

## **Breaking the Shield and bridging the Gaps: Health needs and Health care Utilization of Adolescent Girls**

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### **Abstract**

*The objective of the research was to understand adolescent girl's health seeking behavior who lives in urban area. Data were collected using unstructured interview guides and tape recordings. The interviewers revealed that a number of factors create barriers to utilize health care service by adolescent girls. Some of these are social, some economic, some religious/cultural and others are related to health care system itself. Social barriers identified included- dependency because of girls need someone accompany, discrimination, the low family decision making process, and the perceived stigma of having some illness. Economic barriers included- family poverty, cost of health care service. Religious and cultural barriers identified were- restricted mobility of girl under Purdah, belief in evil spirits. Finally health care system barriers that were identified include- distance to health service, lack of female doctor, long waiting time, the behavior of doctor, bitter experience, lack of suitable environment. These themes are described in detail below.*

*Using a Social Determinant of Health perspective, this paper analyzed existing literature on adolescent health care utilization in Dhaka who identifies social, economic and cultural forces that heighten the vulnerability of such excluded groups. It is found that poverty privacy and shame are major exclusionary factor. The paper provides some recommendation so that the social exclusion of this high risk group can be reduced and minimized.*

**Key words:** Adolescent girls, Health needs, Excess to health care, Social determinant of health

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## **Introduction**

One fifth of the world's populations are adolescents, and 85 per cent of them live in the developing world, including Bangladesh (Rutstein S, 1990). Twenty three per cent of the total population of Bangladesh is aged between ten and nineteen. Over the next decade, these adolescents will enter their prime reproductive years. Like other south Asian countries, Bangladesh is a conservative country. In addition to the effect of conservatism and strong patriarchal structures, Bangladeshi society is also influenced by Islam, Hinduism and traditional religious beliefs. Low levels of education combine to create an environment of misunderstanding regarding reproductive and sexual health (Nahar, Amin, et al., 1999). Adolescence is a critical time for developing healthy behaviours towards sexuality, reproductive rights and responsibilities. According to the World Health Organization (WHO) the term "adolescent" refers to the children, who fall within the age group of 10 to 19 years that comprise a large part of the country's total population (Gazi R, et al, 1998).

These young people suffer disproportionately from negative sexual and reproductive health outcomes, and Sexually Tract Infection (STI), including HIV/AIDS. The phenomenon has been attributed to inaccurate knowledge about sexuality and Reproductive Health (RH) among youth (National AIDS and STD Programme, 2003). A common explanation proffered for the poor sexuality knowledge among Bangladeshi youths is that they primarily rely on equally uninformed peers for information on sexuality (Chowdhury, A.Q.M.B., et al., 1995) as a result; adolescents have inadequate knowledge and often indulge in risky behaviours (Ford CA & Millstein SG., 1997).

Another issue of concern among adolescent is the onset of menstruation which profoundly changes their lives (Jobanputra J, Clack AR, et al., 1999). Menstruation is an important reproductive health function, yet it has been dealt with secrecy (Ministry of Health and Family Welfare, 2009) A number of taboos and social and cultural restrictions still exists concerning menstruation (Barkat, A. 2000), which intimidates the girls and make their life difficult. Good hygiene, such as the use of sanitary pad, is important during menstruation. Learning about menstrual hygiene, antenatal care, hospital delivery, post natal care and other RH issues is vital for adolescent girls (UNFPA and the Population Council, 2009). Studies also show that the awareness regarding menstruation prior to its onset is poor among adolescent girls (Haq and Khan, 1990). A recent evaluation study of a Family Planning Association of Bangladesh (FPAB) program to reach youth was conducted in 12 of 71 project sites. The results indicated that a substantial proportion of adolescents and youth are not knowledgeable about the following: the

underlying cause/mechanism of menstruation, the consequences of unprotected sexual acts, gonorrhoea, syphilis, how a person is infected with HIV/AIDS, menstrual regulation, and the availability of treatment facilities for STIs (Bhuiya et al., 2000). A large majority of adolescents (both married and unmarried) do not have information on sexuality, contraception, or STIs and HIV/AIDS (Barkat et al. 2000; Nahar et al. 1999; Haider et al. 1997).

