

Assessment of Adult Patients' Perception of Nursing Care and Its Contributing Factors at Ayder Referral Hospital, Mekelle, Ethiopia, 2016

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Abstract

Background: Patients satisfaction measures have developed tremendous attractions in the sector of health care delivery services for the purpose of ascertaining the quality of health care services in general and nursing care in particular. It is everyone's most common experience to witness significant patient/ client complaints and dissatisfactions with respect to hospital healthcare deliveries, particularly nursing care services. thus the objectives of this study was to determine adult patients' perception and associated factors with nursing care at Ayder referral hospital ,Tigray ,Ethiopia.

Methods: Institutional- based cross-sectional study was conducted from February1 to march 30, 2016. Systematic random sampling technique was employed and 374 patients were selected from the study wards of the hospitals. A 25 items questionnaire, which involved a 5-point Likert scale, was employed to collect the data. Data were collected by trained data collectors using pretested standardized questionnaires. Data were checked for completeness, consistency, coded and entered into SPSSversion20foranalysis. Bivariate and multivariate logistic regression analysis was computed to test the strength of association and level of significance. P-value <0.05 was considered as statistical significant.

Results: The overall satisfaction was found to be50.3%. Among the respondents nearly 54% were females and residing in rural. The mean age of the respondents was 37.3 with standard error of 15.6. Educational level and room of admission were found statistically significant with the outcome variable. Among the study participants, those with higher level of education perceived as obtaining poor nursing care in Ayder referral hospital. Moreover, those admitted in private room were found to be perceived as getting good nursing service in the hospital.

Conclusions: Nearly half of study participants (49.7%) perceived poor nursing care services. Being educated and admitted in private room were found associated with perception of nursing care. Further study is needed to understand the overall patients feeling using qualitative study and the care providers' perceptions should be examined.

Keywords: Adult Patients' Perception of Nursing Care and Its Contributing Factors.

1. Background

Health care as an industry has changed and grown with quality care being recognized as a right rather than a privilege. Client satisfaction is the central concept in the health care marketing. Adapting consumer's satisfaction in a health care environment is imperative to better understand the needs of its customers (patients). According to the Institute of Medicine (IOM) "Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge[1,2].

Consumer satisfaction is defined as a person's feelings of pleasure or disappointment resulting from comparing product's perceived performance in relation to the person's expectation. Thus satisfaction is a function of perceived performance and expectation. Patient Satisfaction is one of the outcome health care quality management[3]

When the performance fall the customer expectation became dissatisfied. If the performance matches the expectation, the customer is satisfied. Quality of services refers to an overall judgment of a particular service[4].

It is based on the difference between expected quality and perceived quality. When quality is higher than expected, it can be termed superior service. When the expected quality of a service equals a perceived service level, it is referred to as general service quality. When the perceived service level is higher than the expected, it is referred to as better service quality and when perceived service level is lower than expected, it is referred to as worse service quality [4,5].

Quality of care is a system approach to health services, which emphasizes both technical competence as well as interpersonal dimension of "health care giving process". Patient's satisfaction is one of the three main

components of quality of care which includes respect for the patient and understanding the needs of the client and providing service accordingly[5].

Nursing service is one of the most important components of hospital services which has two major objectives; nursing care of sick patient and prevention of disease and promotion of health [6].

Department of Health and Children's Strategy Document (Ireland) emphasized the need for a quality health service that puts the patient first. It has been suggested that to understand patient satisfaction, "patient's perception" of the care received must first be understood, as to rate a service on a satisfaction scale the patient has first to perceive the service. More and more patients are demanding to be informed partners in decisions regarding their health and their concerns are now directed at the whole spectrum of their health care whilst in a healthcare institution[7].

A very important aspect on which patient satisfaction depends on „nursing care“ because nurses are involved in almost every aspect of client's care in hospital. The Picker commonwealth program for patient centered care has identified seven dimensions (caring, compassion, spirituality, community outreach, providing comfort, crisis intervention, and going the extra distance) of client centered care almost all of which cover the scope of nursing practice and Nurses interact with patients more often than any other health care personnel in a hospital[8].

