

Research

Patients' Satisfaction and Associated Factors towards Nursing Care in Dessie Referral Hospital, Northeast Ethiopia

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ABSTRACT

Introduction: A patient satisfaction is considered as one of the desire outcomes of health care and it is directly related with utilization of health services. However, its level is falls at the fundamental level in developing countries including Ethiopia.

Objective: To assess the level of patients' satisfaction and its associated factors at Dessie Referral Hospital, Northeast Ethiopia

Materials and methods: An institutional based cross-sectional study design was employed from May 1 to June 1 2019. A total of 374 patients were selected by using systematic sampling technique. Interviewer administered structured questionnaires were employed to collect data. After data collection, the data were checked for its completeness and entered into Epi data version 3.1. The data were presented in frequency distribution tables and graphs. Both bivariable and multivariable logistic regression were applied to identify factors a $p < 0.05$.

Result: In general, 220(58.8%) patients were satisfied with nursing care service. Patients who had particular nurse for nursing care were more likely satisfied than those who didn't have particular nurse for nursing care (AOR=2.01, 95%CI 1.212-3.334). Patients who had other diseases in addition to current health problem were more likely satisfied (AOR=0.45 and 95% CI 0.196-1.031) compared with patients who had not.

Conclusion: In this finding, the level of patients' satisfaction towards nursing care was low. Having specific or particular nurse and presence of comorbid disease were factors associated with patients' satisfaction towards nursing care. Health institutions should assign particular nurses for patients to improve their satisfaction and quality of care. In addition, nurses should give great attention to their patients with comorbid illnesses.

Keywords: Patients', Nursing care, Patient satisfaction, Dessie referral hospital.

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INTRODUCTION

Patient satisfaction surveys are an instrument in monitoring hospitals quality of care in relation to cost and service. Measures of patient satisfaction can assess communication in the consultation such as information transfer, patient involvement in decisions and reassurance. Patient satisfied studies inform planning as part of range of assessment indicators used to compare different activities of organizing or providing health care Hospitals act as a bridge between people and health service providers, hospital, is responsible for providing curative as well as preventive care [1].

Unless quality improvement becomes a priority improves patient satisfaction, it not only preventing patients from quick recovery, and increasing their costs, it also elevates the psychological barriers of using the health care system and the

consequence becomes grim. Despite this reality, the healthcare providers in developing countries seem to be ignoring the importance of patients' perceptions regarding health services [2].

Unsatisfied patient will not come back to the hospital, and it will lead to loss of income from the patient, as well as wastage of government resources. Level of patients; satisfaction is not measured and assessed frequently in developing countries including our country Ethiopia So, it is difficult to talk more about the quality of nursing care without assessing satisfaction level of patients. Thus, this study was initiated to assess the level of patients' satisfaction and associated factors in Dessie Referral Hospital, Northeast Ethiopia.

MATERIALS AND METHODS

Study area and period

The study was conducted in Dessie Referral Hospital from May 1st to June 1st 2019. This Referral Hospital is located in North-eastern Ethiopia, South Wollo Zone of Amhara regional state, 401 KMs away from Addis Ababa. It has about 749 workers from this 548 are health professionals and 201 administrative staffs serving in hospital. Out of those health professionals, 332 were nurses and 61 of them are Diploma nurses with a total of 242 Beds.

Study design

An institutional based cross sectional study design was employed.

SOURCE OF POPULATION

All patients who were admitted in Dessie Referral Hospital were source population.

STUDY POPULATION

All admitted patients at Dessie Referral Hospital during the data collection period were study population.

INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria

- Patients who were admitted greater than 24 hours
- Patients who are able to speak.
- Patients whose age is 18 and above

Exclusion criteria

- Patients who were severely ill, unconscious, unable to communicate
- Women in labour and
- Patients' who's age less than 18 years and did not have attendants were excluded from the study.

