IN-PATIENTS' SATISFACTION LEVEL TOWARDS NURSING CARE SERVICES AND ASSOCIATED FACTORS AT PUBLIC HOSPITALS OF ADDIS ABABA, ETHIOPIA
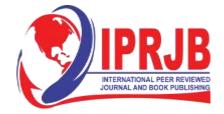
Melsew Getinet Tsegaw

IN-PATIENTS' SATISFACTION LEVEL TOWARDS NURSING CARE SERVICES AND ASSOCIATED FACTORS AT PUBLIC HOSPITALS OF ADDIS ABABA, ETHIOPIA

Melsew Getinet Tsegaw (BSc, MPH)

Department of public health, Saint Lideta college of Health Sciences

Author's E-mail: melsewg@gmail.com
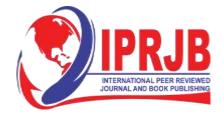
Abstract

Objective: This study was aimed at assessing the level of patient satisfaction and associated factors among patients towards nursing care services at public hospitals of Addis Ababa.

Methods: The statistical protocol of the project was a cross-sectional study undertaken at six public hospitals governed under Addis Ababa Administration Health Bureau. A total of 422 In-patients participated. Participants were selected and included in to the study prospectively and based on availability on discharge during the specified data collection period until the required sample size was reached. Participants were interviewed using a modified structured Amharic version of the New Castle Nursing Satisfaction Scale tool. Data entry was made using EPI-info and analysis was carried out using SPSS 20 software. The primary method of statistical analysis was logistic regression.

Result: The study revealed a 48.8 % of overall satisfaction rate of patients towards nursing care services. Age category of 18-40 (P-value=0.001), a monthly income level of Birr < 1000 (P-value=0.02) and <Birr 2500 (P-value = 0.01), patients admitted in medical ward (P-value=0.012), and surgical ward (Pvalue=0.003), previous admission history (P-value=0.01), length of hospital stay > 30 days (Pvalue=0.001), co-morbidity (P-value=0.001) and unavailability of particular assigned nurse were significant predictors of dissatisfaction with the nursing care services. Those with educational level of secondary (P-value=0.001) and tertiary (P-value=0.001) were more likely to be satisfied with the nursing care services rendered to them.

Conclusion and Recommendation: A relatively low level of satisfaction towards nursing care services was revealed. Old age, a better monthly income and advanced education were the most significant demographic predictors of satisfaction with nursing care services. Those with previous admission history, stayed longer, who had co-morbidity and unavailability of specific assigned nurse were significant predisposing factors of dissatisfaction. On job training for nurses, standing use of contextualized and validated assessment tools to evaluate the patients' perceived satisfaction are important.

Key words: *patient satisfaction, nursing care, in-patients, Public hospitals, Addis Ababa*

INTRODUCTION

During the last few decades the increasingly rising cost of medical services and the need for better evaluation of available resources, preoccupy all the developed countries (1). Patient satisfaction is the patient's perception of care   received compared with the care expected (2). Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment (3).The emerging health care literature suggested that patient satisfaction is a dominant concern that is intertwined with strategic decisions in the health services. Patient satisfaction should be as indispensable to assessments of quality as to the design and management of health care systems (4).Satisfaction with care is an important influence determining whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioners (5). Donabedian, a long time ago, attributed patients' satisfaction a totally separate dimension, considering that the final quality confirmation is not only defined by the effectiveness of medical care, that is the desirable health level, but from the patient's satisfaction as well, which consists an integral part and recognizable indicator of the quality of health care provided (6).
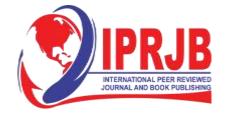
It is true that patients may have some difficulty in truthfully putting down their views for the provided services and that reduces the validity of measurements. Nevertheless, satisfaction is a subjective concept for the patient and professionals have to accept its existence, regardless of the validity of the patients' views. The patients' feelings are what matters even if the staffs' perception is different, since patient satisfaction evaluation is connected with their behavior and can be used to improve nursing services (7, 8).

Patient satisfaction is the extent to which the patients feel that their needs and expectations are being met by the service provided (9).Comparing our findings with previous studies. Measuring patient satisfaction has many purposes, but there are three prominent reasons to do so. Such interviews help to evaluate health care services from the patient's point of view, facilitate the identification of problem areas and help generate ideas towards solving these problems (10).

Health care has become specialized and compartmentalized because of its complexity. With regard to this, satisfaction of patient is an increasing focus. Patient satisfaction has become a critical element in assessing health care delivery systems. Recognizing the needs to monitor how patient feel about the care provided can also be used as a catalyst for service improvement (11).

