

## Assessment of Patients' Satisfaction Regarding Nursing Care among Hospitalized Patients at a Tertiary Level Hospital, Sylhet, Bangladesh

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### Abstract

**Background:** Patients' satisfaction is one of the most important indicators in measuring the quality of care provided specially in nursing services to the hospitalized patients. Satisfaction evaluation is the reflection of the patient's point of view comparing with the realities of the care received.

**Methods:** A descriptive cross sectional study design was conducted by using non-convenience sampling technique was used to determine the sample size for the study population. A validated semi-structured questionnaire form was used for data collection. Then collected data was coded, tabulated and analyzed using descriptive statistics and non-parametric test.

**Results:** The study results revealed that there was an accepted satisfaction rate (67.1%) of patients regarding provided nursing care services. There was a non-significant association between patients' satisfaction on nursing care and patients gender ( $p=0.617$ ), religion ( $p=0.506$ ), occupational status ( $p=0.729$ ) and number of times of hospitalization ( $p=0.435$ ). Whereas the study also found a statistically significant association between patients' satisfaction and their age ( $p=0.006$ ), residency ( $p=0.039$ ), marital status ( $p=0.033$ ), educational status ( $p=0.023$ ), history of previous hospitalization ( $p=0.021$ ) and number of days of hospitalization ( $p=0.037$ ). In addition, the study respondents

(68.25%) were satisfied with overall satisfaction with nursing care dimensions among them attentiveness to the patients was 64.0% and availability of the nurses on duty was 62.3%.

**Conclusion:** In this study, majority respondents were satisfied with the nursing care though their comments suggest some improvements especially in discharge health

education, privacy instruction and number of concerns. Further researcher is needed to study in depth the socio-cultural and environmental parameters relevant to nursing care and what factors influence patient's satisfaction.

**Keywords:** Assessment; Patients Satisfaction; Hospitalized patients; Nursing care

## Introduction

In the past few decades there has been a major change occurring in the health care delivery sector tremendously among people in rural as well as urban areas. Awareness on Nursing and health is becoming more clients oriented. People expect the high quality of nursing care along with medical care at the affordable cost. Patients of the health care sector are very awake and aware about their rights and standards of services that he or she is going to pay for. The key success of health care provider mainly depends on patient's satisfaction. Patient's satisfaction with nursing services is particularly important since the nursing staff consist the majority of health professional is influenced by various factors mainly divided into two groups; the patients' factors and service provider factors [1-5]. It is true that patients may have some difficulty in their views for the provided services. Nevertheless, satisfaction is a subjective concept for the patient and on the favor of professionals have to accept its existence and regardless of the validity of the patients' views [6-7].

The concept of patient satisfaction with care is inseparable from the concept of patient experience with nursing care. Specially, patient's satisfaction on nursing care is one of the most fundamental factors in monitoring and ensuring the quality of care in health care delivery systems specially hospitals [8-9]. In one of the most and still essential definitions, Risser emphasizes greatly that patients' satisfactions on nursing is the dimension of convergence between patients' expectations of ideal care and the perception of care actually received. Berkowitz 2016 reported that the concept of patient's satisfaction is connected with both direct and indirect experiences with the health care system [10-11].

Nursing services is a vital component of a hospital services because nurses are involved in almost every aspect of patients care in hospitals next to the doctors and consume almost one third of hospital cost [12-13]. In Hospital and other health care systems, nurses are the frontline person for the patients because patients have to meet up with, spend the highest amount of time while hospitalization [4,14-15]. For this reason, satisfaction is

a complex concept related to several factors such as patients' lifestyle, individual and social values, previous experiences and future expectations [16]. The satisfaction of patients with nursing care gained during hospitalization is the most important factor affecting the satisfactions with the entire hospital services [17]. Nursing clinical rounds permit the nurses to closely interact with the patients, respond to their concerns and modify unsatisfying situations due to build up the nurse patient's interaction via active nursing procedure [18]. A study reported that patient's satisfaction with nursing care is the most important predictor for the overall satisfaction with hospital care because patients are considered as a best indicator and best source of accurate information on communicativeness, simplicity of explanations and usefulness of information in a hospital setting as well as the only source on whether they were treated in a respectful and dignified manner during hospitalization [19-21].