Nurse is the one who translates information imparted by physicians technically and professionally with a humane touch. Patient's perception of nursing care can be influenced by their pre-service expectations of the service provider that are in turn influenced by number of factors such as, cultural background, socioeconomic status etc.[9].

After receiving a service the patient compares the perceived service with the expected one. If the perceived service matches or exceeds their expectations they opt to come to the hospital again and recommend it to the needy persons. The expectation and perception of patient towards service provider especially to the nurses as the front line in the patient service would help nurse to become more caring in the interaction and interpersonal care with patients[10].

The hospital administrators as well as all health care workers have to be clever enough to know what the patient actually wants. Many hospitals use a form letter to find out how patients feel about their nursing care. Researches were conducted in nursing and patient satisfaction / perception routinely in developed and developing countries to monitor and improve the quality of care. Thus, the purpose of this study is to determine the gap on patients' perceptions and expectations and its determinates on nursing care at Ayder referral hospital Mekelle, Ethiopia.

2 . METHODOLOGY

2.1 Study Design

Facility based cross-sectional study was done on patients' perceptions regarding nursing care in Ayder referral hospital. The study was conducted from January to February 30, 2016.

2.2 Study Area

The study was conducted at Ayder referral hospital. ARH is the biggest referral hospital in Tigray. it is in found Mekelle Tigray Region. It serve as a teaching institution for Mekelle University, College of Health Sciences and it has 14 wards, 9 out-patient department ,9 operation theatres/major and minor/ and Accident and Emergency Department. It has bed capacity 500, and 36 are for the private wing. On average, its bed occupancy rate goes up to 76%. The monthly admission rate of the hospital is between 700-738 patients. It has an estimated total number of 505 nurses, 68 doctors. The hospital includes medical ward, surgical ward, pediatric ward, gynecology ward, obstetric ward, dermatology ward and burn unit other than outpatient services. this hospital trying to strengthen the nursing care by giving training for nurses on nursing standards and continues follow up on daily basis though standard nursing procedure formats.

2.3 Source Population

The source population was all adult admitted patients in medical, surgical, obstetric, dermatology ward and burn unit of Ayder referral hospital.

2.4 Study Population

All patients who admitted in the ward and eligible and enrolled in the study.

2.5 Sample Size Determination

Using single population proportion formula and calculated the sample size. Taking prevalence of previous study on prevalence of patients satisfaction on nursing care 67.1% [35] on perception of nursing care with 95% of CI and 0.05 margin of error.

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

Where

n= sample size

$Z_{\alpha/2}$ = desired level of statistical significance (95% CI, 1.96)

P= proportion of 67.1%

d=degree of precision usually set at 0.05

$$n = 1.96^2 \times 0.67 \times 0.33 / (0.05)^2$$

With this calculation the sample size was n=340 and we used 10% non-response and a total sample size of 374.

2.6 Sampling Procedure

A systematic random sampling was used to select study participants. A list of all admitted patients was obtained from ward registers through the help of ward nurse in-charge. The first patient was selected by lottery method and then every patient was chosen at K^{th} interval until the required number attained.

2.7 Variables Under Study

2.7.1 Dependent variable

The outcome variable in this study was patients' perception of nursing care. Patients' perception of nursing care was measured using Likert items and these question items had a response category of four as "very poor, poor, neutral, good and very good". Finally a mean score was used to summarize the patients perception as good and poor. Those who scored below the mean taken as perceived poor and above the mean as perceived good.

2.7.2 Independent variables

Data on patients' sociodemographic status including age, sex, education, marital status, residence, income and religion was collected for the purpose of the study. Beside, other variables such as previous hospitalization and additional disease was considered.

2.7.3 Inclusion and exclusion criteria

Inclusion criteria

- Patients admitted in the ward during the study period for at least for 3 days
- Patients who are fully conscious and communicate with the interviewer

Exclusion criteria

- Immediate post operates.
- Children less than 15 years.

2.8 Data Collection Tools

Data collection tool was adapted from previous study on patient perception and satisfaction with nursing scales tool and some studies conducted in Ethiopia and contextualized to the research topic. Standard Structured questionnaire prepared in English and translated in to local language Tigrigna was used. Three nurse students was recruited from college of health science to collect the data. Two days training was given to data collectors. The aim of the training includes the study expectations, objectives, and use of the study tool and how to assist patients in answering the questionnaire. The questionnaire had two sections seeking information on participants' socio-demographic data and patients' care and challenges with nursing care. The participants was asked on their perception to nursing care.