Nursing that may be rated by the profession as of high quality may not be seen that way by the patient. Helping patients to regain independence by encouraging them to wash and dress themselves may be seen as poor care by patients who think the nurse should do the washing and dressing (12). A number of studies have identified the aspects of nursing care thought to contribute to good quality. These include individualized patient care provided in an empathetic and caring way, nursing that is competent and consistent, and nurses who provide patients with information effectively and appropriately (13).

The patients' perspective on quality is, however, deserving of better treatment. This is demonstrated by Overtveit's (1992) analysis into three components – Managerial, Professional and Client based. Managerial quality is concerned with the cost effective use of resources, while the professional dimension of quality is concerned with clinical effectiveness and nurses setting
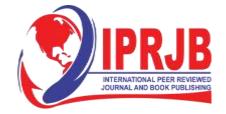
standards of care utilizing systems. Patients' satisfaction is a "patient centered" process measure. It reflects the patients' personal responses to, and evaluation of, care (25). Care providers has been described as the single most important component of good medical practice, not only because it identifies problems quickly and clearly, but it also defines expectation and help to establish trust between the clinician and the patient (26,27).In a studies conducted on client satisfaction with utilization of primary health care services delivered by a nurse practitioner in the Employee Health Services department of a not for profit hospital, in the Southern United States, revealed that overall high levels of patient satisfaction with nurse practitioner delivered health care services were demonstrated, with the mean general satisfaction score determined to be 86.86%(28) .In a study done in Northwest Ethiopia revealed that those patients who were under acute illness conditions were less likely to report overall satisfaction with nursing care services than those under chronic conditions. This could be due to the fact that the chronic patients had already been accustomed to the dissatisfying hospital conditions and became less sensitive to them (29).

Perceived technical competency, perceived empathy, non-verbal communication, being told the name of illness, frequency and type of visit, knowing the provider and patient enablement were the main predictor variables of patient satisfaction in this study. This shows that interpersonal interaction which relies on verbal and non-verbal communication is crucial in improving patient satisfaction and should be given due attention by the health care providers (30). It is also similar with a study conducted in Trinidad and Tobago which showed the percentage of satisfied clients decreased with increased educational status, but increased with increasing age (31). Consumer's satisfaction is central to the marketing concept. Adapting consumer's satisfaction in a health care environment is imperative to better understand the needs of its customers (patients). Patient's satisfaction therefore has become important outcome measure of quality (14).

During hospitalization, patient satisfaction represents a balance between the patient's perception and expectation of their nursing care (15). Patients' satisfaction with nursing care has been reported as the most important predictor of the overall satisfaction with hospital care and an important goal of any health care organization. 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 their interaction and interpersonal care with patients (16).Therefore, dissatisfaction with the nursing care services may further lead to lower utilization of the nursing care services by the patients (17).

There are only a few reports of patient satisfaction from developing countries, with comparing to the high volume of publications on patient satisfaction from developed countries (18). In India, 609 patients across 6Tertiary Cancer Treatment Hospitals that were selected from 6 regions were interviewed. The study revealed that above 70% of the patients were satisfied with the facilities, doctors, nurses, services and care, except on the few items like information supported by doctor or nurses and the facilities for attendants (19).

Patients' satisfaction with nursing services is particularly important since the nursing staff consist the majority of health professionals and is constantly by the patients' side in order to satisfy their needs, constituting this way an unquestionably overbearing component in maintaining and restoring their health. The literatures show that researchers agree on the significance of nursing interventions in shaping the patients' total satisfaction with the nursing services (20, 21).

The first efforts to assess patients' satisfaction with health services started from the nursing department, in 1957, in America (22). Nowadays, in developed countries like America and Great Britain, measuring patient satisfaction is legally established and constitutes a precondition for the accreditation of hospitals (23).

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. Their experiences often reveal how well a hospital system is operating and can stimulate important insights into the kinds of changes that are needed to close the chasm between the care provided and the care that should be provide (24).

Objective

The main objective of the research was to describe the level of In-patient satisfaction of nursing care services and identify associated factors

METHODS

This survey was conducted at the capital city of Ethiopia, Addis Ababa. According to the 2007 census the city has a population of size of 3,384,569 and an annual growth rate of 3.8%. Based on this estimation, the population in the year 2013 would be 4,156,251. This number has been increased from the originally published 2,738,248 figure and appears to be still largely underestimated (32). There were six public hospitals under Addis Ababa City Adminisrtative Health Bureau which were subjected to be the study settings of this research project.

The study design of this research project was descripitve cross-sectional undertaken at public hospitals. The data collection period commenced on February first and ended on June 30, 2016 G.C. Patients who were admitted for the last three days of this research project in the wards of medical, surgical and obstetrics and Gynecology at Public Hospitals

Study subjects were adult patients and included in to the survey if they are only conscious, coherent, mentally stable, admitted in the medical, surgical and gynecological wards for at least three days and willing to give informed consent. Those patients' who were too seriously ill and unable to communicate were not included in the study.

