

Research Article

Patient Satisfaction with Doctors' Care in Bangladesh: A Case of Government Hospital

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Patient satisfaction with health care services is viewed as an important factor in explaining patients' perceptions of quality health care. It is becoming increasingly important for determining the success of health care service and institutional survival, let alone prosperity. Although research on patient satisfaction regarding health care has become standard in many developed or developing country, in countries such as Bangladesh the importance of patient's perspectives in assessing quality of health care is still relatively ignored. The aim of the present study is to assess patient satisfaction with doctors' services at a government hospital in Bangladesh. Suitable Patients' Satisfaction Indicators (PSI) in relation to doctors' services within the hospital were developed from the existing literature related with quality studies. A survey was carried out and 104 responses were collected from the inpatients receiving medical treatment for gynaecology and obstetrics, and respiratory diseases at a divisional government medical college hospital in Bangladesh. The principal component analysis was performed to identify the key items affecting patient satisfaction levels with respect to doctors' services. The result of the principal component analysis shows that there is a single factor ('Doctors listen carefully to patients' problems') in the initial solution has eigenvalues greater than 1. It is accounted for almost 61% of the variability in the original variables.

Keywords: Health; Hospital; Patient; Satisfaction; Bangladesh**Introduction**

The development of health sector is one of the pinnacle goals of Millennium Development Goals (MDGs). Like all other UN nations, the government of Bangladesh has taken necessary step in conformity with acquire the MDGs. Following the Government footsteps, different local, national and international NGOs are also working here for implementing MDGs and developing the health status of the people. Accordingly, Bangladesh has achieved noteworthy progresses in the health status of the population by achieving MDG 4 by reducing child death before the 2015 target, and rapidly improving on other key indicators such as maternal death, immunization coverage, and survival from some infectious diseases including malaria, tuberculosis, and diarrhoea [1]. The country has been working towards a fully digitalized health information system. In recognition of its endeavours, Bangladesh acquired the 2011 United Nations "Digital Health for Digital Development" award for outstanding contributions to the use of information and communications technology (ICT) for health and nutrition.

Over the 46 years after independence, the health system of Bangladesh has gone through a number of reforms and established an extensive health infrastructure in the public and private sectors. Bangladesh has a mixed health care system that includes government, private, nongovernmental organizations (NGOs) and donor agencies. The country has developed an institutional network for providing health care which has been operated through the following tiers: primary health care (Upazilla Health Complex, Union Sub Center & Community Clinics), secondary health care (District Hospitals),

tertiary health care (Medical College Hospitals), and super specialized care (specialized institutions). The Government of Bangladesh (GOB) has taken initiatives to provide primary health care at the door step of grass root people through establishing Community Health Clinic (CHC) at the village level and Union Health and Family Welfare Centre (UHFWC) at the union level, specialized postgraduate hospitals are available only at the divisional level.

In Bangladesh, people of different social classes take treatment from different health providers like public, private & NGO-based hospitals for different reasons. Economic condition, health knowledge, socio-demographic determinants and cultural practices may influence people to choose the health care service providers [2-4]. Over the years the country has achieved impressive progress in enhancing primary health care services and health status of its population (WHO, 2015). Bangladesh has achieved exquisite improvement in childhood vaccination coverage, which is vital to reduce infant and child morbidity and mortality. Under the government's Expanded Program for Immunization (EPI), children below one year of age receive immunization for six vaccine preventable diseases such as tuberculosis; diphtheria, pertussis, and tetanus (DPT); poliomyelitis; and measles. This EPI program takes in Bangladesh one step forward toward the attainment of MDGs. In 2010, the United Nations recognized Bangladesh for its outstanding progress towards MDG 4 (to reduce child mortality) and 5a (to reduce maternal mortality) in the face of many socio-economic hindrances. Between 1990 and 2011, under 5 mortality decreased from 151/1000 to 53/1000 live births (LBs). The infant mortality rate fell less rapidly from 87/1000 to 43/1000 LBs over the last 18 years. Between 1990 and 2010, maternal

Table 1: Characteristics of the Respondents (n = 300).