2.9 Data Quality and Management

The research assistants was selected from nurse students who had experience in data collection. Training was given on how to collect the data. The tool was pretested in patients with in the major wards and modification was made based on the findings in the pretest and the patients was excluded in the actual study.

2.10 Data Analysis

The data was entered SPSS version 20 statistical package. Data cleaning was performed to check for frequency, accuracy, and consistency and missed values and variables. Any error identified was corrected. Frequencies, proportions and summary statistics was used to describe the study population in relation to relevant variables. Bivariate and multivariate logistic regression analysis was carried out to see the effect of each independent variable on the dependent variable. 95% odds ratio was computed and variables having p value less than 0.05 in the multi variate logistic regression model was considered as significantly associated with the dependent variable.

2.11 Ethical Consideration

Ethical approval was sought from Research Ethics Committee of Mekelle University, College of health science. Permission was granted from ward in-charges to access the participants. Respect for individual participants was

expressed by recognizing that their autonomy and right to self-determination underpin their ability to make judgments and decisions for themselves. The study was not pose any physical harm except the discomfort of answering questions and time spent to respond. Therefore, nature and purpose of the research was explained to the prospective participants, and then inform consent was sought from the respondents before taking part in the study. Participants was informed that they have the right to withdraw from the research at any time without any prejudice.

3. RESULTS

I. Characteristics of respondents

A total of 374 patients were interviewed with response rate of 100%. Majority of respondents were female and rural residents. Those married individuals accounted for 75% of respondents. Eighty three percent of the study participants were orthodox in religion and nearly similar proportion of participants were from Tigray. The mean age of the participants was 37.3 years (SD±15.6) (Table 1).

Table 1. sociodemo graphic characteristics of participants from Ayder referral hospital ,Tigray ,Ethiopia April 2016.

Variables category		Frequency	Percentage
Sex	Female	203	54.3
	Male	171	45.7
Age	18-34	198	52.9
	35-44	78	20.9
	45-64	60	16.0
	65 and above	38	10.2
Residence	Rural	201	53.7
	Urban	173	46.3
Religion	Orthodox	349	93.3
	Muslim	23	6.1
	Others	2	0.6
Ethnicity	Tigrayan	353	94.4
	Amhara	21	5.6
Educational status	Unable to read and write	159	42.5
	Primary school	116	31.0
	Secondary school	60	16.0
	College and above	39	10.4
Marital status	Married	281	75.1
	Not currently married	93	24.9
Occupation	Farmer	177	47.3
	Merchant	47	12.6
	Governmental employee	35	9.4
	Daily laborer	23	6.1
	Students	31	8.3
	House wife	61	16.3

Half (49.7%) of the respondents were from surgical wards, 37.4%, 12.8% were from medical and other ward respectively. Of those 69.5% stayed in the hospital for 3-7 days and the median duration of hospital stay was 6 days (figure 1). About 89.8% of the respondents were not previously admitted to hospital for any illness and 8.8% of participants have reported existence of co-morbidity. More than half of the respondents (67.4%) were admitted in the common rooms.

