

## HOSPITALIZED NON-COVID PATIENTS' SATISFACTION WITH HOSPITAL SERVICES AT A SELECTED TERTIARY HOSPITALS IN BANGLADESH

Mofizul Islam<sup>1</sup>, Faisal Muhammad<sup>1, 2, 3</sup>, \*Sharmin Sultana<sup>1</sup>, Abul Hasan BakiBillah<sup>1</sup>, ABM Alauddin Chowdhury<sup>1</sup>

<sup>1</sup>Department of Public Health, Daffodil International University, Daffodil Smart City, Birulia, Savar, Dhaka-1216, Bangladesh

Department of Community & Public Health, Faculty of Medicine & Health Sciences, Frontier University, Garowe Campus, Puntland Somalia

<sup>3</sup>Otu Institute of Research and Training, London, United Kingdom

**Abstract:** : This study aimed to determine the satisfaction with the quality of services among the hospitalized non-COVID patients in the selected hospitals in Bangladesh. A cross-sectional study was conducted between October 2020 and April 2021 in six (6) tertiary level hospitals in Dhaka city of Bangladesh. Data was collected from 401 randomly selected Non-COVID hospitalized patients through face-to-face interviews. Among 401 participants, about 53.1% were female, and more than half (55.9%) were from urban areas. The participants' mean age was  $48.3 \pm 16.5$  years, the majority (87.0%) were educated (formal education), and the mean monthly income was  $66309.2 \pm 68914.5$  BDT. Based on satisfaction, about 62.8% of the Non-COVID hospitalized patients were satisfied with Health Care Providers (HCP) practices. The study revealed that roughly two-thirds of the participants were satisfied with hospital services, Health Care Providers (HCP) practices, quality of care, and basic hospital facilities. Therefore, mass-awareness campaigns targeting psychological disorders should be implemented during the pandemic. In addition, the findings may help to formulate the policy intervention to improve the situation.

**Keywords:** : Hospital Services, Non-COVID Patients, Satisfaction, Public Health, Bangladesh

### Introduction

Patient satisfaction is a measure of quality care; patient satisfaction gives providers insights into various aspects of medicine, including the effectiveness of their care and level of empathy, which is the extent to which patients are happy with their healthcare, both inside and outside of the physician's office<sup>1</sup>. Hospitals in the developed world recognize the importance of delivering patient satisfaction as a strategic variable and a crucial determinant of long-term viability and success<sup>2</sup>. Studies in the developing world have shown a clear link between patient satisfaction and various factors, among which service quality has been prominent<sup>3,4</sup>.

Overall the healthcare satisfaction is multi-dimensional since health is a human right, which advocates health institutions to emphasize client-centered services, to become more responsive to user needs, and respond promptly to improve the quality of care<sup>5</sup>. The global patient satisfaction in all types of illness was 66%, ranging from 72% in developed countries to 60% in developing countries<sup>6</sup>.

\*Corresponding author: Sharmin Sultana, Department of Public Health, Daffodil International University, Daffodil Smart City, Birulia, Savar, Dhaka-1216, Bangladesh. E-mail: sharmin.rit@gmail.com

## Hospitalized Non-covid Patients' Satisfaction with Hospital Services at a.....

In India, the level of satisfaction varied between 32.5% and 73%, which were based on the availability of services, and the behavior of the healthcare professionals<sup>7,8</sup>. In Nigeria, the level of satisfaction was 66.8%<sup>9</sup>; In the USA, the level of satisfaction with the quality of surgical care provided to them was 69.5%<sup>10</sup>.

The emergence of a novel coronavirus, SARS coronavirus-2 (SARS CoV-2), which causes coronavirus disease 2019 (COVID-19), has had a significant influence on worldwide health and healthcare systems<sup>11-14</sup>. In addition, the quality of healthcare service and patient satisfaction have been affected by the current coronavirus disease 2019 (COVID-19) pandemic<sup>15</sup>. It might be due to healthcare systems suffering from severe financing shortages, or being poorly prepared to meet the challenges of the current COVID-19 pandemic, particularly in most low-resource countries<sup>15</sup>. It is critical to know the actual state of patients' satisfaction. To the best of our knowledge, no study has yet been conducted that looked into the satisfaction with hospital care among the Non-COVID hospitalized patients in Bangladesh. This study aimed to determine the satisfaction with the hospital services among the hospitalized non-COVID patients in the selected hospitals in Dhaka city of Bangladesh.

