

## **Levels of Adult Patients' Satisfaction with Nursing Care in Selected Public Hospitals in Ethiopia**

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**Abstract:**

**Objective:** To assess level of adult patients' satisfaction and associated factors in nursing care provided in selected public hospitals in Ethiopia.

**Methods:** A cross sectional institution based study was conducted on 582 randomly selected patients admitted for at least two nights in three wards of selected public hospitals in Eastern Ethiopia. Patients were interviewed face to face using the adapted Newcastle Satisfaction with Nursing Scales (NSNS) at the time of their discharge. Data was analyzed using SPSS V 16.

**Result:** More than half of the respondents, 307(52.75%), were satisfied with the nursing care they received. The patient satisfaction was found to be 62.71%, 55.67%, 44.85% and 55.15% for nursing characteristics, the caring activities, the amount of information given and the entire caring environment respectively. Previous history of admission, patients' income level, and type of admission rooms have been found to significantly affect overall satisfaction of patients.

**Conclusion:** The overall level of adult patients' satisfaction was moderate. The hospitals should consider mechanisms to improve the nurses' communication skills and interpersonal relationships beyond training on direct patient care.

**Key words:**

Satisfaction, adult patients, nursing care, Ethiopia

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## Background

Patient satisfaction is the perception of care received compared with the care expected and represents a balance between the perception and expectation of the nursing care received. Patients thereby evaluate the health-care services as well as the providers from their own subjective point of view. <sup>(1-5)</sup> Even though patients may not be able to judge specific technical aspects, they provide the best source of accurate information regarding clarity of explanations, helpfulness of information patients are receiving, barriers to obtaining care or the physician's interpersonal behavior, <sup>(6, 7)</sup>

Patient satisfaction is a major indicator of quality care. Thus quality of work can be assessed by mapping out patient satisfaction with nursing care. <sup>(8)</sup> Patients are the best source of information about a hospital system's communication, education, and pain-management processes, and they are the only source of information about whether they were treated with dignity and respect. <sup>(9)</sup> Respect for patients' needs and wishes are central to any humane health care system. Quality of health services was traditionally based on professional practice standards, however over the last few decades, patients' perception about healthcare has been predominantly accepted as an important indicator for measuring quality of health care and a critical component of performance improvement and clinical effectiveness. <sup>(10)</sup>

A very important aspect on which patient satisfaction depends is 'nursing care' because nurses are involved in almost every aspect of client's care in hospital. <sup>(11)</sup> Nurses interact with patients more often than any other health care personnel in a hospital. Nurse is the one who translates information imparted by physicians technically and professionally with a humane touch. <sup>(12)</sup> A hospital may be soundly organized, beautifully situated and well equipped, but if the nursing care is not of high quality, the hospital will fail in its responsibility of providing care. <sup>(13)</sup>

The perception of an uncaring environment can lead to increased anxiety and diminished coping abilities for the patient as well as it contributes to financial loss and litigation for the nurse and the healthcare institution. <sup>(14)</sup> Patient satisfaction should be as indispensable to assessments of quality as to the design and

management of health care Systems. <sup>(15)</sup> Despite these realities, the health care provider in developing countries seems to be ignoring the importance of patient's perception regarding health services. <sup>(16)</sup> Study conducted in Pakistan showed that the overall level of patients' satisfaction with nursing was found to be 45% <sup>(13)</sup> whereas the study conducted in Iran in 2011 in emergency department revealed overall satisfaction of 63.2%. <sup>(11)</sup> Similarly, study done in Taiwan on patient satisfaction with nursing care indicated the overall level of patients' satisfaction to be 45 % <sup>(13)</sup> Study conducted in Canada indicated that major determinants of patient satisfaction were physical comfort, emotional support, and respect for patient preferences <sup>(17)</sup> whereas study conducted in Turkey revealed the type of ward, sex, income, and education independently affected the satisfaction with nursing care. <sup>(18)</sup>

The Ethiopian Civil Service Reform is a recent strategy that has been implemented in public institutions for better service provision for the community. The reform has been implemented in all hospitals. Based on this fact, understanding consumers' views is essential if any service is to be developed or improved. <sup>(9)</sup> Though such reforms are in place, studies on level of patient satisfaction about the nursing care they received and factors determining their satisfaction levels are limited. Therefore, this study was intended to assess level of adult patients' satisfaction in nursing care and factors affecting their satisfaction in Harar and Dire Dawa public hospitals.

