

Patient's Knowledge and Satisfaction Regarding Nursing services and Physical Infrastructure of a Tertiary Care Hospital Situated in Rural area of Northern India (Haryana)

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Abstract

Background: Nowadays health care quality is a universal concern. The health sector is changing rapidly due to the escalating requirements and desires of patients. The most appropriate method to measure a client's experiences about available hospital services is a patient satisfaction survey. Present study aimed to assess patient's knowledge and satisfaction regarding nursing services and physical infrastructure. **Methods:** 330 patients were selected by purposive sampling technique attending various indoor departments of the selected hospital. Self-structured checklist and three-point rating scale each containing a total 90 sets of items used to assess knowledge and satisfaction. The reliability coefficient for the knowledge tool was 0.87 by KR 20 and satisfaction was found 0.85 by Cronbach's Alpha. **Result:** Study results showed that more than half (59.7 %) patients had very good level of knowledge regarding availability of services. 72.4% & 69.7% of patients were satisfied with Nursing services and physical infrastructure facilities respectively. Item wise distribution of level of satisfaction among patients regarding nursing services reveals that "nurses hear you carefully(64.5%)", "explain patient's condition to the family (64.5%)," and "Adequate space in ward (75.5%)" was found ranked 1st with the highest satisfaction, whereas "provide psychological counseling", "Toilet facility and cleanliness(32.1%)" was found ranked lowest. A significant low positive correlation found between mean knowledge and satisfaction scores regarding nursing services and physical infrastructure as evident by computed 'r' value (0.38)

Conclusion: Using these necessary responses from the patients, various shortcomings can be pointed out and notify to hospital administration for improvement of the nursing care services & physical infrastructure.

Key Words: knowledge, satisfaction, Nursing services, Physical Infrastructure, Quality care

Introduction

Satisfaction, like quality, is multifaceted construct¹. Satisfaction of clients premised on multifarious strands in a health care organization. Client's expectancy and his perception with health care and services are directly

congruent². Among all the methods, assessment of client's satisfaction is the vital for the evaluation of Excellencies in a health care organization. It is important to assess the satisfaction rate of the services which will evaluate whether the services are useful or not³. In the recent epoch, many dimensions together with behaviour of employees, patient staff interaction along with administration issues of the hospital and physical surroundings are crucial aspects of patient satisfaction⁴. A happy patient has higher adherence to treatment protocols and goes for routine follow up for his ill health⁵. Pragmatic evidences confirm that

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majority of health care organizations in India are measly involved in the assessment of satisfaction rate. The long queues in the OPD areas, little and unkempt waiting areas, poor condition of bathrooms, unsympathetic approach of health care workers bear articulate testimony to the current fact. Entire considerations make the assessment of patient's satisfaction with health system even highly necessary⁶. In recent years, patients have become a lot conscious to their rights and cognizant regarding their health. They demand best health care in each facet. Patient's feels unsatisfied when services received by them are not according to their expectations⁷. Developed countries have many research studies and literatures on satisfaction of patients with health care services but this number is very less in case of developing countries including India. Patient satisfaction with nursing services is highly important to any health care agency as care provided by nurses comprise most health care suppliers because nurses take care of patients for twenty four hours on a daily basis. A German study on the determinants of patient satisfaction in patient care from 2011, by Schoenfelder et al. concluded that satisfaction with nursing services and care has the foremost vital impact on overall satisfaction⁸. Satisfaction assessment will offer valuable and exclusive insights into routine health care in hospital. It is broadly accepted as an autonomous dimension of quality of care as analysis of patient satisfaction includes "internal" (inward-looking) aspects of hospitalization, which frequently stay unrecorded, like communication, warmth or interaction⁷. Satisfaction of patient regarding health care facility situated in a rural area is of vital significance for providing quality services to patients, so keeping this point in consideration; the present research study was conducted to assess patient's knowledge and satisfaction with nursing services and physical infrastructure in a tertiary care hospital situated in a rural area of Northern India (Haryana).

Material and Methods

Study Design and Study Area:

This was a cross-sectional study based on a descriptive survey design conducted in a tertiary care center situated in the rural part of northern India. The hospital is a center for undergraduate and postgraduate medical teaching and has an operational strength of 940

beds. The hospital has 20 departments and provides outpatient consultations and inpatient services to patients presenting to the hospital from other levels of care or on self-referral. Patients are mainly seen in the Outpatient Department causality unit and special clinics. It receives patients from within Haryana, and the neighboring states of India (Uttar Pradesh, Himachal, Punjab, and Chandigarh). The majority of patients are indigenous Hindu, although the Muslim and Sikh ethnic groups also constitute a substantial proportion of the clientele. Clients with various occupational backgrounds like farmers, private, and govt. service holders, businessmen, etc get the benefit of services present over here.

