Original Article

Influential Determinants of Patient Satisfaction with Primary Health Care Services from Community Clinics: A Micro Survey in Bangladesh

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ABSTRACT

Background: Assessing patient satisfaction with community clinic (CC) services can contribute to promotion of quality of care. This study aimed to investigate the satisfaction level of patients with CC services and to identify the influential determinants of patient satisfaction in a rural area of Bangladesh.

Methods: A cross-sectional study using simple random sampling without replacement was carried out in 2019 on 310 patients who have received services from CCs in Haripur upazilam, Bangladesh. The patients completed a questionnaire consisting of 17 items on variables related to patient satisfaction. The items were scored using a 5-point Likert scale and patients' socioeconomic and demographic characteristics were also recorded. To examine the association of patient satisfaction with other selected determinants, the Chi-square (χ2) test was performed. To assess the net effect of determinants on satisfaction level, multivariate binary logistic regression analysis was conducted.

Results: Overall mean satisfaction level was 3.70±0.982. We found that 68.9% were satisfied and 31.1% were unsatisfied with the services. Moreover, 63.92% of females and 77.48% of males were satisfied. In addition, 70% of individuals aged 15-30 years, 69.28% of those aged 31-45 years, and 57.89% of patients aged 46-65+ were satisfied with the services. According to the results of the Chi-square test, gender, occupation, receiving necessary medicine, receiving essential treatments, waiting time, behavior of the CC staffs, hygienic atmosphere, internal environment, female health worker visits, and difficulties faced when taking service from CC were significantly associated with patient satisfaction.

Conclusion: Given the important role of patient satisfaction for improving quality of care, it is recommended to cogitate the influential factors when planning for public health promotion.

Keywords: Community clinic; Patient satisfaction; Health care service

INTRODUCTION

The Bangladesh government has revitalized the community clinic (CC) services consisting of maternal and child healthcare, reproductive health, family planning and immunization services to ensure delivery of free primary health care to all citizens. Patient satisfaction has long been used as an important factor when measuring health outcome and quality of care, particularly public health services (1, 2). Patient's satisfaction is regarded as an important determinant that reflects the needs and perceptions of patients towards utilization of health services (3). A satisfied patient is more likely to develop a long term relationship with their medical service provider, leading to increased compliance, continuity of care and eventually better health outcome (4, 5). Assessing patient's satisfaction also helps improve service delivery, prioritize capacity building and ensure distribution of resources (6, 7). To assess the quality of community health services, it is necessary to collect information about patient's experience on the quality of care, which will help identify whether improvement is necessary or not.

Numerous studies have shown that satisfaction level of patients is growing in low and middle income countries (8-11). As Bangladesh is a low income country, it is important to identify the level of patients' satisfaction and determinants associated with CC. Researchers consider a number of variables for measuring patient's satisfaction including access to CC, waiting time, privacy, provision of free medical facility after primary diagnosis, behavior of CC staff, internal environment of CC, patient's demographic and socio-economic characteristics, etc.

Although a few studies have been conducted on CC worldwide, there is little information about the influential determinants of patients' satisfaction in Bangladesh, especially in rural Bangladesh. This research was performed to investigate satisfaction level of patients who had received treatment from CC in Haripur upazilam, Thakurgaon district, Bangladesh.

In this research, a cross-sectional study design with simple random sampling without replacement (SRSWOR) was used to collect data from patients in the Haripur upazilla, Thakurgaon district to identify the influential determinants.

METHODS

This was a cross-sectional study with SRSWOR that was performed to investigate satisfaction level of patients who had received treatment from CC from August 01, 2019 to September 05, 2019 in Haripur upazilam, Thakurgaon district, Bangladesh and to identify the influential determinants. Data were collected using a structured questionnaire consisting of 17 questions. A 5- point Likert scale was employed to assess satisfaction level as very dissatisfied (1 point), dissatisfied (2 points), neutral (3 points), satisfied (4 points) and very satisfied (5 points). Patients were separated into satisfied ($\geq$3) and unsatisfied (<3) groups. Demographic and socioeconomic characteristics of the subjects including sex, marital status, age, educational qualification, income, occupation and CC service quality-related variables including distance from CC to patients residence, receiving primary treatment from CC, receiving essential medicine from CC, behavior of CC staff, visit of field workers at patients residence after primary service, female staffs for female patients, internal environment of the CC, hygienic environment of the CC, waiting time and difficulties faced at the time of receiving services were studied.

The subjects were selected from a remote rural area of Bangladesh (Haripur upazilla in Thakurgaon district). Most of the people in this area have low income and low literacy rate compared to the national literacy rate in Bangladesh. Ten villages have been chosen randomly out of seventy villages from Haripur upazilla. From each village, by applying SRSWOR technique, a sample of size 281 has been determined according to

the following formula: $n = \frac{z^2\,pq}{e^2}$; where n is the estimated sample size, z is the standard normal deviation, p is the proportion of taking service from CC, q is the proportion of not taking service from CC and e is the acceptable error. While considering non-response and missing cases, 310 questionnaires were distributed and 305 questionnaires were completed by the patients. The patients who had not taken CC services within the last 15 days were excluded from the study. Interview was carried out by house visits. The patients were assured about the confidentially of their personal information. All participants signed the consent form.