## Methodology

### Study Area and Period

The study was conducted in three public hospitals, namely Hiwot Fana Specialized University Hospital (HFSUH), Jugel Hospital and Dil Chora Hospitals, found in Harari Region and Dire Dawa City Administration, Eastern part of Ethiopia. The hospitals were selected based on their number of beds and large number admitted patients. HFSUH is a teaching university hospital of Haramaya University with a total of 161 beds and having medical, surgical, gynecology, pediatrics, psychiatric wards. Jugel Hospital is a regional referral hospital of the Harari National Regional

State with 95 beds and medical, surgical and gynecology wards. Dil Chora Referral Hospital is a referral hospital of the Dire Dawa City Administration with a total of 192 beds and with medical, surgical, gynecology and psychiatric wards. All inpatient nursing care including post operative care is being done in all the hospitals. The study was conducted from September 1 to 30, 2012.

**Study Design:** An institution based cross-sectional quantitative study design was used.

**Population:** all adult patients who were admitted to the Medical, Surgical, and Gynecology wards of HFSUH, Jugel and Dil Chora Hospital were source population while patients who were admitted in the hospitals for at least 2 days and 18 years or older were study population.

**Sample size determination and sampling:** Sample size was determined using a single proportion formula using proportion of satisfied patient in nursing care of 67% from study conducted in Addis Ababa, <sup>(9)</sup> level of precision (d) 0.04 with 10% non response which yielded a total of 584 respondents. In order to select representative sample of patients from each hospitals, the total number of inpatients in the last six months was considered to estimate total number of patients that would be admitted during the study period (one month) and this was proportionally allocated in each hospital. Systematic random sampling was used to select eligible respondents.

**Data Collection:** The data was collected using structured questionnaire. The Newcastle Satisfaction with Nursing Scales tool which was adapted from previous study in Ethiopia was used. <sup>(9)</sup> The scale consists of 28-items categorized into four dimensions; nursing characteristics, information given/communication, caring activities and caring environment. All items were scored on a five-point Likert scale (1 = not at all satisfied, 2 = barely satisfied, 3 = quite satisfied, 4 = very satisfied, and 5 = completely satisfied). Participants were asked to rate their satisfaction with various aspects of nursing care by selecting only one that best described their opinion on each item of the scale. Fourteen nursing students with previous

experience in data collection have been trained and collected the data using interview questionnaire before patient discharge.

**Data Processing and Analysis:** Data was checked for completeness and entered using Epi-info Version 6.04 and SPSS 16 was used for analysis. Descriptive statistics like percentages and frequency distributions using tables and figures was carried out to explore socio-demographic characteristics. Bivariate analysis was carried out to examine the relationship between the outcome variables and selected determinant factors as appropriate. Factors for which significant bivariate association observed were retained for subsequent multivariate analyses using logistic regressions. Odds ratio with 95% confidence interval was computed. Satisfaction was broadly classified into two as fully satisfied and not fully satisfied by using demarcation threshold formula (total highest score-total lowest score)/2 + Total lowest score). <sup>(19)</sup> The overall satisfaction was determined using the same formula and accordingly patient who scored less than 84 point out of 145 was considered as not fully satisfied where as 84 and above was considered as fully satisfied.

**Data Quality Control:** In order to collect a quality data a standard structured questionnaire from the Newcastle Satisfaction with Nursing Scale that was adopted to Ethiopian context was taken from a previous study conducted in Ethiopia and was pre-tested before the main study. Data collectors and supervisors were trained on objective of the study and the study procedure for two days. The overall data collection was supervised and local language was used for data collection.

**Study Variables:** The dependent variable was patient satisfaction where as independent variables include socio-demographic characteristics and admission related factors like duration of admission, ward type, history of previous admission, presence of another diseases and type of admission room.

