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Hospital Management and Patient Satisfaction in Bangladesh: A Comparative Study between Private and Public Sectors

Begum, Farhana

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Hospital Management and Patient Satisfaction in Bangladesh: A Comparative Study between Private and Public Sectors



Ph.D Dissertation

Researcher

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Registration No.: 0018

Session: 2008-2009

**Department of Accounting and Information Systems
University of Rajshahi
Rajshahi, Bangladesh**

July 2013

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**Department of Accounting and Information Systems
University of Rajshahi
Rajshahi, Bangladesh**

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Ph.D Dissertation

Researcher

Farhana Begum

A Dissertation

Submitted to the Department of Accounting and Information Systems, University of
Rajshahi in Partial Fulfillment of the Requirements for the Degree of

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τεμσ*

**Department of Accounting and Information Systems
University of Rajshahi
Rajshahi, Bangladesh**

July 2013



*Dedicated
to
My Family*

Certificate

I have the pleasure to certify that the dissertation entitled **Hospital Management and Patient Satisfaction in Bangladesh: A Comparative Study between Private and Public Sectors** submitted by **Farhana Begum** to the University of Rajshahi, Bangladesh for the degree of Doctor of Philosophy in Accounting and Information Systems is an original research work done by her under my supervision. To the best of my knowledge, this dissertation has not been previously submitted for any diploma or degree or fellowship to any other university or institute. Materials obtained from different sources have been duly acknowledged by the researcher in the relevant places of the dissertation.

I strongly recommend for sending the thesis to the examiners for evaluation in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Accounting and Information Systems.

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Declaration

I do hereby declare that the dissertation entitled **Hospital Management and Patient Satisfaction in Bangladesh: A Comparative Study between Private and Public Sectors** submitted to the University of Rajshahi as a partial requirement for the degree of Doctor of Philosophy in Accounting and Information Systems is an original work. Neither the whole nor any part of it was submitted to any other university or institute for any other degree or diploma. My indebtedness to the works of other researchers has been duly acknowledged at the relevant places of the dissertation.

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Abbreviation

ANOVA	=	Analysis of Variance
BMDC	=	Bangladesh Medical and Dental Council
CHW	=	Community Health Worker
CIET	=	Center for International Epidemiological Training
CMH	=	Combined Military Hospital
CS	=	Civil Surgeon
DGFP	=	Directorate General of Family Planning
DGHS	=	Directorate General of Health Services
EMOC	=	Emergency Obstetric
EOC	=	Comprehensive Emergency Obstetric Care Service
EPI	=	Expanded Program for Immunization
FPI	=	Family Planning Inspector
FWA	=	Family Welfare Assistant
FWC	=	Family Welfare Centre
GOB	=	Government of Bangladesh
HA	=	Health Assistant
HEU	=	Health Economics Unit
HFA	=	Health for All
HFWC	=	Health and Family Welfare Centre
HI	=	Health Inspector
IBS	=	Institute of Bangladesh Studies
ICFHDP	=	Integrated Community Family Health Development Program
IHE	=	Institute of Health Economics
IPD	=	Inpatient Department
MA	=	Medical Assistant
MCH	=	Mother and Child Health
MOHFW	=	Ministry of Health and Family Welfare
NIPORT	=	National Institute for Population Research and Training

NIPSOM	=	National Institute of Preventive and Social Medicine
OPD	=	Out Patient Department
ORT	=	Oral Re-hydration Therapy
PDP	=	Professional Development Program
PHC	=	Primary Health Care
QOC	=	Quality of Care
RACI	=	Risk-adjusted Complication Index
RAMI	=	Risk-adjusted Mortality Index
RARI	=	Risk-adjusted Readmission Index
RD	=	Rural Dispensary
SBA	=	Skill Birth Attendant
SC	=	Satellite Clinic
SD	=	Standard Deviation
SPSS	=	Statistical Package for Social Science
TB	=	Tuberculosis
THC	=	Thana Health Complex
THFPO	=	Thana Health and Family Planning Officer
UHFPO	=	Upazila Health and Family Planning Officer
UHFWC	=	Union Health and Family Welfare Centre
USC	=	Union Sub - Center
WHO	=	World Health Organization

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Abstract

Health is a basic prerequisite for improving the quality of life. Socio-economic development of a nation mostly depends on the state of health. A large number of Bangladeshi people, particularly in rural areas, remain with no or little access to health care facilities. Their lack of participation in health service is a problem that has many dimensions and complexities.

Patient satisfaction with health care is seen as a dimension of quality of care. Expectations of service recipients are increasing day by day due to rapid development of science, technology and management. The quality of care that satisfied patients yesterday or day before yesterday may not satisfy them tomorrow or day after tomorrow. Moreover, satisfaction and utilization of services go hand in hand, which is the rationale behind thousands of satisfaction research being published in the developed world per year. But unfortunately there is hardly any study on patient satisfaction using large series of field level data in Bangladesh. Finding clue from this gap this study has been done in order to evaluate patient satisfaction in Bangladesh.

A cross-sectional comparative study has been conducted with the aim of identifying differences in the level of satisfaction among patients in private and public hospitals. We have purposively selected six hospitals- three from public and three from private. Dhaka Medical College Hospital, Mitford Hospital and Sher- E Bangla Medical College Hospital are among the public hospitals and Central Hospital, Bangladesh Medical College Hospital and Ibn Sina Hospital are from private hospital. Primary data has been collected through a structured pre-tested questionnaire from 299 respondent inpatients 150 from public hospitals and 149 from private hospitals. Male patients are 161 and female patients are 138. Half of the patients have been selected from medical wards and the other half from surgical wards. The list of patients ready to be released on a particular date has been obtained from the respective Ward-in-Charge of the respective hospitals.

Satisfaction score has been assessed with services of doctors, nurses, aya and ward boy, cleanliness, laboratory and reception. Satisfaction has been categorized into five levels- not at all satisfactory, somewhat satisfactory, more or less satisfactory, appreciable, and excellent, where 1 meant for 'not at all satisfactory' and 5 for 'excellent', 'somewhat satisfactory' 2, 'more or less satisfactory' 3 and 'appreciable' 4 in between them. Dependent variable is satisfaction score. Satisfaction has been further assessed with a close question of future return to the same hospital. Inter personal perceptual variation has been taken into consideration to avoid confounding effect. Age, sex, occupation, educational status, socioeconomic condition, marital status, outcome of treatment, types of treatment and expenditure of treatment have also analyzed to measure the impact of these demographic characteristics on patient satisfaction. Data has been analyzed using SPSS version 20. Hypotheses have been tested using Independent t test. Binary Logistic Regression Model has been built to explore maximum effect of independent variables on dependent variable. Qualitative data has been analyzed with Chi-square test, while one way ANOVA has been done to compare more than two groups.

In this study mean age of the public group was 39.01 ± 18.84 years and that of private group was 47.32 ± 20.47 years. However, age and sex have no association with any of the satisfaction scores given to the doctor's service, nurse's service, provision of medicine supply, service given at the reception, aya/ ward-boy and cleaner's service, laboratory service and maintenance of cleanliness. So, age and sex have got no significant effect on total satisfaction score. Satisfaction score does differ between married and unmarried population also. Socioeconomic conditions of this series are dominantly from middle class followed by poor class and a small from (nearly 10 percent) affluent segment of the society. Most of the middle class and rich people are served by the private hospitals and the poor people are served by public hospitals. Most of the patients in this study are primary educated. Higher educated people like private hospitals than that of public hospitals. A handsome number of illiterate people have participated in the study who have been treated both in private and public hospitals.

One way ANOVA discovers that occupation and educational status of the study population have no influence on satisfaction. The rich people are more satisfied than the poor people. But age, sex, educational status, occupation, marital status and type of treatment has got no significant influence on satisfaction and future return to the same hospital. Even the amount of expenditure has not considered by the patients in

determining their satisfaction in the same type of hospital. Out of 299 patients nearly two thirds have been either completely cured or improved, one third either not improved or deteriorated and a negligible portion that is around 1 percent unfortunately died during the course of hospital admission. Outcome of treatment have logically influenced the satisfaction score. Those patients are more satisfied who are cured or improved than those who are deteriorated or died.

Overall satisfaction is higher in private hospitals than that of public hospitals in respect of all services - doctor, nurse, aya/ward boy and cleaner, laboratory services, reception and medicine supply. Availability of essential service, politeness and sympathy of staff, cleanliness, and use of modern equipment has positive influence on patient satisfaction in private hospitals.

It is surprising that expenditure of treatment does not influence the satisfaction rather the services of doctor, nurse, aya/ward boy and cleaner, reception, laboratory and cleanliness have influenced the satisfaction score. It indicates patients require service even if it requires reasonable costs.

Around 30 percent of the respondents are disappointed with the services. They will not return to the same hospital for consuming service if they would become ill unluckily. It is only the services provided by the hospital that could influence the patient significantly in making decision of future return to the same hospital. But, binary logistic regression analysis explores that future return depends on doctor's service, aya/ward boy and cleaner's service, regular and timely supply of medicines only. Nurse's service, reception, laboratory service, cleanliness and outcome of treatment do not influence the decision significantly.

Most of the people of Bangladesh are of poor socio-economic status and they have to avail themselves of the services from public sector. But it is frustrating that most of the services provide by public providers are not at all satisfactory to a good number of the patients. It gives a red signal for the health system of the country. Till now public sector is the only active system at the doorstep level of the poor and middle class people. Most of the people cannot buy the health services of private sector as they are costly. So it is urgently needed to identify the loopholes of the public sector and fix accountability of the service providers. Besides, the cost of services of the private providers should be reasonable to all segments of the society and the Directorate of Health should influence the price fixing mechanism of the private hospitals.

Chapter 1

Introduction

This chapter presents introductory aspects of the study and includes statement of the problem, research gap, research questions, objectives, rationale, scope and limitations of the study along with a brief conclusion.

1.1 Prelude

Health is a basic requirement for improving the quality of life. Economic and social development of a nation mostly depends on the state of health. The health sector occupies an enormously important position to ensure sustainable overall socio-economic advancement in developing countries. In Bangladesh, the government has begun to integrate strategically the health sector into its poverty reduction plans, for an unhealthy nation is meant to continue a vicious circle of poverty. In this regard, the Commission on Macroeconomics and Health (2001) asserts that 'improving the health and longevity of the poor is an end in itself, a fundamental goal of economic development'.

The health care system in Bangladesh is a mixture of public and private initiatives. In terms of physical infrastructure, public sector is stronger than the private sector although in terms of coverage, the health care system of the country should be termed as a privatized one. Besides, there are some NGOs, which also play a significant role in providing health services. All these institutions are managed and controlled under the policy guidelines of the government (Osman & Ferdous, 2004).

In Bangladesh, government is viewed as the primary actor in the health sector. The overall health status in Bangladesh represents an unimpressive picture though some developments have taken place in this sector during the past years. The country has adopted primary health care policy for achieving health for all, but achievement in the health sector is very poor. Social and economic inequalities exist to the highest extent in Bangladesh. Medical care is an extremely scarce and expensive service in the country. The Government delivery system is not efficient enough to cover the target population.

The government's efforts to provide health facilities at various levels, though free of cost and managed by trained professionals, has however, not led to desired level of use of the services. Primary health care services are greatly underutilized, despite concerted efforts employed by the government to improve these services (Jahan et al., 2006).

The health care service in Bangladesh is provided in a three-tier system: primary, secondary and tertiary tiers. Population per physician is 3269 and population per bed (beds of health sector + registered private hospitals) is 1860 and there are 38,171 public hospital beds and 36,244 private hospital beds (DGHS, 2010). Rate of increase of hospital beds was 11.9 percent during the years 1990-95 and 8.4 percent during the years 1995-2000. Population growth rate is 1.40 percent. District hospitals are over-utilized (in-patient) by 52.62 percent -71.97 percent but Upazilla hospitals are remaining underutilized by 80.76 percent-60.3 percent which suggest that people are inclined more towards using the services at the secondary and above levels, while at the primary level the services remain underutilized. This flows from the perceived idea of the people regarding quality of service provided at different tiers. Social acceptability is an important dimension of quality of care and it encompasses patient satisfaction in it (Bangladesh Health Service, 1990).

Bangladesh has a good healthcare network covering both rural and urban areas. Directorate General of Health Services (2012) recent report shows that there are 3,976 healthcare facilities in the public sector and 2966 privately run hospitals/clinics. The healthcare-delivery system of the country compares favorably with that of many other Asian countries. However, overall healthcare utilization in Bangladesh is low and is of great concern to society. A survey by the Centre for International Epidemiological Training (CIET, 2003), showed that, in Bangladesh, 13 percent of treatment-seekers use government services, 27 percent use private/NGO services, and 60 percent unqualified services (Cockcroft et al., 2004). In their comparative survey on private and public healthcare providers in Bangladesh, Ricardo *et al.* observed that the overall use-rate for public healthcare services was as low as 30 percent (World Bank, 2005). On the other hand, the uneven distribution of demand is creating unmanageable pressure on a few reputed public hospitals. In their 'Bangladesh healthcare facility efficiency study', Rannan and Samantha (1997) stated that the overall patient load in public medical college hospitals was approximately five times higher than that in other general hospitals.

Andaleeb (2001) has mentioned that the health care delivery system in Bangladesh faces three major challenges: improving quality, increasing access and reducing cost. There is growing evidence that the perceived quality of medical care services has a relatively greater influence on patient behaviors (satisfaction, referrals, choice, usage, etc) compared to access and cost. In Nepal, for example, the government made substantial investments in basic health care to increase access. Yet, according to Lafond (1995), utilization of the facilities remained low because of clients' negative perception of quality. Guldner and Rifkin (1993) also showed that in Vietnam and Uganda, poor quality of services in the public sector led to greater use of private providers.

A large number of Bangladeshi people, particularly in rural areas, remained with no or little access to health care facilities. Lack of participation in health service is a problem that has many dimensions and complexities. But it is alleged that the present health policy is not people oriented. Financial and technical support is very helpful to ensure health service among village people. However, the Government allocates only 5 percent of the budget to the health sector, while it allocates 13 percent to defense sector. The World Health Organization (2006) has identified that about 50 percent of the medical equipment in developing countries is unusable.

The efforts of the government, NGOs and private service providers in the country's health sector have been rewarded with some success, especially in primary health care with its focus on prevention. Presently, 73 percent of children are fully immunized in Bangladesh (NIPORT 2004) and the under five mortality has reduced to 53 per 1000 live births in 2011 from 88 per 1000 live births in 2004 (BDHS, 2011). The infant mortality rate has also declined to 42 per 1000 live-births in 2011 from 65 per 1000 live births in 2004. Maternal mortality, an important indicator of well-being, has also declined to 1.94 per 1000 in 2011 from 4.8 per 1000 in the 1990s, with the introduction of appropriate preventive measures (BDHS, 2011).

There are huge differences between expectations and services in health care delivery in Bangladesh. Even after these limitations described above, every human being expects that in case of his/her falling sick he/she will be taken to a qualified health practitioner or hospital in the quickest possible time, where he/she will be welcomed. It will be expected that hospital personnel will speak in the same or an understandable language and are courteous & caring. It may also be expected that they will have keen

interest in treating patient, create homely and comfortable environment and provide for best investigation facilities and competent care ensuring quickest recovery. Patients expect that they will not have to wait for treatment, which will be free of cost or at an affordable cost and at every stage of decision making about the care opinion of the patients will be given due importance. When these expectations are met, a sense of satisfaction prevails in the mind and body of the patient and the same in turn quickens recovery. Satisfaction with hospital care is an outcome of hospital experience and is the result of individual evaluation by the patient of the multiple attributes of care in the background of his/her personal characteristics.

Health care service delivery, like any other service, depends on the interaction between two parties- the provider and the client or consumer of the service. The interaction determines the level of utilization of the service by the individuals, group of the community. If a balance could be achieved between the demands of the client and the supply by the providers of service then an optimum utilization results. The level of health of a nation is, to a great extent, determined by the level of utilization of its health care services by its people.

From the days of inception of the understandings of quality of care, doctors used to evaluate the service rendered by them through setting certain standards of their performance and comparing actual performance with the standard set. There was no reflection of opinion of the recipients of services. Presently patients opinion about medical services, received from hospitals or individual service providers is given due importance as it shapes attitude of the recipients about future utilization of the services.

Charles (1994) stated that 'patient satisfaction' with health care is seen as a dimension of quality of care. Patient satisfaction was defined as a health care recipient's reaction to salient aspects of the context, process and result of their service experience. Fitzpatrick (1991) commented, 'discussion about how the quality of health care should be measured increasingly includes patient satisfaction as one of the important dimensions of health care. Satisfaction ratings reflect three variables: the personal preferences of the patient, the patient's expectations and the realities of care received. Satisfaction with the realities of care received is affected by many different components of that care-access, cost, competence of care, personal qualities of service providers, participation of patient in decision making about his/her own care, provision of information about the disease, results of investigation,

physical care, catering aspects of hospital care, etc. Again, satisfaction level of patient will vary depending upon the expectations of and evaluations by the patient, which is determined by the socio-cultural background, age, economic status, educational qualifications, previous experience of hospital stay, severity of illness, etc. Patient variables including patient characteristics and expectations are often referred to as determinants of satisfaction, while care variables are referred to as the components of satisfaction.

1.2 Statement of the Problem

Bangladesh, with about 162.2 million people in only 147,570 sq. km, is one of the densely-populated countries in the world. Its problems are many and health is one of them. Poor and inadequate health services are acting as obstacles against the overall development of this country. Health service is one of the most important sectors to fulfill the fundamental rights of the people of a country. It is the constitutional binding of the state to ensure adequate health service delivery to the people (Bangladesh Constitution, Article-18). Moreover, as a signatory to Alma Ata Declaration 1978, Bangladesh is committed to providing appropriate health services to its citizens (Fardaus, 2008). However, this grand vision of primary health care for all has not yet been achieved. On the contrary, Basic primary health care services are not made accessible equally and the marginalized people of rural Bangladesh are treated in a highly discriminatory nature to have access to health facilities.

There are already a number of awareness programs focusing on health issues that are being implemented by the development agencies in rural Bangladesh. In spite of some very rare exceptions, all the health awareness programs have aimed at improving the knowledge level on health and hygiene issues. They have not been aimed at promoting the right for all to have access to primary health care facilities. Very often, the common people think that they are lucky to get some access to health services (no matter how small an amount they receive). They do not demand equitable access to health facilities. The problem of access to health care is particularly acute in Bangladesh. According to the World Bank (1987) estimate, 'only 30 percent of the population of Bangladesh has access to primary health services and overall health care performance remains unacceptably low by all conventional measurements.' A subsequent study of Sen and Acharya (1997) notes some improvements but indicates that the poor quality of health services is a persistent concern.

Now a days, there is a common headline of the daily newspapers that hospitals and health centers are beset with various problems, making it difficult to provide medical care services to the patients. It is a known fact that there is mismanagement, lack of proper coordination, problems of supervision and accountability aggravate the problems, essential supplies are generally unavailable, facilities are inadequate, and the quality of staffing is poor, while corrupt practices seem to be on the increase as media reports indicate weak monitoring and supervisory framework, centralized management, poor management of drug and lack of modern equipment in the health administration. Ex-ray machines and ambulances are out of order most of the time. Uncontrolled trade union is one of the main reasons for this. Thus it becomes difficult for the administration to take action against their corrupt practices and irregularity in the services. Taking more money for ticket from out-door patient, absence of senior doctors in the outdoor department, corruption in admission of indoor patient, lack of sympathy for patients among the doctors and nurses make the health service inaccessible to the beneficiaries. From various observations it has become clear that the Government is not able to provide required health service to the people and people's participation in the public health service is even at the basic level.

In this situation, too many corrupt doctors do not serve the common people well, take bribe, and do not maintain office time at the public health centers. Instead, they prefer to run private clinics for their own profit during their office time. Such malpractice generally starts from the moment of posting of a doctor to a rural THC or Union Health Centre. They are either unwilling to join, or they make delay within the loopholes of the system. Given the doctors who join the THCs in rural areas, being dissatisfied with working conditions and career prospects, lack of alternative ways of earning extra money through private practice, they provide service for lesser time than the scheduled working hour. Neglect of duties of the paramedics and domiciliary staff has also been affecting the policy implementation process (Osman & Ferdous 2004). No positive affirmative action is seen to resolve this problem. Of course, not all doctors are corrupt, but this is a common picture in most rural areas. Common people most often do not protest against this simply because they lack consciousness about their rights.

Faced with this growing dissatisfaction, the private health care sector (including unqualified providers) are growing rapidly and presently about 70 percent of the patients seeking medical care from this sector (World Bank, 2003). Between 1996 and 2000, private hospitals grew around 15 percent per annum (HEU, 2003). Unfortunately, there are concerns that the quality of the private health care service is also being ignored. Some of its main drawbacks include disregard of standard treatment protocols, lack of qualified nurses and unnecessary diagnostic tests (World Bank, 2003).

Bangladesh Government and its development partners have also acknowledged their concerns about the quality of health care services leading to poor health care system (MOHFW, 2003). These instances reflect the problems of health service delivery system that must be addressed quickly. With the quality of services showing little signs of improvement, a large number of Bangladeshi patients who are able to afford it are going to foreign hospitals, despite the financial costs and the cumbersome processes involved in getting visas, obtaining foreign exchange, arranging for transportation, accommodation and food, and finding the right providers. This situation clearly indicates that the perceived benefits either from public or private (in particular public) to them are not satisfactory to service costs incurred. This also results in huge losses of foreign exchange for Bangladesh, estimated approximately Tk. 500 million a year on foreign health care services according to the official record of the Institute of Health Economics, University of Dhaka, Bangladesh (IHE 2002). Thus there are problems of access, cost, and services which in turn affect the level of patient satisfaction both in public and private hospitals in Bangladesh.

1.3 Review of Literature

Williamson (1971) stated that the evaluation of patient care requires the consideration of hundreds of variables. It is the fact which has probably discouraged investigators from applying much effort in this area. The strategy to solve this problem is focusing on those factors that might have the greatest probability of effecting significant improvement in the health status of a target population. The four elements of this strategy are: diagnostic outcomes (or results), diagnostic process (or actions), therapeutic outcomes (or results), and therapeutic process (or actions). It is to be noted that these factors are listed in order of their priority for evaluation and not in their chronological sequence in clinical practice. Diagnostic outcomes represent the data

required to determine the need for care, specific therapy, and prognosis. It could be a simple diagnosis derived from a single symptom or laboratory test or a complex diagnosis with major treatment and prognostic implications. Therapeutic outcomes represent the health status of the patient at a given period of time following treatment (lived or died, remained ambulatory or was bed-ridden, returned to work, or remained dependent etc). Diagnostic process includes the procedures carried out in order to furnish the physician with the facts on which to base his diagnosis (history taking, physical examination, ordering laboratory tests, analyzing data, arriving at a diagnostic synthesis). Therapeutic process includes planning, implementing, evaluating therapy (prescribing, surgery, instructing the patient, compliance of the patient, follow-up, etc).

Rutstein (1976) states the application of a new method of judging the quality of medical care that counts cases of unnecessary disease and disability and needless premature deaths. Medical care is used in its broadest sense. Included are the application of all relevant medical knowledge, the basic and applied research to increase that knowledge and make it more precise, the services of all medical and allied health personnel, institutions and laboratories, the resources of governmental, voluntary, and social agencies, and the supportive responsibilities of the individual himself. Quality is the effect of care on the health of the individual and of the population. Enhancement of the quality of care should be reflected as better health outcome. But quality must be distinguished from the efficiency of medical care. Both are important, but they must not be confused. While quality is the output of the medical care machine in the form of better health, efficiency has to do with how well the parts of the machine work, how well they work together, and at what cost. In a word, quality is concerned with outcome, and efficiency is related to the process of care.

Locker and Daut (1978) opined that consumers' satisfaction with medical and social services are becoming an important component of evaluative research. Consumer opinion is also coming to find a place in the formulation of health care and social policy. The basis on which consumer's opinions are formulated required detailed investigations so that expressions of satisfaction and dissatisfaction can be interpreted in the context of perceived needs and expectations of care. Thus evaluating the quality of medical care involves the measurements of its benefits to patients and community at large. The emphasis on consumer's opinion developed as

the sociological interest in interpersonal relationships which demonstrated the importance of understanding the patient's point of view. It has been realized that the satisfaction of care is an important influence determining whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with physician. Though interest in the patient's point of view is increasing and consumer satisfaction being adapted as a standard component of evaluative research, there has been little discussion of the methodological and other issues involved in the measurement and use. If consumer satisfaction is to figure as a significant dimension in evaluative research, there is a need to construct an appropriate methodology. This is particularly the case where we wish to compare care environments. In order to obtain an accurate picture of consumer opinion. To that end it is necessary to employ measures that are sensitive and comprehensive. It is also necessary for these measures to be applied to the relevant population.

Donabedian (1980) argues that evaluating quality of care can occur at three points in the delivery of medical services: structure, process and outcome. He defines 'structure' as the tools and resources that providers of care have at their disposal and of the physical and organizational settings in which they work. Process is the set of activities that go on within and between doctors and patients. Here judgment of quality may be made either by direct observation or by reviewing recorded information. Outcome is a change in a patient's current and future health. Quality of service is described initially in basic terms, but the focus on the health care environment links provision of clinical services with supportive services highlighting the prominence and interdependence of the two.

Fox and Storms (1981) found a weak but a statistically significant relationship between age of the patients and level of satisfaction with older patients being more satisfied with the care they received than their younger counterparts. The association between each of the information factors and satisfaction was considerably stronger, with the strongest correlation between general information and satisfaction. Perceived control was also to be strongly correlated with satisfaction. The information received by surgical patients is an important determinant of patient satisfaction, and suggest that more attention should be devoted to this area.

Agarwal and Anand (1985) in their study stated that 'Medical Audit' and the 'Medical Care Evaluation' are synonyms. The authors have strived to convey that medical audit is highly practicable and feasible. To start with internal Medical Audit, by peer-groups, is more likely to be effective than external medical audit. Self assessment of any degree and of any value is doubtful and therefore evaluation by audit and peer review is more likely to achieve its objectives. The difficulties inherent in medical audit are multitude, but the objective is to evaluate the quality of medical care, to maintain the standards of excellence and if possible to improve these standards that fall below the accepted levels. It emphasizes the need for continuing education of hospital's clinical staff as well as for systematic logical documentation of the findings within the clinical records, which is very necessary for a valuable exercise in medical audit.

Das and Shahidullah (1988) revealed that 60 percent patients rated doctor's behavior as 'good' and 38 percent had some sorts of disliking for doctor's behavior. The corresponding proportions disclose that the disliking for behavior of nurses and other service providers were 41 percent and 54 percent respectively. The study indicates that non clinical aspects of patients care need further improvement but at the same time it may be noted that these aspects are not generally as poor as perceived by the people from outside.

Donabedian (1980) evaluated patient satisfaction in a Government health care setting where three-fifths of the total patients were male, 35.4% were in the age range of 15-29 years. About half of the patients reported that nominal physical examinations were done to them', some 3% reported that money was demanded from them for treatment. Meanwhile it was observed that about three-fifth had received full prescribed medicines from the health centre. The remaining patients either had received part of the prescribed medicine or had received none. Common reasons for not going to the government Health Centers were inadequate attention paid to them by the physicians, inadequate supply of medicines and malpractice of the service providers at the centers in the form of asking money from the patients. The other causes are long waiting time to see the doctor, non-availability of doctors and low quality treatment.

Roemer and Aguilar (1988) in a study in United Republic of Tanzania describes, that there are four main approaches for gathering information on health care quality: (a) through normal recording and reporting procedures (including supervisors' reports); (b) through special studies of the health services; (c) means of patient surveys and (d) through household surveys. The four approaches are, of course, not mutually exclusive. If appropriate, two or more of them may be combined. At the community level, and for individual facilities, quality aspects may be included in routine supervision checklists and report forms. The study also reported that lack of medical equipment and drugs was a serious problem, affecting the quality of work. Regarding the condition of the health facilities, the water supply and sanitation were the least satisfactory. The examination of patients was very quick and the quality of the examination in dispensaries was rated as high. Treatment was completely correct for about half the patients, and half the patients received full instructions.

World Health Organization (1988) in its regional health paper states that proper housekeeping procedures in hospitals and health posts are vital because they lessen the number of microorganisms that come into contact with patients and staff, increase safety through prevention of falls, and provide an artistically attractive environment and determine the cleaning method by the type of surface, the amount and kind of soil present, and the purpose of the area. An area without a large number of pathogenic microorganisms can be cleaned with soap and water. Other areas with a large number of pathogenic microorganisms (e. g. isolation areas, toilets, or latrines) need an antiseptic for cleaning. Antiseptics should also be used in areas where mainly susceptible patients are housed (operation theatre, nursery and intensive care units).

Kumar (1989) used indicators for monitoring the level of quality of maternal care where workers were observed with reference to five parameters, (history taking, general physical examination, obstetrics examination, gynecological advice and tetanus toxoid given). Out of 20 observations, if workers performed well in 50 percent of observations then a score of one was given and less than fifty percent means a score of zero was given. So for five parameters the maximum score obtained could be five. If the score was three for all aspects collectively, then the quality was taken as acceptable, and not acceptable, if it was less than three.

Schofield and Girling (1989) state the necessity of examining the quality of the management process. There is an interrelationship between structure, process and outcome. 'Structural features of the settings in which care takes place have a tendency to influence the process of care so that its quality is reduced or enhance. Similarly, changes in the process of care will influence the effect of care. The British Standards Institute recommends the following practices of the term quality: entailing a degree of excellence; reflecting a measurement of a product in terms of departure from an ideal; and demonstrating fitness for purpose, which relates to the ability to meet a given end. Quality becomes more noticeable if we see it as being the extent to which actual performance conforms to requirement.

Fitzpatrick (1991) put forward four distinct functions of patient satisfaction-measurement, understanding patients' experiences of care, promoting cooperation with treatment, identifying problems in health care and evaluation of medical care. Evaluation of health care is regarded as the most important function of patient satisfaction research.

Hossain (1991) stated 39.7% of the patients were partly satisfied and 36.7% were not satisfied with the overall services provided from the outdoor of Dhaka Medical College Hospital. The main factors responsible for disappointment were identified as: waiting time, non availability of medicine and attention of service providers.

Majid (1991) found in his study that hospital wards, premises, latrines and urinals, drains were not clean in most of the health centers at Ishurdi and Chatmohor Thana and about half of the patients visit those health centers. Water supply was present in 85 percent visits at Ishurdi and 81.5 percent times at Chatmohor. Bedpans, urinals and bowls were found 55 percent times unclean at Ishurdi and 46.7 percent at Chatmohor. Thus the service scenario of health centers was more or less poor.

Maher (1991) in her article describes that the quality of medical care generally depends upon three factors, the organization and its staffing, the type and standard of clinical work carried out and the outcome of such service. These three factors are in turn influenced by the needs of the society and the prevailing socio-economic circumstances.

Kritchevsky and Simmons (1991) describe a growing interest by health care leaders in the continuous quality improvement method of quality management. This method uses measurements of quality 'indicators' to initiate and drive organizational changes in a never-ending cycle of continuous improvement. Many discussions of the continuous quality improvement method have emphasized the organizational and attitudinal changes necessary to fully implement the model while deemphasizing the uses of measures of quality to guide improvement. They emphasize the concepts behind the measurement of quality that underlie the continuous quality improvement model and give examples of how these concepts can be immediately applied to guide improvement in the quality of physician care. Continuous quality improvement can be organized around the following four tasks once the attributes used to define the quality of care have been selected: (1) separating externally caused problems from systemic problems; (2) monitoring the system to make sure no new extra systemic problems occur; (3) studying the system to identify how problems arise within the system; and (4) evaluating the efficacy of changes to the system. The first two tasks involve maintaining the system of care actually in place. The latter two involve changing the system to improve the quality of care.

Susan (1991) in their study developed three risk-adjusted measures of hospital quality; the risk-adjusted mortality index (RAMI), the risk-adjusted readmissions index (RARI) and the risk-adjusted complication index (RACI). Using existing data sources they described the construction and validation of each of these indexes. After that they tested the relationship among the three indexes using a sample of 300 hospitals in USA. For the risk-adjusted readmission index (RARI), the dependent variable was whether an unanticipated readmission to the same hospital occurred within 30 days after discharge. Risk factors were established empirically within each disease category for each index. A multiple regression analysis was used to test for bias, using hospital characteristics as the independent variables. Study findings suggested that hospitals that rank well in terms of mortality rates do not necessarily do well in the other measures, and may have excessive readmissions or complications.

Faruq (1993) in his study found that maximum patients were dissatisfied with the quality of major food items supplied by the hospital. Only the quantity of rice and vegetable was considered as adequate by majority of cabin patients. He conducted the study at Dhaka Medical College Hospital and Infectious Disease Hospital to assess the

hospital diet in terms of nutrition content and patient acceptance. The study was aimed to find out the view of the patients about the quality and quantity of food item served in the hospital and the food serving process. It was found that the number of patients accepting the hospital diet in full was not satisfactory in both of the hospitals.

Das and Rahman (1993) in their study used eight indicators to assess quality of care. These were, physical examination by doctor, advise for laboratory investigation, prescribed drugs to be purchased from outside, advice on diet, given health education, referral to higher facilities, advised to follow up. They found that 39 percent were physically examined, 8.7 percent were advised for investigation. About 93 percent reported that they had received some drugs from the health facilities, about 12 percent were given health education and 3.6 percent were referred, referral of patient was a rare event. For follow up, 26.4 percent were asked to visit again.

At present there is no set of indicators of the quality of patient care including clinical and non-clinical tasks on the part of the service provider. As a result, they are not adequately oriented to the concept connotation and their behavioral aspects concerning essential elements of patient care. The existing reporting and supervisory systems are not also designed to make quality assessment of patient, resulting in inadequate accountability on the part of service providers. It is possible to improve the quality of patient care provided that a number of essential elements of care are integrated with the standard. In the absence of standard quality, the people will continue to have their own subjective health facilities. It is high time now to take steps for initiating quality assurance measures in health facilities throughout the country.

Islam (1993) carried out a study to estimate bed occupancy rate, average length of stay, outcome of treatment and illness summary and to identify the factors responsible for bed utilization. The bed occupancy rate was 66 percent and average duration of stay was 4.4 days. Among the admitted patients 91 percent were cured and improved. According to doctors, laboratory facilities, food and medicine supply were inadequate.

Hossain (1993) in his study found that two-thirds of the patients in TMC (full meaning needed) were illiterate. By occupation, about half of the patients were farmers. The overall occupancy rate was 54.8 percent and average duration of hospital stay of patients was 3.5 days. Physical check-up and investigations were

accomplished in about 90 percent and 50 percent cases respectively. One-fifth of the patients opined about poor supply of drugs. Quality of nursing service was very poor. About half of the patients were not advised to perform any investigations for diagnosis of their diseases. About three-fifths of the patients were suggested to perform all investigations from government hospitals. Half of the patients were not visited everyday by the doctor. Approximately one-fifth patients received all drugs from the Thana Health Complex (THC). About four-fifths of the patients purchased drugs from private drug shops outside the hospital. Almost all patients told that bathrooms were cleaned daily. But about half of the patients reported that latrines were not cleaned daily. Three fifth of the patients opined that the quality of diet was poor and one-fifth opined that diet was not of any quality.

Das and Rahman (1993) define 'Quality' as grade of goodness, merit or excellence of a thing or activity, accomplishment or attainment. Quality as a characteristic of health care may be defined at two different levels. At the general level, the quality pertains to the health care system as a whole. In this context, it implicates resources, activities of management, outcome of health care, and specifying the merit or excellence of the system in all its components. At a more restricted level, the quality denotes the characteristics of health care resources and activities. In regard to health care resources, quality may be defined as the suitability for providing the planned services in a reliable manner. It is indicated by training, skills, knowledge, attitude, and behavior of the personnel, by the degree of cleanliness and safety of the health care facilities, and adequacy of the equipment and supplies. The quality of medical care may refer to patient provider interactions, physical examination, investigation, rational prescribing, treatment outcome, etc.

Roy (1994) in his study tried to find out the level of expectation of the patients with regard to their doctors' attention to their complaints, physical investigation, pathological examination, behavior of doctor, quality of food, and supply of medicine and overall satisfaction level on services provided from the hospital. He found that four-fifths of the respondents were satisfied with the overall service provided from the indoor department of Thana Health Complex (THC). The major factors for dissatisfaction were identified as non-availability of medicine, rough behavior of health personnel, inferior quality of diet, non availability of staff during need, cleanliness of indoor departments and linen etc.

Rahman (1994) in his patient satisfaction study reported that about three-fourths of the total patients were satisfied with cleanliness of the wards, premises and toilets of private clinics. Majority of the patients (84%) would recommend their sick friends and relatives to admit in private hospitals. There was relationship between income of the patient and recommendation to clinics with higher income group having fascination for private clinics. Behavior of doctors and nurses in private hospitals was good.

Haque (1994) stated that the services rendered by the OPD are not sufficient for a sick patient, the need of inpatient services raised. Inpatient services provide twenty four hours patients monitoring and supervision, medical, surgical, diagnostic, therapeutic and resuscitative services where needed along with dietary and hotel type services. The smallest unit of inpatients care is the hospital bed. For convenience these are grouped together in units of usually 20 to 30 beds, whether in single, double or multiple rooms, these groups of beds are known as wards or nursing units that is the module of inpatient care. Inpatient services in hospital can be divided into following groups: (1) general care, and (2) specialized care. The inpatient services include in number of activities in providing the care to the sick and the injured. The main functions of inpatients departments are accommodation for the patients, diagnosis and treatment of the patients and the nursing care of the patients.

Begum (1994) found that the diet provided to different types of patients were about 50 percent of their calorie need. The patient consumption of food supplied by the hospital was very low. Except BIRDEM, majority of the patients in other hospitals were not satisfied with different types of food supplied by the hospitals. Dissatisfaction was found more in Dhaka Medical College Hospital (64.5%) both in quality and in quantity. They stated that in most of the hospitals there is no trained dietician, menu planning was not as per prerequisite of different types of unhealthy patients, budget per patient per day was negligible and as a result food was not served even with the amount mentioned in diet. Ferdous (1996) observed that the food was not palatable to all the respondents in some selected hospitals and majority of the respondents (71 percent) opined that food had unpleasant odor.

Weingarten (1995) conducted a study on patients' satisfaction and adherence to preventive care practice guidelines in Cedars-Signal Medical Center, Los Angeles. They studied the association between patient satisfaction and the quality of medical

care received by patients in physician offices. They found significant association between patient satisfaction and the performance of some but not all preventive care services. Those who received health education were more satisfied with their medical care than those patients who did not.

