



Health Service Seeking Behaviour and Factors Associated With Under Utilization Of Public Health Care Facilities In A Rural Area Of Bangladesh

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Research Article

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Abstract

Objective: The overall situation of health care system is poor in developing countries like Bangladesh due to inadequate access to modern health services and poor utilization. Aim of the study was to determine the health service seeking behaviour and factors associated with under-utilization of public healthcare facilities in rural areas of Bangladesh.

Methods: It was a community-based cross sectional study conducted among 492 systematically selected households having at least one child up to 1 year of age. Data were collected through face-to-face interview of the spouses of the household heads or any married women aged 15-49 years who could give information about the household.

Results: Educational status of the household heads and the respondents, monthly family income and standard of living were significant predictors for non-utilization of public healthcare facilities. Respondents pointed out poor quality of care and long waiting time as the main reasons for not taking services from public healthcare facilities. . Inconvenient service timing was the best predictor for not taking public health services for family planning (OR 1.67; $p < 0.05$). Long waiting time was the best predictor for not using public health facility for immunization of children (OR 1.97; $p < 0.001$). Short consultation time was identified as the best predictor for not using public health services for antenatal care (OR 1.74; $p < 0.005$), child delivery care (OR 2.00; $p < 0.005$), postnatal care (OR 2.08; $p < 0.001$) and for disease prevention and health education (OR 2.69; $p < 0.001$). Absence of nearby public facility was the best predictor for not seeking self medical treatment from

public health services (OR 1.29; $p < 0.005$), which was followed by inconvenient service time (OR 1.74; $p < 0.05$) and long waiting time (OR 1.69; $p < 0.05$). Absence of nearby public health facility (OR 3.99; $p < 0.001$) and long waiting time (OR 2.20; $p < 0.001$) were the predictors for not seeking child medical treatment from public health services. Respondents who did not seek other family members' treatment services from public health facilities were more likely to agree that there were no nearby public facility (OR 3.69; $p < 0.001$), waiting time was too long (OR 1.89; $p < 0.005$) and facility timing was inconvenient (OR 1.55; $p < 0.05$). Short consultation time was the best predictor for not seeking child growth monitoring (OR 2.24; $p < 0.001$) and health checkup services (OR 2.08; $p < 0.001$) from public health care facilities.

Conclusion: Public health care facilities and overall medical services were under utilized and actions should be taken to improve the overall scenario of health system of rural Bangladesh.

Key words: Healthcare service, public healthcare facilities, under-utilization, rural area, Bangladesh.

Introduction

Healthcare service and its utilization is an important issue to consider for each and every country. From a public health perspective, it is important to analyze contextual factors affecting the health service seeking behavior at the community, institutional and policy levels. Understanding the factors that influence utilization is helpful to identify reasons for differences in utilization, consumer satisfaction and outcomes, and for formulating policies and programs to encourage appropriate utilization, discourage inappropriate utilization, and promote cost-effective care.¹ Although the healthcare sector is one of the largest public sectors of Bangladesh in terms of coverage and employment, only 6.2% of the no-development and development budget for the fiscal year 2010-11 have been allocated for health sector (total 8,129 Crore Taka allocated for Ministry of Health and Family Welfare).²

A 'public' health service refers to health care institutions belonging to the state and is generally supported by public money and protected by a series of privileges regulated by law.³ Government of Bangladesh has a unique health infrastructure from national to community level with very little access to basic healthcare by more



than 60% of the population.⁴ The distribution of health infrastructure under public health system can be divided into different tiers, viz, national, divisional, district, upazilla, union, ward and village levels. Still poor access and under utilization is a major challenge especially at peripheral level. The main constraints are inadequate skilled human resource and lack of proper management including supervision, monitoring and accountability in one hand and poor quality of care, supplies and support in the other.⁵

