. So, this study is planned to identify the overall satisfaction of the parents or guardian when their children are admitted to the ward and to measure the association of factors with satisfaction.

This study was carried out to assess the parents' or guardians' satisfaction of in-patient health care provided to their child and to identify the factors associated with the level of satisfaction.

### **Methodology**

This prospective cross-sectional study was carried out in the Professorial Paediatric Unit, Teaching Hospital Jaffna (THJ). Sample size was calculated using  $N = Z^2p(100-p)/d^2$ , here P is taken as 10.4 and the total sample size needed is 159. (6) Patients were selected by systematic random sampling method.

The subjects were identified at the time of admission with placing an identification mark on the admission book. On the day of starting the data collection the first number was randomly selected within first 5 number in the admission register of the day and then every 5<sup>th</sup> number were identified as the subject on admission and an identification mark was placed on the admission book. When the identified child was about to be discharged the trained data collector administered the questionnaire. If the identified child was voluntarily discharged the parents were approached by the data collectors and data were collected if they gave consent. Data were collected from January to October 2019.

A study instrument was developed by the investigator based on the literature and cultural factors and content validity was done by three field specialists including a community physician, psychiatrist and consultant paediatrician.

The study instrument consisted of 5 parts, part I being general information, part II data regarding the investigations treatment and the outcome of the child. Part III the overall satisfaction, satisfaction on communication of health staff, treatment and

satisfaction and the hospital environment. Part IV of the questionnaire consisted of the problems which they faced during the hospital stay and whether they will recommend the place for others and their suggestions to improve the quality of care provided in the future. Part V of the questionnaire was a data extraction from the diagnosis card. The satisfaction was determined with the Likert scale of 5 with 1 being highly unsatisfied and 5 being highly satisfied.

Pilot study was carried out at Ward 11 Teaching hospital Jaffna for one week duration before commencing the study and during the pilot study the problems related to inter-rater reliability was checked.

The data were analysed using SPSS version 20.0. The results were expressed as percentages and frequencies for qualitative data and mean and standard deviation for quantitative data. Chi square test was used to assess the statistical significance and p value of <0.05 is considered as statistically significant. Ethical clearance was obtained from Ethical Review Committee, faculty of Medicine, University of Jaffna (J/ERC/18/93/NDR/0195)

## Results:

The total number of participants enrolled in the study was 165. Out of these 165 parents or care givers who 91% were mothers 3% were fathers and 3% were others, and 41% had studied above grade 11. Age of the participants ranged from 17 to 60 years with the mean age of 33.45±7.2 years. The mean age of the children was 4.23±3.75 years, 54% of them were males and the duration of hospital stay range from 1 to 15 days, with a mean of 3.64±2.4 days.

Seventy-seven percentage (77%, n=128) underwent blood investigation and urine test was done in 50% (n=84) No investigations were done in 13.3% (n=22).

Out of the study population of 165, 86% of the children received oral medication and only 34% needed intravenous drugs for their management and 6% required intravenous fluid. During the hospital stay 10% of children needed oxygen and 19% managed with nebulisation. At the time of discharge from the ward the parents or guardians felt that 76.4% of the children were

fully cured from the diseases and 23.6% thought that the symptoms improved but not fully cured. Follow up was needed in 45.5% of the children.

## Parents and care givers satisfaction about the services

When the parents' rated the overall satisfaction for the hospital services, 93.9% (n=155) were very satisfied and the other 6.1% were satisfied. The mean score for the global satisfaction was 4.93±0.23, which indicate the parents were highly satisfied with the care provided during the hospital stay.

The table 2 shows the different components of items tested for the satisfaction against their mean score and standard deviation. There is a slightly lower score in the communication section for information given regarding the investigation result when compared to the others. The environmental section scored comparatively less than the communication section and in which the cleanliness of the bathroom was the least. 96.4% of the study population (n=159) responded that they will definitely recommend this hospital for others and 3.6% responded they will recommend sometimes.

Table 2 Different components of parent's satisfaction

Item tested	Mean score±SD
Communication with the nursing officers	4.85±0.57
Communication with the medical officers	4.87±0.58
Method of history taking by doctors	4.88±0.52
Information given regarding investigation results	4.77±0.70
Information given regarding disease of the child	4.84±0.56
Information regarding treatment given to the child	4.72±0.64
Opportunities given to discuss regarding illness of the child	4.75±0.66
Cleanliness around the bed	4.72±0.59
Cleanliness of the bathroom	4.47±0.93
Silence and dim light at night	4.74±0.65

## Factors influencing level of satisfaction.

Table 3 demonstrate that there was no significant correlation between parent's satisfaction with age, sex of the child, whether the child was fully cured on discharge or symptomatic on discharge and age of the participant. There was a significant relationship between satisfaction

and duration of hospital stay  $X^2(3, N=165)=2.237$   $p=0.007$ . There was a negative correlation with the duration of stay and satisfaction.

The relation between educational level of the parents and satisfaction was significant  $X^2(4, N=165)=16.408$ ,  $p=0.003$ . The satisfaction was negatively correlate with the educational level of the parents.