Faruq (1995) found that 70% of the patients were literate and about 60% were satisfied with the overall services provided at outdoor. The major causes of dissatisfaction were some sorts of disliking for doctors behaviour (about 82 percent), carelessness of other staffs (about 37 percent), and less availability of medicines (8 percent). The study indicates that clinical as well as non-clinical aspects of patient care were more or less satisfactory but needed further improvement.

Davies and Crombie (1995) stated that everyone wants information on clinical outcomes. These measures have a spontaneous appeal- high quality care should be reflected by good outcomes. Therefore, poorer outcomes should indicate insufficiencies in care, including missed opportunities or wasted resources. The hope is that data on outcomes will provide a barometer for health care, indicating effectiveness and efficiency of service delivery. Many purchasers are pushing to include outcomes criteria in their contracts as a means of assessing effectiveness. In clinical audit, measurement of outcome is generally considered superior to audits that simply assess the process of care.

Inayat (1995) in his article described that the quality in medical profession is similarly essential for achieving highest possible care at lowest possible cost. Quality of medical care must be as old as medicine itself. Among the pioneers of methodical assessment was Florence Nightingale. Quality of care is not the same as clinical efficiency. Medical process incorporates a set of both client and provider behaviors with complex interaction between them which follows use of services and health and welfare of the client. Thus assessment of 'Quality' can be defined as a judgment concerning the process of care, based on the extent to which that care contributes to valued outcome. Donabedian had provided the components of quality of care, which have been stated earlier in this chapter. Lately scope of 'Quality' has been broadened to 'Quality assurance' and 'medical audit' implying not only assessment of quality but also identification of reasons for low quality and interventions so as to improve it. Quality has also been assessed from another viewpoint by identifying its dimensions in terms of effectiveness, equity, efficiency and humanity.

Carol and David (1995) conducted a study, the association between the quality of inpatient care and early readmission. Quality of care during the index stay was assessed by chart review using disease-specific explicit criteria for the process of inpatient care, which were developed by panels composed of expert physicians. Adherence scores were calculated for the admission workup, evaluation and treatment and readiness for discharge. After adjustment was made for demographic characteristics, severity of illness, and need for care, adherence scores correlated with early unplanned readmission ($P > 0.05$). For patients with diabetes and heart failure, decreased readiness-for discharge adherence scores correlated with increased risk for readmission ($P = 0.001$ and $P = 0.016$, respectively). Inpatients with obstructive lung disease, decreased admission-workup scores correlated with increased risk for readmission ($P = 0.13$). 1 of 7 readmissions of patients with diabetes, 1 of 5 readmissions of patients with heart failure, and 1 of 12 readmissions of patients with obstructive lung disease were attributable to inferior care. Lower quality of inpatient care raises the risk for unplanned early readmission of patients with heart failure, diabetes, or obstructive lung disease. Under certain circumstances, readmission is associated with remediable shortages in the process of inpatient care.

Uddin (1996) in his study found that waiting time for the patients at out-patient was less than an hour in about 90 percent cases and 93 percent patients received treatment within 20 minutes of admission. Almost all patients opined the behavior of the service providers was good. Cleanliness in case of wards, premises, toilets, and operation theatre was good and case history writing was found complete, but the quality of record keeping was average. About 60 percent emergency equipment was available in both the wards but 30 percent equipment was lacking in medical wards .

Robert and Elizabeth (1996) in their article describes there are five methods by which quality can be assessed on the basis of process data, outcome data, or both. The first three methods are implicit – that is, there are no prior standards or agreements about what reveals good or poor quality with each of these methods, a health care professional (usually a doctor) reviews a data source (usually a medical record, after care has been provided) and answers one of the following questions: was the process of care adequate (first method)? Could better care have improved the outcome (secondary method)? Considering both the processes and outcome of care, was the overall quality of care acceptable (third method)? The fourth method

evaluates the provision of care with the use of explicit process criteria. The fifth method uses explicit priority criteria to determine whether the observed results of care are consistent with the outcome predicted by a model that has been validated on the basis of scientific evidence and clinical judgment. The explicit expectations are then compared with the actual outcomes.

Khaleda (1996) in her study reported that a significant portion of respondents stated that doctor's service, nursing service, staff service and laboratory service were inappreciable. Dissatisfaction was more in middle and upper income group. Regarding cleanliness, two-thirds respondents stated that bed-sheets and pillow covers were not changed in a week, toilets were not cleaned and water supply was not continuous. More than half of the respondents were dissatisfied with overall services.

Rahman (1996) in his study found that half of the respondents were illiterate and in the middle income group. Four-fifths respondents opined that service provided by doctors and nurses was good. Majority of the respondents (three-fifths) received medicine partially from the hospital. Half of the respondents opined that diet supplied to them was average. Bed occupancy rate was around 123 percent and average duration of stay was 3.16 days. Most of the patients opined that doctor's service and nurse's service were good, but cleanliness was average. Out of them two-thirds of the respondents performed investigations from the hospital.

Chen and associates (1996) opined that patient satisfaction surveys often report remarkably high levels of contentment or satisfaction with health services. It may be a valid reflection of patient views for some components of care and not simply an artifact. It has long been acknowledged that wording and presentation of questions may influence response.

Fitzpatric (1996) noted that many patients appear to have more confidence in commenting on convenience, cost, and doctors and nurses' personal qualities than in expressing dissatisfaction with medical.

Sharif (1996) observed that identification data or particulars of patient were recorded in most of the (four-fifths) cases. Diagnosis at the time of admission was not recorded in all the cases. Chief complain was recorded and investigation was

advised in almost all the cases. Diet orders were not given in two-thirds of the total cases. Description of treatment was written in a small number of (one- sixth) cases. Outcome of treatment was noted in almost all the cases.

Islam (1997) in his study found that cleanliness of surgical ward, medical ward and labor ward, linen, urinals and bowl, wet moping, sanitary condition of the concerned medical college hospital was unsatisfactory to most of the respondents.

Rashid (1997) in his study showed that treatment of two-thirds respondents was started within a few minutes. More than half of the respondents opined that doctor's visit and follow-up visit started within 12-34 hours. About seven-tenths of the respondents stated that there was no daily mopping. All the respondents stated that nurses administered drugs and remade patients' bed once in the morning.

Rahman (1997) in his study found that investigation was advised to half of the cases. Almost all the respondents had to buy their essential medicine from outside the hospital. The average length of stay was about 3 days and bed occupancy rate was around 119 percent. The overall record keeping was not satisfactory. About two-fifths respondents were satisfied with overall services of the hospital.

Curry and associates (1997) reviewed Pickup Quality Project within the Scottish Health Service. The aim of the review was to provide answers to a number of important questions which examined the perceptions of staff who took part in the Quality of Service initiative, identified parts of the process which were in need of substantial revision, and reported on the reactions of participants to the overall process. It was evident that good quality of service training can be delivered, but only if it is clearly and appropriately tailored to the audience. The financial limitations heightened the general business sensitivity and showed that carrying through quality of service improvements involved the demonstration of commitment and the provision of resources. Quality of service is an important field of study and especially in the health care environment were the efficient and effective use of resources in critical, and the managerial, clinical and administrative aspects of the service need to be brought closer together. The advent of the Patient's Charter (NHS, 1991) and devolved management among other issues have concentrated the mind on potential consumer / provider partnerships in health care (patients / their families / clinicians), in parallel with education (pupils / parents / teachers) in response to the parents' charters.

In the study, carried out by the integrated community Family-Health Development Program (ICFHDP, Bogra), the National Institute for Population Research and Training (NIPORT), and the district level authorities of the Ministry of Health and Family Welfare (MOHFW) (1977), attempts were made to assess the expectations and the level of satisfaction of users attending the Health and Family Welfare Centers (HFWC), Rural Dispensaries (RD), and Satellite Clinics (SC) upon the quality of services delivered to them. They found that 75 percent of clients expressed they would be satisfied if they do not have to wait more than 11 minutes. Clients also said that the best time for coming to the facilities would be before noon. With reference to the client-provider interaction process, most clients expected good behavior from providers. Satisfaction with providers' behavior was found high (95.2%), and the overall level of satisfaction was found 88.2 percent. However, a significant level of dissatisfaction was found in relation to waiting time (28.2%), and with clinic hours (34.2%). It was found that satisfaction with provider's behavior was a powerful predictor of the overall level of satisfaction. Likewise, information on clinic hours, waiting time and consultation time, as well as the behavior of the different variables in presence of certain characteristics of clients, or services will help managers and decision makers for a more comprehensive implementation strategy.

Islam (1997) in an attempt to find the level of patient satisfaction found that 84 percent respondents were pleased with overall emergency services in ward and 64 percent satisfied with the admission system of the hospital, 66 percent satisfied with doctor's service, and 35 percent opined that nurses were polite and compassionate. Contrarily, 61 percent stated the privacy of labor room was not maintained due to male consultants and male doctors.

Islam (1998) found that three-fourths of the patients attended/admitted at BIRDEM Hospital were satisfied with admission system of this hospital. Majority expressed that the doctors visited the wards once per day, but three-fifths wanted the authority to increase the number of doctors' visits in the indoor departments. Majority (three-fifths) stated that the behaviour of doctors and nurses were good. All respondents were satisfied with the availability of aya and sweeper and cleanliness of wards and latrines, supplied diet, treatment facilities were appreciable. But almost all the respondents were dissatisfied with hospital cost and about one-fifth respondents were dissatisfied with overloading of visitors.

Benjamin (1999) stated that although measures of consumer satisfaction are increasingly used to supplement administrative measures in assessing quality of care, little is known about the association between these two types of indicators. This study examined the association between these measures both at an individual and a hospital level. Regression analysis was used to determine the association between satisfaction and administrative measures of quality for subsequent outpatient follow-up. At the patient level, satisfaction with several aspects of service delivery was associated with fewer readmissions and fewer days readmitted. Better alliance with inpatient staff was associated with higher administrative measures of rate of follow-up, promptness of follow-up, and continuity of out patient care, as well as with longer stay, for the initial hospitalization. At the hospital level, only one association between satisfaction and administrative measures was statistically significant. Hospitals where patients expressed greater satisfaction with their alliance with outpatient staff had higher scores on administrative measures of promptness and continuity of follow-up.

Karim (1999) in his study of Thana health complexes found that majority of the patients were satisfied with doctor's service, nurse's service and other services except laboratory services including X-ray facilities (50 percent opined poor). House keeping was good in two Thana health complexes but it was bad in other selected health complexes.

Hannan and colleagues (2000) studied the management efficiency of Government run TB treatment centers They found that all of the attended patients received appropriate laboratory investigations and medicines from the centers. However, the selected centers lacked X-ray facility. Mean waiting time to meet a doctor was nearly one hour. Most of the patients were satisfied with the service given. Majority (72.6%) of the patients was fully satisfied and the remaining patients were satisfied to an average level. The level of dissatisfaction increases as with increasing age and income.

Krupat and associates (2000) states that greater satisfaction was significantly associated with greater age and less education, and somewhat significantly associated with being married and having higher social status (scored as a composite variable) emphasizing occupational status. The average magnitudes of relations were very small with age being strongly correlated to satisfaction. No overall relationship was

found for ethnicity, sex, income or family size. For all socio-demographic variables, the distribution of correlations was significantly heterogeneous, and statistical contrast revealed the operation of several moderating variables.

Andaleeb (2001) describes patients' perceptions about health services which seem to have been largely ignored by health care providers in developing countries. This study examines the associated factors of patient satisfaction in the context of Bangladesh. Evaluations were obtained from patients on several dimensions of perceived service quality including responsiveness, assurance, communication, discipline, and baksheesh. Such perceptions, especially about service quality, might shape confidence and subsequent behaviors with regard to choice and usage of the available health care facilities is reflected in the fact that many patients avoid the system or avail it only as a measure of last resort. Patients' voice must begin to play a greater role in the design of health care service delivery processes in the developing countries.

Tengilimoglu and associates (2001) stated that direct measurement of patient satisfaction is a relatively new phenomenon for the US. A system was designed similar to those available in the US and was applied during an exit interview. Three areas of analysis were identified: accessibility and availability of services, perceived quality of patient care and organizational and administrative issues. Relationships and percentages within and among several variables are reported. Most individuals were satisfied with direct patient care, although in some areas this varied significantly and was based on the education level of the respondent. In addition, many consumers reported dissatisfaction with organizational and administrative support services. They recommend that hospitals in Turkey adapt routine policies similar to those in the US for conducting these types of evaluations. Measurement of patient satisfaction is an important outcome variable while evaluating overall hospital viability in the current healthcare delivery system. The results of patient satisfaction surveys and instruments are often used in many areas of the administrative and clinical process, such as for supplementing quality assurance or quality evaluations, as well as for the design format for health and administrative services. Patient satisfaction surveys have evolved into powerful management, planning and marketing tools within the US healthcare sector.

Mallik (2002) in his study of Armed Forces Hospital found no statistically significant difference among the three groups of patients in overall quality of care. It is widely

believed that hospital readmission has a relationship with the substandard care in previous stay. But findings of this study were not consistent with the findings of other studies. So it can be concluded that readmission in an armed forces hospital is probably related with the different characteristics of the study of population, disposal procedure of disease condition and the attitude of the physicians towards admission process.

Siddique (2002) in his comparative study between BIRDEM (Private hospital) and Dhaka Medical College Hospital (DMCH) (Public hospital) observed that all patients (about 93%) of BIRDEM hospital and 80 percent of DMCH were satisfied. The study considered cost incurred and overall care as determinants of patient satisfaction and found that satisfaction with information receiving, family education and information, actual treatment, physical care, nurses' quality, hospital discipline and admission procedure were predictors of satisfaction. The difference in the level of patients' satisfaction in the two hospitals was statistically significant.

Haque (2002) in a study conducted in tertiary level TB hospital in Dhaka took three-fourth male and one-fourth female respondents aged 15-44 years. Majority of the respondents poor (monthly-family income of Taka 3000). Quality of care was assessed in terms of 8 indicators e.g. nursing care, services by the staff, general medical care, investigation facilities, drug availability, food services, water supply, and state of indoor indicators e.g. nursing care, services by the staff, general medical care, investigation facilities, drug availability, food services, water supply, and state of indoor environment. Majority of the respondents (four-fifth) reported that the nurses did not distribute the medicines according to dose schedule and their temperature was not recorded at all. They also complained that the doctors did not perform daily follow-up visits. But majority of the respondents were satisfied with the behavior of the doctors and nurses. Almost all respondents had some of the investigations from the hospital. Quality of the supplied diet was satisfactory and good according to three-fourths of the total respondents. Almost all respondents opined that sweeping and mopping of the floor of the wards was done irregularly and staff did not clean the bedside bowl at all. The condition of the bathrooms and latrines was not good and water supply was not on full time basis.

Rahman (2002) in an attempt to assess the quality of care in in-patient and out-patient departments of rural and urban government hospitals in Bangladesh stated that the quality of health care is the consequence of strong link between service

providers and user of the services. Perceived quality is one of the principal determinants of utilization and non-utilization of health services, a major issue in developing countries. He found that age, waiting time, time spent for patient examination, place of treatment, income, years of schooling and male sex appeared to be independent predictors of patient satisfaction. Age, waiting time and years of schooling were negatively related to the level of satisfaction indicating younger patients, less waiting time and patients with less education are more satisfied, whereas time spent for examination. In the urban hospitals males were more satisfied with services than the females. The study recommends that both short and long-term policy action should be adopted for quality assurance of the existing health care facilities in Bangladesh. Fishbein and Ajzen distinguished attitudes from perception and stated that satisfaction is the perceived difference between what an individual desires and what occurs. It is the difference between rewards desired and those received. Satisfaction is perceived equally of balance of inputs.

Demir and Celik (2002) conducted a study among patients of a military teaching hospital in Turkey, published online (March 2002). A patient satisfaction questionnaire using a 4-point Likert scale was mailed to 500 patients after discharge and 316 questionnaires were returned. The findings indicate that the satisfaction with physician, nursing, physical plant, and food services was the main determinant of overall satisfaction with the hospital. The type of clinic in which the patients stayed also was an important determinant. The effect of patients' demographic characteristics on overall satisfaction with the hospital was also examined, and only lower education level was found as a statistically significant determinant.

Rudzik (2003) states that surveys of patient satisfaction are widely used for identifying priorities and problems in health care reforms. They examined satisfaction and confidence of patients in public health care (PHC) in Trinidad and Tobago. Level of patient satisfaction was high but not constant. Results of interviews showed that patients with a higher monthly income and patients who most recently used private medical care had lower levels of satisfaction with health services. Employment had an effect on satisfaction, significant among patients who had recently had access to private medical care. Patients using PHC preferred private care to public. Confidence in public care decreased with increasing complexity of the medical condition. These preliminary results support continued efforts in health-sector reforms and call for the enhancement of data on satisfaction through more comprehensive qualitative data-collection methods.

1.3.1 Research Gap

The quality of service in general is of inherent importance in any society. Satisfaction of patient is considered as an indicator of quality assurance. In the late 1980s, researchers used some parameters of satisfaction for the service such as reliability, responsiveness, assurance, perceptibility, and empathy. A study from Turkey (Demir & Celik, 2002) explored the determinants of patient satisfaction, which included the services of doctors and nurses and found to be statistically significant. But the study did not compare private and public sector and the questionnaire was administered through mail not by interview or face-to-face communication. Andaleeb (2007) introduced some more Bangladesh specific service-quality parameters of hospital for assessing patient's satisfaction, namely accessibility, cost, service provided by nurses and doctors and discipline, but demographic characteristics of patients relating to patient satisfaction were not at all explored. Another two studies of Andaleeb (2000 and 2001) compared patient satisfaction between private and public hospitals in Bangladesh. These studies evaluated the responsiveness, assurance, communication and discipline of services of doctors and nurses. But all the respondents were from urban area and the study did not explore demographic characteristics of the respondents and other supporting services including reception. Majid (1991) conducted a study on two centers one at Ishurdi and the other at Chatmohor Thana and evaluated perception of the patients regarding cleanliness of wards, premises, bowls, latrines and urinals, and drains as well as continuity of water supply taking a very small sample. The researcher found these services were poor to some extent in the selected Thana health centers. Both the health centers were very small and in Pabna, a district of North Bengal, which could not represent the whole Bangladesh. Moreover, that was some sort of survey study. Das and Rahman (1993), Hossain (1993), Islam 1993, Roy (1994), Haque (1994), Rahman (1994) and Faruq (1995) studied different aspects of patient's satisfaction. All the studies were scanty in nature and no comparison was made between private and public hospitals. Some excluded demographic character of patients. Only few characters namely education and socioeconomic status were included in a few studies. Duration of hospital stay and outcome of treatment were not included in most of the studies. Mode of treatment- medical and surgical- was neither considered nor randomized in those studies. Most of the studies included sample from the capital city only. Influence of independent variables over dependent variable was also ignored.

All the studies mentioned above were done on the basis of perception of the patients by using Likert scale. It is an imaginary system, which should be revalidated by alternate measures. Because variation in individual perception is great, it may nullify satisfaction score in the previous studies. A further question on future return to the same hospitals could fill this research gap.

1.4 Research Questions

The following questions were exposed before the researcher after review of available literature, which have been answered through this study.

1. What are the factors responsible for variation of patient's satisfaction level in Bangladesh?
2. Is there any variation of patient's satisfaction score between private and public hospitals in Bangladesh?
3. What are the factors that can influence patient's future return decision to the same hospital?
4. Whether the findings of previous researches support the findings of the present study?

1.5 Objectives of the Study

The main objective of the study is to make a comparative evaluation of the services provided by the private and the public hospitals in terms of patient satisfaction. The specific objectives of the study are as follows:

- To identify the basic characteristics of patients in Bangladesh.
- To examine and evaluate the level of patient satisfaction along with influencing factors both in public and private hospitals.
- To compare and contrast between the level of patient satisfaction in public and private hospitals.
- To justify different socio-demographic factors influencing the level of patient satisfaction.
- To examine either patient satisfaction score or socio-demographic characteristics influence his/her decision making on his/her return to the same hospital.

1.6 Rationale of the Study

The health system in Bangladesh is recently in a serious questionable position. Dissatisfaction of the patients against health care centers is a common scenario in every health care delivery center. This particularly applies to public health care centers and hospitals. As a consequence, the poor people are becoming frustrated, depressed and annoyed leading to poor utilization of the system. Sometimes their dissatisfaction turn into anger leading to vandalize the hospitals. There are huge studies regarding patient satisfaction abroad. But this major issue is not yet effectively addressed in our country. Patient satisfaction and consumer feedback can contribute to the planning and implementing a cost-effective care for all walks of life.

Cost of health care is key concern for the patients receiving the service. In the public health sector the cost is low but service delivery is inefficient. Many of the services are not provided at all; where as in the private health sector almost all services are provided. But the cost is too high to be afforded by many of its clients. Sometimes they have to pay bill at the cost of their household assets. Thus the poor are getting even poor which is unfortunate for the total economy of the country. Besides there are other factors as well which need to be identified and addressed effectively in order provide a health care which satisfies its client from all perspectives

This study, therefore, focuses on difference in patients' satisfaction in private and public hospitals and in order to identify the factors associated with patient satisfaction. The study intends to evaluate the different services provided by private and public hospitals and seeks to correlate them with level of patient satisfaction.

In a hospital, patients receive the services from doctors, nurses, aya/ word boy and cleaners on the ground of prescriptions, suggestion, nursing care, cleanliness and hospitality. Our health care systems are delivering services, but patients' to these services are always ignored. Service delivery system rarely bothers for attitude, needs or opinions of the patients. This study would take the service system in the court of consumers. The consumers (patients) will justify the system and will compare the services between public and private hospitals. The study will contribute to the existing stock of knowledge and to the improvement of satisfaction level of the

patients both in public and private hospitals. Till date there is hardly any in-depth study to measure the satisfaction level of the patients in Bangladesh. The data generated from the study would be useful for:

- The planners and policy-makers for making appropriate policies to improve the situation prevailing in both private and public hospitals in Bangladesh.
- The managers of the hospitals to implement those policies in most efficient way possible.
- The researchers of this field and related fields to undertake further study to fill in the gaps in information in the concerned discipline.
- The academicians will get an insight into the realities of the problem of poor satisfaction level of the patients.

1.7 Scope of the Study

The study has addressed patient's satisfaction in both private and public hospitals in Bangladesh, which is presently the most debated issue of hospital management. The study covers patient's characteristic, level of patient's satisfaction, contributing factors to patient's satisfaction and socio-demographic factors of selected respondents. The study also compare and contrasts patient's satisfaction between private and public hospitals in terms of services provided by doctors, nurses, aya/ word boys and cleaners, reception and management. The study also examined access, cost, cleanliness, laboratory service, supply of medicine etc in both the sectors.

1.8 Structure of the Dissertation

The study is divided into three parts- Part A, Part B, and Part C. Part A presents the theoretical aspects of the study containing four chapters specifically, introduction, hospital management scenario in Bangladesh, methodology of the study and theoretical framework. The first chapter mainly includes statement of the problem, review of literature, research gap, research questions, objectives, rationale of the study, scope, and limitations of the study. The second chapter presents role of hospital, factors affecting utilization of the hospital services, functions, managerial roles, skills of hospital administrator, history of health services, organizational structure of health care service, hospital and primary health care, deficiencies of public health care services, public and private sectors in Bangladesh, citizen's charter for hospital services, doctor- patient, doctor-nurse relationship, nurses-patient

relationship. The third chapter presents concept of patient satisfaction, dimension of patient satisfaction, components of satisfaction, patient characteristics and interpersonal aspects of care, operational definitions of key terms and variables, hospital services, additional factors, and a diagram of conceptual framework of the study. The fourth chapter presents methodological aspects of the study and mainly includes type, period, and hypothesis of the study, selection of sample hospitals, selection of respondents, methods of data collection, data processing and statistical tools for data analysis, questionnaire and scale used, explanation of basic characteristics of population. Part B presents the core chapters of the study and contains four chapters. The researcher tried to answer all the research questions and validated research hypotheses. This is the main analytical part of study, which presents discussion of results. Part C presents only one chapter namely summary of findings, conclusions and recommendations of the study. This chapter also includes direction for future studies in this area.

1.9 Limitations of the Study

Generally empirical research works have some drawbacks or shortcomings. Obviously, the present study is not exception to this. The limitations of the study are appended below:

1. Purposive sampling technique has been used to avoid heterogeneity among the sample hospitals. Stratified random sampling technique could be used but for the sake of homogeneity we had to go for purposive sampling. It was a comparative study between private and public hospital, as such homogeneity of characteristics had been considered while selecting sample hospitals.
2. More hospitals could be covered in the study. However, the researcher believes that six large hospitals in terms of bed capacity –three from public and three from private- and the sample size of about 300 is suitable for generalizing the findings of the study. So the results and findings could be generalized for the whole private and public hospitals and this limitation would not affect the quality of the research.
3. In this study, some more variables could be included for the assessment of patients' satisfaction, such as bed occupancy rate, hospital infection rate, available equipment, qualification of hospital personnel, volume of patients, mortality and hospital manpower and their ratios etc, but due to time and fund constrain those variables could not be included.

In spite of the above shortcomings the research problem has been successfully addressed in this study and the findings of the study have been successfully generalized.

1.10 Conclusion

Health is a basic prerequisite for improving the quality of life, which has an impact on socio-economic development of the country. The health care system in Bangladesh is a combination of public and private enterprises. Poor and deficient health services are acting as an impediment to overall progress of this country. Health care service delivery, like any other services, depends on the cooperation between two parties that is to say the provider and the consumer of the service. 'Patient satisfaction' with health care is seen as a dimension of the quality of care. Measuring patient satisfaction requires detailed investigations so that expressions of satisfaction and dissatisfaction can be interpreted in the context of perceived needs and expectations of care. There are several studies on patient satisfaction in Bangladesh, which discover that a substantial number of patients are not satisfied with the services. With this background research questions, hypothesis and objectives have been articulated for this research. This is a comparative study between private and public sector. This study would help future researchers in this field to formulate their research problems as well as the decision makers to understand the demand and need of both inpatients and outpatients of the hospitals in Bangladesh.

Chapter 2

Hospital Management Scenario in Bangladesh

The second chapter reveals mainly the overall hospital management scenario in Bangladesh and includes issues like meaning of hospital, hospitals and the community, role and functions of hospital, managerial role and skills, history, organization structure, hospital and primary health care, and traditional medicine in Bangladesh. This chapter also includes doctor- patient relationship and conflict; doctor- nurse relationship, nurse-patient relationship and citizen's charter for hospital services.

2.1 Introduction

There is a common belief that better management of hospital or health centres is essential if higher standard of health and of health care are to be achieved and ensured (Park & Park, 1989). Without effective administration and management of health services organization to improve upon its structure, task and technology of services will meet with little success (WHO, 1963). Proper management of hospitals or health centers in countries with large population is the first and most cost-effective means of improving delivery of services.

A large number of hospitals and health centres exist in the country to generate quality of services and sometimes gap exist between inputs, processing and output. A hospital is a catalyst that causes conversion of inputs to outputs through the act of managing. There have been shortcomings in absence of emphasis on continuous risk management, supervision and rapid evaluation of performance so as to bridge the gap between what is to be done and what actually be set with problems. In spite of investing large amount of money on health services, the shortages of services have been a perpetual problem to the administrator. On the one hand, huge increases in demand for services and, on the other, an equally huge increase in managerial problems have overloaded the delivery of services. Only better management can alleviate these problems.

As a signatory to the Alma-Ata declaration in 1978, the Government of Bangladesh is committed to provide "Health for All" (HFA) to its citizens by 2000 AD. We have agreed to adopt Primary Health Care (PHC) for achieving the goal of HFA. In this larger context

only hospitals and health centers can play a major role. Furthermore, it will not be possible to provide services for the poor, sick and wounded. It is a unique organization of human beings. According to WHO expert committee (1963) a hospital is a residential establishment which provides short term and long term medical care, consisting of observational, diagnostic, therapeutic and rehabilitative services for persons suffering or suspected to be suffering from a disease or dying and for parturient (WHO, 1963). It may or may not also provide services for ambulatory patients on an outpatient's basis. The functions of hospitals have evolved through past several years in response to the growing need of the community as realized from time to time (Park, 1989; WHO, 1963). Such arising of hospitals has gained greater impetus in the past century but the criticisms leveled against the hospitals are as follows:

- It creates splendid isolation in the community, acquitting the euphemism 'an ivory tower of disease'.
- It absorbs vast proportion of health budget, achieve the goal of PHC unless hospitals adequately start functioning as health centre and, therefore, do not remain as the ivory towers of disease in a community. The hospitals and health centers services are of the most important components of comprehensive health care delivery system. Among the various units or institutions, the hospitals and health centres are highly visible organizations. As a result many professionals, non-professionals, and bureaucrats scrutinize them and sometimes directly or indirectly intervene to impose standards of performance both in terms of input resources utilized and output generated. There have been gradual increase in the utilization of hospital services and its impact on management has only been felt quite recently. The expectation of people have increased enormously and sometimes asking questions regarding the adequacy of patient care, total health care being served by a hospital or health centres.
- The hospitals have a long history of providing social services.
- It is not people orientated.
- Its procedures and styles are inflexible.
- It overlooks the cultural aspects of illness.
- The treatment is expensive.
- It is intrinsically resistant to change.

It is to be noted that relative isolation of hospitals from the major health problems of the community, which has its roots in the historical development of health services, has contributed to the dominance of hospital in health care delivery systems. Unplanned growth of hospitals in haphazard way has been a great impediment in functional performance. Moreover, most of the hospitals grow around the personality of physicians or surgeons rather than the need of the community it served.

Therefore, once that personality disappears from the place, the organization starts decaying. If an organization is built as per proper planning and organized effectively, then in course of time it will come to maturity rather than looking old. There are few hospitals and health centres which are well functioning, because they are planned, organized and are directed as per management methods and techniques. Hospital service is one of the most significant aspects of health care delivery system. It has been experienced that those hospitals and health complexes, where hospital managers give adequate and better support and supervision, are functioning efficiently and effectively (Sinha et al., 1992).

2.2 Meaning of Hospital

As stated earlier that hospital is a very complex, social and scientific organization. It is a highly labor intensive organization and to operate various services, the personnel are of different background and education. It is important to note that, of all the modern enterprises, none is more complex than the hospital. Its single purpose is to receive the human body when for any reason it has become diseased or injured and care for it in such a manner as to restore it to normal as possible. In accomplishing this purpose, the hospital must use the arts and crafts required in both business and scientific organizations, which are applicable to its own administration. Moreover, it must make available itself of that highly skilled group, medical and non-medical, trained nurses and auxiliaries. With the advancement of science and technology the demand of hospital services has been increasing alarmingly.

WHO defines a hospital as an integral part of a social and medical organization, the function of which is to provide for the population complete health care, both curative and preventive, and whose out patient services reach out to the family and its home

environment; the hospital is also a centre for the training of health workers and bio-social research. Wehrich and Koontz (1994) define management as the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims. These basic definition needs to be expanded.

- As managerial people carry out the managerial functions of planning, organizing, staffing, leading and controlling.
- Management applies to any kind of organization.
- It applies to managers at all organizational levels.
- The aim of all managers is the same to create surplus.
- Managing is concerned with productivity: this implies effectiveness and efficiency.

2.3 Hospitals and the Community

In view of WHO's definition, hospital is no more a workshop to cure disease but it has to take care of the community in comprehensive health care program. In all countries inpatient hospital care absorbs the major part of society's capital investment in health care facilities. The core of the hospital may remain intensive inpatient care but its major services to the community should be outpatient health care (Park & Park, 1989; and Sand, 1952). Today the role of hospital in the community is debated. Too long, the hospital has remained 'an ivory tower of disease' rather than an active part in the community health service. Experience has shown that a pattern of medical service that is based on curative medicine of the highest order as its main objectives cannot meet the health needs of the people. With the rapid increasing population, changing disease profile and complexity of biomedical advancement have been pressing very hard on the prevailing hospital services. It is therefore, realized by hospital planners and administrators to evolve managerial strategies and policies by which the scarce resource can be utilized to the optimum and needy population of nation can be benefited by providing maximum opportunity for an integrated inpatient, outpatient and community health care and health services.

2.4 Role of Hospitals

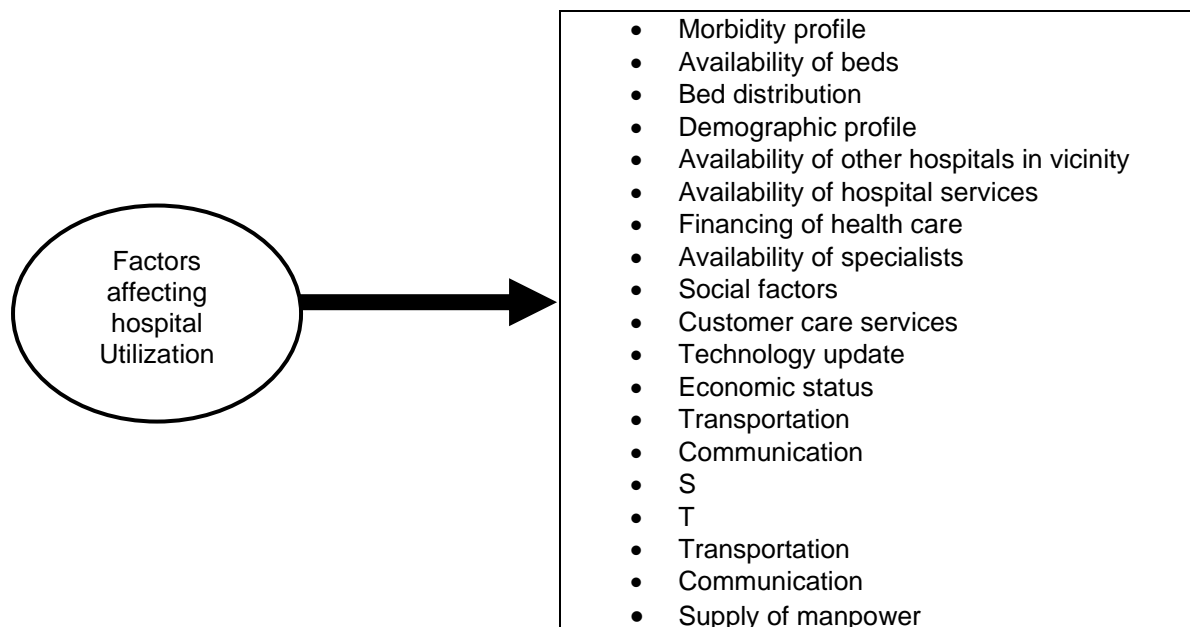
The organization is a peculiar organization in the sense as:

- The output of the organization is not the product but service which is not always possible, to be quantified, so difficult to measure.
- The demand is normally of emergent in nature and two situations are not alike.
- The service is personalized, professional and directly provided by doctors, nurses and other technical and non-technical personnel.
- The services provided by wide range of people from highly skilled professionals to the illiterate labor.
- There is a dual control by way of professional authority and executive authority.
- In the changed scenario the hospital is being treated as an industry and for maximization of the profit.
- The hospital has to prepare itself to the rising demand of medical tourism.
- The hospitals have to prepare themselves for collaboration with other organizations. An example is, public-private partnership, so the hospitals have to update themselves in the latest phenomenon of contractual system in health care.

2.5 Factors Effecting Utilization of the Hospital Services

There are various factors that determine the utilization of hospital services by the beneficiaries. Some of the factors need special emphasis.

Figure 2.1
Factors Affecting Hospital Utilization



Source: DC Joshi, Mamta Joshi, Hospital Administration, 1st edition (Jaypee Brothers Medical Publishers), 2009.

2.6 Functions of Hospital

Keeping in view the broad social responsibilities and WHO definition of hospital, today there is no scope to consider hospital just a mere workshop to repair or cure diseases (WHO, 1974). Hospitals play an important role in maintaining and restoring the health of all members of the community. Moreover, it has to look after comprehensive community health care programmes and should start functioning as health centres. The functions of the modern hospital are essentially four:

- i. Care of the sick and injured.
- ii. Education of physicians, nurses and other personnel.
- iii. Public/community health i.e. prevention of diseases and promotion of health.
- iv. Advancement of research in scientific medicine.

The functions of the hospital for the delivery of complete community health care are as under:

- i. Curative or Restorative: Diagnosis, treatment, rehabilitation and to provide emergency medical care for both sick and injured.
- ii. Prevention of disease and promotion of health: Supervision of general pregnancy, immunization, and control of communicable and non-communicable diseases like cardiovascular problems, diabetes etc. and health education.
- iii. Education and research: Education and training of medical staff, under and postgraduate nurses and other paramedical staff.
- iv. Professional Support: (a) Intellectual and professional support need to be provided to medical practitioners at stipulated cost (b) To become a part of primary health care (PHC) program, every hospital needs to take some role, such as:
 - To provide support to PHC program.
 - To promote community health development action.
 - To provide basic and continuing education to health workers engaged in PHC.
 - To concentrate research on PHC program with a view to removing barriers.

2.7 Managerial Roles in Hospital

Hospital managers are those personnel appointed to the positions of authority to direct the work efforts of others. They are responsible for utilization of resources and are accountable for specific work results. Keeping in view the above definition, it may be noted that personnel having designations like Matron, Dietician, Quarter Master and Medical officer in charge of health centre, are all hospital managers.

All hospital managers are engaged in planning, decision-making, organizing, staffing, direction and controlling. They also perform other activities related to or affecting accomplishment of work and organizational objectives that do not readily fall within the functional classification. Their roles and their sub- classifications fall under interpersonal, informational and decision making roles (Henry, 1975).

1. Interpersonal Roles

- i. **Figurehead:** Greeting visitors, signing level documents, ribbon cutting for a new wing.

ii. **Liaison:** Formal and informal contacts beyond the vertical chain of command inside the organization as well as outside contacts.

iii. **Influence:** Activities inherent in the directing function namely, motivating people and leadership.

2. Informational Roles

i. **Monitor and Disseminator:** By virtue of the manager's interpersonal contact he emerges as the nerve centre of that unit. He gathers information and filter evaluate and choose to react or act including whether to disseminate.

ii. **Spokesman:** Make speeches to outside groups, represent their organization to others.

3. Decision Maker Roles

i. **Change agent**

ii. **Disturbance handler/Resource allocator/Negotiator**

Figure 2.2
Kinds of Manager

Level of position in Hierarchy	Kinds of Manager	Degrees of authority scope of responsibility
High Middle Lower	Senior Manager Mid-level Manager First line Manager	Large Medium Small
↑	Technical Skill Analytical Skill Decision-making Computer Skill Human Relation Communication Conceptual	↑

Source: Md. Shamsul Hoque, Hospital and Health care Management, 1st edition (Neena, Shams), 2004.

2.8 Skills of Hospital Administrator

Regardless of type or size of the hospital, the administrator must possess the managerial skills for accomplishment of the hospital's objectives. These skills may vary in degree from one level of management to other, but is essential for all types of administrator.