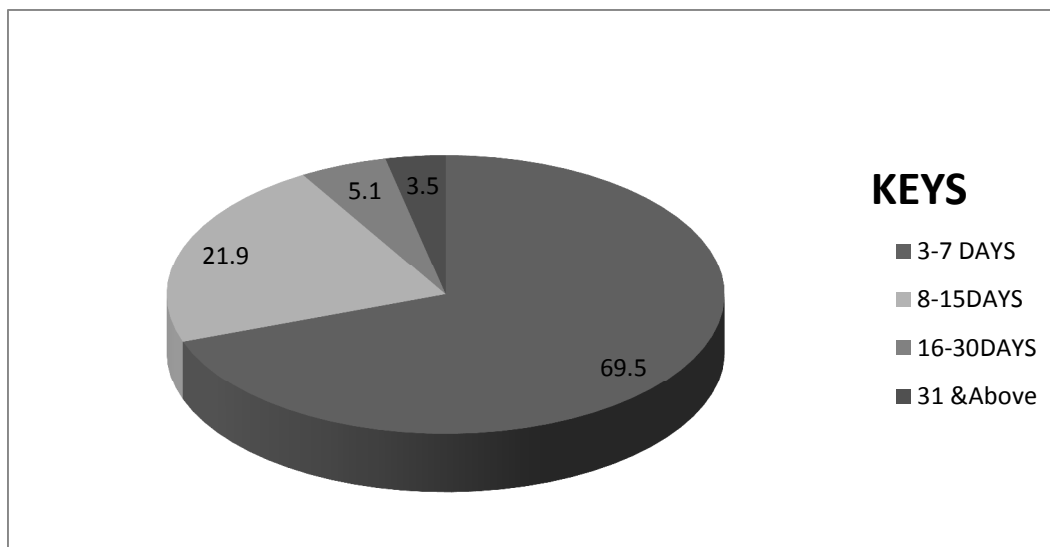


Figure 1.duration of hospitalization of patients admitted in Ayder referral hospital ,Tigray ,Ethiopia April 2016.

Table 2.patients perception on nursing care at Ayder referral hospital ,Tigray ,Ethiopia 2016.

Type of care	Pts perception of nursing care		Total
	Good	poor	
Nursing characteristics	54.5%	45.5%	100%
Care related	59.6%	40.4%	100%
Information given	61.2%	38.8%	100%
Caring environment	94.7%	5.3%	100%
Over all	50.3%	49.7%	100%

Regarding thenursingcharacterstics274(73.3%),298(79.7%),274(73.3%),306(81.8%),284(75.9%),of the patients were fully having good perception on greeting and respecting ,with the amount of time nurses spent with them ,competency of the nurse ,helpfulness of the nurses and the awareness their need respectively.

On the second dimension of nursing care 315(84.2%) and 218(58.3%)had good perception on bed making and respecting privacy respectively. Related to the information given by the nurse out of the total participants 306(81.8%),264(70.6%) and 342(91.4%)of them were fully have good perception with nurses presence around them, the way things were explained and amount of information given respectively . Also 328(87.7%),298(79.7%),and 171(45.7%) study participants were good perception 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 conveying positive attitudes during the procedure respectively. Concerning the caring the environment 363(97.1%)and358(95.7%)of them were fully having good perception on the clean less of the room and the amount of freedom got in the wards. Combined score of patient good perception in each of the four dimension is summarized in figure 2.

Determinants of patients perception of nursing care

The patients perception was found to be associated with level of education and room of admission. The respondents with educational level of diploma and above were more likely to perceive good towards nursing care compared to illiterates [AOR=0.26 and 95% CI (0.01,0.12)]Patients who were admitted to private room were 3.22 times more likely to perceive good nursing care compared to those admitted in common rooms [(AOR=3.22, 95% CI (1.91,5.43)].

Table 3.predictors of perception among patients admitted in Ayder referral hospital ,Tigray Ethiopia.