A study found that good communication between nurse and patients is a vital factor for patients' satisfaction. This satisfaction depends on overall experiences included attitude of some workers, time consuming and cost of services. Another study indicates other hindrances to quality nursing care were inadequate nursing staff, policy of payment of health services and other ambulatory facilities of patients' transport [22]. The current study was undertaken with the aim to find out the level of patients' satisfactions with regard to highlight the client-professional interaction that need to be further developed and enhanced among the nurses. This inspiration for nursing staff as well as nursing students helps to improve the unsatisfactory aspects of nursing regarding importance of patients' satisfaction in nursing profession in Bangladesh.

## Research Methodology

**Study area and period:** The study was carried out through the present study in order to explore the patients' satisfaction with quality of nursing care at a tertiary level hospital named Sylhet MAG Osmani Medical College Hospital (SOMCH), Sylhet from September 2020 to February 2021.

**Study design:** A descriptive cross sectional survey design was conducted.

**Source of population:** All patients who were hospitalized in SOMCH.

**Study Population:** All patients who were available during the data collection and the age group was 18 – 57 years and above. The admitted patients greater than 24 hours who were fully conscious & well oriented to time, place and person and willingly agreed to participate on the day of data collection (inclusion criteria). The study duration was from September 2020 to February 2021.

**Sample size determination and sampling technique:** A non-convenience sampling technique was used to determine the sample size for the study population. 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 considering (52.75%) population proportion was taken from a study conducted at SOMCH. So based on the above information the total sample size was calculated by using the following formula. By taking the population proportion  $p = 52.75\%$ .

$$N_i = (Z_{\alpha/2})^2 p(1-p)/d^2 \text{ whereas } P = \text{Estimate prevalence} = 52.75$$

$$N_i = (1.96)^2 * 0.5275(1-0.5275) / (0.05)^2$$

On the basis of this model shown 383 participants, But Let  $n = 275$  (Melsew, 2017) [23].

**Data collection instrument:** The data collection instrument was prepared by researcher himself based on the literature review. A pilot study (pre-test) was done with a sample of 20 patients for its clarity, validity and time required to fill the tools who were not included. Enumerators and supervisors were health professionals and well trained on the tools and at the same time the tools were confirmed for the completeness and consistency of the data and inconsistent questionnaires and interviews were rejected from the data collection at the spot. At last the CVI test score stood on .82. 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 Bangla version. The instruments of data collection consist of two parts:

1. Part-A: Independent variables/ patients demographic data: Socio-demographic characteristics such as age, sex, income, educational status, occupational status, Religion, length of hospital stay, previous experience of admission and etc.

2. Part-B: Dependent variables/ Clinical data: Patients satisfaction level regarding nursing care.

**Reliability:** The panel of experts noted that the questionnaire was appropriately worded and translated. In addition, a pilot study had also been conducted to determine the reliability of the questionnaire. The reliability test score was ascertained by their opinions at .88.

**Scoring system:** The interviewing questionnaire were concerned regarding nurses' activities and scoring ranged from 1 to 4 on a Likert Rating Scale whereas (Very good=4, Good=3, Fair=2 and Poor=1). Thus a total Ten (10) parameters were framed. An overall satisfaction score was calculated by addition of the score of all the ten parameters. The maximum total score was 40 among them score of 10—25 was taken as poor satisfaction whereas 26—40 were as good satisfaction. For significant analysis patients' response were plotted under the two categories (good satisfied, poor satisfied). Patient's verbal agreement was taken after that the researchers begun to collect the data. The researcher distributed 275 Bangla questionnaire forms (semi-structured) to all admitted patients and the questionnaire forms were filled by the participants themselves or their representative. At last researcher got 228 questionnaire forms from the participants by the help of nursing staffs. The data collection period was from November to December 2020.