**Ethical Considerations:** Before starting of the data collection process, the study protocol was approved by the College of Health and Medical Sciences School of Graduate Study and the

Institutional Research Ethics Review Committee. Official letters of co-operation was written to all hospitals and concerned bodies to obtain their co-operation in facilitating the study. Information on the study was explained to the participants, including the procedures, potential risks and benefits of the study. The respondents were informed of their right to refuse or decline participation in the study at any time and refusing to participate in the study will not affect them. Participants' confidentiality of information was assured by excluding names and identifiers in the

questionnaire. Informed verbal consent was obtained from all respondents prior to the study.

## Results

### Characteristics of respondents

A total of 582(99.7%) patients' response was analyzed. Majority of the participants were female, rural residence, married, Muslim and Oromo. The mean age of the participants was 36.71 years (SD±12.9) (Table 1).

**Table1. Socio-demographic characteristics of participants from selected hospitals, Eastern Ethiopia, September 2012.**

Variables	Frequency	Percentage	
<b>Sex</b>	Female	324	55.7
	Male	258	44.3
<b>Age</b>	18-34	290	49.8
	35-44	124	21.3
	45-65	156	26.8
	≥ 65	12	2.1
<b>Residence</b>	Rural	299	51.4
	Urban	283	48.6
<b>Religion</b>	Muslim	344	59.1
	Orthodox	125	21.5
	Protestant	81	13.9
	Catholic	17	2.9
	Others	15	2.6
<b>Ethnicity</b>	Oromo	271	46.6
	Amhara	129	22.2
	Harari	68	11.7
	Guraghe	42	7.2
	Somali	58	10
	Others	14	2.4
<b>Educational status</b>	Not read and write	148	25.4
	1-4 <sup>th</sup> grade	108	18.6
	5-8 <sup>th</sup> grade	134	23.0
	9-12 <sup>th</sup>	101	17.4
	12 <sup>+</sup>	91	15.6
<b>Marital status</b>	Married	405	69.6
	Single	197	18.4
	Widowed	50	8.6
	Divorced	12	2.1
	Separated	8	1.4
<b>Occupation</b>	Farmer	203	34.9
	Merchant	172	29.6
	Employee	108	18.6
	Daily laborer	57	9.8
	Student	25	4.3
	Others	17	2.9
<b>Income</b>	<400	203	34.9
	401-500	195	16.3
	501-925	39	23.9
	>925	145	24.9

Half (49.0%) of the respondents were from medical wards, 35% stayed in the hospitals for 2-7 days and the mean duration of hospital stay was 16.50 (SD±13.1) days. About 62.4% of the respondents were not previously

admitted to hospitals for any illness and 33.2% of participants have reported existence of co-morbidity. More than three fourth (77%) of the patients were admitted in the usual/routine room (figure 1& table 2).

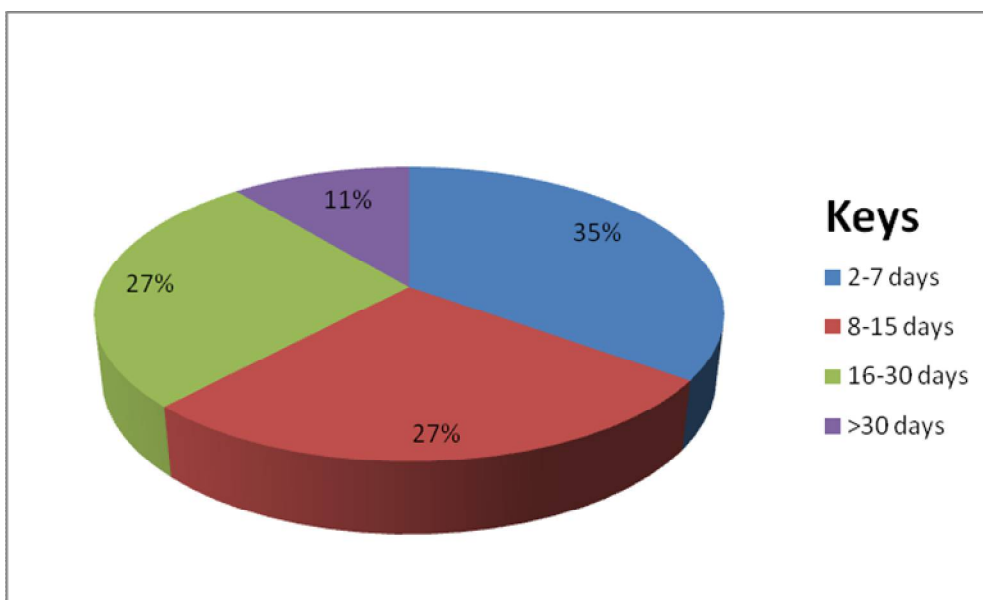


Figure 1. Duration of hospitalization of patients admitted in different wards of selected public hospitals in Eastern Ethiopia, September 2012.