Although adolescent girls need more health services during this transition, there is evidence that many ailments suffered by adolescent girls go untreated due to financial barriers in accessing health care, discrimination, stigma, unevenly distributed services, unfriendly treatment, and patriarchal decision making processes. Given the negative health impacts of these lower rates of utilization, it is important for health care providers and policy makers to know how adolescent girls cope when they need help with a view to developing health policies and programs that will enhance the health of this disadvantaged segment.

### **Objective of the study**

1. To know the perceived health status of adolescent girl
2. To understand how and from where they collect information in the time of need.
3. To understand types of health care used
4. To explore the adolescent girl recommendation to make adolescent friendly and need based health care services.

### **Design of the Study**

With the objectives of an in-depth exploration on health care utilization by adolescent girls the research project used a qualitative design. The goal of the qualitative design is to represent the participants' reality as faithfully as possible from their personal points of view (Klein JD, et al., 1998). The qualitative design could help the researchers to gather information through the use of multiple methods of data collection that includes, interview, conversation and observation. Since the findings of a research are heavily dependent on reliable data (Kurz KM & Johnson-Welch C, 1994), the researchers paid special attention in the field work phase where data were collected. This semi-participatory design provided an opportunity to identify the potential sources of information that contributed to the objectives and processes of the research.

### **Selection of Area and Sample**

One girl's school from the old Dhaka was selected purposively. All adolescent girls study in that school regarded as the population of the study. I invited all adolescent girls (10-19) for interview and focus group. Adolescent girl who were unable to talk because of shyness, religious

beliefs and family restrictions or privacy reasons or who are not able to communicate clearly were excluded from the study. Adolescent girl who were willing to participate voluntarily without any hesitation among them 15 adolescent girls were selected purposively.

### **Data Collection**

There are no rigid rules that dictate the process of data collection in qualitative research (Donovan C, Mellanby AR, et al., 1997). Qualitative research has historically been accommodative to three approaches to data collection: (1) in-depth, open-ended interviews (2) focus group and (3) written document (Khan, M.R 1997). A standardized interview protocol were developed and applied to collect data from adolescent girls. The protocol emphasized mainly open-ended questions covering all aspects of the research objectives. Corresponding questions were developed to explore the detailed information on issues such as health needs, accessibility and utilization.

Two Focus Group Discussions (FGDs) were conducted with adolescent girls. Extensive field notes were collected through observation and informal discussion. The successful collection of qualitative data depends largely on the mutual understanding between the researchers and the participants. The researchers and their assistants spent a fair amount of time at the research sites to develop rapport with the participants so that information can be gathered in a free, friendly, and trustworthy manner.

Data were collected using unstructured interview guides and tape recordings. The interview guide focused on the following general topics such as types of problem experienced; types of treatment used; types of barriers experienced; what role do family members play; suggestions for addressing the barriers.

### **Data Analysis**

The collected data were organized, analyzed and interpreted following generally accepted principles and practices associated with qualitative research. Once the data is collected, audio tapes will be transcribed and coded. After listening to each audio tapes and reading what was transcribed, the data examined and analyzed within the framework of potential interests of the overall research. Words and phrases in the responses examined for possible themes. Anecdotes from participants analyzed and presented within the context of the circumstances of each situation. Field notes were organized into a readable narrative description giving regards to the major themes and categories of the design of the research.

## Major Findings of the Study

Adolescence is an important period for most young people as it attempts to cope with many decisions regarding marriage, education and work which in turn influence and determine their future life course. Recently concern has been expressed about the negative social, health and economic consequences of adolescent child bearing, unintended pregnancies, and high level of pre-marital conceptions. These problems have far reaching consequences resulting in life-long disadvantages and suffering of the adolescents and of their offspring. Early sexual maturity resulting from improved nutrition and greater opportunities for sexual contracts due to urban life-style among the adolescents will be additional problem especially for the developing countries. This problem is further aggravated when they have little access to family planning services. This lead to unwanted pregnancies and hence increased number of abortions. Whether out of ignorance or fear, adolescents have a tendency to request abortion services later in pregnancy than older women, thus requiring more complicated and potentially dangerous abortion procedures.

Majority of the girls were not aware of their first menstruation. Girls described the onset of menarche as a shocking or fearful event. Most of the girls expressed that first menstruation is often traumatic and very negative experience. Information was mainly provided about the use cloth; the practice of rituals in the form of restrictions on their movements and cautions about behavior towards male by the family members after experiencing first menstruation.