Characteristics	Category	No. of Patients	Percent
Age in Years	18-24	15	14.4
	25-31	29	27.9
	32-38	36	34.6
	39-45	15	14.4
	46 and above	9	8.7
	Mean: 34.33; SD: 7.8		
Gender	Male	44	42.3
	Female	60	57.7
Marital Status	Married	89	85.6
	Unmarried	15	14.4
Literacy Rate	Illiterate	25	24
	Primary	46	44.2
	Secondary	20	19.2
	Higher secondary	11	10.6
	Graduate and above	02	1.9
Occupation	Farmer	6	5.8
	Day labourer	15	14.4
	Service holder	21	20.2
	Business	16	15.4
	Housewife	43	41.3
	Student	03	2.9
Income Group	Below 5000	23	22.1
	5000-10000	47	45.2
	10000-15000	22	21.2
	15000 and above	12	11.5
	Mean: 8309 SD: 3577.7		
Days of Hospitalization	Less than one week	48	46.2
	One week	28	26.9
	More than one week	13	12.5
	Two weeks	11	10.6
	More than two weeks	4	3.8
	Admitted Departments	Gynaecology and Obstetrics	55
Respiratory		49	47.1

mortality in Bangladesh decreased from 574/100 000 to 194/100 000 LBs. The decline is associated with a reduced total fertility rate (from 5 births per woman in 1990, to 2 in 2011) and with increased skilled delivery attendance (from 5% in 1991 to 32% in 2011) (WHO, 2015)

The Constitution of the People's Republic of Bangladesh (May 2004) set out the state's obligation to make sure public health to all citizens. However, some challenges for the health system remain unmet and critical. Many sick people, in practice, have limited or no get entry to the health services at all and for many of the rest, the care they receive is insufficient and unsatisfactory. The National Health Service, established and administered for all, is allegedly being consumed by a selective group who are favoured by geography,

social class, wealth or position. The under-served majority is largely rural however also includes the urban poor [17,8]. One study noticed that the overall public health care services have declined between 1999 and 2003, while the rate of utilisation of private health care facilities has increased for the same period [9]. Another study demonstrates that the overall utilisation rate for public health care services in Bangladesh is as low as 30 per cent [8,9]. Furthermore, the public health sector in Bangladesh is plagued by absenteeism, casual payments and perceptions of poor quality. Available evidence suggests that poor governance in the health sector is negatively influencing service delivery mechanism in Bangladesh, which, in turn, effects in low utilisation of public facilities. Non-availability of medication and commodities, discrimination against the poor, imposition of unofficial fees, lack of trained providers, weak referral, feedback and tracking systems, unfavourable opening hours and interdepartmental complications contribute to low use of public facilities in Bangladesh [10,11]. The present study aims to find out the determinants of patients' satisfaction with physicians' services designed within a government hospital in Bangladesh.

Defining Patient Satisfaction

Measuring patients' satisfaction is very important to evaluate the health care services provided by the health care institutes and to gauge patient outcomes. According to O'Connor *et al.* [12], "It's the patient's perspective that increasingly is being viewed as a meaningful indicator of health services quality and may, in fact, represent the most important perspective". It gives researchers, health managers and professionals with valuable information for understanding patients' experience, promoting patients' compliance with treatment, identifying the weaknesses in services and evaluating health service performance [13-15]. Health care institutions in developing countries to a large extent seem to pay no attention to the importance of patients' attitude regarding health services. Recent literature, however, puts emphasis on the importance of patient's perspective in assessing quality of health care [15,16]. Since 1990s researchers, health professionals and policy-makers have given considerable attention to the patient perception of the quality of health services [17]. In these years, studies on patient satisfaction or consumer satisfaction have increased remarkably as shown by a PubMed search for "patient satisfaction" or "customer satisfaction". Despite the enormous number of studies in Western countries over the past decade on patient satisfaction, an agreed definition of patient satisfaction with healthcare service is not yet achieved [18-20] owing to the multidimensional and subjective nature of the concept.

