

# Patient's Knowledge and Satisfaction with health Care 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 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 health care.

**Method:** 330 patients were selected by purposive sampling technique attending various outdoor and indoor departments of the selected hospital. Self-structured checklist and three-point rating scale each containing a total 50 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 (52.4%) and (60.6%) patients had very good level of knowledge and 76.4% & 67.5% of patients were satisfied with overall health care. Item wise distribution of satisfaction among patients reveals that "physician gave follow up instructions to the patient properly (78.2%)", "OPD card facility (78.2%)" and "hospital food facility for patients (75.2%)" was found ranked 1<sup>st</sup> with the highest satisfaction, whereas "Free of cost availability of drugs", "long queues during OPD card registration process" was found ranked lowest. A significant low positive correlation found between mean knowledge and satisfaction scores regarding health care services 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 health care.

**Keywords:** Knowledge, satisfaction, Health care, Tertiary care hospital.

## Introduction

Satisfaction, like quality, is multifaceted construct<sup>20</sup>. Satisfaction of clients premised on multifarious strands

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in a health care organization. Client's expectancy and his perception with health care and services are directly congruent<sup>21</sup>. Among all the method, 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 not<sup>22</sup>. In the recent epoch, many dimensions together with behaviour of employees, patient staff interaction along with administration issues of the hospital and diagnostic services are crucial aspects of patient satisfaction<sup>23</sup>. A happy patient has higher adherence to treatment

protocols and goes for routine follow up for his ill health<sup>24</sup>. Pragmatic evidences confirm that 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 necessary<sup>25</sup>. 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 expectations<sup>26</sup>. 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. 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 interaction<sup>7</sup>. 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 health care of a tertiary care hospital situated in a rural area of Northern India (Haryana).

## Material and Method

**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 area of northern India. The hospital is a center for undergraduate and postgraduate medical teaching and has an operational strength of 940 beds. Patients are mainly seen in the Outpatient Department casualty 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.

Written informed consent was obtained from all the participants before starting the study. Data for the study was collected from clients in OPD (Out Patient Department) and IPDs i.e. 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 knowledge and satisfaction among the study participants regarding health care. However, patients referred or advised for or admitted to the Intensive care unit/cardiac care unit/emergency with conditions related to psychiatry or maternity, 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 health care among outdoor and indoor patients. Both tool consisted of 50 items each divided into 2 parts according to areas of hospital services-physician services and basic services i.e OPD services, Diagnostic services, Admission & discharge services, Laundry and food services, Drug availability and administration.

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%).

Reliability of the structured knowledge checklist and Rating scale was computed using Kuder Richardson 20 (KR-20) and Cronbach alpha method which was found 0.83 and 0.80 respectively. The tool was found valid, reliable, and feasible for the purpose of the study. Both tools were validated by 8 experts in the various nursing fields. An interview technique was used to collect the data of the present 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

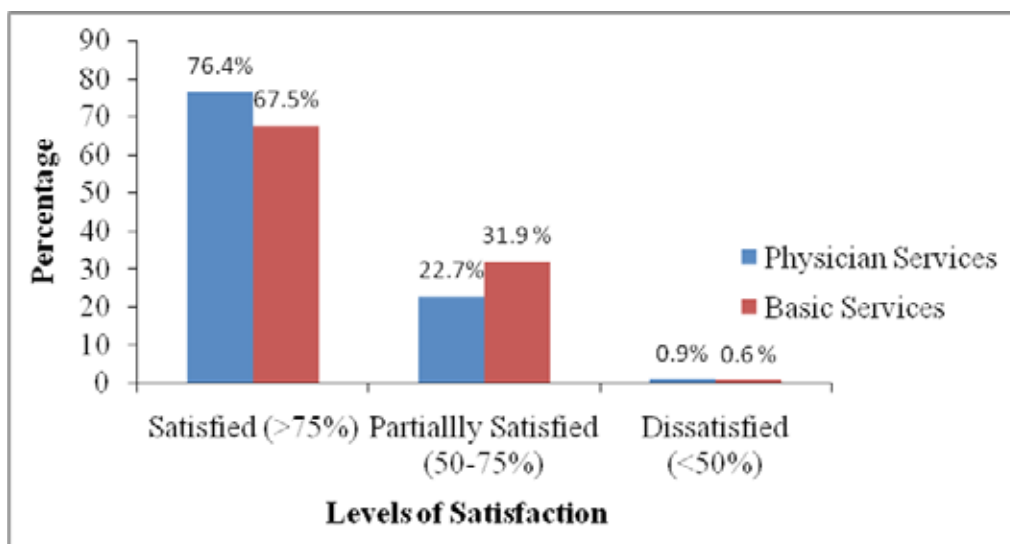
**Description of sample characteristics:** Frequency and percentage distribution was computed to describe the sample characteristics of the sample. The baseline sample characteristics of the participants showed that 47.9% patients were females and 52.1% were males and as regard to the religion 61.4%, 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 upto 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 health care services:** More than half (52.4%) & (60.6%) patients were having very good level of knowledge and 7.2% & 6% were with below average knowledge regarding availability of physician services and basic services i.e OPD services, Diagnostic services, Admission & discharge services, Laundry and food services, Drug availability and administration respectively.

