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Assessment of Parental Satisfaction with the Care of their Hospitalized Children in a Major Public Hospital

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Abstract

Background: Patient satisfaction is an important attribute of care in modern hospitals; private setups generally score better over public institutions. There are few objective studies to assess patient satisfaction in Indian public hospitals, which could identify their strengths and weaknesses for further planning.

Objectives: To assess— (a) extent of patient's satisfaction with different domains of Pediatric services in the study hospital, using caregivers as surrogate informants; (b) effect of selected demographic characteristics on satisfaction level.

Patients and methods: In this observational study, 400 caretakers of hospitalized children were interviewed on day of discharge using a 25-point pre-validated questionnaire evaluating satisfaction rates in four major domains of hospital care.

Results: Overall satisfaction rate (SR) was 94.5%. Domain-wise, it was highest with quality of medical care (94.0%) and least with information and communication (76.3%). SR in the domains of staff behavior and hospital environment was 89.8% and 85.8% respectively. Top three dissatisfiers were— (a) not informed about avenues of financial support (27.7%), (b) not informed about hospital rules (65.8%), (c) doctors did not introduce themselves (66.5%). SR was lower in female respondents and in those staying with male children. Female respondents were less satisfied with environment and staff behavior, while undereducated respondents were more unsatisfied with information and communication.

Conclusions: This study reveals unexpectedly high level of satisfaction with services of study hospital, driven by quality of medical care, which masked the deficiencies in other domains. Lack of communication was leading cause for dissatisfaction followed by hospital environment, which need attention.

Keywords: Communication; Doctors; Hospital services; Parental satisfaction; Behaviour.

Introduction

Hospitalization is an important component of modern healthcare and nearly all persons experience hospitalization either for themselves or for their kin, at some time in their life.

Increasing demand for hospitalization in recent years due to rising population and medical advances, along with limited availability of hospital

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beds have led to widening of the demand-supply gap in the overburdened public hospitals and has stimulated the proliferation of private hospitals.[1,2]

Though public hospitals continue to be the backbone of medical care to largely the resource-constrained Indian population, these are generally perceived to be much inferior to private hospitals in terms of the quality of care, usually approached only by those who cannot afford the cost of private health care. Comparison has raised the expectations of consumers of public hospitals and demand for similar standards of the care here as in private hospitals.

Several yardsticks may be used to assess the quality of a health-care facility including quality of medical care, infrastructure facilities, credentials of the staff and outcomes, e.g. mortality rates.[3] However the patient, as a consumer, is the best judge and his/her satisfaction is an invaluable indicator to measure the quality in health care of a set-up. Assessment of patient's satisfaction is also very useful to identify lacunae in the hospital services and plan remedial measures.

Patient's satisfaction surveys are widely used in the private health sector to promote their services and attract more patients.[4–6] However, there are only few reported feedbacks from public hospitals that too very rarely from India.[7,8] Satisfaction is a relative concept, largely dependent on the expectations that patients have with the hospital, which in turn depends on many factors, e.g. lifestyle and economic feasibility, among others. While consumers of the public hospital are generally vastly different from those of private hospitals on these aspects, they also do expect a certain level of care in public hospitals.[9]

Present study attempts to assess the level of patient's satisfaction with different domains of Pediatric services in the study hospital, using parents' or caretakers' opinion as surrogate of the patient's satisfaction. It also attempts to identify the effect of selected parental and patient characteristics on the extent of their satisfaction with the hospital.

Materials and Methods

This cross-sectional observational study was conducted in a large public teaching hospital of Mumbai (from June 2016 to October 2017), after permission from institutional ethics committee. The study hospital with 120 Pediatric beds and over 95% occupancy rate, predominantly caters to low socio-economic strata of population from urban slums and serves as a major referral centre to Western India.

Using an online calculator[10], a sample size of 368 was found as adequately representative of the study population, for a confidence level of 95% and confidence interval of 5%, considering that approximately 9,000 admissions occur in the Pediatric wards over 18 months of proposed study-period. However, the total sample size for this study was rounded-up to include 400 respondents.

Parents/caregivers of all consecutively admitted children with a ward stay of at least 3 days and with an indoor registration number ending with 5 or 7 (systemic random sampling) were screened and enrolled subject to their informed consent, till the completion of desired sample size. Caregivers of the children who died or were discharged against medical advice were excluded.