### Materials and Methods

#### Study Design and Settings:

The study employed a cross-sectional survey to gather data on hospitalized Non-COVID patients' diseases in Bangladesh. The study was carried out between October 2020 and April 2021 during the COVID-19 outbreak at the six tertiary-level hospitals in Dhaka, Bangladesh. The hospitals were Dhaka Medical College and Hospital; National Institute of Cardiovascular Diseases; Shaheed Suhrawardy Medical College and Hospital, Asgar Ali Hospital; IspahaniIslamia Eye Institute, and Hospital; and Square Hospital Ltd.

#### Sample Size, Sampling Strategies, and Population:

A total of 401 hospitalized Non-COVID-19 patients were recruited using a systematic random selection approach. However, severely ill, more than four weeks hospitalized, and patients with age (<18 years) were excluded from the study. Patients from all the selected (both private and public) healthcare facilities were interviewed. The study used a multistage sampling process to approach its targeted sample population. In the first stage, we gathered a list of all public and private tertiary hospitals in Dhaka city and randomly selected three public hospitals and three private hospitals. Next, we randomly selected three wards from each hospital. In the third stage, we gathered the list of all patients hospitalized in the selected wards. Finally, we randomly selected 201 patients from the public and 200 from the private hospitals for the data collection.

#### Data Collection Tools and Techniques:

Data were collected through a structured questionnaire in person within the hospital premises. Each of the participants received the necessary information and instructions and a verbal consent was obtained before each interview. There was a friendly environment so that participants could freely make any queries for further clarification. The questionnaire was initially prepared in English using SERVQUAL model and then translated into Bangla.

This questionnaire was pre-tested and necessary revision was made. After data collection, the completed questionnaire was verified for completeness, accuracy, reliability, and internal consistency to rule out inconsistent data.

#### Statistical Analysis:

The Statistical Package for Social Sciences version 25 was used to manage and analyze the data. A descriptive statistical analysis was performed to assess the basic socio-demographic scenario for the respondents. Moreover, Pearson Chi-square was applied to determine the relationship among study variables.

#### Ethical Consideration:

The Research Ethics Committee of the Faculty of Allied Health Sciences in Daffodil International University has approved this study. Additionally, informed consent has been obtained from each respondent before the study. Participants in the research were guaranteed the data's absolute confidentiality. All hospital management were presented with comprehensive papers outlining the aim of the study and given official permission for data collection.

#### Results

##### Socio-demographic characteristics of the participants

In the present study, about 53.1% of the respondents were female, and more than half (55.9%) were from urban areas. About 90.0% were married, more than 87% were educated, 55% were aged 50 years or above. The participants' mean monthly income was  $66309.2 \pm 68914.5$  BDT (Table 1).

Most of the respondents were satisfied with HCP practices (62.8%), the behavior of medical staff (73.3%), Quality of Care (66.6%), and Hospital basic facilities (64.8%). At the same time, the respondents provided their personal opinion based on behavior of HCP, quality of care, and primary hospital. However, nearly a third of the respondents remained neutral in their opinion - about HCP practice, the behavior of medical staff, quality of care, and Hospital basic facilities. On the other hand, it was also observed that only 2.0% of respondents were dissatisfied about the behavior of medical staff, and 3.2% for quality of care. (Table 2).

Hospitalized Non-covid Patients' Satisfaction with Hospital Services at a.....

Table 1: Socio-demographic characteristics of Non-COVID hospitalized patients in Bangladesh (n=401)

Socio-demographic characteristics	n	%
<b>Gender</b>		
Male	188	46.9
Female	213	53.1
<b>Residence</b>		
Urban	224	55.9
Rural	177	44.1
<b>Marital Status</b>		
Married	361	90.0
Unmarried	40	10.0
<b>Educational Qualification</b>		
Educated	349	87.0
Illiterate	52	13.0
<b>Age</b>		
≤50 years	222	55.4
>50 years	179	44.6
Mean ± SD	48.3 ± 16.5	
<b>Socio-economic status (income in Taka)</b>		
≤50,000	216	53.9
>50,000	185	46.1
Mean ± SD	66309.2 ± 68914.5	

Table 2: The overall status of healthcare satisfaction of Non-COVID hospitalized patients (n=401)

Item	HCP Practices			The behavior of medical staff			Quality of Care			Hospital basic facilities		
	Satis fied	Neut ral	Dissat isfied	Satis fied	Neut ral	Dissat isfied	Satis fied	Neu tral	Dissati sfied	Satis fied	Neu tral	Dissati sfied
n	252	142	7	294	99	8	267	121	13	260	134	7
%	62.8	35.4	1.8	73.3	24.7	2.0	66.6	30.2	3.2	64.8	33.4	1.8

Based on the overall level of satisfaction, about two-thirds (66.6%) of the respondents were satisfied with hospital services, 32.2% had a neutral opinion, and only 1.2% were dissatisfied with hospital services (Figure 1).