Health-seeking behavior refers to the sequence of remedial actions that individuals undertake to rectify perceived ill health.⁶ Treatment choice involves a myriad of factors related to the range and accessibility of available therapeutic options and their perceived efficacy, convenience, costs, quality of service, staff attitudes as well as the age, gender and social circumstances of the individual.⁷ Like much of the developing world, medical pluralism, or the existence of several distinct therapeutic systems in a single cultural setting, is an important feature of health care in Bangladesh. A wide range of therapeutic choices is available, ranging from self-care to folk and western medicine.⁸ Traditional beliefs tend to be intertwined with peculiarities of the illness and a variety of circumstantial and social factors. This complexity is reflected in the health seeking behavior, including the use of home-prescriptions and delay in seeking bio-medical treatment. The attitude of the health provider and patient satisfaction with the health system and treatment play a role in health seeking behavior.⁷

The under-utilization of the health services in public sector is an important concern, specially for developing countries. National Health Survey (NHS) of Pakistan showed that overall government doctors provided 21% of the total care.⁹ One study in Bangladesh showed that the overall utilization rate for public healthcare services is as low as 30%.¹⁰ On the other hand, the private sector has flourished everywhere because it focuses mainly on 'public health goods' such as antenatal care, immunization, family planning services, treatment for individual diseases.¹¹ Still higher is the pattern of use of private sector allopathic health facilities. This high use is attributed mostly to issues of acceptability such as easy access, shorter waiting time, longer or flexible opening hours, better availability of staff and drugs, better attitude and more confidentiality in socially stigmatized diseases.^{12,13} However, in private hospitals and outlets, the quality of services, the responsiveness and discipline of the provider has been questionable.¹⁴ Client-perceived quality of services and confidence in the health provider affect the health service utilization.¹⁵

The overall situation of health care system is poor in developing countries like Bangladesh due to inadequate access to modern health services and poor utilization. One of the public health challenges in developing

countries such as Bangladesh is, therefore, to identify vulnerable groups and to provide them with needed preventive and curative health services.⁴ The poor in Bangladesh are specially disadvantaged in accessing quality health care due to their marginalized position in society and limitation in purchasing services from private sector. In order to make the existing health-care delivery system more pro-poor, knowledge of their health-seeking behavior is needed.⁵

Public health care is that basic service that assist in combating poverty.¹⁶ Therefore the Government must acknowledge the importance of public healthcare facilities for the health and welfare of the majority people. Identification of individual factors that may facilitate or impede the effective use of health care services might help to identify those who are particularly vulnerable, and provide information that policy makers can use to target services for those in greatest need. Therefore, this study has been designed with expectation to determine the health service seeking behavior and factors associated with under-utilization of public healthcare facilities in a rural area of Bangladesh.

Methodology

A community based cross sectional study was conducted from March to May 2010 in different unions of the Madhukhali Upazilla of Faridpur District of Bangladesh. Faridpur District is a part of Dhaka division. The area of this district is 2072.72 km². Madhukhali Upazilla is one of the 9 upazillas of Faridpur District. It has total area of 230.2 km² and according to 2001 national census it had 34,389 units of house holds with total population of 117,775.¹⁷

The aim of the study was to determine the health service seeking behavior and factors associated with under-utilization of public healthcare facilities in rural Bangladesh. Households having at least one child up to 1 year of age were taken as the study population. Spouses of the household heads or any married women aged 15-49 years who could give information about the household were considered as the respondents. From the 2001 census of Bangladesh it was predicted that children up to 1 year of age constituted 2% of the population.¹⁷ Madhukhali Upazilla has 9 unions. So applying systematic sampling technique and considering design effect 60 households were selected from each of the unions. Total estimated sample size was 540, taking 5% absolute precision at 95% confidence level. As 95% of the respondents thus selected agreed to participate, we had total 513 samples. Twenty one samples were excluded during data analysis for having missing data. Finally, data of 492 households were analyzed. The protocol was approved by the Faridpur Medical College Ethical Review Committee. As a number of the respondents were illiterate, either informed verbal consent or whenever possible written consent was received from each



individual prior to inclusion. Assurance had been given that the confidentiality concerning their information would be maintained strictly. A semi-structured pre-tested questionnaire was developed to collect data from face-to-face interview.