Table 3 Factors influencing on satisfaction

Variable	frequency	Chi square value	P value
<b>Sex of the child</b>			
Male	90	2.165	0.106
Females	75		
<b>Age group of the child</b>			
0 – 1 years	36	2.611	0.625
1- 3 years	51		
4- 5 years	24		
6-10 years	38		
>10 years	16		
<b>Duration of hospital stay</b>			
1 day	19	12.237	0.007
2-5 days	117		
6-10 days	25		
>10 days	4		
<b>Condition on discharge</b>			
Fully cured	126	0.078	0.781
Less symptoms but not fully cured	39		
<b>Age of the participant</b>			
Less than 20 years	5	6.575	0.160
21-30 years	63		
31- 40 years	74		
41-50 years	20		
More than 51 years	3		
<b>Relationship to the child</b>			
Mother	155	2.251	0.522
Father	5		
Relatives	4		
Caregiver	1		
<b>Highest Educational level of the participant</b>			
Up to grade 5	5	16.408	0.003
Grade 6 – O/L	93		
Advanced level	63		
Graduate	4		
Post graduate	1		

Difficulty in maintaining the child alone was a main problem identified in 29.1% (n=48) of the mothers. Only a small percentage of parents mentioned the difficulty in understanding the hospital setup (1.8%, n=3), difficulty in understanding the nurses' instruction (1.8%, n=3) and doctors' instruction (1.8%, n=3). Washing the cloths (19.4%, n=32), inadequate space around the bed (13.3% n=22). Limited number of visitors during the visiting hours (13.3% n=22) and getting food and water (7.9% n=13) were the other problems identified by the carers.

## Discussion

Our study revealed that the main caregivers of the child were mothers (91%) and their educational level was ranging mainly between grade 6 to GCE Advanced level. Majority of children stayed in the ward between 2-5 days and parents felt 76% of their children were fully cured at the time of discharge. As a national policy the paediatric wards in government hospitals are considered as female wards and prefer the mothers to stay with the child, hence our study also reflects higher percentage of mothers (91%) as opposed to other studies where it ranges between 64% - 76% (7,10,11). In these places both parents were allowed to stay with the child.

The present study revealed the overall high satisfaction level of parents or guardians was 93.9% and 6.1% were somewhat satisfied and none were unsatisfied. Similar study done in Punjab, India reveals 69% were satisfied and 31% were highly satisfied. (7) This indicated our parents' satisfaction was higher than that of India. This likely due to the fact that our parents have more trust on health care system. All levels of the health staff are fluent in both Tamil and Sinhala hence communications with the parent/carer is not a problem.

Our study showed mean score for parents' satisfaction in all the components was above 4.4 and satisfaction in communication with nurses and doctors was  $4.8 \pm 0.5$ , which is similar to the study done in Poland but higher than the study done in Iran where the scores were ranging between 4.1 to 4.6 (3), (8). This again can be explained due to bilingual nature and fluency in language leading to communication being better. The lowest scores were reported for cleanliness of the washroom in our study which was also above 4.7.

Our study also revealed a slight lower score for the information giving regarding investigations, treatment and opportunities given to discuss about child disease, but when compared to other studies where nearly 20% have indicated that they were not informed about the investigation and treatment which matched our study findings (10).

The present study also identified that the parents' satisfaction was not significantly associated with the age, sex of the child admitted to the ward or the age of the carer/parent and the relationship of the carer/parent to the child, which was compatible with other studies but differ from the study done in India where there was a significant association seen with parents' gender and age (7,10,11). A study done in Iran identified when a male child is admitted the satisfaction was high (9), and in the study done in Sweden, parents with younger children gave statistically significant higher rating for patient care (12). As our study was mainly (91%) mothers the influences of the parent's gender may be not be reflected well.

This study identified a significant association between parents' satisfaction and educational level of the parents ( $p=0.003$ ) which was similar to the other studies (7). The global satisfaction level negatively correlates with the educational level of the parents. This may be explained by low score for the satisfaction noticed in investigation results and treatment given to the child. The educated parents may expect more regarding their child's condition and the results of the investigation done to the child which may have reflected on low satisfaction. This study also identified a significant association between parent satisfaction and duration of hospital stay ( $p=0.007$ ) which was supported by the study done in Greece (10). The satisfaction level was low when the duration of hospital stay increased. The difficulty in washing clothes and limitation of the number of visitors during visiting hours would have contributed to the dissatisfaction.

Managing the child alone, cleaning and drying the cloths, inadequate space around the bed and difficult in visiting in the visiting time were identified as the main problems.

Limitation of this studies were this was a single unit study with small sample size. The mother was the main carer in majority of the patients hence interpreting the results is skewed.

### **Conclusion**

This study identified that the parents' and care givers were highly satisfied with the health care provided to their child during the hospital stay. There was no significant correlation between the level of satisfaction, and age of the child, sex of the child, or age of the parents. The satisfaction negatively correlated with the duration of hospital stay and the educational level of the parents.

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