- i. **Technical Skill:** Knowledge and proficiency in activities involving methods, process and procedures. It involves working with tools and techniques. The doctors, nurses and technicians work with instruments, machines and equipments and apply certain methods and procedures for accomplishment of the task. The nursing supervisors, if don't have the proficiency and technical skill of performing a job, they will find it difficult to control the activities of junior nurses. So this skill is more pronounced at lower level of hierarchy.
- ii. **Analytical skill:** This skill is used in scientific approach and techniques for problem solving. This skill is the ability of the administrator to diagnose and evaluate. It is required to understand the problem and develop an action plan.
- iii. **Decision making skill:** To choose from among the alternative, and ability to choose the most appropriate alternative for effectiveness and efficiency. Decision making ability or skill of an administrator differentiates him from others. Administrators are paid to make decisions.
- iv. **Computer skill:** Administrators who are computer literate have a conceptual understanding of computers and know how a particular software performs various tasks. For a hospital administrator, this is very important for handling the information and management of Hospital Information System (HIS). Computer abilities are important because using computer significantly increases the administrator's productivity.
- v. **Human Relation Skill:** It is the ability to work with people. It is a cooperative effort. It is teamwork as management is science as well as art of getting things done through and with the people.
- vi. **Communication Skill:** Effective communication is a key to success: what you speak is important and how you speak is really what matters. The contents, the tone, the pitch, body language, the medium etc, all these factors are responsible and above that it is the communication skill of the administrator, which makes the difference. It involves the ability to communicate in ways that other people understand and to seek and use feedback from the hospital staff to ensure that they understood.
- vii. **Conceptual Skill:** The ability to see the big picture, i.e. vision of the administrator from where we are to where we want to go, to see the big picture to look into the future of the organization. To know how each subsystem of the hospital is interrelated and contributes to the overall objectives of the hospital.

2.9 History of Health Services

Early History

The word hospital originates from Latin word 'hospice'. A place where a guest is received is called hospital, an institution for the care of sick and injured. In the early period, during Greek and Roman Civilizations the temples were used as hospitals and these hospitals were integral parts of the temples. With the birth and spread of Christianity the hospitals became an integral part of the Church. Some of the notable hospitals became an integral part of the Church. Some of the notable hospitals established in Europe date back to ancient times. The earliest Hospital was founded at Hotel Dieu, Paris in 542 AD. St. Bartholomew's hospital London dates back to 1123 AD. In 1524, The Spanish built the first hospital in Mexico. The first general hospital was opened in 1751 in North America as Pennsylvania hospital. Thereafter, Bellevue Hospital in New York in 1736 and Massachusetts Hospital in 1811 A.D. came in. The advances in medical science in the field of microbiology, pharmacology, radiation, blood transfusion, anesthesiology, surgical techniques and computers all led to exponential growth in the hospital services.

Ancient Asia

Sri Lankans are responsible for introducing the concept of dedicated hospitals to the world. The ancient Chronicle of Sinhalese Royalty written in 6th century A.D, King Pandukabhaya had lying in-homes and hospitals built in various parts of the country. Mihintale Hospital is perhaps the oldest one in the world. King Ashoka founded 18 hospitals in 230 B.C. These were state supported hospitals. The first teaching hospital was the Academy of Gundishapur in the Persian Empire.

Bangladesh

The history of health services in Bangladesh can be traced back to the early 17th century when the East India Company came to rule over the Indian sub-continent and governed it as a police state from England (Rashid & Hyder, 1995). The early efforts of health administration were directed to the alleviation of sufferings due to sickness, catering mostly to the needs of the urban elite class. Subsequently, some facilities were extended to small towns in the form of hospitals with few beds.

In 1943, near the end of the British rule, a Health Survey and Development Committee was formed under the chairmanship of Sir Joseph Bhore (hence, was popularly known as 'Bhore Committee'). It recommended, inter alia, the integration of curative and preventive services, the production of 'basic doctors' for rural institutions and the establishment of rural health centres. The British rule ended in 1947 and the subcontinent was divided into two sovereign countries, India and Pakistan. Bangladesh was the eastern zone of Pakistan and emerged as an independent nation in 1971. Bangladesh, inherited a non-federal state with its capital based in Dhaka and a general administrative network. The health network consisted of a) eight medical colleges and hospitals at the national or regional level, b) 14 district hospitals, c) 43 sub-divisional hospitals, d) 150 rural health centres at the Thana level, and e) a few sub-centres at the union level. There also was one dental college and a national level institute to function as public health production, testing and research laboratory.

In 1974, the National Institute of Preventive and Social Medicine (NIPSOM) was established to serve as the national focal point for higher education in public health (NIPSOM, 1998). In 1976, the number of Thana hospital beds was raised to 31. So was the number of sub-centres under each Thana, which was raised to 4 or 5, depending on the size and population of a Thana (Rashid & Hyder, 1995). Bangladesh signed the Alma-Ata Declaration of 1978 and expressed its commitment with the world community to render minimum health care services for its people through what was called a primary health care (PHC) approach. Subsequently, when the World Health Organization (WHO) called upon the member countries to formulate individual national strategies and a plan of action for attaining Health For All (HFA) by the year 2000, Bangladesh responded by preparing a country paper in 1980. The year 1982 may be regarded as the first turning point for a public health movement in the country. In this year, the 1980 country paper prepared was critically reviewed and updated. In the subsequent years, the PHC received highest priority in the national 5-year plans as directed in the updated country paper. Four major areas (the improvement of health status, the development of health care delivery system, the improvement of quality of life, and the extension of coverage and accessibility) were identified in formulating national HFA strategies.

The pattern of Bangladesh's public health service delivery system is hierarchically structured from the national level to the village level. The structure is based on a top down approach. All the decisions regarding health policy formulation, service delivery mechanisms, allocation and utilization of resources etc. are taken at the central level, while the lower level organizations carry out the decisions. Different levels of health institutions, hospitals, health centres provide different public health care services to the beneficiaries.

In August 2000 the national health policy has been declared by the Government of Bangladesh with the aim of ensuring better health services to all the people in the country (GOB, 2006). The public sector hospital care in Bangladesh is mainly provided by DGHS.

2.10 Organizational Structure of Health Care Service

In Bangladesh the health care service is designed in a three-tier system: primary, secondary and tertiary tiers. The levels are shown in the following figure:

Figure 2.3
Organizational Structure of Health Care Service

Primary Level Hospital Care	Secondary Level Hospital Care	Tertiary Level Hospital Care
Begins through upazila Health Complex (31 to 50 bed) existing in 463 upazilas. The other upazilas (64 Nos.) being their administrative offices in district head quarters, provide primary level hospital care from the respective district hospitals.	The district hospitals (50 to 375 bed), one in each district, provide secondary level hospital care in several specialty areas.	The regional hospitals are multidisciplinary tertiary care hospitals (250 to 1700 beds) mostly affiliated with teaching institutes. At the national level, there are postgraduate and specialized hospitals (100 to 600 beds).

Source: Directorate General of Health Services (DGHS) –MIS, Hospital, Medical Education, 2009.

2.10.1 Central or National Level

The supervisory structure of Bangladesh's health services begins with the Ministry of Health and Family Welfare (MOHFW), headed by a Minister. Two directorates, the Directorate General of Health Services (DGHS) and the Directorate General of Family Planning (DGFP) operate under the ministry. The ministry is responsible for policy formulation and decision making, whereas the directorates have the responsibility for planning and implementation of programs and projects. Both directorates provide

necessary professional and technical guidance to the Ministry. Besides the MOHFW, the Planning Section in the Planning Commission under the Ministry of Planning acts as a technical body with regard to the development plan of the health sector. There is also a Mother and Child Health (MCH) committee, which takes decisions related to the promotion of mother and child health services throughout the country.

2.10.2 Regional/ Division Level

Within Bangladesh's six divisions, there are fourteen medical college hospitals which provide tertiary health care across the nation. A wider range of specialists and better laboratory facilities are available here for the treatment of difficult and complicated cases. Government medical college hospitals have also been working as referral institutions for the districts. These are all teaching hospitals, which have bed capacities varying from 250-1050, of which a maximum number of beds are free. The divisional health authority is the functional unit at the divisional level headed by a divisional health director.

2.10.3 District (Zila) Level

Secondary health care facilities are available at the districts level hospitals. At present there are 36 hospitals with bed capacity of 50 each, 21 hospitals have 100 beds each, two have 150 each and one hospital in Narayanganj has 200 bed capacities. All hospitals deal with referred cases of the upazila for further improved treatment. However, these hospitals have limited specialist, diagnostic and laboratory services. District hospitals provide door and out-door services. Eighty percent beds of these hospitals are free of cost. Apart from these hospitals there are 24 school health clinics, 44 tuberculosis (TB) clinics and 72 urban dispensaries at district levels which provide only out-door services (Rahman, 1999).

At the district level, the Civil Surgeon (CS) acts as the district health manager, who also functions as the superintendent of the district hospital. The civil surgeon is responsible for all kinds of development and administration of health service in the district. Each district hospital has about seventeen health centres. A civil surgeon's office has 26-41 staff members, depending on the category of the district. Important personnel of this office include Medical Officer, Medical Assistant, Health Education Officer, EPI Supervisor, Sanitary inspector, Superintendent of drugs etc. In the district hospitals there are about eleven doctors, three technicians, three pharmacists, thirteen nurses, and one record keeper. These numbers vary according to the bed capacity of

the hospital. At the district level there are several committees which take care of different development and management issues concerning health service. There are also various committees, like a district population committee, a Mother and Child Health (MCH) committee, a Water Supply and Sanitation committee, etc. These committees work to implement the Government's different health strategies.

2.10.4 Upazila/Thana Level

Bangladesh has currently 482 upazilas and 599 administrative thanas. The upazilas are the lowest level of administrative government in Bangladesh. As mentioned above, Thana health authority is headed by the Thana Health and Family Planning Officer (THFPO). The THFPO also acts as the coordinator and supervisor of the activities of local health centre's and domiciliary field workers. The Thana Health Complex (THC) is a union of Health and Family Welfare Centres (HFWCs), each covering a population of about 20,000. HFWCs may be of two types: union sub centre (USC) and Family Welfare Centre (FWC), and a union may possess either of these. The Directorate General of Health Services (DGHS) owns the USC, staffed by a medical officer, a medical assistant, a pharmacist, and a medicine carrier. On the other hand, the Directorate General of Family Planning (DGFP) owns the FWC, staffed by a medical officer, a female family welfare visitor, and a subordinate staff.

The delivery of Primary Health Care (PHC) services to the rural masses is the main target of the Government's present health policy. The Thana Health Complex (THC) is working as the essential unit of PHC system. There are 390 THCs all over the country with a bed capacity of about 31 each. Of these, six beds are reserved for maternal health care. According to the change of political regime, a THC is renamed as an Upazila Health Complex (UHC) from time to time. Like the THCs, the UHCs provide PHC services.

UHCs provide both in-door and out-door services. UHCs also act as referral for Union sub-centres (USC) and Union Health and Family Welfare Center (UHFWC). At the upazila level, the Upazila Health and Family Planning Officer (UHFPO) is responsible for the health and family planning services of the upazila. Each UHC generally consist of eight doctors, one dental surgeon, two pharmacist, two laboratory technicians, one radiographer, one dental technician, five nurses, one mechanic and various auxiliary personnel. The UHFPO is also assisted by the health

inspector, sanitary inspector and other staffs. Of course many posts remain vacant. At this level domiciliary health and family planning service is provided which comprises of counseling on family planning services, preventive, promotive health care and treatment of minor ailments. Health volunteer and trained traditional birth attendants assist domiciliary workers (Hashem & Farhana, 2006).

There are a number of committees at the upazila level in respect of MCH services, water supply and sanitation, health and family planning activities, etc. These committees work to implement the Government's program 'Health for All'. The UHFPO coordinates with these committees and takes care of all activities regarding health and family planning services of the upazila.

2.10.5 Union Level

At this level health care services are delivery through both USC and UHFWC. This is the smallest and most peripheral healthcare service unit having sub-center which provides out-patient services for injuries, wounds and ailments and with no diagnostic, surgical or bed facilities. These health centres provide first static health care facilities. There were 1362 USCs and 2794 UHFWCs in operation by the end of 1996. About fifteen health and family planning personnel are managing the static health care facility and are rendering domiciliary services at the union level (Hashem & Farhana, 2006). A USC is managed by one medical officer, one medical assistant, one pharmacist and other support staff while FWC is managed by one medical assistant, one family welfare visitor, one pharmacist and other support staff. The field supervisory personnel of the health and family planning sector at the union level are to attend the monthly meetings of the union council and discuss problems and issues concerning the delivery of health and family planning services.

2.10.6 Village Level

At the village level, there are community clinics; satellite clinics as most peripheral level health services facilities with a view to provide minimum care. From time to time, this health services are delivered (say once a month). The patients are motivated to go and take services there like EPI, Oral Re-hydration Therapy (ORT) services, awareness rising about health, sanitation, nutrition communicable diseases etc. The staffing pattern of the clinic is one health assistant, one family welfare visitor, and one assistant health inspector.

2.11 Hospital and Primary Health Care

A health system based on PHC cannot be realized and developed or never exists without a network of hospitals (Mahler 1991). According to functions and type of services, hospital and PHC appear to be two different entities. Hospitals are for urban minority whereas PHC is for rural majority. Hospitals use sophisticated technology for diagnostic and treatment and PHC uses simple and appropriate technology. Hospital provides highly specialized diagnostic and treatment facilities for increasingly complex conditions and PHC provides relatively easy diagnostic and treatment. A close observation however, will lead to the conclusion that if proper links are developed between the hospitals and PHC it will result in mutual support to systematic health facilities to all segments of the population of the country. By supporting PHC, hospitals can prove their relevance to the community as a whole.

In 1957 an expert committee of WHO emphasized that the general hospital cannot work in isolation; it must be a part of a social and medical system that provides complete health care for the population. Subsequent years witnessed the efforts of WHO, UNICEF and Non-government agencies to involve hospitals in providing basic and renewal services. The establishment of primary health centres was a step developed to integrate preventive and curative services.

With the acceptance of the goal of health for all, the involvement of hospitals in PHC activities is being discussed. Member countries of WHO have enunciated in their national policies to reorient and re-structured their health care systems on the basis of PHC. PHC cannot work unless there is effective hospital support to deal with referred patients and to refer patients who do not require hospital attention to one of the other PHC services. Without hospital support, PHC cannot achieve its full potential. The trend is now set to redefine the role of the hospital as a community health oriented institution, which means that it is not only disease oriented but has responsibilities in the field of preventive medicine and health promotion. To achieve that goal the following are to be considered:

- Hospital should be sited with a well-defined catchment area with a clearly defined network.
- It should have a department of community medicine for mobilization of interest and expertise to direct intervention between clinical services and communities in the catchment area and encourage teamwork.

- It should support and encourage PHC in the catchment area. It should provide in-service training to hospital health personnel.
- Hospitals must meet their logistic support. Active support is to be developed with the community with a view to finding out ways for improvement in effectiveness of hospital services.
- Hospitals should work with other organizations and associations in the field.
- Gaps and overlaps in the health services are to be identified and filled accordingly.

2.11.1 Role of Hospital in Primary Health Care

Role of hospital in health care delivery systems can hardly be overemphasized. Physical and intellectual centre of the medical world, it is the doctor's indispensable workshop, where the three essential elements of scientific medicine, patient care, research and teaching are increasingly focused. The hospital is also gradually becoming a community health centre for PHC and as an institute with the potential for encompassing and integrating the wide range of health services i.e. curative, preventive, primitive & rehabilitative services.

Supporting PHC

- Patients needing special care facilities will be referred and then referred back.
- Services available should be those of essential surgical, medical, pediatrics, obstetrics and gynecology.
- To provide support to the health workers as regards the health problems encountered by them.
- Providing managerial support to the planning and organization of health system in the district.
- To provide logistic support for supply of drugs and transport and other basic equipments.

2.11.2 Promoting Community Health Development Action

All community level health centre/health complexes should play a dominant role for promoting community development action. They should aim at encouraging community decision making and control in protecting and promoting our health. For example in preventing and controlling of behavior induced diseases and practicing health education. They should co-operate with other agencies for intersecting oral action for health, responsible for food production, rural development, environmental sanitation, water supply and population control.

2.11.3 Basic and Continuing Education of Health Personnel

In order to achieve the objectives of health for all, health manpower will have to be planned, trained and developed as an integral part of health infrastructure. Hospital training has to be for all categories of staff and should extend beyond the hospital boundary.

With the vast expansion of new knowledge and technology as well as academic proficiency, the hospitals shall have to continuously perform research work. The aim of such research work will enable to discover most effective and efficient ways of applying appropriate medical technology.

2.12 Deficiencies of Public Health Care Services in Bangladesh

In Bangladesh public health system does not exist at its self-posed yet. Analysis of official statistics represents an unsatisfactory scenario. The doctor-population, doctor-nurse, nurse-population ratios remain far below the standard level. Though in terms of infrastructural health facilities, Bangladesh is one of the well-resourced countries (CPD, 2001).

Though the health sector's achievement in recent days is remarkable, still the health care system has to go far to achieve the Millennium Development Goals. Most of the health indicators show low rates of achievement. Causes of failure of governance as mentioned below are responsible for these shortfalls:

i. Voice and Accountability: Citizens' voices and demands result in improved state responsiveness, transparency and accountability. In reality, the state in Bangladesh like many developing countries is not sufficiently accountable to its citizens, whose voices often remain unheard or are simply too weak to have any influence. Voice and accountability permit communities to be involved in decisions and oversight of health care services. In the field of governance assessment, 'voice and accountability' is a key indicator encapsulating a broad range of factors, from freedom of expression and respect for civil liberties to free and fair elections and the just rule of law (RIA, 2007).

Peoples' voice in Bangladesh is rarely taken into account while making and implementing health policies. The low confidence in government health facilities and their underutilization are caused by weak administration, lack of oversight over them, and poor accountability (Ahmad, 2000). Failure in enforcing a system of accountability in the health system is weakening governance.

ii. Weak Monitoring and Regulatory Framework: The regulatory framework for monitoring health services delivery is weak. There are 45 laws related to various aspects of health like Epidemic Disease Act 1897, Prevention of Malaria Ordinance 1978, laws related to quality of food, quality of drugs etc. According to the Terms of Reference (TOR) of their services the senior officials are given the responsibility of supervising and monitoring the health activities of their respective areas, they seldom do this (Osman & Ferdous, 2004).

The Bangladesh Medical and Dental Council (BMDC), established under the medical and dental Council Act of 1980 is empowered to look after public interest by maintaining proper standards of services and education. It has the authority to take disciplinary actions, including temporary suspension or permanent removal of the practitioner from the register for misconducts like issuing false certificates, disregard of personal responsibility to patients etc. But due to the absence of a monitoring system on the activities of practitioners, it is very difficult to implement, and there is no such evidence till now of a practitioner's name being removed from the register (Jahan et al., 2006).

iii. Centralized Administration: In Bangladesh, health planning is solely the responsibility of central government. Ministry of Health controls the health care system with concentration of some power at the local level. None but the higher level officials take the decisions that are distant from policy implementation. Targets are set, activities are planned, and the Ministry allocates resources without much consultation with those who know the local level conditions. For this centralized tendency, over-targeting is a common characteristic of our health sector plan. For example in the fourth five year plan (1990-1995), target to cover population under essential health care as % of population was 80, where as achievement was 45; delivery assisted by trained persons (% of preg. women) was 50 and achievement was only 12; antenatal care target was set at 60 and achievement (Sobhan & Rahman, 1998).

The weak local government system of Bangladesh is acting as government's agents rather than representative bodies of the community. They are accountable to the ministry rather than to the people. Centralization of authority at the Ministry acts as a major barrier to ensure accountability in administration and to formulate a local health authority with adequate involvement of the community.

iv. Staffing and Absenteeism: Staffing is arguably the single most important element of health care delivery as little can be achieved without it. Training of the staff, their competencies and ability to function all determine whether the expected results can be achieved. Training typically is inadequate if not well beyond that needed in Bangladesh, especially for physicians.

Among the most serious issues in Bangladesh is the high rate of absenteeism, which undermines service delivery. Capturing low productivity and poor service poses greater difficulties; absenteeism already reflects reduced output, and underperformance (DiTella & Savedoff, 2001).

Bangladesh has only 18 doctors and 5 nurses per 100,000 people. The numbers are among the lowest in the world. As compensation from public hospitals is very low and many of those doctors and nurses try to find job in private clinics, no wonder that public hospitals experience shortage of medical personnel. Therefore, when a patient comes for the medical help to the public facilities, very often it is the case that hospital has no specialists with appropriate skills or knowledge, or there is a lack of staff which can give very basic help (Rashid & Hyder, 2005).

Most of the public hospitals are suffering due to lack of regular staff. A report published in the 'Daily Prothom Alo', dated November 22, 2008 reflects the sufferings of patients and worse situation in the hospitals. According to the report, the Kustia General Hospital, with 250 beds having the provision of 150 doctors is run by only 26 doctors. Out of them 8 were transferred in the last six months and no initiative was taken to fill up the vacant positions. One physician was absent for long and another one has been suspended. It becomes very difficult to give treatment to about 450 patients on average daily. As a result patients are compelled to seek treatment from outside.

In another case, with 109 of the 164 posts of doctors lying vacant in different health center in Patuakhali district, only 55 doctors are struggling to cope with health care service for about 1.7 million people in seven upazilas in the district. On an average, one doctor is available for every 30,000 people in the district. Dasmina upazila is running with only two doctors as 13 of the 15 doctors' posts are vacant. In Mirzzaganj upazila 12 of 15, in Kalapara 15 of 18, in Galachipa 21 of 26, in Baufal 17 of 23, in Dunki 5 of 9, in Sadar upazila 15 of 18 posts are lying vacant. In Patuakhali General Hospital 9 out of 33 posts including that of senior surgeon of child and ENT are vacant. Many patients are returning home without getting treatment due to lack of doctors (The Daily Star, 2008).

Absenteeism poses a chronic, but often unmeasured, problem in publicly financed health care, and can severely limit patient access to services and suggest corruption (DiTella & Savedoff, 2001). The qualified doctors are more inclined to moonlight in private clinics where government employed doctors maintain a dual obligation with their responsibilities (Sobhan & Rahman, 1998).

v. Financial Allocation in Health Care: The allocated funds for health sector are scarce and also are not utilized and managed properly. In many places, bureaucratic problems, corruption and mismanagement lead to inadequate public funds at the point of service and the informal charging of patients. The allocated funds are disbursed very slowly and often at a reduced level. The slow disbursement of funds causes delayed completion and ineffective utilization of funds.

In 1993-94, the national health expenditure by both public and private sectors amounted to 3.04 percent of the GNP. It has increased to 3.4 percent in 2003. Public expenditure on health as percentage of total expenditure on health was 36.5 percent in 1998, which has declined to 25.2 percent in 2002. Government health expenditure as percentage of the total government expenditure was 6.9 percent in 1998 but it has also declined to 4.4 percent in 2002. In 1998, the total government health expenditure per capita was US \$ 4, which has increased to US \$ 11 in 2002. (http://www.searo.who.int/en/Section313/Section1515_6124.htm, retrieved on 25.11.2008).

In the fiscal year 2002-03 budget, the allocation has increased by 5 percent. But it is noticeable that in the current budget, highest priority has been given to education and technology sector for which the allocation is 6 percent. The ratio for defense is 13 percent, public administration 8 percent, communication 6 percent, and agriculture 5 percent. In order to provide improved health service to the people, the Government decreased the import tax from 15 percent to 7.5 percent on diagnostic reagent, syringe, needles, catheter etc. (Hashem & Farhana , 2006).

World Health Organization also spent a sum of tk. 13 crore per year outside the ADP allocation on health. The total cost of health care spent by the government, donor agencies, NGOs and individuals thus amount to nearly tk. 2750 crore. The total cost of health care in Bangladesh in 1987/88 was close to tk. 3000 crore or 6 percent of GNP (Khan, 1997).

vi. Mismanagement in Health Care Service Delivery: Often irregularities and poor governance simply stem from poor management. Where incentives for strong performance either do not exist or are undermined by ineffective management it is not surprising that productivity and performance suffer. Low wages also lead workers to seek additional employment outside government (Lewis, 1955).

The promotion path in Bangladesh public health sector is so long that usually it becomes time for retirement before getting promoted to the highest level of hierarchy, which demoralizes them. Not only the doctors, but also the field workers are also the sufferers from such stagnancy of service. There also exists a mismatch in distribution of human resources between urban and rural areas, which have a direct impact on the policy performance (Osman & Ferdous, 2004).

Transfer, posting of the health professionals is another problematic area. In absence of a clear guideline for transfer/posting, patronage and corruption are practiced in this area. Most often transfer and posting become politically motivated. There is no central training institute for providing in service refresher training for all categories of health personnel (Osman & Ferdous, 2004).

vii. Weak Management and Coordination Network: Lack of coordination among different levels of service creates duplication and dichotomy. Insufficient coordination between the Ministry and health directorate has often created bottlenecks and unnecessary constraints and duplication of work. Director General of Health Services and Health Ministry both oversee the personnel matters including posting and transfer of all class 1 Officers, resulting in dichotomy, duplication and delay in decision making (Osman & Ferdous, 2004).

Unfortunately, there is no well-defined role for the MOHFW to intervene in important health related issues in the sectors controlled by other ministries. Nor there is any meaningful coordination among the executive bodies, particularly ministries to monitor public health. People suffer from lack of health services information. A well-coordinated public health system is not available to the public (Sobhan & Rahman, 1998).

Moreover, the institutional arrangement for implementing health programs in Bangladesh seriously suffers from the absence of an effective information flow. Still the entire administration is mostly paper based. Shortage of data for evaluating the

programs and correcting actions is difficult for this. Lack of coordination within units of Ministry of Health, lack of coordination between different ministries, lack of sufficient ICT facilities in all levels, inadequacy of trained manpower including inappropriate placement, inadequacy of up to date data and often unreliable data, inadequate use of health information at policy level are acting as impediments to good governance.

Other Deficiencies:

- i. Most of the THCS still lack essential physical and functional facilities. Similarly the district level hospitals suffer from inadequate facilities as manpower.
- ii. Referral system with clearly spelt-out linkage and communication could not yet been established between THCS and district hospitals as well as national level specialized institutions.
- iii. In Bangladesh the doctor/population ratio is 1:2860. Physician to nurse ratio is 2.07:1 (DGHS, 2010). Number of total Physicians is 53,063 which is not enough of our country (BMDC-2011). These figures suggest that the present programmers are of curative bias. Similarly, in the case of bed utilization and population coverage, only 10% of the total bed facilities are in the rural areas where 71% of the population lives. Rural people do not know how go to better hospitals for better treatment, a problem compounded by the lack of a referral system (Khaleda & Anisul ,1992).
- iv. Since it is assumed that curative treatment is urban- biased and preventive treatment is rural biased, the difference between preventive and curative treatment is that of urban and rural budgets. Close examination of the budget allocation shows gross differences. Very little attention has been accorded to PHC, the nucleus of health services.
- v. It is worth mentioning that Bangladesh is acutely suffering from a shortage of nurses. The nurse population ratio is 1:5720. The number of nurses at present is 25,018 (DGHS, 2010), which is not enough for the present requirements. Even Laboratory technicians are going aboard even though there is a demand for them in the local health network. Doctors are even changing their medical profession for better facilities and a secure future. Many of them are keeping joining other services like administration, Police, Customs, Finance, Foreign services and other BCS cadres.
- vi. Although Bangladesh is one of the signatories of the Alma Ata declaration on PHC, in reality the concept of the declaration is not reflected in its health service delivery systems. About 75% of the expenditure of health budget is for the urban areas, whereas only 25% of the health budget is allocated for 87% of the people who live in rural areas.

2.13 The Public Sector in Bangladesh

The primary care in the public sector is organized around the Upazila Health Complex (UHC) at sub-district level, which works as a health-care hub. These Units have both in- and out-patient services and care facilities. Most commonly, they have in-patient care support with 31 beds, while some UHC have over 50 beds. Many UHC Units have a package service called “comprehensive emergency obstetric care services” (EOC) available, with an expert gynecologist, an anesthetist and skilled support nurses on duty round-the-clock and basic laboratory facilities. At a lower tier, the Union Health and Family Welfare Centre (UHFWC) are operational, constituted with two or three sub centres at the lowest administrative level, and a network of field-based functionaries. The public sector field-level personnel are comprised of Health Assistants (HAs) in each union who supposedly make home visits every two months for preventive healthcare services, and Family Welfare Assistants (FWAs) who supply condoms and contraceptive pills during home visits. Recently some of the female HAs and FWAs have been trained as birth attendants (skilled birth attendants – SBAs), to provide skilled services within a household setting. The number of health assistants is determined according to the size of the population. The Health Assistants and Family Welfare Assistants are supervised by a Health Inspector (HI) and a Family Planning Inspector (FPI) respectively, posted at the union level. Ten qualified allopathic practitioners staff the UHC and supporting staff, while professionals such as a Medical Assistant (MA/SACMO) and a mid-wife (Family Welfare Visitor) staff the UHFWCs, both trained in formal institutions. The Union Health and Family Welfare Centres (UHFWCs) provide outpatient care only.

Above the sub district are the district hospitals (100-250 beds) and medical colleges (serving a group of districts with around 650 beds) providing secondary care, and national tertiary level care facilities. A common tendency is observed in terms of utilization – a stark imbalance in service utilization at public health facilities. There is low utilization of most facilities at the primary level (upazila and below) and over utilization of facilities at the secondary and tertiary levels.

There are 589 hospitals ranging from 10 beds to 1,700 beds under DGHS currently. All of these hospitals provide a total of 37,090 beds. The table below gives a detailed profile about public hospitals:

Table 2.1
Hospitals by Bed Capacity and total Beds

Sl. No.	Bed capacity	No. of hospitals in this type	Total beds
1	1700 beds	1	1700
2	1010 beds	1	1010
3	900 beds	1	900
4	800 beds	1	800
5	600 beds	5	3000
6	500 beds	3	1500
7	414 beds	1	414
8	375 beds	1	375
9	250 beds	19	4750
10	200 beds	2	400
11	150 beds	3	450
12	100 beds	53	5300
13	80 beds	1	80
14	56 beds	1	56
15	50 beds	158	7900
16	31 beds	271	8401
17	30 beds	1	30
18	25 beds	1	25
19	20 beds	43	860
20	10 beds	22	220
	Total	589	38171

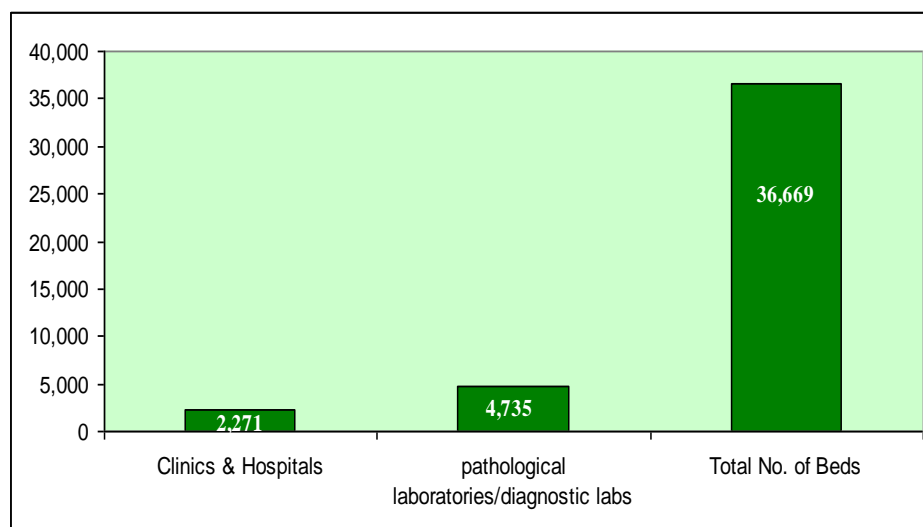
Source: Directorate General of Health Services (DGHS) –MIS, Hospital, Medical Education, 2011.

For the reporting period of January to December 2008, the MIS, DGHS received information from 7 postgraduate institute hospitals, 14 medical college hospitals and 58 districts (district and other hospitals and the health facilities below the district level) in the public sector. Number of patients attending outpatient and emergency departments was estimated to be 65,437,876; the number of patients who were admitted 3,221,642. The hospitals reported 78,152 deaths among the admitted patients giving a death rate of 2.4%.

2.14 The Private Sector in Bangladesh

From 1982, the Director of Hospital of DGHS has given registration to a total of 7,006 hospitals, clinics, pathological laboratories and diagnostic centres in the private sector. The number of hospitals and clinics is 2,271 and that of pathological laboratories and diagnostic clinics is 4,735. The total number of beds in the registered private hospitals and clinics is 36,669 (DGHS, 2011).

Figure 2.4
Total Clinics & Hospitals, Pathological Laboratories/ Diagnostic Centres and total Bed capacity of Private Clinics



Source: Directorate General of Health Services (DGHS) –MIS, Hospital, Medical Education, 2009.

In the private sector, there are traditional healers (Kabiraj, totka, and faith healers like pir/fakirs), homeopathic practitioners, village doctors (rural medical practitioners RMPs/ Palli Chikitsoks-PCs), community health workers (CHWs) and finally, retail drugstores that sell allopathic medicine on demand. In addition to dispensing medicine, sellers at these mostly unlicensed and unregulated retail outlets also diagnose and treat illnesses despite having no formal professional training. All of these informal providers are deeply embedded in the local community and culture and are easily accessible, providing inexpensive services to the villagers with occasional deferred payment, and payment in kind being accepted instead of cash. To this is added an emerging cadre of semi-qualified community health workers / volunteers, who are formally trained by the NGOs (such as BRAC, Gonoshasthya Kendra etc); their numbers have been increasing since the 1990's with the expansion of PHC infrastructure in the country. Basic Information of Some Private and autonomous Hospital in Bangladesh is shown in the following table:

Table 2.2
Basic Information of Some Private and Autonomous Hospitals in Bangladesh

Private Hospital	Sanc-Bed	Free Bed	Department	Wards	Cabins	No. of OT	Doctors	Trainee	Physician	Surgeons	Gynecologist	Nurses	Medi.Asstt	Medi.Tech	Technician
Lions Eye Hospital	84	10	6	6	10	4	29	3	0	19	0	14	13	5	2
Monowara General Hospital	60	4	6	16	44	3	21	0	15	15	20	60	0	2	7
Islami Bank Hospital	160	0	4(9)	8	76	5	68	0	62	28	8	143	0	12	9
Aysha Memorial Hospital	50	0	6	20	30	2	47	0	22	9	3	86	0	6	13
Meditech General Hospital	10	0	10	2	6	1	6	0	8	2	1	13	0	3	1
Metropolitn Hospital	70	0	8	40	30	5	32	0	15	25	2	79	3	4	19
Samarita Hospital	200	5	12	76	75	4	45	0	30	1	7	7	4	10	9
Sikder Women's MCH	100	0	9	3		2	31	0	14	22	2	32	5	13	2
Uttara Adunik MCH	500		12	12		11	153		14	34		164		11	48
Panpacific Hospital	62	0	10	20	42	3	20	0	34	9	6	38	0	4	5
Aichi Hospital	50	5	7	25	25	2	15	0	14	19	3	40	0	2	3
Bhasani MCH	500	200	19	13	20	6	175	71	36	17	10	48	15	8	2
Apollo Hospital	304		31	15	49	8	170		27	18	3	264	82	46	31
BSMMU Hospital	1212	452	48	48	105	18	1033	328	205	7	45	536		62	52
East West MCH	400	80	14	14	29	6	105		24	18	5	98	8	10	8

Source: Directorate General of Health Services (DGHS) –MIS, Hospital, Medical Education, 2009.

Government rules for licensing of private hospital or clinic

To start a private hospital or clinic, the interested party has to take license from DGHS through submission of application in prescribed forms. The conditions for issuing and continuing a license are as follows:

- The hospital or clinic will require to have adequate space and healthy environment
- It should have minimum 80 square feet space per patient
- The operation theater should be air-conditioned
- There should be appropriate instruments as per prescribed guidelines

- The hospital or clinic will have to store adequate life saving drugs and other medicines
- There should be full time doctors, nurses and other staffs as per prescribed guidelines (for every 10 beds 3 doctors, 6 nurses, 3 cleaners and specialist doctors for surgery and for follow up).

In violation of any of the clauses, the accused clinic owner will be liable to 6 months jail or fine worth Tk. 5,000 or both or size of all removable assets in favor of state.

2.15 Traditional Medicine in Bangladesh

Grouped under “traditional medicine” are most of the medical practices that fall outside the realm of ‘scientific’ medicine. Thus, Kabiraj, totka, herbalists, practitioners of ‘Folk Medicine’ and faith healers (e.g. pir, fakir etc.) of different shades fall under this broad umbrella. Many of these healers (e.g. faith healers) provide a much narrower range of services for a more limited set of conditions. (World Health Organization, 2008)

2.16 Citizen’s Charter for Hospital Services

a) Citizen’s Charter for Services at Medical College Hospital

The Service Seekers reserve the rights for the following services:

Emergency Department:

- i. The Emergency department remains open for 24 hours round the clock and required services are provided to the patients.
- ii. All related formalities done after ensuring on the spot management of emergency patients.
- iii. Adequate number of Emergency Medical officers is on duty round the clock.
- iv. All patients who need treatment indoors are admitted in the IPD.
- v. The related personnel like nurses, paramedics, ward boys, ayas and cleaners be present at the casualty department providing services to the emergency patients.
- vi. If a patient dies on way to hospital, he/she be declared Brought Dead and handed over to concerned relatives under legal process.
- vii. The patients who are considered as police cases like road traffic accidents, suicidal attempts, etc. should undergo legal procedures after ensuring necessary treatment of the patients.

- viii. If a person without proper identity or an unconscious patient not accompanied by any attendant dies after being brought to a hospital, belongings of the dead person will be deposited to the emergency medical officer. The corpse is sent to the morgue after six (6) hours and required legal procedures adopted.
- ix. Lists are displayed at different wards/departments showing stock of medicines available in the hospital, types of services provided and names of the attending service providers.

Other Departments:

- i. Specified health care services are provided at the out patient department from 8 AM to 2.30 PM.
- ii. Outdoor patients have to purchase tickets for getting services.
- iii. Services are provided to all the patients on the basis of “first come first serve”.
- iv. List of User fee (Fee in exchange of services) is hung on the respective department.
- v. Services are provided free of cost to the poor patient.
- vi. Lists are displayed at different wards/departments showing stock of medicines available in the hospital, types of services provided and names of the attending service providers.
- vii. Medicines are provided free of cost to the patients subject to availability of the medicines. In some cases, for the proper treatment, some medicines are to be bought from outside by the service seekers.
- viii. Information/Inquiry desk is present.
- ix. Required confidentiality is maintained regarding examination and treatment of patients especially for women.
- x. Safe drinking water is available.
- xi. Well-cleaned and separate toilets are maintained for male and females.
- xii. Women friendly environment is available with breast-feeding corner.
- xiii. Different categories of beds for the patients are available like free bed, paying bed and cabin. The authority fixes specified fees.
- xiv. The indoor patients get the required treatment of General Surgery, Orthopedics, Medicine, Neuromedicine, Gynecology, Eye and ENT under the supervision of related Specialists.