To examine the association of taking primary health care from CC with other selected determinants, the bivariate Chi-square (χ^2) test was performed. To assess the net effect of various determinants on taking primary health care from CC, multivariate binary logistic regression analysis was conducted. For convenient understanding and easy interpretation, the results of logistic regression were presented as odds ratio (OR) with 95% confidence interval (CI). The collected data were analyzed using SPSS 23 software and at a significance level of 0.05.

RESULTS

The mean age of patients was 33.87± 7.44 years. The average monthly income level was 8,460.66±6204.094 taka (approximately 100 USD) and the mean distance of patients' place of residence from CC was 1.6±0.86 km. Most patients were female (63.6%) and in the 30-45 years age group (54.4%). In addition, 38.4% of the patients belonged to the low income category (below 5,000 taka per month) and only 3.3% had a monthly income of more than 20,000 taka. Table 1 shows the demographic and socioeconomic characteristics of the study subjects.

The mean satisfaction level was 3.70±0.982. Of all patients, 68.9% were satisfied and 31.1% were unsatisfied with the services provided by CCs. Most satisfied individuals were single, farmers or day laborers, in the 15-30 years age group and with intermediate or higher education level.

To investigate the persuasive determinants that affect the patient's satisfaction, a total of 16 factors were used against patient's satisfaction in this study. Bivariate Chi-square (χ^2) analysis suggested that patients satisfaction was significantly associated with gender, occupation, medicine received from the CC, essential treatments from the CC, waiting time, behavior of the CC staffs, hygienic atmosphere in the CC, internal environment (including electricity, number of toilets and number of seats by gender etc.) of CC, personal visits from female health worker, and difficulties faced when taking service from CC (Table 1).

The multivariate binary logistic analysis indicated that occupation of the patients, necessary medicine received from the CC, required treatment received from the CC, behavior of CC staffs, internal environment and difficulties faced when receiving services had significant net effect on satisfaction level of patients (Table 2).

Gender of the patients had net positive effect on satisfaction level. Male patients were 1.118 times more likely to be satisfied with CC services compared to female counterparts. Businessmen, housewives and others (including students and service holders) were less likely to be satisfied compared to farmers and day laborers. Those who received necessary treatments and medicines from CCs were 2.663 and 3.234 times more likely to be satisfied.

Table 1. Socioeconomic and demographic characteristics of the subjects and different determinants of patient satisfaction

Determinants		Frequency (%)	Satisfaction Level Satisfied (not satisfied)	P-value
Age (years)	15-30	120 (39.3)	70% (30%)	0.562
	31-45	166 (54.4)	69.28% (30.72%)	
	46-65+	19 (6.2)	57.89% (42.11%)	
Sex	Male	111 (36.4)	77.48% (22.52%)	0.009**
	Female	194 (63.6)	63.92% (36.08%)	
Educational Qualification	Illiterate	141 (46.2)	69.5% (29.5%)	0.688
	Primary	94 (30.8)	70.2% (29.8%)	
	Secondary	38 (12.5)	60.5% (39.5%)	
	Intermediate and Higher	32 (10.5)	71.9% (28.1%)	
Marital Status	Married	255 (83.6)	69% (31%)	0.119
	Single	23 (7.5)	82.6% (17.4%)	
	Others	27 (8.9)	55.5% (44.5%)	
Occupation	Farmer and day laborers	86 (28.2)	82.6% (17.4%)	0.007**
	Business	23 (7.5)	65.2% (34.8%)	
	Housewife	163 (53.5)	61.3% (38.7%)	
	Others	33 (10.8)	72.7% (27.3%)	
Monthly income (taka)	Below 5000	117 (38.4)	71.8% (28.2%)	0.374
	5001-10,000	112 (36.7)	70.5% (29.5%)	
	10,001-20,000	66 (21.6)	63.6% (36.4%)	
	Above 20.000	10 (3.3)	50% (50%)	
Distance from CC (Km)	0-1	119 (39.0)	67.3% (32.7%)	0.887
	1-2	136 (44.6)	69.9% (30.1%)	
	Above 2	50 (16.4)	70% (30%)	
Medicine received from CC	Yes	231 (75.7)	80% (20%)	0.000**
	No	74 (24.3)	33.8% (66.2%)	
Treatment received from CC	Yes	195 (64.0)	83.6% (16.4%)	0.000**
	No	110 (36.0)	42.7% (57.3%)	
Waiting Time	Yes	56 (18.4)	48.2% (51.8%)	0.000**
	No	249 (81.6)	73.5% (26.5%)	
Behavior of CC Staffs	Yes	250 (82.0)	81.6% (18.4%)	0.000**
	No	55 (18.0)	10.9% (89.1%)	
Personal visits from field workers at patients residence	Yes	65 (21.3)	71.88% (28.12%)	0.761
	No	240 (78.7)	68.3% (31.7%)	
Internal environment of CC	Yes	289 (94.8)	72% (28%)	0.000**
	No	16 (5.2)	12.5% (87.5%)	
Hygienic environment of CC	Yes	285 (93.4)	72% (28%)	0.000**
	No	20 (6.6)	25% (75%)	
Personal visits of female health worker at patients residence	Yes	271 (88.9)	72.7% (27.3%)	0.000**
	No	34 (11.1)	38.2% (61.8%)	
Difficulties faced when receiving services	Yes	34 (11.1)	14.7% (85.3%)	0.000**
	No	271 (88.9)	75.6% (24.4%)	

