Assessment of Level of Patient- Satisfaction in Outpatient Department of Tertiary Care Hospitals in Bangladesh

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Abstract: *Background:* Almost fifty years of studying health systems has made patient - satisfaction a primary interest of researchers. It is thought to be a significant result of high-quality medical care. Patient input regarding the quality of medical services is crucial for healthcare organizations because it aids in the development of better service policies, better decision-making, meeting patient expectations, formulating management strategies, keeping an eye on service providers' performance, and other areas. *Methods:* This six-month cross-sectional descriptive study, which included male and female patients aged 18 and over, was conducted in the outpatient departments of Jalalabad Ragib Rabeya Medical College Hospital, Park View Medical College Hospital, and Women's Medical College Hospital in the Sylhet district. A pre-tested, validated, semi-structured questionnaire was utilized to collect data from 400 patients. *Results:* The mean satisfaction score was highest score in general satisfaction domain (4.32) and lowest in financial aspect (2.62) in this report. This study had 65.5% of male and 34.5% of females. 29% of the study patients were illiterate and remaining 71% were educated. The employed people were more satisfied (mean score= 3.84) than unemployed people (mean score= 3.69), married respondent were more satisfied than unmarried respondents for regarding receiving healthcare. *Conclusions:* This study showed that educational level, living place, marital status, age, sex, occupation were the important factors for satisfaction rate in outpatient departments of hospitals of Sylhet division.

Keywords: Patient-Satisfaction, General Satisfaction., Outpatient Department, Statistical Package for the Social Sciences (SPSS).

Article at a glance:

Study Purpose: *The aim of this study was to evaluate patient- satisfaction levels at tertiary care hospitals' out-patient departments and the factors that influence these levels.*

Key findings: *The mean satisfaction score was highest score in general satisfaction domain and lowest in financial aspect.*

Newer findings: *Educational level, living place, marital status, age, sex, occupation were important factors for satisfaction rate in outpatient department of hospitals of Sylhet division.*

Abbreviations: *PSQ-18: Patient-Satisfaction Questionnaire 18.*

INTRODUCTION

Bangladesh, a densely populated area has about 160 million people in land area of 1,47,570 square/km[1]. The healthcare delivery system of Bangladesh has a good healthcare network covering both rural and urban areas.[2]Now a days, there are too many private medical college hospitals and they play a great role in health sectors to fulfill the govt. health targets.[2] Patient-satisfaction is an indicator of how well the patient is being treated. The "how well" part refers not necessarily to the quality of care but to how content a patient is with the care they received. Patient-satisfaction is a growing factor in the effectiveness

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of hospital care. More and more hospitals are starting to pay attention to patient experience.[3] Service quality is directly related to customer satisfaction.[4] Satisfaction is a key element in obtaining desired patients outcomes and preventing disease.[5-7] Patient-satisfaction means their emotions, feelings, perceptions and attitude towards the type of health care they received during their visit to centers of health care.[8-10] Good satisfactory health care, is the demands of time in developing country like us. For this patient-satisfaction has become a major concern among researchers and different articles have been published in these counties within last 20 years.[7] The hospitals should make policies for periodic monitoring of patients' perception of health care services received. Periodic monitoring is necessary for identify the problems in health care delivery system to correct the work deficiency and improving the quality of services.[11] For this, a patient-satisfaction survey among all 3 tertiary level hospitals of the Sylhet district of Bangladesh was conducted to measure the outcome of in-patient health services of the entire area and to identify key determinants that predict higher patient-satisfaction.

MATERIAL AND METHODS

It was a cross-sectional type of descriptive study. The study population were the Patients coming for receiving treatment in outpatient department of Women's Medical College, Park View Medical College & Jalalabad Ragib Rabeya Medical College Hospitals located in Sylhet, Bangladesh. Approval from the Ethical Review Committee of NSU was obtained prior to the commencement of the study. Consulting with the guide and reviewing the previous published literature, the questionnaire was developed for the study. Informed written consent was taken from the respondents before data collection by briefing the purpose of the study. The study Sample size of this study was 400, which was selected purposively. Patients Inclusion Criteria were aged 18 years and above, who were coming for treatment in outpatient department & willing to participate.

Six months, from July to December 2018, were dedicated to this investigation. Convenient sampling from patients seeking treatment in the outpatient departments of the three hospitals were used for the sampling process. Face-to-face interviews were done using a semi-structured (closed-ended) questionnaire. The questionnaire was divided into three sections: questions on pharmacy and medicine services, questions based on the PSQ-18 scale, and questions about socio-demographics. The continuous variables were summarized using mean & standard deviation, while the categorical variables were summarized using frequency distribution.