The questionnaire solicited information on household health service seeking behavior and women’s opinion on the reason for not taking services from public healthcare facilities from the spouse of the household head or any knowledgeable female member of the family. For this, demand of services were categorized into 11 type of services following the study done by Dalal et al. in India: family planning, immunization, antenatal care (ANC), child delivery care, postnatal care (PNC), disease prevention and education, self medical treatment, treatment for child, treatment for other family members, growth monitoring of child and health check-up.¹⁸

Data on types of health care sought were obtained by asking the respondent about the nature of service care undertaken at home or elsewhere. These measures were subsequently grouped into six categories.

category ‘unqualified allopaths’ refers to itinerant and untrained pharmacists, market sellers, and road-side ‘quacks’ who practice allopathic medicine with little or no professional training.⁸ A ‘public healthcare facility’ refers to health care institutions belonging to the state and supported by public money and protected by a series of privileges regulated by law.³ This category also included Health Assistants (HAs) and Family Welfare Assistants (FWAs). ‘Private healthcare facility’ included health care facilities belonging and supported by private sector. The respondents were asked about their opinions for not using the public healthcare facilities for the mentioned 11 type of services. Six reasons were offered and they were asked to identify the reason by a yes/no choice: (i) there is no nearby public health facility, (ii) facility timing is not convenient, (iii) health personnel are often absent, (iv) waiting time is too long, (v) provided poor quality of care and (vi) consultation time is too short.¹⁸ The data were analysed using software Statistical Package for Social Sciences (SPSS) for windows version 16. Statistical comparisons between different groups were made using percentage and chi-square tests. The odds ratio (OR) with 95% confidence interval (CI) for risk factors was

Table I: Health service seeking behavior according to demand of healthcare

Demand of healthcare	Healthcare service seeking behavior					
	Do not seek service n (%)	Traditional n (%)	Para-professional n (%)	Unqualified allopaths n (%)	Private healthcare facility n (%)	Public healthcare facility n (%)
Family planning	150 (30.5)	8 (1.6)	156 (31.7)	10 (2.0)	21 (4.2)	147 (29.9)
Immunization	5 (1.0)	1 (0.2)	225 (45.7)	1 (0.2)	6 (1.2)	254 (51.6)
ANC	89 (18.1)	3 (0.6)	139 (28.3)	3 (0.6)	42 (8.6)	216 (43.9)
Delivery care	58 (11.8)	166 (33.8)	74 (15.0)	22 (4.5)	54 (10.9)	118 (24.0)
PNC	164 (33.3)	4 (0.8)	99 (20.1)	14 (2.8)	50 (10.2)	161 (32.7)
Prevention	180 (36.6)	6 (1.2)	140 (28.4)	11 (2.2)	26 (5.3)	129 (26.2)
Self T/M	97 (19.7)	9 (1.8)	49 (10.0)	83 (16.9)	70 (14.3)	183 (37.3)
Child’s T/M	38 (7.7)	7 (1.4)	38 (7.7)	81 (16.5)	98 (19.9)	230 (46.7)
Other’s T/M	49 (10.0)	5 (1.0)	28 (5.7)	88 (17.9)	89 (18.1)	233 (47.4)
Growth monitoring	218 (44.3)	0 (0.0)	114 (23.2)	11 (2.2)	25 (5.0)	124 (25.2)
Health checkup	248 (50.4)	3 (0.6)	81 (16.5)	10 (2.0)	35 (7.1)	115 (23.4)

The category ‘do not seek service’ included traditional and modern forms of self-treatment such as analgesic and anti-pyretic tablets, oral rehydration solutions (ORS), antacids, etc., which are commonly available in rural households, and taken without prescription. ‘Traditional’ methods include service seeking within faith healing and traditional systems of medicine including kabiraji/hakimi, homeopathy and traditional birth attendants (TBA). The ‘Para-professional’ category of service seeking consists of service from: palli chikitsoks (village practitioners who receive a year-long training in diagnosing and treating common rural ailments) and community health workers who obtain very basic preventive and curative health training and treat mainly with allopathic drugs. The

calculated. All the tests were two tailed and p<0.05 was considered to be statistically significant. Logistic regressions were performed to adjust for potential confounding factors.

