PATIENT SATISFACTION WITH MATERNAL AND CHILD HEALTH SERVICES AMONG MOTHERS ATTENDING THE MATERNAL AND CHILD HEALTH TRAINING INSTITUTE IN DHAKA, BANGLADESH

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ABSTRACT

This cross sectional study was conducted in order to describe patient satisfaction with maternal and child health services among mothers attending at Maternal and Child Health Training Institute in Dhaka, Bangladesh. The study population were women patients (over fifteen years old) who came to the out patient department for maternal and child care services. A total of 175 patients were interviewed during the period of 8th January to 18th January 2007. A structured questionnaire dealing with socio-demographic characteristics, accessibility of the hospital, available service from the hospital, expectation of services, satisfaction with the services and patients' suggestion were used as data collection instruments. Results were presented in frequency and percentage, and chi- square test was applied to show the association between independent and dependent variables.

The results demonstrated that most of the respondents had a monthly family income of less than three thousand taka up to five thousand taka only, most belonged to the age group of twenty to twenty four years, and had primary or secondary education level. The majority of the respondents were housewives having two children, who took less than thirty minutes to reach the service center and spent more than fifteen taka for transportation. The result of the study revealed that the 76.6% of the respondents were highly satisfied with the provider's support and 57.8% were highly satisfied with the facilities of the service centers.

The findings also showed that there was a significant relationship between satisfaction and good facilities of the services (p- value <0.05). No statistically significant associations were found for patients' age, education, income, occupation, service expectation and provider's support.

This study was hospital based and showed that the majority of the mothers were satisfied in terms of provider's support and facilities, irrespective of their expectations. However, being a quantitative study over a short period, the study may not reflect all dimensions of the situation. Further exit interviews and qualitative study might be needed to explore actual levels of satisfaction more intensely.

KEY WORDS: PATIENTS' SATISFACTION/ MATERNAL & CHILD HEALTH SERVICES/ HOSPITAL/ BANGLADESH

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CHAPTER 1
INTRODUCTION

1.1 Rationale and Justification

1.1.1 Maternal & Child Health Services and its Importance

The term “Maternal and Child Health (MCH)” is widely used by many national and international organizations for the set of services related to maternity and basic childhood health care such as deliveries and immunizations (1). Maternal health encompasses all activities such as Antenatal Care, Delivery Care, Postnatal Care and Maternal Complications around Delivery catered and provided to a woman of their reproductive age (from 15 to 49 years). On the other hand, Child Health includes all medical assistance such as Childhood Vaccination Coverage, Child Illness and Treatment and Childhood Mortality to a baby right after birth up to the age of five (2).

Mothers and their babies play the dominant role to connect and take the civilization from one generation to the next. Many studies prove investment on MCH is obvious and is better than on education which has a grand spiral and spillover effect on the society (3). Development in the healthcare and overall well-being of a population has a geometric effect on the progress and economic development of that country that also includes a drastic social change to create awareness about the importance of a healthy woman and consequently a healthy child (4). As a whole, investment on MCH services is strongly supported for the reasons (5):

(a) Modern states guarantee health entitlements for mothers, newborns and children that are grounded in human rights conventions.

(b) There has been little systematic research on the human, social and economic capital generated by improving the MCH, but the negative externalities of ill-health are clear.

(c) Healthy children are at the core of the formation of human capital. In addition, with the death or illness of a woman, society loses a member whose labor and activities are essential to the life and cohesion of families and communities.

(d) Though the economic costs of poor MCH are high but its concerned programs are prime candidates for public funding because they produce public goods.

(e) Finally, public funding for MCH services is justified on grounds of social equity.

1.1.2 Global Scenario of MCH Service

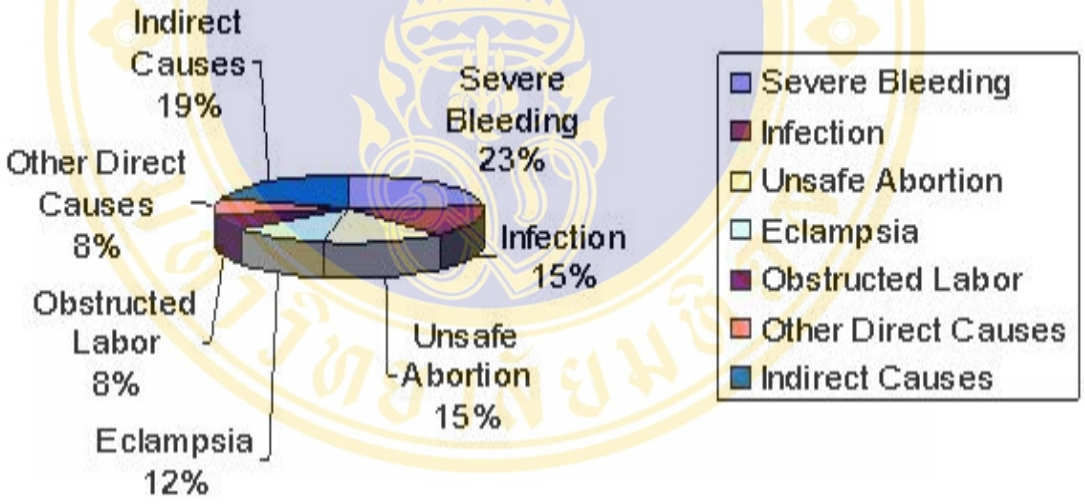
The MCH is a priority matter that emerged long before the 1990s – it is built over a century with concerned programs, activities and experience. What is new in the last decade, however, is the global focus of the MDGs and their insistence on tracking progress in every part of the world (5).

Each year 3.3 million babies – or maybe even more – are stillborn, more than 4 million die within 28 days of coming into the world, and a further 6.6 million young children die before their fifth birthday. Maternal deaths also continue unabated – the annual total now stands at 529,000 often sudden, unpredicted deaths which occur during pregnancy itself (some 68,000 as a consequence of unsafe abortion), during childbirth, or after the baby has been born (5).

MCH is a cause for serious concern in developing countries. Rates of morbidity and mortality in pregnant women, mothers and newborns remain shockingly high, particularly among poorer groups. They occur at service delivery level through lack of accessible, well functioning, staffed and resourced facilities, and at policy and systems level through poor planning, management and supervision, and lack of political commitment (6).

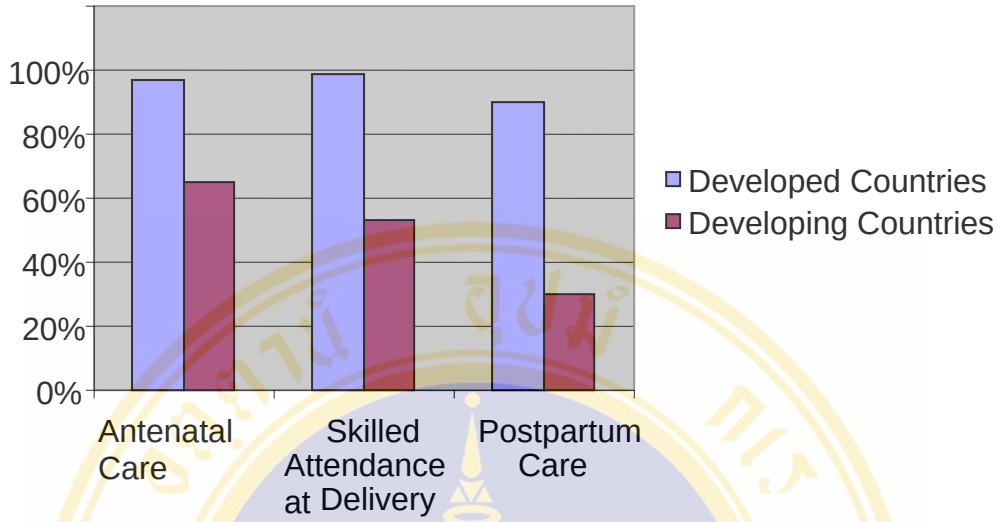
In many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age. Women's lifetime risk of maternal death is almost 40 times as higher in the developing than the developed ones: one woman in every 1,800 will die from pregnancy-related complications in developed countries, while in developing countries the lifetime risk is one in 48 (7).

In the following graphs, an endeavor is made to draw picture of maternal and child health by important indicators. It is seen, worst condition prevails in most of the African continent and part of Asia (south and south-east).



Source: "Maternal Health around the World" poster. World Health Organization and World Bank, 1997

Figure 1 Causes of Maternal Death (8)



Source: World Health Organization, Coverage of Maternal Care: A Listing of Available Information, Fourth Edition. World Health Organization, Geneva, 1997

Figure 2 Coverage of Maternal Health Services (9)

Table 1 Maternal Death per Year, 2000 (10)

Region	Number of Death	Maternal Death / 100,000 Live Births	Lifetime Risk of Maternal Deaths of 1 in
Africa	251,000	Northern Africa: 130 Sub-Saharan: 920	Northern Africa: 210 Sub-Saharan: 16
Asia	253,000	Eastern Asia: 55 Southern Asia: 540 South-Eastern Asia: 210 Western Asia: 190	Eastern Asia: 840 Southern Asia: 44 South-Eastern Asia: 140 Western Asia: 110
Latin America & Caribbean	22,000	190	160
Oceania	530	240	83
Developed Region	2,500	Western Europe & North America: 14 CIS: 68	Western Europe & North America: 3,800 CIS: 820
Developing Region	526,500	450	60
World Total	529,000	400	74

Source: World Health Organization, United Nations Children's Fund & United Nations Populations Fund, Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF & UNFPA (WHO: Geneva 2004).

Table 2 Maternal Mortality versus Infant Mortality- Countries with Highest Numbers of Newborn Deaths and High Rates of Maternal Death (10)

Country	Ranking for numbers of Newborn Deaths	Number of Newborn Deaths	Ranking for numbers of Maternal Deaths	Number of Maternal Deaths
India	1	1,098,000	1	136,000
China	2	416,000	9	11,000
Pakistan	3	298,000	3	26,000
Nigeria	4	247,000	2	37,000
Bangladesh	5	153,000	8	16,000
Ethiopia	6	147,000	4	24,000
DR Congo	7	116,000	4	24,000
Indonesia	8	82,000	12	10,000
Afghanistan	9	63,000	7	20,000
Tanzania	10	62,000	6	21,000
	2,682,000 Newborn Deaths. Approximately 66% of the Global Total		325,000 Maternal Deaths. Approximately 61% of the Global Total	

Source: Newborn Deaths: Joy Lawn, et al '4 Million Neonatal Deaths: When? Where? Why?' The Lancet Maternal Deaths: World Health Organization, United Nations Children's Fund & United Nations Populations Fund, Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF & UNFPA (WHO: Geneva 2004).

At global level, involving all national governments, international and multinational organizations, national and international NGOs developed an action plan to solve a variety of problem which is target and time bound popularly known as Millennium Development Goals (MDG) (11). With MDG 4 & 5, the world community is moving ahead to fulfill her targets aimed at improving MCH conditions.

Table 3 MDG Goal 4& 5 indicators target the followings to be attained by 2015

Factor	Goal	Targets 2015	Progress 1990-2003/04
Child Survival	Reduce Child Mortality	Reduce by two thirds the mortality rate among children under five	Seriously off track: The fourth MDG is commonly regarded as the furthest from being achieved. Only one region-Latin America and the Caribbean – is on track, although substantial progress has been made in several East Asian Countries
Families and Women	Improve Maternal Health	Reduce by three quarters the maternal mortality ratio	Seriously off track: Only 17 per cent of countries, accounting for 32 per cent of the developing world's population are on track

Source: UNICEF. 'Childhood Under Threat', A UNICEF Publication: The State of World's Children, 2005.

According to the World Health Report, reducing this death toll in line with the Millennium Development Goals depends largely on every mother and every child having the right to access health care during pregnancy, childbirth, the neonatal period and childhood. Skilled care at delivery is one of the key elements necessary to reduce maternal mortality. Though all regions show improvement, only 46 per cent of deliveries in sub-Saharan Africa, where almost half the world's maternal deaths occur, are assisted by skilled attendants. In Southern Asia, the proportion is even lower.