Continuous data were analyzed showing mean & standard deviation and tested by t-test were $p<.01$ is significant. Chi-square test and independent sample t-test were applied for the Bi-variate analysis. Logistic regression was applied to estimate odds ratio for identifying potential covariates associated with patient-satisfaction.

Scoring system:

The PSQ-18 scale was used worldwide to determine the patient's satisfaction level. For each of the seven subscales in this report PSQ-18 were used (Table 1).

Table 1: Seven domains of patient -satisfaction with their calculations

Seven subscales of PSQ-18	Average of items
General satisfaction	3 + 17
Technical quality	2 +4 +6 +14
Interpersonal manner	10+11
Communication	1+13
Financial aspects	5+7
Time spent with doctor	12+15
Accessibility and convenience	8+9+16+18
Overall satisfaction	All 18 items

High ratings indicate satisfaction with the patient's medical care. All items were rated from one to five. Seven subscale scores were obtained by averaging the items within each scale following item scoring. The patient's satisfaction level was expressed as a score for each of the seven subscales (Table 2)

Table 2: Scoring system of items

Item number	Original response value	Scored value
1,2,3,5,6,8,11,15,18	1	5
	2	4
	3	3
	4	2
	5	1
4,7,9,10,12,13,14,16,17	1	1
	2	2
	3	3
	4	4
	5	5

RESULTS

This study had 400 patients.

Table 3: Distribution of the Patient (Years) by age

Age categories	Frequency	Percent
18-25Years	77	19.3
26-35Years	67	16.8
36-45Years	113	28.3
46-55Years	87	21.8
56Years or Above	56	14.0
Total	400	100.0

Approximately 28% of the patients in this study were between the ages of 36 and 45.
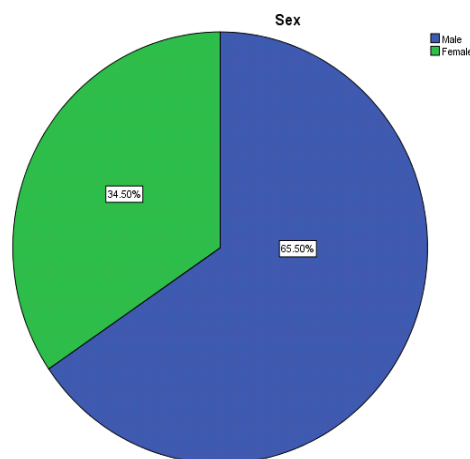

Figure 1: Distribution of the respondents based on Gender (n=400)

This figure 1 shows that among the total patients, the majority were male, comprising 65.50%.

Table 4: Distribution of the Patients by educational qualification

Literacy status	Frequency	Percent
No Education	57	14.3
Upto Class 5	68	17.0
Class 6 to Ssc/Equivalent	117	29.3
Hsc to Above	158	39.5
Total	**400**	**100.0**

Table 4 presented the educational backgrounds of patients in the study. Among the 400 surveyed patients, 14.3% had no formal education, 17.0% completed education up to Class 5, 29.3% had education from Class 6 to SSC/equivalent, and 39.5% had education from HSC level and above.

Table 5: Distribution of the Patients by occupation (n=400)

Occupation	Frequency	Percent
Service holder	45	11.3
Business	75	18.8
Student	78	19.5
Housewife	108	27.0
Others	94	23.5
Total	400	100.0

Table 05 depicted the distribution of patients by occupation in the study, based on a sample size of 400 individuals. Service holders accounted for 11.3%, business professionals comprised 18.8%, and students represented 19.5%. Housewives constituted a notable portion at 27.0%, while the remaining 23.5% were categorized as "Others".

Residence Status of the Patient

Figure 2 shows, majority (68.5%) of them were came from sylhet district (Urban) and rest of (31.5%) were from periferi of sylhet district (Rural) but within sylhet division.
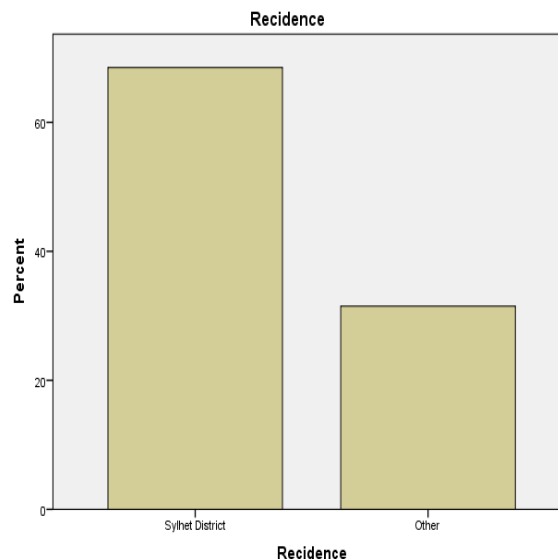