**Frequency and percentage of level of satisfaction regarding Physician services, and basic services:** - Findings shows that more than half (76.4%) (67.5%) patients were satisfied with physician services and basic services (OPD services, Diagnostic services, Admission & discharge services, Laundry and food services, Drug availability and administration) of hospital respectively. (as shown in figure 1).



**Figure 1: Bar Graph Showing the Percentage of Level of Satisfaction among Indoor Patients Regarding Physician Services and Basic Services**

**Item wise distribution of level of satisfaction among patients regarding physician services:** Results reveal the frequency, percentage and rank order of level of satisfaction regarding various physician services.

Among these, “gave follow up instructions to the patient properly” was found 78.2% ranked 1<sup>st</sup>, “favoured patients over other.” was found 50.6% ranked lowest as shown in table no. 1

**Table No. 1: Item Wise Distribution of Level of Satisfaction among Patients Regarding Physician Services  
N=330**

Items	Satisfied (3)		Partially satisfied (2)		Dissatisfied (1)		Rank
	F	%	f	%	f	%	
<b>During this hospital stay, doctors/health providers</b>							
Hear you carefully	241	73	64	19.4	25	7.6	III
Treat you with respect and courtesy	245	74.2	72	21.8	13	3.9	II
Explain you things in a way you can understand.	235	71.2	72	21.8	23	7	IV
Explain procedure before doing it	231	70	72	21.8	27	8.2	V
Response to queries	224	67.9	75	22.7	31	9.4	VII
Provide aftercare instruction	220	66.7	85	25.8	25	7.6	X
Maintained personal privacy	218	66.1	69	20.9	43	13	XI
Comforted during physician care.	211	63.9	88	26.7	31	9.4	XIII
Discussed care option with you.	212	64.2	81	24.5	37	11.2	XII
Encouraged you to involve in one's own care plan	201	60.9	85	25.8	44	13.3	XV
Favoured patients over other.	167	50.6	82	24.8	81	24.5	XVII
Recognize patients need	208	63	82	24.8	40	12.1	XIV
Show attention and responsiveness to needs.	221	67	77	23.3	32	9.7	IX
Have helpful attitude	223	67.6	93	28.2	14	4.2	VIII
Easily provide information	190	57.6	103	31.2	37	11.2	XVI
Show professionalism	223	67.6	75	22.7	32	9.7	VIII
Have skill and competence	225	68.2	84	25.5	21	6.4	VI
Explain patient's condition to family.	245	74.2	67	20.3	18	5.5	II
Gave follow up instructions to the patient	209	78.2	48	14.5	24	7.3	I

**Item wise distribution of level of satisfaction among patients regarding basic services:** Findings reveal the frequency, percentage and rank order of level

of satisfaction regarding basic services which further include OPD services, Diagnostic services, Admission and discharge services.(as shown in table no. 2,3,4).

**Table No. 2: Item Wise Distribution of Level of Satisfaction among Patients Regarding Provision of OPD Services N=330**

Items	Satisfied (3)		Partially satisfied (2)		Dissatisfied (1)		Rank
	f	%	f	%	f	%	
Facility of OPD card	258	78.2	48	14.5	24	7.3	I
Proper management of patient gathering during OPD card registration process	183	55.5	87	26.4	60	18.2	IX
Enquiry services in OPD	228	69.1	69	20.9	33	10	IV
Availability of doctors during OPD hours	218	66.1	81	24.5	31	9.4	V
Attending the patient on time	235	71.2	60	18.2	35	10.6	III
Listening the problem told by patient	214	64.8	75	22.7	41	12.4	VI
Waiting area with sitting arrangements in OPD area	213	64.5	63	19.1	54	16.4	VII
Shifting of patient to indoor department for admission.	183	55.5	106	32.1	41	12.4	IX

Items	Satisfied (3)		Partially satisfied (2)		Dissatisfied (1)		Rank
	f	%	f	%	f	%	
Availability of safe drinking water	141	42.7	109	33	80	24.2	X
Availability cleanliness of toilets	106	32.1	108	32.7	116	35.2	XI
Availability of lift service	228	69.1	74	22.4	28	8.5	IV
Availability of wheel chair/comfort device while shifting	207	62.7	76	23	47	14.2	VIII
Availability of sign boards direction.	240	72.7	66	20	24	7.3	II