1.1.3 Regional Scenario of MCH service

The WHO South-East Asia Region (SEAR) accounts for nearly one fourth of the world's population. Most countries in the Region have very young populations, with nearly 50% in the reproductive age group. Consequently, the numbers of pregnant women and the numbers of babies born annually are very large. An estimated 37 million childbirths take place annually in this region. The Region has about 180 million children under the age of five. Unfortunately, the Region also accounts for more than 170,000 maternal deaths and over 3 million child deaths annually. These statistics make the issue of maternal, newborn and child health a major priority for the Region (12).

The Region carries a heavy burden of global maternal and child mortality. WHO, UNICEF, UNFPA estimates for 2000 suggest the total number of maternal deaths in the Region (173,000 in 2000), account for almost 33% of all maternal deaths worldwide (13).

A global review of child deaths by the Bellagio Child Survival Group showed that 34% of child deaths occur in South Asia and that the region has almost two thirds of the global burden of malnutrition. Of an estimated half a million maternal deaths worldwide, almost half occur in South and Southeast Asia. Maternal mortality ratios range from 23/100,000 live births in Sri Lanka to 539/100 000 in Nepal. Given the close relation between maternal and prenatal mortality, it is not surprising that prenatal mortality rates in the region also rank among the highest in the world (14).

1.1.4 National Perspective of MCH service

In Bangladesh, MCH problems pose serious threat to the improvement of overall health status of the country & thereby negatively affect the socio-economic development (15). The population of Bangladesh has been steadily increasing at a moderate rate of 2.3%, and now stands at an estimated 135 million (16).

From the analysis from one study shows that inequalities differs more in facility based than home based attended births (17). In terms of national averages, maternal health status for many Bangladeshi women remains poor. Despite very low level of the use of antenatal and skilled care at birth, the situation in respect of Tetanus Toxoid vaccination among women is much better. About 81% of mothers who gave birth during 1995-1999 received Tetanus Toxoid vaccination (18). Bangladesh has a high maternal mortality ratio (MMR). The high MMR directly relates to the high prenatal (newborn) mortality rate in the country. The estimated lifetime risk of dying from pregnancy and childbirth-related causes in Bangladesh is around 100 times higher than that in developed countries. The tragic consequence of these deaths is that about 75% of the babies born to these women also die within the first week of their lives.

The major causes of maternal deaths are postpartum hemorrhage, eclampsia, and complications of unsafe abortion, obstructed labor, postpartum sepsis and violence and injuries. Abortion complications are responsible for the death of nearly 25% of the mothers (19). A study on safe motherhood program in Bangladesh assessed that women's low status in society, poor quality of maternity care services, lack of trained providers, low uptake of services by women, as well as infrastructure and administrative difficulties - all contribute to the high rate of maternal deaths. Antenatal care coverage, especially by a trained provider, has increased over time although remains low; in 2000 only one third of women reported receiving antenatal care from a medically trained person. Only 56% of pregnant women surveyed received at least one antenatal care from any provider (18). Doctors, trained nurses, or midwives assist at the birth of only very few babies - estimates suggest 13% of births. Other midwifery trained health providers assist in another 14% (2). Estimates show that almost two in three births are assisted by Dais (untrained traditional birth attendants) and one in eleven is assisted by relatives or friends. Only one in ten births in Bangladesh take place in a health facility. Care after birth is equally inadequate. Only 18% of mothers receive postnatal care (PNC) from a trained provider within six weeks after birth. Among mothers who do not give birth at a health facility, only 8% receive postnatal care. The likelihood of receiving PNC for mothers has improved only slightly, from 14% in 1999-2000, to 18% in 2004 (2).

The Ministry of Health and Family Welfare (MOHFW) is responsible for health policy formulation, planning and decision making at the macro level. Under MOHFW, there are two implementation arms: the Directorate General of Health Services (DGHS) and Directorate General of Family Planning (DGFP). The DGHS is responsible for implementation of all health programs and providing technical guidance to the Ministry. The DGFP is responsible for implementing Family Planning (FP) programs and providing FP related technical assistance to the Ministry (20).

Table 4 Existing MCH Care Facilities

Health Care Facility	Level & number	MCH/Obstetric care provider	Expected services
Medical College Hospital	District (13)	Specialist, MO, Nursing staff	EsOC & CEmOC
District Hospital	District (59)	Specialist, MO, Nursing staff	EsOC & CEmOC
Maternal Child Welfare Centre (MCWC)	District (52) Thana (24) Union (11)	MO, FWV, dai nurse FWV FWV	EsOC & CEmOC ANC, delivery ANC, delivery
Thana Health Complex (THC)	Thana (400)	Medical Officer, Nursing staff, FWV	EsOC & CEmOC
Health &Family Welfare Centre	Union (4,770)	FWV, MA	ANC, delivery

Source: Bhuiyan, Shafi Ullah, Osaka University, Japan, 18 October, 2005 (21).

Through budget allotment (30 million US$ out of 40 million annual budget) in reproductive health, within few years UNFPA could achieve marked increase in skilled delivery (13% to 20%) and antenatal care 10% over the year 2006-2010 (22).

Although there has been considerable success in the health services, still more than 60% of the population does not have access to basic health care, despite the fact that many government health facilities at various levels are not being adequately utilized (23).

Although the total fertility rate (TFR) has dropped significantly, maternal mortality ratio remains high – the latest national data shows it to be around 300 per 100,000 live births (24). A serious challenge to government efforts to improve the health of women, newborns and children is that the number of urban poor has increased from 7 million in 1985 to 12 million in 1999, and their health indicators are worse than these of the rural poor. According to the 2001 population census, the urban population in Bangladesh is 29 million, and has increased at the rate of 38% during the last 10 years, which is about 4 times the rural rate (25).

To achieve MDG, Bangladesh has to reduce maternal mortality from 574 deaths per 100,000 live births in 1990 to 143 by 2015; increase the proportion of births attended by skilled health personnel to 50 percent, and reduce the Total Fertility Rate to 2.2. A third target for Bangladesh is Reproductive Health (RH) Services for All as this is closely linked to maternal mortality and morbidity. MDG indicates that under-five mortality rate must be reduced from 151 deaths per thousand live births in 1990 to 50 in 2015 (26).

It is evident from the national MCH scenario that inadequate quality and quantity of the MCH service are responsible for the continuous high rate of maternal and child mortality / morbidity. In solidarity towards meeting MDGs, the Government is making all possible endeavors to upgrade national MCH status of the urban dwellers and rural mass.

With the assistance from WHO and UNICEF, the maternal and child health training institute (MCHTI), Dhaka, Bangladesh was built in 1953 to provide training to the health and family planning professionals on MCH-FP and provide health care services to pregnant mothers and under five children. It started with only 20 beds at the beginning and beds were added up to 100 in 1972 in 2001 to cope with increased demand of patients.

In Bangladesh, there has been an increasing demand for health care for women and children to reduce maternal and childhood mortality through proper services. MCHTI provides indoor and outdoor services for mother and children. The hospital provides prenatal, normal delivery services, comprehensive emergency, obstetric care as well as postnatal and family planning services. It also provides treatment for neonatal and under five children. The outdoor ward provides services six days a week. On weekdays, three days fix for services for pregnant mothers and the rest are fixed for care of under five children. Family planning and immunization (EPI) are also provided during weekdays.

MCHTI also maintains several steps for providing quality services to the patients. In 1997 and 2001 respectively with the technical cooperation of JICA and NIPORT, a patient's satisfaction surveys were conducted. Since 2004 JICA has completed its technical cooperation project at MCHTI to strengthen providers' capacity and since then MCHTI continuing its services through its local staff. Hence, in 2006 researcher interested to find out patients' satisfaction towards MCH services provided and thus to identify suitable ways for further improvement of services quality under the new administration at MCHTI. Good practice and lessons learn might be expanded nation wide maternal and child welfare centers (MCWCs) for sustainable development of MCH services in Bangladesh.

1.1.5 Patients' Satisfaction

Client Satisfaction' is the extent to which a client's expectations for services are met (27). There are basically two components of satisfaction, i.e. client expectations and the actual or perceived quality of the service offered. Before entering in contact with the organization, generally most clients bear precise expectations of the level and quality of service that it should be providing. Client cultural background, level of aspiration and worldview do exert some influence on the setting of expectations in addition to educational background and level of income.

Quality of service refers to the quality of both the transaction and the outcome of the service. It is a multi-dimensional concept but usually 'client satisfaction' and 'quality of service' are used as synonymous to each other (28). The ten most common dimensions cited by clients in judging quality are (27):

a. Tangibles: Appearance of physical facilities, equipment, personnel and communication materials
b. Reliability: Ability to perform as promised, dependably and accurately
c. Responsiveness: Willingness to help clients and provide prompt service
d. Competence: Possession of the required skills and knowledge to perform the service

e. Courtesy: Politeness, respect, consideration and friendliness of contact personnel
f. Credibility: Trustworthiness, believability, honesty of the provider
g. Security: Freedom from danger, risk or doubt
h. Access: Approachability and ease of contact
i. Communication: Keeping customers informed in language they can understand and listening to them
j. Understanding the Client: Making the effort to know clients and their needs

Client satisfaction reflects quality of services. Good client satisfaction studies are not ends in themselves; they are a means to improve service to the public. Broadly, the knowledge on the degree of client satisfaction serves two principal purposes: identifying areas of improvement in the quality of the services offered and highlighting the need for corrective actions when clients' expectations exceed what the organization can afford to offer or what a particular program is meant to provide. There are a number of very practical reasons for measuring client satisfaction in the public sector which include (29):

a. Enabling to undertake quality improvement efforts and demonstrating value to public money.
b. Determining how well programs are working from the client perspective and what changes might be required.
c. Identifying what clients' value most/least about a program.
d. Providing feedback to staff regarding how clients view their service efforts.
e. Supporting cost-effective objectives.
f. Ensuring that programs and services are delivered as effectively and efficiently as possible, given the objectives / aims / tasks / responsibilities and resource levels.

There are very few studies carried out in Bangladesh to ascertain degree of patient satisfaction and quality of service in respect of public service sector.

Demographically, mother and child constitute a significant portion of population of Bangladesh. Thus, service needed for MCH in the national arena of Bangladesh for its development can never be ignored. I have selected a standard urban MCH Hospital on which the patient satisfaction level would likely to give out picture that may be used as a bench mark for all other similar public health service outlets. As a whole, my study on determining patient satisfaction would assist in finding out problem areas needed for bringing adjustments in ongoing programs for ensuring optimum service in terms of quantity and quality using resource available.

1.2 Research Question:

What is the level of patients' satisfaction towards Maternal and Child Health (MCH) Services at the Maternal and Child Health Training Institute (MCHTI) in Dhaka, Bangladesh?

1.3 Research Objectives:

1.3.1 General objective:

To assess the level of patients' satisfaction towards Maternal and Child Health (MCH) services among mothers attending at Maternal and Child Health Training Institute (MCHTI), Dhaka, Bangladesh during the period of 8th January to 18th January,2007.

1.3.2 Specific objectives:

1.3.2.1 To asses the level of satisfaction towards Maternal and Child Health (MCH) Services among mothers attending at Maternal and Child Health Training Institute (MCHTI) with respect to socio- demographic characteristics, accessibility to the hospital, available services of the hospital and service expectation.

1.3.2.2 To describe socio- demographic characteristics of respondents in terms of age, education, occupation, number of children and monthly family income.

1.3.2.3 To asses the level of accessibility to the Maternal and Child Health (MCH) Services (source of information, mode of transport, travel time and cost of travel).

1.3.2.4 To assess the providers support towards Maternal and Child Health (MCH) Services (behavior of the providers, attention by the providers, listening attentively by the providers, confidentiality about history taking of the disease by the providers, confidentiality about physical check up by the providers and explain about necessity of test and cost by the providers).

1.3.2.5 To assess the Hospital Service Facilities towards Mothers and Children (waiting space, drinking water, cleanliness of toilet and waiting time).

1.3.2.6 To determine an association between patient satisfaction and the independent variables (socio- demographic characteristics, accessibility to the hospital, available services of the hospital and service expectation).