Results

Among the household heads most were male (98.8%) and were husbands of the respondents (87.8%). Most of the respondents were housewives (95.3%) and 29.2% were illiterate. Highest percentage of respondents used public health care facilities for immunization of children (51.6%), while more than half of them did not seek any service for health checkup (50.4%). One-third of the patients had to depend on traditional services for delivery care. (Table I)



Respondents were asked for the reasons of under utilization of public healthcare facilities. More than half of the respondents indicated poor quality of care (51.9%) and long waiting time (51.1%) as the main reasons for not seeking public health care services. Almost fifty percent (49.4%) said that consultation time was too short and only 18.88% complained that there was no nearby public facility. (Table II)

Table II: Reasons for not seeking service from the public health care facility

Reasons	Number	Percentage
No nearby public facility	93	18.9
Timing is not convenient	184	37.4
Health personnel are often absent	147	29.9
Waiting timing is too long	253	51.4
Provided poor quality of care	256	52.0
Consultation time is too short	243	49.4

No significant differences could be found in opinion category considering gender of the household heads. Literate household heads were 1.85 times less likely to say that there was no nearby public health facility than their illiterate counterpart. No significant different opinion could be found among different occupation groups of the household heads. Respondent whose father-in-laws were the household heads were 2.31 times more likely to complain that health personnel were often absent. (Table III)

Table III: Socio-demographic characteristics of the household heads according to opinion category regarding under utilization of public healthcare facilities

Household heads' demographic variable (n)	No nearby public facility % - OR (CI)	Timing is not convenient % - OR (CI)	Health personnel are often absent % - OR (CI)	Waiting timing is too long % - OR (CI)	Provided poor quality of care % - OR (CI)	Consultation time is too short % - OR (CI)
Gender of the HH						
Male (486)	18.9	37.2	30.0	51.0	51.6	49.0
Female (6)	16.7	50.0	16.7	83.3	83.3	83.3
Literacy of HH						
Illiterate (155)	25.8	36.8	34.8	51.0	52.9	51.6
Literate (337)	15.7 1.0 (0.34-0.85)**	37.7	27.6	51.6	51.6	48.4
Occupation of HH						
Service/business (200)	17.0	39.0	34.0	52.0	50.0	44.5
Agriculture/day labour (247)	20.2	34.8	25.1	49.8	51.4	51.0
Other (45)	20.0	44.4	37.8	57.8	64.4	62.2
Relationship of respondents with HH						
Husband (433)	18.5	37.6	27.9 1.0	52.2	52.7	48.5
Father-in-law (36)	27.8	33.3	47.2 2.31 (1.16-4.59)*	38.9	47.2	61.1
Other (23)	13.0	39.1	39.1	56.5	47.8	47.8

*p<0.05, **p<0.01, ***p<0.005, ****p<0.0.001

Age of the respondents had no significant influence on opinion category regarding under utilization of public healthcare facilities. Literate women were 1.69 times less likely than their illiterate counterpart to say that there was no nearby public health facility. Considering average monthly income of TK ≤ 3000 (1 USD = 73.9 TK) as the reference group TK 3001 to 6000 income group 2.38 times less likely to say that consultation time was too short and 2.22 times less likely to complain of poor quality of care; while TK 9001 to 12000 group 3.23 times less likely to complain of short consultation time and 3.13 times less likely to complain of poor quality of care. Those who had average monthly income of TK 6001 to 9000 were also 2 times less likely to complain of short consultation time than the reference group. Respondents from a family of medium standard of living were 1.61 times less likely to complain of short consultation time than those with low standard of living. (Table IV)

Respondents who did not use public health care for family planning service were more likely to agree that service timing of public health facilities was inconvenient and waiting time was too long than those who utilized the service. Respondents who did not use public health care for immunization of children were more likely to complain of long waiting time, short consultation time and inconvenient timing for service. Short consultation time, poor quality of care and long waiting time were identified as the perceived reasons for not using public health facilities for antenatal care (ANC) and child delivery care. Women who did not take postnatal care (PNC) from public healthcare facility were more likely to agree that consultation time was too short, waiting time was too long, service timing was not convenient, quality of provided care was poor and health personnel were often absent.