**Statistical Analysis:** Collected data was manually checked for clarity and correctness immediately and also coded, tabulated and analyzed using descriptive statistics (mean, standard deviation, frequency) were used to summarize the patients satisfaction and non-parametric test such as chi-square test was used to determine significant difference or association between categorical independent variables (gender, age group, educational status and etc.) and categorical dependent variables (good satisfied, poor satisfied) in patients satisfaction.

## Results

Table- 3.1 shows that 228 respondents were participated in this study. Majority respondents (42.1%) were the group of 31—43 years but 44—56 years were only 32.9%. The out of total respondents, 58.3% were male and 48.7% were Muslim. Out of which 64.0% came from rural area while 60.5% were married. Majority respondents' educational level was higher secondary school (40.4%). Among them, most of the respondents participated from rural area who experienced by the previous admission history (80.7%) and lengthier of hospital stay (41.2%).

Table- 3.2 shows that this part consists of 10 items in which Hospitalization History (Patients satisfaction on nursing care) was measured by frequency, percentage, mean and standard deviation. Overall satisfaction regarding nursing care was assessed by 4 point likert scale. Total score of satisfaction was  $2.73 \pm .906$  (68.25%). Out of 10 items, 1 item on discharge health education had  $2.39 \pm .944$  but respondents' statement on Attentiveness of the nurses and Availability of the nurses had  $2.89 \pm .837$ .

| Variables                  | Frequency (n) | %    | Variables                                  | Frequency (n) | %    |
|----------------------------|---------------|------|--|---------------|------|
| <b>Age</b>                 |               |      | <b>Educational level</b>                   |               |      |
| 18—30 years                | 22            | 9.6  | Illiterate                                 | 18            | 7.9  |
| 31—43 years                | 96            | 42.1 | Primary school                             | 21            | 9.2  |
| 44—56 years                | 75            | 32.9 | Secondary school                           | 42            | 18.4 |
| >57 years                  | 35            | 15.4 | Higher secondary school                    | 92            | 40.4 |
| <b>Gender</b>              |               |      | University                                 | 55            | 24.1 |
| Male                       | 133           | 58.3 | <b>Monthly income</b>                      |               |      |
| Female                     | 95            | 41.7 | Less than 10,000 taka BDT                  | 52            | 22.8 |
| <b>Religion</b>            |               |      | 10,000—14,000 taka BDT                     | 131           | 57.5 |
| Islam                      | 111           | 48.7 | More than 14,000 taka BDT                  | 45            | 19.7 |
| Hindu                      | 76            | 33.3 | <b>History of previous hospitalization</b> |               |      |
| Christian                  | 21            | 9.2  | Yes  | 184           | 80.7 |
| Buddhist                   | 7             | 3.1  | No   | 44            | 19.3 |
| Others                     | 13            | 5.7  | <b>Number of times of hospitalization</b>  |               |      |
| <b>Residency</b>           |               |      | 1 <sup>st</sup> time hospitalization       | 74            | 32.5 |
| Urban                      | 82            | 36.0 | 2 <sup>nd</sup> time hospitalization       | 92            | 40.4 |
| Rural                      | 146           | 64.0 | 3 <sup>rd</sup> time hospitalization       | 62            | 27.2 |
| <b>Marital status</b>      |               |      | <b>Number of days of hospitalization</b>   |               |      |
| Unmarried                  | 90            | 39.5 | Less than 7 days                           | 88            | 38.6 |
| Married                    | 138           | 60.5 | 7 days to 14 days                          | 94            | 41.2 |
| <b>Occupational status</b> |               |      | More than 14 days                          | 46            | 20.2 |
| Service holders            | 84            | 36.8 |  |               |      |
| Self-business              | 108           | 47.4 |  |               |      |
| Others                     | 36            | 15.8 |  |               |      |

