

Level of Satisfaction of Hypertensive Patient Receiving Health Services from Hypertension & Research Centre Rangpur

Anwar Hossain, Prof. Dr. Md. Zakir Hossain, Dr. Probal Sutradhar, Dr. Alif Nur Disa

Hypertension & Research Centre, Rangpur

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ABSTRACT

Background: Hypertension (HTN) is a common disease among patients who visit primary healthcare clinics. Because uncontrolled hypertension (HTN) is linked to higher rates of morbidity and death, better control of HTN can result from understanding its risk factors and adhering to prescribed treatment.

Objective: In this study, we aimed to determine the level of satisfaction of hypertensive patient receiving health Services from Hypertension & Research Centre Rangpur.

Methodology: A descriptive cross-sectional study was conducted to find out level of satisfaction of hypertensive patient receiving health Services from Hypertension & Research Centre Rangpur. A purposive type sampling technique was used to select the participants.

Results : Among 321 hypertensive patients , most were in the age group of 50-59years (26.48%), and most of them were educated up to secondary level(23.7%) .Large portion patients reported Treatment system of Hypertension & Research Centre Rangpur were very good(44%), Behavior & attitude of doctors were very good (47%), Communication system (44%), evaluation checkup (44%), managerial service (49%), Calendar, leaflet distribution (47%) were good and record system (46%), helpful rank (47%), Discipline system (45%) and the total environment (58%) were very good. Also, most of the patients (97.2%) were overall satisfied by background characteristics.

Conclusions: A good level of satisfaction was observed among patients of HTN in Hypertension & Research Centre Rangpur with respect to treatment system, behavior, communication, checkup, information, managerial service & total environment, slight dissatisfaction were directed to laboratory & waiting facilities, supportive attitudes. This high satisfaction level accounts for the high adherence to the treatment plan.

Keywords: Hypertension, Patient satisfaction, Health Services, Healthcare centers.

INTRODUCTION:

Hypertension, a prevalent chronic condition affecting millions worldwide, poses significant challenges to both patients and healthcare providers. The level of satisfaction of hypertensive patients in healthcare centers is a crucial aspect that directly impacts treatment adherence, health outcomes, and overall quality of care.

A study conducted in Ethiopia found that hypertensive patients' level of satisfaction with healthcare services was associated with factors such as the availability of all prescription drugs and health workers' caring behavior.¹ Factors such as individual attitudes, access to facilities, lack of specialists, long-term treatment requirements, financial constraints, and inconvenient clinic hours can act as obstacles to utilizing hypertension services at health centers.³ Improving patient satisfaction through effective communication, tailored education, and counseling can enhance medication adherence and overall treatment outcomes for hypertensive patients.⁴ Understanding and addressing the factors influencing patient satisfaction can lead to improve patient engagement, better treatment compliance, and ultimately, enhanced health outcomes for individuals with

hypertension. In Saudi Arabia hypertensive patients' level of satisfaction with healthcare services was associated with factors such as the quality of healthcare services, the availability of medications, and the behavior of healthcare providers.⁵

Satisfaction of Hypertensive patients on healthcare services can significantly impact their adherence to treatment and self-care. Studies have shown that satisfaction with physician-patient communication and information about medications plays a crucial role in improving adherence levels among hypertensive patients.^{6,4}The study investigates satisfaction levels among hypertensive patients at Hypertension & Research Centre Rangpur, focusing on communication, accessibility, and treatment outcomes. By examining factors such as communication between doctors and patients, accessibility to care and overall treatment outcomes, it also examines how nurses' education and consultation training affect patients' satisfaction with medication information in Sweden.²

By focusing specifically on hypertensive patients, the study aims to contribute unique knowledge about the specific needs and concerns of these individuals, which may differ from other patient populations due to the nature of their disease and its management requirements. This study provides insights into hypertensive patients' perspectives and suggests strategies to improve their healthcare experiences, fostering better relationships, increasing compliance, and enhancing health outcomes.

METHODOLOGY:

Study Design and Location: A descriptive cross-sectional study was conducted to find out level of satisfaction of hypertensive patient receiving health Services from Hypertension & Research Centre Rangpur.

Type of study: A purposive type sampling technique was used to select the participants.