Respondents mentioned about short consultation time, absence of health personnel, inconvenient service hours, poor quality of care and long waiting time as the reasons for not seeking services from public healthcare facility for disease prevention and health education.

nearby public facility was the best predictor for not seeking self medical treatment from public health services (OR 1.29; 95% CI 1.31 - 4.02), which was followed by inconvenient service time (OR 1.74; 95% CI 1.12 - 2.69) and long waiting time (OR 1.69; 95% CI 1.12 - 2.49).

Table IV: Participants' socio-demographic characteristics of the household heads according to opinion category regarding under utilization of public healthcare facilities

Participants' demographic variable (n)	No nearby public facility % - OR (CI)	Timing is not convenient % - OR (CI)	Health personnel are often absent % - OR (CI)	Waiting timing is too long % - OR (CI)	Provided poor quality of care % - OR (CI)	Consultation time is too short % - OR (CI)
Age of respondents						
≤20 years (79)	21.5	35.4	27.8	48.1	53.2	54.4
21-30 years (294)	18.8	37.5	30.1	52.7	51.4	48.6
31-40 years (107)	16.8	38.3	34.0	50.5	53.3	48.6
>40 years (13)	23.1	30.8	15.4	38.5	46.2	41.7
Literacy of Respondents						
Illiterate (144)	25.0 1.0	38.9	29.2	52.1	53.5	53.5
Literate (348)	16.4 0.59 (0.37-0.94)*	36.8	30.2	51.1	51.4	47.7
Average monthly family income in taka[†]						
≤3000 taka (136)	21.3	43.4	32.4	58.1	65.4 1.0	64.7 1.0
3001-6000 taka (206)	19.4	33.2	24.3	48.1	46.1 0.45 (0.29-0.71)***	43.2 0.42 (0.27-0.65)***
6001-9000 taka (46)	13.0	39.1	37.0	43.5	52.2	47.8 0.50 (0.25-0.98)*
9001-12000 taka (59)	14.0	31.0	32.8	44.8	37.9 0.32 (0.17-0.61)**	36.2 0.31 (0.16-0.59)***
>12000 taka (45)	22.2	46.7	37.8	64.4	57.8	51.1
Standard of living						
Low (269)	20.1	38.7	29.0	52.4	55.4	54.6 1.0
Medium (215)	17.2	35.8	31.2	49.8	48.8	42.8 0.62 (0.43-0.89)*
High (8)	25.0	37.5	25.0	62.5	25.0	50.0

[†] 1 taka = 70 USD; *p<0.05, **p<0.01, ***p<0.005, ****p<0.0001

Respondents who did not seek self medical treatment or treatment for their children or other family members' from public health services were more likely to agree that there were no nearby public facility, service times of public health facilities were inconvenient, health personnel were often absent, consultation time was too short, waiting time was too long and quality of service was poor. Short consultation time, poor quality of care, inconvenient timing, long waiting time and absence of nearby public facility were identified as the reasons for not seeking child growth monitoring service. Respondents who did not use public health services for health checkup pointed out short consultation time, poor quality of care and long waiting time as the reasons. (Table V)

Logistic regression analysis was conducted to identify the best predicted reason for under utilization of public health services according to service seeking category. Inconvenient service timing was the best predictor for not taking public health services for family planning (OR 1.67; 95% CI 1.10 - 2.53). Long waiting time was the best predictor for not using public health facility for immunization of children (OR 1.97; 95% CI 1.38 - 2.82). Short consultation time was identified as the best predictor for not using public health service for antenatal care (OR 1.74; 95% CI 1.22 - 2.50), child delivery care (OR 2.00; 95% CI 1.31 - 3.07), postnatal care (OR 2.08; 95% CI 1.42 - 3.06) and for disease prevention and health education (OR 2.69; 95% CI 1.76 - 4.12). Absence of

Absence of nearby public health facility (OR 3.99; 95% 2.32 - 6.84) and long waiting time (OR 2.20; 95% CI 1.51 - 3.19) were the predictors for not seeking child medical treatment from public health services.