Client service is all about perceptions. No service can be tested before it is sold, it cannot be put away, returned or exchanged [21]. For all these reasons what is important most is customers' perception of their experience and interpretation of it [22]. Patient satisfaction is a complicated construct involving a number of factors, including providers' perspective, the physician's knowledge, clinical and communication skills, personal attributes, accessibility, convenience of location and surrounding area, patients' socio-demographic characteristics, their expectations, needs or desires [15,23]. Patients' satisfaction sometimes only reflects the providers' perspective rather than the patients' one [24]. On the other hand, when a patient has limited or lacking knowledge of opportunities, standards or low

Table 2: Patients' satisfaction in relation to Doctors' cares.

Items of Patient Satisfaction Scale	Mean	Median	SD	Recommending this Hospital*
1. Doctors asked about everything of my problems	3.50	4.00	.86	.720
2. Doctors listened carefully to my problems	3.14	4.00	.93	.707
3. I have trust in my doctors treatment	3.20	4.00	1.01	.550
4. Doctors gave personal attention to some emergency	3.00	3.00	1.03	.464
5. Doctors always follow-up my treatments	3.30	4.00	.93	.642
6. Doctors seemed to understand my feelings, emotions and distress	3.00	3.00	.95	.522
7. The behaviour of the doctors was good and friendly	3.44	4.00	.90	.610
8. Doctors spent enough time to diagnosis the problems and explained my problems	2.75	2.00	.92	.411
9. Doctors explained to me the reason(s) for any medical test.	2.99	2.00	1.02	.553
10. Time is not required to consult with doctors after admission	2.85	3.50	1.00	.386

*Correlation is significant at the 0.01 level (2-tailed).

**Correlation between scores of the item and responses to this item: "I would recommend this hospital to my family and friends."

expectations of service quality, high satisfaction scores may be registered even though poor standards of care have been provided.

Avedis Donabedian, the leading thinker in modern medical quality assurance, states that "it is useful to begin with the obvious by saying that quality is a property that medical service can have in varying degrees." It follows that an assessment of quality is a judgment whether a specified instance of medical service has this property, and if so, to what extent [25]. Grogan and colleagues developed a 46-item questionnaire to measure patient satisfaction with specific aspects (e.g. access, nurses, appointments, facilities) of general practitioner services in England [26]. Following American Customer Satisfaction Index (ACSI), Ali and Ahmed [27] identified 27 items to measure patients' satisfaction in private hospital of India. Hojat and associates [28] adapted 25 items from the Adult Primary Care Questionnaire developed by the Consumer Assessment of Healthcare Provider and Systems (CAHPS) for measuring overall patient satisfaction with primary care physician. Following the existing literature we have developed 10 items to measure patients' satisfaction with doctors' services in government hospital of Bangladesh. In this study, patient's satisfaction with doctors' services is defined as the patient's opinion of the services received from physicians and is acknowledged as an outcome indicator of the quality of doctors' services.

Materials and Methods

The data of the study was collected by using structured questionnaires from the inpatients receiving medical treatment for gynaecology and obstetrics, and respiratory diseases at a divisional government medical college hospital in Bangladesh. The work was performed on a sample unit of 104 inpatients on the basis of convenient random sampling techniques. The study was carried out during 15th November to 25th November 2016. The patients were selected on the following criteria: (1) age 18 years and above at the time of admission in the hospital; (2) spent at least two more days as inpatients. The survey instrument was mostly adapted from existing relationship quality studies. A total of 10 items in relation to doctor services were developed by the researchers from the existing literature in Bangladesh and elsewhere of the world. With regard to patient satisfaction, respondents were asked to record their level of satisfaction with respect to doctors' services. Patient satisfaction in relation to doctors' services are measured by asking the respondents

to rate on a 5- point Likert scale ranging from "Strongly Disagree = 1" to "Strongly Agree = 5". Total satisfaction score was calculated from the sum of all 10 items. The possible score range is 10-50. A higher score indicates a greater satisfaction with health care services. However, an item such as "I would recommend this hospital to my family and friends" is included due to its direct relevance to patients' satisfaction with doctors' services in the hospital. We hypothesized that if patients were satisfied with doctors' services within the hospital they would recommend the hospital to their family members and friends.