Table 2: Admission history of the participants in Hiwot Fana, Jugel and Dil Chora Hospital, Eastern Ethiopia, September, 2012

Variable		Frequency	Percentage
Ward	Medical	285	49
	Surgical	166	28.5
	Obs/gyn	131	22.5
Previous admission	Yes	219	37.6
	No	363	62.4
Presence of another disease	Yes	193	33
	No	389	67
Room of admission	Usual room	448	77
	Special rooms	134	23

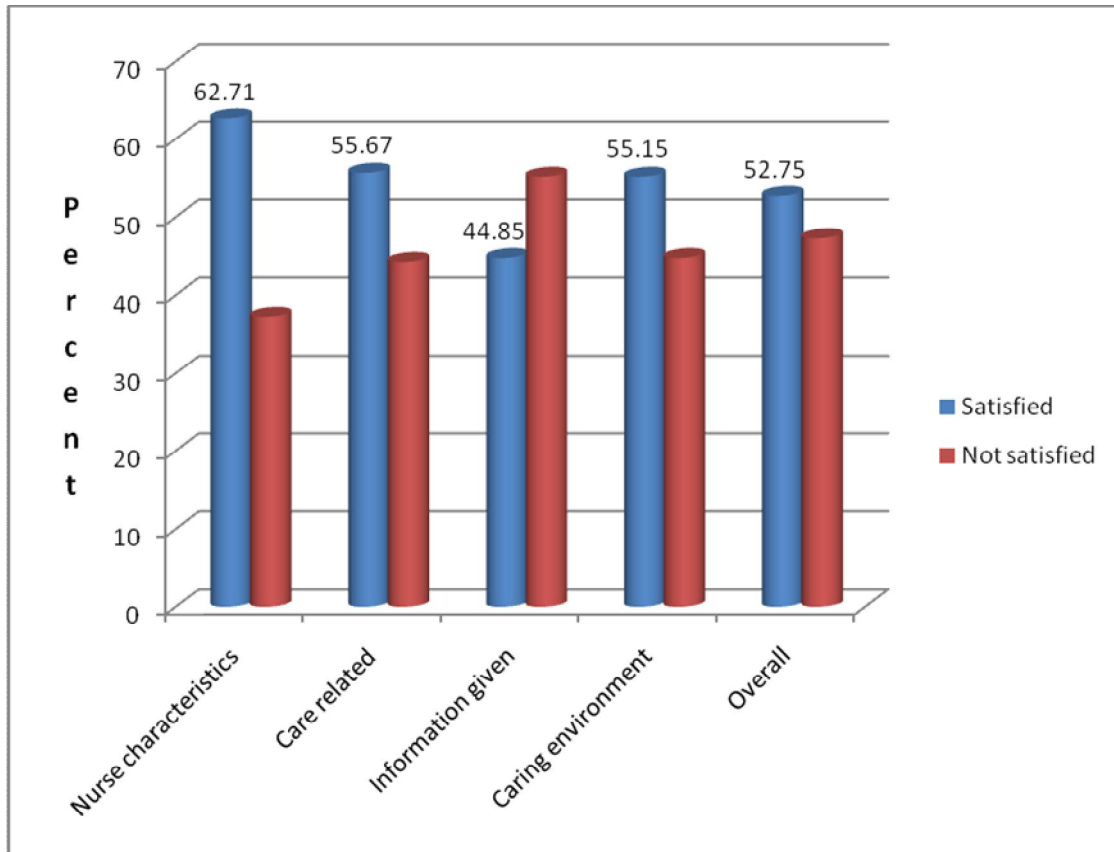
**Patient Satisfaction**

Regarding the nurse characteristics, 243 (41.75%), 233 (40.03%), 233 (40.03%) and 247 (42.44%) of the patients were fully satisfied with the amount of time nurses spent with them, helpfulness of the nurses, nurses awareness of their need and capability of nurses respectively. On the second dimension