Note: *** (P<0.001), ** (P<0.01), * (P< 0.05)

Table 2. Logistic regression analysis on potential influential determinants of being satisfied with community clinics

Factors		P-value	Odds ratio (OR)	95% CI for Odds ratio (Lower limit, Upper limit)
Sex	Male	0.902	1.118	(0.190, 6.596)
	Female (RC)			
Occupation	Farmer and day laborers (RC)	0.071		
	Business	0.066*	0.218	(0.043, 1.105)
	Housewife	0.076*	0.172	(0.025, 1.199)
	Others	0.794	0.766	(0.104, 5.638)
Medicine received from CC	Yes	0.028*	2.663	(1.11, 6.384)
	No (RC)			
Treatment received from CC	Yes	0.004**	3.234	(1.46, 7.121)
	No (RC)			
Waiting time	Yes	0.406	0.658	(0.245, 1.767)
	No (RC)			
Behavior of CC staffs	Yes	0.000***	15.977	(5.165, 49.425)
	No (RC)			
Internal environment of CC	Yes	0.016*	29.322	(1.868, 460.399)
	No (RC)			
Hygienic environment of CC	Yes	0.846	0.742	(0.036, 15.242)
	No (RC)			
Female health worker visit to patients residence	Yes	0.193	0.367	(0.081, 1.657)
	No (RC)			
Difficulties faced when receiving services	Yes	0.000***	0.020	(0.005, 0.078)
	No (RC)			

Note: *** ($P<0.001$), ** ($P<0.01$), * ($P< 0.05$), RC=Reference Category, CI= Confidence Interval

DISCUSSION

Patient satisfaction could be considered as a subjective feeling that is an important component of measuring quality of health services of a country (12). It has been used as an indispensable and meaningful tool for identifying gaps and developing effective policies for promoting the quality of health care of a community (13). A number of determinants are significantly associated with patient's satisfaction level with CC. An analytic cross-sectional study recognized that patient satisfaction in community health centers in North Lampung, Sumatera, Indonesia is influenced by income, education, frequency of visits and quality of services (14). Israr et al. investigated patients satisfaction with CC among rural poor people at Mardan district of Khyber Pakhtunkhwa, Pakistan and found that majority of the patients preferred community health clinics and were more satisfied than many facility-based clinics (15).

Patient satisfaction was associated with education level, referral experience, satisfaction with convenience of seeing a doctor, waiting time, medical facilities, staffs professional skill and expenses in a study in Shenzhen, China (16). In a sub-district of Bangladesh, the overall mean patient satisfaction score was 3.7±1.0 and 2.4±1.1 for facility-based and household-based surveys, respectively (17).

Assessing patient satisfaction with CC

services can be a vital component for improving the quality of care. The main objective of this study was to identify the substantial factors affecting patient satisfaction. We found that 10 factors of gender, occupation, receiving medicine from CC, receiving essential treatment from CC, waiting time, behavior of the CC staff, hygienic atmosphere of the CC, internal environment (including electricity, number of toilets and number of seats by gender etc.) of CC, personal visits from female health worker and difficulties faced when receiving service from CC have significant association with patient satisfaction level. The mean patient satisfaction level was 3.70±0.982, which is similar to the result of a previous study in a sub-district of Bangladesh (17). In our study, 68.9% of the patients were satisfied, while in a study by Adhikary et al., 63.2% patients were satisfied in Rajshahi and Sylhet, Bangladesh (18). In addition, we found that farmers and laborers were more satisfied with CC services compared to other participants.

CONCLUSION

Community clinics can play an important role in improving the health status of rural population of Bangladesh. Promoting the health status of the rural population in Bangladesh can be ensured through equal provision of health care facilities for all patients. We found that majority (68.9%) of patients in the study area are satisfied with the CC services. Policy makers should implement practical strategies to increase the number of CCs, quality of care and subsequently patient satisfaction level. Further research can be done to investigate major influential determinants of patient satisfaction in the whole country of Bangladesh.

DECLARATIONS

Ethics approvals and consent to participate

The patients were assured about the confidentially of their personal information. All participants signed the consent form.

Conflict of interest

The authors declare that there is no conflict of interest regarding publication of this article.

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