The only dependent variable of this research was patient satisfaction status. Independent variables taken in to account were socio-demographic characteristics of in-patients (age, sex, income, religion, Educational level) admission unit, Inter-current illness, previous history of admission, length of hospital stay, knowledge of assigned nurse availability

The sample size was calculated by using single population proportion formula and by considering 52.75% prevalence patient levels of adult patients' satisfaction with nursing care in selected public hospitals in Ethiopia (33).
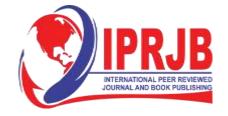
$$n_0 = \frac{z_{\alpha/2}^2 pq}{d^2}$$

n = The design sample size

$z_{\alpha/2} =$

$p =$

$d =$

The standard normal deviant usually set at 1.96 which corresponds to the 95% confidence level.

The proportion of the target population patient satisfaction, which is 52.75% and $q = 1 - p.$ Degree of accuracy desired, at 0.05 Design
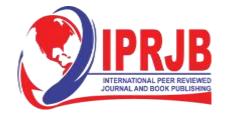
On the basis of the model shown above, a minimum of 382 participants and 10% additional nonresponse rate was determined and subjected for an interview for this project. Accordingly, the overall pre-determined sample size of this project was 420. However, an extra 2 participants were enumerated and included because of fractional participants' approximation in two hospitals. The study respondents were selected and included in to the study prospectively and based on availability on discharge during the specified data collection period until the required sample size is reached. Then after, the sample size was complemented from the six hospitals using proportional to size of the bed numbers of each hospital. Meanwhile, individual patients were selected and included in to the study based on availability during their discharge time.

Self-face to face interview was conducted with patients who were admitted in different wards by using structured questionnaire. The Newcastle satisfaction with nursing scales tool which was adapted from previous study in Ethiopia was used (34).This New Castle Nursing Satisfaction Scale was a modified 19 items instrument employed in this study to determine the selected patient satisfaction with the Nursing care they received during their stay at the study wards in the selected hospitals across various aspects of nursing care services. All items were scored on a five point likert scale (1= not at all satisfied, 2= barely satisfied, 3= quiet satisfied, 4= very satisfied and 5= completely satisfied).Respondents 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. The response of 'completely satisfied/very satisfied'(4 and 5) were recorded as 'fully satisfied '(1) and those of quiet satisfied/barely satisfied/not at all satisfied (1,2,and 3) were recorded as 'not satisfied'(0).The proportion of the patients satisfied with various aspects of nursing care were then determined in percentages.

On the other parts of the questioner, the respondents requested to provide information about their socio-demographic and admission related variables. Finally, the participants requested to rate their general evaluation of the nursing care received during their stay at the study wards.

Before data was collected a pre-test was done with a sample of 10 patients other than the study hospitals. Enumerators were health professionals and supervisors with BSc holder and above and fluent speaker of Amharic was trained on the tools and at the same time the tool was checked by the investigators for the completeness and consistency of the data and inconsistent questionnaires and interviews was rejected from the data collected at the spot. The tools also coded during data collection and before entering to the computer. To ensure consistency and completeness the questionnaire was translated from English to Amharic.

Quantitative data was cleaned and entered into EPI-info and analyzed using SPSS 20to obtain summary figures and percentages. Descriptive statistics like frequencies and percentages were used to present the categorical independent variables, and mean/standard deviation was used to describe age of participants. For this study, logistic regression model was used for analysis and the odds ratio (OR) were computed with the 95% confidence interval (CI) to see the probable level of not

being satisfied with nursing care services in relation to the considered determinant factors. Independent factors, with a P-value <0.2 obtained in the uni-variable logistic regression model were all entered into the multiple logistic regression model. Consequently, the most important associated factors were identified using the multiple logistic regression models. Then adjusted odds ratios (AOR) with 95% confidence interval were calculated for the significant predictive variables, and statistical significance was accepted at (P< 0.05).
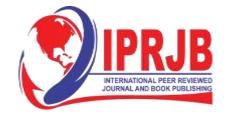
Each of the health managers and coordinators received a letter from the Addis Ababa city administration health bureau requesting cooperative and facilitating participation with some of the relevant subordinates under the hospital. Informed Consent was asked to each of the respondents and the right to refuse to respond to any of the questions or refusal of participation whenever they felt uncomfortable was told and respected. All the study participants were informed about the purpose of the study and their 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