Figure 2: Distribution of the respondents based on Residence Status (n=400)

When the patients were enquired about the overall hospital outdoor services, it was revealed that, 62.3% (Figure 3) of the patients were satisfied.
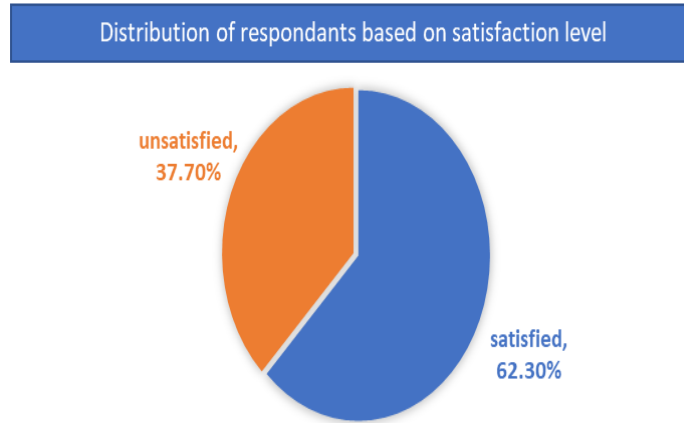
Figure 3: Distribution of the respondents based on Satisfaction level (n=400)

Table 06 shows that the mean score and standard deviation (SD) of overall satisfaction were 3.78 ± 0.27. In this table, it was explored that the highest mean score with SD 4.32 ±0.55 was in the General satisfaction domain and the lowest mean score with SD 2.62 ± 0.38 was in the financial aspect's domain.

Table 6: Average scores for seven sub-scales of patients' satisfaction

Subscales of Patient-Satisfaction	Mean	Standard Deviation (SD)
General Satisfaction	4.32	0.55
Technical quality	4.17	0.54
Interpersonal manner	4.26	0.67
Communication	4.21	0.47
Financial aspects	2.62	0.38
Time spent	3.54	0.59
Accessibility	3.35	0.44
Overall mean satisfaction score	3.78	0.27

The average patient-satisfaction scores with all demographic factors were significantly different (p<0.01), as this table illustrates. Females had a mean satisfaction score of nearly 4, which was higher than that of males (3.67). However, compared to their peers who were single (mean score = 3.65), married respondents were happier (mean score = 3.96). (Table 07). Comparing HSC to other educated patients, those with a mean score of 3.8 were reported higher levels of satisfaction. Compared to those in other career statuses, housewives reported higher levels of job satisfaction (mean score = 3.4).

Table 7: Average Patient-satisfaction scores according to socio-demographic profile

Characteristics	Mean	S. D	p-value
Age			
18-25 Years	3.07	0.20	
26-35 Years	3.13	0.29	
36-45 Years	3.29	0.21	<0.001
46-55 Years	3.21	0.20	
56 Years or Above	2.98	0.18	
Sex			
Male	3.67	0.21	<0.001
Female	3.99	0.26	
Literacy Status			

No education	3.2	0.20	
Up to class 5	3.3	0.20	<0.001
Class 6 to SSC/equivalent	3.6	0.25	
HSC to above	3.8	0.33	
Occupation			
Job	2.1	0.19	
Business	2.8	0.21	
Student	3.1	0.24	<0.001
Housewife	3.4	0.25	
Others	3.2	0.21	
Marital Status			
Married	3.96	0.24	<0.001
Unmarried	3.65	0.21	

Table 08 shows the outcome of the linear regression model, in which all other demographic data were regarded as independent variables and the total mean satisfaction score as the dependent variable. The model's findings indicated that women's overall mean satisfaction was 0.15 points lower than men's, and the coefficient's p-value was p=0.02. The average overall satisfaction score for those with education were 0.33 (p-value=0.00) points lower for those without education. In contrast, married respondents had a mean total satisfaction score that was 0.21 higher than single respondents. 41% of the instances were explained by the model, according to its R-square value of 0.41.