All enrolled subjects (Caregivers) were asked to respond to a validated 25-point questionnaire, which included six questions each on four major domains of hospital care — (a) Quality of medical treatment, (b) Information and communication, (c) Behavior of the staff, and (d) Hospital environment and facilities.

In addition, one question was included to assess the summary response, i.e. "*What is your overall assessment of this hospital*?"All responses were recorded on a 5-point Likert scale as 'strongly agree', 'agree', 'uncertain', 'disagree' and 'strongly disagree'. Some questions were negatively framed. There were no 'open-ended' questions. Respondents were ensured about complete confidentiality. Construct validity of the questionnaire was assessed using Cronbach's alpha, which was 0.571 for overall questionnaire and 0.871, 0.642, 0.587 and 0.571 for each of the above domains respectively. Pearson's correlation coefficient for inter-domain variability varied from 0.128 to 0.389.

For analysis, *Satisfaction rate* (SR) was computed as the percentage of respondents satisfied, considering the "*Strongly agree*" and "*Agree*" responses as "*Satisfied*" response. Responders with other responses, including "*uncertain*", were considered as "*Unsatisfied*". Interpretation was reversed for negatively-framed questions.

Overall SR of the respondent was calculated based on the answer to specific question, i.e. "*what is your overall assessment of this hospital*?" while SR in individual domain was calculated as weighted average of the SR on all six questions in respective domain.

Results

Out of the 400 respondents, 67.8% were fathers, 27.0% mothers and rest being others (e.g. grand parents). Majority of them were below 35 years of age (65.2%), uneducated or educated not beyond middle-school (60.5%). Though 84.3% of them belonged to lower middle or upper lower socio-economic status as per modified Kuppuswamy classification, 65.8% had a family income *above the poverty line and were not* eligible for financial support from government sources. Out of the 34.2% respondents below the poverty line, 40.1% received some kind of financial support or waiver of hospital charges from the hospital. Majority of the children of the respondents were below 5 years of age (68.5%), males (Male: female ratio 1.8:1) and admitted through the emergency department (78.5%). Some (16.0%) had past history of admission in the same hospital. About one-third of these patients (34.0%) stayed longer than a week in the wards.

Overall SR in the present study was 94.5% (95% CI: 91.8-96.4). Domain-wise, SR was highest with quality of the medical treatment (94.0%), and lowest with information and communication (70.3%). In the fields of staff behavior and hospital environment, SR was 89.8% and 85.8% respectively. In all the domains other than the quality of medical care, SR was significantly lower than the overall SR with p values <0.01 (Table 1). Table 2 reveals that question-specific SR was significantly lower than the overall SR for 11 questions, of which six were related to the domain of information and communication, four were related to the hospital environment and one was related to the behavior of the staff. Top five dissatisfiers were — (1) not informed about avenues of financial support (SR 27.7%), (2) not informed about hospital rules (65.75%), (3) doctors did not introduce themselves (66.5%), (4) long waiting time for investigations (74.25%) and (5) doctors did not discuss treatment options with relatives (80.2%). Other important complaints include doctors did not tell them

Table 1: Satisfaction Rate of the Respondents in Different Domains of Hospital Services

No	Domains	Satisfied	Not satisfied	Satisfaction rate (95% CI)	*p* value*
1	Quality of medical treatment	376	24	94.0% (91.2–95.9)	0.879
2	Information and communication	281	119	70.3% (65.6–74.5)	0.0001
3	Behavior of the staff	359	41	89.8 (86.4–92.4)	0.0001
4	Hospital environment	343	57	85.8 (81.9–88.8)	0.0008
	Overall assessment	378	22	94.5% (91.8–96.4)	

* Overall vs domain-specific SR

Table 2: Significant Reasons of Dissatisfaction: Question-specific SR versus Overall SR

No.	Fields of Assessment	Satisfied (SR)	*p* value
1	Were you informed about financial support facilities?	111 (27.8%)	<0.0001
2	Were you briefed about hospital rules on admission?	263 (65.8%)	<0.0001
3	Were doctors introduced to you anytime?	266 (66.5%)	<0.0001
4	Was waiting period too long for investigations etc?	297 (74.3%)	<0.0001
5	Did doctors discuss about various treatment options?	321 (80.2%)	<0.0001
6	Did you receive information about possible outcomes?	322 (80.5%)	<0.0001
7	Whether the ward is overcrowded?	322 (80.5%)	<0.0001
8	Did doctors discuss about reasons for medical tests?	327 (81.8%)	<0.0001
9	Whether there were adequate facilities for relatives?	329 (82.3%)	<0.0001
10	Did doctors discuss diagnostic possibilities?	344 (86.0%)	<0.002
11	Whether the quality of food was satisfactory?	354 (88.5%)	0.003