Socio-Demographic Characteristics of Study Respondents

Four hundred and twenty two (422) patients were selected in six public hospitals of Addis Ababa and screened for probable satisfaction towards nursing care services they were offered from respective hospitals. The mean age of study respondents was 35.4 $\pm$ SD 12.93. More than twothird (66.8%) of the participants were females. The majority 307(72.9%) of the study participants were orthodox Christian and 72(16.9%) of them were Muslims. The least of the participants were catholic, protestant and other unspecified religion followers 43(9.9%). With regard to educational status of patients, 295(70%) of them had a secondary and tertiary education whereas; the rest 127(30%) of them were either unable to read and write or had only primary education. With regard to income level, 161 (38.2%) of them earned a monthly income of Birr >2500 whereas, the rest 134(31.8) and 127(30.1%) of them had a monthly income of Birr 1001-2500 and Birr $\leq$100, respectively.
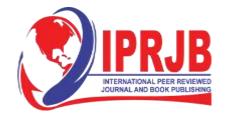
Table 1: Socio-demographic characteristics of the respondents (n=422) in selected public hospitals, **Addis Ababa, Ethiopia, 2016.**

Characteristics	Frequency	Percent (%)
Sex		
Male	140	33.2
Female	282	66.8
Age in years		
18-40	245	58.1
41-50	87	20.6
51-60	32	7.6
>60	58	13.7
Educational level		
Unable to read and write	37	8.8
Primary education	90	21.2
Secondary education	124	29.5
Tertiary education	171	40.5
Monthly Income level		
<1000ETB	127	30.1
1001-2500ETB	134	31.8
>2500ETB	161	38.2
Religion		
Orthodox	307	72.9
Muslim	72	16.9
Catholic	9	2.1
Protestant	32	7.6
Others	2	0.2

Admission and Related History of Participants

A total of 422 patients admitted in public hospitals of Addis Ababa were included. Of this, 109(25.8%) and 93(22%) of them were from Menelik II and Yekatit 12 hospitals, respectively. Whereas; the rest 68(16%), 55(13%), 50(11.8%) and 47(11.1%) of the patients were included from Zewditu Memorial, Gandy Memorial, Tirunesh Beijing and Ras Desta Damtew Memorial hospitals, respectively. Regarding the units of admission, two-third (71.6%) of the participants were from medical 151(35.8%) and 151(35.8%) were surgical admission wards; whereas; the remaining
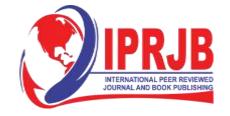
120(28.4%) of them were from the obstetrics and gynecologic ward. With respect to previous admission history, almost two-third (65.4%) of the participant in-patients had never been admitted before; and the rest 146(34.6%) had at least one time history of admission. On the other dimension, close to one third (32.2%) of the patients admitted and included in this study at public hospitals of Addis Ababa had history of pre-existing illness (inter-current) disease other than the current cause of admission. Better yet, 257(60.9%) of the patients disclosed that assigned particular nurse was not available.

Table 2: Admission and related history of In-patients (n=422) at public hospitals of Addis Ababa, 2016

Variables	Frequency	Percent
Name of the hospital		
Rasdesta Hospital	47	11.1
Zewditu Hospital	68	16
Menelik II Hospital	109	25
Gandy Memorial Hospital	55	13
Tirunesh Bejing Hospital	50	11.8
Yekatit 12 Hospital	93	22
Department		
Medical	151	35.8
Surgical	151	35.8
Obstetrics & Gynecology	120	28.4
Previous admission history		
Yes	146	34.6
NO	276	65.4
Inter-current illness		
Yes	136	32.2
No	286	67.8
Availability of particular assigned nurse		
Yes	257	60.9
No	165	39.1

Patient Satisfaction Rate with Nursing Care Services and Associated Factors

In the bivariate logistic regression analysis, there was no significant association between Nursing care satisfaction and sex (P-value=0.76), religion (P-value= 0.966) and occupational status (Pvalue= 0.3) of patients. However, educational level had statistically significant association with the fact that those participants with tertiary (P-value=0.028) and secondary level of education (Pvalue=0.002) were more likely to be satisfied than those with an educational level of unable to read and write and with primary education level. In line with this, there is an association between
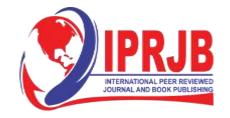
monthly income level and being satisfied with the nursing care services. On the other hand, there is an association between satisfied with nursing care and stay length (P-value=0.007), previous admission history (P-value=0.008), inter current illness other than recent reason of admission (Pvalue=0.003), and particular assigned nurse availability (P-value=0.001).