Table 8: Linear regression analysis between overall satisfaction and demographic variables

Overall mean satisfaction score	Coefficients	Standard Error	P-value	95% Confidence Interval	
Age above 35	-0.01	0.02	0.78	-0.05	0.04
Female	-0.15	0.06	0.02	-0.27	-0.02
Educated	-0.33	0.05	0.00	-0.43	-0.23
Employed	-0.01	0.03	0.87	-0.06	0.05
Married	0.21	0.04	0.00	0.12	0.29

DISCUSSION AND CONCLUSIONS

PSQ-18 scales were used in our cross-sectional descriptive study to investigate patient-satisfaction. Interviews with 400 patients were conducted using a preplanned, pretested program. Compared to a study done in Tehran, where there were 64.6% female participants and 35.4% male participants, this study featured 65.5% male participants and 34.5% female participants. 39% of the patients in the Nigerian study were men, and 61% were women [10]. Of the study patients, 71% were educated and 29% were illiterate. Those in employment have higher levels of satisfaction (mean score = 3.84) than do those without jobs (mean score = 3.69). Additionally, the data demonstrates that married respondents were happier than single respondents. (Display Table 03).

In this study, the overall mean satisfaction score was (3.78). The mean satisfaction score was highest score in general satisfaction domain (4.32) and lowest in financial aspect (2.62) in this report. In the Nigerian study, the highest average score for satisfaction was in the area of communication (4.08) and interpersonal relationship with doctor (3.81) while the lowest score was on financial aspect (2.84). In a similar study conducted in Tehran among patients with ophthalmic services, accessibility and technical quality had the strongest association with overall satisfaction.[3] Another study was conducted by Chakraborty et al in 2015 in the urban area of Shiliguri found the mean score of 3.81 in general satisfaction domain and 3.48 in the domain of time spent with doctor.[28]

In another study was performed in 2009, patient-satisfaction with medical services offered at the general hospitals of Isfahan University of Medical Sciences (Isfahan, Iran) was reported to be 56%, and the subscale accounting for the lowest score was doctor-patient communication .It was found from the studies that doctor-patient relationship was the most significant parameter affecting patient's satisfaction out of all other health care staff and services.[29] This study had 400 patients in total. Approximately 28% of the patients in this study are between the ages of 36 and 45.

In particular, satisfaction with daily occupations constituted an important dimension for self-rated quality of life. About 27.0 percent patients of our study enrolled in this study which was housewife, and our overall satisfaction is 62.30%. Many studies showed patient's satisfaction had a relationship with patient's occupation and their occupational stresses. Studies examining the precise correlations between patients' satisfaction levels at various occupational levels, however, are lacking. According to our research, the satisfaction rate quest was impacted by the scores for the following five domains: age, education level, marital status, sex, and employment position. A substantial sample size of multivariate analyses for the various domains of a validated satisfaction questionnaire had not, to the best of our knowledge, been conducted with the entire range of variables covered in this research together. Our satisfaction questionnaire's validity was previously examined, and the results were satisfactory. Our research indicated that, across all domains of our survey, older patients tended to rate higher on satisfaction.

Similarly, those with no education or only primary education to higher secondary education had higher satisfaction scores. Majority of our patients were male (65.5%) and marital status traditionally had been included in this kind of study showing those married tended to had higher satisfaction scores (mean 3.9). Most of our patients were living at Sylhet district (68%). There were some limitations of the study. Data were collected from only one city of Bangladesh. We had included only three hospitals. So, the estimate did not represent the national data properly. Data were collected only from outpatient department of the hospitals. So, it could not give a brief picture of patient-satisfaction rate of selected hospitals. In conclusion, our study showed that education level, living place, marital status, age, sex, occupation were important factors for satisfaction rate in outpatient department of hospitals of Sylhet division. Further research is needed focusing on these issues in our country.

REFERENCES

1. Haub, C. (7/27/10, 8:31:47 PM). PRB's 2010 World Population Data Sheet. demography; world population; environment; health; PRB; Population Reference Bureau, 19.
2. Ahmet Kara, S. L. (1 February 2005). A paradox of service quality in Turkey: The seemingly

contradictory relative importance of tangible and intangible determinants of service quality. European Business Review.

3. Ziaei, H. K. (2011). Determinants of patient satisfaction with ophthalmic services. BMC Research Notes, 4(1).

4. Al-Balushi, R. A.-A. (2014 Jan; 29). Patient Satisfaction Survey as a Tool Towards Quality Improvement. Oman Med J, 3-7.

5. Ann Kutney-Lee, M. D. (2009). Nursing: A Key To Patient Satisfaction. HOPE: The People-to-People Health Foundation, Inc.