Ethical consideration was taken from the Maharishi Markandeshwar University institutional ethical committee (under project number 575). Written informed consent was also obtained from all the participants before starting the study. Data for the study was collected from clients admitted in medicine, surgery, orthopedics, neurosurgery, and gynecology ward of MMIMS&R hospital Mullana, Ambala, Haryana.

Sample Size and Sampling Technique:

Using a Non-probability Purposive sampling technique a sample size of 330 was taken to detect the level of knowledge and satisfaction among the study participants regarding nursing services and physical infrastructure. However, patients referred or advised for or admitted to the Intensive care unit / cardiac care unit/emergency with conditions related to psychiatry or labour, and those with critical health issues were excluded.

Tools and Technique of Data Collection:

A structured knowledge checklist and rating scale were prepared to assess the knowledge and satisfaction regarding nursing services and physical infrastructure among indoor patients. Both tool consisted of 90 items each divided into 2 parts according to areas of hospital services- nursing services, and physical infrastructure among indoor patients. In knowledge tool each item consist maximum 1 score and minimum score 0. The score obtained by the indoor patient were arbitrarily categorized into four levels- Very good (>75%), Good (61-75%), Average (50-60%), Poor (<50%).

Rating scale for level of satisfaction had a score of 3 point i.e., satisfied score as 3, partially satisfied as 2, dissatisfied as 1. The score obtained by the indoor patient were arbitrarily categorized into three levels -: Satisfied (>75%), Partially satisfied (50-75%), Dissatisfied (<50%).

Both tools were validated by 7 experts in the various nursing fields. An interview technique was used to collect the data of the present study.

Reliability of the structured knowledge checklist and Rating scale was computed using Kuder Richardson 20 (KR-20) and Cronbach alpha methods which was found 0.87 and 0.85 respectively. The tool was found valid, reliable, and feasible for the purpose of the study.

Statistical analysis Collected data were entered into Microsoft Excel software and data cleansing was performed. Data were analyzed using SPSS IBM Statistics version 20. Descriptive statistics were generated using mean, standard deviation (SD), frequency, and percentages. Analytical statistics like correlation coefficient and Chi-square test was used to see correlation and association. The value of $P < 0.05$ was considered statistically significant.

Results

Description of sample characteristics

Frequency and percentage distribution was computed to describe the sample characteristics of the sample. The baseline sample characteristics of the participants showed that 47.9% patients were females and 52.1% were males and as regard to the religion 61.4%, 26.7% patients was Hindu and Muslim respectively, 11.6% was

Sikh, and 0.3% belong to Christian religion.

Less than half, (35.2%) patients were having education up to primary school and, (3.6%) were having senior secondary education. Family income of 46.1% patients was Rs <5000 and only 5.5% were having Rs >20,001 & above per month. More than half patients (51.5%) were from joint family, and other 48.2% were from nuclear family. As regard to previous hospitalization 52.1% were admitted previously in hospital and 47.9% were not admitted previously and as regard to the type of hospital 32.4% admitted in private hospitals previously and 19.7% admitted in government hospitals. More than half (68.8%) have less than 2 visits in hospital previously and, 3.9% has more than 4 visits. Nearly half number of patients, (42.4%) had 1-4 days length of stay and, 9.7% had more than 12 days length of stay in the hospital.

Area wise frequency and percentage of levels of knowledge among indoor patients regarding nursing services and physical infrastructure

More than half (59.7%) (74%) patients were having very good level (>75%), and 12.7% & 2.7 % patients were having below average level (<50%) of knowledge regarding availability of nursing services, and physical infrastructure of hospital respectively.

Frequency and percentage of level of satisfaction regarding nursing services, and physical infrastructure

Findings shows that more than half (72.4%) (69.7%) patients were satisfied with nursing services and physical infrastructure facilities respectively. (as shown in figure 1)