 After adjustment for possible confounders, the socio-demographic variables including those with age category of 18-40 (OR 8.864; 95% CI: 3.826-19.71) (P-value=0.001) and 31-50 years old (OR 6.82: 2.67-17.25) (P-value=0.001) were observed to be more likely to be dissatisfied with nursing care than those participants age above 60 years old. Besides, the multiple regressions showed that educational level of tertiary (OR 0.237; 95% CI: 0.087-0.641) (Pvalue=0.005), secondary education (OR; 0.174; 95% CI: 0.062-0.486) (P-value=0.001), and primary education (OR; 0.183; 95% CI: 0.063-0.529) (P-value=0.002), were less likely to be dissatisfied with the nursing care than those who were not able to read and write. As to the names of hospitals, patients in Tirunesh Beijing hospital were found to be more dissatisfied with the nursing care services (P-value=0.043). Patients with monthly income level of Birr< 1000 (OR 2.82; 95% CI: 1.48-5.34) (P=0.02) and <Birr 2500 (OR 2.735; 95% CI: 1.48-5.04) (Pvalue=0.01) were less likely to be satisfied with the nursing care services offered to them The multivariate analysis has also revealed that patients admitted in the medical ward (OR 2.658; 95% CI: 1.395-5.064) (P-value=0.003) and surgical ward (OR 2.059; 95% CI: 1.174-3.613) (Pvalue=0.012) were more likely to be dissatisfied with nursing care than those patients admitted in gynecological wards of public hospitals of Addis Ababa. Those patients who had previous history of hospital admission (OR 2.95; 95% CI: 1.52-4.96) (P-value=0.01), length of current hospital stay for more than 30 days (OR 4.41; 95% CI: 2.601-7.478)(P-value=0.001), presence of inter-current illness (OR 4.1695% CI: 2.396-7.22) (P=0.001),and assigned nurse unavailability for the patient (OR 2.566 95% CI: 1.57-4.19)(P=0.001)were statistically significant associated factors of being dissatisfied with nursing care services among patients who had been seeking medical care in public hospitals of Addis Ababa**.**

Table 3: Association between Newcastle Satisfaction with nursing care Scales (NSNS) tool score of < 14 and socio-demographic variables and medical history of patients (n=422) in public hospitals of Addis Ababa, 2016
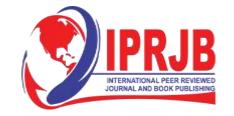
Variables	Total no	NSNS score $\leq$ 14	COR (95% CI)	AOR (95%CI) Number	P-value
Name of the hospital					
Rasdesta Hospital	47	22	1.00	1.00	

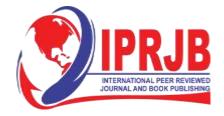|					
Zewditu Memorial Hospital	68	29	0.842(0.391-1.72)	1.089(0.408-2.906)	0.86
Menelik II Hospital	109	58	1.49(0.75-2.96)	1.79(0.732-4.38)	0.20
Gandi Memorial Hospital	55	26	1.56 (0.713-3.44)	1.51(0.426-5.35)	0.50
Tirunesh Bejing Hospital	50	30	1.7(0.76-3.8)	3.079(1.034-9.12)	0.043*
Yekatit 12 hospital	93	51	1.27(0.63-2.56)	1.432(0.56-3.66)	0.45
Department					
Medical	151	68	1.659(1.053-2.62)	2.059(1.174-3.613)	0.012*
Surgical	151	87	1.262(0.78-2.04)	2.658(1.395-5.064)	0.003*
Gynecological	120	61	1.00	1.00	
Age					
18-40	245	144	6.092(3.01-12.32)	8.864(3.826-19.71)	0.001*
41-50	87	49	5.51(2.52-12.0350)	6.82(2.67-17.25)	0.001*
51-60	32	12	2.564(0.97-6.77)	3.07(0.973-9.704)	0.06
>60	58	11	1.00		
Educational level					
Unable to read and write	37	27	1.00		
Primary education	90	45	0.362(0.157-0.836)	0.183(0.063-0.529)	0.002*
Secondary education	124	53	0.283(0.126-0.637)	0.174(0.062-0.486)	0.001*
Tertiary education	171	91	0.416(0.190-0.90)	0.237(0.087-0.641)	0.001*

Monthly Income level

<1000ETB	127	78	2.645(1.637-4275)	2.82(1.48-5.34)	0.02*
1001-2500ETB	134	78	2.345((1.467-3.75)	2.735(1.48-5.04)	0.01*
>2500ETB	161	64	1.00		
Previous History of Admission					
Yes	146	100	3.065(2.003-4.69)	2.95(1.52-4.96)	0.01*
No	276	116	1.00		
Length of hospital stay in days					
3-30 days	284	119	1.00		
>30 days	168	97	3.362(2.12-5.207)	4.41(2.601-7.478)	0.001*
Inter-current illness history					
Yes	136	98	3.771(2.415-5.887)	4.16(2.396-7.22)	0.001*
No	286	118	1.00		
Availability of assigned nurse					
Yes	136	98	1.00		
No	286	118	2.302(1.54-3. 44)	2.566(1.57-4.19)	0.001*

COR = odds ratio; CI = confidence interval.
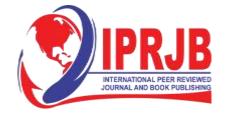
* Significant at P < 0.05.