1.4 Conceptual Framework

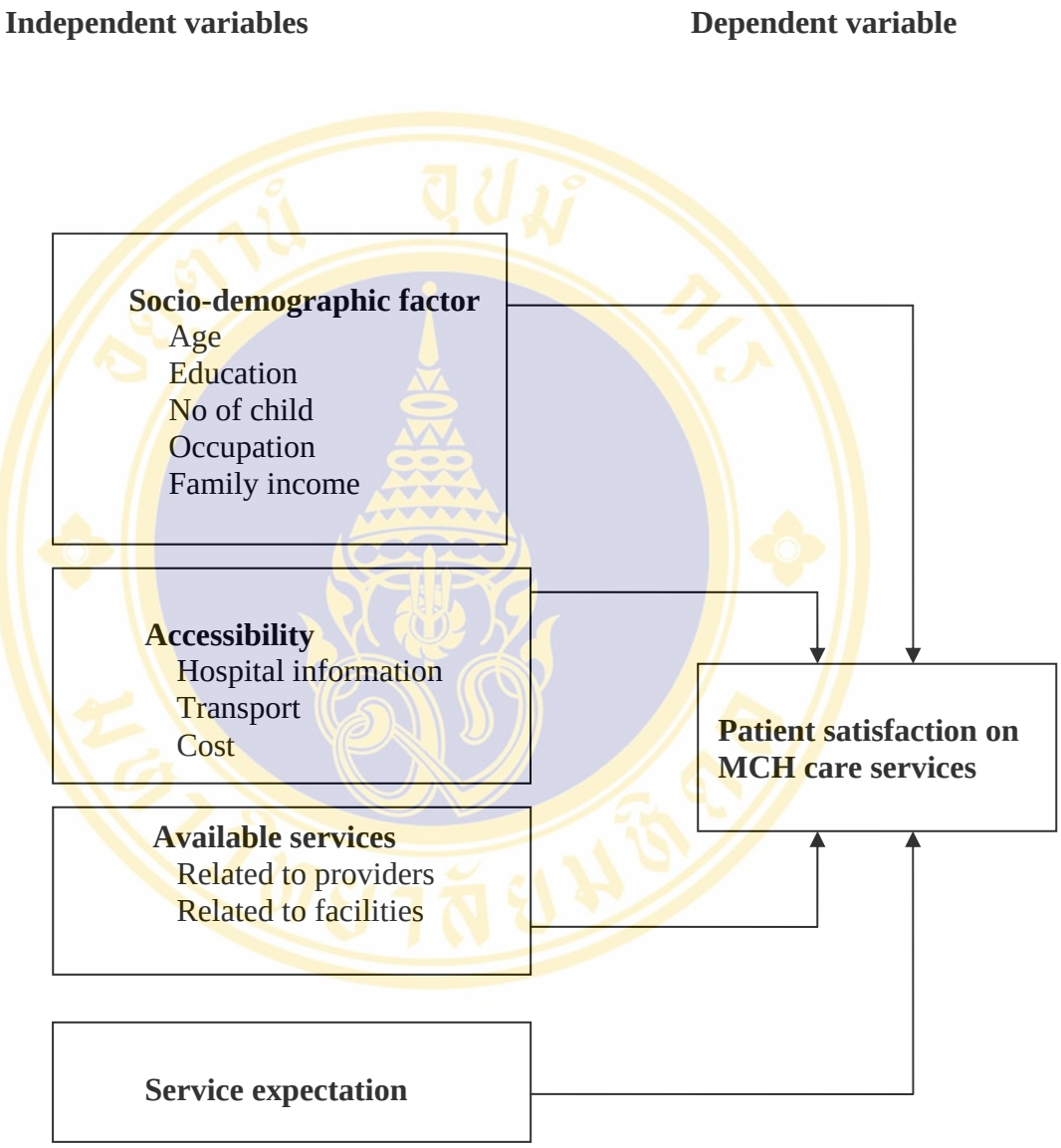


Figure 3 Conceptual framework

1.5 Variables and operational definition

Outcome variable

Patients' satisfaction on Maternal and Child Health (MCH) services

It could be defined as individual feelings and contentment with utilizing MCH services available at the maternity hospital.

The levels of satisfaction are ranked in 3 scales as high, moderate and low.

MCH services: Maternal and Child Health (MCH) services refer to the service provided by the Maternal and Child Health Training Institute (MCHTI).

Independent variables

Socio-demographic factors: Socio-demographic factors of respondents can be measured by age, education, number of children, occupation and family income.

Age: Age will be determined as complete years of the respondents at the time of interview. Minimum age of respondent is 15 years and maximum age is 49 years, because this is the reproductive age of a woman.

Education: It refers to the education level of the interviewed client. In this study education levels are categorized in 3 groups: no education, primary and secondary or more.

Number of children: It refers to the total number of children of the respondents.

Occupation: The occupation of the respondent categorized in 2 groups: housewife (who serve internal work) and others (who serve external work).

Family income: It refers to the total family income of all family members per month. Total family income is categorized in 4 groups: < Tk 3000(less than three thousand taka), Tk 3001-5000, Tk 5001-8000 and > Tk. 8000 (more than eight thousand taka).

Accessibility: Accessibility can be measured by hospital information, transport and cost.

Hospital information: It refers to the source of information about the hospital and categorized in two groups: family member or relatives and friend or neighbor.

Transport: It refers how the respondents reach to the hospital and how much time requires reaching at the hospital.

Cost: It refers how much money spends for transportation to reach to the hospital.

Available Services: It can be measured by two components: related to providers and related to facilities.

Related to providers: It refers of the service given by the providers (Doctors, Health educators, Nurses/ FWVs, Lab technicians, Pharmacists, Supporting staffs) and the respondent' view of how much respect, attention and privacy they are getting from the providers.

Related to facilities: It refers to the view of the respondents about the facilities of the hospital i.e. waiting space, waiting time, supply of drinking water and cleanliness of the toilet.

Service expectation: It refers to the expectations of the respondents towards the Maternal and Child Health (MCH) services before coming to the hospital.

1.6 Limitation of the study

The interview was conducted while patients were waiting for the services, so their actual view may not be reflected in this study. The outpatients were interviewed between 8 am – 12 noon, which may have missed patients who were released after 12 noon. Indoor patients interview not conducted, so all services received by the patients may not be reflected on this study. Since questionnaire was translated from English to Bengali, there may have some influence the way respondents answer questions. Moreover, it may not be appropriate to assess the level of satisfaction of each service by applying the scale of measurement.

CHAPER 2
LITERATURE REVIEW

2.1 Theoretical model used for the construction of a conceptual framework, The Precede-proceed model

The Precede-proceed model is a framework for the process of systematic development and evaluation of health education programs designed by Lawrence Green and Marshall Kreuter (1998). According to PRECEDE Framework, three categories: predisposing, enabling and reinforcing factors are used which will be described below. But in this current study on patients satisfaction on Maternal and Child Health (MCH) services, modified precede-proceed model was used for making the conceptual framework and out of three categories of precede framework, predisposing factors and enabling factors were used.

Predisposing Factors

Predisposing factors are factor antecedent to behavior that provide the rational or motivation for the behavior. Include a person's or populations' knowledge, attitudes, beliefs, values and perceptions that facilitate or hinder motivation for changing.

Enabling factors

Enabling factors are factor antecedent to behavior that allows a motivation or aspiration to be realized. Include personal skills, resources or barriers that can help or hinder the desired behavior change as well as environmental change. Those antecedents to behavior that enables a motivation to be realized including the availability, accessibility, and affordability of health care and community resources

which resources may be ample or inadequate, as may income or health insurance, and laws and status may be supportive or restrictive.

Reinforcing factors

Reinforcing factors are factors subsequent to behavior that provide the continuing reward, incentive, or punishment for a behavior and contribute to its persistence or extinction. Include social support, praise, reassurance, and symptom relief might all be reinforcing factors (30, 31).

2.2 Patient's satisfaction

Basically there are three reasons why consumer (patient) satisfaction should be taken by health professionals as a serious measurement:

Firstly, there is convincing evidence that satisfaction is an important outcome measure. It may be a predictor of whether patients follow their recommended treatment and is related to whether patients re-attended for treatment and change their provider of health care.

Secondly, patient satisfaction is a useful measure in assessing consultations and patterns of communication (such as the success of giving information of involving the patient is decision about care and of reassurance).

Thirdly, patient feedback can be used systematically to choose between alternatives methods of organizing or providing health care (such as length of consultation or arrangements for out of hours care) (32).

Within the health care sector, patient satisfaction has emerged as an important component and measure of the quality of care over the past decade. The new emphasis of quality of care and outcome measurement has led to increased appreciation of the significance of patient perception of the care they receive. Patient

satisfaction is now a focal concern of quality assurance and an expected outcome of care (33).

One study was conducted titled, “Customer satisfaction in medical service encounters a comparison between obstetrics and gynecology patients and general medical patients” in Taiwan. This study is concerned with the "service encounter", and seeks to describe, by use of the Service Encounter Evaluation Model, how the processes involved in the service encounter affect customer satisfaction. Its findings have implications for management practice and research directions, and recommendations are made. With the implementation of a national health insurance scheme, an ever-prospering economy and continually improving educational levels in Taiwan demand among citizens for good health and medical care is ever increasing. Obstetrics and gynecology patients often differ greatly from general patients, in terms of their moods and emotions. This research involved an empirical study, whose subjects were 590 customers of general clinics and 339 customers of gynecology clinics, in various medical centers in southern Taiwan. By factor analysis, the study established four influencing factors, which were "Medical professionals", "Nursing professionals", "Service personnel" and "Space and facilities". Using the Linear Structural Relation Model (LISREL), it found that medical professionals, nursing professionals, service personnel and space and facilities were effective predictors of medical treatment satisfaction. We also found that the greatest positive impact on overall medical treatment satisfaction resulted from rises in satisfaction with medical professionals, but that the least impact was achieved in relation to service personnel in the general and gynecology clinics. (34)

A study was conducted by Risser in 1975 and pointed out that patient satisfaction has been defined as “the degree of congruency between a patient’s expectation of ideal nursing care and his perception of the real nursing care he received” (35). Another study was conducted by Swan, et al, (1985) proposed definition of patient satisfaction with medical care and nursing care in a hospital viewed patient satisfaction as a positive emotional respond that is desired from a

cognitive process in which patient compare their individual experience to a set of subjective standards (36).

The word “satisfaction” is derived from the Latin (satis= enough and faction= to do or make). These terms illustrate the point that satisfaction implies a filling or fulfillment response, this was stated by Oliver in 1993 (37). Patient’s satisfaction is “the individual’s positive evaluations of distinct dimensions of healthcare” was described by Linder-Pelz in 1982. Expression of satisfaction is an expression of attitude, an affective response, which is related to both the belief that the care possesses certain attributes (38).

The very first and taxonomy of client satisfaction with medical care was developed by Ware and associates that included satisfaction questionnaire and client responses to open-ended questions posed to identify satisfaction and dissatisfaction. Since then a great number of studies have been done on client satisfaction evaluating service and service provider (39). In 1999, a study was conducted in Sweden showing that consumer satisfaction studies began in Sweden in 1990’s with an aim to improve quality of the services and increase efficiency and effectiveness of the process (40).

2.3 Socio-demographic factors

It is commonly believed that satisfaction with health care may be dependent upon variables such as social class, marital status, gender, and- in particular- age. Socio- demographic characteristics were concluded to be at best a minor predictor of satisfaction.

A research was conducted by Doborah L. in 1997 on health education on OPD and patient satisfaction. The result revealed that age and education were not statically significantly associated with level of patient’s satisfaction with physician, but many other variables were. Sex was significantly associated ($p < 0.001$); women were more satisfied with their physician then the men (41).

The literature appears to support this, it was found that older respondents expected less information from their doctor (42) and younger patients were less satisfied with issues surrounding the consultation and less likely to comply with prescriptions or medical advice. Older people have also been found to be far more satisfied with most aspects of their hospital care than younger or middle aged people (43)(44).

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 (45). The most consistent determinant characteristics is patient age was found by Devitt P., with a body of evidence from various countries to suggest that older people tend to be more satisfied with health care than do younger people (46).