Table 3.1: Socio-demographic characteristics of the respondents (n=228)

| Serial no | Hospitalization History                                      | Poor N(%) | Fair N(%) | Good N(%) | Very good, N(%) | M±sd             |
|-----------|--|-----------|-----------|-----------|-----------------|------------------|
| 1.        | Attentiveness of the nurses                                  | 6(2.6)    | 76(33.3)  | 84(36.8)  | 62(27.2)        | <b>2.89±.837</b> |
| 2.        | Availability of the nurses                                   | 4(1.8)    | 82(36.0)  | 78(34.2)  | 64(28.1)        | <b>2.89±.837</b> |
| 3.        | Emotional support provided during fear and anxiety           | 16(7.0)   | 66(28.9)  | 104(45.6) | 42(18.4)        | 2.75±.835        |
| 4.        | Professionalism concerns among the duty nurses               | 14(6.1)   | 70(30.7)  | 82(36.0)  | 62(27.2)        | 2.84±.896        |
| 5.        | Provide about Health condition information                   | 8(3.5)    | 84(36.8)  | 76(33.3)  | 60(26.3)        | 2.82±.863        |
| 6.        | Privacy instruction before performing any nursing procedures | 18(7.9)   | 110(48.2) | 58(25.4)  | 42(18.4)        | 2.54±.882        |
| 7.        | Helpful mind of duty nurses towards patients                 | 40(17.5)  | 44(19.3)  | 88(38.6)  | 56(24.6)        | 2.70±1.028       |
| 8.        | Discharge health education                                   | 40(17.5)  | 92(40.4)  | 62(27.2)  | 34(14.9)        | <b>2.39±.944</b> |
| 9.        | Family members involvement in nursing care                   | 10(4.4)   | 82(36.0)  | 74(32.5)  | 62(27.2)        | 2.82±.883        |
| 10.       | Duty nurses awareness of your needs                          | 44(19.3)  | 40(17.5)  | 86(37.7)  | 58(25.4)        | 2.69±1.055       |

Table-3.2: Respondents overall satisfaction regarding nursing care during hospitalization

| Level of satisfaction | Frequency | Percentage |
|-----------------------|-----------|------------|
| Poor satisfied        | 75        | 32.9%      |
| Good satisfied        | 153       | 67.1%      |

**Table- 3.3:** shows that it was scored on a scale of 10—40 among them score of 10—25 as poor satisfaction whereas score of 26—40 was taken as good satisfaction. So this table shows that 32.9% respondents had poor satisfaction and 67.1% respondents had good satisfaction