AOR=adjusted odds ratio

DISCUSSIONS

The current study showed that an overall nursing care satisfaction rate of 48.8% among patients who were admitted at public hospitals of Addis Ababa; which was relatively lesser than with a study conducted at Harari region and Dire Dawa selected public hospitals that revealed an overall nursing care satisfaction of 52.75% (33).This may be because of some research methodological and socio-demographic characteristics variation. Quite considerably, this proportion is far lesser than a study conducted in Ethiopia (82.7%) that was undertaken in similar setting (34) and the abroad Cairo at Al-Noor Specialist Hospital that eventually concluded that patients were satisfied with the nursing care services rendered to them (36) and a study in India(37).The difference may have been attributed from the fact that these studies were conducted in countries where there is relatively an improved socio-economic status with a wellorganized settings and number of qualified professionals.

Patients satisfaction towards general health care delivery was evaluated in hospitals of Amhara region and it showed a 20% to 50% satisfaction (38) which was in contrast with the findings of the current study. Nevertheless, it would be difficult to make comparisons across because of research objective differences in one way and the time length of those studies conducted that there was obvious service delivery differences between the past studies research period and of the current one.

With regard to the predictors of patient satisfaction towards nursing care, there was a significant relationship between age of the patient and dissatisfaction; that is the older the patient is the more likely the patients would be satisfied with the nursing care. This finding is in accordance with the study conducted in the Brazilian context of medical surgical ward patients (39,40).This would be because of the fact that patients with an older age may have a better life time experience to cope with the nursing care services that would dissatisfies them. On the other perspective, young patients are able to appreciate technical quality dimensions than the old age patients (41).The other factors obtained as a predictor of patients satisfaction was educational level that educated patients were more likely to be satisfied than those who were not able to read and write. This finding is unlike other studies of similar setting (39).This could be the result of the fact that when patients are educated they would probably be able to comprehend the situation of hospital settings whereas educated ones in the other countries may knew that they have the right to seek a better medical services as they are living in a relatively advanced socio-economic condition that would have a well-qualified professionals and services.

The present study has also revealed that patients stayed more than 30 days in public hospitals were 2.6 times more likely to be unsatisfied with a nursing care services than those stayed lesser than 30

days. This was not in keeping with a study undertaken among ward patients of Brazil (39) that revealed the fact that it was the longer the admission days the higher a good score of satisfaction. Another study in Ethiopia public hospitals was also in keeping with the finding of the current study that patients will be dissatisfied as the admission days increased (33).

Previous history of admission was also significantly associated with satisfaction towards nursing care that those who had history of admission before was 2.95 times more likely to be dissatisfied than their counterparts. This is in agreement with a study conducted in Ethiopia (33,34). This could be due to previous stressful experiences like therapeutic procedures, costs they expend and poor quality of services render to them. In another, the multiple regression analysis showed that those whose monthly income level is < 1000ETB were more likely to be dissatisfied. This is similar with a report in Harari and Dire Dawa public hospitals (33).This is indeed due to rising cost of living, their capability to afford for medical services and routine expenses during admission times. Considerably, this study also showed a statistically significant association between patients' additional illness other than the cause of recent admission and patients' probability of dissatisfaction with the nursing care. This is not similar with a report in Northwest Ethiopia that revealed those patients who were under acute illness conditions were less likely to report overall satisfaction with nursing care services than those under chronic conditions (42).As to the recent study, it may be justified as that the result of chronicity of their previous illness would intensify the risk of depression which would be exhibited with being disinterested with the overall environment and services.
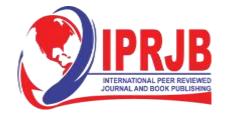
This research had come up with a conclusion that patient's satisfaction towards nursing care services has an association with the patients' own demographic characteristics and admission and hospital services related variables.

If there is a need to confirm and become conclusive of the extent of satisfaction rate of nursing services and associated factors among in-patients of hospitals, contextualizing and adopting a validated instrument would be important with a due attention to a larger sample size based study would be important.

LIMITATIONS

Considerably, the study design was cross-sectional, thus it cannot be possible to determine that exhibiting dissatisfaction with services is pre-existing or currently and some associated factors are risks or outcomes of patients perception. Besides, the study has only included public hospitals rather than it needed also to include other hospitals and hence, it cannot be representative to the wide-ranging hospitals in the country. The study admits that it didn't make an association between patients satisfaction level with the nursing characteristics, varying quality of care, spectrum of illness the patients would have; and therefore the evidences are presented with a possibility that would have been confounded and biased