A study on patients satisfaction towards curative services in general hospital was conducted by Supachai and the result revealed that the lowest level of satisfaction were among the income below 2000 bath/ month, background education of secondary level or less, belong to private or agricultural sectors and live outside of municipal areas (47). Another study on patient's satisfaction towards health care services provided by health centers in Muang District, Loei Province, Thailand was conducted by Devkota and found that patients who had primary and low level of education were highly satisfied (80.2%) in comparison to the respondent who had the secondary and above level of education (p- value 0.001) (48).

2.4 Literature on independent variables

Physical access to hospitals can be expressed as General Patient (GP) survey hours, appointment systems, receptionists, changing doctors, home visits, and appointment waiting lists. Poor parking, public transport and waiting times at health center have all been found to relate to patient dissatisfaction (49). A research was conducted by Fitzpatrick and 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 skill (50).

A study was conducted by Upreti in 1994 which was related to the services of health centers and found that 71% were satisfied and 29% were dissatisfied with the services. The dimensions he studied were related to the accessibility factors as distance, waiting time, working hours and cost of treatment and percentage of satisfaction was 64.07%. Similarly 56.82% patients were found to be satisfied with the continuity of care (helpfulness, referral and follow up) and 62.75% were satisfied with humaneness of care (respect and attention) and 54.02% with effectiveness (cleanliness and quality of medicine and equipments. The researcher also found that the area such as waiting time, inadequate cleaning and setting of health center surrounding contributed to client dissatisfaction (51).

The distance of the health facility and price of transportation also counts much as far as level of satisfaction of the consumer is concerned; this result was revealed by Chanawangse in 1996. Most of the patients after surgery in the hospital do not prefer to come for daily dressing (free of cost), because distance is more and traveling charges are high (52). A study on patient satisfaction was conducted by Boesch in 1972 and the result indicated that often their physicians were poor in social interaction. Furthermore, client complained that the doctors didn't pay much attention and care, so they feel insufficient. Lacking care and consideration lead them to dissatisfaction (53).

Over ninety percent doctor were treated as normally good at listening, explaining and examining, and were happy with the way in which the doctor prescribed medicines, this was reported by Bob Heyman in 1995 (54). A study at Switzerland revealed that for measuring level of patient satisfaction, physician-patient communication as a factor is the most essential of all the factors under study (55).

Another study on client satisfaction was done by Mac Eachern MT. and found that one third of those who change their physician or client was because of dissatisfaction. Doctors did not adequately meet client satisfaction and failed to explain the procedure and assumption in the treatment process. The other reason for

dissatisfaction that led to change of doctor according to Mechanic's study was the doctor's lack of interest, motivation and skill and competency (56). The patient's feeling was interviewed on outpatient department service at Chulalongkorn Hospital by Sriratanabul and Pimpakovit. It was found that 83% of the patient said services were good but one- third met some problems during the receiving services. Those problems were inconvenience of services. Patient had to wait for many hours (57).

A study was conducted on patients' satisfaction on outpatient department at Ramathibodi hospital. Outpatient satisfaction with medical diagnosis and physical examination unit, and pharmacy unit was interviewed and predisposing factors, waiting time, and traveling time of patient were collected. At medical register unit, patient who had high education, longer education time, or had experience of getting service from other hospitals had low satisfaction score than patient who had low education, short waiting time or had not experience of getting service. At the pharmacy unit, patient who had high education or long waiting time was lower satisfied than patient who had low education or short waiting time. This research by Durongpisitkum could be concluded that education, waiting time, sex, and age affected patient satisfaction (58).

Another study on strategic issue for reducing client waiting time and improving satisfaction with services at the outpatient department of the first affiliated hospital, Kunming Medical College, P.R.C. was conducted by Likun. The findings were firstly a long waiting time and client dissatisfaction was computed and all the correlation coefficient were positive and significant ($p< 0.01$). The strong correlation was found between waiting time and nursing service with satisfaction. Above 67 percent clients were satisfied and 61 percent consider their waiting time in the department, not reasonable (59).

A research on Consumer satisfaction towards health care service of health center in Bangkok, Thailand was conducted by Saurma Ida Pasaribu and the result indicates that only 53% of the clients were satisfied. Clients were dissatisfied due to low quality of care and inadequate supply of medicine. The researcher also referred,

in the health sector, patients are the clients of the health services. Thus client perception of satisfaction, their positive evaluation or assessment have been major focus of health behavior research, satisfaction is complexity determined, it involves trust, client characteristics, need as well as their perception of physician and their personal skill, together with their perception of whether or not they are responding appropriately to treatment (60).

The relationship between level of patient's expectation and overall satisfaction has been explored consistently by Ware and Synder and suggested that patients with lower expectations tend to be more satisfied. There may, however, be confounding variables which need to be considered; for example, there exist relationships between levels of patient's expectation, socioeconomic status and associated values and attitudes amongst different patient group (61). A conceptual structure was proposed by Donabedian and explained satisfaction study as provider's success to meet client values and expectations (62).

Expectation was identified into three categories: "background", "interaction" and "action", it was identified by Stimson G and Webb B. "Background" expectations are explicit expectations resulting from accumulated learning of the consultation/ treatment process. "Interaction" expectations refer to patients expectations regarding the exchange which will take place with their doctor, for example the manner and technique of questioning and the level of information released by the doctor. "Action" expectations were further divided into ideal and actual expectations, ideal being the action the patient would like the doctor to take and actual being the action the patient thinks will be taken. Of the three, interaction expectations are regarded as the most important (63).

The study on measurement of client satisfaction wrote that client evaluate their medical care on a number different and separate aspects. How many dimension clients distinguish in their evaluation of care was not universally agreed, but several studies assessed clients view separately. The key dimension of satisfaction was quality of

care, personal aspect care, convenience and physical facilities, expenses of medical care and out come of care (64).

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research design

This was a cross sectional study, and the purpose was to study the patients satisfaction towards maternal and child health services among mothers attending at Maternal and Child Health Training Institute in Dhaka, Bangladesh.

3.2 Study Population

The study population was the women of reproductive age (15-49 years), who came to take the MCH services at MCHTI hospital during the data collection.

Sample size

The sample size was determined by the following formula:

$$n = \frac{z^2 pq}{d^2}$$

$$= \frac{(1.96)^2 (.69)(.31)}{(0.07)^2}$$

= 168

Where:

n = estimated sample size

Z = level of statistical significance that set up level 0.05, i.e. 1.96

p = proportion of satisfaction with the MCH care service = 69%, cited in a Research of Bangladesh Demographic and health survey, 2004 (2).

q = proportion of patients who were not satisfied with the service, 1-69 = 31%

d = degree of accuracy required i.e., allowable error = 0.07

For the sake of removing any error, 175 respondent's interview was conducted instead of 168 determined by the formula.

3.3 Sampling technique

The total respondents were who came to take maternal and child health services at Maternal and Child Health Training Institute (MCHTI) in Dhaka, Bangladesh. Then the researcher was selected the respondents by systematic random sampling, because the population was relatively homogeneous as low income and low education.

The interval of sampling for random sampling was calculated with the following equation.

$$I = \frac{N}{n}$$

When: I = Random sampling interval

Estimated number of patients visit MCH services per day = 150

Number of days for the data collection = 7

N = 150 * 7 = 1050

n = 171 (number of respondent)

$$= \frac{1050}{171}$$

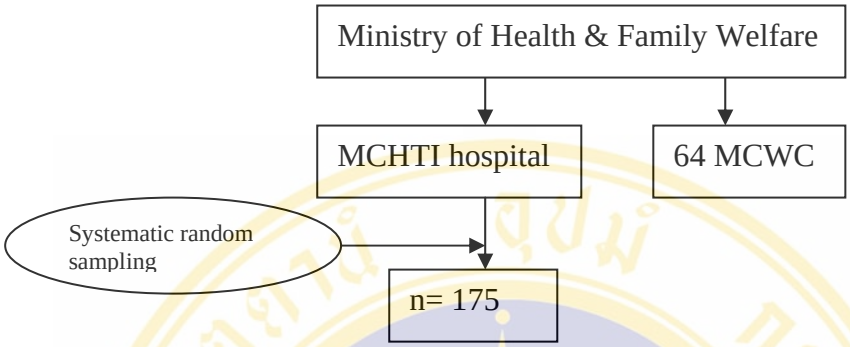
= 6.140

= 6

Then the random start number was selected randomly i.e. number 3. After that, other numbers were selected by adding the interval number up until all samples were selected.

In practice, selected patient numbers each day: 3, 9, 15, 21, 27, …

Sampling frame:



3.4 Data collection tools and methods

The instrument that was used for data collection was a structured questionnaire. The questionnaire was designed by the researcher under the guidance of the advisors. The questionnaire was translated into Bengali language which was used locally in the area of the study and most of the questions were close ended.

The questionnaire was divided into the following sections:

1. Socio demographic characteristics of respondents attending MCH services.
2. Access to the hospital of the respondents.
3. Purpose of visit of the respondents to the hospital.
4. Available services related to the providers of the hospital.
5. Available services related to the facilities of the hospital.
6. Service expectation of the respondents before utilizing the hospital service.
7. Satisfaction of the respondents towards the MCH services.

There were 21 questions about available services- related to providers were scored from three to one. The total score was 63 and minimum score could be 21 if patients were not at all happy with the services. In questionnaire, total four questions

about available services- related to facilities were also scored from three to one and total score was 12. The minimum score could be three, if patients were not at all satisfied with the services. In expectation part, there were four questions and we scored three to zero and individual score was summed up to calculate the cut off point. Those who answered no idea, we scored them zero. There were ten questions related to satisfaction were scored from five to one and individual score was summed up to calculate the cut off point. We used BEST criteria to calculate the cut off point.

3.5 Data collection procedure

The interviewers were selected by the researcher and one day orientation program was conducted before the data collection. The role play was also displayed for the understanding of the interviewer. Per day 18 interviews were taken from the out patient department who came to take maternal and child health services from the hospital. Total one hundred and seventy five interviews were conducted in 10 days. First the interviewer informed the respondents about the purpose of the study and then asked for the willingness to participate in the study. Data were collected from the respondents who came at least 2nd time to the hospital to take the maternal and child health care services.

3.6 Pre-test of the questionnaire

Before processing the data collection, the researcher submitted the questionnaire to the advisors in order to check the content validity. Then, the questionnaire was adopted according to the suggestions and comments of the thesis advisors and proceeded to pre-test. A total of thirty five questionnaires were conducted for the pre-test. The cronbach's coefficient of alpha was used for the reliability test of the questionnaire. As per Kuder Richardson formula (KR20 & KR21) the reliability of the questions of expectation part and satisfaction part was 0.78 and 0.80 respectively. Then according to the feedback from the result of pre-test, questionnaire was slightly modified and reviewed where it felt necessary by the researcher with the help of the advisors.

3.7 Data Analysis Plan

Data was analyzed by using standard statistical package. Minitab was used for data entry and analysis. Descriptive statistics were used for determining frequency, percentage, mean and standard deviation and Chi- square test was used to determine association between each factor of independent variables and the dependent variable.

CHAPTER 4
RESULTS

This descriptive cross sectional study was conducted to determine the patient's satisfaction towards maternal and child health services among mothers attending at maternal and child health training institute (MCHTI) in Dhaka, Bangladesh. The data were collected during the period of 8th January to 18th January, 2007 by interviewing with structured questionnaire facilitated by five trained university students. A total one hundred and seventy five data were collected and used for analysis.

Descriptive statistics were used to describe different variables such as age, education, occupation, family income etc. Chi- square test was used to find out the association between the socio- demographic status, accessibility to the hospital, available services of the hospital, service expectation and satisfaction on maternal and child health care services among mothers who attended the Maternal and Child Health Training Institute (MCHTI), in Dhaka, Bangladesh. The results are presented in descriptive forms in following parts.

1. Socio-demographic characteristics
2. Assess the level of satisfaction towards MCH services
3. Assess the level of accessibility to the MCH services
4. Assess the provider's support towards MCH services
5. Assess the hospital service facilities towards mothers and children.
6. Association between independent and dependent variables.