Selection Criteria: Data was collected through face-to-face interview using a semi structure questionnaire.

a. Inclusion criteria

- Hypertensive patient who was physically & mentally active.
- Participant who was voluntarily agree to participate and provide informed consent will be included.
- Hypertensive patients of both sexes with or without co-morbid conditions such as diabetes, cardiovascular disease, chronic kidney disease, dyslipidemia, aneurysm, etc.
- Participants should have a sufficient understanding of the health services provided at the Hypertension and Research Centre to provide meaningful feedback on their satisfaction.

b. Exclusion criteria

- Hypertensive patients who had an illness such as mental, emotional, etc.
- Who was not willingly participate.
- Pregnant or nursing women.

Sample Size and Sampling technique: Sample size of this study for questionnaire was 321 registered patients of Hypertension & Research Centre, Rangpur. The sample size was determined by using following formula the following formula was used to calculate the sample size-

$$n = \frac{pqz^2}{d^2}$$

Here,

n= Sample size,

P= Prevalence of hypertensive patient,

This study showed

$$P=30%=0.3$$

$$q=(1-p) = (1-0.3) =0.7$$

Z=1.96 (at 95% confidence level),

d=acceptable error or precision in the estimate of “p” is 0.05 (5%).

$$\text{Calculation: } n = \frac{pqz^2}{d^2} = \frac{0.3 \times 0.7 \times (1.96)^2}{(0.05)^2} = 321$$

Therefore, the required sample size was n=321

Data Collection Procedure:

Interviews were conducted with a subset of participants from the Hypertension and Research Centre in Rangpur to acquire data. In order to capture data, a pre-tested questionnaire was utilized in a face-to-face interview. Before commencing the investigation, written consent was obtained. Initially, participants were informed of the purpose of the study and its specific procedures. They were given a written agreement that their data would not be shared. For the purposes of maintaining confidentiality and anonymity, each participant was assigned a unique identification number. After conducting the interview in Bangla, it was translated into English. The data was encoded and stored in a secure cabinet in written format. Only research personnel were permitted access to the data. The information could only be accessed for research purposes.

Data Management and Analysis

One of the statistical tools, SPSS 25, was used to create a database following the completion of the data collection questionnaire. The respondent's information was collected and manually examined for any gaps or discrepancies. After data submission completed, data was rechecked prior to analysis. Observing descriptive statistics, each variable's mass values and any anomalous values in the data file was determined for each variable. The error was then corrected using the physical copy of the questionnaire and, if necessary, by contacting the respondent. After resolving all of these concerns, the data was prepared for final analysis. For categorical data, frequency and percentage determination was use, while mean and standard deviation (for symmetric data) was used for quantitative data. For asymmetric data, the median and interquartile range was used.

RESULTS:

Table 01: Distribution of the respondents according to their age group

Age group (In year)	Frequency	Percentage (%)
20-29	12	3.7
30-39	46	14.3
40-49	83	25.9
50-59	88	27.4
60-69	66	20.6
70-79	20	6.2

80+	6	1.9
Total	321	100.0
Mean age (In year)	51.39 ± 12.81	
Minimum	22	
Maximum	86	

Table 1 shows the average age of the hypertensive patients was 51.40 years. Minimum & maximum age of the respondents was 22 years & 86 years accordingly. most (23.7%) of them were educated up to secondary level followed by primary (17.8%), graduate (16.5%) and illiterate (16.2%).

Table 02: Distribution of hypertensive patients by their Level of Education

Level of Education	Frequency	Percentage (%)
Illiterate	52	16.2
Primary	57	17.8
Secondary	76	23.7
Higher secondary	42	13.1
Graduate	53	16.5
Post Graduate	41	12.8
Total	321	100

Education is an important socio-demographic factor of the respondents. Above table shows that out of 321 respondents most (23.7%) of them were educated up to secondary level followed by primary (17.8%), graduate (16.5%) and illiterate (16.2%).

Table 3: Distribution of respondents by Receptionist attitude and supporting staffs, processing system & waiting facilities

Variables	Very bad	Bad	Average	Good	Very good	Excellent
Receptionist attitude and supporting staffs	01(0.3%)	02(0.6%)	10(3.1%)	128(40%)	144 (45%)	36(11.2%)
Processing system	-	01(0.3%)	05(1.6%)	145(45.2%)	141 (44%)	29 (9%)
Waiting facilities	-	01(0.3%)	09(2.8%)	145(45.2%)	135 (42%)	31(09.7%)
Lavatories	-	2(0.6%)	8(2.5%)	149(46.4%)	135(42.1%)	27(8.4%)

facilities						
Cleanliness status	-	-	10(3.1%)	138(43%)	143(44.5%)	30(9.3%)
Counseling status	-	-	7(2.2%)	130(40.5%)	148(46.1%)	36(11.2%)

Note: Figure in parenthesis indicates percentage, (-) = not available.