Duties of Service Seekers: Service Providers reserve the right to cordial behavior from the service seekers.

b) Citizen's Charter for Service at District Hospital

The Service Seekers reserve the rights for the following services:

- i. Essential health care services are provided to all who have access to an Upazilla Health Complex (UHC) irrespective of male or female, young or old.
- ii. Oral Rehydration Therapy (ORT) corner is available for patients suffering from Diarrhoeal Diseases.
- iii. Necessary pathological tests, ultra sonogram, x-ray and ECG facilities are available for the patients seen at the outpatient department (OPD) or admitted indoors.
- iv. Emergency Obstetric Care (EmOC) services are provided round the clock to women needing essential obstetric care.
- v. Patients of Inpatient department (IPD) get appropriate treatment related to Medicine, General Surgery, Gynecology, Orthopedics, Eye, ENT or of other discipline under the guidance of Specialists. Major or minor operations, wherever required, should be done at the facility.
- vi. National Tuberculosis and Leprosy Control Program ensures that facilities are available for sputum examination for patients suffering from Tuberculosis. Medicines are provided free of cost to patients suffering from Tuberculosis and Leprosy.
- vii. Under Expanded Program for Immunization (EPI), vaccinations are provided to women of child bearing age (15-49) and children (0-15) everyday..
- viii. Health, Education and Promotion (HEP) program disseminates behavior change communication as regards maintenance of proper health giving emphasis on role of healthy diet and reproductive health care.
- ix. Activities related to women friendly hospital initiatives (WFHI) are conducted wherever applicable.
- x. Activities related to child friendly hospital are conducted wherever applicable.
- xi. Training programs for Skilled Birth Attendants (SBA) are conducted wherever required.
- xii. Attending adolescents and couples of reproductive age groups are provided with reproductive health care and family planning awareness.
- xiii. In order to popularize Alternative Medical Care with the attending patients, related medical care is also provided wherever needed.

- xiv. The patients referred from various district hospitals and upazilla health complexes are provided with appropriate treatment in the DHs. The more complicated cases are referred to Medical College Hospitals and Specialized Hospitals for further treatment.
- xv. Medicines are provided free of cost to the patients subject to availability of the medicines. In some cases, for the sake of proper treatment, some medicines are to be bought from outside by the service seekers.
- xvi. Lists are displayed at different wards/departments showing stock of medicines available, types of services provided and the names of the service providers.
- xvii. Health care services are ensured to the patients of the nearby prisons.
- xviii. Necessary tests are done for detecting and diagnosis of patients suffering from HIV/AIDS.
- xix. Arrangements for Safe Blood Transfusion (SBT) are available.
- xx. Standard procedure is followed for the Waste Management.

Service Providers reserve the right to cordial behavior from the service seekers.

c) Citizen's Charter for Services at Upazila Health Complex

The Service Seekers reserve the rights for the following services

- i. Essential health care services are provided to all who have access to an upazilla Health Complex (UHC) irrespective of male or female, young or old.
- ii. The Emergency department remains open for 24 hours round the clock and required services are provided to the patients.
- iii. Oral Rehydration Therapy (ORT) corner is available for patients suffering from Diarrheal Diseases.
- iv. Necessary pathological tests and x-rays facilities are available for the patients seen at the outpatient department (OPD) or admitted indoors.
- v. Emergency Obstetric Care (EmOC) services are provided round the clock to women needing essential obstetric care.
- vi. Patients of Inpatient department (IPD) get appropriate treatment related to medical, surgical, gynecological or of other discipline under the guidance of Specialists. Major or minor operations, wherever required, should be done at the facility.
- vii. National Tuberculosis and Leprosy Control Program ensures that facilities are available for sputum examination for patients suffering from Tuberculosis. Medicines are provided free of cost to patients suffering from Tuberculosis and Leprosy.

- viii. Under Expanded Program for Immunization (EPI) program, vaccinations are provided to women of child bearing age (15-49) and children (0-15).
- ix. Health, Education and Promotion (HEP) program disseminates behavior change communication as regards maintenance of proper health giving emphasis on role of healthy diet and reproductive health care.
- x. Activities related to women friendly hospital initiatives (WFHI) are conducted wherever applicable.
- xi. Activities related to child friendly hospital are conducted wherever applicable.
- xii. Training programs for Skilled Birth Attendants (SBA) are conducted wherever required.
- xiii. Attending adolescents and couples of reproductive age groups are provided with reproductive health and family planning awareness.
- xiv. In order to popularize Alternative Medical Care with the attending patients, related medical care is also provided wherever needed.
- xv. The patients referred from Union Sub-centres and Family Welfare Centres are provided with appropriate treatment in the UHC. The more complicated cases are referred to District Hospitals for further treatment.
- xvi. Medicines are provided free of cost to the patients subject to availability of the medicines. In some cases, for the proper treatment, some medicines are to be bought from outside by the service seekers.
- xvii. Lists are displayed showing stock of medicines available, types of services provided and the names of the service providers.

Service Providers reserve the right to cordial behavior from the service seekers.

d) Citizen's Charter for Services at Union Sub-Center

The Service Seekers reserve the rights for the following services:

- i. Essential health care services are provided to all those who have access to a Union Sub-center (USC) irrespective of male or female, young or old.
- ii. The attending patients and their relatives can easily communicate with the concerned doctors for necessary advice and suggestions as regards health care services.
- iii. Oral Rehydration Salt (ORS) is available for patients suffering from Diarrhoeal Diseases.
- iv. Necessary advice along with antenatal check-up is provided to the attending pregnant women and iron tablets are supplied to them.

- v. National Tuberculosis and Leprosy Control Program ensures that facilities are available for sputum examination for patients suffering from Tuberculosis Medicines are provided free of cost to patients suffering from Tuberculosis and Leprosy.
- vi. Under Expanded Program for Immunization (EPI) program, vaccinations are provided to women of child bearing age (15-49) and children (0-15).
- vii. Health, Education and Promotion (HEP) program disseminates behavior change communication as regards maintenance of proper health giving emphasis on role of healthy diet and reproductive health care.
- viii. Attending adolescents and couples of reproductive age groups are provided with reproductive health and family planning awareness.
- ix. Adequate number of notice boards is displayed so that they are visible to all concerned. All necessary information is listed on the boards.
- x. Patient is referred to an upazilla health complex if needed.
- xi. Medicines are provided free of cost to the patients subject to availability of the medicines. In some cases, for the sake of proper treatment, some medicines are to be bought from outside by the service seekers.
- xii. Lists are displayed on the boards showing stock of medicines available, types of services provided and the names of the service providers.

Service Providers reserve the right to cordial behavior from the service seeker; Management Information System (Bangladesh Health Services, 2008).

2.17 Doctor-Patient Relationship

Doctor- patient relationship is an important area of hospital sociology. This relationship not only depends on the values and norms of society but also depends on the varying environments. For example when patients are admitted in hospital, it is just shifting of sick individual from one environment to the other environment.

From time immemorial health sciences have given suitable approaches for disease control and prevention. In the underdeveloped countries, indigenous medicine or doctors are not only credited with specialist knowledge, but many also have moral authority due to their role in religion as well as medicine (Hanny, 1981 and Patrick & Scambler, 1982). Doctors and patients therefore, occupy social roles which are culturally determined. In the developed world, the sick role has been used to

describe the expected behavior of patients and at the same time many workers have suggested that there are reciprocal attitudes and expectation from doctors. This enables them to function effectively. These attitudes are:

- i. Affective neutrality: - It means, standing back from the patient and maintaining objectivity without becoming emotionally involved.
- ii. Universalism: - It means regarding all patients as beings of the same value so that no medical details such as race or social class can influence medical decision.
- iii. Functional specificity: - It means that the doctor should only be concurred with those matters, which are of direct medical relevance to the patient.

In fact, the above attitudes are changing due to incurred emphasis of sympathy and empathy.

2.17.1 Doctor-Patient Conflict

This conflict usually lies in the area of treatment and mode of presentation by the patient. Actually patient complains and doctors try to eliminate such complains as they may have different forms of reference, as for instance in the case of a anxiety or tension due to husband wife marital problems for which a doctor investigates for an pathological cause. The conflict of expectation between doctor and patients is present. When doctor are applying technical and scientific goals then patients are looking for advice, reassurance and acceptance. Following are the conflicts inherent in the doctor-patient relationship.

- i. Competing demands of many patients for limited reasons such as doctor's time.
- ii. The problem of uncertainty about diagnosis and treatment.
- iii. The knowledge that some diagnosis is unhelpful and some treatment ineffective.
- iv. The contract between the present and future interest of a patient e.g. whether to tell about a poor prognosis.

It has already been mentioned that doctor-patient relationship is a vital area of medical sociology where complicated interrelationship occurs.

Activity-Passivity: In this type of interaction- the doctor is active and the patient is passive. This type of interaction usually seen in case of emergencies such as injuries, massive haemorrhage or coma. The patient is completely helpless as the doctor completes procedure and treatment actively on him. The overall medical work

requires minimal interaction between doctor and patient, anesthesia and other resuscitative measures and immobilization etc. make quite submissive to the doctor. Treatment is given regardless of the patient's contribution. Examples are surgical intervention or electro convulsive therapy.

- a. **The Guidance-co-operation:** This type of situation is less important in terms of life saving intervention. It involves the most acute disorders and especially to those of fever and other constitutional symptoms. Although the patient is sick, he is nearly aware of what is going on, is capable of taking instructions and of exercising judgment and has to be taken into account as a person. In this situation the patient is expected to recognize that the doctor knows best, that is why he is there and he wants to be told what to do so that he can follow instructions and get better. This is the type of relationship most writers assume when discussing doctor patient interaction.
- b. **Mutual Participation:** This is approach is regarded as essential for the management of chronic illness in which the treatment is carried out by the patient with only occasional instruction from the doctor. Examples are diabetes and psoriasis. Psychotherapy falls into this category of relationship. According to the model, the doctor helps the patient to help himself. For the purpose of completing the treatment the doctor needs the patient and the patient needs the doctor. Thus in diabetes, the patient needs the doctor's advice but the doctor needs the patient to monitor his blood sugar levels, dietary control, and insulin when needed. Logically, as Freidson (1970) pointed out, Szas and Hollenders scheme should not end with these three types of relationship. There are other possibilities where they have not through of guidance-co-operates; activity-passivity where the patient is active and the doctor passive. There could also be mutual non-co-operation, mutual passivity and so on.

2.17.2 Level of Communication in Doctor-Patient Relationship

In a hospital a patient, generally comes without any invitation. By virtue of knowledge, skill and technical superiority a doctor exercise an authoritative control and he commands the patient and the patient is expected to follow. Furthermore, a doctor must know how to communicate effectively with his patient; this may brings his success quickly. For this communication three levels may be considered as follows:

- a. **Emotional:** Physicians should have a sympathetic listener to the complaints of the patient either describe by him or his companion. It will facilitate to form a good interpersonal relationship.

- b. **Cultural:** The value of culture in a society is well recognized. Therefore, doctor should have a mind about the culture, tradition of his own community. This facilitates to bring about certain flexibility in dealing with his patients. The doctor should explain his professional endeavor in relevance that suits the prevailing culture and traditions.
- c. **Intellectual Plane:** The doctors by their education and training tend to be upper class in the society; this creates a considerable gap between them and the common people. In other words, there is a big “Social distance” between the two groups. A successful doctor is one who reduces his gap and is able to communicate freely and thereby wins the confidence of his patient.

2.17.3 Doctor-Nurse Relationship

Doctor-nurse relationship is an important aspect of patient care with a view to improve upon the quality of medical care. Medical men and nursing personnel have common goal for the promoting, preserving and restoring the health. But their roles in achieving these goals are not the same. The primary role of medicine is the diagnosis and treatment. Therefore, it is the ‘cure process, whereas the primary role of nursing lies in the ‘care process’.

In hospital procedures i.e. in the bed side medicine, doctor-nurse relationship is just a team work and the doctor is the leader of the team and many times he tends to be or acts an autocratic leader. He commands and gets the work done through health personnel. Therefore, health personnel; i.e. nursing staff should obey and help the doctor for achieving the common goal; cure, care and restore the health of the hospitalized patients.

2.18 Nurses-Patient Relationship

Nursing needed for life, nursing needed for death, nursing needed for recovery. Nursing needed for preventive, promotive and curative health care. Hospital deals with sick people where the patients are under the care of physicians, who are aided by nurses and many other supporting personnel. Among them nurses are the most important. Nurse can reduce the mortality and morbidity by their careful practice. Nurses’ role is considered to be as mediator between physician and patient. Nurse-patient relationship is very much important in case of health care delivery system. When the patient and the nurse have developed a feeling of mutual trust, the working phase of the nurse patient relationship has begun and the patient will begin to talk more freely about himself.

The Nursing service is an important area of hospital management. Therefore, for the delivery of satisfactory patient care considerable importance should also be given to achieve an efficient and well organized nursing staffs. We know that diseases or ailments always demand for medical treatment. As a role doctors first investigate the illness and then give necessary advice, medication or hospitalization. To execute the suggestion/advice given by the doctor, nursing staffs play dominant role in every stage of care and cure (Rakich et al., 1985). Diseases also produce some sort of dependency for patient care. For example for personal service of patient in hospital, it is also carried out by the nursing staff.

In view of the above, for acquiring the satisfactory community's image of the hospital, a nursing staff should have the following objectives as far as patients' care is concerned:

- Provision of timely medicines and other instructions.
- To check the food adequacy and cleanliness of linen.
- Disinfection of floors and other necessary equipment.
- To provide adequate privacy of the patients when needed.
- When necessary patient should be treated with due dignity and respect, looked after his personal needs or requirement.
- Carry out and execute Laboratory and other investigations as per written or verbal instructions.

2.19 Conclusion

There is an ordinary belief that better management of hospital or health canters is essential if higher standard of health and health care are to be achieved and ensured. Proper management of hospitals or health centres in countries with large population is the first and most cost-effective means of improving delivery of services. A large number of hospitals and health centres exist in Bangladesh to generate quality of services and sometimes gap exist between inputs, processing and output. A hospital is a catalyst that causes conversion of inputs to outputs through the act of managing. There have been shortcomings in absence of emphasis on continuous risk management, supervision and rapid evaluation of performance so as to bridge the gap between what is to be done and what actually be set with problems. In spite of investing large amount of money on health services, the shortages of services have been a continuous problem to the administrator. On the

one hand, huge increases in demand for services and, on the other, an equally huge increase in managerial problems have overloaded the delivery of services. Only better management can alleviate these problems.

Though the health sector's achievement in recent days is remarkable, still the health care system has to go far to achieve the Millennium Development Goals. Most of the health indicators show low rates of achievement. Till date the Government of Bangladesh could not achieve its committed to provide "Health for All" (HFA) citizens. We have agreed to adopt Primary Health Care (PHC) for achieving the goal of HFA. In this larger context, only hospitals and health centers can play a major role. According to WHO expert committee (1963) a hospital is a residential establishment which provides short term and long term medical care, consisting of observational, diagnostic, therapeutic and rehabilitative services for persons suffering or suspected to be suffering from a disease or dying. It may or may not also provide services for ambulatory patients on an outpatient's basis. The functions of hospitals have evolved through past several years in response to the growing need of the community as realized from time to time. The advances in medical science in the field of microbiology, pharmacology, radiation, blood transfusion, anesthesiology, surgical techniques and computers all led to exponential growth in the hospital services. Hospital services depend largely on doctor-patient, nurse-patient, and doctor-nurse relationships and conflicts. The excellent the relationship, the excellent the service and vice versa. While the more the conflict, the less the service and vice versa. As for example when doctors are applying technical and scientific goals then patients are looking for advice, reassurance and acceptance.

Bangladesh has only 18 doctors and 5 nurses per 100,000 people. These numbers are among the lowest in the world. As compensation from public hospitals is very low and many of those doctors and nurses try to find job in private clinics, no wonder that public hospitals experience shortage of medical personnel. Therefore, when a patient comes for the medical help to the public facilities, very often it is the case that hospital has no specialists with appropriate skills or knowledge, or there is a lack of staff which can give very basic help. Moreover, absenteeism poses a chronic, but often unmeasured, problem in publicly financed health care, and can severely limit patient access to services and suggest corruption. The qualified doctors are more inclined to moonlight in private clinics where government employed doctors maintain a dual obligation with their responsibilities.

Chapter 3

Theoretical and Conceptual Framework

This chapter contains theoretical and conceptual framework of the study. The first section provides a theoretical concept, while the second section deals with the analysis of determinants of patient satisfaction. The third section presents the conceptual framework of the study and a brief conclusion of this chapter.

3.1 Prelude

After review of available literature in the previous chapter a theoretical and conceptual framework for the study was developed and presented in this chapter. Significant influential variables, confounding and conflicting variables were selected from previous studies giving emphasis on Bangladesh perspectives. All these were considered to construct a framework of the study.

3.2 Concept of Patient Satisfaction

Patient satisfaction is the patient's fulfillment response (Oliver, 1997). It is a judgment that a health care service gives a pleasurable level of consumption-related fulfillments. In other words, it is the overall level of contentment with a service/ product experience.

Patient satisfaction was considered as a strategic variable and a crucial determinant of long-term viability and success of hospital management (Davies & Ware, 1988; Makoul et al., 1995). Donabedian (1988) suggested that patient satisfaction should be an indispensable part of assessing the quality of overall health care system'. Patient satisfaction is defined as 'the individual's positive evaluation of different dimensions of health care'. Evaluation of health care is regarded by many as the most important function of patient satisfaction research.

Williams (1994) states, 'consumer satisfaction has gained recognition as a measure of quality in many public sector services. It is at present considered an important outcome measure for health care services. Patients may have a complete set of important and

relevant beliefs, which cannot be embodied in terms of expressions of satisfaction to ascertain meaningfully the perception & experience of patients. Research must be conducted to identify the ways & terms in which those patients perceive & evaluate that service (Williams, 1994). Fitzpatrick (1991) states that attributes can be seen as distinct dimensions of health care cost, convenience, efficiency, access, etc.

Patients' satisfactions can either:

- be a means of achieving quality care; or
- be the outcome of the care provided; or
- be an indicator of those aspects of care that can be improved (in case of dissatisfaction); or
- be used for evaluating the quality of care by means of previously determined target values.

There is general agreement that client satisfaction is an integral component of service quality. Argument has been offered that the effectiveness of health care is determined, in some degree, by consumers' satisfaction with the service provided. Support for this view has been found in studies that have reported that a satisfied patient is more likely to comply with the medical treatment prescribed, to produce medically relevant information to the provider, and to continue using medical services (Davies & Ware, 1988, Aharony & Strasser, 1993).

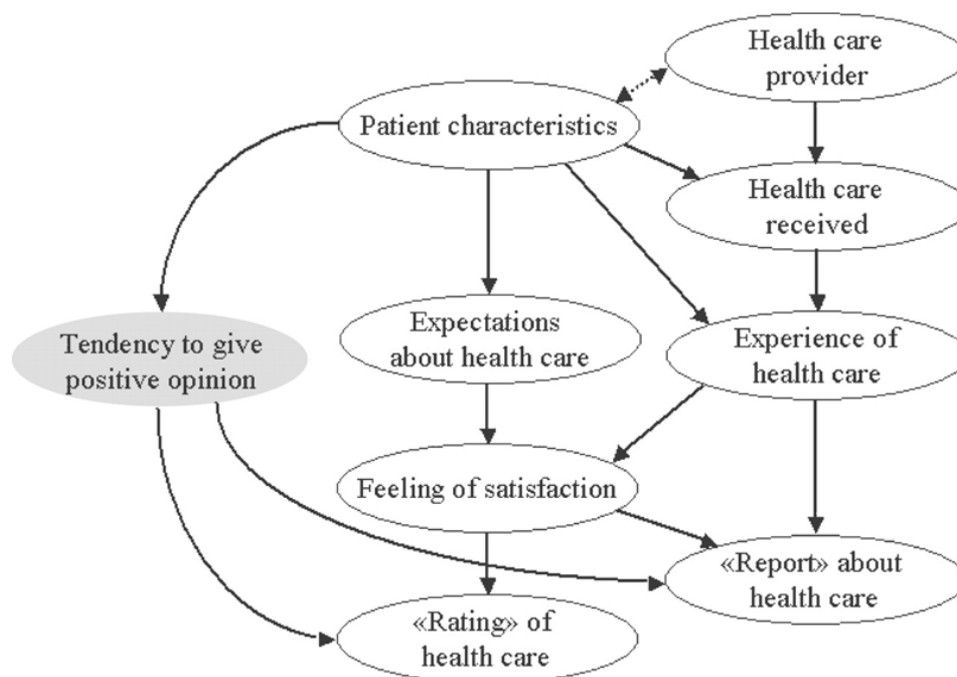
Health Action Journal (1996) defined the quality assessment as the process of determining whether goods or services reach a proven standard. The quality assurance is management system, which builds quality assessment, monitoring and improving into normal working practices. The quality assurance strategies have been developed in Europe and USA. The most widely used model includes-total quality management, hospital accreditation, medical/clinical audit, consumer satisfaction, professional and dimensions of quality. More recently, in both USA and Europe, providers have also been turning towards approaches that attempt to measure the views of users.

3.3 Determinants of Patient Satisfaction:

3.3.1 Dimension of Patient Satisfaction

Satisfaction ratings reflect three variables: the personal likings of the patient, the expectations of the patient and the realities of care received. Satisfaction with the realities of care received is affected by many different components of that care. Patient variables including patient characteristics and expectation are referred to as determination of satisfaction, while care variables are referred to as the components of satisfaction (Sitzia & Wood, 1997).

Figure 3.1
Dimension and Reporting of Satisfaction

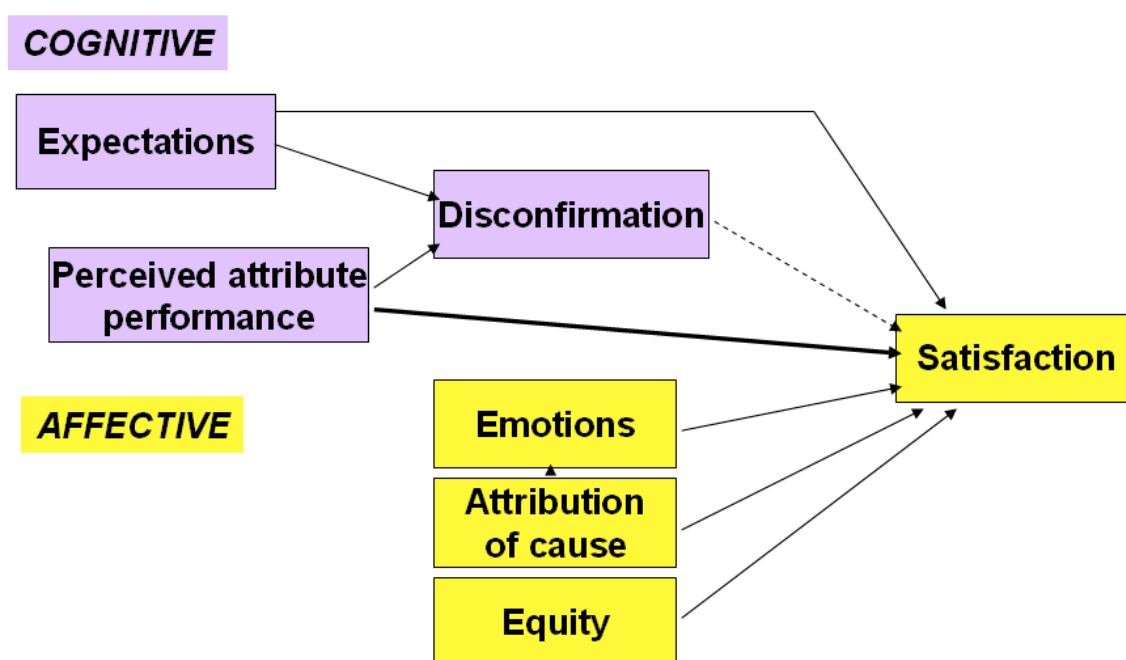


Source: Perneger (2004) for patient characteristics in satisfaction surveys, *International Journal for Quality in Health Care*, 16 (6), 433-435.

Fitzpatrick (1984) put forward four distinct functions of patient satisfaction measurement—understanding patient’s experiences of care, promoting cooperation with treatment, identifying problems in health care and evaluation of medical care. Linder-Pelz (1982) mentioned that determinates of patients’ satisfaction are his/her attitudes, perceptions prior to experiencing that care. Five social psychological variables affect satisfaction rating and define patient satisfaction such as expectation, value, entitlement,

occurrences and interpersonal comparison. Satisfaction is always relative; satisfaction rates change when standards of comparison of expectation change even though the object of evaluation may stay constant. Thus satisfaction measures are quite distinct from objective evaluations of occurrences. At best, satisfaction measures can be reliable indicators of individuals' relative evaluation of those occurrences.

Figure 3.2
Theoretical Model of Patient Satisfaction



Source: Adapted from Oliver (1993). Cognitive, affective, and attribute bases of the satisfaction response. *J Cons Res*, 20, 418.

3.3.2 Components of Satisfaction

Abdellah and Levine (1965) attempted an early identification of key components, proposing the following adequacy of the facilities, effectiveness of the organizational structure, professional qualification and competence of personnel and the effect to care on the consumers. Reisser (1975) reported about four components: cost; convenience; the providers' personal qualities and the nature of interpersonal relationship; and the providers' professional competence and the perceived quality of care received. Abramowitz et al. (1987) proposed some key areas such as medical care, housekeeping, nursing care, nurses' aides, staff explanations of procedure and treatments, noise level, food, cleanliness services and overall quality.

3.3.3 Patient Characteristics

It is commonly believed that satisfaction with health care may depend upon variables such as social class, marital status, gender and age. A Meta Analysis or work reported before 1989, however, concluded that socio- demographic characteristic is at best a minor predictor of satisfaction. Evidence from various countries suggests that older people tend to be more satisfied with health care than do younger people. Younger patients were also less likely to comply with prescriptions or medical advice. Educational attainment has been identified as having a significant bearing on satisfaction, the trend being that greater satisfaction is associated with lower levels of education (Hall & Dorman, 1990). The relationship between satisfaction and social class is less consistent. Hall and Dorman (1990) viewed social status as having 'nearly significant relations' with satisfaction, but as greater satisfaction was associated with higher social status the authors added that it was 'perplexing' to say the least. It has generally been found that patients' gender does not affect satisfaction values.

3.3.4 Interpersonal Aspects of Care

Interpersonal aspects of care are regarded as the principal component of satisfaction. Two aspects are regarded as particularly important: communication and empathy. Reassurance, empathy and familiarity are recognized as important aspects of the doctor-patient relationship, but direct association with satisfaction is unproved. There is evidence, however, to show that while nurses perceive technical competence as the main stay of 'high quality patient care', patients are strongly influenced by nurse' interpersonal manner.

Fitzpatrick (1984) noted that many patients appear to have more confidence in commenting on convenience, cost, and doctor and nurse's personal qualities than in expressing dissatisfaction with medical skill. The dimensions studied by Charles (1994) in Canada were 'provider-patient communication, provider's respect for patient's preference, attentiveness to patient's physical needs, education of patient regarding medication and tests, education and communication with patient's family regarding care, pain management and hospital discharge planning'. Interpersonal comparison is seen to be a key determinant that influences the whole process of evaluation. A combination of positive expectation & perceived concrescence will yield the highest satisfaction score, while positive expectation & negative occurrence will produce the lowest score. Satisfaction will be the greatest when occurrence is perceiver to be as good as or better than that received by others (Hall & Dorman, 1990).

3.4 Operational Explanations of Key Terms

Operational definitions of Key terms are presented below:

Public Hospital: Hospitals run by Government fund.

Private Hospital: Hospitals run by personal fund or fund derived from sources other than Government.

Inpatient

While a patient occupies a bed in a hospital for the purpose of receiving medical or other professional care or treatment (in other words, an admitted patient) is known as inpatient. The inpatient departments of hospitals have an important role in health care service delivery. Inpatient services are offered to those who are usually required to be under some kind of special care and supervision, which cannot be provided by the family. The inpatient department has provision of proper facilities for diagnosis and treatment of the sick and injured and contributes directly to the patient's well being.

Discharge

Discharge means, the termination of the occupation of hospital bed by a patient, either through separation, transfer to another health facility or recovery or death.

Health Care and Health Services

Health care may be defined as the total social effort, organized or not whether private or public for attempting to guarantee, provide finance, promote health and prevent diseases. Its orientation is moving forward the ideal of wellbeing and prevention as opposed to acute, restorative care and public policy initiatives. Health services are the delivery component of health care activities. They are provided by the practitioners and provider organizations and have undergone significant change. People are being served that is diagnosed, helped, cured, educated and rehabilitated by health personnel. Both are essential for social and economic development.

Medical Services

Health services and Medical services are basically two different entities and health care is not synonymous with medical care. Health services defined as multitude of services rendered to individuals, families or communities by the agents of the health services or professions for the purpose of promotion, maintaining, monitoring or

restoring health. Medical services are chiefly those personal services that are usually provided directly by physicians or rendered as a result of physician's instructions. In other words it ranges from domiciliary care to resident hospital care.

Physicians and Doctors

Registrar, Assistant Registrar, Gynecologist, Surgeon and Medical Officers are termed as physicians. Sometimes the term physicians and doctors are used interchangeably.

Behavior

This is a subjective feeling of the patients about how the service providers interact with them during the delivery of services.

Communication

Two-way exchange of views between client (patient/patient's attendants) and service provider to create confidence of the client about the services are provided in the hospital.

Cooperative Attitude

The attitude of the service provider that strives to solve all the problems of a patient starting from admission to discharge and help the client (patient/patients attendants) to get relaxed.

Availability: Availability of staff means patients get help from them as and when they need.

Quality: Quality means the accuracy, degree or standard with which a certain activity is to be performed.

Total Expenses: Total expenditure borne by the patient.

Monthly Family Income: Total monthly income by all the earning members of the family staying together and take food from the same pot.

Poor: Monthly family income of respondent < Tk. 5000 is considered as Poor.

Middle Class: Monthly family income of respondent from Tk. 5000-20000 is considered as Middle Class.

Solvent: Monthly family income of respondent >Tk.20000 is defined as Rich.

Cured: The disease/problem for which the patient gets admitted in the hospital is completely absent at discharge.

Improved

The basic complaints of the disease/problem for which the patient is admitted in the hospital goes away but complete eradication of the disease is not attained at discharge.

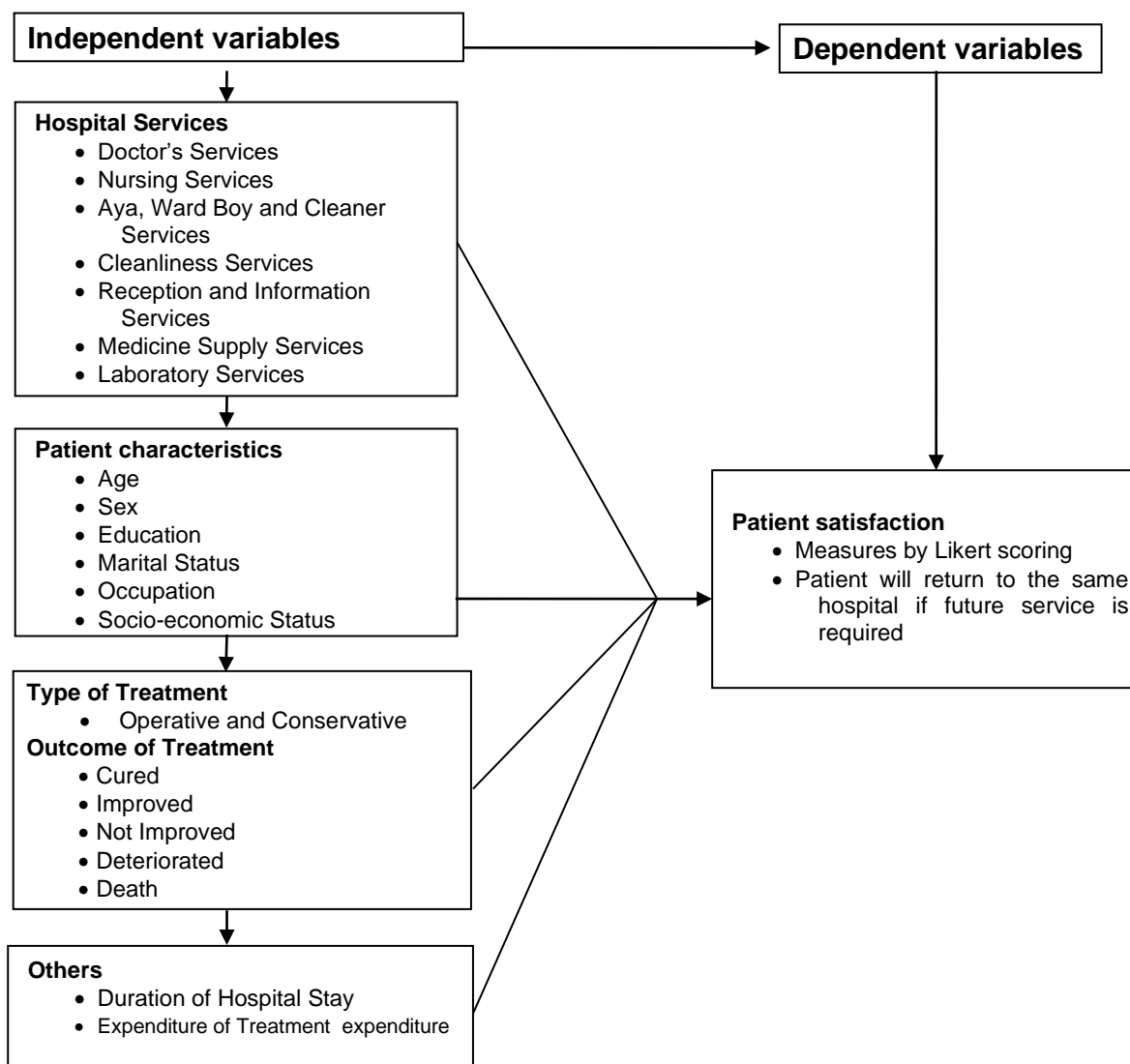
Deteriorated

The disease / problem for which the patient gets admitted in the hospital worsens during the period of hospital stay.

Key Variables

In the present study the services given in the Public and Private hospitals were mainly evaluated on the basis of the respondents' (patients') satisfaction upon the services. For that purpose the variables that ought to be of significance to assess the patients' satisfaction level are stated below. The variables will be studied under two headings, such as independent variables and dependent variables.

Figure 3.3
Dependent and Independent Variables of the Study



Dependent Variables

Patient Satisfaction:

- i) Measures by Likert scoring
- ii) Patient will return to the same hospital if future service is required

Measures of Dependent Variable (satisfaction)

In future, if a patient feels unwell, he will return to the same hospital for service.

Level of Satisfaction

This was defined as the subjective judgment of the patients upon the quality of services given to them by the service providers during the course of their treatment in the given hospital. Each of the discrete activities rendered by the different level of service providers was evaluated on the basis of the patient's level of satisfaction. The variable has been categorized into five levels 'not at all satisfactory', 'somewhat satisfactory', 'more or less satisfactory', 'appreciable', and 'excellent'.

Independent variables

A. Hospital Services

i) Type of hospitals

Public and Private

ii) Doctor's Services

Doctor's service

Doctor's availability

Doctor's cooperation

Doctor's counseling

Doctor's care fullness

Doctor's visit

iii) Nursing Services

Nurse's service

Nurse's availability

Nurse's supplies timely drug

Nurse's politeness

Nurse's regularity

Nurse's cleanliness

iv) Medicine Supply Services

Timely medicine

Medicine supply as required

v) Cleanliness Services

Cleanliness of hospital

Cleanliness of ward/cabin and floor

Cleanliness of toilet/ bathrooms

vi) Aya/ Ward Boy and Cleaner's Services

Efficiency

Behavior

Presence as required

Cleanliness

Politeness

vii) Laboratory Services

Availability of essential lab service

Politeness and sympathy of lab staff

Cleanliness of Laboratory

Use of modern equipment

viii) Reception and Information

Gentility & sympathy of the staff at reception

Courtesy

Conduct of the receptionist

Cooperative attitude

Open communication

B. Patient Characteristics

i) Age of the respondents

ii) Sex: Male and Female

iii) Education:

Illiterate, Primary, S.S.C, H.S.C, Higher Education

iv) Marital Status: Married and Unmarried**v) Occupation:**

Service, Student, Business, Farming, House wife, Others

vi) Socio-economic Status:

Poor, Middle Class, Rich

C. Type of Treatment and its Outcome**i) Type of Treatment given:**

Operative : Treatment with surgery and medicine

Conservative: Treatment with medicine without surgery

ii) Outcome of Treatment:

Cured

Improved

No improvement

Deteriorated

Death

D. Others

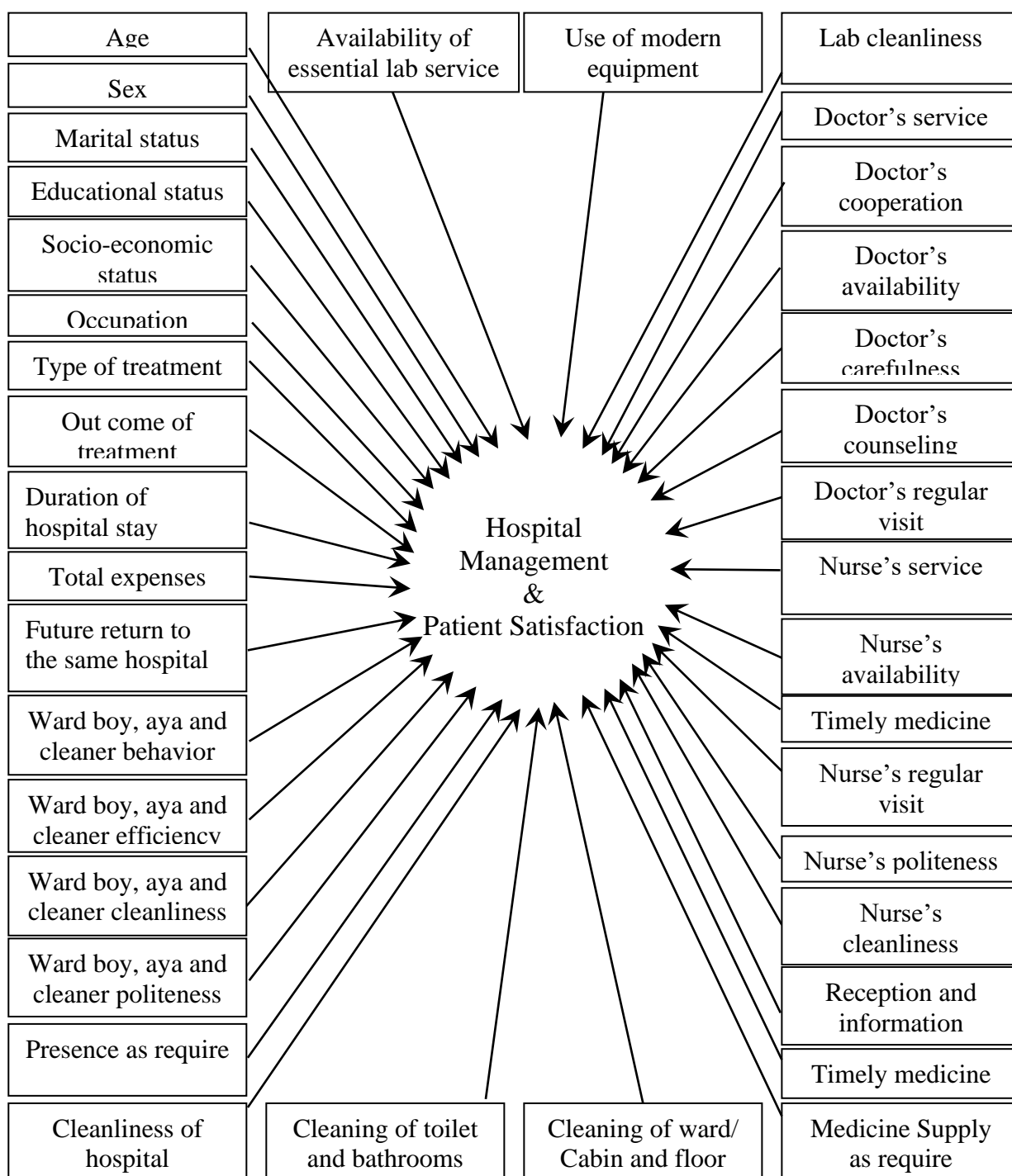
- i. Duration of hospital stay
- ii. Expenditure of treatment

3.5 Conceptual Framework

Health professionals try to estimate patient's satisfaction level through surveys. They usually seem to estimate greater levels of dissatisfaction in patients than surveys disclose. Virtually all surveys indicate only a few patients who express negative views about any particular issue. One assumption commonly made by health professionals is that surveys will uncover widespread dissatisfaction, whereas in practice the opposite often is true. Most of the research on satisfaction has focused on the concept either as a dependent variable (determined by patient and service character) or as an independent variable (predictive of subsequent behavior). In either case the research has been primarily problem-oriented, its purpose is to provide data on the basis of

which practical conclusions can be drawn by administration, practitioners & consumer groups in a variety of health care settings. A full list of dimensions in terms of views of the patients needs to be examined. We, therefore, considered all aspects those are relevant to the research problem. Following is the conceptual framework presented diagrammatically for the better understanding of the concept of the study.