4.1 Socio-demographic characteristics

Table 5 Socio-demographic characteristics

Characteristics	Frequency (n = 175)	Percentage (%)
Age group		
<19	18	10.3
20-24	67	38.3
25-29	59	33.7
≥ 30	31	17.7
Mean = 24.97 SD = 5.42	Min = 16	Max = 44
Education of mother		
No education	49	28.0
Primary	72	41.1
Secondary or more	54	30.9
Number of children		
0-1	82	46.9
2	45	25.7
≥ 3	48	27.4
Mean = 1.90 SD = 1.36	Min = 0	Max = 6
Occupation of mother		
Housewife	147	84.0
Other	28	16.0
Monthly family income		
≤ 3000	63	36.0
3001-5000	66	37.7
5001-8000	29	16.6
>8000	17	9.7

The descriptive statistics for socio-demographic factors was analyzed in Table 5. It showed that 38.3% of the respondents belonged to the age group 20-24 years; this was followed by the age group 25-29 years (33.7%). 17.7% of the respondents were belonging to more than 30 years. Only 10.3% of women were belonging to less than 19 years. The mean age of the respondents was 24.97 years with standard deviation of 5.42 years. The minimum age was 16 years and maximum 44 years respectively.

Table 5 shows majority of the respondents were in primary education (41.1%) and secondary or more education levels were 30.9%. 28.0% respondents were in no education group.

The maximum number of children was six. The percentage of women, who had 2 children, was 25.7%. The percentage of women having one child or less than one child was 46.9%, followed by 27.4% had more than 3 children respectively (Table 5).

Concerning the women's occupations, majority of the women (84%) were housewives. Only 16% women were from other occupation.

Regarding the monthly family income of the respondents, 36% of the respondents belonged to the income group of less than Tk3000, which is less than US $ 43, 37.7% of the respondents belonged to the income group of Tk. 3001-5000, which is US $ 43- 72, and 16.6% were belonged to the income group of Tk. 5001-8000, that is US $ 72- 115. Only 9.7% of the respondents belonged to the income group of more than Tk.8000 that is more than US $ 115 (Table 5).

4.2 Number and percentage distribution of the respondents about accessibility to the hospital

Table 6 Accessibility to the hospital

Characteristics	Frequency (n = 175)	Percentage (%)
Source of information		
Family member or relative	98	56.0
Friend or neighbor	77	44.0
Mode of transport		
Walk	29	16.6
Rickshaw	105	60.0
Taxi	18	10.3
Bus	23	13.1
Travel time		
≤ 15 minutes	29	16.6
16-30 minutes	92	52.6
>30 minutes	54	30.9
Mean = 32.70 SD = 20.51	Min = 5	Max = 120
Cost of travel		
No cost	29	16.6
≤ 15 taka	62	35.4
>15 taka	84	48.0
Mean = 21.22 SD = 20.86	Min = 0	Max = 100

Concerning source of information table 6 shows, 56% of the respondents received information about the MCHTI hospital from family members and relatives. This was followed by friends and neighbors, which is 44%.

Majority of the respondents (60%) came to service centre by rickshaw. Only 10.3% used taxi to come to service center. 16.6 percent women went to service centre on foot and 13.1% used bus to reach the service centre.

Majority of the women (52.6%) reached to hospital within 16-30 minutes. 30.0% women reached hospital in more than 30 minutes. Only 16.6% women reached to hospital in less than 15 minutes. Mean of the travel time was 32.70 minute and standard deviation was 20.51 minutes. The minimum time of reach to the hospital was 5 minutes and maximum of reach to the hospital was 120 minutes.

Majority of the respondents (48%) spent more than Tk 15 (more than quarter US $) to reach the hospital. This was followed by 35.4%, who spent less than Tk 15 (less than quarter US $) to reach the hospital. Only 16.6% of the respondents spent no money to reach the hospital. The mean of the cost of the travel was Tk. 21.22 and standard deviation was Tk. 20.86. The minimum expense to reach to the hospital was 0 taka and the maximum expense to reach to the hospital was Tk 100 (Table 6).

4.3 Number and percentage distribution of the respondents about the available services of the hospital

Table 7 Frequency and percentage distribution of the respondents about the available services of the hospital- related to providers-behavior of the service providers

Characteristics Behavior of -	Frequency (n = 175)	Percentage (%)
Physician		
Very good	5	2.9
Good	166	94.9
Bad	4	2.3
Health educator		
Very good	10	5.7
Good	161	92.0
Bad	4	2.3
Nurse-FWV		
Very good	4	2.3
Good	153	87.4
Bad	18	10.3
Pharmacist		
Very good	26	14.9
Good	149	85.1
Supporting staff		
Very good	3	1.7
Good	100	57.1
Bad	72	41.1

The independent variable, the availability of the service has got two components: related to the providers and related to the facilities. Among related to the providers, there are five types of service providers such as physician, health educator, nurse- FWV, pharmacist and supporting staff. The descriptive statistics for the availability of services, related to providers (behavior of the service providers) was shown in table seven.

Majority of the respondents (94.9%) told the behavior of the physician was good. 2.9% informed the behavior of the physician was very good and only 2.3% informed the behavior of the physician was bad.

Regarding the behavior of the health educator, majority of the respondents (92.0%) informed that the behavior of the health educator was good and 5.7% informed it was very good. Only 2.3% respondents informed the behavior of the health educator was bad.

87.4% women reported the behavior of the nurse- FWV was good and 2.3% told it was very good. But 10.3% told the behavior of the nurse- FWV was bad.

Among 175 respondents, 149 women (85.1%) told the behavior of the pharmacist was good and 26 women (14.9%) told it was very good.

57.1% patient told the behavior of the supporting staff was good; where as 41.1% informed the behavior of the supporting staff was bad. Only 1.7% informed the behavior of the supporting staff was very good (Table 7).

Table 8 Frequency and percentage distribution of the respondents by the attention of the service providers- create opportunity for openly explain the problem

Characteristics Provider's – attention by	Frequency (n = 175)	Percentage (%)
Physician		
Not at all	3	1.7
Somewhat	136	77.7
Given full opportunity	36	20.6
Health educator		
Not at all	5	2.9
Somewhat	132	75.4
Given full opportunity	38	21.7
Nurse-FWV		
Not at all	8	4.6
Somewhat	152	86.9
Given full opportunity	15	8.6
Pharmacist		
Somewhat	87	49.7
Given full opportunity	88	50.3
Supporting staff		
Not at all	19	10.9
Somewhat	146	83.4
Full	10	5.7

The descriptive statistics for the availability of services, related to providers (attention of the service providers) was shown in table eight. Result shows, 20.6% of the respondents informed they got the full attention of the physician and the physician gave full opportunity for openly explain the problem, but only 1.7% respondents told they did not get at all any attention from the physician and they did not get the opportunity for openly explain the problem. Majority of the respondents (77.7%) told they got somewhat attention of the physician as well as got somewhat opportunity for openly explain the problem.

Majority of the respondents (75.4%) told they got somewhat attention of the health educator and they got somewhat opportunity for openly explain the problem. Only 2.9% women told they did not get at all any attention from the health educator and they didn't get the opportunity for openly explain the problem. Where as 21.7% women told they got full attention of the health educator and the health educator gave full opportunity for openly explain the problem.

86.9% of the respondents told they got somewhat attention of the nurse- FWV and they got somewhat opportunity for openly explain the problem. Only 4.6% women told they did not get at all any attention from the nurse- FWV and they didn't get the opportunity for openly explain the problem. Only 8.6% women told they got full attention of the nurse- FWV and the nurse-FWV gave full opportunity for openly explain the problem.

Regarding the pharmacist, 50.3% of the women told they got full attention from the pharmacist and got the clear idea about the doses of drug. Following them 49.7% women told they got somewhat attention from the pharmacist and got somewhat idea about the doses of the drug. Neither of women informed about the inattention of the pharmacist.

83.4% women got somewhat attention and support from the supporting staff and 10.9% women got not at all any attention and support from them. Only 5.7% women got full attention and support from the supporting staff (Table 8).

Table 9 Frequency and percentage distribution of the respondents by the attention of the service providers- listen attentively

Characteristics Provider's- listening attentively	**Frequency (n = 175)**	**Percentage (%)**
Physician		
Not attentive	10	5.7
Attentive	162	92.6
Very attentive	3	1.7
Health educator		
Not attentive	4	2.3
Attentive	144	82.3
Very attentive	27	15.4
Nurse-FWV		
Not attentive	18	10.3
Attentive	154	88.0
Very attentive	3	1.7

The descriptive statistics for the availability of services, related to providers (listen attentively by the service providers) was shown in table nine.

Majority of the respondents (92.6%) told the physician was attentive to them and listen attentively and 1.7% respondents told the physician was very attentive to them and they listen very attentively. Only 5.7% women told they did not get attention from the physician and the physician did not listen to them attentively as well.

82.3% respondents told the health educator was attentive and listen attentively and 15.4% respondents told the health educator was very attentive they listen very attentively. Only 2.37% women told they did not get attention from the health educator and the health educator did not listen to them attentively.

Majority of the respondents (88.0%) told the nurse- FWV was attentive to them and listen attentively and 1.7% respondents told the nurse- FWV was very attentive to them and they listen very attentively. 10.3% women told they did not get attention from the nurse- FWV and the nurse- FWV did not listen to them attentively as well (Table 9).

Table 10 Frequency and percentage distribution of the respondents by the confidentiality of the service providers- history taking

Characteristics Provider's- history taking	Frequency (n = 175)	Percentage (%)
Physician		
No	2	1.1
Somewhat	88	50.3
Yes	85	48.6
Nurse-FWV		
No	7	4.0
Somewhat	106	60.6
Yes	62	35.4

Table 10 shows, 48.6% of the respondents told the physician maintained full confidentiality of the time of taking history of them and 50.3% respondents followed them telling the physician maintained somewhat confidentiality of the time of taking history of their problem. Only 1.1% respondents told the physician didn't maintain any confidentiality of the time of taking history of them.

Majority of the respondents (60.6%) told the nurse- FWV maintained somewhat confidentiality of the time of taking history of their problem and 35.4% respondents told the nurse- FWV maintained full confidentiality. Only 4.0% respondents told the nurse- FWV didn't maintain any confidentiality of the time of taking history of their problem (Table 10).

Table 11 Frequency and percentage distribution of the respondents by the confidentiality of the service providers- physical check up

Characteristics Provider's- physical check up	Frequency (n = 175)	Percentage (%)
Physician		
No	30	17.1
Somewhat	67	38.3
Yes	78	44.6
Nurse-FWV		
No	23	13.1
Somewhat	78	44.6
Yes	74	42.3

Table 11 showed that, 44.6% of the respondents told the physician maintained full confidentiality of the time of their physical check-up and 38.3% respondents followed them telling the physician maintained somewhat confidentiality of the time of their physical check-up. But 17.1% respondents told the physician didn't maintain any confidentiality of the time of their physical check-up.

42.3% of the respondents told the nurse- FWV maintained full confidentiality of the time of their physical check-up and 44.6% respondents followed them telling the nurse- FWV maintained somewhat confidentiality of the time of their physical check-up. Only 13.1% respondents told the nurse- FWV didn't maintain any confidentiality of the time of their physical check-up (Table 11).

Table 12 Frequency and percentage distribution of the respondents by the attention of the service providers- explain necessity of test and cost

Characteristics	Frequency (n = 175)	Percentage (%)
Attention of physician		
No	29	16.6
Somewhat	117	66.9
Yes	29	16.6

The descriptive statistics for the availability of services, related to providers-explain necessity of test and cost was shown in table twelve.

Majority of the respondents (66.9%) told the physician somewhat gave attention to explain about the necessity of the test and cost of the test. 16.6% respondents told the physician fully explained them about the necessity of test and cost. But 16.6% told the physician didn't at all given attention to tell them about the reason of test and the cost of the test.

Table 13 Frequency and percentage distribution of the respondents about the available services of the hospital- related to providers

Characteristics	Frequency (n = 175)	Percentage (%)
Available service related to provider		
Poor (24 -<34)	28	16.0
Fair (34 -<44)	134	76.6
Good (44 -<54)	13	7.4

Table 13 shows that, majority of the respondents (76.6%) told the available services of the hospital- related to providers were fair and 7.4% told the provider's support was good. Only 16.0% respondent was not satisfied with the available services of the hospital and told the provider's support was poor.