Reliability was measured by the Cronbach's alpha. Detailed information regarding their socio-demographic characteristics, income, diseases, and the number of days in the hospital was collected based on a questionnaire designed to capture all relevant data on patients. Interviewers were instructed to take oral consent from each participant just before carrying out the interview. To ensure privacy and confidentiality, no other persons (e.g. doctors, nurses, and staff) were present except the participant and the interviewer at the time of interview. The respondents were assured that information provided by them will be solely used for research purposes and the confidentiality of their responses will be strictly maintained at all times and the personal information provided by them will never be shared with any outside organisations or persons.

Findings and Analysis

Descriptive analysis

Table 1 shows that the greatest number of respondents belong to the age group of 32-38 years i.e. 34.6 %. While the smallest number of the respondents are from age group of 46 and above years i.e. 8.7%. About 42 of the respondents are male and 58% of the respondents are female. On categorizing the patients by their marital status, it is shown that 60% of respondents are married and 40% of respondents are unmarried. With regard to education, it is found that around 68% of the patients are either illiterate or educated up to primary level. Occupation status of the patients shows that the housewife category accounts for the largest category (41%), which is followed by service holder (20%) and business (15.4%). The table further shows that 45% of respondents have a monthly income of TK 5000-10000.

Drivers of satisfaction in relation to doctors' care

We examine the distribution of the satisfaction scores, which

Table 3: Communalities of principal components (excluded: time is not required to consult with doctor after admission).

Items of Patient Satisfaction Scale	Communalities	
	Initial	Extraction
1. Doctors asked about everything of my problems	1.00	.703
2. Doctors listened carefully to my problems	1.00	.750
3. I have trust in my doctors' treatment	1.00	.600
4. Doctors gave personal attention to some emergency	1.00	.671
5. Doctors always follow-up my treatments	1.00	.450
6. Doctors seemed to understand my feelings, emotions and distress	1.00	.689
7. The behaviour of the doctors was good and friendly	1.00	.541
8. Doctors spent enough time to diagnosis the problems and explained my problems	1.00	.496
9. Doctors explained to me the reason(s) for any medical Test.	1.00	.558

Extraction Method: Principal Component Analysis.
 *Only one component was extracted.

is fairly skewed toward upper tail indicating that a majority of doctors are given relatively high satisfaction ratings by their patients (skewness index= -3.48). Although patients used the full range of responses (1 to 5) to each of the 10 items, the means of 7 (out of 10) item scores are pretty high, ranging from 3.00 to 3.50. However, the means of total scores of the entire 10-items satisfaction scale is 3.12 (SD=.95). The Cronbach's coefficient alpha, an indicator of internal consistency reliability, is .909.

Factor analysis is performed to identify the key indicators affecting patient satisfaction levels in relation to doctors' treatment and services. However, the initial step of factor analysis is to inspect to what extent patient satisfaction items are interrelated/correlated with one another. If there are no significant correlations between these items, then this means that they are unrelated and that we would not expect them to form one or more factors. In other words, it would not be worthwhile to go on to conduct a factor analysis [29]. Therefore inter-item correlation is calculated to examine the relationships between variables. The correlation matrix for patient satisfaction items is presented in Appendix-1 [30]. All, but one ("long waiting time for doctor after admission"), of the items are significantly correlated with one another, which indicate that they may constitute one or more factors. We also inspect to what extent patient satisfaction scales are correlated with recommending the hospital to the family members and friends. Again, it is revealed that correlations between scores on each satisfaction item and patient's recommending the hospital to family and friends were all but one of the items statistically significant, ranging from .450 to .722 (Table 2).