SAMPLE SIZE DETERMINATION AND SAMPLING TECHNIQUE

To determine the sample size for the study population the following assumption was made. The actual sample size for the study was determined using the formula single Population proportion by assuming 5% degree of freedom and 95% confidence interval at alpha ($\alpha=0.05$) and the population proportion (67%) were taken from a study conducted at Addis Ababa [3]. So, based on the above information the total sample size was calculated by using the following formula. By taking the population proportion $p=67\%$.

$$Ni = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2}$$

Whereas, $P=$ Estimate prevalence= 67

$$Ni = \frac{(1.96)^2 * 0.67(1-0.67)}{(0.05)^2} = 340$$

By adding 10% non-response rate the total sample size was 374.

SAMPLING TECHNIQUE

The study was utilized systematic sampling technique. Initially, patients were allocated to medical, surgical, orthopaedic, obstetrics and gynaecology ward proportionally based on their admission in previous months. The previous month's patient flow was 762 per month. Finally, the study participants were selected in every k value which was 2. K value was calculated as follows.

$$K = \frac{N}{n}$$

$N=$ No of admitted patients admitted, $n=$ sample size

$$K = \frac{762}{374} = 2.03 \sim 2$$

STUDY VARIABLES

Dependent variable

- Level of patient satisfaction on nursing care

Independent variable

Socio demographic:

- Sex
- Age
- Income
- Educational status
- Occupational status
- Language
- Religion
- Family monthly income
- Support
- Co morbid disease

Admission characteristics:

- Admission ward.
- Previous experience of admission
- Length of hospital stay

OPERATIONAL DEFINITIONS OF CONCEPTS

Satisfied

Patients who got above the mean score of New castle Satisfaction with Nursing Scale.

Dissatisfied

Patients who got below the mean score of New castle Satisfaction with Nursing Scale.

DATA COLLECTION TOOLS

The data were collected using interviewer administered structured questionnaire by using standardized tool. It has different parts. The first part focuses Socio-demographic characteristics; the second part assesses patients' satisfaction towards nursing care with New castle Satisfaction with Nursing Scale. New castle Satisfaction with Nursing Scale is a standardize tool which used to assess patients' satisfaction towards nursing care throughout the world. All part of the questionnaire were prepared in English version initially and translated into Amharic then back to English to check their consistency.

DATA COLLECTION PROCEDURE

After preparing the questionnaire, 6 BSc nurses for data collection and 3 BSc nurse for supervisor were recruited. Two days training were given for each of them on the meaning of every items of the questionnaire and the techniques of data collection such as ways of greeting, ways of taking consent, ways of data quality monitoring and ways of addressing ambiguous items. After this, data were collected by face to face interview at patients exit (during discharge time) by data collectors. To avoid repeated interview for patients with repeated visit during data collection period, data collectors asked and verified the patient whether interviewed or not before. Supervisors and principal investigator monitored closely the data collection process.

DATA QUALITY ASSURANCE

The quality of data were assured by training data collectors and supervisors, carefully designing questionnaire, monitoring

the data collection process and checking completeness of data during data collection time. In addition, pre-test were conducted to address confusing items at Boru Meda Hospital.

DATA PROCESSING AND ANALYSIS

After data collection, completely collected data were entered in to epi-data version 3.1 and exported to Statistical Package and Service Product (SPSS) version 25 for analysis. Before analysing the data, variables which have negative response were reversely coded. After that the three items of Liker scale (strongly disagree, disagree and neutral) were categorized as disagree and the rest two were categorized as agree. The results of study were presented by using text, tables and figures and binary logistic regression model were enrolled by considering 95% confidence level and p value of 0.05. Multivariable binary logistic regression was done by taking variables that have p value of <0.25 from bivariable logistic regression to identify factors associated with patients' satisfaction towards nursing care.

RESULTS

Socio-demographic characteristics of respondents

A total of 374 participants were participated in the study with a response rate of 100%. Among these, 260 (61.5%) were females and the mean age of the participant was 37.7 (SD=11.96) with 141 (37.7%) of the participants were in the age group of 18-30 years. The majority of the respondent 292(78.1%) were married, 217 (58%) were Muslim in religion (**Table 1**).

Table 1: Socio-demographic characteristics of patients' in Dessie referral hospital Ethiopia, May 1st–June 1st 2019 (N=374).