Table 3: Effect of Demographic Characteristics of SR in Various Domains (in Percentages with Odds Ratio)

Characteristics	Overall	Quality Rx	I & C	Behavior	Environment
Age of respondent (<35 vs > 35 yr)	95.8% vs 92.1%	95.2% vs 91.3%	71.3% vs 68.3%	90.5% vs 88.3%	85.6% vs 85.9%
Gender (Male vs Female)	96.2% vs 90.3% 2.7 (1.1–6.4)*	94.4% vs 92.2%	73.1% vs 62.8%	92.7% vs 81.6% 2.89 (1.5–5.5)*	89.6% vs 75.4% 2.37 (1.6–5.0)*
Education (>HS vs <HS)	95.6% vs 93.8%	95.6% vs 93.2%	73.3% vs 68.4% 2.3 (1.4–3.8)*	89.6% vs 89.9%	86.6% vs 85.1%
Economic status (BPL vs APL)	94.9% vs 94.3%	93.6% vs 94.3%	68.4% vs 71.4%)	89.4% vs 89.9%	86.5% vs 85.3%
Gender of child (Female vs Male)	91.0% vs 96.5% 2.69 (1.1–6.4)*	92.9% vs 94.6%	66.4% vs 72.6%	87.9% vs 90.8%	85.4% vs 85.9%
Mode of admission (Elective vs Emergency)	90.7% vs 95.5%	89.5% vs 95.2%	67.1% vs 71.2%	84.9% vs 91.1%	82.2% vs 86.7%
Duration of admission (< 7 days > 7 days)	95.1% vs 93.4%	95.1% vs 91.9%	69.8% vs 71.3%	90.4% vs 88.5%	86.6% vs 83.9%
Financial support Received vs Not Received	98.2% vs 93.9%	95.2% vs 93.9%	70.9% vs 70.2%	87.9% vs 90.1%	81.8% vs 86.3%

Bold font represent significant *p* value (* *p* value <0.05).

Note: HS – high school, BPL – below poverty line, APL – above poverty line

about diagnostic possibilities, reasons for medical tests and possible outcomes, overcrowding in the wards and lack of facilities for the relatives and poor quality of the food. Table 3 gives the effect of demographic characteristics of SR in various domains. The overall SR was significantly lower in female respondents and in respondents staying with male children. Domain-wise, female respondents were less satisfied with hospital environment and staff behavior, while uneducated or undereducated respondents were more unsatisfied with information and communication. Parental satisfaction was not influenced by the age of the respondents, duration or mode of hospitalization and history of previous hospitalization in the same hospital.

Discussion

Present study reveals (unexpectedly) excellent level of overall satisfaction with hospital services among respondents considering the fact that the study was conducted in a public hospital, which are generally considered to be inferior to the private setups. There appear to be three main reasons for these pleasing but surprising results:

Firstly, the patients generally tend to have lower expectations with public hospitals. Expectations from a service are the major determinant of the satisfaction that one gets, once these expectations are fulfilled.[11]

Perhaps, the patients in a public hospital come with lesser expectations than in the private set-ups and hence, they are easily satisfied when those are met. Secondly, a large proportion of patients in this study were referred from peripheral hospitals, which have far unsatisfactory health care facilities, generally attended by auxiliaries and general practitioners. Consequently, they find specialist services of this hospital much superior in comparison, at least in terms of the quality of medical care.

A Tanzanian study has suggested the patients received in a referral hospital had often been shunted around between lower level centers, thus finding the quality of care much better in referral centers than in peripheral hospitals.[12]

Kumari R *et al.* also observed much higher satisfaction level at higher centers than at the primary level with most important motivating factor for the visit to the tertiary and secondary level health facilities being faith in the doctors or health facility.[13]

Third and perhaps the most important reason is the quality of medical care provided in the study hospital. Patients will not perceive or pay heed to any other aspects of hospital care if the process of clinical care was satisfactory. Domain-wise analysis in the present study suggest that quality of medical care in the study hospital was major driver for excellent satisfaction rate with the hospital services, which to some extent, masked the deficiencies in other domains.