Figure 3.4
Conceptual Framework



Patient satisfaction was justified by satisfaction score and compared between public and private hospitals. It was further justified with future return to same hospital.

Andaleeb (2001) stated, 'patient perceptions, especially about service quality, might shape confidence and subsequent behavior with regard to choice and usage of the available health care facilities is reflected in the fact that many patients avoid the system or avail it only as a measure of last resort'.

Patient characteristics

Patient individual character could influence the satisfaction. His socio-demographic character; age, sex, educational qualification, marital status, occupation and socio-economic condition may interfere individual perception and expectation and thereby satisfaction. Though these had inconclusive and conflicting effects on previous studies, we have included these in our studies to categorize perception in our country.

Hospital Services

Reliability is a great question in the perspective of Bangladesh in health care settings. To serve the promised service reliably, dependably, effectively, sincerely by doctors, nurses and other staffs bring definite satisfaction. Empathy, sympathy, communication, responsiveness and assurance by this manpower of hospitals are essentials for optimum satisfaction. Medicine supply as required and in time is the demand of time in the country. Well-equipped laboratory and skilled service is the golden standard for hospital service. For communication and information reception is the center point for patients and hospitals.

Additional Factors

Type of treatment and outcome could influence the satisfaction. This is because cure is the most expected and perceived outcome for every treatment in any case. Any other outcome would be the negative effect to satisfaction. Binary logistic regression was built to find out the influence of each independent variable on patient's decision of future return to same hospital. Future return to same hospital was considered as dependent variable and satisfaction score for doctors, nurses, aya/ ward boy and cleaner, laboratory, cleanliness, reception and information, medicine supply and outcome of treatment were considered as independent variables.

3.6 Conclusion

Theoretical and conceptual framework for the study has been produced on the basis of previous studies and research questions. An attempt has also been made to identify the dependent variables namely patient satisfaction and future return of the patient to same hospital if needed as well as the five sets of independent variables namely hospital services, patient characteristics, types of treatment, outcome of treatment and others such as duration of hospital stay and expenditure of treatment. Besides, all key terms and terminologies used in the study have been clearly defined.

Chapter 4

Methodology of the Research

This chapter presents the type, period, hypothesis, and selection of study area, sources of data, questionnaire and Likert scale used, sampling method, basic characteristics of the population, data processing, data analysis, and conclusion.

4.1 Prelude

A sound methodology is essential for any research work to achieve the aim of the study. After completing review of literature, exploring research gap and formulating hypothesis, the researcher proceeded for a scientifically valid research methodology. Most of the hospitals of our country both in private and public sectors do not maintain their records properly. The researcher has carefully considered this problem along with finance and time constraints as well as feasibility of the study. Above all scientific validity and representative sampling of hospitals and patients got the highest considerations. The aim of the study was to measure the difference of patient's satisfaction score between private and public hospitals and factors influencing the same.

4.2 Type of the Study

It was an empirical study to measure patient's satisfaction both in public and private hospitals in Bangladesh.

4.3 Period of the Study

The study was mainly based on primary data collected through face-to-face interviews with randomly selected patients from the sample hospitals during the period 2010 to 2011.

4.4 Hypothesis

H₀: There is no significant difference of patient satisfaction between private and public hospitals in Bangladesh with respect to doctor's service, nurse's service, aya / ward boy and cleaner's service, cleanliness, medicine supply, laboratory service, reception and information service.

4.5 Selection of Study Area

The focus on hospitals in Dhaka was deemed appropriate for several reasons. Dhaka has the greatest number of hospitals of varying quality that attend a diverse set of patient needs. Two separate lists of public and private hospitals in Dhaka were obtained from the Ministry of Health and Family Welfare. From the former list, Dhaka Medical College and Mitford Hospital were chosen purposively as these two hospitals have reputation to handle patients from all classes and with various health problems. Dhaka Medical College Hospital is the top and first public medical college hospital of Bangladesh. Mitford Hospital is also an oldest hospital in Bangladesh. These two are the leading hospitals with highest patient turnover in the country. Both the hospitals have long experiences in patient management. The other public hospital selected was Sher-E Bangla Medical College Hospital that represents one of the largest medical college hospitals outside Dhaka having huge patient load.

In addition, three hospitals were also purposively chosen from the list of private hospitals. These include Bangladesh Medical College Hospital, Ibn Sina Hospital and Central Hospital. Bangladesh Medical College Hospital is one of the pinnacle and first private medical college hospitals in Bangladesh providing services at an affordable cost. Ibn Sina is also an old hospital with moderate cost. Both are general teaching as well as referral hospitals, with sophisticated technology and skilled manpower. Central Hospital is also serving the different classes of patients for a fairly long time. These three hospitals are representatives of private hospitals of the country, because lower, middle and rich people can consume the services of these hospitals. There are few other highly expensive hospitals in the country but they are not accessible to poor and lower middle class people, so they cannot represent general population. Hospitals at district or upazilla level were not included because they are representatives of a small area, small number of beds, not homogeneous, unavailability of records and poor turnover. It is the trend of our people to rush to hospitals of capital city for treatment of their illnesses. Besides, all the large private hospitals with minimum age of five years are in Dhaka. As such all the sample private hospitals were selected from Dhaka. Moreover, all the selected private and first two public hospitals have good road access, which was convenient for the researcher to reach and work from her place of residence. Another public hospital, Sher-E-Bangla Medical College Hospital at Barisal is also connected with Dhaka by road.

4.6 Reasons for Selecting the Sample Hospitals

There are some specific reasons for selecting the sample purposively, which are:

- Biggest hospitals in private and public sectors
- Oldest hospitals
- Tertiary level hospitals
- Teaching hospitals
- Large number of bed capacity
- Availability of medical records
- Accessibility of representative population of the country
- Accessibility of the researcher
- Financial and time constraints

The sample hospitals selected through the above procedure would represent the population properly.

Table 4.1
Basic Information about the Selected Hospitals

Sl. No	Name of the Hospital	Type of the Hospital	Year of Establishment	No. of Bed Capacity
01	Dhaka Medical College Hospital	Public	1946	2000
02	Mitford Hospital	Public	1875	1000
03	Sher-E Bangla Medical College Hospital	Public	1969	800
04	Bangladesh Medical College Hospital	Private	1986	500
05	Central Hospital	Private	1999	300
06	Ibn Sina Hospital	Private	1983	260

4.7 Brief Profile of the Sample Hospitals

A brief profile of the sample hospitals is given below:

Dhaka Medical College Hospital

Dhaka Medical College hospital (DMCH) was established in 1946 during the British colonial rule. It is one of the oldest and largest hospitals in Bangladesh with access to all segments of the population. Since its establishment, Dhaka Medical College has been

playing a pioneering role in dispensing medical education among young students. The hospital attached to the college provides affordable health care to a huge number of patients through its outdoor, indoor and emergency facilities. It has a bed capacity of 2000 beds. It has about 2100 employees including 650 nurses, but excluding doctors. It has been providing all sorts of health and medical services to the patients. From January to December 2007, daily average outpatient turnover was 2284, daily average inpatient admission was 247, and daily average inpatient staying was 1875.

Mitford Medical College Hospital

Sir Salimullah Medical College (SSMC) is a government medical college in Bangladesh. Sir Salimullah Medical College was established in 1875 as Dhaka Medical School in the old part of Dhaka city. It has a hospital attached to the medical college. It was the oldest and the second largest public hospital of the country. Mitford Hospital was a part of that school. Sixteen local kings and philanthropists helped in constructing the medical school building in 1889. The school was made a medical college in 1962. To acknowledge the contributions of the Nawabs, the college was named after Nawab Sir Salimullah (1871-1915). Until 1957 License of Medical Faculty (LMF) degree was offered from this college. During 1963-1972 condensed courses for MBBS degree was offered. In 1972 it was upgraded as a full-fledged medical college and the first batch of students for MBBS degree were enrolled in 1973. The civil surgeon of Dhaka was in charge of both the college and the hospital until 1974, when a principal and a superintendent were appointed for the above institutions. The superintendent was later (1984) made the Director of the hospital. The college offers about 25 courses at the postgraduate level. It serves about 1,000 outdoor patients daily. The hospital has 1000 beds. This hospital is providing indoor, outdoor and emergency services to all classes of patients.

Sher-E Bangla Medical College Hospital

The teaching hospital attached to Sher-E Bangla Medical College is Sher-E Bangla Medical College Hospital. It is located in Barisal Town. It has 800 beds with indoor, outdoor, and emergency facilities. The hospital entertains about 30,000 patients annually. There are 296 nurses, 25 medical technologists and 17 pharmacists in the hospital. One Deputy Director, one Store Officer, one Administrative Officer and 470 auxiliary staff assist the Director in the management of the Hospital. This hospital is serving the patients of the Southeast region of the country.

Bangladesh Medical College Hospital

Bangladesh Medical College (BMC) is the top and first private medical college of Bangladesh. It has currently only one campus at Dhanmondi, Dhaka. It was established in 1986 by a group of dedicated people called the founder members who were imbued with the ideals of providing quality medical education, research and services to people of this country at a reasonable cost. It has 500 beds with indoor, outdoor and emergency facilities. Bangladesh Medical Studies and Research Institute (BMSRI) run the College and the Hospital, which is a non-political and non-profitable organization. This is the largest private hospital in Bangladesh to all class of people.

Central Hospital

Central Hospital is owned by a group of dedicated souls for Healthcare. It is located in the Central Road of the capital city, Dhaka. It was established in 1999 with 300 beds and indoor, outdoor and emergency facilities. There are 100 doctors, 256 nurses and about 1000 other staff. The Group's strength includes its commitment to quality, leading edge technology and infrastructure for doctors and staff', and continuing professional development. It has access to all classes of people at a moderate cost.

The Ibn Sina Hospital

The Ibn Sina Hospital was established in July 1983 to keep pace with continuous development of medical technologies. It is located at Dhanmondi Residential Area of the capital city, Dhaka. There are 150 doctors, 250 nurses and 917 other employees. Ibn Sina Hospital has been rendering its services in the field of Medicine, Surgery, Gynae, Neuro Surgery, Spine Surgery, Knee Surgery, Colorectal Surgery, Orthopedics Surgery, Urology etc. It provides tertiary level of medical care in those fields. It has reputation for its quality health services to all classes of people at a moderate cost.

4.8 Sources of Data

The study is based on two types of data namely. primary data and secondary data. Primary data was collected only from those respondents who had been admitted as inpatients in hospitals. Half of the patients were selected from medical wards and the other half from surgical wards. Primary data was collected through face-to-face

interview with the respondents. The respondents were the patients themselves or their first line relatives. The respondent filled the questionnaire if he could understand it and could write himself. The contact address and cell phone number of each respondent was preserved for further communication. Primary data was also collected from hospital register, documents and by communication with doctors and nurses.

Secondary data was collected from National Institute of Preventive and Social Medicine (NIPSOM), Ministry of Health and Family Welfare, Directorate General of Health Services, Bangladesh Bureau of Statistics from their Web Site, Publications, Health Bulletin 2011, Management Information System (MIS) and by personal communication. Relevant books, journals, articles, research reports and those were collected by the researcher through direct contact with the authorities of the concerned bodies and institutions which were also used. Moreover, the researcher widely used Internet for collecting research articles with related key words from Indexed Journals.

4.9 Questionnaire and Scale Used

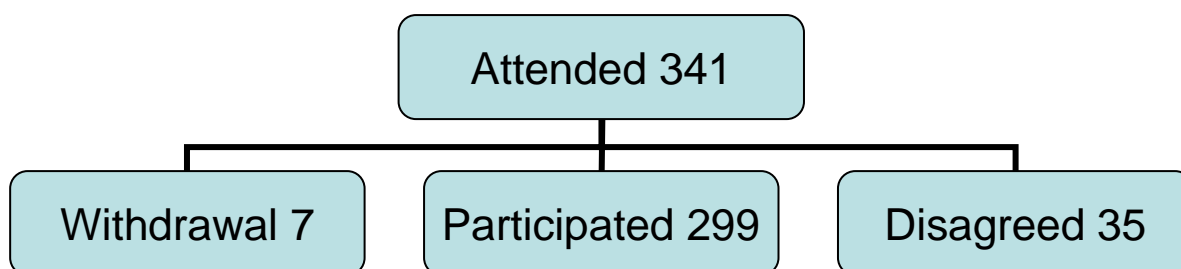
A preliminary questionnaire was first developed in English using Likert type scale, then translated into Bengali. The questionnaire was pre-tested to arrive at appropriate wording, format, length and sequencing of the questions. Pre-test feedback was used to refine the questionnaire until it was ready for data collection.

The level of satisfaction of the respondents was measured on a 1-5 Likert scale, where numeral 1 meant for 'not at all satisfactory' and numeral 5 for 'excellent', 'somewhat satisfactory', 2, 'more or less satisfactory', 3, and 'appreciable', 4 in between them. Level of satisfaction was measured on all the discrete services (mentioned under the key variables section) received by the respondents. This format has been recommended for health care surveys (Elbeck 1987 and Steiber 1989). Multiple items were used to establish appropriate measurement properties (reliability and validity) of the selected constructs.

4.10 Sampling Method

Due to resource and time constraints, a sample size of 300 was targeted. To ensure representation, a sample size of 50 was planned to be collected from every public and private hospital. Data was collected only from those respondents who had been

admitted as inpatients. Half of the patients were selected from medical wards and the other half from surgical wards. The list of patients ready to be released on a particular date was obtained from the respective ward-in-charge of the public hospitals and the patient relations in-charge of the private hospitals. Using simple random sampling, patients were selected from this list. We have included 299 respondents 150 from public and 149 from private hospitals. Dhaka Medical College Hospital, Mitford Hospital and Sher-E Bangla Medical College Hospitals were among the public hospitals and Bangladesh Medical College Hospital, Central Hospital and Ibn Sina Hospital were from private hospitals. We attended 341 patients and their attendants for collecting data to fill up the questionnaires. Thirty-five of them did not agree to cooperate or answer the questionnaire, 17 were busy as they were going to be discharged, 13 were in fear of the administration and 5 were shaky of disclosing their information. Seven of the patients participated in the study but later on with further communication they withdrew themselves from the study. So, finally 299 respondents were available for the study.



If one patient is selected from the medical ward successive patient are selected from the surgical ward. If any patient is unwilling to participate in the study the successive patients from the same ward are selected for the study. Male patients were 161 and female patients were 138, 149 were managed medically and 150 were from surgical ward who were operated for their diseases.

4.11 Basic Characteristics of the Population

Table 4.2
Demographic Characteristics of the Selected Patients

Variable	Private Hospital	Public Hospital
Number	149	150
Age in years: (Mean \pm SD)	47.32 \pm 20.47	39.01 \pm 18.84
Sex (Male/Female)	73/76	88 /62
Educational Status: n (percent)		
Illiterate	26 (8.7)	32 (10.7)
Primary	53(17.7)	68 (22.7)
SSC	21 (7.0)	22 (7.4)
HSC	20 (6.7)	20 (6.7)
Higher Education	29 (9.7)	8 (2.7)
Marital Status (Married/Unmarried)	129/20	120/29
Occupation: n (percent)		
Service	27 (9.0)	30 (10.0)
Businessman	17 (5.7)	17 (5.7)
Student	14 (4.7)	14 (4.7)
Farmer	3 (1.0)	12 (4.0)
House wife	54(18.1)	47 (15.7)
Others	34 (11.4)	30 (10.0)
Socio -economic Status: n (percent)		
Poor	21 (7.0)	82 (27.4)
Middle	103(34.4)	65 (21.7)
Rich	25 (8.4)	3 (1.0)
Type of Treatment Medical/Surgical	74/75	74/76
Out come: n (percent)		
Cured	29 (9.7)	24 (8.0)
Improved	80(26.8)	58 (19.4)
Not Improved	29 (9.7)	38 (12.7)
Deteriorated	11 (3.7)	26 (8.7)
Death	0 (0)	4 (1.3)
Duration of Hospital Stay (days) (Mean \pm SD)	10.66 \pm 10.38	13.47 \pm 22.45
Total Expenditure of Treatment (Tk) (Mean \pm SD)	60483.22 \pm 88623.83	10675.84 \pm 15267.41

It is observed in table 4.2 that male respondents were 161 and female were 138, 149 were managed medically and 150 were from surgical ward who were operated for their disease. Mean age of the patient of private hospitals was 47.32 years and that of public hospitals was 39.01 years.

4.11.1 Educational Status of the Respondents

Educational status of the patients may have an impact on satisfaction score. As such educational status of the patients has been considered as a demographic characteristic of the patients. Table 4.3 reveals that maximum patients in this study were primary educated 121 (40.5 percent), of which 88 were from public hospitals and 53 were from private hospitals. Higher educated people prefer private hospitals (29 patients) to public hospitals (8 patients). A handsome number of illiterate people 58 (19.4 percent) participated in the study, who had been treated both in private and public hospitals.

Table 4.3
Comparative Scenario of Educational Status of the Respondents

Type of Hospital	Educational Status	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Illiterate	32	21.3	21.3	21.3
	Primary	68	45.3	45.3	66.7
	SSC	22	14.7	14.7	81.3
	HSC	20	13.3	13.3	94.7
	Higher Education	8	5.3	5.3	100.0
	Total	150	100.0	100.0	
Private	Illiterate	26	17.4	17.4	17.4
	Primary	53	35.6	35.6	53.0
	SSC	21	14.1	14.1	67.1
	HSC	20	13.4	13.4	80.5
	Higher Education	29	19.5	19.5	100.0
	Total	149	100.0	100.0	

4.11.2 Marital Status of the Respondents

Marital status of the patients may have an impact on satisfaction score. As such marital status of the patients has been considered as a demographic characteristic of the patients. Table 4.4 presents a comparative scenario of marital status of the patients in private and public hospitals. It is evident that in the public sector 64 male patients were married and 56 female patients were married totaling to 120 patients (81 percent of the respondents of the public sector). As against this, 23 male and 6 female were unmarried totaling to 29 patients (about 20 percent of the respondents of the public sector). In the private sector, male married patients were 62 and female married patients were 67 totaling to 129 patients (about 87 percent of the respondents of the private sector). As against this, 11 male patients and 9 female patients were unmarried totaling to 20 (around 13 percent of the respondents of the private sector). Only 1 respondent did not give information about marital status.

Table 4.4
Comparative Scenario of Marital Status of the Respondents

Type of Hospital	Sex	Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Male	Married	64	72.7	72.7	72.7
		Unmarried	23	26.1	26.1	98.9
		Total	88	100.0	100.0	
	Female	Married	56	90.3	90.3	90.3
		Unmarried	6	9.7	9.7	100.0
		Total	62	100.0	100.0	
Private	Male	Married	62	84.9	84.9	84.9
		Unmarried	11	15.1	15.1	100.0
		Total	73	100.0	100.0	
	Female	Married	67	88.2	88.2	88.2
		Unmarried	9	11.8	11.8	100.0
		Total	76	100.0	100.0	

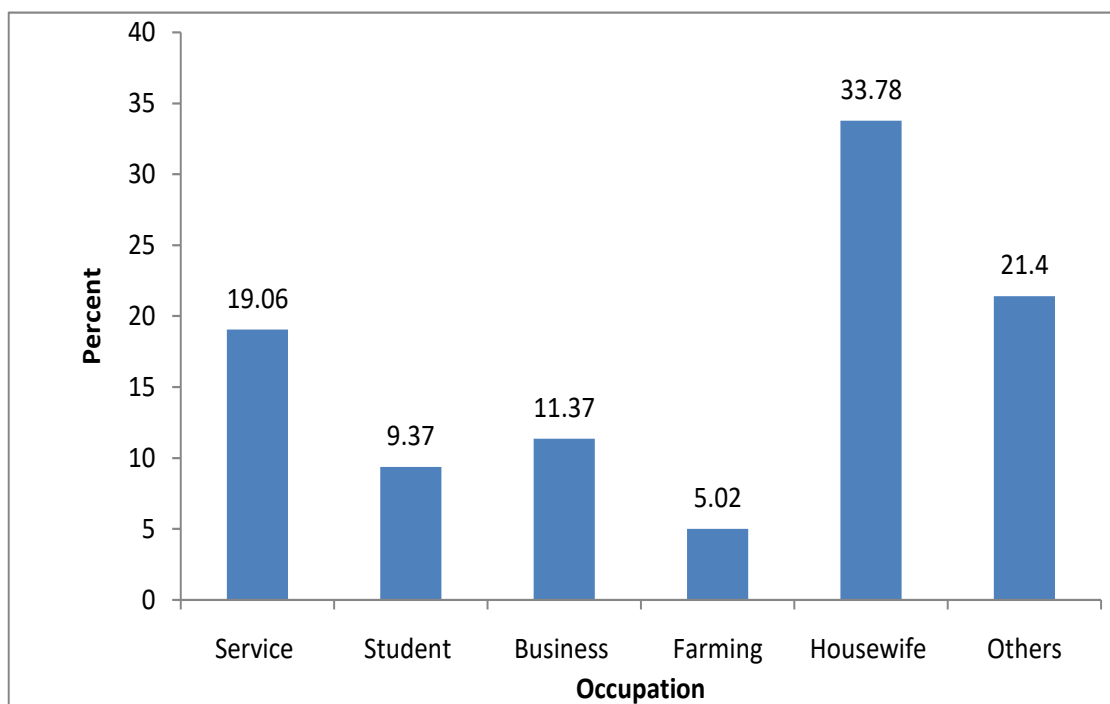
4.11.3 Occupation of the Respondents

Occupation of the patients may have an impact on satisfaction score. As such occupation has been considered as a demographic characteristic of the patients. Table 4.5 reveals that most of the female patients were housewives 101 (33.78 percent), other occupations were service, student, and business 57 (19.06 percent), 28 (9.37 percent) and 34 (11.37 percent) respectively. Farmers were 15 (5.02 percent) only; they might be either reluctant or less capable of getting service from the hospitals of both private and public sectors. Occupation of the respondents is also shown in the following bar diagram.

Table 4.5
Occupation of the Respondents

Type of Hospital	Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Service	30	20.0	20.0	20.0
	Student	14	9.3	9.3	29.3
	Business	17	11.3	11.3	40.7
	Farming	12	8.0	8.0	48.7
	Housewife	47	31.3	31.3	80.0
	Others	30	20.0	20.0	100.0
	Total	150	100.0	100.0	
Private	Service	27	18.1	18.1	18.1
	Student	14	9.4	9.4	27.5
	Business	17	11.4	11.4	38.9
	Farming	3	2.0	2.0	40.9
	Housewife	54	36.2	36.2	77.2
	Others	34	22.8	22.8	100.0
	Total	149	100.0	100.0	

Figure 4.1
Occupation of the Respondents



4.11.4 Socio-economic Status of the Respondents

Socio-economic condition of the patients may have an impact on satisfaction score. As such socio-economic status of the patients has been considered as a demographic characteristic of the patients. Socio-economic conditions of this series were dominantly from middle class representing 65 (43.3 percent) from the public sector and 103 (69.1 percent) from the private sector and total middle class patients were 168 (56.2 percent). Subsequent segment was poor class representing 82 (54.7 percent) from the public sector and 21 (14.1 percent) from the private sector and total poor class patients were 103 (34.4 percent). The last segment was the affluent class representing only 3 (2 percent) from public sector and 25 (16.8 percent) from private sector and total rich class patients were 28 (9.4 percent). Most of the middle class and rich people were served by the private hospitals, whereas public hospitals were the address for treatment of the poor people.

Table 4.6
Comparative Scenario of Socio-economic Status of the Respondents

Type of Hospital	Socio-economic Status	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Poor	82	54.7	54.7	54.7
	Middle Class	65	43.3	43.3	98.0
	Rich	3	2.0	2.0	100.0
	Total	150	100.0	100.0	
Private	Poor	21	14.1	14.1	14.1
	Middle Class	103	69.1	69.1	83.2
	Rich	25	16.8	16.8	100.0
	Total	149	100.0	100.0	

4.11.5 Outcome of Treatment

Outcome of treatment may have an impact on satisfaction score. As such outcome of treatment has been considered in the present study. Table 4.7 reveals that in the government sector, out of 150 selected patients 24 reported cured, 58 improved, 38 not improved, 26 deteriorated, and 4 expired. While in the private sector, out of 149 selected patients 29 cured, 80 improved, 29 not improved, 11 deteriorated, and no death. Thus, out of 299 patients 191 (63.9 percent) patients were either completely cured or improved, 67 (22.4 percent) were not improved, 37 (12.4 percent) deteriorated and 4 (1.3 percent) unfortunately died during the course of hospital admission. On the whole, the rate of cured or improved was more pronounced in the private sector than in the public sector.

Table 4.7
Comparative Scenario of Outcome of Treatment

Type of Hospital	Outcome of Treatment	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Cured	24	16.0	16.0	16.0
	Improved	58	38.7	38.7	54.7
	No Improvement	38	25.3	25.3	80.0
	Deteriorated	26	17.3	17.3	97.3
	Death	4	2.7	2.7	100.0
	Total	150	100.0	100.0	
Private	Cured	29	19.5	19.5	19.5
	Improved	80	53.7	53.7	73.2
	No Improvement	29	19.5	19.5	92.6
	Deteriorated	11	7.4	7.4	100.0
	Total	149	100.0	100.0	

Figure 4.2
Outcome of Treatment

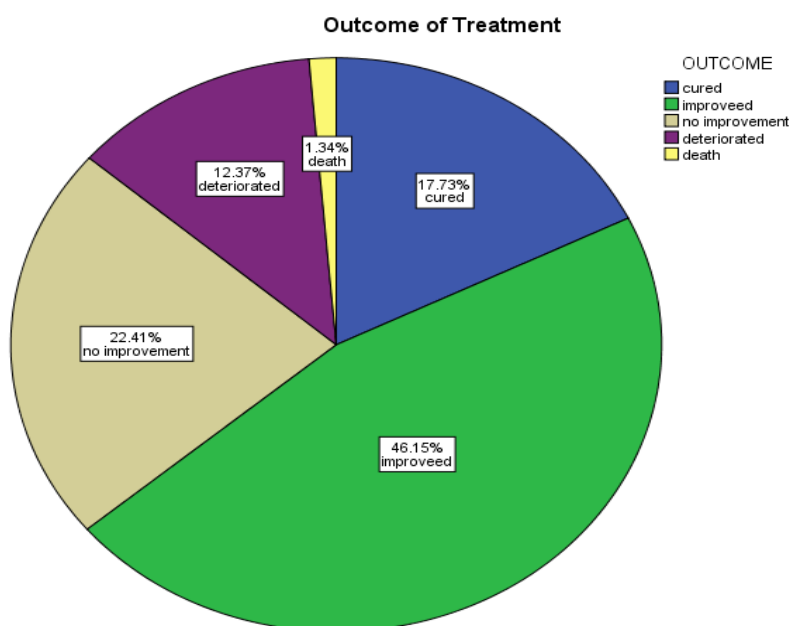


Figure 4.3 presents a pie chart showing outcome of treatment in both private and public sectors collectively. It is evident from the pie chart that 46.15 percent patients reported to have improvement, 22.41 percent reported not improved, 12.37 percent reported deteriorated, and 1.3 percent reported death. As against this, only 17.73 percent reported cured. On the whole, 63.88 percent reported either improved or cured.

4.11.6 Duration of Hospital Stay

Duration of hospital stay of the patients may have an impact on satisfaction score. As such, duration of hospital stay of the patients has been considered in the present study.

Table 4.8 presents a comparative scenario of duration of stay in days between private and public hospitals. It is observed that the average duration of stay of male patients in public hospitals was 16.67 days and the same in private hospitals was 10.99 days. While the average duration of stay for female patient was 8.94 days in public hospitals and 10.34 days in private hospitals. Thus duration of hospital stay was longer in public hospital than that of private hospitals.

Table 4.8
Comparative Scenario of Duration of Hospital Stay

Type of Hospital	Sex	Duration of Hospital Stay	N	Minimum	Maximum	Mean	Std. Deviation
Government	Male	Duration of hospital stay	88	1	240	16.67	28.52
	Female	Duration of hospital stay	62	1	30	8.94	5.98
Private	Male	Duration of hospital stay	73	3	57	10.99	7.66
	Female	Duration of hospital stay	76	1	106	10.34	12.49

4.12 Data Processing and Analysis

Processing and analysis of collected data become an important task of a researcher to get a result out of the data. So, to achieve this goal, the collected data was processed to make more meaningful and analyzed the same by applying appropriate statistical tools and techniques. All possible efforts were made to produce valid description or analytical explanations of data collected from published, unpublished and primary sources.

4.12.1 Data Processing

Generally, the data processing activities cover several types of work. For the current study, the data processing operation consisted of editing, coding, data entry, checking consistency, summarizing, classifying etc.

4.12.2 Data Analysis

After the completion of data processing, the researcher has turned his attention to analyze both qualitative and quantitative data. The data were analyzed by using Statistical Package for Social Science Version 20. In course of descriptive analysis, frequency, mean, standard deviation (SD), and standard error of mean (SEM) have been adopted. On the other hand, continuous variables were compared using Independent sample t test and categorical data were compared by Chi- square test. Correlation analysis was done to see the positive or negative effect of the variables. Factors associated with patient satisfaction (future return to the same hospital) were

analyzed by binary logistic regression analysis, and one way ANOVA was done for comparing more than two groups. Hypothesis was justified by Independent sample t test for scoring of patient's satisfaction. Analyzed data were presented in the form of tables and graphs and were duly interpreted. Level of significance was set at 5% and $p < 0.05$ was considered statistically significant.

4.13 Conclusion

This is a comparative study to differentiate patient satisfaction between private and public hospitals. The researcher has purposively selected 6 hospitals 3 from public and 3 from private hospitals. Total 299 patients 150 from public and 149 from private hospitals were selected. Alternate patients were selected from medical and surgical wards. Satisfaction score was estimated by Likert scale. Satisfaction score was assessed with services of doctor, nurse, aya / ward boy and cleaner, cleanliness, medicine suppliers, laboratory, reception and information. Dependent variable was satisfaction score. Satisfaction was further assessed with a close question of future return to the same hospital. Inter personal perceptual variation was considered to avoid confounding effect of it. Age, sex, occupation, educational status, socio-economic status, marital status, outcome of treatment, types of treatment and expenditure of treatment were also analyzed to evaluate patient satisfaction. Primary data was collected by a pretested questionnaire. Data was analyzed by using SPSS Version 20. Hypothesis was tested by independent sample t test. Binary logistic regression was done to explore maximum effect of independent variable and correlation analysis was done to see the positive or negative effect of the variables. Qualitative data was analyzed through Chi-square test and one-way ANOVA was done to compare more than two groups.

Chapter 5

Factors Influencing Patient Satisfaction

The fifth chapter measures patient satisfaction and factors influencing the same. This chapter is divided into three sections. The first section provides a satisfaction score of the study population and the second section deals with the analysis of individual factors influencing satisfaction score. The third section presents the conclusion in this chapter.

5.1 Prelude

Patient satisfaction is the milestone that the researcher wanted to achieve in the study. It was determined by scoring system. This chapter deals with overall satisfaction score of all the respondents. There are various factors that could influence satisfaction of the patients. The researcher had scored the services of doctor, nurse, aya/ward boy and cleaner, reception, laboratory, and medicine supply using Likert scale.

5.2 Satisfaction Score of the Study Population

Table 5.1 reveals that the satisfaction score was highest in Central Hospital (132.22 ± 14.23), followed by Bangladesh Medical College Hospital (100.51 ± 17.99), Ibn Sina Hospital (90.37 ± 17.73), Mitford Hospital (78.25 ± 25.69), Dhaka Medical College Hospital (71.25 ± 19.39), Sher-E Bangla Medical College Hospital (53.74 ± 21.12) as against the overall satisfaction score of 87.79 ± 31.99. The table further demonstrates that the satisfaction score was more in the private sector than in the public sector hospitals.

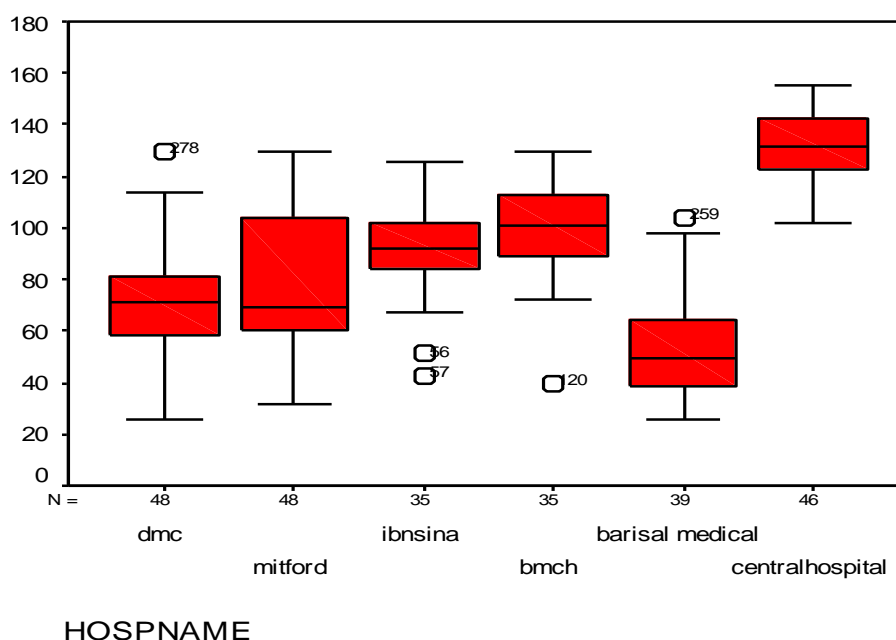
Table 5.1
Patient Satisfaction Score of the Selected Hospitals

SI.No	Name of the Hospital	N	Mean ± SD
01	Central Hospital	50	132.22 ± 14.23
02	Bangladesh Medical College Hospital	50	100.51 ± 17.99
03	Ibn Sina Hospital	49	90.37 ± 17.73
04	Mitford Hospital	50	78.25 ± 25.69
05	Dhaka Medical College Hospital	50	71.25 ± 19.39
06	Sher -E Bangla Medical College Hospital	50	53.74 ± 21.12
	Total	299	87.79 ± 31.99

*Data were presented as mean ± SD.

Total satisfaction score is also depicted in figure 5.1. The box plot for comparison showed highest satisfaction in Central Hospital (132.22 ± 14.23) and lowest in Sher -E Bangla Medical College Hospital (53.74 ± 21.12) with a tendency to lower score in public hospitals.

Figure 5.1
Box plot of total Satisfaction Score of different Hospitals



HOSPNAME means name of the hospital
 GRANDTOT means total satisfaction score
 dmc means Dhaka Medical College Hospital
 mitford means Mitford Hospital
 ibnsina means Ibn Sina Hospital
 bmch means Bangladesh Medical College Hospital
 barisal medical means Sher -E Bangla Medical College Hospital

An attempt has been made to see the total satisfaction score of each of the component of satisfaction separately. It was observed in table 5.2 that the satisfaction score for doctor service was 19.03 ± 6.59 , nurse service was 19.75 ± 6.63 , aya/ ward boy and cleaner was 14.65 ± 6.30 , cleanliness was 9.14 ± 3.13 , reception and information 8.82 ± 9.51 , medicine supply was 5.72 ± 2.40 and laboratory service was 11.22 ± 4.58 . Overall achieved score of all the components collectively was 87.79 ± 31.99 as against total score of 155.