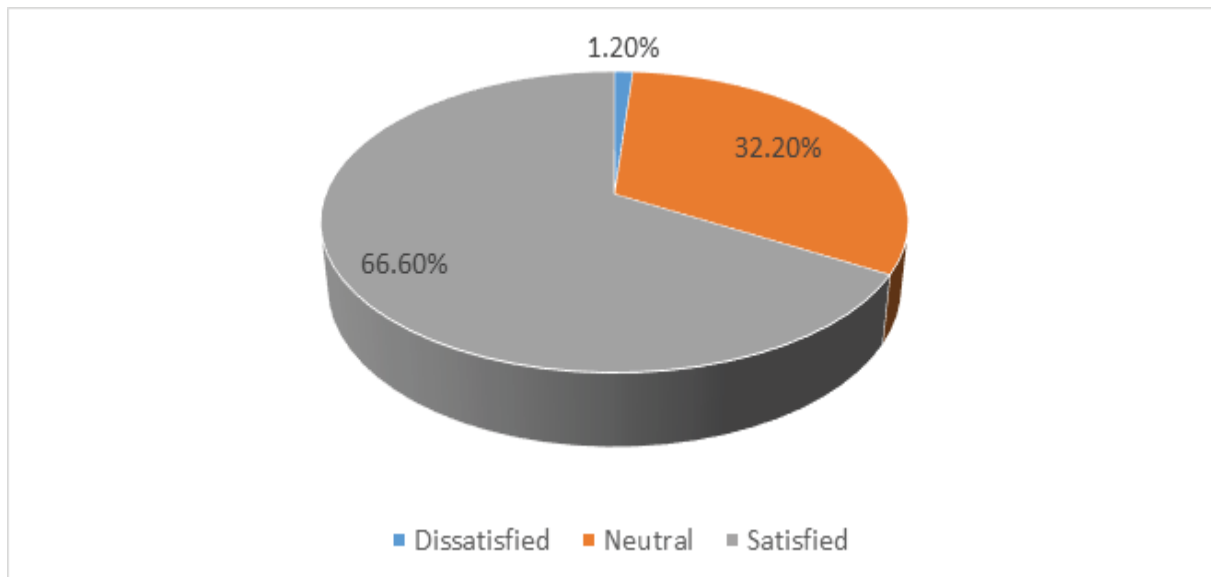


Figure 1: The Overall Satisfaction Level with Hospital Services (n=401).

According to the association between socio-demographic characteristics and overall satisfaction, age, gender, and occupation were found significantly associated with overall satisfaction. However, religion, qualification, marital status, family type, and income were not significantly related to overall satisfaction (Table 3).

Hospitalized Non-covid Patients' Satisfaction with Hospital Services at a.....

**Table 3: Association between Socio-demographic Characteristics and Overall Satisfaction (n=401)**

Variables	Overall Satisfaction			Chi-square	<i>p-value</i>
	Dissatisfied	Neutral	Satisfied		
	n (%)	n (%)	n (%)		
<b>Age</b>					
≤50 years	0 (0.0)	0 (0.0)	222 (100.0)	249.596	<0.001
>50 years	5 (2.8)	129 (72.1)	45 (25.1)		
<b>Gender</b>					
Male	5 (2.7)	54 (28.7)	129 (68.6)	7.191	0.027
Female	0 (0.0)	75 (35.2)	138 (64.8)		
<b>Religion</b>					
Muslim	5 (1.4)	107 (30.7)	237 (67.9)	3.363	0.186
Non-Muslim	0 (0.0)	22 (42.3)	30 (57.7)		
<b>Educational Qualification</b>					
Illiterate	0 (0.0)	9 (37.5)	15 (62.5)	0.608	0.738
Educated	5 (1.3)	120 (31.8)	252 (66.8)		
<b>Occupation</b>					
Unemployed	0 (0.0)	71 (36.6)	123 (63.4)	7.548	0.023
Employed	5 (2.4)	58 (28.0)	144 (69.6)		
<b>Marital Status</b>					
Unmarried	0 (0.0)	12 (30.0)	28 (70.0)	0.697	0.706
Married	5 (1.4)	117 (32.4)	239 (66.2)		
<b>Family type</b>					
Nuclear Family	2 (0.9)	63 (28.1)	159 (71.0)	4.565	0.102
Joint Family	3 (1.7)	66 (37.3)	108 (61.0)		
<b>Income</b>					
≤50,000	3 (1.4)	50 (23.1)	163 (75.5)	17.465	<0.001