| Independent variables                      | Level of Satisfaction |                   | Total frequency (%) | X <sup>2</sup> , df | p-value      |
|--|-----------------------|-------------------|---------------------|---------------------|--------------|
|  | Poor satisfied(%)     | Good satisfied(%) |                     |                     |              |
| <b>Gender</b>                              |                       |                   |                     |                     |              |
| Male                                       | 42(31.6)              | 91(68.4)          | 133(100)            | 0.250, 1            | 0.617        |
| Female                                     | 33(34.7)              | 62(65.3)          | 95(100)             |                     |              |
| <b>Religion</b>                            |                       |                   |                     |                     |              |
| Islam                                      | 38(34.2)              | 73(65.8)          | 111(100)            |                     |              |
| Hindu                                      | 22(28.9)              | 54(71.1)          | 76(100)             |                     |              |
| Christian                                  | 10(47.6)              | 11(52.4)          | 21(100)             | 3.316, 4            | 0.506        |
| Buddhist                                   | 2(28.6)               | 5(71.4)           | 7(100)              |                     |              |
| Others                                     | 3(23.1)               | 10(76.9)          | 13(100)             |                     |              |
| <b>Residency</b>                           |                       |                   |                     |                     |              |
| Urban                                      | 34(41.5)              | 48(58.5)          | 82(100)             | 4.259, 1            | <b>0.039</b> |
| Rural                                      | 41(28.1)              | 105(71.9)         | 146(100)            |                     |              |
| <b>Marital status</b>                      |                       |                   |                     |                     |              |
| Unmarried                                  | 37(41.1)              | 53(58.9)          | 90(100)             | 4.548, 1            | <b>0.033</b> |
| Married                                    | 38(27.5)              | 100(72.5)         | 138(100)            |                     |              |
| <b>Occupational status</b>                 |                       |                   |                     |                     |              |
| Service holders                            | 25(29.8)              | 59(70.2)          | 84(100)             |                     |              |
| Self-business                              | 38(35.2)              | 70(64.8)          | 108(100)            | 0.633, 2            | 0.729        |
| Others                                     | 12(33.3)              | 24(66.7)          | 36(100)             |                     |              |
| <b>Educational status</b>                  |                       |                   |                     |                     |              |
| Illiterate                                 | 2(11.1)               | 16(88.9)          | 18(100)             |                     |              |
| Primary school                             | 6(28.6)               | 15(71.4)          | 21(100)             |                     |              |
| Secondary school                           | 11(26.2)              | 31(73.8)          | 42(100)             | 11.367, 4           | <b>0.023</b> |
| Higher secondary school                    | 41(44.6)              | 51(55.4)          | 92(100)             |                     |              |
| University                                 | 15(27.3)              | 40(72.7)          | 55(100)             |                     |              |
| <b>History of previous hospitalization</b> |                       |                   |                     |                     |              |
| Yes  | 67(36.4)              | 117(63.6)         | 184(100)            |                     |              |
| No   | 8(18.2)               | 36(81.8)          | 44(100)             | 5.347, 1            | <b>0.021</b> |
| <b>Number of times of hospitalization</b>  |                       |                   |                     |                     |              |
| 1 <sup>st</sup> time hospitalization       | 28(37.8)              | 46(62.2)          | 74(100)             |                     |              |
| 2 <sup>nd</sup> time hospitalization       | 30(32.6)              | 62(67.4)          | 92(100)             | 1.665, 2            | 0.435        |
| 3 <sup>rd</sup> time hospitalization       | 17(27.4)              | 45(72.6)          | 62(100)             |                     |              |
| <b>Number of days of hospitalization</b>   |                       |                   |                     |                     |              |
| Less than 7 days                           | 38(42.7)              | 51(57.3)          | 89(100)             |                     |              |
| 7 days to 14 days                          | 26(28.0)              | 67(72.0)          | 93(100)             | 6.582,2             | <b>0.037</b> |
| More than 14 days                          | 11(23.9)              | 35(76.1)          | 46(100)             |                     |              |

**Table-3.4:** Relationship between level of patients' satisfaction on nursing care and their independent variables



## Discussion

Patients' satisfaction as the most important predictor of the overall satisfaction in the hospital setting is the key indicator. The measurement of patients' satisfaction with nursing care is particularly important during hospital stay since satisfaction can provide some idea of how they would have to modify their provision of services in order to make their patients more satisfied. Thus this study aimed to assess the level of patients' satisfaction towards nursing care provided at Sylhet MAG Osmani Medical College Hospital, Bangladesh. This study reported a favorable satisfaction regarding nursing care where the good satisfaction was 67.1% and which is similar to the study Edmealem, 2019; Nyongesa, 2014; Ahmad, 2010; Negash, 2014; Rajbanshi, 2014 [24-28]. The literature indicates the wide range of findings on the importance of patients' demographic characteristics and social factors in determining patients' satisfactions. The findings of this study showed that there was a statistically significant result between patients' satisfaction and their age, residency, marital status, educational level, history of previous hospitalization and number of days of hospitalization at  $p < 0.05$ . In this study showed that generally older patients were more satisfied with nursing care due to their greater familiarity and different attitude on continuity of care and found out a statistically significant relation between age and their satisfaction of Liu, 2007; Milutinovic, 2012 [29-30]. But the percentage of age group of 18–30 years had higher expectations due to their greater emphasis on the expense and aggressive nature of hospital care. Our findings reveal that sex did not influence the satisfaction on nursing care which is similar to Kailash, 2015; Jaipaul, 2003 [1,31]. But Khamseh and Hala et al., reported the little difference in patients' satisfaction between male and female. This study showed that 64.0% of the patients from rural areas were more satisfied compared to urban area (36.0%) which is contrary to Kailash, 2015 [1,32-33]. Now a day, Bangladeshi rural patients get easily more health information from the community level hospital and clinic of how they would have to reduce the logistic problems. These factors ultimately account for the greater satisfaction for the rural patients. Concerning marital status, this study reported that 60.5% married patients were satisfied than 39.5% of unmarried patients and also conducted the similar result of Edmealem, 2019; Ozlu, 2015 [24,34]. Because of marriage, the social supports and cares that married patients receive from their family might decrease their expectation levels similar to Edmealem, 2019 [24].