Table 14 Frequency and percentage distribution of the respondents about the available services of the hospital- related to facilities

Characteristics Availability of -	Frequency (n = 175)	Percentage (%)
Waiting place		
Less than enough	125	71.4
Enough	46	26.3
More than enough	4	2.3
Drinking water		
Less than enough	84	48.0
Enough	91	52.0
Cleanliness of toilet		
Unclean	40	22.9
Partly clean	98	56.0
Fully clean	37	21.1
Waiting time		
Less time	11	6.3
Reasonable time	72	41.1
Longer time	92	52.6

Table 14 shows that, majority of the respondents (71.4%) told the availability of the waiting place was less than enough. 26.3% respondents told the availability of the waiting place were enough. Only 2.3% women were satisfied with the waiting place and told the waiting place was more than enough.

The percentage about the availability of drinking water was almost similar. 91 women (52%) told drinking water was enough, where as 84 women (48%) told drinking water was less than enough.

21.1% of the respondents told the toilet was fully clean, where as 22.9% told the toilet was totally unclean. But majority of the respondents (56.0%) told the toilet was partly clean.

Majority of the respondents (52.6%) had to wait for longer time to get the service from the hospital, where as 41.1% women had to wait for reasonable time. Only 6.3% women had to wait for less time to get the desired service from the hospital (Table 14).

Table 15 Frequency and percentage distribution of the respondents about the available services of the hospital- related to facilities

Characteristics	Frequency (n = 175)	Percentage (%)
Available service facilities		
Poor (4 -<6)	54	30.9
Fair (6 -<8)	76	43.4
Good (8 -<10)	45	25.7

Table 15 showed that, 43.4% of the women told the availability of the hospital services- related to facilities were fair and 25.7% told it was good. The rest 30.9% women told the available facility of the hospital was poor.

4.4 Number and percentage distribution of the respondents about the expectation of services of the hospital

Table 16 Frequency and percentage distribution of the respondents about the expectation of services of the hospital

Characteristics Idea about -	Frequency (n = 175)	Percentage (%)
Cost before coming to hospital		
Low cost	69	39.4
Reasonable cost	73	41.7
High cost	2	1.1
No idea	31	17.7
Provider before coming to hospital		
Not good	8	4.6
Acceptable	121	69.1
Very good	6	3.4
No idea	40	22.9
Instrument before coming to hospital		
Not good	11	6.3
Acceptable	65	37.1
Very good	5	2.9
No idea	94	53.7
Drug supply before coming to hospital		
Not good	14	8.0
Acceptable	102	58.3
Very good	23	13.1
No idea	36	20.6

The patients were asked about their expectation towards the services provided by the MCHTI hospital before they experienced the existent services. There were four questions about the expectation.

41.7% of the women expected before coming to the hospital, the cost would be reasonable and 39.4% expected the cost would be low. 17.7% women didn't have any idea about the cost of the hospital services before coming to the hospital. Only 1.1% women expected the service cost would be higher.

Majority of the women (69.1%) expected before coming to the hospital, the support of the providers (physician, health educator, nurse- FWV, pharmacist, supporting staff etc) would be acceptable. But 22.9% women didn't have any idea about the providers support. Only 3.4% women expected the provider's support

would be very good. The rest 4.6% women expected before coming to the hospital, the support of the provider would not good.

53.7% women didn't have any idea about the instrument of the hospital before coming. 37.1% thought the instrument would be acceptable and 6.3% expected the instrument would not good. Only 2.9% women expected before coming to the hospital the instrument should be very good.

Majority of the respondents (58.3%) expected before coming to the hospital, the supply of drug would be acceptable and 13.1% thought it would be very good. But 20.6% women didn't have any idea about the supply of drugs in the hospital before coming to hospital. Only 8.0% women thought before coming to the hospital, the supply of drugs should not be good (Table 16).

Table 17 Frequency and percentage distribution of the respondents about the expectation level of services of the hospital

Characteristics	Frequency (n = 175)	Percentage (%)
Service expectation level		
Poor (0 -<4)	38	21.7
Fair (4 -<8)	76	43.4
Good (8 -<12)	61	34.9

Table 17 showed that, 43.4% women's expectation level about the hospital service was fair before coming to the hospital and 34.9% women's level of expectation was good. But 21.7% women's expectation level about the service of the hospital was poor before coming to the hospital.

Table 18 Frequency and percentage distribution of the respondents about the level of satisfaction

Characteristics	Frequency (n = 175)	Percentage (%)
Low (23- <29)	24	14
Moderate (29- <35)	82	47
High (35- <41)	69	39
Mean = 33.1 SD = 3.2	Min = 23	Max = 40

Table 18 shows that, 39% of the respondents were highly satisfied with the services of the hospital. 47% of the respondents were moderately satisfied. Only 14% of the respondent's satisfaction level was low.

4.5 Association between various independent variables and dependent variable

Table 19 Association between age, education, occupation, number of children and monthly family income with the satisfaction of mothers who took MCH services

Characteristics	Number (n = 175)	Low N (%)	Moderate n (%)	High n (%)	P- value
Age group					
<19	18	3	10	5	0.632
		16.7%	55.6%	27.8%	
20-24	67	10	30	27	
		14.9%	44.8%	40.3%	
25-29	59	6	25	28	
		10.2%	42.4%	47.5%	
≥ 30	31	5	17	9	
		16.1%	54.8%	29.0%	
Education of mother					
No education	49	8	18	23	0.129
		16.3%	36.7%	46.9%	
Primary	72	6	35	31	
		8.3%	48.6%	43.1%	
Secondary or more	54	10	29	15	
		18.5%	53.7%	27.8%	
Number of children					
0- 1	82	8	42	32	0.428
		9.8%	51.2%	39.0%	
2	45	6	19	20	
		13.3%	42.2%	44.4%	
≥ 3	48	10	21	17	
		20.8%	43.8%	35.4%	
Occupation of mother					
Housewife	147	19	73	55	0.234
		12.9%	49.7%	37.4%	
Other	28	5	9	14	
		17.9%	32.1%	50.0%	
Monthly family income					
≤ 3000	63	8	24	31	0.152
		12.7%	38.1%	49.2%	
3001-5000	66	8	33	25	
		12.1%	50.0%	37.9%	
5001-8000	29	6	18	5	
		20.7%	62.1%	17.2%	
>8000	17	2	7	8	
		11.8%	41.2%	47.1%	

As shown in Table 19, the association of socio-demographic characteristics with satisfaction was assessed in this section. It was found out from the results that the respondents belonging to the age group of below 19 years had highest proportion of moderate satisfaction (56.6%) and those from age group of 25-29 years had highest proportion of high satisfaction (47.5%). The relationship of age with satisfaction was analyzed. It was concluded that age had no significant association with satisfaction.

Regarding the education, the result showed that in the secondary or more level 18.5% was low satisfied. The percentage of no education was very close to each other and it was 16.3%. However the association was not significant.

Regarding number of children it was found that, those who had less than one child among them, 39.0% highly satisfied and those who had more than three children, 35.4% highly satisfied. However, there was no association between number of children and satisfaction.

It was found out from results that the respondents who were belong to the house wives group were 12.9% low satisfied and the respondents who were belong to the other group, 17.9% were low satisfied. So the relationship of occupation with satisfaction was analyzed and it was concluded that occupation had no significant association with satisfaction.

Concerning the family income of the respondents it was found that the percentage of low satisfaction (12.7%), they were belong to income group less than tk 3000. where as, who were belong to more than Tk 8000 income group, they were also low satisfied (11.8%). However, there was no significant association found between family income and satisfaction (Table 19).

Table 20 Association between accessibility of the hospital and satisfaction of the mothers who took MCH services from the MCHTI

Characteristics	Number (n = 175)	Low n (%)	Moderate n (%)	High n (%)	P- value
Source of information					
Family member or relative	98	11	46	41	0.513
		11.2%	46.9%	41.8%	
Friend or neighbor	77	13	36	28	
		16.9%	46.8%	36.4%	
Mode of transport					
Walk, Rickshaw, Bus	157	20	73	64	0.408
		12.7%	46.5%	40.8%	
Taxi	18	4	9	5	
		22.2%	50.0%	27.8%	
Cost of travel					
No cost	29	6	8	15	0.152
		20.7%	27.6%	51.7%	
≤ 15 taka	62	9	28	25	
		14.5%	45.2%	40.3%	
>15 taka	84	9	46	29	
		10.7%	54.8%	34.5%	
Travel time					
≤ 15 min	29	6	8	15	0.216
		20.7%	27.6%	51.7%	
16-30 min	92	10	47	35	
		10.9%	51.1%	38.0%	
>30 min	54	8	27	19	
		14.8%	50.0%	35.2%	

Regarding source of information it was found that the respondents received information from various sources. Among respondents who received information from family member or relative, 41.8% highly satisfied. The respondents those who received information from friend or neighbor, 36.4% were highly satisfied. So there was no significant association was found among the different sources of information

and the satisfaction of mothers who took MCH services from the Maternal and child health training institute.

Regarding the mode of transport used to go to the service center, it was found that among the respondents, who went to service center on foot and by rickshaw (manual try cycle) and bus, 40.8% of them were highly satisfied. The respondents who used taxi to reach to the service center, 27.8% of them were highly satisfied. However, there was no significant association between mode of traveling to service center and satisfaction of mothers.

Regarding the cost of travel, it was found that among the respondents, who didn't spend any money to reach to the service, 51.7% were highly satisfied. 34.5% were highly satisfied who used less than 15 taka to reach the service center. So there was no significant association between the cost of travel and satisfaction of mothers who took the MCH services.

It was found out from results that the respondents who were traveled less than 15 minutes, 51.7% of them were highly satisfied, 38.0% were highly satisfied who traveled 16-30 minutes and 35.2% were highly satisfied who traveled more than 30 minutes. So the relationship of travel time with satisfaction had no significant association (Table 20).

Table 21 Association between availability of services- related to providers and satisfaction of the mothers who took MCH services from the MCHTI

Characteristics	Number (n = 175)	Low n (%)	Moderate n (%)	High n (%)	P- value
Available service related to provider					
Poor	28	7	8	13	0.052
		25.0%	28.6%	46.4%	
Fair, Good	147	17	74	56	
		11.6%	50.3%	38.1%	

It was found out from results that respondents who received good and fair services from the service provider, 38.1% were highly satisfied. But the respondents who received poor services from the service providers, 46.4% were also highly satisfied. However, there was nearly significant association with available service-related to providers and satisfaction of mothers who received Maternal and Child Health (MCH) services. There is insufficient evidence to conclude that available service related to providers associated with the level of satisfaction.

Table 22 Association between availability of services- related to facilities and satisfaction of the mothers who took MCH services from the MCHTI

Characteristics	Number (n = 175)	Low n (%)	Moderate n (%)	High n (%)	P- value
Available service facilities					
Poor	54	9 16.7%	32 59.3%	13 24.1%	0.009
Fair	76	13 17.1%	33 43.4%	30 39.5%	
Good	45	2 4.4%	17 37.8%	26 57.8%	

Table 22 shows that, the respondents who received good facilities from the service center, 57.8% of them were highly satisfied. Where as 24.1% who received poor facilities from the service center, their level of satisfaction was high. So the relationship between available service facilities and satisfaction of mothers was found significant (p-value = 0.009). Those who access good service facilities, tend to be satisfied more than those who accessed poor service facilities.

Table 23 Association between service expectation level and satisfaction of the mothers who took MCH services from the MCHTI

Characteristics	Number (n = 175)	Low n (%)	Moderate n (%)	High n (%)	P- value
Service expectation level					
Poor	38	3	16	19	0.474
		7.9%	42.1%	50.0%	
Fair	76	10	37	29	
		13.2%	48.7%	38.2%	
Good	61	11	29	21	
		18.0%	47.5%	34.4%	

Table 23 shows that, patients who had poor expectation, half of them were highly satisfied. Patient who had good expectation, only 34.4% were highly satisfied. However, there was no significant association between expectation level and satisfaction of the patient who took the Maternal and Child Health (MCH) services from the Maternal and Child Health Training Institute.