6. Arefi M, T. N. (Volume 4, Issue 2 And 1 (19 2010)). Patient satisfaction in Baharloo Hospital in 2008.

7. Bowers, M. R., Swan, J. E., & Koehler, W. F. (Fall 1994.). What attributes determine quality and satisfaction with health care delivery? Health Care Management Review 19(4), p 49-55.

8. Deborah P. Lubeck, M. S. (January 2000). An instrument to measure patient satisfaction with healthcare in an observational database: Results of a validation study using data from CaPSURE(TM). The American Journal of Managed Care 6(1):70-6.

9. Ewan Ferlie, K. M. (2016). The Oxford Handbook of Health Care Management. Oxford University Press, 560 .

10. GA Qatari, D. H. (December 1999,). Determinants of users' satisfaction with primary health care settings and services in Saudi Arabia. International Journal for Quality in Health Care, Volume 11,, 523–531.

11. Han, C.-H. M., Connolly, P. M., & Canham, D. E. (April 2003.). Measuring Patient Satisfaction as an Outcome of Nursing Care at a Teaching Hospital of Southern Taiwan. Journal of Nursing Care Quality 18(2), 143-150.

12. Harvey, J. (25 November 1998). Service quality: a tutorial. Journals of operations management.

13. Aerlyn G. Dawn, B. a. (November/December 2003). Patient Satisfaction Instruments Used at Academic Medical Centers: Results of a Survey. Volume 18, Issue 6.

14. Hossain Ziaei, M. K. (2011). Determinants of patient satisfaction with ophthalmic services. BMC Research Notes volume 4, Article number: 7 .

15. I. Ahmad, A. N. (Published 2012). Predictors of patient satisfaction. Medicine,Gomal Journal of Medical Sciences.

16. Kathryn A. Marley, D. A. (09 July 2004). The Role of Clinical and Process Quality in Achieving Patient Satisfaction in Hospitals. European Journal of Integrative Medicine.

17. Koichiro Otani otanik@ipfw.edu, P. A. (November 1, 2011). Improving patient satisfaction in hospital care settings. Health Services Management Research.

18. Laurent Boyer, P. F. (October 2006). Perception and use of the results of patient satisfaction surveys by care providers in a French teaching hospital. International Journal for Quality in Health Care, Volume 18, Issue 5, 359–364.

19. Lazarevik V, K. B. (2015 Feb;23). Predictors of patients' satisfaction with health care services in three balkan countries (macedonia, bulgaria and serbia): a cross country survey. Journal of the Society for Medical Informatics of Bosnia & Herzegovina : Casopis Drustva za Medicinsku Informatiku BiH., 53-56. .

20. Lliffe S, M. M. (01 Dec 2008). Can clinicians benefit from patient satisfaction surveys? Evaluating the NSF for Older People, 2005-2006. Journal of the Royal Society of Medicine.

21. Michelle Beattie, D. J. (23 July 2015). Instruments to measure patient experience of healthcare quality in hospitals: a systematic review. Article number: 97 (2015).

22. Priti Agarwal, R. B. (May 2017). Satisfaction of patients attending a rural hospital of Darjeeling district in West Bengal, India. International Journal of Community Medicine and Public Health 4(6):1932.

23. Sallam, W. W. (2003,). Patient satisfaction with primary health care services in two districts in Lower and Upper Egypt. Eastern Mediterranean health journal.

24. Sara N Bleich, E. Ö. (4 March 2009). How does satisfaction with the health-care system relate to. Bull World Health Organ 2009;87:271–278, 271–278.

25. Stefanie De Man, P. G. (20 June 2002). Patients' and personnel's perceptions of service quality and patient satisfaction in nuclear medicine. European Journal of Nuclear Medicine and Molecular Imaging, 1109–1117.

26. Tonio Schoenfelder, J. K. (October 2011). Determinants of patient satisfaction: a study among 39 hospitals in an in-patient setting in Germany. International Journal for Quality in Health Care, Volume 23, Issue 5, 503–509.

27. Tšernov, K. (2023, February 12). Retrieved from https://www.qminder.com/blog/queue-management/importance-patient-satisfaction/

28. William E. Youngdahl, D. L. (11 June 1998). The relationship between service customers' quality assurance behaviors, satisfaction, and effort: A cost of quality perspective. Journals of operation quality of management.

29. Yaghoubi, M. (April 2014). Patient-Physician Communicative Patterns, Physicians' Job Satisfaction, and Patients' Satisfaction: The Case of a Hospital in Isfahan. Iranian Journal Of Health Sciences 2(2).

30. John Daly, S. S. (2009 M09 23). Contexts of Nursing: An Introductio. Elsevier Health Sciences, 400.