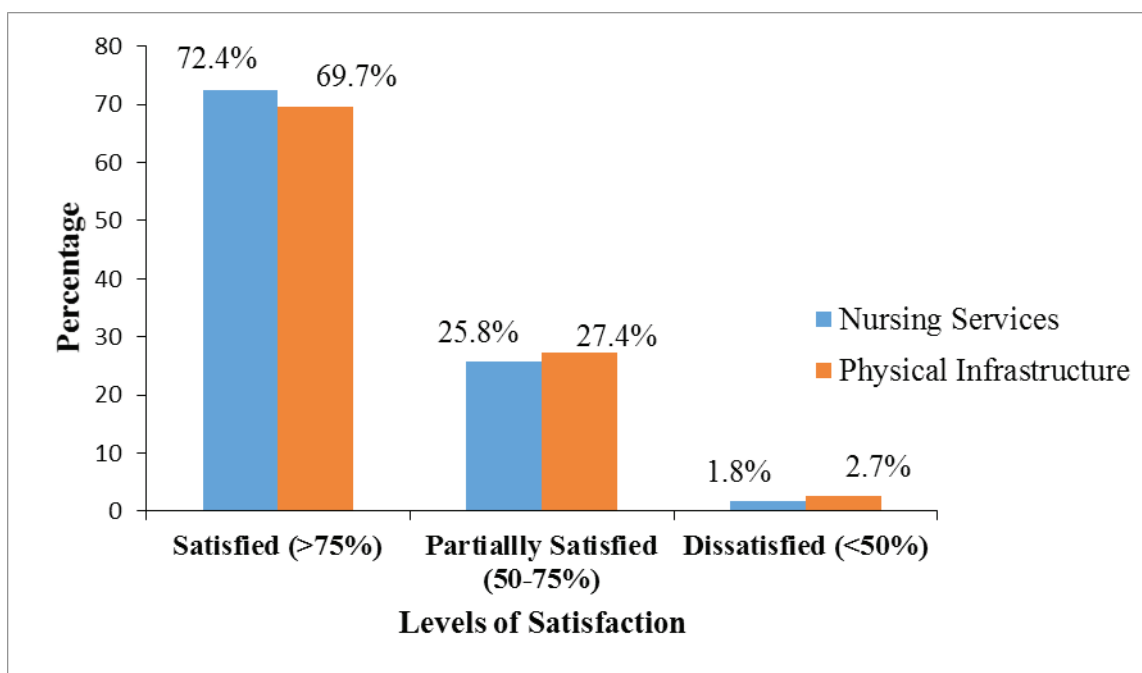


Figure 1: Bar Graph Showing the Percentage of Level of Satisfaction among Indoor Patients Regarding Nursing Services and Physical infrastructure

Item wise distribution of level of satisfaction among patients regarding nursing services

Results reveal the frequency, percentage and rank order of level of satisfaction regarding various Nursing services. Among these, “hear you carefully” and “explain patient’s condition to family” was found 64.5% ranked 1st, “treat you with respect and courtesy” was found 63.3% ranked 2nd. “Provide comfort during nursing care” and “provide psychological counseling” was found ranked lowest as shown in table no. 1

Table No.1: Item Wise Distribution of Level of Satisfaction among Patients Regarding Nursing Services

N=330

Sr. No.	Items	Satisfied(3)		Partially satisfied (2)		Dissatisfied (1)		Rank
		f	%	f	%	f	%	
	During the hospital stay, nurses.....							
1.	hear you carefully.	213	64.5	84	25.5	33	10	I
2.	treat you with respect and courtesy	209	63.3	88	26.7	33	10	II
3.	explain you things in a understandable way.	207	62.7	100	30.3	23	7	IV
4.	maintained personal privacy.	208	63	96	29.1	26	7.9	III
5.	provide comfort during nursing care.	48	14.5	81	24.5	48	14.5	XV
6.	discussed care option with you.	193	58.5	81	24.5	56	17	IX

Cont... Table No.1: Item Wise Distribution of Level of Satisfaction among Patients Regarding Nursing Services

N=330

7.	encouraged you to involve in one's own care plan.	185	56.1	101	30.6	44	13.3	XI
8.	favoured patients over other.	147	44.5	104	31.5	79	23.9	XIII
9.	recognize patients need	185	56.1	121	36.7	24	7.3	XI
10.	show attention and responsiveness to needs.	185	56.1	99	30	46	13.9	XI
11.	show empathy	204	61.8	100	30.3	26	7.9	VI
12.	have helpful attitude	208	63	102	30.9	20	6.1	III
13.	easily provide information	180	54.5	110	33.3	40	12.1	XII
14.	show professionalism	203	61.5	93	28.2	34	10.3	VII
15.	gave instruction to the patient before any procedure	201	60.9	88	26.7	41	12.4	VIII
16.	explain patient's condition to family.	213	64.5	80	24.2	37	11.2	I
17.	plan daily routine to meet patient's need	186	56.4	89	27	55	16.7	X
18.	provide psychological counselling.	121	36.7	115	34.8	94	28.5	XIV
19.	gave follow up instructions to the patient	205	62.1	94	28.5	31	9.4	V

Item wise distribution of level of satisfaction among patients regarding physical infrastructure

Findings reveal the frequency, percentage and rank order of level of satisfaction regarding Physical infrastructure."Adequate space in ward" was found 75.5% ranked 1st, "proper electricity supply and ventilation" was found 74.5% ranked 2nd, whereas "Toilet facility and cleanliness" was found 32.1% ranked lowest. (as shown

in table no. 2)