The above table reveals that out of 321 respondents, 45% rated the receptionist and supporting staff's attitude towards hypertensive patients as very good, followed by good (40%), excellent (11%), and very good (44%), and excellent (9.7%) for the processing system and waiting facilities. Lavatories facilities were about 46.4% good, 42 % very good and Cleanliness status (45%) and their counseling status (46%) both were very good.

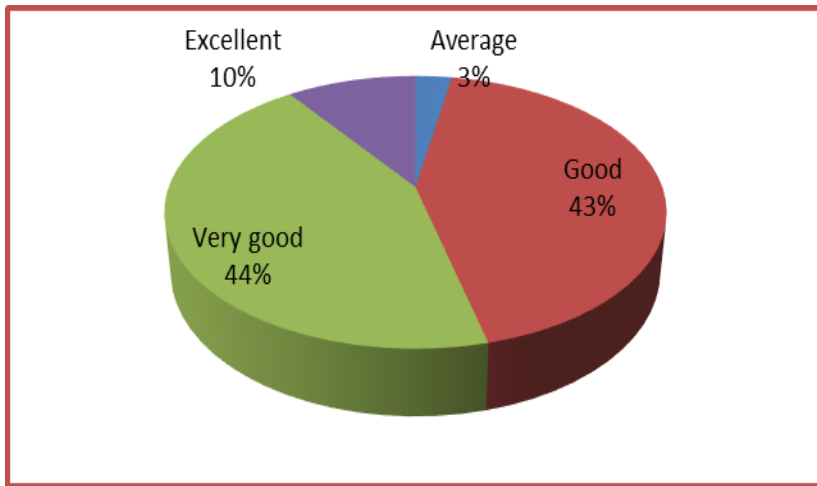


Figure 01: Treatment system of Htn & RCR

Above chart showed the treatment system of Hypertension and Research Centre Rangpur and it was found that 44% were very good, 43% were good and only 3% were average as stated by the participants.

Table 4: Distribution of respondents by Further Service or Facilities of Htn &RCR

Variables	Very bad	Bad	Average	Good	Very good	Excellent
Doctor attitude and behavior	1(0.3%)	-	05(1.6%)	129(40.2%)	151(47%)	35(10.9%)
Communication	-	-	5 (1.60)	142(44.20)	142 (44.20)	32 (10.00)
Evaluation checkup	-	-	8 (2.50)	139 (43.60)	143 (44.20)	31 (9.70)
Record system	-	-	6 (1.90)	136 (42.40)	147 (45.80)	32 (10.00)
Helpful Rank	1 (0.30)	-	6 (1.90)	132 (41.10)	151 (47.00)	31 (9.70)
Discipline System	1 (0.30)	-	7 (2.20)	139 (43.30)	143 (44.50)	31 (9.70)
Managerial service	1 (0.30)	-	8 (2.50)	157 (48.90)	128 (39.90)	27 (8.40)

Calendar, leaflet distribution	1 (0.30)	1 (0.30)	7 (2.20)	152 (47.40)	132 (41.10)	28 (8.70)
Total environment	-	-	9 (2.8)	91 (28.3)	185(57.6)	36 (11.2)

Note: Figure in parenthesis indicates percentage, (-) = not available.

Table no 04 showed distribution of the respondents by Further Service or Facilities in the Hypertension and Research Centre Rangpur. Behavior & attitude of doctors were very good (47%) followed by good (40%) excellent (11%) and average (2%). Communication system (44%), evaluation checkup (44%), managerial service (49%), Calendar, leaflet distribution (47%) were good and record system (46%), helpful rank (47%), Discipline system (45%) and the total environment (58%) were very good.