The satisfaction levels also vary in different education level. This study showed that 40.4% of the higher secondary educated patients were more satisfied than lower educated patients (18.4%)

and also reported the similar result to Kailash, 2015; Melsew, 2017 [1,23]. Generally, the higher educated patients are more informative and rationalized of how they would probably be able to comprehend the situation of nursing care in hospital setting but contrary to Khamseh, 2006; Edwards, 1998 [33,35]. Moreover, satisfaction is a very abstract concept having so much of subjectivity that previous admission history is the great concern in assessing the patients' satisfaction level and statistically significant to Melsew, 2017 [23]. The present study revealed the fact that the patients who stayed in hospital more than 7 to 14 days had a higher a good score of satisfaction than admission days increased similar to Ahmed, 2014 [36]. Patients satisfaction with selected dimensions of nursing care showed that patients were more satisfied with availability of the nurses (62.3%), attentiveness of the nurses (64.0%), discharge instruction by nurse (42.1%) and privacy instruction given by nurses (43.8%). The results of this study are comparatively favorable on level of satisfaction towards certain dimensions of nursing care. In the present study on the basis of tool score of patients' satisfaction with nursing care was found the overall satisfaction (68.25%) and reported the consistent result at Mohanan et al., 2010 [37]. The study supports the findings of interpersonal communication, accessibility and convenience of hospitalization history and recommends for the modification and improvement of nursing care facilities in determining the patients' satisfaction. In this study the researcher believe that patients' satisfaction not merely depends on a state of receiving the treatment but they ensure the fulfillment of quality nursing care. However, additional organizational or extra organizational issues that play a vital role in attitude changes of patients and optimally nursing practices be addressed to improve the nursing care in hospital setting.

## Conclusion, Recommendation and Limitation of the Study

In the world of competition, patients' views have become an important indicator in the assessment of nursing care in the hospital setting. The patients' satisfaction with nursing care is greatly influenced by the demographic, environmental and cultural factors. The nurses need to know the patients age, sex, inhabitant, occupation, educational level and others factors what are effective in changing the patients' satisfaction. Though in this finding respondents gender, religion and occupation find out a non-significant relation, their comments suggest some improvements need especially in nursing activities such as discharge health education, communication and number of concerns may be a low cost strategy to improve the nursing care in hospital for patients' satisfaction.

Based on findings of this study following recommendation can be suggested for future study:

1. Further study can be done to find out the strengths and weaknesses of nursing care services and others factor behind poor satisfaction of the patients.
2. Further study can be done on patients' satisfaction on outpatients.
3. Health related institutions and colleges can be taken the needful steps on nursing profession to enhance the quality of nursing care to ensure the maximum patients satisfaction.

**Limitations of the study:** There are several limitations to the design: 1. since the study was cross-sectional; it shows only the temporal relationship between variables. 2. Sample size was small 3. Time and fund was not enough but the confidentiality rights were maintained.

## Declarations

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## Ethical consideration

Before data collection period, required permission was obtained from Department of Public Health, Leading University, Sylhet and IRB memo no: LUS/PH/106/1202/25864/151. While the main aim of this study was explained to the patients, then the participants took part in the data collection voluntarily. Researchers determined to ensure the confidentiality rights of their personal data.

## Conflict of interest

The authors declared have no potential conflicts of interest associated with this paper.

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