Variable	Perception		COR(95%,CI)	AOR(95%,CI)
	Good n(%)	Poor n(%)		
Age in years				
18-34	91(46.0%)	107(54.0%)	1	
35-44	48 (61.5%)	30 (48.5%)	1.88(1.10,3.21)	
45-64	30 (50%)	30 (50%)	1.18(0.66,2.09)	
65+	19(50%)	19(50%)	1.18(0.59,3.55)	
Educational level				
Illiterate	86(54.1%)	73(45.9%)	1	
primary school	60(51.7%)	56(48.3%)	.91(0.56,1.46)	0.72(0.43,1.19)
secondary school	40(66.7%)	20(33.3%)	1.71(1.17,3.42)	1.43(0.75,2.71)
College and above	2(5.1%)	37(94.9%)	.046(0.01,0.21)	0.26(0.01,0.12)
Occupation				
Farmer	99(55.9%)	78(44.1%)	1	
Merchant	26(55.3%)	21(44.7%)	0.98(0.51,1.86)	
Govermetal employee	5(14.3%)	30(85.7%)	0.13(0.05,0.35)	
Daily laborer	12(52.2%)	11(47.8%)	0.86(0.36,2.05)	
Students	20(64.5%)	11(35.5%)	1.43(0.65,3.17)	
House wife	26(42.6%)	35(57.4%)	0.59(0.33,1.05)	
Ward of admission				
medical ward	74(52.9%)	66 (47.1%)	1	
Surgical ward	90(48.8%)	96(51.6%)	0.84(0.54,1.30)	
obstatric ward	17(43.6%)	22(56.8%)	0.69(0.34,1.41)	
Dermatology ward	4(80%)	1(20%)	3.57(0.39,32.72)	
Burn unit	3(75%)	1(25%)	2.68(0.27,26.35)	
Have another disease				
Yes	16(48.5%)	17(51.5%)	1	
No	172(50.4%)	169(49.6%)	1.08(0.53,2.21)	
Previous history of admission				
Yes	18(47.4%)	20(52.6%)	1	
No	170(50.6%)	166(49.4%)	1.14(0.58,2.23)	
Duration of admission				
3-7	127(48.8%)	133(51.2%)	1	
8-15	48(58.5%)	34(41.5%)	1.48(0.89,2.44)	
16-30	8(42.1%)	11(57.9%)	0.76(0.30,1.95)	
31+	5(38.5%)	8(61.5%)	0.66(0.21,2.05)	
Room of admission				
Common room	112(44.4%)	140(55.6%)		
Private room	76(62.3%)	46(37.7%)	2.06(1.33,3.21)	3.22(1.91,5.43)

4. DISCUSSION

The overall satisfaction (good perception) of patients with the nursing care was 50.3%. The finding is lower than the studies conducted in Ethiopia and India [4,12,22],but higher than the study conducted in pakstian(45%),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 good perception for each domain were 54.5% (nursing characteristics), 59.6% (caring activities), 61.2% (information given) and 94.7% (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. [26]

The study showed that educational level was significantly associated with patient perception. Patients admitted at private room has good perception than patients admitted at common wards , This could be related with the privacy and Nurses perform their nursing duties in a careful and meticulous manner in the private room and also patients admitted at private room can get conducive environment for care and information about their disease and prognosis.

The study conducted in Turkey[35] also suggested that the duration of hospitalization affects the level of patient's perception but in this study duration of hospitalization has no association with the patients perception on nursing care, this can be due to the difference on quality of service given at hospital like availability and equipped materials that can help for further investigation and having qualified health professional as well with ful governmental commitment on quality of service .

Unlike to this study, studies conducted in Ethiopia showed patients with previous history of admission had poor perception towards nursing care [12]. This can be due to the difference level of caring in the hospital, availability of quality control and assurance at the hospital and the staffing and also due to the repeated cost associated with hospitalization, poor quality of care during the previous time and prior bad experience during their admission.

A similar study conducted on adult patients from medical, surgical and gynecological wards in three

government hospitals in Addis Ababa reported that age and gender were significant predictors of patients' overall good perception with nursing care services [22] but in this study there was no association with age and gender, this can be due to the difference in socioeconomic difference and level of understanding on quality of services.

Strength and Limitation of the study

In this study, the strength was using standard questionnaire, applied pretest before actual data collection and the data collectors were nurse students.

As the limitation of this study, it could have been better to conduct certain in-depth interviews or focus group discussions among the patients for further qualitative exploration of the case to back the quantitative data. However, time and logistic constraining factors prevented the researcher from doing so.

Conclusion and recommendation

Almost half of the study participants had good perception towards nursing care provided in ARH. Being a tertiary hospital, more effort is expected from nurses and other care providers to support patients involve in their care. Fifty percent of patients rated poor perception towards nursing care is significantly higher which implies the need for professional responsibility to provide optimal standard care. Based on our analysis, those with higher level of education perceived as poor nursing care when compared with those not educated. The type of admission rooms also showed an association with perception of nursing care which indicates that admission to a private room is significantly associated with good perception to care. A balanced care should be considered for private and common rooms including pts privacy and confidentiality during 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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Competing interests

The authors declare that they have no competing interests.

Authors' contributions

This topic was conceived and designed by Molla Teferi and Mache Tsadik contributed in the study design and data collection process. Molla Teferi, translated the questionnaire from English to Amharic back translation. We were involved in the analysis and drafting of the paper. Finally Mache Tsadik was the senior resource person and was involved at all stages.

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