Table 24 Suggestions of the patients regarding Maternal and Child Health (MCH) services of the hospital

Suggestions	Frequency (n = 42)
To increase number of doctors	21
To increase number of nurses	10
To see the patient according to serial	14
To improve behavior of the supporting staff	13
To improve behavior of nurses	6
To improve behavior of doctors	4
To develop more the medical treatment	11
To increase the waiting space	7
To increase the facility of drinking water	2
To keep the toilet clean	10
To increase more latest equipments	5
To increase supply of medicine	3
Waiting time should be less	2
To set up blood bank system	1
To improve the management of hospital	1
To make easy way to take the services	1

Table 24 shows that, out of 175 respondents, 42 women gave suggestions to improve the services of the hospital. So each patient provided more than one point of view. Twenty one respondents suggested increasing the number of doctors and ten suggested increasing the number of nurses. Fourteen respondents suggested seeing the patient according to serial. Thirteen patients has suggested to improve the behavior of the supporting staff, where as only six suggested to improve the behavior of nurses and four told to improve the behavior of the doctors. Eleven respondents told about the development of the medical treatment of the hospital. Seven respondents mentioned the waiting space should be increase and only two mentioned to improve the facility of drinking water. But ten respondents suggested keeping the toilet clean.

Five respondents told about the increase of latest equipments and three told to increase the supply of medicine from the hospital. Two respondents suggested waiting time should be less. Only one respondent gave suggestion to set up blood bank system, one suggested to improve the management of the hospital. Only one respondent gave suggestion that hospital authority should make easy way for the poor patients to take the services from the hospital.

CHAPTER 5
DISCUSSION

Maternal and Child Health Training Institute (MCHTI), Azimpur, Dhaka is one of the renowned hospitals in Dhaka, Bangladesh. The main purpose of this study was to describe the patient's satisfaction on maternal and child care services (MCH) in Maternal and child care hospital. Patient satisfaction is an outcome variable that has been an important part of program evaluation. So this study will help the health managers for balancing effectiveness and efficiency by which they can get feedback for continuous improvement.

The study was conducted at the Maternal and child health training institute during the period of 8th January to 18th January 2007. One hundred and seventy five adult patients (more than 15 years) who came to out patient departments for maternal and child care services at this hospital were selected. The data was collected by structured questionnaire using interview method. The questionnaire was checked by the experts and pre-tested prior of the data collection.

In this study there was a set of questionnaire consisting 49 questions related to socio-demographic factors, accessibility to the hospital, purpose of visit to the hospital, availability of services, service expectation from the hospital, satisfaction and patients' suggestion. To measure indicators of this study was categorized in three groups- bad, good and very good. Likert's scales was used to describe the level of patient's satisfaction focusing physical facilities, maternal and child health services, doctor service, nurses- FWV's service, health educator service, pharmacy sector and registration services. All ten questions related to satisfaction were scored from 1 to 5 and individual score was summed up to calculate the cut off point by BEST Class Interval. Finally the overall satisfaction was categorized into three groups- low, moderate and high. Chi- square test was performed to describe the association between independent variables and patient satisfaction.

5.1 Socio- demographic factors

Study shows that, the youngest respondent was 16 years old and the oldest was 44 years old. The average age was 24.97 years with the standard deviation of 5.42 years. Most of the respondents were belonging to the age group of 20-24years and 25-29 years having primary and secondary or more than secondary education level. Majority of the respondents were housewives and had two children or more than two children. Maximum of the respondents were belong to the group of monthly family income less than TK three thousand and TK. 3001-5000.

In the result, it showed that the associations between age groups and education with overall satisfaction were statistically insignificant. The result were similar to the study on Consumerism reflexivity and the medical encounter carried out by Doborah L, (1997) (41). He found that age and education were not statistically significantly associated with level of satisfaction. But Devitt P. A found in his quality system for oncology nursing that, older people tend to be more satisfied with health care than do younger people (46). But in our study most of the respondents were belong to the age group of 20-24 and 25-29 years old and who is older than the age group of below 19 years old, were highly satisfied. Devkota studied on clients' satisfaction towards health care services provided by health centers in Muang district, Loei province, Thailand and found that clients who had primary and low level of education were highly satisfied (80.2%) in comparison to the respondents who had secondary and above level of education (47). The result were similar to our study on patients satisfaction on MCH service at MCHTI, respondents who were highly satisfied were belong to no education group and primary level education group. Supachai found his study on patient's satisfaction towards curative services in general hospital that the lowest levels of satisfaction were among the income below 2000 bath/ month (48). This study was not similar to our study, because most of the respondents were low income group and highly satisfied with the service.

5.2 Accessibility to the hospital

Study results shows, more than fifty percent of the respondents got information about the hospital from their family members and relatives. 60% of the respondents used Rickshaw (manual tri cycle) to reach the hospital. Most of the respondents used to reach the service center by 16-30 minutes and spent more than TK. 15 only.

Upreti in 1994 made a study related to the services of health centers and found that 71% are satisfied and 29% are dissatisfied with the services. The dimensions he studied were related to the accessibility factors as distance, waiting time, working hours and cost of treatment and percentage of satisfaction was 64.07% (51). This study also similar to our study on patients satisfaction, as our respondents who used to come to the service center by walking and within a short time and low cost, were highly satisfied than the others. A study conducted by Chanawangse in 1996 suggested that distance of the health facility and price of transportation also counts much as far as level of satisfaction of the consumer is concerned (52). This study was also similar to our study as most of the respondents were highly satisfied who came from short distance and low cost of transportation.

5.3 Available services- related to the providers

The result showed that, most of the respondents (76.6%) told the available services of the hospital- related to providers were fair and 7.4% told the provider's support was good and they were highly satisfied (Table 13). Majority of the respondents (94.9%) told, the behavior of the physician was good, 92.0% informed that the behavior of the health educator was good as well as the behavior of nurses-FWV and pharmacist were also good. Most of the respondents told they got full attention from health educator, nurses- FWV's and pharmacist while they expressed about their problem. Result showed that fifty percent of the respondents got confidentiality while physician and nurses- FWV's took history of their disease.

The results was similar to the study of Bob Heyman (1995), reported that over 90% of the doctors were treated as normally good at listening, explaining and examining, and were happy with the way in which the doctor prescribed medicines (53). In our study of patients satisfaction 94.9% respondents told the behavior of physician as well as listening and attention were very good. Same study conducted at Switzerland and revealed that for measuring level of patient satisfaction, physician-patient communication as a factor is the most essential of all the factors (54). Boesch (1972) studied on patient satisfaction and the result indicated that often their physicians were poor in social interaction. Furthermore, client complained that the doctors didn't pay much attention and care, so they feel insufficient. Lacking care and consideration lead them to dissatisfaction (55). That study result was not similar to our current study, as our respondents were highly satisfied with the interaction of the physician. Mechanic (1954) studied about client satisfaction and found that one third of those who change their physician were because of dissatisfaction. Doctors did not adequately meet client satisfaction and failed to explain the procedure and assumption in the treatment process (56), the result of that study was also not similar with our prescribed study as the respondents were highly satisfied with the physician were adequately described the treatment process and explain the procedure of the treatment.

5.4 Available services- related to facilities

The result showed that, 57.8% respondents were highly satisfied with the facilities of the service centers and the result was statistically significant (Table 22). 52% of the respondent told the drinking water was enough but the availability of waiting place was not enough. More than fifty percent had to wait longer time to get the services from the hospital and majority of the respondent told the toilet was not clean.

Sriratnabul and Pimpakovit studied on outpatient department service at Chulalongkorn Hospital and found that 83% of the patient said service was good but they had to wait for many hours to get the service (57). This result was similar to our study as our respondents also told the service was good and they were satisfied but

they had to wait longer time to get the service. Durongpisitkun studied on outpatient satisfaction with services at Ramathibodi hospital and predisposing factors, waiting time and traveling time were collected for the study (58). The result showed that the most satisfaction factor was the waiting time. This result was not totally similar with our study, as our respondents were satisfied but they informed the waiting time was longer. Likun studied on strategic issue for reducing client waiting time and improving satisfaction with services at the outpatient department of the first affiliated hospital, Kunming Medical College (59). The findings were firstly a long waiting time and client dissatisfaction. This study was not totally similar to our prescribed study on patient's satisfaction, but from the findings we could conclude, if our respondents had not to wait long, then the satisfaction rate could be more expand. Sanendra Raj Upreti, 1994 studied on client satisfaction and the results indicated that 71.1% of clients were satisfied and 29.8% were less satisfied. The area such as waiting time, inadequate cleaning and setting of health center surrounding contributed to client dissatisfaction (51). This result was almost similar to our study, our 69.1% of the respondents were satisfied with the available service facilities and told that the facilities were good and fair and the rest (30.9%) were dissatisfied with the service facilities and mentioned it as poor service. Saurma Ida Pasaribu studied on client satisfaction and the result indicates that only 53% of the clients were satisfied. Clients were dissatisfied due to low quality of care and inadequate supply of medicine (60). This result was also similar with our result of the study as our 57.8% respondents were highly satisfied with the available facilities of the hospital.

5.5 Service expectation

Results showed that, 50.0% of the respondents were highly satisfied, though they had poor expectation level (Table 23). 34.4% were highly satisfied as their expectation level was good and 38.2% respondents were highly satisfied as their expectation level was fair. In these study patients expectation had not shown the significant association with the satisfaction level however the results from assessing the existing services with the previous expectation services were found to be associated with satisfaction. Commonly, when the existent services could serve or

better than those were expected, the satisfaction towards these services should be perfect.

Ware and Synder studied in which the relationship between level of patient's expectation and overall satisfaction has been explored consistently suggested that patients with lower expectations tend to be more satisfied (61). The result of this study was similar to our prescribed study, as our respondents had poor expectation level but they were highly satisfied with the MCH care services of the MCHTI hospital. Donabedian (1966) proposed a conceptual structure and explained satisfaction study as provider's success to meet client values and expectations (62). This study showed, expectation was one of the most important factors affecting patients' satisfaction. In our study result, expectation was also an essential part and with the result of this study, services of the hospital could be improved. Stimson and Webb studied and described expectation was identified into three categories: "background", "interaction" and "action" (63). "Interaction" expectations refer to patients expectations regarding the exchange which will take place with their doctor, for example the manner and technique of questioning and the level of information released by the doctor. This result was similar to the study of our patients' satisfaction, as our 69.1% of the respondents expected before coming to hospital that the behavior of the physicians as well as the providers would be accepted.

5.6 Patients' satisfaction

The study result revealed that more than sixty percent (61.5%) of the respondents were highly satisfied and 30.8% were moderate satisfied with the available service at the Maternal and child health training institute (Table 21). The findings were slightly different to the satisfaction studies done by Saurma Ida Pasaribu (60). Saurma Ida Pasaribu studied client satisfaction towards health care service of a health center in Bangkok, Thailand in 1996 in which 53.3% of the clients were highly satisfied with over all health care services. These different findings may be due to difference in their cultural setting in providers and also receivers. But the study showed that medical care service would develop according to the needs and

wants of the clients, so that the services of the hospital were utilized for the ultimate benefit of the expected clients. For this purpose the providers were needed to understand the behavior, expectation and the view of the clients. Fitzparic (1991) in measurement of client satisfaction wrote that client evaluate their medical care on a number different and separate aspects. How many dimension clients distinguish in their evaluation of care was not universally agreed, but several studies assessed clients view separately. The key dimension of satisfaction was quality of care, personal aspect care, convenience and physical facilities, expenses of medical care and out come of care (64). The findings were similar to our proposed study, as we took the interview of the patients with different views and asked questions with different dimensions such as convenience, facilities of the hospital, cost of the service, personal care and quality of service.

Regarding the level of satisfaction in different four categories, namely socio-demographic factors, accessibility to the hospital, available service of the hospital and expectation of the service procedure, this study showed that more or less patients were equally cautious in each aspect of the maternal and child health care service. Most of the patients were satisfied on provider's service (61.5%), but relatively less satisfied with facilities of the hospital (57.8%). This showed that clients were concerned about the physical facilities in the hospital that these were not enough and that their condition was not good.