Principal component analysis

Factor analysis is performed to verify the various factors leading to customer satisfaction in the health sector [31,32]. We use principal component factor analysis (varimax rotation) to examine underlying constructs of the patient satisfaction items. In principle component analysis, we examine the total variance of a test, this is set at 1. Table 3 shows the SPSS output for the communalities of the principle component analysis.

In factor analysis, scales having a loading value of 0.5 and higher are accepted as an important component of the variable. Each factor

is analyzed using Kaiser's Eigen value of greater than or equal to one [33] to see whether each component measured a single factor or not. Factor analysis of the scores of 9 satisfaction items is presented in Table 4. It is found that there is only one prominent factor with an eigenvalue of 5.518, accounting for almost 61% of the variability in the original variables. While there are only four factors in the initial solution have eigenvalues greater .4. Together, they account for almost 26.34% of the variance. So the variance explained by the five factors is 87.65% of the total variance. In Table 5, the Component Matrix has been presented in terms of the size of the loadings on the factor to which they are most closely related. The scree plot helps us to determine the optimal number of components. The eigenvalue of each component in the initial solution is plotted (see Appendix-2).

Discussions and Concluding Remarks

Health is a highly cherished state of being. The worth regarding health is almost universally recognized. Today, health is universally viewed as an important index of human development. Better health is both an objective of and a tool for development. The World Health Organization (1948, no.2, p.100) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Sociologist Talcott Parsons [34] argued that the stability and cohesion of any social system was threatened by ill-health, because those who experienced it were unable to fulfil their normal social obligations in their family and work settings. It was in the general interest of society, therefore, to ensure that those who became ill should feel obliged to seek expert (e.g. *doctor or physician*) help to enable them to recover as quickly as possible and resume their usual social roles. In this context, Parsons goes on to consider relationships which are established between doctors and patients in the consultation situation. In fact, Parson was a pioneer in this field, sketching a theoretical model of the doctor-patient relationship based on structural-functionalist assumption. Given the social importance of restoring sick individuals to health, he argued, doctors and patients were expected to enter into a mutual consensus and cooperation. Along these lines, for instance, patients needed to allow doctors to examine them physically and ask detailed questions about their problems and daily habits. While the doctors had to agree not to use their authority to exploit the dependency of the patients but rather they should have commitment to patients' well-being, their expectations of cure or pain relief.

Today, the doctor-patient relationship is a cornerstone of health-care all through the world. It is integral to the practice of health care and is decisive for the delivery of high-quality health care in the diagnosis and treatment of ailments. Respect for patients demand and desire is central to any human health care policy. The quality of the patient-physician relationship is imperative to both parties because it offers information on the provider's success at meeting those desires of most importance to the client. The better the relationship as far as common regard, knowledge, trust, shared values and viewpoints about illness and life, and time available, the better will be the amount and quality of information about the patient's disease transferred in both directions, enhancing accuracy of diagnosis and increasing the patient's knowledge about the disease. As a result, patient satisfaction with doctors' care is widely considered as an integral part of the quality of care. Donabedian [25] characterizes quality of care as

Table 4: Initial Principal Components and their Variance.

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.518	61.308	61.308	5.518	61.308	61.308
2	.821	9.127	70.435			
3	.624	6.934	77.369			
4	.494	5.493	82.862			
5	.432	4.797	87.659			
6	.365	4.051	91.710			
7	.309	3.432	95.142			
8	.264	2.929	98.071			
9	.174	1.929	100.000			

Extraction Method: Principal Component Analysis.

Table 5: Component Matrix^a.

Items of Patient Satisfaction Scale	Component
Doctors listened carefully to my problems	.866
Doctors asked about everything of my problems	.838
Doctors seemed to understand my feelings, emotions and distress	.830
Doctors gave personal attention to some emergency	.819
I have trust in my doctors treatment	.774
Doctors explained to me the reason(s) for any medical test.	.747
The behaviour of the doctors was good and friendly	.736
Doctors spent enough time to diagnosis the problems and explained my problems	.705
Doctors always follow-up my treatments	.671

Extraction Method: Principal Component Analysis.