of nursing care, 265 (45.53%), 209 (35.91%), 178 (30.56%) and 110 (18.90%) of them were fully satisfied with the given medication, bed making, wound dressing and bed bathing they received respectively. Regarding the information given by the nurses out of the total study participants, 183 (31.4%), 191 (32.8%) and 209 (35.9%) of them were fully satisfied

with nurses' presence around them, the way things were explained and amount of information given respectively. Also 203 (34.9%), 162 (27.8%) and 97 (16.7%) study participants were fully satisfied with the way in which nurses inform them before doing procedures, the way in which the nurses encourage them to make decision freely and the way in which nurses reassured them

according to their religions respectively. Concerning the caring environment, 171 (29.4%), 158 (27.2%) and 173 (29.7%) of them were fully satisfied with cleanliness of the room, amount of freedom they were given and privacy respectively. A combined score of patient satisfaction in each of the four dimensions is summarized in figure 2.



**Figure 2. Patients' satisfaction in nursing care in selected public hospitals in Eastern Ethiopia. Factors associated with patients' level of satisfaction**

The level of patient satisfaction was found to be associated with income, duration of stay, room of admission and history of previous admission were found to be significantly associated with the patients' level of satisfaction. Patients' level of satisfaction was highly associated with monthly income of 501-925 birr and above 925 were about 2.09 times (AOR=2.09, 95% CI=1.18, 3.70) and 2.84 (AOR=2.84, 95%CI=1.45, 5.56) more likely to be satisfied with the nursing care received than those with the monthly income of less than 400

birr respectively. Patients who had no history of previous admission were 3.8 times (AOR=3.83, 95% CI=2.25, 6.50) more likely to be satisfied than those who have had history of previous admission. Patients who were admitted to special rooms were 6.2 times (AOR=6.16, 95% CI=3.32, 11.43) more likely satisfied than those who were admitted to the usual class/room. It was also found that patients' satisfaction decreased as the time of admission increased (table 3)

**Table 3. Predictors of satisfaction among patients admitted in selected public hospitals in eastern Ethiopia, 2012.**

Variable	Satisfaction		COR(95%,CI)	AOR(95%,CI)
	Satisfied n (%)	Not satisfied n (%)		
<b>Age in years</b>				
18-34	182(62.8)	108(37.2)	1.00	1.00
35-44	57(46.0)	67(54.0)	0.51(0.33,0.77)	0.88(0.49, 1.58)
45-65	62(39.7)	94(60.3)	0.39(0.26,0.58)	1.33(0.74, 2.38)
65+	6(50.0)	6(50.0)	0.59(0.19,1.89)	2.59(0.67,10.05)
<b>Educational status</b>				
Illiterate	68(45.9)	80(54.1)	1.00	1.00
Primary	120(49.6)	122(50.4)	1.16(0.79,1.75)	0.85(0.51,1.43)
Secondary	59(58.4)	42(41.6)	1.65(1.00,2.75)	0.91(0.44,1.86)
Tertiary	60(65.9)	31(34.1)	2.28(1.33, 3.91)	0.57(0.25,1.28)
<b>Ward of admission</b>				
Medical	132(46.3)	153(53.7)	1.00	1.00
Surgical	87(52.4)	79(47.6)	1.28(0.87,1.87)	0.96(0.60,1.56)
Obs/gyn	88(67.2)	43(32.8)	2.37(1.54,3.66)	1.34(0.71,2.52)
<b>Have another disease</b>				
Yes	72(37.3)	121(44.0)	1.00	1.00
No	235(60.4)	154(39.6)	2.56(1.80,3.66)	0.87(0.49,1.55)
<b>Monthly income(in Birr)</b>				
<400	72(35.5)	131(64.5)	1.00	1.00
400-500	45(47.4)	50(52.6)	1.637(1.00, 2.69)	1.41(0.76, 2.61)
501-925	89(64.0)	50(36.0)	3.24(2.07,5.08)	2.09(1.18,3.70)*
>925	101(69.7)	44(30.3)	4.18(2.65,6.59)	2.84(1.45,5.56)*
<b>Previous history of admission</b>				
Yes	66(30.1)	153(69.9)	1.00	1.00
No	241(66.4)	122(33.6)	2.56(3.19,6.57)	3.83(2.25,6.50)*
<b>Duration of admission</b>				
3-7 days	159(77.9)	45(22.1)	1.00	1.00
8-15 days	85(54.1)	72(45.9)	0.33(0.21,0.53)	0.45(0.26,0.77)*
16-30 days	45(28.7)	112(71.3)	0.11(0.07,0.18)	0.18(0.10,0.34)*
>30 days	18(28.1)	46(71.9)	0.11(0.06,0.21)	0.25(0.11,0.56)*
<b>Room of admission</b>				
Usual room	190(42.4)	258(57.6)	1.00	1.00
Special	117(87.3)	17(12.7)	9.35(5.43,16.07)	6.16(3.32,11.43)*