## Discussion

Patient satisfaction is one proxy indicator of health care quality; however, enhancing patient satisfaction in low-income settings is challenging due to the inadequacy of resources and low health literacy among patients<sup>16</sup>. Our findings suggest that most patients were satisfied with hospital services, which corroborates with other similar studies<sup>17-19</sup>. The majority of the patients (63.1%) were satisfied with basic facilities in the hospital, and most of the patients (73.2%) were pleased with the behavior of medical staff. These findings are similar to a study conducted in Ethiopia which found that around 150 (37.7%) patients were satisfied with the service provided by the hospital, and a total of 235 (59.0%) patients claimed that they were satisfied with the physician service<sup>20</sup>. Furthermore, our research discovered that patients were satisfied with the behavior of doctors (75.8%), nurses (74.1%), medical technologists (71.3%), and recording staff (71.6%), which is similar to a study conducted in Nigeria found that doctors (90%), nurses (64.1%) and records staff (60.6%) were considered courteous and professional<sup>21</sup>. In regard to the cleanliness of the hospital, our study is consistent with the findings of previous study<sup>21</sup>.

The association between socio-demographic characteristics and overall satisfaction, age, gender, occupation, and income were statistically significant. However, the religion, qualification, marital status, and family types were not significantly related to overall satisfaction. A study conducted in Nepal reported that socio-demographic factors such as age and gender were associated with the patients' general satisfaction<sup>16</sup>. However, education, occupation, and religion were associated with most of the dimensions of patient satisfaction. One study revealed that age was the strongest predictor of patient satisfaction in five out of seven dimensions<sup>16</sup>. A systematic review of the determinants of patient satisfaction worldwide revealed that age was the most critical and consistent predictor of patient satisfaction<sup>22</sup>.

## Conclusions and Recommendation

The study revealed that roughly two-thirds of the participants were satisfied with hospital services, HCP practices, quality of care, and basic hospital facilities. Three-quarters of them were pleased with the behavior of the medical staff. A standard level of hospital facilities and hygienic environment need to maintain for the Non-pandemic hospitalized patients. The findings will help to formulate the policy interventions to improve the situation. A further study with a larger sample size may be conducive to understanding the depth of the problem in a broader context.