Table 5: Overall Satisfaction Level of Hypertensive Patients by Background Characteristics: A Cross-Tabular Analysis

Background Characteristics	Overall satisfaction level (N=321)		
	No	Yes	Total
Age groups			
20-29	0	12	12
30-39	2	44	46
40-49	3	80	83
50-59	3	85	88
60-69	1	65	66
70-79	0	20	20
80+	0	6	6
$\chi^2= 2.219^a$; d. f=6; p =0.898			
Education level			
Illiterate	1	51	52
Primary	2	55	57
Secondary	0	76	76
Higher secondary	1	41	42
Graduation	4	49	53
Post Graduation	1	40	41
$\chi^2= 6.868$; d. f=5; p =0.001			

Table no 05 shows association between overall level of satisfaction with their background characteristics. The majority of satisfied respondents (85 out of 321) were aged 50-59, with age group not significantly affecting overall satisfaction. Graduates and those educated up to secondary level had higher congregated happiness, suggesting higher satisfaction levels.

Table 6: Overall Satisfaction Level of Hypertensive Patients in Hypertension and Research Centre, Rangpur: Application of Logistic Regression Analysis

Independent variables	Variables in the Equation				
	β	S.E.	Wald	D. F	OR (ρ)
Age Groups					
20-29			1.463	6	1
30-39	-3.671	17611.832	0.000	1	0.025
40-49	-20.820	14732.839	0.000	1	0.000
50-59	-20.573	14732.839	0.000	1	0.000
60-69	-20.176	14732.839	0.000	1	0.000
70-79	-18.714	14732.839	0.000	1	0.000
80+	-2.226	16542.256	0.000	1	0.108
Educational Status					
Illiterate (Ref.)			2.977	5	1
Primary	-2.233	2.063	1.172	1	0.107
Secondary	-3.298**	1.996	2.731	1	0.037
Higher secondary	15.994	4034.105	0.000	1	88.00
Graduation	-2.067	1.933	1.144	1	0.127
Post Graduation	-1.294	1.208	1.148	1	0.274

Notes: a. Variable(s) entered on step 1: Age groups, Sex, Education, Occupation and Residence.

b. (Ref.) denotes Reference category, *** denotes 1% level of significance, ** denotes 5% level of significance, * denotes 10% level of significance B denotes estimates regression coefficient.

The study uses multiple logistic regression analysis to evaluate the satisfaction level of Hypertensive Patients at the Hypertension and Research Centre, Rangpur as dependent variable (0= if he/she doesn't receive the overall satisfaction and 1= if he/she receives overall satisfaction by background characteristics of hypertensive patients), focusing on age and educational qualification as independent variables, based on empirical results and theoretical purposes.

The odds ratio estimates that hypertensive patients aged 30-39 years are 0.025 times and 80+ years are 0.108 times less likely to have overall satisfaction levels compared to those aged 20-29 years.

Further, Primary and secondary education levels are 0.107 and 0.037 times less likely to affect overall satisfaction levels of hypertensive patients at the Hypertension and Research Centre, Rangpur, compared to illiterate individuals. Secondary education level patients generally have slightly higher satisfaction levels.

DISCUSSION

With the goal to determine the degree of satisfaction among hypertensive patients receiving medical care from the Hypertension & Research Centre, Rangpur, a cross-sectional study was conducted on the subject population. Here, the primary results of the current investigation are presented.

The results of the current study indicated that, of the 321 participants, the most (44.8%) of them were between the ages of 50-59 age group followed by 40-49 age group (26%) and 60-69 age group (20.6%) with a mean age of 51.20 ± 12.03 . In this study the youngest & oldest participants were 22 years & 86 years respectively. In a related study, the majority of participants (66%) were between 40-60 years of age and Females were found to be more than males represented 68% and 38% respectively.⁷ The age group in the current study was nearly identical to that in the previously stated study. In a descriptive-correlational study out of the 407 patients who met the inclusion criteria, nearly half (50.6%) had only completed primary school.⁸ However, the majority of them (23.7%) in the current survey only completed secondary school. Thus, there are some differences between our study and other studies in terms of educational status; however, a comparable study conducted in Palestine found that the majority of participants (36.3%) had only completed primary school, which is comparable to the current study.⁹

In the current study, about 45% of participants rated the attitudes of receptionists and supporting staff as very good. Similarly, about 45% of respondents rated their processing system as good, with the same 45% rating it as good, very good (42%) and excellent (9.7%) regarding their waiting areas. In another study, the researchers used the General Practice Assessment Survey (GPAS) to measure the psychometric properties of patients in the UK and discovered that their receptionists received 335 out of 100 points.¹⁰