Table 5.2
Satisfaction Score of Different Independent Variables

SI.No	Services	Total Score	Achieved Score (Mean \pm SD)
01	Doctor Service	30	19.03 \pm 6.59
02	Nurse Service	30	19.75 \pm 6.63
03	Aya/ Ward Boy and Cleaner	25	14.65 \pm 6.30
04	Cleanliness	15	9.14 \pm 3.13
05	Reception and Information	25	8.82 \pm 9.51
06	Medicine Supply	10	5.72 \pm 2.40
07	Laboratory Service	20	11.22 \pm 4.58

5.3 Individual Factors Influencing Satisfaction Score

5.3.1 Age

Here in this section an attempt has been made to see whether age has any influence on satisfaction score or not. Table 5.3 presents satisfaction score of different age groups. The researcher has divided the total study population into 3 groups according to distribution of age. It is observed from table 5.3 that the satisfaction scores did not differ significantly between groups ($p=.989, 0.758$ and 0.661).

Table 5.3
Satisfaction Score of Different Age Group

Age Group	Satisfaction Score (Mean \pm SD)	p^* -value
≤ 20 years	85.03 \pm 35.74	.989, 0.758 and 0.661
21 – 40 years	86.02 \pm 32.28	
> 40 years	89.81 \pm 30.63	

*P by one way ANOVA

5.3.2 Sex

Here an attempt was made to see in which sex the satisfaction score was more. Table 5.4 reveals that satisfaction-score for male patient was 85.37 ± 31.52 and for female patient was 90.69 ± 32.44 . It was statistically almost similar in both sexes. So, sex has got no significant effect on total satisfaction score.

Table 5.4
Satisfaction Score of both the Sexes

Sex	N	Mean \pm SD	p*-value
Male	161	85.37 \pm 31.52	0.190
Female	138	90.69 \pm 32.44	

p* by t test

N= number of respondents

Table 5.5 presents a comparative scenario of satisfaction score of both male and female in private and public hospitals. It was observed that in public sector, male satisfaction score was 70.50 \pm 23.26 and female was 65.87 \pm 25.78. In private sector, satisfaction score of male was 107.55 \pm 29.24 and female was 112.26 \pm 19.72. More revealing feature is that male satisfaction score was more than female satisfaction score in the public sector. But, the reverse situation was observed in private sector.

Table 5.5
Comparison of Satisfaction Score between Private and Public Sectors

Type of Hospital	Sex	N	Mean \pm SD	P-value
Government	Male	82	70.50 \pm 23.25	0.281
	Female	53	65.86 \pm 25.77	
Private	Male	55	107.54 \pm 29.24	0.306
	Female	61	112.26 \pm 19.71	

5.3.3 Educational Status

In this section an attempt has been made to see whether educational status had any influence on satisfaction score. Table 5.6 presents satisfaction score based on educational status of the patients. It is observed in table 5.6 that educational status of the study population had no influence on patient satisfaction.

Table 5.6
Satisfaction Score based on Educational Status

Educational Status	Mean	Std. Deviation	95% Confidence Interval for Mean		p*-value
			Lower Bound	Upper Bound	
Illiterate	93.72	33.65	84.25	103.19	>0.05
Primary	82.48	30.95	76.17	88.78	
SSC	83.82	29.27	74.33	93.30	
HSC	84.67	27.72	75.00	94.35	
Higher Education	102.21	35.53	89.40	115.03	

p* by one way ANOVA

POSTHOC=LSD ALPHA(0.05)

5.3.4 Marital Status

In this section an attempt has been made to see whether marital status has any influence on satisfaction score or not. Against this backdrop, table 5.7 reveals the difference of satisfaction score between married (88.45 ± 31.60) and unmarried (85.05 ± 34.26) population. It is observed through independent sample t test that the satisfaction did not differ significantly between married and unmarried population ($P=0.524$).

Table 5.7
Difference in Satisfaction Score between Married and Unmarried Patients

Sl.No	Marital Status	Mean \pm SD	p*-value
01	Married	88.45 ± 31.60	0.524
02	Unmarried	85.05 ± 34.26	

p* by t test

Satisfaction score based on marital status of patients between private and public hospitals has been measured using group statistics and shown in table 5.8. It is observed that satisfaction scores of married patients in public hospitals was 69.00 ± 24.00 and in private hospitals was 109.88 ± 24.29 . While satisfaction scores of unmarried in public hospitals was 67.19 ± 26.31 and in private hospitals was 110.83 ± 27.56 . It can be concluded that satisfaction score between married and unmarried was more or less the same both in public and in private hospitals ($p = 0.736$ and $p = 0.881$ respectively) (table 5.8).

Table 5.8
Difference in Satisfaction Score based on Marital Status

Type of Hospital	Marital Status	N	Mean \pm SD	p-value
Government	Married	108	69.00 ± 24.00	0.736
	Unmarried	26	67.19 ± 26.31	
Private	Married	98	109.87 ± 24.28	0.881
	Unmarried	18	110.83 ± 27.56	

5.3.5 Occupation

In this section an attempt has been made to see whether occupation had any influence on satisfaction score or not. Satisfaction scores of different occupations were measured using one-way ANOVA in table 5.9. One-way ANOVA explored that occupation of service, student, business, farming, housewife and others did not differ significantly in achieving satisfaction score.

Table 5.9
Satisfaction Scores of different Occupations

Occupation	Mean	Std. Deviation	95% Confidence Interval for Mean		p*-value
			Lower Bound	Upper Bound	
Service	87.75	32.91	78.58	96.91	>0.05
Student	90.36	37.00	75.08	105.63	
Business	86.71	30.44	74.91	98.51	
Farming	87.58	23.91	72.39	102.77	
House wife	87.71	32.08	80.75	94.67	
Others	87.32	32.20	78.16	96.47	
Total	87.79	31.99	83.81	91.76	

p* by one way ANOVA
POSTHOC=LSD ALPHA (0.05).

5.3.6 Socio-economic Status

In this section an attempt has been made to see whether socio-economic condition had any influence on satisfaction score or not. It was evident from table 5.10 that the rich people (101.12 ± 27.91) were more satisfied than poor people 83.30 ± 31.73 . Middle class 88.36 ± 32.33 and poor class 83.30 ± 31.73 were almost equally satisfied. It is worthy to be noted that rich people were served by private hospitals, while poor people were served by public hospitals.

Table 5.10
Satisfaction Score based on Socio-economic Status

Socio-economic Status	Mean	Std. Deviation	95% Confidence Interval for Mean		p*-value
			Lower Bound	Upper Bound	
Poor	83.30	31.73	76.61	89.98	0.045*, 0.564** and 0.196***
Middle Class	88.36	32.33	82.92	93.80	
Rich	101.12	27.91	89.33	112.91	

P by one way ANOVA
*between poor and rich, ** between poor and middle class, *** between middle class and rich

5.3.7 Outcome of Treatment

Outcome of treatment may have an influence on patient's satisfaction score. Here an attempt has been made to see whether there is any relation between outcome of treatment and patient's satisfaction score. Against the table 5.11 presents satisfaction score based on outcome of treatment. It is observed that outcome of

treatment had greatly influenced patient satisfaction. Those patients were more satisfied who were cured (97.02 ± 33.89) or improved (92.42 ± 28.75) than those who deteriorated (71.03 ± 23.79) or expired (51.50 ± 6.55).

Table 5.11
Satisfaction Score Based on Outcome of Treatment

Outcome of Treatment	Mean	Std. Deviation	95% Confidence Interval for Mean		p*-value
			Lower Bound	Upper Bound	
Cured	97.02	33.89	86.71	107.32	0.994*, 0.006** 0.05*** and 0.011****
Improved	92.42	28.75	87.16	97.69	
No Improvement	82.01	35.98	72.55	91.47	
Deteriorated	71.03	23.79	61.80	80.26	
Death	51.50	6.55	41.06	61.93	

P* by one way ANOVA

*between cured and improved, ** *between cured and deteriorated,*** between Cured and death, ****between Improved and deteriorated.

5.3.8 Duration of Hospital Stay

Duration of hospital stay increases the expenditure. It also limits the normal activity of the patient himself and his family members. Here an attempt has been made to see whether duration of hospitals stay had any influence on satisfaction score. An insignificant negative linear correlation was evident between duration of hospital stay and patient satisfaction score ($r = 0.-035$, $p = 0.586$) (table 5.12).

Table 5.12
Correlation between Duration of Hospital Stay and Satisfaction Score

Correlated variables		Correlation co-efficient (r)	p-value
Independent (X)	Dependant (Y)		
Duration of hospital stay	Patient satisfaction score	-0.035	0.586

An attempt has been made to see the correlation between hospital stay and satisfaction score in both public and private hospitals. It is observed in table 5.13 that there was an insignificant positive linear correlation in public sector ($r = .037$, $p = 0.669$). As against this, there was an insignificant negative linear correlation in the private sector ($r = -0.068$, $p = 0.470$). Thus duration of hospital stay didn't influence the level of patient satisfaction significantly in both public and private hospitals.

Table 5.13
Correlation between Hospital Stay and Satisfaction Score between Private and Public Sectors

Type of hospital	Correlated variables		Correlation co-efficient (r)	p-value
	Independent (X)	Dependant (Y)		
Government	Duration of hospital stay	Patient satisfaction score	0.037	0.669
Private	Duration of hospital stay	Patient satisfaction score	-0.068	0.470

5.3.9 Expenditure of Treatment

In this section an attempt has been made to see whether expenditure of treatment had any influence on satisfaction score or not. Table 5.14 presents correlation between expenditure of treatment and satisfaction score. It is observed from table 5.14 that expenditure of treatment was positively linear correlated with satisfaction. The more the expenditure, the more the satisfaction-score. It was possibly due to the influence of private hospitals where expenditure was higher.

Table 5.14
Correlation between total Expenditure and Satisfaction Score

Correlated variables		Correlation co-efficient (r)	p-value
Independent (X)	Dependant (Y)		
Expenditure of treatment	Patient satisfaction score	0.198	0.002

5.4 Conclusion

Sex, educational status, marital status and duration of hospital stay of the study population had no significant effect on the total satisfaction score. The rich people were more satisfied than the poor people as they were served by private hospitals. Outcome of treatment greatly affected the satisfaction level of patients. Expenditure of treatment positively correlated with satisfaction. The more the expenditure, the more the satisfaction score. While comparing among the six hospitals we found the highest satisfaction score was in Central Hospital (132.22 ± 14.23) and the lowest in Sher-E Bangla Medical College Hospital (53.74 ± 21.12) with a tendency to lower score in public hospitals.

Chapter 6

Future Return to the Same Hospital

This chapter presents the scenario of future return to the same hospital. The first section of this chapter provides satisfaction score and future return, the second section deals with the strength of satisfaction score on future return. The third section presents the binary logistic regression for determining future return. The fourth section presents a brief conclusion in this chapter.

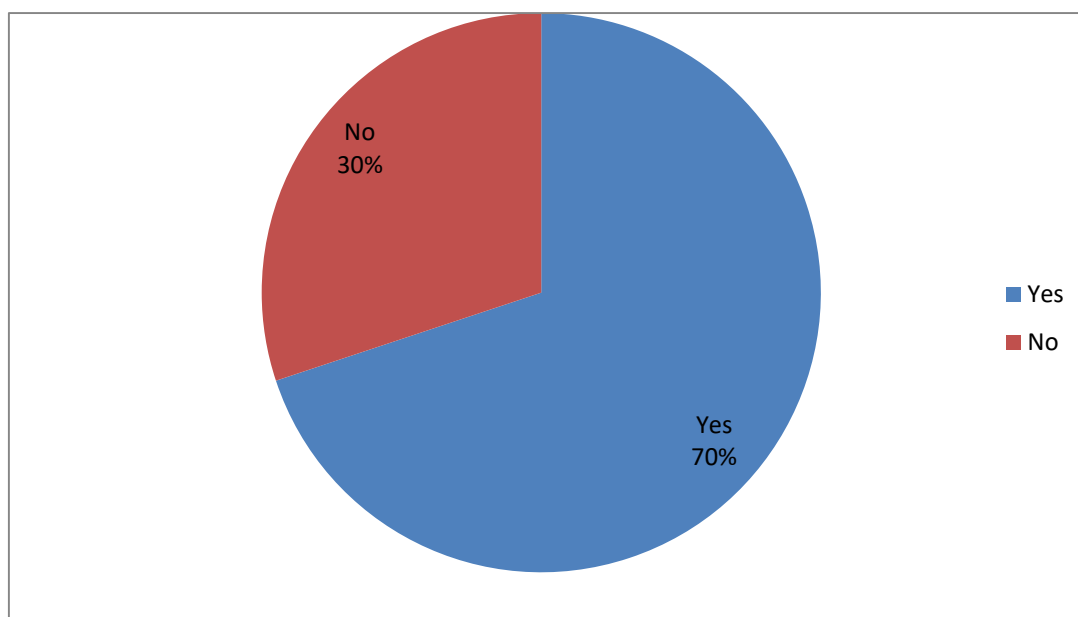
6.1 Prelude

Future consumption of the same service is an indicator of satisfaction of the consumer. If any one is disappointed and there are alternative quality service providers, consumer has easy access to get the service from others. As there are alternative private and public hospitals in Bangladesh, future return to the same hospital justifies standard satisfaction and in future no return indicates disappointment. The researcher has explored the independent variables affecting the decision of future return. Here we have also searched the percentage of satisfaction score that directs the patient to go to the same hospital. With binary logistic regression analysis we have excluded the confounding variables and established variables with highest strength.

6.2 Satisfaction Score and Future Return

It is observed in table 6.1 that out of 299 patients, 90 (30 percent) patients were disappointed with the service. They will not return to the same hospital for consuming service if they would become ill unluckily. The remaining 209 (70 percent) patients answered that they would come back to the same hospital to consume the services if they would become sick unluckily. This means that those who were not at all satisfied will not come back to the same hospital. Both the results were consistent and similar to each other and validate each other.

Figure 6.1
Pie Chart showing Future Return to the Same Hospital



Applying independent sample t test it is also observed in table 6.1 that the positive responded satisfaction score is 96.40 ± 29.79 and negative responded satisfaction score is 65.53 ± 26.38 .

Table 6.1
Satisfaction Score Influencing Future Return Group Statistics

Future Return to the Same Hospital		N	Mean	Std. Deviation	p-value
Satisfaction Score	Yes	209	96.40	29.79	0.000*
	No	90	65.53	26.38	

* using t test

It is evident from table 6.2 that only the services provided by the hospital influenced significantly in making decision of future return of the patients. Doctor service, nursing service, cleanliness, laboratory service, medicine supply, and reception service of hospital had statistically strong positive influences by univariate analysis on patients in taking decision for future return.

While it is observed that the outcome of treatment, cure, improvement, deterioration and death had no significant influence on future return ($p = .227$). But age ($p = .873$), sex ($p = .530$), amount of expenditure ($p = .698$) and duration of hospital stay ($p = .227$) didn't influence decision making of future return to the same hospital.

Table 6.2
Factors Influencing Future Return to the Same Hospital

Factors	Yes	No	P- value
Age in years	43.27 ± 20.40	42.87 ± 19.38	0.873*
Sex (male / female)	110/51	99/39	0.530**
Expenditure of treatment (Tk.)	33020.10 ± 66671.69	41598.89 ± 71711.92	0.698*
Doctor service	21.07 ± 5.99	14.30 ± 5.39	0.000*
Nurse service	21.74 ± 5.77	15.11 ± 6.18	0.000*
Cleanliness	9.81 ± 3.01	7.59 ± 2.87	0.000*
Service of reception	10.00 ± 10.05	6.06 ± 7.45	0.000*
Laboratory service	12.19 ± 4.39	4.39 ± 4.17	0.000*
Medicine supply	6.35 ± 2.32	4.15 ± 1.78	0.000*
Duration of hospital stay (day)	12.88 ± 20.54	10.20 ± 6.28	0.227*

* t test, ** chi square test

Applying chi square test it is observed that table 6.3 that the educational status ($p= 0.94$) of the patients had no significant influence on future return to the same hospital.

Table 6.3
Influence of Educational Status on Future Return to the Same Hospital

Educational Status	Future Return to the Same Hospital		Total	P- value
	Yes	No		
Illiterate	41	17	58	0.94
Primary	86	35	121	
SSC	28	15	43	
HSC	29	11	40	
Higher Education	25	12	37	
Total	209	90	299	

Applying chi square test it is observed in table 6.4 reveals that marital status of the patients ($p= 0.74$) had no significant influence on return to the same hospital.

Table 6.4
Influence of Marital Status on Future Return to the Same Hospital

Marital Status	Future Return to the Same Hospital		Total	P- value
	Yes	No		
Married	175	74	249	0.74
Un married	33	16	49	
Total	209	90	299	

Applying chi-square test it is observed from table 6.5 that socio-economic condition ($p= 0.51$) had no significant influence on future return to the same hospital.

Table 6.5
Influence of Socio-economic Status on Future Return to the Same Hospital

Socio-economic Status	Future Return to the Same Hospital		Total	P- value
	Yes	No		
Poor	76	27	103	0.51
Middle Class	113	55	168	
Rich	20	8	28	
Total	209	90	299	

Using chi- square test it is evident from table 6.6 that occupation ($p= 0.73$) had no significant impact on future return to the same hospital.

Table 6.6
Influence of Occupations on Future Return to the Same Hospital

Occupation	Future Return to the Same Hospital		Total	P- value
	Yes	No		
Service	44	13	57	0.73
Student	17	11	28	
Business	23	11	34	
Farming	11	4	15	
Housewife	70	31	101	
Others	44	20	64	
Total	209	90	299	

While considering the type of the treatment of the respondents, it is observed from table 6.7 that the type of treatment ($p= 0.80$) had no significant influence on future return to the same hospital.

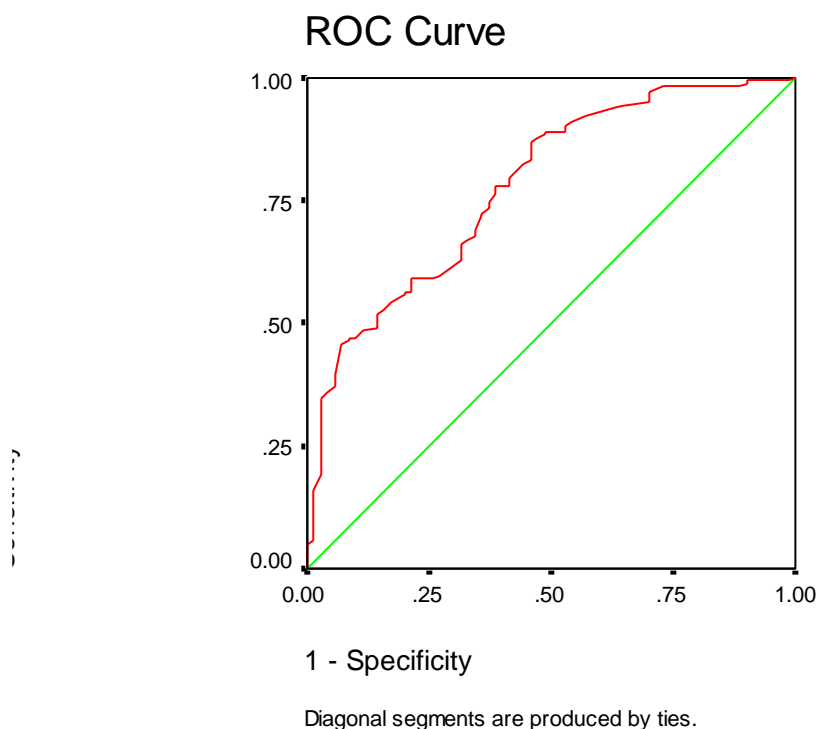
Table 6.7
Influence of type of Treatment on Future Return to the Same Hospital

Type of Treatment	Future Return to the Same Hospital		Total	P- value
	Yes	No		
Operative	107	44	151	0.80
Conservative	102	46	148	
Total	209	90	299	

6.3 Strength of Satisfaction Score on Future Return

The level of satisfaction score could lead to future return to the same hospital was analyzed by constructing a Receiver Operating Characteristics (ROC) Curve.

Figure 6.2
ROC Curve of Satisfaction Score and Future Return to the Same Hospital



The ROC curve shows total area under the curve is 77.9 percent that indicates satisfaction score not only could strongly determine future return but also negate effect of other factors. The ROC curve also showed that satisfaction score of 73 (47.1 percent) out of 155 has a sensitivity of 75 percent and specificity of 63 percent in determining future return to the same hospital. This is a valuable finding in our research that expectation of our patients is very low. Even though, our hospitals are reluctant to fulfill this lower level of expectation and thus achieving satisfaction of the patients.

6.4 Binary Logistic Regression for Determining Future Return

Binary logistic regression was built to find out the influence of each independent variable on the patient's decision of future return to the same hospital. Future return to the same hospital was considered as a dependent variable and satisfaction score for doctor, nurse, aya/ward boy and cleaner, laboratory, cleanliness, reception, medicine supply and outcome of treatment were considered as independent variables.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	85.35	8	.000
	Block	85.35	8	.000
	Model	85.35	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	211.779	.288	.415

Table 6.8
Binary Logistic Regression Analysis for Future Return to the Same Hospital

Ariables	B	S.E.	Wald	Df	Sig.	Exp(B)
Doctor Tot	-.13	.05	7.66	1	.006	.87
Nurse Tot	-.07	.05	2.09	1	.148	.93
Aya/ ward boy Tot	.12	.05	5.56	1	.018	1.14
Cleanliness Tot	-.10	.09	1.40	1	.237	.90
Reception Tot	.05	.03	2.70	1	.100	1.05
Medicine Tot	-.50	.15	11.76	1	.001	.60
Laboratory Tot	-.04	.06	.56	1	.455	.96
Outcome	-.06	.18	.13	1	.719	.94
Constant	4.66	1.05	19.64	1	.000	106.09

Doctor Tot = Doctors' Total

Nurse Tot = Nurses' Total

Aya/ Ward boy Tot = Aya/ ward boy and Cleaner Total

Cleanliness Tot =Cleanliness Total

Reception Tot = Reception and Information Total

Medicine Tot =, Medicine Total

Laboratory Tot = Laboratory Total

Outcome= Outcome of Treatment

Df= Degrees of Freedom

** Significant

Binary logistic regression analysis explores that future return depends on doctor's service ($p= 0.006$) and services of aya/ward boy and cleaner ($p = 0.018$) and regular and timely supply of medicines ($p=0.001$) only. But nurse's service ($p=.148$), reception service ($p=.100$), cleaner service ($p= .237$), laboratory service ($p=.455$) and outcome of treatment ($p=.719$) had not been considered by the patient for their decision of future return to the same hospital.

6.5 Conclusion

We have evaluated patient satisfaction in the context of future return of them to the same hospital. Nearly one-third (30 percent) of the patients were disappointed with the service and they will not come to the same hospital if needed. Satisfaction score was significantly lower in these patients. ROC curve depicted the figure of satisfaction score of 73 (47 percent) out of 155 with a sensitivity of 75 percent and specificity of 63 percent to predict future return to the same hospital. Binary logistic regression explored that regular and timely medicine supply had strong influence on future return. Doctor, aya /ward boy and cleaner service had also influenced the decision of future return. But the services of nurses, cleanliness, reception, laboratory and outcome of treatment didn't influence the decision significantly.

Chapter 7

Patient Satisfaction: Comparison between Private and Public Hospitals

This chapter presents comparison of patient satisfaction between private and public hospitals regarding 'overall satisfaction score', services of doctors, nurses, aya/ward boy and cleaners, medicine supply, and services of reception and information. A brief conclusion of this chapter is also given at the end.

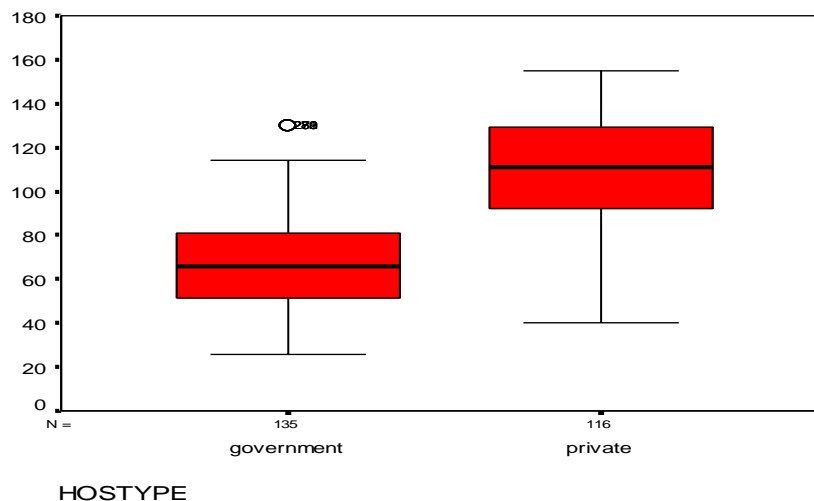
7.1 Prelude

The main objective of our study was to compare patient satisfaction between private and public hospitals. What was and how much the difference of satisfaction is persisting in the existing setting and which group of hospitals is achieving greater satisfaction have been investigated in this chapter. The following services were evaluated through a pretested questionnaire: Doctor's service, Nurse's service, Aya/ward boy and cleaner's service, Cleanliness, Medicine supply, Laboratory service, and Reception and Information service. Satisfaction was compared between groups and within groups. Comparison was done by independent sample t test and one-way ANOVA test. Score of satisfaction was expressed in Likert scale. Thus this chapter deals with comparison of satisfaction among six hospitals and between two groups- private and public hospitals.

7.2 Comparison of Overall Satisfaction Score

Total satisfaction score was higher in private hospitals than that of public hospitals. As is evident from table 7.2 the total satisfaction score for private hospital was 110.03 ± 24.70 and for public hospital was 68.68 ± 24.29 .

Figure 7.1
Box Plot Comparing total Satisfaction Score between Private and Public Hospitals



HOSTYPE means type of hospital
 GRANDTOT means total satisfaction score

Almost all the public hospitals were below the private hospitals in terms of satisfaction score. Among the six hospitals, Central Hospital achieved the highest score and Sher-E Bangla Medical College Hospital achieved the lowest score and Bangladesh Medical College Hospital, Ibn Sina Hospital, Mitford Hospital, Dhaka Medical College Hospital in descending order. Though Bangladesh Medical College Hospital is considered as a private hospital, the services of this hospital are almost like charity or very low priced. Most of its patients (84 percent) were from poor and middle class; confounded the existing scenario of private hospital in the country (Table 4.6, chapter 4). In spite of this, table 7.1 reveals that satisfaction score of Bangladesh Medical College Hospital is the second highest (100.51 ± 17.99) followed by Ibn Sina Hospital (90.37 ± 17.73), Mitford Hospital (78.25 ± 25.69), Dhaka Medical College Hospital (71.25 ± 19.39), Sher-E Bangla Medical College Hospital (53.74 ± 21.12) in that order. There is insignificant difference between Ibn Sina Hospital and Mitford Hospital. This is a great achievement of a public hospital that could satisfy its client with limited manpower and logistics and poor budget. Mitford Hospital could provide this service may be due to smaller patient load than that of Dhaka Medical College Hospital.

Table 7.1
Satisfaction Score of the Selected Six Hospitals

Sl. No	Name of the Hospital	Mean Satisfaction Score	Std. Deviation
01	Central Hospital	132.22	14.23
02	Bangladesh Medical College Hospital	100.51	17.99
03	Ibn Sina Hospital	90.37	17.73
04	Mitford Hospital	78.25	25.69
05	Dhaka Medical College Hospital	71.25	19.39
06	Sher- E Bangla Medical College Hospital	53.74	21.12

It is evident from table 7.2 that satisfaction score of all the services was comparatively lower in public hospitals than that of private hospitals. Satisfaction scores of services of doctor, nurse, aya /ward boy and cleaner, cleanliness, laboratory, reception and information were higher in the private hospitals than in public hospitals and these are statistically significant in all cases ($p= 0.000$).

Table 7.2
Comparison of Satisfaction Scores of Different Services at a Glance

Variables	Type of Hospital	N	Mean Score	Std. Deviation	P-value
Doctor's service	Government	150	17.24	6.90	.000
	Private	149	20.83	5.72	
Nursing service	Government	150	17.44	6.81	.000
	Private	149	22.06	5.57	
Reception	Government	150	.00	.00	.000
	Private	149	17.69	4.89	
Cleanliness	Government	150	8.09	3.09	.000
	Private	149	10.19	2.81	
Aya/ Ward boy, Cleaner's	Government	150	11.70	5.59	.000
	Private	149	17.61	5.54	
Laboratory service	Government	136	9.22	4.45	.000
	Private	127	13.35	3.67	
Medicine supply	Government	148	4.45	2.12	.000
	Private	134	7.11	1.82	
Grand total	Government	135	68.68	24.28	.000
	Private	116	110.02	24.69	

N= number of respondents
p by t test

7.3 Doctor's Service

Doctor's service was evaluated on the ground of availability, cooperative attitude, patient care, counseling, carefulness, regularity in visiting the admitted patients and giving information about prognosis of the disease. It is observed in table 7.3 that very small number of patients 40 (13.4 percent) considered our health service as excellent and expectedly higher number from private sector (25 patients). While, one fourth of the respondents (79 patients) opined that the services were appreciable. The remaining respondents opined that the services were either 'more or less satisfactory' or 'somewhat satisfactory' or 'not at all satisfactory'. More revealing is that satisfaction was significantly higher in private sector hospitals in all services provided by doctors than in public sector hospitals.

Table 7.3
Comparison of Doctor's Service between Private and Public Hospitals

Level of Satisfaction	Private	Public	Overall
Excellent N (percent)	25 (16.8)	15 (10.2)	40 (13.4)
Appreciable N (percent)	49 (32.9)	30 (20.00)	79(26.4)
More or less satisfactory N (percent)	57 (38.3)	46 (30.7)	103 (34.4)
Somewhat satisfactory N (percent)	16 (10.7)	43 (28.7)	59 (19.7)
Not at all satisfactory N (percent)	2 (1.3)	16 (10.7)	18 (6)

Excellent= 5, Appreciable= 4, More or less satisfactory = 3, Somewhat satisfactory =2, Not at all satisfactory = 1

The respondents in this study considered that doctors of private hospitals were available in need than doctors of public hospitals. Counseling of doctors of private hospitals could satisfy the patients. Irregularity in visiting patients of public hospitals dissatisfied them highest. Doctors of public hospitals were less cooperative with patients and were not careful also.

Table 7.4 reveals that total satisfaction score of doctor's service in private hospitals (20.83 ± 5.72) was more than that of public hospitals (17.24 ± 6.69). While comparing different parameters of doctor's services, it is evident that the satisfaction scores were higher in private hospitals than in public hospitals in all elements such as doctor's availability, doctor's cooperation, doctor's counseling, doctor's carefulness, and doctor's visit. These results are statistically significant ($p=.000$).

Table 7.4
Different Parameters of Doctor's Service in Private and Public Hospitals

Service Evaluated	Type of Hospital	N	Mean	Std. Deviation	P-value
Doctor's service (care)	Government	150	2.91	1.16	0.000
	Private	149	3.52	.95	
Doctor's availability	Government	150	2.90	1.18	0.000
	Private	149	3.48	.97	
Doctor's cooperation	Government	150	2.87	1.16	0.000
	Private	149	3.48	.99	
Doctor's counseling	Government	150	2.90	1.16	0.000
	Private	149	3.50	.97	
Doctor's care full ness	Government	150	2.87	1.16	0.000
	Private	149	3.48	.99	
Doctor's visit	Government	150	2.80	1.19	0.000
	Private	149	3.38	1.08	
Total score	Government	150	17.24	6.90	0.000
	Private	149	20.83	5.72	

It is evident from table 7.5 that the highest number of patients of Central Hospital (23.80 ± 4.99) was satisfied with the services provided by doctors. As against this, lowest number of patients was satisfied in Sher-E Bangla Medical College Hospital (13.10 ± 6.03). One mentionable finding is that the satisfaction scores of various services provided by doctors were more in Dhaka Medical College Hospital (19.56 ± 6.73) and Mitford Hospital (19.08 ± 6.08) than in Ibn Sina Hospital (17.80 ± 3.45).

Table 7.5
Comparison of Doctor's Services among the Selected Hospitals

Sl. No	Name of Hospital	Mean score	Std. Deviation
01	Central Hospital	23.80	4.99
02	Bangladesh Medical College Hospital	20.84	6.66
03	Ibn Sina Hospital	17.80	3.45
04	Mitford Hospital	19.08	6.08
05	Dhaka Medical College Hospital	19.56	6.73
06	Sher -E Bangla Medical College Hospital	13.10	6.03

Table 7.6 presents a comparative scenario of satisfaction scores of different elements of doctor's services among the six selected hospitals. It is observed that the mean scores of all elements of doctor's services were higher in Central Hospital, followed by Bangladesh Medical College Hospital, Dhaka Medical College Hospital, Mitford Hospital, Ibn Sina Hospital, and Sher -E Bangla Medical College Hospital in that order.

Table 7.6
Satisfaction Scores of Different Elements of Doctor's Services

Sl. No	Name of the Hospital	Type of Hospital	Service Evaluated	N	Mean	Std. Deviation
01	Dhaka Medical College Hospital	Government	Doctor's service(care)	50	3.28	1.14
			Doctor's availability	50	3.28	1.14
			Doctor's cooperation	50	3.28	1.14
			Doctor's counseling	50	3.26	1.17
			Doctor's care full ness	50	3.22	1.13
			Doctor's visit	50	3.24	1.11
02	Mitford Hospital	Government	Doctor's service (care)	50	3.22	.97
			Doctor's availability	50	3.20	1.05
			Doctor's cooperation	50	3.18	1.02
			Doctor's counseling	50	3.22	.97
			Doctor's care full ness	50	3.18	1.02
			Doctor's visit	50	3.08	1.14
03	Ibn Sina Hospital		Doctor's service (care)	49	3.00	.57
			Doctor's availability	49	3.00	.57
			Doctor's cooperation	49	2.96	.64
			Doctor's counseling	49	2.98	.59
			Doctor's care full ness	49	2.96	.64
			Doctor's visit	49	2.90	.71
04	Bangladesh Medical College Hospital	Private	Doctor's service (care)	50	3.52	1.11
			Doctor's availability	50	3.50	1.12
			Doctor's cooperation	50	3.52	1.11
			Doctor's counseling	50	3.50	1.12
			Doctor's care full ness	50	3.46	1.14
			Doctor's visit	50	3.34	1.20
05	Sher- E Bangla Medical College Hospital	Government	Doctor's service (care)	50	2.22	1.05
			Doctor's availability	50	2.22	1.05
			Doctor's cooperation	50	2.16	.97
			Doctors counseling	50	2.22	1.05
			Doctor's care full ness	50	2.20	1.05
			Doctor's visit	50	2.08	1.00
06	Central Hospital	Private	Doctor's service (care)	50	4.02	.82
			Doctor's availability	50	3.94	.91
			Doctor's cooperation	50	3.96	.90
			Doctor's counseling	50	4.00	.85
			Doctor's care full ness	50	4.00	.85
			Doctor's visit	50	3.88	1.04

N= number of respondents

7.4 Nursing Service

Nursing service plays a key role in hospital management. Their sympathy, empathy, knowledge and expertise may overcome and relieve the pain and distress of the patients. Nursing station acts as an information centre of any hospital. The role of nursing service could satisfy the patient to the highest level to impress him for hospital services. We explored the services of nurses in relation to availability, politeness, regularity in visiting patient, cleanliness and maintaining time for delivery of medicines. It is normally believed that nursing service of private hospitals could satisfy the patients in every respect. Nurses of public hospitals could not maintain the regularity in visiting patient for solving their problems, which mostly dissatisfy them. Dirty dress up, failure to maintain clean working environment and unhygienic practice affected the satisfaction of patient in public hospitals. Availability of nurse on requirements, their politeness and discipline influence the patients positively to satisfy them in private hospitals.

Against the table 7.7 reveals that the satisfaction scores of all elements of nurse's services were higher in private hospitals than in public hospitals and these are statistically significant ($p=.000$).

Table 7.7
Comparison of Nursing Service between Private and Public Hospitals

Service Evaluated	Type of Hospital	N	Mean	Std. Deviation	p-value
Nurse's service (care)	Government	150	2.92	1.13	0.000
	Private	149	3.70	.92	
Nurse's availability	Government	150	2.93	1.13	0.000
	Private	149	3.70	.94	
Timely drug	Government	150	2.91	1.14	0.000
	Private	149	3.72	.93	
Politeness	Government	150	2.91	1.14	0.000
	Private	149	3.69	.93	
Regularity	Government	150	2.88	1.14	0.000
	Private	149	3.68	.94	
Cleanliness	Government	150	2.89	1.15	0.000
	Private	149	3.57	1.00	
Total score	Government	150	17.44	6.81	0.000
	Private	149	22.06	5.57	

It is evident from table 7.8 that nursing services were better in private hospitals than in public hospitals. Nursing services were excellent to 29 (19.5 percent) patients in private hospitals and to 14 (9.3 percent) patients in public hospitals. Appreciable

service to 62 (41.6 percent) and 32 (21.3 percent), more or less satisfied to 47 (31.5 percent) and 49 (32.7 percent), somewhat satisfied 7 (4.7 percent) and 38 (25.3 percent) and not at all satisfied 4 (2.7 percent) and 17 (11.3 percent) patients in private and public hospitals respectively. Over all 21 (7.0 percent) patients were not at all satisfied in our study populations. Forty-three respondents (14.4 percent) considered nursing service as excellent. Nearly half of the study population (94+43=137 patient) have appreciated and become satisfied with the nursing services.

Table 7.8
Evaluation of Nursing Services by the Patients

Level of satisfaction	Private	Public	Overall
Excellent (percent)	29 (19.5)	14 (9.3)	43 (14.4)
Appreciable (percent)	62 (41.6)	32 (21.3)	94 (31.4)
More or less satisfactory (percent)	47 (31.5)	49 (32.7)	96 (32.1)
Somewhat satisfactory (percent)	7 (4.7)	38 (25.3)	45 (15.1)
Not at all satisfactory (percent)	4 (2.7)	17 (11.3)	21 (7.00)

It is evident from table 7.9 that the satisfaction score for nursing services in Central Hospital was 26.00 ± 4.71 , Bangladesh Medical College Hospital was 21.14 ± 5.08 , Ibn Sina Hospital was 18.98 ± 4.47 , Mitford Hospital was 19.56 ± 5.79 , Dhaka Medical College Hospital was 19.32 ± 6.53 and Sher-E Bangla Medical College Hospital was 13.46 ± 6.38 . One-way ANOVA expressed that best nursing services were provided by Central Hospital and worst services by Sher-E Bangla Medical College Hospital. There was no difference of nursing services among Bangladesh Medical College Hospital, Ibn Sina Hospital, Mitford Hospital and Dhaka Medical College Hospital.