Interview findings clearly indicate that there are still large numbers of traditional beliefs and restrictions surrounding menstruation. A large number of beliefs and taboos relating to menstruation exist in society. These are mainly related to movements of the adolescent girls, restrictions of food avoidance of certain of certain day to day rituals. The qualitative data suggest that movements' restrictions have been imposed both at menarche and during menstruation. For example- while menstruating a girl is restricted from going outside her home especially in the evening and noon. They are prohibited to go near a khal/bil (canal/ditch) as the kharap batash (evil air) may affect them.

Participants reported suffering from a range of illness and conditions. Many of the physical health problems they identified were common low level health problems. Such as headache, bodily pain, tiredness, fever, general weakness, low blood pressure, skin diseases, gastric, abdominal pain in menstruation, excessive bleeding, myalgia, problems in tooth and ear etc. In this study 10 adolescent girls reported that they are suffering from severe abdominal pain during in menstruation, almost all of them said that headaches were a major aspect of their life. The study revealed

that adolescent girls try to collect information related their problem. Although at first they feel shame and hesitate to inform their family members about their problems, but they like to give priority family members to collect information from them. In this study qualitative data suggested that they collect information from more than one source. Almost all of them said that they collect information from their mother, elder sister, cousin, aunt, relatives, close friends and classmates. One participant said that beside this she also collect information about her problem from doctor.

The interviewers revealed that a number of factors create barriers to utilize health care service by adolescent girls. Some of these are social, some economic, some religious/cultural and others are related to health care system itself. Social barriers identified included- dependency because of girls need someone accompany, discrimination, the low family decision making process, and the perceived stigma of having some illness. Economic barriers included- family poverty, cost of health care service. Religious and cultural barriers identified were- restricted mobility of girl under Purdah, belief in evil spirits. Finally health care system barriers that were identified include- distance to health service, lack of female doctor, long waiting time, the behaviour of doctor, bitter experience, lack of suitable environment. These themes are described in detail below.

**Table:** Demographic information of respondent

<b>S L</b>	<b>Age</b>	<b>Marital status</b>	<b>Father's occupation</b>	<b>Mother's occupation</b>	<b>Financial status</b>	<b>Type of family</b>
1	15	Unmarried	Driver (private car)	House wife	Bad	Nuclear
2	17	Unmarried	Hawker	House wife	Good	Nuclear
3	17	Unmarried	Govt job	House wife	Somewhat good	Joint family
4	15	Unmarried	Bricklayer	House wife	Bad	Nuclear
5	17	Unmarried	Private job (shift)	House wife	Bad	Nuclear
6	15	Unmarried	Unemployment (before Cake seller)	Maid servant	Bad	Nuclear
7	15	Unmarried	Retired (Govt job)	House wife	Somewhat good	Joint family
8	15	Unmarried	Small trader	House wife	Bad	Nuclear
9	16	Unmarried	Small trader	House wife	Somewhat good	Nuclear
10	15	Unmarried	Clark at Govt office	Factory worker	Bad	Nuclear
11	18	Unmarried	Private job	House wife	Bad	Nuclear
12	18	Married	Small trader	House wife	Good	Joint

						family
13	15	Unmarried	Service holder at insurance company	House wife	Somewhat good	Nuclear
14	14	Unmarried	Police Inspector	Teacher	Good	Joint family
15	16	Unmarried	Small trader	House wife	Bad	Joint family

The researcher collected the socio-economic information of the respondents. Here, socio-economic information includes; age and educational level, marital status, parent's occupation, types of family, household income and savings, earning members etc.

In this study all respondent were adolescent girls, whose age was ranged from 14-17 years old. Among 15 adolescent girls, seven were 15 years old, another two girls were 16 years old, three adolescent girls were 17 years old another one girl was 14 were old and two girls were 18 years old. Fourteen adolescent girls were unmarried and one adolescent girl was married; all of them are student of Baganbari Adorsho High school, Dhaka. In this study eight adolescent girls were in class ten, and seven adolescent girls were in class nine.

The researcher found that all of the respondents family maintained by the income of father. This is an important factor that affects health care of that family. The research findings depicts that the major income source of respondents families is from small traders, private and public job. The monthly income of the respondent family is very low. As a result most of the family lives in the bellow poverty line.

In this study most of the respondents were living in a nuclear family (ten out of fifteen). Nuclear family is mostly common in urban area. They come to city for their employment and finally live permanently in city with his wife and children. Generally, in Bangladesh families could be divided into three patterns: nuclear, joint and extended. The family consisting of husband, wife and their children is considered a nuclear family whereas husband, wife and their children, daughter-in-law, son in law and grand children from the basis of a joint family. In this study five respondents were living in a joint family.