### Discussion

This study indicated that level of patient satisfaction in nursing care was 52.7%. Satisfaction was associated with type of room of admission, duration of hospitalization and history of previous admission.

The overall satisfaction of patients with the nursing care was 52.7%. The finding is lower than the studies conducted in Ethiopia and

abroad <sup>(3,8,9,11)</sup> but higher than the study conducted in Taiwan <sup>(13)</sup> This might be related with the characteristics of hospitals studied (nurse staffing) and differences in doctor-patient relationship or nurses' participation in decision making.

The levels of satisfactions for each domain were 62.7% (nursing characteristics), 55.7% (caring activities), 44.8% (information given)

and 55.2% (caring environment). These findings were less than that of study conducted in Saudi Arabia which was 96.6%, 76.8%, 76.6% and 69.5% respectively on the above stated dimensions of nursing care. This might be due to difference in the socio economic characteristics, the number of nurses to patient ratio, and advancement of technologies which are used to provide quality nursing care. <sup>(20)</sup>

The study showed that monthly income was significantly associated with patient satisfaction. Patients with the monthly income interval of 501-925 birr and above 925 were about 2.09 times and 2.84 more likely to be satisfied than their counter parts. The study conducted in Turkey also suggested that income and duration of hospitalization affects the level of patient's satisfaction. <sup>(17)</sup> Patients with previous history of admission were found to be more dissatisfied than their counter parts similar to other studies conducted in Ethiopia. <sup>(9)</sup> This could be related with the repeated costs associated with hospitalization, poor quality of care during the previous time and prior bad experience during their admission.

### Conclusion

The overall level of adult patients' satisfaction was relatively moderate. Satisfaction towards the four dimensions of nursing care showed moderate level and satisfaction about the given information and the caring environment being lower compared to the other dimensions. This shows that patients are being less informed about their diagnosis, treatment and prognosis by nurses even though they expected and it is essential for making decision related with their care. It is also evident that patients are being concerned about the cleanness of the room and amount of privacy and freedom in hospitals. Patient should be informed about their disease conditions in the best language understood by them while environmental aspects of care should be maintained as well.

Patient dissatisfaction was found to be higher among those previously admitted indicating their bad experience in the previous admission. Patients should be admitted in a room conducive for care with sufficient information about their disease and prognosis. Satisfaction of patient is also associated with being admitted in special admission room indicating their need for privacy and clean

room. Concerned authorities should work on improving the caring environment in the usual classes for making patients more satisfied. Being admitted for long period was also found to make patient more dissatisfied which indicate the problem of quality of hospital care. Goal oriented and patient centered admission and nursing care should be a priority. Further researches which include the dietary issues as a component should be conducted.

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### Authors' contributions

TA, NA and AD participated in all steps of the study from its inception to write up. They have prepared and reviewed the manuscript. AK participated in the analysis of the data, reviewed the document for intellectual content and participated in developing the manuscript and its revision. All authors have read and approved the final paper for submission.

### Competing interest

The authors would like to declare that there is no conflict of interest regarding the publication of this article.

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