Table 7.9
Comparison of Nursing Services among the Selected Hospitals

Sl. No	Hospital Name	Variable	N	Minimum	Maximum	Mean	Std. Deviation
01	Dhaka Medical College Hospital	Nurse total	50	6.00	30.00	19.32	6.53
02	Mitford Hospital	Nurse total	50	6.00	30.00	19.56	5.79
03	Ibn Sina Hospital	Nurse total	49	6.00	24.00	18.98	4.47
04	Bangladesh Medical College Hospital	Nurse total	50	6.00	30.00	21.14	5.08
05	Sher- E Bangla Medical College Hospital	Nurse total	50	6.00	30.00	13.46	6.38
06	Central Hospital	Nurse total	50	6.00	30.00	26.00	4.71

Table 7.10 presents a comparative scenario of nursing services among the selected hospitals. It is observed that Central Hospital achieved the highest score in all elements of nursing service, followed by Bangladesh Medical College Hospital, Mitford Hospitals, Dhaka Medical College Hospital, Ibn Sina Hospital, and Sher -E Bangla Medical College Hospital in that order.

Table 7.10
Satisfaction Scores of Different Elements of Nursing Services

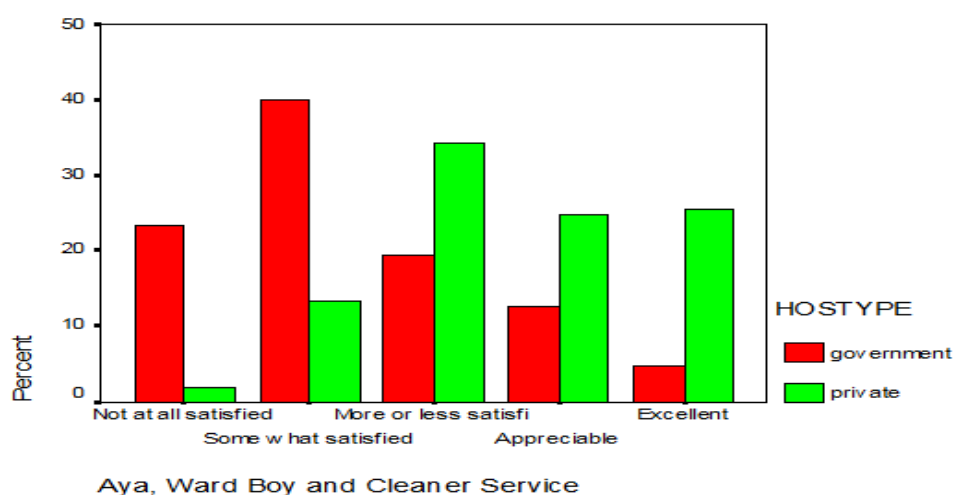
Sl. No	Hospital Name	Service Evaluated	N	Mean	Std. Deviation
01	Dhaka Medical College Hospital	Nurse's service (care)	50	3.22	1.09
		Nurse's availability	50	3.24	1.08
		Timely drug	50	3.20	1.12
		Politeness	50	3.24	1.08
		Regularity	50	3.22	1.09
		Cleanliness	50	3.20	1.08
02	Mitford Hospital	Nurse's service (care)	50	3.26	.96
		Nurse's availability	50	3.26	.96
		Timely drug	50	3.26	.96
		Politeness	50	3.26	.96
		Regularity	50	3.26	.96
		Cleanliness	50	3.26	.96
03	Ibn Sina Hospital	Nurse's service (care)	49	3.18	.75
		Nurse's availability	49	3.18	.75
		Timely drug	49	3.18	.75
		Politeness	49	3.18	.75
		Regularity	49	3.18	.75
		Cleanliness	49	3.06	.80
04	Bangladesh Medical College Hospital	Nurse's service (care)	50	3.56	.83
		Nurse's availability	50	3.56	.88
		Timely drug	50	3.58	.83
		Politeness	50	3.54	.86
		Regularity	50	3.52	.88
		Cleanliness	50	3.38	.98
05	Sher -E Bangla Medical College Hospital	Nurse's service (care)	50	2.28	1.08
		Nurse's availability	50	2.28	1.08
		Timely drug	50	2.28	1.08
		Politeness	50	2.24	1.09
		Regularity	50	2.16	1.03
		Cleanliness	50	2.22	1.11
06	Central Hospital	Nurse's service (care)	50	4.34	.79
		Nurse's availability	50	4.36	.77
		Timely drug	50	4.38	.78
		Politeness	50	4.34	.79
		Regularity	50	4.32	.81
		Cleanliness	50	4.26	.82

7.5 Aya/ Ward Boy and Cleaner Services

Those who perform auxiliary duties in the hospital wards, usually aya/ ward boy and cleaner are regarded as supporting staff. They are fourth-class employees of hospitals.

A comparative scenario between private and public hospitals regarding services of aya/ ward boy and cleaners is shown in the following bar diagram to make the situation easily understandable.

Figure 7.2
Clustered Bar Diagram Comparing Aya/ Ward Boy and Cleaner Services in Private and Public Hospitals



Excellent= 5, Appreciable= 4, More or less satisfactory = 3, Somewhat satisfactory =2, Not at all satisfactory = 1

Table 7.11 reveals that there was a great difference ($p= 0.000$) in satisfaction between private and public hospitals regarding the services provided by aya/ ward boy and cleaner. Satisfaction score was 17.61 ± 5.55 in private hospitals and 11.70 ± 5.59 in public hospitals.

Table 7.11
Comparison of Services of Aya/ Ward Boy and Cleaner

Services Evaluated	Type of Hospital	N	Mean	Std. Deviation	P-value
Efficiency	Government	150	2.35	1.11	0.000
	Private	149	3.58	1.07	
Behavior	Government	150	2.35	1.11	0.000
	Private	149	3.57	1.08	
Presence as required	Government	150	2.34	1.12	0.000
	Private	149	3.56	1.09	
Cleanliness	Government	150	2.33	1.13	0.000
	Private	149	3.50	1.14	
Politeness	Government	150	2.33	1.12	0.000
	Private	149	3.40	1.30	
Total Score	Government	150	11.70	5.59	0.000
	Private	149	17.61	5.55	

Table 7.12 reveals that 35 (23.3 percent) respondents in public hospitals were not at all satisfied whereas it was only 3 (2.0 percent) in private hospitals. Only 7 (4.7 percent) respondents evaluated it as excellent in public hospitals corresponding to 38 (25.5 percent) in private hospitals. In private hospitals 20 (13.4 percent) respondents were somewhat satisfied, 51 (34.2 percent) were more or less satisfied and 37 (24.8 percent) were appreciable. Conversely, in public hospitals 60 (40.0 percent) respondents were somewhat satisfied, 29 (19.3 percent) were more or less satisfied and 19 (12.7 percent) were appreciable.

Table 7.12
Evaluation of Aya/ Ward Boy and Cleaner Services by the Patients

Type of Hospital	Level of Satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Not at all satisfactory	35	23.3	23.3	23.3
	Somewhat satisfactory	60	40.0	40.0	63.3
	More or less satisfactory	29	19.3	19.3	82.7
	Appreciable	19	12.7	12.7	95.3
	Excellent	7	4.7	4.7	100.0
	Total	150	100.0	100.0	
Private	Not at all satisfactory	3	2.0	2.0	2.0
	Somewhat satisfactory	20	13.4	13.4	15.4
	More or less satisfactory	51	34.2	34.2	49.7
	Appreciable	37	24.8	24.8	74.5
	Excellent	38	25.5	25.5	100.0
	Total	149	100.0	100.0	

7.6 Service for Cleanliness

Cleanliness is an important determinant of patient satisfaction. Cleanliness of hospital spaces, wards and toilets was evaluated on the impression of patients that could satisfy them. Against the above background, table 7.13 shows that the satisfaction scores of cleanliness of hospital, cabin/ward and toilet were higher in private than those in public hospitals and differences were statistically significant. Total satisfaction score was 10.19 ± 2.81 in private hospitals and 8.09 ± 3.10 in public hospitals.

Table 7.13
Comparison of Cleanliness Service in Private and Public Hospitals

Service Evaluated	Type of Hospital	N	Mean	Std. Deviation	P-value
Cleanliness of hospital	Government	150	2.70	1.04	0.000
	Private	149	3.53	.90	
Cleanliness of cabin/ward and floor	Government	150	2.71	1.03	0.000
	Private	149	3.52	.91	
Cleanliness of toilet	Government	150	2.69	1.03	0.000
	Private	149	3.14	1.25	
Total score	Government	150	8.09	3.10	0.000
	Private	149	10.19	2.81	

N= number of respondents

7.7 Medicine Supply

Medicine supply service was analyzed from two directions-one was medicine supply as required and the other was supply of medicines in time. It is evident from table 7.14 that about 30 percent patients opined that medicine supply in time to patients was excellent or appreciable, 25.8 percent opined more or less satisfactory, 25.4 percent opined somewhat satisfactory, and 13.4 percent opined not at all satisfactory.

Table 7.14
Timely Medicine to the Patients

Level of Satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all satisfactory	40	13.4	14.2	14.2
Somewhat satisfactory	76	25.4	27.0	41.1
More or less satisfactory	77	25.8	27.3	68.4
Appreciable	60	20.1	21.3	89.7
Excellent	29	9.7	10.3	100.0

Table 7.15 shows that about 30 percent patients opined that medicine supply in required quantity to patients was excellent or appreciable, 28 percent opined more or less satisfactory, 27 percent opined somewhat satisfactory and 13.4 percent opined not at all satisfactory.

Table 7.15
Medicine Supply as Required Quantity

Level of Satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all satisfactory	40	13.4	14.2	14.2
Somewhat satisfactory	76	25.4	27.0	41.1
More or less satisfactory	79	26.4	28.0	69.1
Appreciable	59	19.7	20.9	90.1
Excellent	28	9.4	9.9	100.0

While comparing among the satisfaction score of the selected hospitals, it is observed in table 7.16 that it was higher in Central Hospital 8.65 ± 1.18 , followed by Bangladesh Medical College Hospital 6.66 ± 1.59 , Ibn Sina Hospital 5.75 ± 1.29 , Dhaka Medical College Hospital 4.92 ± 1.82 , Mitford Hospital 4.79 ± 2.62 , and Sher-E Bangla Medical College Hospital 3.63 ± 1.61 in that order.

Table 7.16
Comparison of Satisfaction Score among the Selected Hospitals

Hospital Name	Type of Hospital	Variable	N	Mean	Std. Deviation
Dhaka Medical College Hospital	Government	Medicine total	50	4.92	1.82
Mitford Hospital	Government	Medicine total	49	4.79	2.62
Ibn Sina Hospital	Private	Medicine total	40	5.75	1.29
Bangladesh Medical College Hospital	Private	Medicine total	45	6.66	1.59
Sher -E Bangla Medical College Hospital	Government	Medicine total	49	3.63	1.61
Central Hospital	Private	Medicine total	49	8.65	1.18

N= Number of Respondents

It is evident from table 7.16 that the satisfaction scores of private sector hospitals 6.66 ± 1.59 in both timely supply of medicine and in required quantity were more than that of public sector hospitals. It is evident from table 7.17 that the Satisfaction score regarding timely medicine supply was $3.57 \pm .92$ in private sector as against 2.23 ± 1.07 in public sector. Similarly, satisfaction score regarding quantity of supply was more in private sector $3.55 \pm .91$ than in public sector 2.22 ± 1.06 .

Table 7.17
Comparison between Private and Public Hospitals Regarding Medicine Supply

Service Evaluated	Type of Hospital	N	Mean	Std. Deviation
Timely medicine	Government	148	2.23	1.07
	Private	134	3.57	.92
Medicine supply as required	Government	148	2.22	1.06
	Private	134	3.55	.91

7.8 Service of Reception and Information

There is no reception in public hospitals. A patient cannot ask anybody for help. There is none to welcome the patient in public hospitals. There is nobody to hear the patients in these hospitals. As such, the researcher could not compare the service of reception.

However, it is observed that out of 149 respondents in private hospitals, 70 considered reception service as excellent or appreciable, 62 considered it was more or less satisfactory, while 17 patients considered somewhat satisfactory or not at all satisfactory.

Table 7.18
Evaluation of Reception Services in Private Hospitals by the Patients

Level of Satisfaction	Frequency	Percent	Valid Percent
Not at all satisfactory	1	.3	.7
Somewhat satisfactory	16	5.4	10.7
More or less satisfactory	62	20.7	41.6
Appreciable	38	12.7	25.5
Excellent	32	10.7	21.5

7.9 Laboratory Services

Laboratory service is an essential service in diagnosing and managing patients. This service has a great impact on patient satisfaction. Against this background, table 7.19 and 7.20 present satisfaction scores of laboratory services of public and private hospitals respectively. In our study 14 respondents from public hospitals and 22 from private hospitals did not require services from laboratory. In public hospitals 34 (22.7 percent) patients were not at all satisfied, 55 (36.7 percent) were somewhat satisfied, supply 24 (16.0 percent) were more or less satisfied, 17 (11.3 percent) appreciated and 6 (4.0 percent) considered the service as excellent.

Table 7.19
Evaluation of Laboratory Services of Public Hospitals by the Patients

Level of Satisfaction	Frequency	Percent
Not at all satisfactory	34	22.7
Somewhat satisfactory	55	36.7
More or less satisfactory	24	16.0
Appreciable	17	11.3
Excellent	6	4.0

On the other hand, 3 (2.0 percent) were not at all satisfied, 13 (8.7 percent) were somewhat satisfied, 62 (41.6 percent) were more or less satisfied, 33 (22.1 percent) considered appreciable and 16 (10.7 percent) considered as excellent.

Table 7.20
Evaluation of Laboratory Services of Private Hospitals by the Patients

Level of satisfaction	Frequency	Percent
Not at all satisfactory	3	2.0
Somewhat satisfactory	13	8.7
More or less satisfactory	62	41.6
Appreciable	33	22.1
Excellent	16	10.7

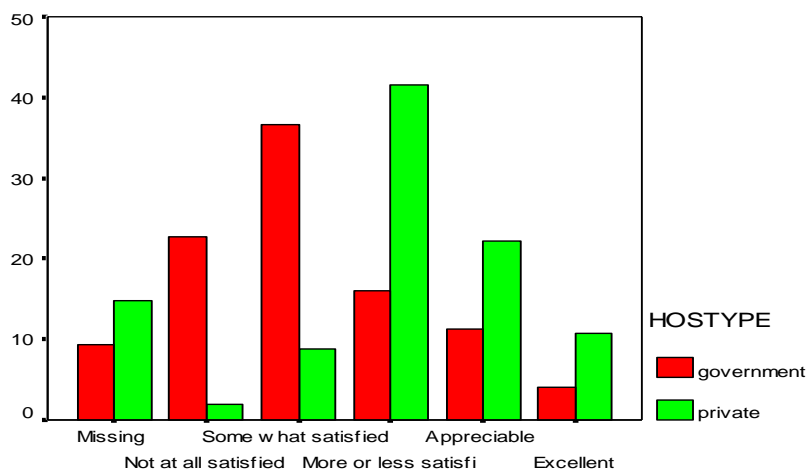
Table 7.21 presents a comparative scenario of laboratory services of private and public hospitals. It is observed that satisfaction scores of all private hospitals regarding laboratory service were more than those of public hospitals.

Table 7.21
Descriptive Statistics of the Laboratory Services

Type of Hospital	Hospital Name	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Government	Dhaka Medical College Hospital	Laboratory total	48	4.00	20.00	9.06	3.76
	Mitford Hospital	Laboratory total	48	4.00	20.00	10.66	4.97
	Sher -E-Bangla Medical College Hospital	Laboratory total	40	4.00	20.00	7.70	4.09
Private	Ibn Sina Hospital	Laboratory total	41	4.00	20.00	11.34	3.17
	Bangladesh Medical College Hospital	Laboratory total	39	8.00	20.00	12.35	2.73
	Central Hospital	Laboratory total	47	7.00	20.00	15.93	3.29

N= Number of Respondents

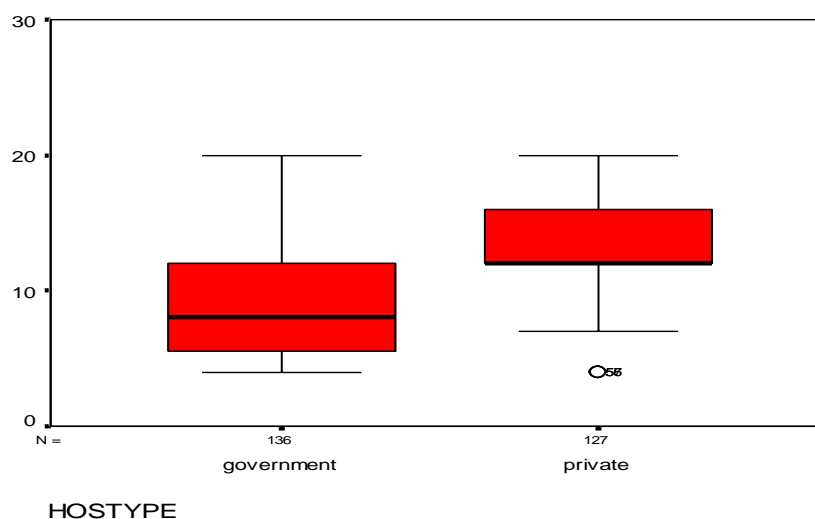
Figure 7.3
Clustered Bar diagram Comparing Laboratory Services of Private and Public Hospitals



Laboratory services

Overall level of satisfaction was higher in private hospitals than that of public hospitals regarding laboratory services.

Figure 7.4
Box Plot Comparing Laboratory Service of Private and Public Hospitals



LABTOTAL= total laboratory satisfaction score,
 HOSTYPE= type of the hospital

Availability of essential service, politeness and sympathy of laboratory staff, cleanliness and use of modern equipment positively influenced the patient in private hospitals. It is observed in table 7.22 that total satisfaction score regarding laboratory services was more pronounced in private hospitals 13.35 ± 3.67 than in public hospitals 9.22 ± 4.45 . More revealing is that satisfaction scores in all the parameters of laboratory services were more in private hospitals than in public hospitals.

Table 7.22
Comparison of Parameters of Laboratory Services

Service Evaluated	Type of Hospital	N	Mean	Std. Deviation	P-value
Availability of essential lab service	Government	136	2.31	1.11	0.000
	Private	127	3.35	.91	
Politeness and sympathy of lab staff	Government	136	2.31	1.11	0.000
	Private	127	3.35	.91	
Lab cleanliness	Government	136	2.31	1.11	0.000
	Private	127	3.35	.92	
Use of modern equipment in lab	Government	136	2.30	1.11	0.000
	Private	127	3.30	.96	
Total score	Government	136	9.22	4.45	0.000
	Private	127	13.35	3.67	

7.10 Conclusion

From the above analysis and interpretation of collected information it can be concluded that all the services were justified well in private hospitals than in public hospitals. As such patients of private hospitals were more satisfied than public hospitals. Doctors of private hospitals are more available and careful. Nurses of the private hospitals are more caring, regular in visit and more polite to the patients. Similarly, Aya/ ward boy and cleaners are more efficient and polite in private hospitals than in public hospitals. Private hospitals are cleaner than public hospitals. Laboratory services of private hospitals are more up to date and efficient to satisfy patients. Medicine supply of public hospitals are not satisfactory regarding quantity and punctuality. Reception service is not available in public hospitals. There is nobody to welcome, nobody to hear the patients in public hospitals. Contrarily, all the private hospitals have reception service and most of the patients are satisfied with this service.

Chapter 8

Perceptual Variations of Patient Satisfaction: Validation with Recent Studies

This chapter has validated perceptual variations of patient satisfaction with recent studies. It is divided into three sections. The first section provides socio-demographic aspects and level of satisfaction, the second section deals with care aspects and level of satisfaction and the third section presents a brief conclusion of this chapter.

8.1 Introduction

A comprehensive model of patient satisfaction has many policy implications in regard to identifying patient needs, developing standards, designing service systems and processes, establishing employee and patient's roles in service delivery, enhancing training programs, managing demand and capacity, and delivering the needed quality of services. To these ends, measuring service quality and satisfaction is very important.

This cross-sectional study was conducted with the aim of determining the level of patient satisfaction pertaining to different aspects of hospital care, both in private and public hospitals. Factors having statistically significant association with levels of satisfaction were searched for.

In the light of the findings of the research and available literature on this topic an effort has been made to analyze the situation of patient satisfaction in the selected 6 hospitals in Bangladesh: 3 from private sector and 3 from public sector. Expectations of service recipients are increasing day by day at this time of rapid development of science, technology and management. The quality of care that satisfied patients yesterday may not satisfy them tomorrow. Moreover, satisfaction and utilization of service go hand in hand, which is the rationale behind thousands of satisfaction researches being published in the developed world per year. Satisfaction was categorized into five levels- not at all satisfied, somewhat satisfied, more or less satisfied, appreciable, and excellent.

8.2 Socio-Demographic Aspects and Level of Satisfaction

8.2.1 Age

In this large series of patients ever been published from Bangladesh; we included 150 from public and 149 from private hospitals. To make representative sampling of the whole country we have taken 50 patients from each of Dhaka Medical College Hospital, Mitford Hospital, Central Hospital, Bangladesh Medical College Hospital, Sher-E Bangla Medical College Hospital and 49 from Ibn Sina Hospital. Though male sex is predominating in seeking treatment in our country we have taken almost equal (Male/ Female=161/138) to remove confounding effect of sex on total satisfaction score. The same is true for equal sample from both medical and surgical wards (149/150). Mean age of our study population is around 40 years representing the maximum prevailing middle-aged population. In this study it was found that among the patients, age was not uniformly distributed between the two groups. The mean age of the public group was 39.01 ± 18.84 years and that of private group was 47.32 ± 20.47 years respectively though, the age was not found to bear any association with any of the satisfaction scores given to the doctors' services, nurses' services, and provision of medicine supply, services given at the reception, aya /ward boy and cleaners' services, laboratory services and maintenance of cleanliness. Fox and Storms (1981) reported that age to be a consistent predictor of satisfaction. Williams (1994) showed that older people were more satisfied with most aspects of their hospital care than younger or middle aged people. Study from Netherland Kleefstra et al. (2012) also found that elderly people were more satisfied in day care settings. Jahan (2000) in her study at Mitford Hospital found that lower the age (below or equal to 30 years) patients were more dissatisfied than aged patients. Findings of the present study are not consistent with the above-mentioned studies. Probably public awareness achieved the certain level, which could undermine the influences of age recently.

8.2.2 Sex

Sex was found not to be associated with predictors of satisfaction of the above services like doctor service, nurse service, provision of medicine supply, aya/ ward boy and cleaner service and laboratory service. This is similar to the findings of Hall and Dorman (1990) who conducted a meta-analysis of 211 studies on satisfaction and mentioned that patient's gender did not affect satisfaction values. The findings of the study did not

correlate the study of Uddin (2005) and Khaleda (1996), in this study they found that female patients were more satisfied than their male counterparts. This might be due to the fact that female patients were less conversant with the facilities and they did not assess goodness or badness of services. As a result they were easily satisfied with the service rendered to them. Although some authors insist that sex like age is a predictor of satisfaction. Our study discovers similar result like publication of Kasam et al. (2012) where age and sex was not considered as predictors of patient's satisfaction.

8.2.3 Education

The present study found that the educational status of the study population had no influence on satisfaction. Contrarily, Uddin (2005), Siddique (2002) found that the educated patients were more satisfied than their less educated counterparts. This might be due to fact that the educated patients were more conversant with the attending physicians and they knew more about the availability of medical care and they also could consult more freely with the physicians. Recent study by Yan et al. (2011) from China revealed that satisfaction is inversely related to educational status of the patients. So, educational status is a conflicting predictor of patients' satisfaction.

8.2.4 Marital Status

Present study reveals that marital status didn't affect the satisfaction score in our series. Findings of this study did not support findings of Charles (1994) that more problems are associated with unmarried patients. Our study findings support the findings of Jahan (2000), she found that satisfaction score did not differ between unmarried and married patients. Thus marital status is not a consistent determinant of satisfaction across studies.

8.2.5 Occupation

Charles (1994) found significant positive association between satisfaction and patient characteristics of lower age, female sex, higher education and unmarried status. The result showed that the rich social class got significantly higher scores than the middle class and the poor for evaluation of doctor's service, nurse's service, provision of medicine supply, service given at the reception, clearness service and laboratory service ($p < 0.001$, < 0.001 , 0.01 , <0.01 < 0.001 and < 0.001 respectively). This satisfaction actually was not for richness rather most rich people got the services from private hospitals. The findings derived so far regarding associations between

sociodemographic characteristics of the respondents like age, sex, occupation, social class and marital status with satisfaction scores obtained for different services bear both consistencies as well as inconsistencies with the findings of Hall and Dorman (1990) who in their study found that more satisfied patients tended of higher social class and married. Fox and Storms (1981) argued that socio-demographic variables are weak determinants of satisfaction and findings across studies are not consistent. Contrary to these, the present study showed that no age group or sex was exceptionally satisfied. However, the study found that the rich respondents were better-satisfied bearing consistencies with the study of Hall and Dorman (1990). Khaleda (1996) found dissatisfaction was more in middle and upper income groups.

8.2.6 Socio-economic Status

The percentage of satisfied respondents was more among those having a high socio-economic status than the lower socio-economic status. It is worthy to be noted that rich people were served by private hospitals and poor people were served by public hospitals. Similar was the trend found by Jahan (2000) but the association was significant. Findings of Hall and Dorman (1990), Fox and Storms (1994) showed consistent association between social status and level of satisfaction. Some authors explain this in terms of better access to health facilities due to social influence and affordability.

8.3 Care Aspects and Level of Satisfaction

8.3.1 Doctors' Service

Respondents satisfied with doctor's quality was more likely to be satisfied on the whole and the association was statistically significant. In the present study it is observed that about one-sixth of the respondents of the private group and one tenth of the public group were highly satisfied with doctor's service. In private group only 1.3 percent respondents described the same as 'not at all satisfactory' and in the public group 'not at all satisfied' were one tenth. Siddiqui and Khandaker (2007) found that regarding physician-related matters—availability, empathy and assurance/competence of physicians—there were no significant differences between the quality of services in the public and private hospitals. Azizul (1998) found that three-fifths respondents were 'satisfied' with doctor's behavior. Das and Shahidullah (1988) found that three-fifths patients rated doctor's behavior as 'good' and two-fifths had some sorts of dislike for doctor's behavior. Faruq (1995) found three-fifths

respondents were highly satisfied or satisfied with the overall service provided from the outdoor and two-fifths were partially satisfied and 10.8 percent were not at all satisfied. Islam (1993) found 5 percent patients stated that doctors did not visit them but 57 percent patients informed that doctors visited them thrice daily. The major causes of dissatisfaction were identified as some sort of disliking for doctor's behavior, which was 82 percent. Khaleda (1996) in a study at DMCH found 8 percent patients described doctors' services as inappreciable. Differences between findings of different studies might be due to differences in the study designs. Zahid (1995) in a study at Gonoshasthya Kendra hospital, Saver, Bangladesh found almost all respondents were satisfied with regard to doctors' behavior. Findings of present study are consistent with those of the mentioned one. Das and Shahidullah (1988) conducted a study on Dhaka Medical College Hospital among 800 admitted patients to assess their perception of medical care. They found that three-fourths patients rated doctor's behavior as good and about two-fourths had some sort of dislike for doctor's behavior. Doctor's service has got highest influences on future return to same hospital in regression analysis in this study.

As might be expected, service orientation of doctors came out as the strongest factor influencing patient satisfaction in all the selected six hospitals. The overall health service consumption (from any source) in Bangladesh is low compared to other developing countries. The World Health Organization (2006) had identified that about half of the medical equipment in developing countries is unusable. Also, the number of qualified physicians in Bangladesh is quite low, compared to other low-income countries. For example, in 1998 Bangladesh had 19 physicians per 100,000 populations compared to 73 respectively for low-income countries, and 286 respectively for high-income countries. Around one fourth of professional posts in rural areas remain vacant and there is high rate of absenteeism (about 40 percent), particularly among medical doctors in rural areas (The Daily Star, 2006). Both shortage of trained manpower coupled with 'brain drain', and 'lack of required investment' in health sector are responsible for this. It is evident that all the outpatients at public hospitals and 47 percent of the same at private hospitals are not attended at the appointed time (World Bank 2005). Since most of the reputed physicians in the country serve multiple hospitals, visiting an unreasonable number of patients each day, which makes them totally incapable of giving due time and attention to patients (Andaleeb, 2000). Zaman (2006) gave evidence of physicians leaving public

hospitals early for private practice. Aldana et al. (2001) and Rahman et al. (2002) also previously identified long waiting time and insufficient consultation time as factors contributing to patient dissatisfaction in Bangladesh. A study conducted by UNICEF (1992) showed that our doctors spend 54 seconds per patient at Thana hospitals and rural dispensaries as well as take 37 seconds per patient to dispense medicine. The qualified doctors are more inclined to moonlight in private clinics where government employed doctors maintain a dual obligation with their responsibilities (Sobhan & Rahman, 1998). Yet, the overall ratings of doctors in our study are positive. Whether this represents a positive bias among patients evaluating the 'exalted' doctor, whether it is the reputed hospitals that were selected, or whether it is because no better service is expected anywhere else in the country, the higher than expected ratings have reasonable explanations.

According to the World Bank (2003), there is little documented evaluation of the quality of physician care in Bangladesh, in both the public and the private sectors. PDP is a proven step in developed countries; thus customized versions of such program have a place in Bangladesh that must be vigorously pursued.

8.3.2 Nursing Service

The more were satisfied with Nurses' service, the more were satisfied in general. The correlation between satisfaction with nurses' service and total satisfaction score was statistically significant. It was also identified as a predictor of satisfaction by univariate analysis for patients of all ages, sexes, and education status. Nursing service was more satisfactory in private sector than that of public sector. This is in accordance with the study from France (Moret et al., 2012), where patient satisfaction was influenced by nursing service. But in regression analysis future return was not influenced with this service. Most of our study population was satisfied with the nursing service. Inter personal communication with the consumer may satisfied the patient. This is similar to study from Taiwan (Chang et al., 2013). The significant contribution of nurses to patient satisfaction in Bangladesh ought to be noted. Unfortunately, the number of nurses in Bangladesh today imposes serious constraints on health service delivery. There are only eleven nurses for 100,000 people in Bangladesh compared with 94 in India and 103 in Sri Lanka (Ministry of Health and Family Welfare 2004) and 750 in high-income countries. In addition, the nurses are also not equipped with the right

behavioral and technical skills. Rahman et al. (2002) indicate that patients in Bangladesh were very dissatisfied with their behavior and inefficiency in service-delivery. Results of a study revealed that nurses in Bangladesh decline to provide direct patient care due to sociocultural barriers (Hadley et al. 2007). Siddiqui and Khandaker (2007) indicate that nurse-related matters, empathy and responsiveness of nurses—the quality of the public healthcare service provider also seemed to be much worse than that of the private hospitals. Das and Shahidullah (1988) showed that two-fifths patients had some sort of dislike for nurses' behavior. Khaleda (1996) in a study at Dhaka Medical College Hospital found that only 35 patients believed nurses' services as inappreciable. Our findings do not support such a strong position: patients were not 'very' dissatisfied with them. This may be due to progressive better achievement in recent years in the health sector of the country.

Bangladesh and its development partners (e.g. World Bank and WHO) have recently taken steps to further the development of nurses by conducting behavioral change courses and introducing nursing standards at different hospitals. However, much more needs to be done. There is a general notion in Bangladesh that people entering the nursing profession usually come from the lower socio-economic strata. Coming with attitudes and concepts from their world of struggle, their attitudes may be difficult to change. While such a belief is debatable, there is no denying that the nursing profession should be accorded more social status to attract others, especially from the upper strata, to provide this vital service. This might be accomplished by offering a higher salary, fringe benefits, free technical and behavioral training, free placement of their services in the country and abroad and promoting their role and status more widely. The private health sector is better resourced to actively pursue and promote higher nursing standards and to guide the health care sector in this regard.

8.3.3 Support Service and Cleanliness

Analysis of data indicated that the overall cleanliness services were poor in all the hospitals but satisfaction scores of support service and cleanliness were higher in private than in public hospitals and differences were statistically significant. Support service by Aya, Ward Boy and Cleaner in private hospitals were better. Most of the respondents were satisfied with this service in private hospitals, which was just opposite

in public hospitals. Not only the satisfaction score was significantly differed with this service, future return to same hospital was significantly influenced also with this service in binary logistic regression analysis. This might be due to good supervision, disciplined administration and sufficient supply of cleaning materials. This study is consistent with the study of Siddiqui and Khandaker (2007), Uddin (1996) and Mallik (2001). The study findings of Haque (2002) Rashid (1997) and Khaleda (1996) were similar in terms of cleaning of environment. But overall cleanliness services were found poor in all the studies. It might be due to low budgetary allotment, lack of manpower, large volume of patients and less supply of cleaning materials. Abuse of trade unionism in public hospitals by the lower level employees makes the situation worse and hospital administration appear helpless to control them. They build homesteads in the open spaces within the hospital campus to reside and also rent space to outsiders. Thus the whole environment of the hospitals has become unhygienic both physically and socially. These protected slums like enclaves are safe haven for criminals in most of the medical colleges and district hospitals. Payment of unofficial fees in these hospitals is very common. While official fees are minimal, patients are paying out substantial sums as unofficial fees, in the form of bribes (Sobhan & Rahmam, 1998). Besides, poor governance is prevailing in the management of fourth class employee in public hospitals is a major issue in health governance.

8.3.4

8.3.5 8.3.4 Medicine Supply

Medicine supply was also poor in all public hospitals. Medicine supply was explored regarding quantity and timely supply. It is to be mentioned here that supply of medicine in private hospital was by the patients themselves and in public hospitals partially by government and rest by the patients. Medicine supply influenced the future return to same hospital also. Medicine supply greatly influenced the satisfaction of patients in other study abroad (Kasam et al., 2012). The study findings of Haque (2002) Karim (1999) and Roy (1994) revealed satisfaction was influenced in terms of medicine supply. The finding of our study correlates with the study of Uddin (2005). In Ninety percent of cases in Combined Military Hospital (CMH) the medicine was available in the ward whereas in 84 percent of cases in DMCH patients stated that no medicine was available in the ward and they had to purchase it from

outside. Availability of medicine in CMH might be due to more supply of medicine in comparison to the number of patients whereas in DMCH the picture is reverse. Moreover, the budgetary allocation might be high in case of CMH. Poor governance is prevailing in the management of drug and equipment in the public hospitals. A huge quantity of supplied medicine and equipment is left unutilized and unconsumed due to poor management. Very often, it is alleged that doctors encourage the patients to purchase medicine from outside because of unawareness of the medical officers about availability of medicine stock in the store. Siddiqui and Khandaker (2007) found that the factor of 'availability of drugs' showed the most significant difference between two healthcare service providers. Therefore, the service of public hospitals in relation to availability of drugs and timely supply to patients was poorer than that of the private hospitals. Islam (1993) found one-fifth patients got no medicine from the hospital and had to purchase all the medicine from outside. Majority of the doctors (84.4 percent) reported that drugs were not supplied according to demand, 18.1 percent stated that medicine supply was irregular. Lack of transparency in management creates the scope for the fourth class employees of the hospitals to sell drugs of hospital stores to outside pharmacies.

8.3.68.3.5 Outcome of Treatment

Outcome of treatment reasonably influences the satisfaction score. But it didn't influence the future return to same hospitals. Study from Morocco Damghi et al. (2013) has similar report.

8.3.78.3.6 Expenditure of Treatment

It is surprising that expenditure of treatment did not influence the satisfaction rather the services of doctor, nurse, aya / ward boy and cleaners, reception, laboratory and cleanliness influenced the satisfaction. It indicates that patients require service even at reasonable costs. It is also pertinent to note that health care service providers and planners in Bangladesh are often more concerned about the cost of health care rather than its quality. They feel that people in Bangladesh do not want to pay more for higher service quality. This study suggests that cost is not a significant contributor

to patient satisfaction, especially for the private sector hospitals: instead the quality of service is much more important.

Of the different kinds of services evaluated in the present study, like doctor's service, nurse's service, provision of medicine supply, services given at the reception, ward-boy/aya, cleaner's service, services of other staffs, laboratory services and maintenance of cleanliness, the public respondents held the view that they were less satisfied. On the contrary, the private respondents, commenting on the same services given at the private setting expressed that they were more satisfied. Katz et al. (1997) in an attempt to derive the predictors of satisfaction for medical care among HIV-infected patients found that men who received care in a public clinic, hospital or HMO-based clinic were significantly less satisfied with their access to care than those who received the care in a private hospital. While evaluated the services in third world country Damghi et al. (2013) found similar results, where waiting time, doctor service, cooperation of reception and other support service influenced patient satisfaction significantly.

8.4 Conclusion

All the services are significantly more in private hospitals than those of public hospitals and as such the patients in private hospitals are more satisfied than the patients in public hospitals. Future return of patient to the same hospital was influenced by doctor's service, support services and medicine supply. It is the accountability which made the service providers to be patient friendly in private hospitals. The findings of the study are more or less similar to most of the previous studies on patient satisfaction.

Chapter 9

Summary of Findings, Conclusions and Recommendations

9.1 Prelude

Health is a basic requirement for improving the quality of life. Economic and social development of a nation mostly depends on the state of health. A large number of Bangladesh's people, particularly in rural areas, remain with no or little access to health care facilities. The lack of participation in health service is a problem that has many dimensions and complexities. Overall healthcare use/consumption in Bangladesh is low and is of great concern to the civil society. A survey by the Centre for International Epidemiological Training (CIET, 2004), Canada, showed that in Bangladesh, 13 percent of treatment-seekers use government services, 27 percent use private/NGO services, and 60 percent unqualified services (Cockcroft et al., 2004). In their comparative survey on private and public healthcare providers in Bangladesh, Ricardo et al. observed that the overall use-rate for public healthcare services was as low as 30 percent (World Bank, 2005). On the other hand, the uneven distribution of demand is creating unmanageable pressure on the few reputable public hospitals. In their 'Bangladesh healthcare facility efficiency study', Rannan and Somanthan (1997) observed that the overall patient load in public medical college hospitals was approximately five times higher than that in other general hospitals.

Every human being expects that in case of his/her falling sick he/ she will be taken to a qualified health practitioner or hospital in the quickest possible time, where he/she will be welcomed. It is also expected that hospital personnel will speak in an understandable language and will be courteous & caring. They will take keen interest in treating patient, create homely and comfortable environment and provide for best investigation facilities and competent care ensuring quickest recovery. Patients expect that they will not have to wait for treatment, which will be free of cost or at an affordable cost and opinions of the patients will be given due importance at every stage of decision making about care. When these expectations are met, then a sense of satisfaction prevails in the mind and body of the patient and the same in turn quickens recovery. Satisfaction with hospital care is an outcome of hospital experience and is the result of individual evaluation by the patient of the multiple attributes of care in the background of his/her personal characteristics.