Variable	Category	Frequency (N)	Percentage (%)
Sex	Male	144	38.5
	Female	260	61.5
Age	18-30 years	31	8.3
	31-40 years	141	37.7
	41-50 years	109	29.1
	51-60 years	72	19.3
	≥ 61 years	21	5.6
Marital status	Single	47	12.6
	Married	292	78.1
	Widowed	30	8
	Divorced	5	1.3
Religion	Muslim	217	58
	Orthodox	156	41.7
	Protestant	1	0.3
Language	Amhara	367	98.1

	Oromo	5	1.3
	Afar	2	0.5
Educational status	Unable to write and read	73	19.5
	Grade 1 up to 8	106	28.3
	Grade 9 up to 12	94	25.1
	Certificate	3	0.8
	Diploma	49	13.1
	First degree and above	49	13.1
Occupation	Trader	65	17.4
	Farmer	73	19.5
	Civil servant	90	24.1
	Student	20	5.3
	Daily labor	4	1.1
	House wife	104	27.8
	Other	18	4.8
Income: birr/month	≤ 500 birr	10	3
	501-1500 birr	60	16
	1501-2500 birr	83	22
	≥ 2501 birr	221	59

Patient and admission related characteristics

Regarding the patient and admission related characteristics, majority of participant (40.9%) were admitted at obstetrics and gynaecology ward. Regarding the participants' history of admission, 261(69.8%) of them were not previously admitted,

and 338 (90.4%) of patient did not have other diseases apart from to current health problem. In addition, 300 (80.2%) of the participants stayed for 2-10 night, with the mean length of stays 1.28 (SD ± 0.612) (**Table 2**).

Table 2: Patient and admission-related characteristics of the participants in Dessie Referral Hospital Ethiopia, May 1st-June 1st 2019 (n=374).

Respondents' characteristics		Frequency (N)	Percentage (%)
Admission ward	Medical ward	80	21.4
	Orthopedics ward	67	17.9
	Surgical ward	74	19.8
	Obes/Gynae ward	153	40.9
Length of hospital stay	02-Oct	300	80.2
	Nov-20	42	11.2
	>20	32	8.6
History of previous Admission	Yes	113	30.2
	No	261	69.8
Presence of co morbidities	Yes	36	9.6
	No	338	90.4
Was particular nurse heir to care you?	Yes	132	35.3
	No	120	32.1
	Not sure	122	32.7

Over all how would you rate you recent staying this ward?	Not good	192	51.3
	Good	182	48.7
Who supports you?	Parents	32	8.6
	Self	213	57
	husband/wife	119	31.8
	brother/sister	1	0.3
	Other	9	2.4

Level of patients’ satisfaction towards nursing care

According to the result, one fourth of the respondents were dissatisfied on the amount of time that the nurse spent with them. However, 315(84.2%) of the total respondents were satisfied to the freedom that a nurse give in the ward. In

contrast to this, 104(27.8%) of the respondents were dissatisfied on the way the nurse made you feel at home. In this study, the overall level of patients’ satisfaction towards nursing care was 58.8% (Table 3).

Table 3: Level of patients’ satisfaction towards nursing care in Dessie Referral Hospital Ethiopia, May 1st–June 1st/2019 (n=374).

S.No.	Items	Satisfied N (%)	Dissatisfied N (%)
1	The amount of time nurse spent with you	279(76.5)	95(25.4)
2	How capable nurse were at their job	286(76.5)	88(23.5)
3	There always being a Nurse around if you need one.	295(78.9)	79(21.1)
4	The amount nurse knew about your care	287(76.7)	87(23.3)
5	The way the nurse made you feel at home	270(72.2)	104(27.8)
6	The information nurse gave to you about your condition and treatment	283(75.7)	91(24.3)
7	How often nurses checked to see if you were okay	287(77.3)	85(22.7)
8	Nurses' helpfulness	295(78.9)	79(21.1)
9	How nurses helped put your relatives' or friends' minds at rest	282(75.4)	92(24.6)
10	Nurses' manner in going about their work	302(80.7)	72(19.3)
11	The type of information nurses gave to you about your condition and treatment	301(80.5)	73(19.5)
12	Nurse student' treatment of you as an individual	296(79.1)	78(20.9)
13	How nurses listened to your worries and Concerns	303(81)	71(19)
14	The amount of freedom you were given on the Ward	315(84.2)	59(15.8)
15	How willing nurses were to respond to your Requests	307(81.1)	67(17.9)
16	The amount of privacy nurses gave you	306(81.8)	68(18.2)
17	Nurses' awareness of your needs	304(81.3)	70(18.7)
18	Overall patients' satisfaction towards nursing care	220(58.8)	154(41.2)