CONCLUSIONS

The study revealed the level of patient satisfaction towards nursing care among admitted patients of public hospitals of Addis Ababa in surgical, medical and obstetric and Gynecological Wards. As a result, there was a low level of satisfaction towards nursing care among inpatients of public hospitals. Factors that were able to be significant predictors of nursing care service dissatisfaction of in-patients were admission ward (medical, surgical), previous history of admission, and unavailability of assigned nurse for the particular admitted patients. Besides, socio-demographic factors including younger age at admission and lower educational level (unable to read and write, primary education only) were found to be significant factors of dissatisfaction of patients with nursing care.
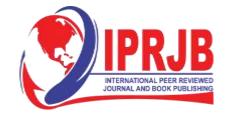
Considerably, it was disclosed that hospital kind was also associated factor for patients to have a low satisfaction perception towards nursing care as in Tirunesh Beijing hospital.
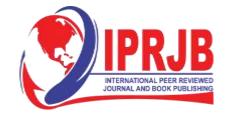
RECOMMENDATIONS

- On job training has to be provided to nurses regarding the need for courtesy and overall nursing care services to gain a positive perception from patients.
- Nurses need to be educated as to how they can comprehend with the specific type of patients including their age, educational level and cognition ability of different patients.
- The use of contextualized and validated assessment tools to evaluate the patients'' perceived satisfaction across health care facilities of the country is recommended.
- Patient centered length of admission in a hospital should be emphasized since longer time of admission was showed to be one of the factors for patients'' dissatisfaction.
- Further research is recommended incorporating all the possible patient factors, like quality of nursing care, nurses' characteristics which would have association with the patients' perception of satisfaction in nursing care services rendered to them.
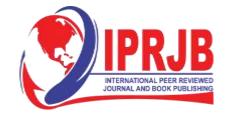
1. **References**
2. Merkouris A, Ifantopoulos J, Lanara V, Lemonidou C. Patient satisfaction: a key concept for evaluating and improving nursing services. J NursManag. 1999; 7(1):19-28.

3. Aiello A, Garman A, and Morris BS: Patient satisfaction with nursing care: A multilevel analysis. J Quality Management in Health Care 2000, 312(3):187–191.

4. Marquis MS, Davies AR, Ware JE Jr: Patient satisfaction and change in medical care provider: a longitudinal study. Med Care 1983, 21:821–829.

5. Andaleeb, S. (2001), "Service quality perceptions and patient satisfaction: a studyof hospitals in a developing country" ,SocSci Med, Vol. 52, pp. 1359-70.

6. Larson D.E and Root man I. (1976), Physician role performance and patient satisfaction.Soc.Sci.Med.8 10,29-32

7. Donabedian A. Explorations in quality assessment and monitoring, National Center for Health Services Research. Health Administration Press, Mich, 1980.

8. Linder-Pelz SU. Toward a theory of patient satisfaction. SocSci Med. 1982; 16(5):57782.

9. Bond S, Thomas LH. Measuring patients' satisfaction with nursing care. J AdvNurs. 1992; 17(1):52-63.

10. Ware JE, Snyder MR, Wright R. Defining and measuring patient satisfaction with medical care. Eval.Prog. Planning, 1983; 6: 247-263.

11. SitziaJ,WoodN.Patient satisfaction a review of issues and concepts. Soc. Sci. Med., 1997;45(12): 1829-1843.

12. Ozge O. (2001), Patient satisfaction with nursing care at a university hospital in Turkey. Journalof nursing Care Quality ;16:24-33.

13. Walsh M, Walsh A (1998), Evidence-based practice: is patient satisfactionevidence? Nursing Standard, Aug. 26 / vol. 12/ no. 49

14. Staniszewska S, Ahmed L (1998) Patient expectations and satisfaction with health care. Nursing Standard. 12, 18, 34-38).

15. Puay,C.L., &Nelson,K.H.Tang.(2004). Astudy of patient's expectation and satisfaction inSingapora hospitals. *International Journal of health Care quality Assurance*,Vol13, issue7

16. Mrayyan, M.T. (2006). Jordanian nurses' job satisfaction, patients' satisfaction and quality of nursing care. *International Nursing Review*, 53, 224-230

17. Yunus, M.A., Nasir, M.M.T., NorAfiah, M.Z., Sherina, M.S., &Faizah, M.Z. (2004). Patient satisfaction: a comparison between government and private clinics in MukimLabu, Sepang, Selangor. *Malaysian Journal of Public Health Medicine*, 4(2), 6-11

18. Schmidt LA (2003) Patients' perceptions of nursing care in the hospital setting. *Journal of Advanced Nursing* 44, 393–399.

19. Akhtari-Zavare, M., Abdullah, M. Y., Syed, S. Hassan, Binti, S. Said, and Kamali, M. 2010. "Patient Satisfaction:Evaluating Nursing Care for Patients Hospitalized with
Cancer in Tehran Teaching Hospitals, Iran." *GlobalJournal of Health Science* 2 (1): 117126.