From the days of inception of the understanding of quality of care, doctors use to evaluate the service rendered by them through setting certain standards of their performance and comparing actual performance with the standard set. There was no reflection of opinions of the recipients of services. At present patients' opinion about medical services, received from hospitals or individual service providers is given due importance as it shapes attitude of the recipients about future utilization of the services.

Patient satisfaction is a health care recipient's reaction to salient aspects of the context, process and result of his service experience. Satisfaction ratings reflect three variables: the personal preferences of the patient, the patient's expectations and the realities of care received. Satisfaction with the realities of care received is affected by many different components of that care-access, cost, competence of care, personal qualities of service providers, participation of patient in decision making about his/her own care, provision of information about the disease, results of investigation, physical care, catering aspects of hospital care, etc. Again, satisfaction level of patients will vary depending upon the expectations of and evaluations by the patients, which is determined by the socio-cultural background, age, economic status, educational qualifications, previous experience of hospital stay, severity of illness, etc. Patient variables including patient characteristics and expectations are often referred to as determinants of satisfaction, while care variables are referred to as the components of satisfaction.

Health care service delivery, like any other service, depends on the interaction between two parties namely the provider and the client or consumer of the service. The interaction determines the level of utilization of the service by the individuals and groups of the community. Optimum utilization results when a balance can be achieved between the demand of the client and the supply by the provider of service. The level of health of a nation is to a great extent, determined by the level of utilization of its health care services by its people.

The health sector occupies an enormously important position in ensuring sustainable overall socio-economic advancement in developing countries. In Bangladesh, the government has begun to strategically integrate the health sector into its poverty reduction plan. As such the health care service is designed in a three-tier system: primary, secondary and tertiary levels. The health care system in Bangladesh is a mixture of public and private initiative. In terms of physical infrastructure, public

sector is stronger than the private sector although in terms of coverage, the health care system of the country should be termed as a privatized one. Besides the private sector there are some NGOs, which also play a significant role in providing health services. All these institutions are managed and controlled under the policy guidelines of the government. But the services of the health providers in Bangladesh are still questionable to the civil society. The overall health status in Bangladesh represents an unimpressive picture although some developments have taken place in this sector during the past years. The country has adopted primary health care policy for achieving health for all, but policy achievement in the health sector is very poor. Social and economic inequalities exist to the highest extent in Bangladesh. Medical care is an extremely irregular and expensive service in the country. The Government delivery system is not efficient enough to cover the target population though it is the constitutional binding of the country to ensure adequate health service delivery to the people (Bangladesh Constitution, Article-18). Moreover, basic primary health care services are not accessed equally and the marginalized people of rural Bangladesh are treated in a highly discriminatory nature to access health facilities. Quality of health service is a big problem in Bangladesh. Now a days, there is a common headline of the daily newspapers that hospital and health complexes are surrounded with many-fold problems, making it difficult to provide health care services to the patients. It is a known fact that there is mismanagement, lack of proper coordination, problems of supervisions and accountability exacerbate the problems, essential supplies are generally unavailable, facilities are inadequate, and the quality of staffing is poor while corrupt practices seem to be on the increase as media reports indicate weak monitoring and regulatory framework, centralized administration, poor management of drug and lack of modern equipment in the health administration. Ex-ray machine and ambulances are out of order most of the time. Uncontrolled trade union is one of the main reasons for this. Thus it becomes difficult for the administration to take action against their corrupt practices and irregularity in the services. Taking more money for ticket from out-door patients, absence of senior doctors in the out-door department, corruption in admission of in-door patients, lack of sympathy for patients among the doctors and nurses make the health service inaccessible to the beneficiaries. From various studies it is clear that the Government is not able to provide service as well as ensure people's participation in the public health service of Bangladesh even at the basic level. In this situation, too many corrupt doctors do not serve the common people well, take

bribes, and do not maintain office time at the public health centers and hospitals. Instead, they prefer to run private clinics for their own profit during their office time (Osman, 2004). Of course, not all doctors are corrupt, but this is a general picture in most rural areas. Common people most often do not complain about this simply because they lack awareness about their rights. Andaleeb (2001) mentions that the health care delivery system in Bangladesh faces three major challenges: improving quality, increasing access and reducing cost. There is growing evidence that the perceived quality of medical care services has a greater influence on patient's behaviors (satisfaction, referrals, choice, usage, etc.) compared to access and cost.

The private health care sector (including unqualified providers) also deserves close scrutiny as about 70 percent of the patients seek medical care from this sector. Unfortunately, there are concerns that the quality of service is being ignored here as well. Some of its main drawbacks include disregard of standard treatment protocols, lack of qualified nurses and unnecessary diagnostic tests (World Bank, 2003). The Bangladesh Government and its development partners have also acknowledged their concerns about the quality of health care services (MOHFW, 2003). Absenteeism of health care providers is a major concern; consultation time is very short (2–3 minutes), with almost no privacy. A good number of posts are lying vacant at Upazila and below levels. Unavailability of drugs is the single most important reason for people's dissatisfaction about public health facilities.

These instances reflect the problems of the health service delivery system that must be addressed quickly. With the quality of services showing little signs of improvement, a large number of Bangladeshi patients who are able to afford it are going to foreign hospitals, despite the financial costs and the cumbersome processes involved in getting visas, obtaining foreign exchange, arranging for transportation, accommodation and food, and finding the right providers (IHE, 2002).

The quality of service in general is of inherent importance in any society. Satisfaction of patient is considered as an indicator of quality assurance. In the late 1980s, some parameters of the satisfaction for the service were used, such as reliability, responsiveness, assurance, tangibility, and empathy. A study from Turkey (Demir & Celik, 2002) explored the determinants of patient satisfaction that included little demographic character of patient and by services of doctors and

nurses and found to be significant. But it did not compare private and public sector and the questionnaire was filled up by mail not by interview. Andaleeb (2007) introduced some more Bangladesh specific service-quality parameters of hospitals for satisfaction of patients, i.e. accessibility, cost, service provided by nurse and doctor and discipline but demographic character of patient was not at all explored. Another two studies from Bangladesh compared private and public hospitals regarding patient satisfaction (Andaleeb, 2000 and 2001). However, all the above three studies were limited to evaluate all variables in large scale. Only a few demographic characteristics of patients' e.g. education and socioeconomic status were included in two studies. Duration of hospital stay and outcome of treatment were not included in any study. Mode of treatment, medical and surgical was neither considered nor randomized there. None of the studies included the sample from outside the capital city. The studies were done on the basis of perception by answering the questionnaire with Likert scale. It is an imaginary system, which should be revalidated by alternative measure. Because individual perception variation is great, may nullify comparison of satisfaction score in the previous studies. None of the above studies had done this. A further question on future return to the same hospital was included in the present study. The present study by including this question seem to have fulfilled the research gap and this is the strength of this study.

There are a good number of studies regarding patient satisfaction abroad. But this major issue is not yet sufficiently addressed in Bangladesh. Patient satisfaction and consumer feedback can contribute to planning, upgrading, budgeting and modernizations of health care system. This study has focused on difference of patients' satisfaction in private and public hospitals and to realize what the factors that are contributing to satisfaction. We have designed this study to evaluate different services of the hospitals summing to the patient satisfaction as well as the different characteristics of the consumers influencing patient satisfaction. The study aimed to discover a new era, where consumers' (patients) opinions would justify the system and would compare the services between public and private sector hospitals.

Public sector used to be careless on the one hand, and private sector is expensive on the other. The study evaluated the nature of doctor-patient and nurse-patient relationship in both the sectors. This study also evaluated the service as a whole and in different branches. This careful evaluation would help in future planning and managing of these institutes.

The study will contribute to the existing stock of knowledge and to the improvement of satisfaction level of patients both in the public and private sector hospitals. In this context, this study has provided a cooperative scenario of level of satisfaction of patients in private and public hospitals as well as the root causes of poor satisfaction to different stakeholders of this sector of the country. The study has also pinpointed the causes for poor health services in the hospitals of the country and suggests some remedial measures for the Improvement of satisfaction level of the patients in Bangladesh.

The study is an empirical study based on both primary and secondary information. Primary data was collected only from those respondents who had been admitted as inpatients in hospitals during 2010 to 2011. Half of the patients were selected from medical wards and the other half from surgical wards. Primary data was collected through face-to-face interview. The respondents were the patients themselves or their first line relatives. The questionnaire was filled in by the respondents if they could understand it and could write themselves. Their contact addresses and cell phone numbers were preserved for further communication. Primary data was also collected from hospital register, documents and by communication with doctors and nurses. A preliminary questionnaire was first developed in English using Likert scale then translated into Bengali. The questionnaire was pre-tested with piloting of the study to arrive at appropriate wording, format, length and sequencing of the questions. Pretest feedback was used to refine the questionnaire until it was ready for data collection. Secondary data was collected from different web sites, publications, Health Bulletins, Management Information System (MIS) records of National Institute of Preventive and Social Medicine (NIPSOM), Ministry of Health and Family Welfare, Directorate General of Health Services, Bangladesh Bureau of Statistics and by personal communication. Relevant books, journals, articles, research reports and those were collected by the researcher through direct contact with the authorities of the concerned bodies and institutions were also used. Moreover, the researcher widely used the Internet for collecting journal articles with related key words from Indexed Journal. The null hypothesis of the study was (H_0): There is no significant difference of patient satisfaction between private and public hospitals in Bangladesh in respect of doctor's service, nurse's service, aya/ward boy and cleaner service, cleanliness service, medicine supply, laboratory service, reception and information service.

The population of the research was defined as Bangladeshis who have been inpatients in public and private hospitals in Dhaka City or in hospitals outside Dhaka city. The focus on hospitals in Dhaka was deemed appropriate as Dhaka has the greatest number of hospitals of varying quality that attend to a diverse set of patient needs. Two separate lists of public and private hospitals in Dhaka were obtained from the Ministry of Health and Family Planning. From the first list, Dhaka Medical College and Mitford Hospital were chosen purposively as these two hospitals are reputed to handle patients from all classes and with various health problems. Both the hospitals have the longest experiences of patient management in the capital city. The other public hospital selected was Sher-E Bangla Medical College Hospital that represents one of the large medical college hospitals outside Dhaka. On the other hand, three hospitals were also purposively chosen from the list of private hospitals. These include Ibn Sina Hospital, Bangladesh Medical College Hospital and Central Hospital. Bangladesh Medical College Hospital is one of the top and first private medical college hospitals in Bangladesh. Both Ibn Sina and Central Hospital are general teaching as well as referral hospitals having sophisticated technology and skilled manpower. These three hospitals are representative of private hospitals of the country, because lower, middle and rich people can consume the services of these hospitals. There are other highly expensive hospitals in the country but those hospitals are not accessible to general population of the country. Hospitals at district or upazilla level were not included because they are representatives of a small area, small number of beds, not homogeneous, unavailability of records and poor turnover. It is the trend of our people to rush to hospitals of capital city for treatment in their illness. The researcher established that the sample, selected through the above procedure, would represent the population.

In the present study the services given in the public and private hospitals were mainly evaluated on the basis of the respondents' (patients') satisfaction upon the services. Patient satisfaction was dependent variable and the independent variables were doctor's service, nurse's service, aya/ ward boy, cleaner' service, cleanliness service, medicine supply, laboratory service, reception and information service, patient characteristics, type of treatment and outcome of treatment and others.

A sample size of 300 was targeted. To ensure representation, the researcher had a plan to select 50 respondents from each of the selected public and private hospital. Data were collected only from those respondents who had been admitted as inpatients. Half of the patients were selected from medical wards and the other half from surgical wards. The list of patients ready to be released on a particular date was obtained from the respective ward-in-charge of the public hospitals and the patient relations in-charge of the private hospitals. Using simple random sampling, patients were selected from this list. The researcher attended 341 patients and their attendants for collecting data to fill up the questionnaires. Thirty-five of them did not agree to cooperate or answer the questionnaire; 17 were busy as they were going to be discharged, 13 were in fear of the administration and 5 were shaky to disclose their information. Seven of the patients participated in the study but later on with further communication they withdrew themselves from the study. So, finally 299 were available for the study. Out of 299 selected respondents 150 from public and 149 from private hospitals. If one patient was selected from the medical ward the successive patient was selected from the surgical ward. If any patient was unwilling to participate in the study the successive patient from the same ward was selected for the study. Male patients were 161 and female patients were 138, 149 were managed medically and 150 were from surgical ward and were operated for their disease.

After the completion of data processing, the data were analyzed using Statistical Package for Social Science version 20 (SPSS Inc. Chicago, IL). In course of descriptive analysis, frequency, mean, standard deviation (SD), standard error of mean (SEM) and co-efficient of variance were adopted. On the other hand, continuous variables were compared using Independent t test and categorical data were compared by Chi-square test. Correlation analysis was done see the positive or negative effect of the variables. Factors associated with patient satisfaction (future return to the same hospital) were analyzed by binary logistic regression analysis. One-way ANOVA was done for comparing more than two groups. Hypothesis was justified by Independent t test for scoring of patients' satisfaction. Graph and charts have also been used where necessary to show the analytical results more effectively. $P < 0.05$ was considered statistically significant. The major findings of the core chapters of the study are presented below:

9.2 Factors Influencing Patient Satisfaction in Bangladesh

Patient satisfaction is the milestone of the study. There are various factors that could have influenced satisfaction level of the patients. The researcher evaluated the satisfaction level of the patients considering the services provided by the hospitals and the consumer individual variation. It was determined through scoring the services of doctors, nurses, aya/ward boy, cleaners and reception with support of laboratory services and medicine supply. Scoring was done using Likert scale and maximum score was 155. Total satisfaction score was depicted in the box plot for comparison showing highest satisfaction in Central Hospital (132.22 ± 14.23) and lowest in Sher- E Bangla Medical College Hospital (53.74 ± 21.12) with a tendency to lower score in public hospitals.

The total satisfaction score (mean \pm SD) for doctor was (19.03 ± 6.59), nurse was (19.75 ± 6.63), aya, ward boy and cleaner was (14.65 ± 6.30), cleanliness was (14.65 ± 6.29), reception and information was (8.82 ± 9.51), medicine supply was (5.72 ± 2.40), and laboratory service was (11.22 ± 4.58). While considering the influence of individual factors, it was observed that satisfaction score for male was 85.37 ± 31.52 and for female was 90.69 ± 32.44 . Comparison by t test it was found statistically similar in both the sexes ($p=0.190$). Therefore, sex has got no significant effect on total satisfaction score. If we divide the total study population in three groups according to distribution of age and compare by one way ANOVA it is observed that satisfaction score did not differ significantly between groups ($p=.989$, 0.758 and 0.661). Independent t test approved that there was no significant difference in satisfaction score between married and unmarried population ($p=0.524$). One way ANOVA discovered that satisfaction score of different occupations such as service, student, business, farming, house wife and others did not differ significantly. Educational status of the study population had also no influence on satisfaction (p was > 0.05). More revealing is that rich people were more satisfied than poor people ($p= 0.04$). However, they were served by private hospitals. Outcome of treatment has a great influence on satisfaction level. Those patients were more satisfied who were cured or improved than those who deteriorated. Another revealing feature is that expenditure of treatment was

positively correlated with satisfaction [Correlation was significant at the 0.01 level (2-tailed)]. The more the expenditure, the more the satisfaction score. It is possibly due to the influence of private hospitals where expenditure was higher. But duration of hospital stay didn't influence the satisfaction significantly though duration of hospital stay that increases the expenditure and limits the normal activity of the patient himself and his family members.

9.3 Future Return to the Same Hospital

Future consumption of same service is an indication that the consumer is satisfied. If any consumer is disappointed and there are alternative quality service providers, the consumer can take service from the others. As there are alternative private and public hospitals in Bangladesh, future return to the same hospital justifies standard satisfaction and in future no return indicates disappointment and dissatisfaction. The researcher has explored the independent variables affecting the decision of future return and also looked for the percentage of satisfaction score directs the patient to go to same hospital. With logistic regression analysis the researcher has excluded the confounding variables and established variables with highest effect. Empirical results show that about one-third patients were disappointed with the service. They will not return to same hospital for consuming service if they would become ill unluckily. As against this, two-third patients answered that they will come back to same hospital to have the services. About one-fourth of the patients were not at all satisfied. This means that those who were not at all satisfied will not come back to the same hospital. Both the results were consistent and similar to each other and validate each other. It is only the services provided by the hospital that influenced the patients significantly in making decision of future return to same hospital. By univariate analysis doctor's services, nursing services, cleanliness, laboratory services, medicine supply and services of reception of hospital had statistically strong positive influences in taking decision. Outcome of treatment, cure, improvement, deterioration and death had also influence on decision of future return to same hospital ($p= 0.02$). But age, sex, amount of expenditure and duration of hospital stay didn't influence future return. Educational status ($p= 0.94$), socioeconomic condition ($p= 0.51$), occupation ($p= 0.73$), marital status ($p= 0.74$), type of treatment ($p= 0.80$) had no significant influence on future return to the same

hospital. Binary logistic regression analysis explores that future return depends on doctor service ($p= 0.006$), aya/ward boy and cleaner service ($p =0.018$) and regular and timely supply of medicines ($P=0.001$) only. Nurse's service, reception, laboratory service have not been considered by the patients for this decision. Outcome of treatment was not also a significant variable to determine this. It is evident from ROC curve that satisfaction score not only could strongly determine future return but also negate the effect of other factors. The ROC curve also explored that satisfaction score of 73 (47.1 percent) out of 155 has a sensitivity of 75 percent and specificity of 63 percent in determining future return to the same hospital. This is a valuable finding in the present research that expectation of our patients is very low. In spite of that our hospitals are unwilling to accomplish this lower level of expectation and thus achieving patient satisfaction.

9.4 Patient Satisfaction: Comparison between Private and Public Hospitals

While comparing patient satisfaction between private and public hospitals, doctor's service, nurse's service, aya/ ward boy and cleaner service, cleanliness, medicine supply, laboratory service and service of reception and information were evaluated. Levels of satisfaction were expressed in Likert scale and compared between groups and within groups through independent t test and one-way ANOVA test. Empirical results showed that total satisfaction score was significantly ($p= .000$) higher in private hospitals (110.03 ± 24.70) than that of public hospitals (68.68 ± 24.29). Among the 6 hospitals, Central Hospital achieved the highest score and Sher-E Bangla Medical College Hospital achieved the lowest score, while Bangladesh Medical College Hospital, Ibn Sina Hospital, Mitford Hospital, Dhaka Medical College Hospital, are Sher-E-Bangla Medical College Hospital were in descending order. There is insignificant difference between Ibn Sina Hospital and Mitford Hospital. Though Bangladesh Medical College Hospital is considered as a private hospital, the services of this hospital are almost like charity or very low priced. Most of the patients (84 percent) were from poor and middle class; confounded the existing scenario of private hospital in the country. Here satisfaction rate is higher. Satisfaction score of Mitford Hospital was statistically similar to that of Ibn Sina Hospital. This is a great achievement of a public hospital that could satisfy its clients with limited manpower, logistics and poor budget. The authority could provide this service to

smaller patient load than that of Dhaka Medical College Hospital. But we must appreciate Mitford Hospital, because with smaller patient load Sher -E Bangla Medical College Hospital achieved the lowest score.

More discouraging is that satisfaction score of all the services was comparatively lower in public hospital than that of private hospitals. It was very much significant ($p= 0.000$) regarding doctor's service, nurse's service, aya/ward boy cleaner service, cleanliness, laboratory service and service of reception and information. Doctor's service was evaluated on the ground of availability, cooperative attitude, patient care, counseling, carefulness, regularity in visiting the admitted patient and giving information about prognosis of the disease. Satisfaction was significantly higher in private sector in all services provided by doctors than that of public sector. Most of the respondents opined that doctors of private hospitals were available in need than that of public hospitals and they were satisfied with the counseling of doctors of private hospitals. Irregularity of visiting patients in public hospitals dissatisfied most of the respondents. Moreover, the doctors of public hospital were less cooperative and caring to the patients than private hospitals.

We know nurses have a key role in hospital management like doctors. Their sympathy, empathy, knowledge and expertise may overcome and relieve the pain and distress of patients. The study explored the services of nurses in relation to availability, politeness, regularity in visiting patient, cleanliness and maintaining time for delivery of medicines. Statistical analysis revealed that nursing service of private hospitals could satisfy the patients in every aspect and satisfaction level is statistically significant. As against this, nurses of public hospitals did not maintain the regularity in visiting patients. Unclean dress up, failure to maintain clean working environment and unhealthy practice affected the satisfaction of patients in public hospitals. Availability of nurse on requirements, their politeness and discipline in private hospitals satisfy the patients. One-way ANOVA expressed that the nurses of Central Hospital provided best service and as against this the nurses of Sher-E Bangla Medical College Hospital provided worst service. There was no difference of nursing services between Bangladesh Medical College Hospital, Ibn Sina Hospital, Mitford Hospital and Dhaka Medical College Hospital. On the whole, two thirds of the study population have appreciated and satisfied with the nursing services.

As regards aya/ ward boy and cleaner services, there was a great difference ($p=0.000$) in satisfaction level between private and public hospital. The score is 17.61 ± 5.55 in private and 11.71 ± 5.59 in public hospitals. In public hospitals about one fourth of the total patients were not at all satisfied whereas it was only 2.0 percent in private hospitals. Concomitantly, cleanliness of hospitals, ward and toilet of public hospitals failed to satisfy the patients. However, satisfaction is reasonably higher in private hospitals. Similarly, over all satisfaction is higher in private hospitals than that of public hospitals regarding laboratory services. Medicine supply in terms of required dose and time was far better in private hospitals than in public hospitals. As regards reception service, there is no body to welcome, no body to help the patients on arrival in public hospitals. The scenario is totally different in private hospitals. Thus, in all magnitudes patient's satisfaction is better in private hospitals than in public hospitals.

9.5 Perceptual Variations of Patient Satisfaction: Validation with Recent Studies

A cross-sectional study was conducted with the aim of determining level of satisfaction of patients with regard to different aspects of hospital care of both private and public hospitals. Factors having association of statistical significance with levels of satisfaction and predictors were searched for. In the light of the findings of the researches and available literature on this topic an effort has been made to analyze the situation of patient satisfaction in the selected hospitals.

Expectations of service recipients are increasing day by day due to rapid development of science, technology and management. The quality of care that satisfied patients yesterday may not satisfy them tomorrow. Moreover, satisfaction and utilization of service go hand in hand, which is the rationale behind thousands of satisfaction research being published in the developed world per year. Satisfaction was categorized into five levels- not at all satisfied, some what satisfied, more or less satisfied, appreciable, and excellent.

9.5.1 Socio-Demographic Aspects and Level of Satisfaction

In this large series of patients ever been published from Bangladesh, the researcher included 150 from public and 149 from private hospitals. Though male sex is predominating in seeking treatment in our country, the researcher has taken almost equal (Male: Female 161: 138) to remove confounding effect of sex on total

satisfaction score. The same is true for equal sample from Medical and Surgical wards (149:150). Mean age of the study population is around 40 years representing the maximum prevailing middle-aged population. Average duration at hospitals is 10 to 13 days and expenditure is Tk.10000 to Tk.60000, which depict the exact scenario of the country. Maximum female respondents were housewives, while farmers were very few in number. Though most of our populations are farmers, their reluctance in seeking medical service resulted in lower rate of (30 percent) of health service utilization in Bangladesh (World Bank, 1987) which strongly validate the findings of the present study. Most of our study populations were illiterates and primary educated and belonged to poor and middle class family representing national status of the country.

Williams (1994) found older people were more satisfied with most aspects of hospital care than younger or middle aged people. Findings of present study are not consistent with the above-mentioned studies. Probably public awareness achieved certain level, which could undermine the influences of age recently. However, sex was found not to be associated with prediction of satisfaction. This is similar to Hall and Dorman (1990) who mentioned that patient's gender did not affect satisfaction values. Although some authors insist that sex like age is a predictor of satisfaction. Similarly, marital status didn't affect the satisfaction score in our study. Our study findings are contradictory to the findings of Jahan (2000), who found that the unmarried were more satisfied than the married. Marital status was not a consistent determinant of satisfaction across the other studies.

As regards social class, Charles (1994) found that the rich social class got significantly higher scores than the middle and the poor classes for doctor's service, nurse's service, provision of medicine supply, services given at the reception, ward-boy/ aya/ clearness services and laboratory services ($p < 0.001$, < 0.001 , 0.01 , < 0.01 , < 0.001 and < 0.001 respectively). This satisfaction actually is not for richness rather most rich people got the services from private hospitals. Hall and Dornan (1990) in their study found that more satisfied patients tended to be older, male, of higher social class and married. Fox and storms (1981) argued that socio demographic variables are weak determinants of satisfaction and findings across studies are not consistent. Khaleda (1996) found dissatisfaction was more in middle and upper income group. The present study found that the rich respondents were better-satisfied bearing consistencies with the study of Hall and Dorman (1990).

As regard socioeconomic status, the percent of satisfied respondents were more among those having a high socioeconomic status than in lower socioeconomic status. Similar was the trend found by Jahan (2000), Hall and Dorman (1990). Some authors explain this in terms of better access to health facilities due to social influence and affordability.

Of the different kinds of services evaluated in the present study, like doctor's service, nurse's service, provision of medicine supply, service given at the reception, aya/ward boy and cleaner service, services of other staff, laboratory service and maintenance of cleanliness, public respondents were less satisfied than that of the private respondents. A similar finding was seen in the study of Katz et al. (1997).

9.5.2 Care Aspects and Level of Satisfaction

As regards doctor's quality, it is observed that respondents satisfied with doctors' quality were more likely to be satisfied with overall services and the association was statistically significant. Findings of present study are consistent with the studies of Azizul (1998), Das and Shahidullah (1988), Faruq (1995), Islam (1993), Khaleda (1996) and Zahid (1995). In the present study, doctor's service got the highest influence on future return to the same hospital in regression analysis.

As regard nurse's quality, the relation between nurse's quality and level of satisfaction was statistically significant. It was also identified as a predictor of satisfaction for patients of all ages, sexes, and education status. The significant contribution of nurses to patient satisfaction in Bangladesh also ought to be noted. Rahman et al. (2002) indicates that patients were very dissatisfied with the behavior and inefficiency of nurses. Das and Shahidullah (1988) showed that two-thirds of the patients had some sorts of disliking for nurse's behavior. Khaleda (1996) stated nurse's services as inappreciable. However, our findings were not 'very' dissatisfied with them.

9.5.3 Outcome of Treatment and Expenditure of Treatment

Outcome of treatment reasonably influenced the satisfaction score. Expenditure of treatment did not influence the satisfaction rather the services of doctor, nurse, aya/ward boy and cleaner, reception, laboratory and cleanliness influenced the satisfaction. It indicates that patients require service even at required reasonable costs. It is also pertinent to note that health care service providers and planners in

Bangladesh are often more concerned with the cost of health care rather than its quality. They feel that people in Bangladesh do not want to pay more for higher service quality. This study suggests that cost is not a significant contributor to patient satisfaction, especially for the private sector hospitals; instead the quality of service is much more important.

Aya/ ward boy and cleaner service is not at the satisfactory level in public hospitals. Medicine supply is also poor. The management of the tertiary health care centers, i.e. medical college hospitals and referral hospitals is a major issue in public health governance. Abuse of trade unionism by the lower level employees makes the situation worse and hospital administration appear helpless to control them. They build homesteads in the open spaces within the hospital campus to reside and also rent space to outsiders. Thus the whole environment of the hospitals has become unhygienic both physically and socially. Besides, poor governance is prevailing in the management of drug and equipment in the public hospitals. Islam (1993) also found a poor scenario of medicine supply. Lack of transparency in management creates the scope for the fourth class employees of the hospitals to sell drugs of hospital stores to outside pharmacies.

Thus we could conclude that all the services were more satisfactory in private hospitals than that of public hospitals. On the whole our major findings are more or less consistent with most of previous studies relating to patient satisfaction.

9.6 Conclusions and Recommendations

In the present study, it is seen that majority of private respondents evaluated the services given at the private hospitals as 'excellent' or 'appreciable', while it is less appreciable in public hospitals. In case of segmental services like doctor's service, nurse's services, provision for medicine supply, services given at the reception, aya/ward boy and cleaner's service, laboratory service and maintenance of cleanliness, around one fourth of the public respondents held the view that they were 'not at all satisfactory'. The doctor service is the significant predictor of future return to the same hospital. The findings generated thus may help the planners and policy-makers to formulate a right strategy to improve the present situation of public hospital management.

Most of the people of Bangladesh are of poor socio-economic status and they have to avail the services from the public sector. But it is frustrating for the health system of the country that the evaluation of services by significant number of patients is not at all satisfactory. Till now public sector is the only active system at the doorstep of poor and middle class population. Most of the people cannot afford the cost of private health services. So, it is urgently needed to address the loopholes of the public health sector and accountability of the service providers of this sector must be ensured.

Evaluation of patient satisfaction is a continuous process. As stated earlier the level of patient satisfaction was higher in private hospitals than in public hospitals and the difference was statistically significant. In the light of the findings of the present study the recommends are as follows:

- Doctors should be more polite, cooperative and caring in public hospitals.
- Nurses need to be more efficient, well mannered and properly dressed up.
- More post of doctors, nurses and other staffs are to be created and appointed for further improvement of the quality of services in public hospitals.
- Accountability and transparency is an important factor for all the sectors. The accountability of the concerned doctor, nurse, aya/ ward boy and other staff should be ensured in the public hospitals as well as in private hospitals.
- Strong attention should be made to supply medicine to the patients in time and at the moment when it is required both in public hospitals.
- Cleanliness should be improved in all hospitals both public and private.
- Establish a 'reception' or 'customer care' service in all public hospitals.
- The qualities and the behavior of health personnel should be helpful to the general people in order to enhance their participation in health service.
- Financial and technical support is also important for ensuring high quality health care but the Government's allocation does not match the demand. The Government should provide necessary financial and technical support to public sector health service providers.
- Regular monitoring and supervision should be adopted in government health sector.
- In private hospitals main obstacles for accessibility of patients is high price. The prices in different private hospitals are also extremely variable. Unseen, unexplainable, hidden costs make it unbearable. We strongly recommend that the price of the health service should be affordable to all. The hospital section of Directorate General of Health Service should make all the private hospitals accountable in fixing the price.

- Low priced private hospitals could be established to serve the poor people. Charity hospitals organized by voluntary organizations could be examples of quality service for lower socioeconomic group.
- The hospital manager should do continuous monitoring, evaluation and assessment of quality of service and they should report to higher authority for future planning.

In practice nothing will improve the quality of service delivery until and unless all service providers are passionately committed to patient satisfaction and the policy planners are giving strenuous efforts to the whole issue and both the government and private sectors are committed to provide quality services to the people at affordable cost.

9.7 Direction Further Research

Expectations of service recipients are increasing day by day due to rapid development of science, technology and management. Moreover, satisfaction and utilization of services go hand in hand. Therefore, to increase the rate of use of public services an energetic effort to be made to disclose why the public service users are not satisfied as it is expected to be. Faced with the above fact, a large-scale study with sub category analysis may be undertaken by future researchers to find out the reasons for dissatisfaction of the users of both public and private hospital services. Future researches may also address the reasons for public services being inefficient in the same place where the private services are efficiently running. Future research should also identify the incentives that could motivate both private and public service providers to deliver the services in the most efficient manner. Future researches could also identify the factors that could influence the public service providers to be complacent to their noble profession of serving the suffering humanity.

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Appendix

Questionnaire

Department of Accounting and Information Systems
University of Rajshahi

Topic of Research

**Hospital Management and Patient Satisfaction in Bangladesh: A
Comparative Study between Private and Public Sectors**

Dear Sir/ Madam

I'm a Ph.D research student of the Department of Accounting and Information Systems at the University of Rajshahi. I am conducting a research study on **Hospital Management and Patient Satisfaction in Bangladesh: A Comparative Study between Private and Public Sectors**. I need certain essential information in this regard from your end. The information will be used only for research purpose and confidentiality of the same will be maintained strictly. I look for your sincere cooperation and request you to please provide me with necessary information related to my research.

Thanking you in anticipation of your kind cooperation.

With Best Regards

Farhana Begum

Part A:

Sl. No.....

Reg. No.....

Mobile No.....

Reference.....

1. Name of the hospital

2. Name of the patient.....

3. Address..... 4. Age.....in yrs.

5. Education: 1 = Illiterate 2 = Primary 3 = S.S.C

4 = H.S.C 5 = Higher Education

6. General Bed /Floor/ Paying Bed/ Cabin No.....

7. Date of Admission..... 8. Duration of Stay..... in days

9. Type of Hospital: 1 = Public 2 = Private

10. Sex: 1 = Male 2 = Female

11. Marital Status: 1 = Married 2 = Unmarried

12. Occupation: 1 = Service 2 = Student 3 = Business

4 = Farming 5 = Housewife 6 = Other

13. Socio-economic Condition: 1 = Poor 2 = Middle Class 3 = Rich

14. Type of Treatment given: 1 = Operative 2 = Conservative

15. Outcome of Treatment: 1 = Cured 2 = Improved
3 = No improvement 4 = Deteriorated 5 = Death

16. Total expenses (in Taka).....

17. In future, if you feel unwell, you will return to this hospital for services

1 = Yes 0 = No

Part B:***Evaluation of Doctor's Service (Put score '1 – 5' based on level of satisfaction*):***

1. Doctors service:..... /____/
2. Availability:..... /____/
3. Cooperation: /____/
4. Counseling:..... /____/
5. Care full ness:..... /____/
6. Visits regularly: /____/

Evaluation of Nurse's Service (Put score '1 – 5' based on level of satisfaction):

7. Nurses Service: /____/
8. Availability:..... /____/
9. Timely drug...../____/
10. Politeness & sympathy: /____/
11. Regularity: /____/
12. Cleanliness: /____/

Evaluation of medicine supply (Put score '1 – 5' based on level of satisfaction):

13. Regular supply of medicine: /____/
14. Supply of needed medicine: /____/

Evaluation of services at reception (Put score '1 – 5' based on level of satisfaction):

15. Politeness & sympathy: /____/
16. Courtesy: /____/
17. Conduct of the receptionist: /____/
18. Cooperative attitude:..... /____/
19. Open communication:..... /____/

Evaluation of Aya/ ward boy/ Cleaner (Put score '1 – 5' based on level of satisfaction):

20. Professional skill:/____/
21. Behavior:/____/
22. Availability:...../____/
23. Cleanliness:..... /____/
24. Politeness:...../____/

Evaluation of laboratory services (Put score '1 – 5' based on level of satisfaction) :

25. Availability of Essential services: /____/

26. Cleanliness: /____/

27. Politeness & sympathy: /____/

28. Use of modern equipment: /____/

Hospital Environment:**Cleanliness:**

29. Hospital cleanliness /____/

30. Ward/cabin cleanliness: /____/

31. Toilet cleanliness: /____/

(Principal Investigator)**N.B. :***** Level of satisfaction will be measured as follows:**

1 = Not at all satisfactory 2 = Somewhat satisfactory 3 = More or less satisfactory

4 = Appreciable 5 = Excellent

নিচে আপনার সেবার সাথে জড়িত প্রশ্ন দেয়া হলো, এই প্রশ্নের উত্তর দেয়ার জন্য আপনাকে আহ্বান করা হলোঃ

প্রত্যেকটি প্রশ্নের ডানে প্রদত্ত ১ (সর্বনিম্ন) থেকে ৫ (সর্বোচ্চ) পর্যন্ত বিস্তৃত মাপকের জন্য একটি সংখ্যা টিক (✓) চিহ্ন দিয়ে প্রশ্নের উত্তর দেওয়ার জন্য আপনাকে অনুরোধ করা হলো। মাত্রাসমূহ নিম্নরূপ:

অত্যন্ত সশেষজনক	ঃ	৫
বেশ সশেষজনক	ঃ	৪
মোটামুটি সশেষজনক	ঃ	৩
কিছুটা সশেষজনক	ঃ	২
মোটাই সশেষজনক নয়	ঃ	১

ডাক্তার সম্পর্কে রোগীর মূল্যায়ন

ক্র.নং	বিবরণ	মোটাই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	আপনি যে সেবা পান					
খ)	প্রয়োজন মাত্র উপস্থিতি					
গ)	উপস্থিত সমস্যার ক্ষেত্রে সহযোগিতা					
ঘ)	আপনার রোগ সংক্রান্ত ফলাফল সম্পর্কে তথ্য প্রাপ্তির সুযোগ					
ঙ)	উন্নত সেবার মানের ব্যাপারে অত্যন্ত সতর্ক					
চ)	নিয়মিত রোগী দেখা					

সেবিকাদের সম্পর্কে রোগীর মূল্যায়ন

ক্র. নং	বিবরণ	মোটাই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	আপনি যে সেবা পান					
খ)	প্রয়োজন মাত্র উপস্থিতি					
গ)	ঔষধ প্রয়োগে সময়ানুবর্তিতা					
ঘ)	ভদ্রতা ও সহানুভূতি					
ঙ)	নিয়মানুবর্তিতা					
চ)	পরিষ্কার-পরিচ্ছন্নতা					

রোগীকে ঔষধ সরবরাহ

ক্র. নং	বিবরণ	মোটাই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	ঔষধ প্রয়োগে সময়ানুবর্তিতা					
খ)	প্রয়োজন মাত্র ঔষধ সরবরাহ					

রিসিপশন

ক্র. নং	বিবরণ	মোটাই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	ভদ্রতা ও সহানুভূতি					
খ)	সৌজন্য ও সহমর্মিতা					
গ)	আচরণ					
ঘ)	উপস্থিত সমস্যার ক্ষেত্রে সহযোগিতা					
ঙ)	উনুক্ত যোগাযোগ					

পরিষ্কার-পরিচ্ছন্নতা

ক্র. নং	বিবরণ	মোটই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	হাসপাতালের পরিষ্কার-পরিচ্ছন্নতা					
খ)	কেবিন/ওয়ার্ড পরিষ্কার-পরিচ্ছন্নতা					
গ)	টয়লেট পরিষ্কার-পরিচ্ছন্নতা					

ওয়ার্ডবয়/ফ্লিনার/আয়া

ক্র. নং	বিবরণ	মোটই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	দক্ষতা					
খ)	আচরণ					
গ)	প্রয়োজন মাত্র উপস্থিত					
ঘ)	পরিষ্কার-পরিচ্ছন্নতা					
ঙ)	ভদ্রতা					

ল্যাবরেটরী

ক্র. নং	বিবরণ	মোটই সশেষজনক নয়	কিছুটা সশেষজনক	মোটামুটি সশেষজনক	বেশ সশেষজনক	অত্যন্ত সশেষজনক
ক)	জরুরী সেবা প্রদান					
খ)	ভদ্রতা ও সহানুভূতি					
গ)	পরিষ্কার-পরিচ্ছন্নতা					
ঘ)	পরীক্ষা-নিরীক্ষায় আধুনিক সরঞ্জাম ব্যবহার					