Maximum (92%) respondents commented that their adequate water facilities in the Hypertension and Research Centre Rangpur and their lavatories facilities were about 46.4% good and 42 % very good and 8.4% excellent and 0.6% bad as described by the respondents. The system for scheduling appointments (79.5% vs. 58.8%), patient waiting times (76.5% vs.56.9%), outpatient department hygiene (74.3% vs.53.3%), privacy during consultation and examination (88% vs.80.8%), the sufficiency of medication supplies and medical equipment (79.5% vs.53.9%), information about necessary documents/expenses (77.1% vs.71.5%), and toilet hygiene (55.1% vs.25.4%) were all rated higher in TCOF (Tertiary Care Outpatients Facilities) than in SCOF (Secondary Care Outpatients Facilities).¹¹

As stated in this study the counseling status (46%) and Doctors Attitude and behavior (47%) were very good. In terms of the kindness of physicians' behavior (94.7% vs.90.7%), opportunities to describe the medical problem (91.3% vs.83.9%), time spent on consultation (76.5% vs.72.9%), given attention (88.9% vs.78.3%), the physician's explanation of the disease (88.9% vs.80.2%), the clarity of recommendations (87.6% vs.85.1%), the physical examination (91.3% vs.74.4%), adequately answered questions (91.3% vs.80.8%), trust and confidence in the physician (93.5% vs.88.2%), and the opportunities for active participation in the treatment (80.2% vs.76.5%) were found to be more satisfied in TCOF than in SCOF.¹¹

The majority of participants (77%) thought that the Hypertension and Research Center Rangpur subscription fees were reasonable. Additional services and amenities offered by this center were also highlighted in this study, including communication, assessment checks, record-keeping, helpful rank, discipline system, managerial support, calendar and leaflet distribution, and overall environment. About 44% of the evaluation checklist and 44% of the communication system were rated as good or very good, respectively. The record system was excellent (46%), helpful rank was excellent (47%), the disciplinary system was excellent (45%), managerial service was excellent (about 49%), and the calendar and leaflet distribution were excellent. In a related study carried out in Saudi Arabia out of 384 patients roughly 73.4% expressed satisfaction with the information, its rationale, and its simplification regarding their treatment plan as given by the doctor. The remaining patients were divided between neutral (22.1%) and dissatisfied (4.4%).⁵

In Sudan, a similar survey was conducted, and 72.8% of the hypertension patients expressed satisfaction with the care they received. Examining the relationship between patient satisfaction and demographic variables like age and educational attainment, the findings showed that patients in the 41–60 year age group were found to be more satisfied, accounting for 63.6% and 67.3% of the sample, respectively with lower education levels those with only a basic or secondary education were happier than patients with higher incomes.⁷ A large number of respondents in this study (85 out of 321) who expressed happiness were in the 50–59 age range, and there was no discernible correlation between age group and overall satisfaction. Of the 321 individuals, only 4 graduates reported no happiness; in contrast, 76 participants with only a secondary education reported total contentment, with statistically significant differences ($p = 0.001$). It is possible to draw the conclusion that individuals with secondary education had higher congregated happiness than participants with lower education levels.⁷

In order to determine the overall satisfaction level of hypertensive patients at the Hypertension and Research Centre in Rangpur, multiple logistic regression analysis was also performed. The dependent variable was set to 0 if the patient did not receive overall satisfaction and 1 if the patient did receive overall satisfaction based on background characteristics of hypertensive patients. There are lots of possible independent factors. According to the odds ratio estimates, hypertensive patients in the 30-39 age range and those in the 80+ age range are, respectively, 0.025 and 0.108 times less likely to report overall satisfaction with Hypertension and Research Center, Rangpur, than hypertensive patients in the 20-29 age group (reference group). It is important to note that none of the estimations are deemed meaningful in this case. Additionally, compared to the respondents who have no education and are illiterate (reference group), those with primary and secondary schooling are 0.107 and 0.037 times less likely, respectively, to have an overall satisfaction level of hypertensive patients in Hypertension and Research Center, Rangpur. It is essential to point out that hypertension individuals with secondary educational levels are shown to be significant in these estimates. People with a secondary education typically have slightly higher overall satisfaction levels with hypertension patients at the Hypertension and Research Centre in Rangpur than do people without an education. The results of the bivariate analysis of the SCOF and TCOF data indicated that the mean overall satisfaction scores for patients' gender, age, marital status, employment status, educational attainment, and number of visits did not significantly differ from one another.¹¹

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