Factors associated patients’ satisfaction towards nursing care

Variables which have an association with patients’ satisfaction towards nursing care at a p value of <0.25 in bivariable logistic regression were marital status, monthly income, admission ward, support from others, assigned particular nurse and presence of co morbidities. These were entered into

multivariable logistic regression to control potential confounding factors. However, in multivariable logistic regression, only assigned particular nurse and presence of co morbidities were associated with patients’ satisfaction towards nursing care at p value of <0.05. According to the result, patients who had a particular nurse were 2 times more likely satisfied with nursing care compared with patients who did

not have particular nurse(AOR=2.010; 95% CI=1.212-3.334, p =0.007) (Table 4).

Table 4: logistic regression analysis of factors that affecting patients satisfaction with nursing care services in Dessie Referral hospital, Ethiopia, May-June 1/2019(n=374).

Variable		Patient satisfaction				
		Satisfied	dissatisfied	COR (95 % CI)	AOR (95 % CI)	P value
Marital status	Non married	21	26	1.933(1.039-3.598)		
	Windowed	19	11	0.904(0.415-1.970)		
	Divorced	2	3	2.342(0.385-14.234)		
	Married	178	114	1		
Income (In ETB)	≤ 500birr	21	26	1		
	501-1500 birr	19	11	0.468(0.183-1.196)		
	1501-2500 birr	2	3	1.212(0.185-7.935)		
	≥ 2501 birr	178	114	0.517(0.278-0.963)		
Admission ward	Medical	41	39	1		
	Ortho ward	40	27	0.710(0.368-1.368)		
	Surgical	45	29	0.677(0.357-1.285)		
	Obs/gyni	94	59	0.660(0.382-1.139)		
Supporter	Self	136	77	0.637(0.404-1.005)		
	Parents	14	18	1.446(0.659-3.173)		
	Other	7	3	0.563(0.134-2.355)		
	husband/wife	63	56	1		
Assigned particular nurse	Yes	83	50	2.098(1.269-3.470)	2.010(1.212-3.334)	0.07
	No	53	67	1	1	
	Not sure	84	37	0.731(0.434-1.233)	0.754(0.445-1.278)	0.294
Presence of co morbid	Yes	28	8	1	1	
	No	192	146(94.8)	0.376(0.166-.849)	0.450(0.196-1.031)	0.059

DISCUSSION

Patient satisfaction is the key indicator of quality nursing care. Although, there is improvement in quality of nursing care, still it falls at fundamental level in developing countries. Thus, this study was aiming to assess the level of patients’ satisfaction towards nursing care.

The overall proportion of patients who were satisfied with nursing care in this study was 58.8%. This study is the same as conducted the study of Samina et al. nursing services large teaching hospital in India using prospectively study 57% is satisfied [4]. but percentage these study is lower compared to other studies in Jordan Patient’s satisfaction revealed about (77%) [5], study done northwest Ethiopia the overall satisfaction was found to be 67.1% [6]. The difference might be deference of patients’ expectation and nursing activity area to area.

However it is greater than a study in Study undergone in Ghana (33%) [7] and Pakistan revealed 45% [8] patients were satisfied with care provided. The difference could be due to

subjective nature of satisfaction, and/or study period difference. The findings of this study showed that there was no relationship between most of socio demographic variables including age, sex, educational status, occupation, ethnicity, patients overall satisfaction with nursing care. This could be due to that most of socio demographic variables did not affect overall level of satisfaction; hence most of the time they did not influence patient’s expectations.