^aComponents extracted.

that sort of care, which is relied upon to expand patient welfare, and depends on whether effective care is looked for and individual and social preferences regarding care is manifested. It furthermore underscores the importance of performance of health care practitioners, health care system and relative costs and advantages of patients. One of the most widely cited recent definitions indicates that quality of care is the “degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” [35]. Quality of care is also defined in terms of two key dimensions, access and effectiveness, which implies whether the users get the care they need and whether the care they receive is effective [36]. Factors influencing dissatisfaction could be somewhat different from factors generating satisfaction. While on one side a sufficient or acceptable standard of quality may be considered as fundamental, on the other, a feeling of satisfaction may result from a high quality service. Additionally, when something negative happens consumers might be satisfied or not; for instance, this depends on whether the negative event is caused by the health professionals or it is not because of their conduct [37]. Thus, it is possible that what makes one person satisfied might make another one dissatisfied [19,38].

Patient satisfaction is considered one of the important quality indicators at the healthcare centres. It reflects whether healthcare organizations have ability to fulfill patient’s needs and expectations. In Bangladesh, however, patients’ satisfaction with health care services is

as yet overlooked. We don’t contend that health care organizations are not wishing to provide quality health care services to their clients. Here the relationship between health-care providing organizations and care-seeker or doctor-patient relationship is remained on an asymmetrical relationship. Health-care providing organizations seldom ask patients about their demands, expectations or whether they satisfied with the services have been provided to them. Many doctors might try to a large extent to limit their involvement with the patient, it is in the patient’s interest to enlist their unconditional surrender and particularistic support as much as possible to the doctor and health-care giving organization. As a result, quality of care only mirrors the providers’ perspective rather than the patients’ one. What’s more, of course, a large number of patients who take treatment from government hospitals are either illiterate or educated up to primary level. These patients have limited or lacking knowledge of opportunities, standards or expectations of service quality. Moreover, frail referral system, limited or no long-term and continuous doctor-patient relationship, and lacking feedback and tracking systems are some of the major limitations in the health care system of Bangladesh, in spite of the fact that these are considered as basic for giving quality health care in the diagnosis and treatment of diseases. One study shows that more than 86% of outdoor patients and 73% of indoor patients went directly to the medical college hospital without being referred from any other facility or doctor. The reported consultation time with the doctor was one minute or less for 29% of patients and more than five minutes for only 10% of patients [39]. In some studies, doctors’ treatment, behaviour, and long waiting time for consultation with doctors came out as major contributing factors to patient dissatisfaction in Bangladesh [7,40,41]. These findings are in concurrence with our study as well.

According to findings of the present study, the following items were found to be the main antecedents of patient’s satisfaction with doctors’ medical care in Bangladesh: (1) doctors should ask detailed questions about patients’ problems; (2) doctors must listen carefully to their problems; (3) The behaviour of the doctor should good and friendly; (4) doctors must follow up treatments; and (5) patients’ trust in doctors’ treatment.

The present study argues that high quality medical service can be delivered by doctors within hospitals only when a patient oriented service culture characterized by emphasis on the above mentioned factors as well the following items could be developed:

- Doctors must give personal attention to some emergency of the patients;
- Doctors should feel patients’ emotions and distress cordially
- Doctors should explain problems and give information in way that is easy for patients to understand
- Doctors should thoroughly explain the reason(s) for any medical test
- Time gap between admission and consultation with doctors should be minimized.

Despite the generalizability of the findings are potentially limited as the sample derived from one hospital only, the findings of the study are considered sensible. The researchers of this study identified

a number of factors with doctors' services which are important to maintain high-quality care within hospitals. In conclusion, we want to argue that patients' opinions are important in order to gauge performance and to make health-care professionals more aware of aspects enhancing clients' satisfaction. Generally, the doctors have to remember that more satisfied patients are more they are likely to respond to treatments and to get better health outcomes.

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