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The study on patients' satisfaction on maternal and child care services in Maternal and Child Health Training Institute (MCHTI), Azimpur, Dhaka has been conducted and data were collected during the period of 8th January to 18th January, 2007 by interviewing with structured questionnaire. The objective was to describe the level of satisfaction on maternal and child care services. The data were collected from one hundred and seventy five patients who came for maternal and child care services at the out patient department of Maternal and Child Health Training Institute (MCHTI). Among one hundred and seventy five respondents, some of them took one services and some of them took more than one services from the hospital. Total 38 respondents came for ANC, 34 for PNC, 47 for Gynecology problem, 74 for Health education, 43 for TT, 39 for laboratory test, 27 for ultra sound and 36 for other services. And 92 children came for medical treatment, 56 for EPI, 27 for laboratory test and 2 for other service during the period of data collection.

The result revealed that most of the respondents were belonging to the age group of twenty to twenty four years having primary and secondary education level. Majority of the respondents were housewives and had two children or more than two children, who took fifteen to thirty minutes to reach the hospital and spent more than TK. 15 only. Maximum of the respondents had monthly family income less than TK three thousand up to TK five thousand only.

Regarding the satisfaction, almost 77% of the respondents were told the provider's support was good and almost 8% told that it was fair. The result showed that, 95% of the respondents were highly satisfied with the behavior of the physician, 92% with the health educator, 88% with the nurse/ FWV's and 85% with the

pharmacists. The result showed that, 57.8% of the respondents were highly satisfied with the facilities of the service centers. Result also shows that, 50.0% of the respondents were highly satisfied, though they had poor expectation level. However, patients who had low and poor expectations had high satisfaction but those who had high expectations had low satisfaction.

From the study it found that, the associations between age groups and education with overall satisfaction were statistically insignificant. Regarding occupation, it was also found that there was no significant association between overall satisfaction and occupation of the respondents, but almost fifty percent of the respondents with the primary education group with low income were highly satisfied with the service.

This study showed that, the association between overall satisfactions and available services- related to the providers were not statistically significant, but 76.6% of the respondents were highly satisfied with the support of the providers. The result showed that, 57.8% respondents were highly satisfied with the facilities of the service centers and the result was statistically significant (p-value <0.05). Related to the service expectation, 50.0% of the respondents were highly satisfied, though they had poor expectation level. Result revealed that, 39% of the respondents were highly satisfied and 47% of the respondents were moderate satisfied with the maternal and child health care services of the Maternal and Child Health Training Institute (MCHTI).

6.2 Recommendations

According to the result of this study, there were some recommendations for improving the patients' satisfaction as well as the quality of maternal and child health care services in Maternal and Child Health Training Institute (MCHTI), as follows

The study indicated that waiting time in getting services almost all sectors, created trouble for the patients. It is therefore recommended that the waiting time

should be decreased by reorganizing of staff and physicians during rush hours or by requesting the examining physician to efficiently handle the patients without wasting time.

It is needed to be arranged waiting space for the patients. The cleanliness of the toilet should be maintained as there are so many patients come to the hospital regularly but the number of toilets are very less comparing to the patients.

It is needed to be established monitoring and evaluation tolls/ indicators to monitor of the service facility and quality and satisfaction. Health education and promotion class should be planned and ensured by logistic supply (for example, leaflet, pamphlet, handbook etc).

It is needed to be arranged on job training and BCC (Behavior Change Communication) training for the supporting staff. Hospital authority should arrange this type of training phase by phase or after the working hour of the hospital, so that patients don't feel lack of staff during the rush hour.

Existing managerial, information and communication system should be strengthened by regular monitoring. All the services information should be well informed (for example, by poster, leaflet, drawing arrow mark in the building, bill board inside and outside of the hospital).

Further study about patients satisfaction on maternal and child health care services, the providers need to be included in the study population and questionnaire should be develop also for providers towards their activities include observation from hospital facilities. From the both sides, it could be found the patients satisfaction towards the service provided by the providers. The result could be used to improve the quality of care.

Further in depth interview/ exit interview and qualitative study should be conducted to find out the actual level of satisfaction. There are several factors related

to the patients satisfaction on maternal and child health care services, this study focused only some selected factors, other factors like husband education, support and participation, providers attitude etc should be explore in future study. Moreover, in-depth study should be conducted to explore the role of husband, mother-in-law as well as the quality of services. A combination of quantitative and quality study will be worthwhile to explore the actual level of satisfaction more intensely.

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APPENDIX

No: _ _ _

APPENDIX A

QUESTIONNAIRE

PATIENT SATISFACTION TOWARDS MATERNAL AND CHILD HEATLH SERVICES AMONG MOTHERS ATTENDING AT MATERNAL AND CHILD HEALTH TRAINING INSTITUTE IN DHAKA, BANGLADESH

This questionnaire is prepared only for the MPHM program thesis writing purpose. The questionnaire is constructed for assessing your satisfaction towards services provided by the hospital. Your responses will be kept secret and will not be exposed for any other purposes. Therefore we need your full cooperation and honest answers.

Date of data collection: ___/___/___ (D/M/Y)

Time of data collection: _____to_____

Part I: Socio- demographic characteristics

1. How old are you? …… years
2. How old is this child (if child patient)? ……years
3. What is your relationship with this child patient?
   1. Mother
   2. Father
   3. Grand mother
   4. Aunt
   5. Others
4. What kind of work are you doing?

Mothers	**Husbands**
1. Housewife	1. Daily labor
2. Employee	2. Service
3. Service	3. Business
4. Others	4. Others

5. What is the highest class you have completed?

Mothers	**Husbands**
1. Illiterate	1. Illiterate
2. Primary	2. Primary
3. Secondary	3. Secondary
4. Bachelor degree	4. Bachelor degree
5. Others	5. Others

6. If illiterate, can you read?
   1. Yes
   2. No

   Can you write?
   1. Yes
   2. No
7. How much your family monthly income?
   1. < Taka 3000
   2. Taka 3001- 5000
   3. Taka 5001- 8000
   4. Taka 8001-10,000
   5. > Taka 10,000
8. How many children do you have?
   1. Male
   2. Female
   3. Total

Part II: Access to the hospital

9. How do you know about this hospital?
   1. Radio/Television
   2. Newspaper
   3. Family/Relatives
   4. Friends/Neighbors
   5. Others
10. How do you get to this hospital?
   1. On foot
   2. Rickshaw
   3. Taxi cab
   4. Bus
   5. Others
11. How long it takes to come to this hospital? .....hours …… minutes

12. How much you spend for transportation (one way)? …… Taka

Part III: Purpose of visit to hospital

13. What service(s) you have got for yourself from this hospital today? (Multiple choices also accepted)
   1. ANC
   2. PNC
   3. Gynecology
   4. Health education
   5. EPI
   6. Lab tests
   7. USG
   8. Others
   9. None
14. What service did you seek for your child today?
   1. Medical treatment
   2. EPI service

3. Lab tests
4. Others
5. None

15. How many times have you come to this hospital as a patient before today?
    1. Once
    2. Twice
    3. Three times
    4. Four times
    5. More than five

Part IV: Available services: Related to providers

16. Doctors-
    Respect
    How did doctor greet you when you entered into Doctors room?
    1. Not nicely
    2. Nicely
    3. Very nicely

17. Attention
    a. Do you feel the doctor listened to your problems attentively?
       1. Not attentively
       2. Attentively
       3. Very attentively
    b. Do you feel that doctor has given you opportunity to speak freely about your problem?
       1. Not at all
       2. Partially
       3. Fully
    c. Did you get enough explanation about the necessity of laboratory tests/ ultrasound and its cost?
       1. No
       2. Partially
       3. Yes

18. Privacy –
    At the time of service delivery, do you think that the doctor has maintained privacy?
    a. History taking
       1. No
       2. Partially
       3. Yes
    b. Physical examination
       1. No
       2. Partially
       3. Yes

19. Health educators-
Respect
How did health educator greet you when you entered into mother's class?
1. Not nicely
2. Nicely
3. Very nicely

20. Attention
a. Do you feel they listened to your questions attentively?
1. Not attentively
2. Attentively
3. Very attentively
b. Do you feel they have given you opportunity to speak freely about your problem?
1. Not at all
2. Partially
3. Fully

21. Nurses/ FWVs-
Respect
How did they greet you when you entered into Nurses/FWVs room?
1. Not nicely
2. Nicely
3. Very nicely

22. Attention
a. Do you feel they listened to your questions attentively?
1. Not attentively
2. Attentively
3. Very attentively
b. Do you feel they have given you opportunity to speak freely about your problem?
1. Not at all
2. Partially
3. Fully

23. Privacy-
At the time of service delivery, do you think that they have maintained privacy?
a. History taking
1. No
2. Partially
3. Yes
b. Physical examination
1. No
2. Partially
3. Yes

24. Lab technicians-
Respect
How did they greet you when you entered into their room?
1. Not nicely
2. Nicely
3. Very nicely

25. Attention
a. Did you receive the explanation about the purpose of the test?
1. Not at all
2. Partially
3. Fully

b. Do you receive the cost information before your test?
1. Not at all
2. Partially
3. Fully

26. Pharmacists-
Respect
How did they greet you when you have reached at the pharmacy counter?
1. Not nicely
2. Nicely
3. Very nicely

27. Attention
Did you feel that they have given clarification about your dosage of medicine?
1. Not at all
2. Partially
3. Fully

28. Supportive staff-
(Aya, Gate keeper etc.)
Respect
How did they treat you?
1. Not nicely
2. Nicely
3. Very nicely

29. Attention
Did you feel they have listened to you and helped you?
1. Not at all
2. Partially
3. Fully

Part V: Available services: Related to facilities

30. How was the waiting space?
1. Less than enough
2. Enough
3. More than enough

31. How was the supply of drinking water?
    1. Less than enough
    2. Enough
    3. More than enough
32. How was the cleanliness of the toilet?
    1. Not at all clean
    2. Partially clean
    3. Totally clean
33. How much time did you wait for required service?
    1. More time
    2. Average time
    3. Less time

Part VI: Service expectation

Before utilizing the hospital services, what was your expectation towards the following issues?

34. Cost of the service-
    1. Low
    2. Acceptable (reasonable)
    3. High
    4. No expectation
35. Support of the Service providers (Doctors, Nurses, Lab technicians, Pharmacists, Health educators, supportive staffs etc)-
    1. Not good
    2. Acceptable (reasonable)
    3. Excellent
    4. No expectation
36. Cleanliness of hospital equipment-
    1. Not good
    2. Acceptable (reasonable)
    3. Excellent
    4. No expectation
37. Supply of medicine-
    1. Not good
    2. Acceptable (reasonable)
    3. Excellent
    4. No expectation

Part VII: Satisfaction level of services

38. Registration –
    How satisfied are you with registration process?
    (1) Very dissatisfied
    (2) Dissatisfied
    (3) Neutral

(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify ……

39. Antenatal checkup (ANC)-
How satisfied are you with antenatal checkup service?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify ……

40. Postnatal checkup (PNC)-
How satisfied are you with postnatal checkup service?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others

41. Family planning-
Which service did you take today?
1. FP method
2. MR
3. Norplant
4. Counseling
5. Others

42. How satisfied are you with this service?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify …….

43. Gynecology-
How satisfied are you with this service?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify …….

44. Child health checkup/treatment-
How satisfied are you with the health check up/treatment for your child?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify …….

45. EPI (Pregnant mother/ Child) -
How satisfied are you with the EPI services?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify ……..

46. Health education
(Counseling, Nutrition & Mothers class)
How satisfied are you with the services?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify ……

47. Laboratory tests/ Investigations-
(Blood, urine/ ultrasonograph services etc.)
How satisfied are you with the lab test/ investigation services?
(1) Very dissatisfied
(2) Dissatisfied
(3) Neutral
(4) Satisfied
(5) Very satisfied
: If answer is 1 and 2, please mention your reason-
1. Facilities
2. Management
3. Behavior
4. Waiting time
5. Cost
6. Others, please specify ……

48. What is the level of your satisfaction with this hospital existing services?
    1. Not satisfied
    2. Average
    3. Good
    4. Very good
    5. Excellent

If answer 1 and 2, please give your suggestions-
For the improvement of hospital services do you have any advice or suggestions?

Thank you for your cooperation.

Name of the interviewer: ……

Signature of the interviewer: ……..

Date:

BIOGRAPHY

NAME	Asma Hasan
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