Respondents who did not seek other family members' treatment services from public health facilities were more likely to agree that there were no nearby public facility (OR 3.69; 95% CI 2.12 - 6.40), waiting time was too long (OR 1.89; 95% CI 1.28 - 2.80) and facility timing was inconvenient (OR 1.55; 95% CI 1.02 - 2.30). Short consultation time was the best predictor for not seeking child growth monitoring (OR 2.24; 95% CI 1.47 - 3.42) and health checkup services (OR 2.08; 95% 1.35 - 3.21) from public health care facilities.

Discussion:

The study was aimed to determine the health service seeking behavior and factors associated with under-utilization of public healthcare facilities in rural Bangladesh. A total of 492 households having at least one child up to 1 year of age were selected systematically to conduct the study. As expected from Bangladesh context (89.3% of the households at the national level were headed by men in 2008)¹⁹, most of the household heads were male (98.8%). The mean ± SD of age of the household heads were calculated as 38.57 ± 10.89 years. Only 68.6% of the household heads were literate, which



correspondent to the adult literacy rate of Bangladesh.¹⁹ The main occupation of people of rural Bangladesh is agriculture, current study also found that highest percentage (31.2%) of the household heads were agricultural workers. Average monthly family incomes for 41.9% of the households were between Tk.3001 to Tk.6000 and the mean \pm SD of monthly family income was Tk.6662.60 \pm Tk.5862.38. This was quite low even in relation to per capita income of Bangladesh.²⁰ More than half of the respondents were included in the age group of 21 to 30 years (59.6%). The mean \pm SD of age of the respondents were calculated as 27.51 \pm 6.69 years. Age range of the respondents correspondent with the other studies conducted among the same population.⁵

delivery care services should be improved. But the picture that found was not inspiring at all. It was found that 18.1% of the respondents did not take any antenatal care services, 11.8% seek no delivery care service and 33.3% got no postnatal care at all. It was interesting to find that every 1 in 5 of the respondents did not take any service for self medical care, whereas the percentage of non-utilization of services was 7.7% in case of child's medical care and was 10.0% in case of treatment of other family members. It was appreciating to see that non-utilization of service was only 1.0% in case of immunization of the children.

Table V: Participants' opinion category regarding under utilization of public healthcare facilities according to service seeking