### **Knowledge, attitude and practices about menstruation**

The study findings suggested that adolescent girls usually do not know about menstruation before they experience it. Some of the adolescent girls who knew about it, they learned it from their friends, who already had experienced it or from elder sister. Most of the participants were not aware about menstruation. So it was a shocking experience for them. Some of them became frightened.

*One participant said:*

*At first I knew it from a chapter of home economics, but I did not understand. I knew about it from my friends. My mother and elder sister did not tell anything about it and they also did not know that I heard it from my friends and I had an idea about menstruation.*

*Another echoed that:*

*I had no idea about menstruation, I heard that adolescent girl attain menarche at an age, actually what is menarche? What happened? I had no idea.*

As most of these girls did not have knowledge about menstruation beforehand, they experienced menarche with severe mental trauma and psychological pressure.

*One participant reported that:*

*I knew nothing about menarche before I attained, one day I was bathing menstruation started. At first I thought that I had cut my leg, but I could not find anything, I shocked and afraid, I thought I was attacked by a great disease.*

### **Belief and practices during menstruation**

In this study it is revealed that most of the adolescent girls did not know about hygiene or healthy practice to maintain menstrual bleeding. Most of the adolescent girls used old cloths during menstruation. Girls who used old cloths during menstruation dried them in dark hidden places to avoid others to be seen. After washing clothes usually they dry them inside the room or in bathroom, or in others secret places where there was no sunlight. The adolescent girls said that there is a common belief that- if the cloths were seen by the males they would be affected by abdominal pain, which would subsequently lead to infertility. A few adolescent girls said that they use pad and panty during their menstruation and change used pad after three to four hours.

*A girl shared her experience during menstruation:*

*When I had my first menstruation my mother imposes restrictions to move out in noon and in the evening and to take fish as food and sour fruit. I faced restriction on to touch cow dung not to walk over any little hole.*

Fish is the common food restrictions during menstruation. There is a notion that if fish is eaten during menstruation, menstrual blood would have an offensive odour (fishy smell) and sour fruit would cause excessive bleeding. Some girls said that they were not allowed to sleep on the bed instead they were instructed to sleep on the floor with a simple

mat. During the study some girls said that they did not like these restrictions imposed upon them. Although they could not openly protest against these restrictions. Most of them feel frustrated, bad, angry and burdensome for these restrictions.

*One participant shared her feelings:*

*Till now I feel lonely in my menstruation, when I experienced it I felt I become separate from all of my family members. Before menstruation I could play, could go everything, but after menstruation I could not play. I make myself more reserved. I always I am not like before, I could not share everything with my mother and elder sister. Sometimes I felt too much boring and angry and always blame to my menstruation. I considered my menstruation as my enemy and as a burden. I thought only it is responsible for those restrictions. I was disappointed.*

In this study most of the girls told that they felt lonely at the stage of menstruation, they felt a distance and separation from their family after experiencing menstruation.

A few respondents said that they did not feel lonely at this stage of change. Their mother, sister and other family member's co-operation with them, they become friendly with their family members after their menstruation.

### **Consultation and sharing source of the problems in the time of need**

In this study it is found that they feel shy to share their problem related with menstruation,. They feel very shy and hesitate to share their problem with their mother. When problem become unbearable only then they share with their mother and cannot share everything about their problem because of shame and hesitation.

In this study qualitative data suggested that- in case of general health problem most of the adolescent girls like to share with their mother, elder sister and close relatives. Most of the adolescent girls said that they consult about their problems at first with their mother. A few adolescent girls said that they consult with their elder sister and if the problem becomes more serious only they suggested that- in case of general health problem most of the adolescent girls like to share with their mother, elder sister and close relatives.

But in case of menstruation problem like- abdominal pain, irregular menstruation, excessive bleeding they like to share with their close friends, class mates and bhabi (brother's wife).

*One girl said that:*

*I shared my excessive bleeding problem in period with my bhabi (brother's wife) and close friends.*

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In this study only one girl said that she did not feel to shy and hesitation to share problem.