**Table No. 3: Item Wise Distribution of Level of Satisfaction among Patients Regarding Provision of Diagnostic Services N=330**

Items	Satisfied(3)		Partially satisfied (2)		Dissatisfied (1)		Rank
	f	%	f	%	f	%	
Sample collection in Laboratory	26	79.1	50	15.2	19	5.8	I
X Ray, ultrasound and others radio diagnosis	252	76.4	59	17.9	19	5.8	II
Waiting area with sitting arrangements	227	68.8	67	20.3	36	10.9	IV
Proper instruction while undergoing for any diagnostic procedure.	241	73	66	20	23	7	III

**Table No. 4: Item Wise Distribution of Level of Satisfaction among Patients Regarding Provision of Admission Discharge Services N=330**

Items	Satisfied(3)		Partially satisfied (2)		Dissatisfied (1)		Rank
	f	%	f	%	f	%	
Explanation of reason for admission	190	57.6	104	31.5	36	16.9	VII
Cooperative behaviour of admitting staff	190	57.6	104	31.5	36	10.9	VII
Information provided about billing process	206	62.4	91	27.6	33	10	VI
Proper facility for shifting in patient department.	222	67.3	78	23.6	30	9.1	I
Well-arranged bed/area for admission	208	63	72	21.8	50	15.2	V
Orientation to ward and ward staff on duty	187	56.7	74	22.4	69	20.9	VIII
Response to queries regarding disease, patient condition	216	65.3	75	22.7	39	11.8	IV
Availability of visiting hours for patient attendant/ family.	218	66.1	75	22.7	37	11.2	II
Clear and understandable instructions about medication during discharge	217	65.8	71	21.5	42	12.7	III

**Item wise distribution of satisfaction among patients regarding Laundry & food services and Drug availability and administration:** Frequency, percentage and rank order of satisfaction regarding Laundry and food services reveals that satisfaction for “Hospital food facility for patients (75.2%), Availability of clean bed sheets, Pillow and Blanket ranked (60%) ranked first and 2<sup>nd</sup> respectively whereas “Availability of laundry for washing personal clothing (33.4%)”

ranked lowest as hospital is not having laundry facility for washing personal clothing.

For Drug availability and administration, item wise distribution of satisfaction revealed that Patients were highly satisfied with “Administration of drug on right patient at right time (69.1%)” whereas “Free of cost availability of drugs (16.7%)” found at lowest rank.

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).

**Chi square value showing the association of knowledge score regarding availability of health care services of hospital 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 health care services 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 76.4% patients have overall satisfaction regarding physician services. Among these, "gave follow up instructions to the patient properly" was found 78.2% ranked 1<sup>st</sup>, these results were found to be consistent with the study conducted by Kumari R to determine the areas and causes of low satisfaction among the patients and suggest method for improvement. Result shows that the overall satisfaction regarding the doctor-patient communication was more than 60% at health care facilities but for examination and consultation by physician was less than 60%<sup>27</sup>

Findings of our study revealed that satisfaction for "listening the problem told by patient" was found 64.8%, more than half patients (64.5%) were satisfied with waiting area with sitting arrangements in OPD area where as very less patients were satisfied with cleanliness of toilets(33.5%), These results were found to be consistent with the study conducted by Anteneh Asefa(2014) reveals that according to 71% patients, health care providers were very polite with patients, 64% said that there was convenient environment to ask question/s, 66% were satisfied with comfort of waiting area<sup>28</sup>. Study result also coincide with another study conducted by Kumari R, according to this less than half patients were satisfied with availability (44.7%) and cleanliness of the toilets (31.3%), for availability of seats in waiting area satisfaction rate was high(81.4%)<sup>8</sup>

Findings of our study further revealed that more than half (79.1%) patients were satisfied with Sample collection in Laboratory, according to 57.6% patients, admission process was satisfactory. Hospital food facility was satisfactory for 75.2% patients. 69.1% found "Administration of drug on right patient at right time" process acceptable. These results were found to be consistent with the study conducted by Bishwalata R (2020), findings reveals that (51.7%) found the waiting time and admission procedures acceptable, around 55.7% patients said that they always received medication in a timely manner. For 37.2% of the patients, all scheduled investigations were not done in the hospital. (24.9%) expressed dissatisfaction with the quality of the food served.<sup>29</sup>

**Ethical Clearance:** Taken from Maharishi Markandeshwar University institutional ethical committee.

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