Concerning marital status this study showed that 63.3% married patient was satisfied than 44.7% of single patients. This is in agreement with finding in Turkey that married patients' satisfaction levels are higher than those of widows and divorced patients’ [9]. This might be due to more than half of the patient was married and the social support and care that married patients receive from their spouses and children might decrease their care needs and expectation levels.

This study revealed that patients who had a specific or particular nurse for nursing activity 2 times more likely to be satisfied than those who had no specific nurse for nursing

activity. This might be because of nurse giving nursing care for a particular patient these increase patient and nurse relationship secondary to these reason increase satisfaction with nursing care (AOR=2.01; 95% CI=1.21-3.33).

Although it is not statically associated higher Income has been connected with greater satisfaction. People with lower income report more problems in hospital and reports dissatisfaction [8]. The findings of this study showed that 60.9% of patients who had 2500 birr/month and above income compared to 44.7% of patients who had 500 birr/month and below were satisfied. This might be because of more than half of our respondents had high monthly income (>2500 birr).

In this study, patients' who did not had other diseases in addition to current health problem were less likely to be satisfied (AOR=0.450 and 95% CI=0.196-1.031) than those who had. This is in line with study in Jordan revealed patients' with no other diseases tended to have higher satisfaction than those with other diseases [5]. This could be due to the fact that those patients' with other disease apart from the current health problem needs extra nursing care and follow up for that reason the nurse give that extra nursing care appropriately and follow frequently by those reason increase patient satisfaction.

Patients' who have got freedom 315 (84.2%), the amount of privacy nurses give you 306 (81.8%) and nurse awareness of your needs 304(81.3%) were the aspects of nursing care services which were satisfied with the highest proportion of the study participants. However this was not in line with finding in Jordan patients had low levels of satisfaction with the amount of freedom in the ward, nurses' willingness to respond to requests, and in treating patients as individuals [10]. But this is in most cases congruent with previous studies [11,12].

STRENGTH AND LIMITATION OF THE STUDY

Strength of the study

- Used well-structured questionnaire from validated survey instruments
- Participation of patients' was also generally satisfactory with 100% response rate
- Since interview was made with admitted patients; patients who stay for a long period of time were not missed

Limitation of the study

- Since the study was cross sectional, it shows only temporal relationship between variables (inability to infer causality).
- Patients' were not interviewed at sites away from the health facility. So, social desirability bias is also likely as the respondents were interviewed at their beds.
- Satisfaction ratings were collected through face-to-face interviews which might be subjected to response biases.

CONCLUSION AND RECOMMENDATION

Conclusion

A little over half or 58.8% of the study participants were satisfied with the overall nursing care services; however, considerable proportions were not satisfied. On other hand, the freedom and privacy given to patients in the wards, nursing behaviour and cooperation and responding quickly were important area of nursing care services with the highest satisfaction score.

Having particular nurse give nursing care, and having other diseases in addition to current health problem were found to be statistically associated with the patients' overall satisfaction towards nursing care.

Recommendation

- Health institution in particular health biro should give emphasis for regular in-service training program for nursing to refresh, up-to-date knowledge and skill on different aspects of patients care.
- Nursing school and college should work in collaboration with hospital for facilitating students' learning and achieving educational goals in turn beneficiary for patients' satisfaction.
- Nursing behaviour and cooperation and responding quickly were important area of nursing care services with strongest quality of healthcare services that should be continued and encouraged more.
- Nurse's should aware and informed of extra care for those patient with co morbidity
- The future researcher should do an exit interview and qualitative study so as to minimize social desirability bias and to identify further factors.

ETHICAL CONSIDERATION

Before data collection period, ethical clearance and approval were obtained from Wollo University College of Medicine and Health Sciences Research and Ethical Committee. A supportive letter was given to the selected hospitals and permission was obtained from Hospital Manager to implement the study. Prior to interviewing the respondents, the aim and objectives of the study was clearly explained to the participants and oral informed consent was obtained. Additionally, participants were informed about the right to ask questions and stop response in anywhere. Confidentiality and anonymity were ensured throughout the execution of the study.

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