*She told that:*

*I did not feel shy; because my mother told me that if face any problem, without any hesitation to share with her. So I felt no shy. So I felt no shy. I think if I not share with my mother, it may harmful for me in future.*

*One girl reported that:*

*I felt shy and hesitation to share my problem with my mother and other family members. I think again and again how I can star. But when I cannot bear up with my problem only then I got to share.*

### **Comfortable source to collect information about problems**

In this study more than half of the respondent said that they face difficulty of getting information regarding their health problem. Most of them said that when they asked their friends for information about problem they did not take it seriously rather they made fun of it. Sometimes they gave wrong information. Sometimes they also face apathy of their family members to give information regarding their health problems. Sometimes they are prohibited to collect information about their problems from neighbor and other relatives.

*One participant reported that:*

*I had faced difficulty to collect information regarding my irregular menstruation problem. My mother prohibited me to share my problem and ask any information from neighbor and other relatives. So I did not share and collect information from them.*

And another few participants said that they faced no difficulty of getting information.

In this study about half of the adolescent girls said that they feel comfort to collect information from their mother and sister. There are many reasons behind this. First of all they feel them secured can depend on them. They belief that family can take proper steps to solve their problem and take extra care of them.

*One participant said that:*

*I feel much comfort to collect information from my friends, because they are sane age, I feel no gap with them, they are same age, they can understand my problem, they may also face same kinds of problem and I can everything without any hesitation and shy.*

In this study only one girl said that she feels comfort to collect information from her aunt because she has friendly relation with her aunt and she does not want to share her problem with her friends at an early stage. She does not want to spread out her problem outside the family.

*One girl said that:*

*I felt hesitate; I thought should I ask this question? But when asked inside the family and outside the family the all of them gave me information with jolly mind and try their best to make me understand. They never show disinterest and I never discouraged by them when I went collect information.*

## **Recommendation to Make Adolescents Friendly Services**

### **Participants' recommendation**

The study concludes with a series of participant's recommendation to address adolescent friendly health service which can full the needs of adolescent girls. These recommendations include concerted efforts to raise awareness about adolescent period, friendly environment in family, a through idea about adolescent period, adolescents health centre, field health worker, use of mass media and expected change the existing health service system, And at last researcher also gave some recommendation to make a friendly health service for adolescent girls.

### ***Suggested Policy Measures***

The present study suggested the following measures, which need to be undertaken under a broader framework of national development:

- There should be a regular and systematic process of generating age and gender specific data and information on adolescent's health issues.
- The adolescents should be provided some parts of their health education by their parents at home. In our country context adolescent girl usually can not get a friendly environment in their family. This study finding revealed that often they do not know about menstrual cycle before they experience it. And after attaining it many girls feel bad, burdensome, angry and frustrated and some girl considered it as a disease. Because of lack friendly relation with family members, often they face sharing problem, as a result they feel a distance from their family. So they recommend for a friendly environment in family.
- Reproductive and sexual health education should be functionally considered as the most important tool for enhancing school adolescents knowledge and bringing about their positive attitudinal changes

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- The government should undertake a strategic plan to improve the adolescents generic nutritional status for getting rid many of their unmet health problems
- Since the school adolescents have been suffering from the ignorance of accurate, appropriate and age sex specific health information and services, the Government should undertake policies, plans and programs to make them easily and affordably available for them in a systematic manner
- Parents and teachers should be considered as the role models for enhancing school adolescents' knowledge and attitudes.
- All the identified adolescent health issues should be incorporated in the regular curriculum for the school adolescents of classes 6-12. But the magnitudes, dimensions and approaches of teaching such issues under regular curriculum should be age – specific and befitting to their level of acceptance.
- The process of enhancing school adolescents` R and SH knowledge should incorporate a package program consisting of establishing a school- based parents`-teachers` organization, parents`- teachers consultation, peer counseling, parents` workshops, guidance and text-based life skills education.
- Only qualified and devoted teachers should be engaged in implementing school – based R and SH education program for the school adolescents where parents should participate occasionally for acquiring appropriate knowledge and self motivation.
- There should be process of monitoring and evaluating the efficiency of R and SH education program to be run by the teachers.
- Appropriate and adequate copies of R and SH education materials for the parents, school teachers and the school adolescents should be developed and made easily available at schools.
- Advocacy, counseling and motivation exercise training need to be undertaken for the concerned teachers and parents on how to teach, motivate and advocate adolescents about R and SH issues effectively.