## Hospitalized Non-covid Patients' Satisfaction with Hospital Services at a .....

### References

1. *Patient engagement HIT. Patient Satisfaction and HCAHPS: What It Means for Providers.* May 24, 2016. Available from: <https://patientengagementhit.com/features/patient-satisfaction-and-hcahps-what-it-means-for-providers> [Accessed October 30, 2021].
2. Makoul G, Arntson P, Schofield T. Health promotion in primary care: physician-patient communication and decision making about prescription medications. *Soc Sci Med.* 1995 Nov;41(9):1241-54. [https://doi.org/10.1016/0277-9536\(95\)00061-b](https://doi.org/10.1016/0277-9536(95)00061-b)
3. Rao KD, Peters DH, Bandeen-Roche K. Towards patient-centered health services in India--a scale to measure patient perceptions of quality. *Int J Qual Health Care.* 2006;18(6):414-21. <https://doi.org/10.1093/intqhc/mzl049>
4. Zineldin M. The quality of health care and patient satisfaction: an exploratory investigation of the 5Qs model at some Egyptian and Jordanian medical clinics. *Int J Health Care QualAssurIncLeadersh Health Serv.* 2006;19(1):60-92. <https://doi.org/10.1108/09526860610642609>
5. Coyle J. Exploring the Meaning of 'Dissatisfaction' with Health Care: The Importance of 'Personal Identity Threat.' *Sociology of Health & Illness.* 2008; 21(1): 95–123.
6. Kassaw C, Tesfaye E, Girma S, Agenagnew L. Perceived Patient Satisfaction and Associated Factors among Psychiatric Patients Who Attend Their Treatment at Outpatient Psychiatry Clinic, Jimma University Medical Center, South west Ethiopia, Jimma, 2019. *Psychiatry J.* 2020;6153234. Published 2020 March 4. <https://doi.org/10.1155/2020/6153234>
7. Sharma A, Kasar PK, Sharma R. Patient Satisfaction About Hospital Services: A Study From The Outpatient Department Of Tertiary Care Hospital, Jabalpur, Madhya Pradesh, India. *National J Community Med.* 2014;5(2):199-203.
8. Rajkumari B, Nula P. Patients satisfaction with care in a government health facility in North East India: A Cross-sectional study. *J Med Soc* 2017; 31:94-8.
9. Iloh GU, Ofoedu JN, Njoku PU, Odu FU, Ifedigbo CV, Iwuamanam KD. Evaluation of patients' satisfaction with the quality of care provided at the National Health Insurance Scheme clinic of a tertiary hospital in South-Eastern Nigeria. *Niger J ClinPract.* 2012 Oct-Dec;15(4):469-74. <https://doi.org/10.4103/1119-3077.104529>
10. Tsai TC, Orav EJ, Jha AK. Patient satisfaction and quality of surgical care in US hospitals. *Ann Surg.* 2015 Jan;261(1):2-8. <https://doi.org/10.1097/SLA.0000000000000765>
11. Muhammad, F., Rahman, A.B., Oruche C.A., Musa, A.A., & Abdulkarim, J.H. COVID-19 Pandemic: Issues and Challenges in the Psychiatric Sector. *OIRT J. Med and Health Sci.*, 2021; 1(1): 19-21. <https://dx.doi.org/10.53944/ojmhs-2106>
12. Muhammad, F., Haque, M. I., Chowdhury, A. A., & Kibria, A. COVID-19 Pandemic: The Mental Health Issues and Challenges. *OIRT Journal of Medical and Health Sciences*, 2021; 1(1), 22–24. <https://doi.org/10.53944/ojmhs-2107>
13. Tasnim R, Sujan MSH, Islam MS, Ritu AH, Siddique MAB, Toma TY, Nowshin R, Hasan A, Hossain S, Nahar S, Islam S, Islam MS, Potenza MN, van Os J. Prevalence and correlates of anxiety and depression in frontline healthcare workers treating people with COVID-19 in Bangladesh. *BMC Psychiatry.* 2021;21(1):271. <https://doi.org/10.1186/s12888-021-03243-w>
14. Joseph, S.A., Musa, A.A., Muhammad, F., Ahmad, T.M. COVID-19 Pandemic: A Global Disaster. *OIRT J. Hm. and Soc. Sci.*, 2021;1(1): 7-8. DOI: <https://dx.doi.org/10.53944/ojhss-2103>
15. Deriba BS, Geleta TA, Beyane RS, Mohammed A, Tesema M, Jemal K. Patient Satisfaction and Associated Factors During COVID-19 Pandemic in North Shoa Health Care Facilities. *Patient Prefer Adherence.* 2020;14:1923-1934. Published 2020 October 13. <https://doi.org/10.2147/ppa.s276254>
16. Adhikari, M., Paudel, N.R., Mishra, S.R., et al. Patient satisfaction and its socio-demographic correlates in a tertiary public hospital in Nepal: a cross-sectional study. *BMC Health Serv Res* 2021;21, 135. <https://doi.org/10.1186/s12913-021-06155-3>
17. Woldeyohanes TR, Woldehaimanot TE, Kerie MW, Mengistie MA, Yesuf EA. Perceived patient satisfaction with in-patient services at Jimma University Specialized Hospital, Southwest Ethiopia. *BMC Res Notes.* 2015; 8:285. <https://doi.org/10.1186/s13104-015-1179-8>
18. Mezemir R, Getachew D and Gebressie M. "Patients' satisfaction and its determinants in the outpatient department of Deberbirhan Referral Hospital, North Shoa, Ethiopia" *International Journal of Economics & Management Sciences*, 2014: 3:3
19. Ambelie Y, Demssie A, Gebregziabher M. Patients' satisfaction and associated factors among private wing patients at Bahirdar Felege Hiwot referral hospital, North West Ethiopia. *J Public Health.* 2014;2:417–23.
20. Asamrew N, Endris AA, Tadesse M. Level of Patient Satisfaction with Inpatient Services and Its Determinants: A Study of a Specialized Hospital in Ethiopia. *Journal of Environmental and Public Health*; 2020. Article ID 2473469. <https://doi.org/10.1155/2020/2473469>.
21. Obi IE, Ndu AC, Agu KA, Omotowo BI, Agunwa CC, Idoko AC. Patient satisfaction with services at a tertiary hospital in south-east Nigeria. *Malawi Med J.* 2018;30(4):270-275. <https://doi.org/10.4314/mmj.v30i4.10>
22. Batbaatar E, Dorjdagva J, Luvsannyam A, Amenta P. Conceptualisation of patient satisfaction: a systematic narrative literature review. *Perspect Public Health.* 2015;135:243–50.