Another study from Mumbai has also observed that majority of the population who rated services of the government hospitals to be better cited a reason that, these hospitals handle critical cases in

more responsible ways than private hospitals.[14] It is also to be noted that high extent of satisfaction in the present study may be to some extent due to the fact that a substantial population of the relatives of patients who died or took discharge against the medical advice, who had more reasons to be discontent, were excluded, due to logistic reasons.

Doctor–patient communication gap is the major cause of misunderstandings and dissatisfaction with medical services. In this study too, satisfaction level was lowest in this domain with significant dissatisfaction observed in response to all six questions, especially for not being informed about various financial support schemes and hospital rules. Majority of the patients admitted in this hospital are from low socioeconomic and educational background, not informing them about available facilities and hospital rules at the time of admission is bound to lead to unnecessary altercations with staff and consequent discontent.

In a study from All India Institute of Medical Sciences, New Delhi, lack of *'briefing about policies, rules and regulations'* was found to be major *dissatisfier* with hospital services with SR of 76%. Heavy patient load in public hospitals often makes it difficult for the healthcare staff to communicate with the caregivers effectively.[15] Not being informed about the various diagnostic possibilities, treatment options and possible outcomes in their wards were other sources of discontent among caretakers in this study. Parents and physicians often have different expectations with the amount of information exchange and what the doctors consider adequate may not be enough for parents, leading to anxiety and discomfort.[16]

Hospital environment and staff behavior are two major contributory factors for the poor image of public hospitals *vis a vis* private health care facilities. In this study, these two domains were found to be not as unsatisfactory as expected, though SR in these two domains were significantly lower than the benchmark of overall satisfaction. One major grudge the parents had related to the behavior of the staff was that doctors did not introduce themselves, while talking to them. It is a common and genuine problem in public hospitals, where it is often difficult to follow the niceties of one to one interaction due to heavy patient load and multiple doctors of the same team attending to the child at different times.

In a recent study from a referral institute in Manipur, few patients felt that the doctors and nurses conversed in front of them as if they were not there.[17] Important dissatisfiers in the field of hospital environment were long waiting time for investigations/referrals, lack of the facilities for relatives, overcrowding and poor quality of food. Being a public hospital, which receives referrals from all over the city, state and even out of the state, overcrowding and long waiting time is unavoidable unless the peripheral services are strengthened to deliver equal quality of the care. Our hospital permits only for one caretaker to stay with the child. However, often many relatives accompany the hospitalized child, especially if coming for the treatment from faraway place, aggravating overcrowding and demanding facilities.

Overall SR was significantly lower in female respondents especially in the domains of hospital environment and staff behavior perhaps due to the fact that it is the female, i.e. generally the mother, who spends most of the time with the child in the ward and has the maximum interaction with the hospital staff and the environment. Quintana *et al*. and Nguyen *et al*. also found higher levels of satisfaction with the healthcare services in males, though other studies did not find such differences.[18,19]

Overall SR was also better in relatives of male patients than the female patients, perhaps due to prevalent sex bias in the society, which is willing to take more pains in caring of the male children than the female children. In addition, uneducated or undereducated respondents were significantly more unsatisfied with information and communication than those with higher education status. Perhaps, caregivers with higher levels of education have a better understanding of the disease and treatment process. They also tend to be more vocal about their doubts and worries regarding their child's health and thus have those sorted with the help of healthcare staff. Respondents with a lower education tend to me more anxious, confused and uncertain about whom to approach in case of any grievance.

Conclusion

To conclude, present study suggests that despite being a public hospital, the study set-up provides excellent services which are appreciated by the consumer, i.e. parents of the hospitalized children. However, the communication deficit between doctors and parents is the major source of dissatisfaction here, followed by the hospital environment and facilities and behavior of the staff. Quality of medical care is the one reason that attracts the patients here and to some extent, compensates for other deficiencies.

What this study adds

- Quality of medical care is the main reason for high rates of satisfaction with public hospitals, which tend to mask the deficiencies in other domains.
- Lack of communication is the leading cause for dissatisfaction in public hospitals, followed by the ward environment, which need attention.
- Demographic profile of the caregivers in these institutions, generally different from that in private hospitals, also affects the satisfaction rate.

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