### **Conclusion**

Adolescents` reproductive and sexual health problem is not their individual problem. It is a social; as well as national problem. But the problem should be owned at individual, family, and community, social and at national level. Still, parents and school teachers would be the best architects to develop a new generation adolescents capable of coping with the existing and up-coming challenges in R and SH arena. Adequate

financial, administrative and political supports would make the efforts effective and lead them to a success. Adolescent in girls should be recognized as a special period in their life cycle that requires specific and special attention. It is the period of transition from childhood to adulthood. This transition phase makes them vulnerable to a number of problems for example, psychosocial problems, general and reproductive health problems and sexuality related problems. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As direct reproducers for future generations, the health of adolescent girls influences not only their own health, but also the health of future generation. Adolescents like children and adults seek help on different individuals and organizations around them. Their help seeking behavior and their healthcare seeking behaviour are affected by a web of individual and societal factors. This study identified several factors that limit girl's demand, access and utilization of health services. Socio-economic and cultural factors delay decisions to see health care and limit girl's ability to demand and access care. Due to conservative family pattern adolescent are not friendly with their friendly with their members, as a result they feel shame and hesitation to share their problem especially reproductive health problem. Study findings revealed that adolescent girls share their reproductive health problem only when it becomes intolerable and serious one, otherwise they avoid to share these kinds of problem. Boys are preferred than girls from the beginning of life by the family and society. This discrimination exists in every sphere of life. To get health care girls are often facing problem for patriarchy and culture of Bangladesh. In this study socio-cultural aspect includes; support of parents to get health care, company to get health care, restricted mobility, Purdah system, and so on. Purdah norms interfered with the access of adolescent girls to treatment. At the health facility level, systemic problems like lack of female doctor, lack of doctor's sympathetic behaviour, long waiting time, classism etc. Limit girl's access and utilization of health care.

**References**

- Barkat, A., S. H. Khan, M. Majid, and N. Sabina. 2000. "Adolescent sexual and reproductive health in Bangladesh a needs assessment." Dhaka, Bangladesh: International Planned Parenthood Federation and Family Planning Association of Bangladesh.
- Bhuiya et. Al., (2000), *Reproductive health service for Adolescents: recent experiences from a pilot project in Bangladesh Dhaka*. Population council, Bangladesh.
- Chowdhury, A.Q.M.B., M. R. Chowdhury, and S. Lazzari. 1995. "Responding to HIV/AIDS in Bangladesh." Dhaka, Bangladesh.
- Ford CA, Millstein SG. *Delivery of confidentiality assurances to adolescents by primary care physicians*. Arch Pediat Adol Med 1997;151:505–9.
- Gazi R, Khan SA, Chowdhury AMR. *Ninth grade students knowledge, attitude and practice regarding reproductive health*. Dhaka: Research and Evaluation Division, BRAC, 1998.
- Haider, S.J., S.N. Saleh, N. Kamal, and A. Gray. 1997. "Study of adolescents: Dynamics of perception, attitude, knowledge and use of reproductive health care." Dhaka, Bangladesh: Population Council.
- Jobanputra J, Clack AR, Cheeseman GJ, Glasier A, Riley SC. *A feasibility study of adolescent sex education: medical students as peer educators in Edinburgh schools*. Brit J Obstet Gynaecol 1999; 106:887–91.
- Klein JD, McNulty M, Flatau CN. *Adolescents' access to care. Teenagers' self-reported use of services and perceived access to confidential care*. Arch Pediat Adol Med 1998;152:676–82.
- Kurz KM, Johnson-Welch C. *The nutrition and lives of girls in developing countries: findings from the nutrition of adolescent girls research program*. Washington, DC: International Center for Research on Women; 1994.
- M.N. Haque: "individual characteristics affecting maternal health service utilization: married adolescents and their use of maternal health service in Bangladesh.
- Nahar, Q, C. Tunon, I. Houvras, R. Gazi, M. Reza, N.L. Huq, and B. Khudal. 1999. "Reproductive health needs of adolescents in Bangladesh: A study report."
- Nahar Q, Amin S, Syltan R, Nazrul, Islam M, Kane TT, Barkat-e khuda, Tunon C- *Strategies to meet the health needs of adolescents: a review Dhaka: operations Research project, International centre for Diarrhoeal diseases Research*.
- UNFPA and the Population Council, 2009. *The adolescent Experience In-Depth: Using Data to identify and Reach the Most Vulnerable Young People*. Bangladesh 2007. New York, USA.