Table No. 2: Item Wise Distribution of Level of Satisfaction among Patients Regarding Physical infrastructure

N=330

Sr. No.	Items	Satisfied(3)		Partially satisfied (2)		Dissatisfied (1)		Rank
		f	%	f	%	f	%	
1.	Adequate space in ward	249	75.5	54	16.4	27	8.2	I
2.	Availability of bed side locker	227	68.8	56	17	47	14.2	V
3.	Cleanliness in ward	182	55.2	97	29.4	51	15.5	X
4.	Temperature maintenance facility in ward according to season	217	65.8	67	20.3	46	13.9	VIII
5.	Quietness and noise free ward during night hours	223	67.6	96	26.1	21	6.4	VI
6.	Proper electricity supply and ventilation	246	74.5	57	17.3	27	8.2	II
7.	Safe drinking water	168	50.9	98	29.7	64	19.4	XII
8.	Toilet facility and cleanliness	106	32.1	71	21.5	153	46.4	XIII
9.	Sitting arrangement in waiting area	197	59.7	62	18.8	71	21.5	IX
10.	Availability of dustbins	236	71.5	58	17.6	36	10.9	IV
11.	Private rooms	174	52.7	68	20.6	88	26.7	XI
12.	Availability of Curtains for privacy maintenance	240	72.7	55	16.7	35	10.6	III

A significant low positive correlation was found between mean knowledge and satisfaction scores of indoor patients regarding nursing services and physical infrastructure as evident by computed 'r' value of (0.38) as shown in table no. 3

Table No. 3: Mean Standard Deviation and Correlation Value of Knowledge and Satisfaction Scores of Indoor Patients Regarding Nursing Services and physical infrastructure

N=330

Sr. No.	TEST	MEAN	SD	CO-RELATION
1.	Knowledge	73.62	12.98	0.387*
2.	Satisfaction	221.84	27.96	

r = 0.113 at 0.05 level of significance * significant NS=Non significant

Chi square value showing the association of knowledge score regarding availability of nursing services and physical infrastructure with selected sample characteristics

Results of Chi square association indicates that Type of family (10.47) and present medical conditions (5.99) was found statically significant at 0.05 level which indicate that rate of scoring of knowledge was dependent on type of family and present medical condition, as most of the patient who belonged to joint family have more level of knowledge as they received information from family members and their relatives and the patient with acute illness were more oriented and able to receive information regarding available health care services.

The finding also revealed age, gender, religion, marital status, education, occupation, family income per month, number of visits, previous hospitalization was found statistically non significant at 0.05 level.

Chi square value showing the association of satisfaction score regarding availability of nursing Services and hospital infrastructure with selected sample characteristics

A chi square association with level of satisfaction indicates that Religion (20.96), occupation (9.79), and type of hospital (6.48) were found statistically significant at 0.05 levels which indicate that satisfaction was dependent on religion, occupation and type of hospital previously admitted.

The findings also revealed that age, gender, type of family, marital status, education, family income per month, number of visits, previous hospitalization was found statistically non significant at 0.05 level.

Discussion

Results of our study shows that 81.87% patients have overall satisfaction regarding nursing services. In nursing services, “nurses hear carefully” and “explain patient’s condition to family” was found 64.5% ranked 1st, treat patients’ with respect and courtesy was found 63.3% ranked 2nd, maintained personal privacy was found 63% ranked 3rd. These results were found to be consistent with the study conducted by **Olowe A Folami F (2019)** to assess patient satisfaction with nursing care in selected wards of the Lagos University Teaching Hospital (LUTH). The findings revealed that 77% of the patients showed excellent satisfaction with the quality of nursing care received during their stay on the ward. 43.3% clients explained that nurses explanations were clear about test and treatments, nurses willingness to answer the questions were stated satisfactory by 48.3% patients. 49.1% were satisfied by the nurse’s friendly and kind behaviour. More than half (60.8%) stated nurses skills and competencies in very good category but only 12.5% were satisfied with privacy during treatment⁹.

Findings of our study revealed that for Physical infrastructure. “Adequate space in ward” was found 75.5% ranked 1st, “proper electricity supply and ventilation” was found 74.5% ranked 2nd, whereas “Toilet facility and cleanliness” was found 32.1% ranked lowest. These results were found to be consistent with

the study conducted by Rajkumari B, Nulla P (2017). Nearly one third of the patients, 243 (32.4%) were not satisfied with the cleanliness of the ward¹⁰. Overall 43.7% patients were poorly satisfied with physical facilities of the hospital. Out of 5 headings under physical facilities, “toilet and its cleanliness” score the least¹¹

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