Participants' category service sought (n)	Opinion category					
	No nearby public facility %- OR (CI)	Timing was not convenient %- OR (CI)	Health personnel were often absent %- OR (CI)	Waiting timing was too long %- OR (CI)	Provided poor quality of care %- OR (CI)	Consultation time was too short %- OR (CI)
1. Family planning						
No (345)	19.4	40.9 1.67 (1.10-2.53)*	31.0	54.8 1.57 (1.07-2.32)*	53.0	51.0
Yes (147)	17.7	29.3 1.0	27.2	43.5 1.0	49.7	45.6
2. Immunization						
No	21.8	42.0 1.47 (1.02-2.12)*	26.9	60.1 1.97 (1.38-2.82)****	55.9	58.0 1.96 (1.37-2.80)****
Yes	16.1	33.1 1.0	32.7	43.3 1.0	48.4	41.3 1.0
3.ANC						
No	21.4	40.6	32.6	56.5 1.60 (1.11-2.28)*	57.6 1.67 (1.16-2.39)**	55.4 1.74 (1.22-2.50)***
Yes	15.7	33.3	26.4	44.9 1.0	44.9 1.0	41.7 1.0
4.Delivery						
No (374)	19.0	39.6	30.5	54.8 1.77 (1.16-2.69)**	55.6 1.83 (1.20-2.78)***	53.5 2.00 (1.31-3.07)***
Yes (118)	18.6	30.5	28.0	40.7 1.0	40.7 1.0	36.4 1.0
5.PNC						
No (331)	19.9	42.0 1.87 (1.24-2.81)***	32.9 1.59 (1.03-2.44)*	56.8 1.94 (1.32-2.85)****	56.8 1.80 (1.23-2.63)***	55.3 2.08 (1.42-3.06)****
Yes (161)	16.8	28.0 1.0	23.6 1.00	40.4 1.0	42.2 1.0	37.3 1.0
6.Prevention						
No (363)	20.7	41.6 2.07 (1.33-3.24)***	33.6 2.11 (1.29-3.43)***	54.8 1.69 (1.12-2.53)*	56.2 1.90 (1.26-2.86)***	55.6 2.69 (1.76-4.12)****
Yes (129)	14.0	25.6 1.0	19.4	41.9 1.0	40.3 1.0	31.8 1.0
7.Self T/M						
No (308)	24.0 2.73 (1.59-4.69)****	44.5 2.39 (1.60-3.57)****	35.4 2.09 (1.36-3.20)****	57.8 2.02 (1.39-2.93)****	57.1 1.76 (1.21-2.54)***	55.8 2.04 (1.41-2.97)****
Yes (183)	10.4 1.0	25.1 1.0	20.8 1.0	40.4 1.0	43.2 1.0	38.3 1.0
8.Child's T/M						
No (262)	27.9 4.06 (2.38-6.91)****	45.4 2.11 (1.45-3.08)****	37.0 2.12 (1.42-3.16)****	60.7 2.23 (1.56-3.21)****	60.3 2.05 (1.43-2.93)****	58.0 2.11 (1.47-3.03)****
Yes (230)	8.7 1.0	28.3 1.0	21.7 1.0	40.9 1.0	42.6 1.0	39.6 1.0
9.Other's T/M						
No (259)	28.2 4.18 (2.46-7.12)****	46.7 2.37 (1.62-3.45)****	36.7 2.02 (1.35-3.00)****	60.6 2.20 (1.53-3.15)****	58.3 1.70 (1.19-2.44)***	57.9 2.07 (1.45-2.97)****
Yes (233)	8.6 1.0	27.0 1.0	22.3 1.0	41.2 1.0	45.1 1.0	39.9 1.0
10.Growth monitoring						
No (368)	21.2 1.95 (1.08-3.54)*	41.3 2.02 (1.29-3.18)***	31.3	55.7 1.99 (1.31-3.02)***	56.8 2.15 (1.42-3.27)****	54.3 2.24 (1.47-3.42)****
Yes (124)	12.1 1.0	25.8 1.0	25.8	38.7 1.0	37.9 1.0	34.7 1.0
11. Health checkup						
No (377)	19.6	39.5	32.1	54.1 1.59 (1.04-2.42)*	55.7 1.89 (1.23-2.89)***	53.6 2.08 (1.35-3.21)****
Yes (115)	16.5	30.4	22.6	42.6 1.0	40.0 1.0	35.7 1.0

*p<0.05, **p<0.01, ***p<0.005, ****p<0.001

Attempt was made to get idea about health seeking behaviors and utilization of health care services of rural households according to the type of health care they are seeking (demand for health care). It was alarming to notice that a significant portion of respondents did not seek any service for particular type of health care demand. For child's growth monitoring service it was 44.3% and for disease prevention and health education it was 36.6%. Thirty percent of mothers did not seek any family planning service. This picture was alarming and depressing for family planning program of Bangladesh. Again in order to achieve MDG goal by the year 2015, maternal mortality rate and infant mortality rate should be reduced. For this antenatal care, postnatal care and

It has been stated that public health care is a basic service that will assist in combating poverty and in developing countries existing health care facilities are most effective for the rural people and the poor. So, status of utilization of public health care facility was investigated through this study.