20. Piang, L. K., Tiwari, V. K., Nair, K. S., Raj, S., Kaur, H.,andGandotra, R. 2012. "Patients Satisfaction with Quality of Services Providers at the Tertiary Care Cancer Hospitals in India."*Indian J. Prev. Soc. Med.* 43 (4): 396-404.

21. Yellen E, Davis GC, Ricard R. The measurement of patient satisfaction. *J Nurs Care Qual*. 2002; 16(4):23-9.

22. Merkouris A, Papath nassoglou ED, Lemonidou C. Evaluation of patient satisfaction with nursing care: quantitative or qualitative approach? Int J Nurs Stud. 2004; 41(4):355-67.

23. Abdellah FG, Levine E. Developing a measure of patient and personnel satisfaction with nursing care. Nurs Res. 1957; 5(3):100-8.

24. Joint Commission on Accreditation of Healthcare Organizations. Accreditation manual for hospitals 1992.The Commission.Chicago, 1991.

25. Michael Oerlemans, Terry Mills and Jenni Ham, (2004), Measuring Patient Satisfaction, Last Updated by Bill Fawcett, 5 June 2004, Internet source.

26. Walsh M, Walsh A (1998), Evidence-based practice: is patient satisfaction evidence? Nursing Standard, Aug. 26 / vol. 12/ no. 49

27. Reeder LG. The patient-client as a consumer: Some observations on the changing professional-client relationship. J. Health Soc. Behav., 1972; 13(4): 406-412.

28. Wilson P, McNamara JR How perceptions of a simulated physician-patient interaction influence intended satisfaction and compliance. Soc. Sci. Med., 1982; 16(19): 1699-1704.

29. Lucie AJ. Patient Satisfaction with Nurse Practitioner Delivered Primary Health Care Services. Houston: Louisiana State University; 1983; 47-55

30. AzanuKibretNegash, WubanteDemilewNegussie, AmsaluFelekeDemissie. Patients' Satisfaction and Associated Factors with Nursing Care Services in Selected Hospitals, Northwest Ethiopia. *American Journal of Nursing Science.*Vol. 3, No. 3, 2014, pp. 34-42.

31. Birhanu et al Determinants of satisfaction with health care provider interactions at health centres in central Ethiopia: a cross sectional study. BMC Health Services Research 2010, 10:78http://www.biomedcentral.com/1472-6963/10/78

32. Singl H, Haqq ED, Mustapha N. Patient's perception and satisfaction with health care facilities in Trinidad and Tobago. *Bull WHO*, 1999; 77:356-358.

33. Central Statistical Agency of Ethiopi"Census 2007, preliminary Retrieved 2008-12-07)

34. Ahmed T, A, et al . Levels of Adult Patients' Satisfaction with Nursing Care in Selected Public Hospitals in Ethiopia *International Journal of Health Sciences, Qassim University, Vol. 8, No. 4 (Oct-Dec 2014)*

35. Chaka, B. Adult patient satisfaction with nursing care. MPH thesis, department ofCommunity health, Addis Ababa University, 2005, Ethiopia

36. Akhtari-Zavare, M., et al. Patient satisfaction: evaluating nursing care forPatients hospitalized with cancer in Tehran teaching hospitals, Iran. *Global journal of health Science*, 2010; 2 (1).

37. Hala Y, Sayed 1, Hoda A., et al. Patients' Perceptions As Indicators of Quality of Nursing Service Provided At Al Noor Specialist Hospital at Makkah Al Moukarramah, KSA. Journal of American Science. Year, 2013, 9(5)

38. Mufti, S., et al. Patient's Perception of Nursing Care at a Large Teaching Hospital in India**.** *International Journal of Health Sciences 2008*, 2(11)

39. Mitike G, Mekonnen A, Osman M: Satisfaction on outpatient services in hospitals of the Amhara region. Ethiop Med J 2002, 40:387–395.

40. *Gisele H, Henrique C, Edinêis d.* Predictors Of Patients' Experiences And Satisfaction Withnursing Care In Medical-Surgical Wards.Jardim Costa Verde, Arara. 2014. Vol. 31

41. Gutysz-Wojnicka A, Dyk D, Cudak E, Ozga D. Measuring patient satisfaction with the Polish version of the Newcastle Satisfaction with Nursing Scale. Scan J Caring Sci. 2012 Jun; 27(2):311-8.

42. Samira M, Sajjad S. Satisfaction with Nursing Care among Patients Attending Oncology Center in Basra City, Iraq. *Journal of Environmental Science and Engineering*. 2015 Vol. 4: 241-248

43. Negash K, Negussie D, Feleke A, *et al.* Patients' satisfaction and associated factors with nursing care services in selected hospitals, Northwest Ethiopia. *American Journal of Nursing Science*.2014, Vol. 3(3): 34-42