It was found that more than half of the respondents (51.6%) used public healthcare facility for immunization of their children. But picture was not even that good for other type of service demand. Utilization of public healthcare facility was 37.3% for the mothers' self medical care, whereas it was 46.7% for the child's treatment and 47.4% for other family members'



treatment. So, even the utilization of public healthcare facility was influenced by gender, specially mothers were the least group to get the service for themselves. In spite of Government's different programs and strategies for maternal and newborn healthcare services like ESP (Essential Service Package), EOC (Emergency Obstetrical Care); when utilization of public healthcare facility was considered it was found that only 43.9% of the mothers took antenatal care and 32.7% took postnatal care services from public healthcare facilities. Although institutional delivery is a pre-requisite for reduction of maternal and infant mortality, our study found that only 24.0% of the delivery care services were taken from the public healthcare facilities. Contribution of the public healthcare facility for family planning service was also negligible (29.0%). For child's growth monitoring 25.2% used public healthcare facilities and only 26.2% of the respondents got services for disease prevention and health education.

From the above picture of under utilization of public healthcare services, we inquired about the perceived reasons for that under utilization from the respondents. More than half of the respondents pointed out poor quality of care (52.0%) and long waiting time (51.4%) as the main reasons for not seeking public health care services. This pattern correspond with, but overall scenario was even worse than the study by Dalal K, et al. which found that 32% of respondents complained of poor quality of care and 17% said waiting times were too long.¹⁸ Almost fifty percent (49.4%) of the respondents of our study said that consultation time was too short. According to 18.9% of the respondents there was no nearby public facility, which was expressed by 27% respondents in the study by Dalal K, et al.¹⁸ About thirty percent of our respondents complained that health personnel were often absent, which was complained by 5% of the respondents by the study conducted in India.¹⁸

Education status of the household heads and individual respondents, monthly family income and standard of living were significant predictors for non-utilization of public healthcare facilities. A study in Jamaica found that 63.3% individual from poor class family visit public health facilities, while only 36.6% of the upper class utilize public health facilities.²¹ Having a subjugated position in the family, women and children need to seek the permission of head of the households.²² So, influence of relationship of the respondents with household head was solicited and found that respondents whose father-in-laws were the household heads complained about the absence of health personnel. Surprisingly both the poor with less monthly family income and lower standard of living and rich with highest income and high standard of living complained of short consultation time. This finding should be further investigated considering attitude of the service providers in respect of economic status of the service receiver. Short consultation time was identified as a major concern

considering almost all of the service types. Government of Bangladesh and its development partners had also acknowledged their concern about short consultation time which is only 2-3 minutes per patient.²³ Aldana et al.²⁴ and Rahman et al.²⁵ identified long waiting time and insufficient consultation time as factors for patients dissatisfaction in Bangladesh. Shortage of man power and absence of health personnel might be a reason. WHO's World Health Report 2006 had identified a shortage of qualified staff in public health sectors, especially in developing countries.²⁶ Therefore, policy-makers are encouraged to ensure the regular presence of health personnel and their optimal use.

The cross-sectional nature of the study is a limitation of the study. Another limitation was that the study was conducted in a selected area (upazilla) of rural Bangladesh. So the study population and the availability and status of the health care facility might not represent the whole rural community. So the study should be replicated in different settings of health care system.

Conclusion

Existence of several distinct therapeutic systems in a single cultural setting was found to be an important feature of health care system in the study area. In this respect, efforts to increase health-related knowledge and skills to facilitate decisions to seek appropriate health care service should be emphasized as a key component of primary health care. A significant percentage of respondents did not seek any healthcare service for particular type of healthcare demand. Service coverage for child's growth monitoring, service for disease prevention and health education, postnatal care service and coverage for family planning service were specially low. Inquiry about the utilization of public healthcare facility revealed that specially for child growth monitoring service, natal and postnatal care service, service for disease prevention and health education and for family planning service existing public healthcare facilities were under-utilized. Poor quality of care, long waiting time and short consultation time were reported as the main reasons for under-utilization of public healthcare services. So for optimum use of healthcare facility and service it is essential that constrains for its use should always be considered. Further in depth research should be conducted and findings of the current study should be replicated to formulate policy measure to improve the overall scenario of health system of rural Bangladesh.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests