



Knowledge Regarding Reproductive Health among the Secondary School Students in an Urban Community

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ABSTRACT

It was a descriptive type of cross-sectional study carried out among 300 female secondary school students in an urban community during the period of January to December 2013 to assess the Knowledge regarding Reproductive Health. Information was collected by face-to-face interview and analysis was done by using SPSS version 17. The study revealed that the age was 15.01 years. The majority, 96% of the respondents were previously informed about puberty. Almost half, 51.3% opined that they got their first information from a textbook and only 1% from radio. More than half, 51.3% of the respondents were found to have good knowledge on physical changes during puberty, but only had good knowledge on menstrual hygiene 18.7% and only 9.7% from health consequences. Most, 93.7% of the respondents were found to perceive menstruation as a natural event. Knowledge on different events of reproductive health is above 40% like measures should be taken during menstruation period 84.4%, amount of meal needed 76%, Govt. approval age for marriage 88.7% and types of family planning methods 47%. More than half, 59% of the respondents could correctly mention the age of first pregnancy. Respondents could correctly mention the consequences of unsafe abortion 46.3%, complications of early pregnancy 45%, health effects due to lack of menstrual hygiene 37%, and knowledge on reproductive health problems 33.3%. Nearly half, 45% of the respondents were found to seek help from their mothers regarding the treatment of their reproductive health problems. The highest number, 34.2% of respondents mentioned academic discontinuation as the consequence of early marriage. More than one-third, 36.6% mentioned that facilities for safe menstruation regulation are available at the health clinic. Among all the respondents 37% mentioned that better accessibility of reproductive health information can be ensured by sharing with female family members. Only 43.7% have good knowledge of the prevention of STDs, and only 18.3% and 24% of respondents know the way of transmission correctly. More than half, 58.3% have the correct knowledge on the age of taking the tetanus toxoid vaccine. Only 32.0% and 1.3% were found to have the correct knowledge on doses and age of taking vaccine on tetanus toxoid and human papillomavirus respectively. There was a significant relationship between age and knowledge on reproductive health problems ($P= 0.005$). Educational intervention programs should be arranged for them as they will be a future mother.

Keywords: *Reproductive Health, Secondary School, Urban Community*

INTRODUCTION

According to WHO definitions, young people are aged 10 to 24 years. Adolescents are a large and growing segment of the population. Adolescence generally is a healthy period of life, many adolescents are less informed, less experienced, and less comfortable accessing family planning and reproductive health services than adults. Adolescents' circumstances and needs vary tremendously depending on social and individual characteristics such as age, sexual activity, schooling, and employment status as well as their position within

the range of adolescent years. It is important to recognize that while the world in many cultures expands for boys, giving them greater autonomy, mobility, opportunity, and power, many girls are systematically being deprived of these advantages. (Islam, 2013). Definitions of the term “adolescents” vary; for many, it refers to people between the ages of 10 and 19. The United Nations Population Fund (UNFPA) defines the relevant age-group categorizations as follows:

Adolescents 10 – 19 years, youth 15 – 24 years, and young people 10 – 24 years.

Adolescence is variously defined as a period of transition from childhood to adulthood. It involves a rapid change in many aspects including the biological, psychological, and socio-cultural. The World Health Organization (WHO) has defined adolescence as a progression from the onset of secondary sex characteristics to sexual and reproductive maturity; development of adult mental processes and adult identity and transition from socio-economic dependence to relative independence (WHO, 1975). Adolescence reproductive health is concerned about the health of adolescence in the reproductive process.

Another definition of WHO defines, adolescents as young people in the age group of 10 -19 years (who.int accessed, 2009). They form a special group in society and have their own specific needs. Adolescence has become a more clearly defined developmental stage in human life and there is currently a greater recognition of this group’s biological, psycho-social, and health needs than before (Pedersen and Int. J Psychoanalytical, 1961). Exploration and experimentation, the hallmark of adolescent behavior, often propel adolescents towards risk-taking, exposure to unwanted pregnancy, STI, substance abuse and unintended injuries (smilefoundationindia.org. 2009). At the same time adolescents often face constraints in seeking services including their misperceptions about their needs, having to deal with shame and embarrassment in disclosing their problems, and provider’s attitudes (icmr.nic.in, 2009). To overcome these constraints to care-seeking behavior, it is imperative to develop specially designated services for adolescents. The adolescents in class IX and X may have different issues due to hormonal and physical changes so; it was decided to take this age group for the study.

Adolescence is characterized by physical, psychological, and social changes. WHO has defined adolescence as the age range of 10 – 19 years. It is the period between childhood and adulthood, marked by enhanced food requirement and basal metabolic activities and biochemical activities, endogenous processes like hormonal secretions with their influence on the various organ systems (WHO, 2001). Adolescent girls constitute about 1/5th of the total female population in the world. These years have been recognized as a special period in the life cycle of adolescent girls as it requires specific and special attention (Balasubramanian, 2005). This transition phase makes them vulnerable to a number of problems, for example, psychosocial problems, general and reproductive health problems, and sexuality-related problems (Sharma, 2008). 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 generations (Agrawal, 2007). A vast majority of adolescent girls in Bangladesh are suffering from reproductive health morbidities. Adolescence- a period between sexual maturity and the assumption of adult roles and responsibilities- is a recent innovation (UNFPA, 1998).

Another explanation- Adolescence-the stage of maturity between childhood and adulthood. The term denotes the period from the beginning of puberty to maturity; it usually starts at about age 14 in males and 12 in females. WHO denotes- Adolescence is the period between 10 to 19 years of age. About half of the world’s population is under age 20. Adolescents are at the highest risk of sexual and reproductive health problems. The physical changes that take place in early adolescence include rapid growth spurt, facial, bodily, and pubic hair, enlarged breast, and broader hips among females. Attainment of sexual maturity in girls is marked by the onset of menstruation of semen. These physical changes are responsible for the appearance of sex drive (Merer, 2002).

Adolescence is a time for exploring and learning about different aspects of reproductive health and sex and gathering knowledge from this learning is very much essential for every adolescent because it is the time when premarital sexual activity combines with traditional barriers to information about contraceptives and family planning services. Inadequate knowledge in this stage leads to a large number of unplanned pregnancies and childbirths carrying multiple risks for young girls who are not yet physically mature.

Teenagers suffer disproportionately from STDs. Adolescents also constitute the riskiest groups for developing HIV and AIDS (WHO, 1997).

Reproductive health covers all aspects of adolescent health. It is an umbrella concept, consisting of several distinct, yet related issues such as abortion, childbirth, sexuality, contraception, and maternal mortality. Biological, social, cultural, economic, and behavioral factors play an important role in the determination of reproductive health (Sandana, 2002). From the beginning of their lives, girls are groomed to accept male domination and ignore their own needs. Discrimination against the girl child in health, nutrition, and education is relatively heightened in adolescence. The onset of puberty decreases autonomy and mobility, with increasing restrictions on speech, appearance, conduct, and interaction with the opposite sex. Girls inherit their mother's domestic chores and adopt stereotypical gender roles. Low self-esteem and self-worth are common. After marriage, her husband and in-laws control the bride's life. Consequently, the girls enter the "culture of silence." (CEDPA, 2001) for young girls in Bangladesh, poor nutrition, and early childbearing and reproductive health complications compound the difficulties of adolescent physical development.

Secondary school students mean adolescent group. Adolescence is a social concept. It is a phase of life that can be described in a variety of ways. It brings to mind the often-quoted Charles Dickens's line- "it was the best of time, it was the worst of time, it was the age of wisdom, it was the age of foolishness". There is perhaps no other developmental phase more hotly debated and more misunderstood than adolescence.

Adolescence, the second decade of life, is a period of rapid growth and development when a young person acquires new capacities and is faced with many new situations that create not only opportunities for progress but also risks to health and well-being. It is the time when growth is accelerated, major physical changes take place and differences between boys and girls are accentuated (WHO, 1998). Adolescence, according to World Health Organization (WHO)'s definition is the period between 10-19 years. WHO uses the term 'youth' to refer to people aged 15-24 years. Young people are used for both adolescents and youth (e.g. anyone in the age ranges from 10-24 years) (WHO, 1996).

WHO Defines the term adolescence with three specific characteristics, i.e. 1) Biological development from the onset of puberty to full sexual and reproductive maturity. 2) Psychological development from the cognitive and emotional patterns of childhood to those of adulthood and 3) Along with these changes come on emergences from the childhood state to total socioeconomic dependence (Akhter and Khan, 1997). The adolescence period is the time when physical, mental, psychological, and behavioral changes take place. It is the time when reproductive capacity is established; the sex hormones secreted during this period not only affect the tissues of the body but are also related to changes in sexual and emotional behavior.

World Health Organization (WHO) has defined reproductive health as, "A condition in which reproduction is accomplished in a state of complete physical, mental and social well-being and not merely the absence of disease or disorders of the reproductive process. (Akhter and Khan, 1997 and ICPD, 1994). But the International Conference on Population and Development (ICPD), held in Cairo, Egypt from 5th to 13th September 1994 defines reproductive health as "Reproductive health is a complete physical, mental and social well-being in all matters relating to the reproductive system and to its function and processes. It implies that people have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this is the right of men and women to be informed and to have access to safe effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility, which are not against the law, and the right of access to health care services that will enable women to go safely through pregnancy and childbirth" (ICPD, 1994 and WHO, 1998).

Adolescence is a difficult time for young people. It is a time for major physical changes including the adolescent growth spurt, in which the size and shape of body change markedly. These years are also the time when mental and psychological development takes place, putting great stress on young people and those around them and influencing and affecting their relationships with their peers and adults. Puberty is also a time of behavioral change when the reproductive capacity is established. In girls physical changes begin at 10 years or even at an earlier age. When the girl child's body begins to show maturity, curves develop, breasts get painful, and begin to grow. Hair sprouts in the public area and under the arms. That is when the cycle of menstruation begins. Puberty in boys usually comes later than in girls (WHO, 1997).

One of the most controversial issues confronting the Philippines today is reproductive health. Many written materials and publications are available asserting about elements of reproductive health with different

perspectives. Their ultimate goal is to improve the quality of life and provide for sustainable human development. The Philippines is a signatory country of the International Conference Plan of Action of Reproductive Health in Cairo in 1994. The primary goal is achieving “Better Quality of Life among Filipinos”. Reproductive health ensures a more efficient and effective referral system from primary to tertiary, public, and private facilities. The elements that are crucial to reproductive health are as follows: (1) family planning, (2) maternal and child health and nutrition, (3) prevention and management of reproductive tract infections including sexually transmitted infections and HIV/AIDS, (4) adolescent reproductive health, (5) prevention and management of abortion and its complications, (6) prevention and management of breast and reproductive tract cancers and other gynecological conditions, (7) education and counseling on sexuality and sexual health men’s reproductive health involvement, (8) adolescent reproductive health, (9) violence against women and children, and lastly (10) prevention and management of infertility and sexual dysfunction.

A study conducted by Lagman, 2008 comprise of broad topics namely: family planning, safe motherhood, male and female reproductive health, prevention of Sexually Transmitted Diseases, and other areas. The main purpose of this study was to facilitate a process by which certain age groups are empowered to increase awareness and to take action to better meet their own reproductive health needs and to attain a better quality of life. (Lagman, 2008).

Adolescents represent major potential human resources for the overall development of a nation. Reproductive health is an important component of general health, it is a prerequisite for social and economic and imperative because human energy and creativity are the driving forces of development. Adolescence is a period of increased risk-taking and therefore susceptibility to behavioral problems at the time of puberty and new concerns about reproductive health (UNFPA, 1998). The majority of adolescents still do not have access to information and education on sexuality, reproduction, and sexual and reproductive health and rights, nor do they have access to preventive and curative services. Providing adolescents with access to seek information education and services is thus the main challenge for future programs. The status of girls and women in society and how they are treated or mistreated is a crucial determinant of their reproductive health. Educational opportunities for girls and women powerfully affect their status and the control they have over their own lives and their health and fertility. As per International Population Conference, 1994 empowerment of women is, therefore, an essential element for health. (International Population Conference, 1994). In some countries, complications of unsafe abortion are the leading cause of death among teenage women. A study in Nigeria found that 72 percent of all deaths among women under age 19 years due to consequences of unsafe abortion. Moreover, young women who survive unsafe abortions may suffer complications leading to infertility (Shane, 1997).

Knowledge on adolescent girls (16-20 years) found that awareness regarding HIV/AIDS among adolescent girls is low Adolescent girls also lack adequate knowledge about sexual matters and contraception, which results in early pregnancy, increased risk of STD infections, maternal morbidity and mortality and unsafe abortions. Among adolescents, girls are particularly vulnerable, not only because they are more likely to be coerced invariably for unprotected sex than boys, but they are more susceptible biologically to sexually transmitted diseases (STDs), including HIV infection. Inequality between the sexes makes girls more vulnerable to violence and sexual abuse. Their long-term economic potential is reduced still further by early childbearing (WHO/FRH/ ADH, 1997). In order to lead healthy, responsible, and fulfilling lives, and protect themselves from reproductive health problems, young people need to be knowledgeable about themselves and the people they relate to, and need sound information about the physical, psychological and social changes that take place through childhood and adolescence (WHO, 1997).

Adolescence reproductive health becomes an important problem for Bangladesh. Bangladesh still faces formidable obstructions in the path to the goals of health and reproduction well-being due to inadequate knowledge or misconceptions about reproductive health problems.

RESEARCH OBJECTIVES

General Objective: To assess the knowledge regarding reproductive health among secondary school students in an urban community.

Specific Objectives:

1. To identify knowledge regarding reproductive health events.
2. To assess the level of knowledge about reproductive health problems.
3. To assess the level of knowledge about factors related to reproductive health.
4. To find out the knowledge regarding Sexually Transmitted Diseases (STDs).
5. To assess the knowledge about Vaccination related to reproductive health.
6. To find out the socio-demographic characteristics of the respondents.

METHODOLOGY

Study Design: It was a descriptive type of cross-sectional study and was carried out to assess the level of knowledge regarding reproductive health among secondary school students in an urban community.

Study population: Secondary school students who read in class ix and x, age range between 13 to 19 years with experienced menstruation. The study population was selected according to inclusion and exclusion criteria.

Inclusion criteria:

- I. Secondary school students
- II. Age 13 to 19 years.
- III. Willing to participate.
- IV. Experienced menstruation.

Exclusion Criteria:

- I. Unmarried students.
- II. Not interested to participate.
- III. Age range < 13 to > 19 years.

Sample Size: To calculate minimum sample size, the following standard formula is widely used in Biomedical and social research-
Degree of accuracy in level= 95% confidence interval level,

$$n = Z^2 (p \times q) / d^2$$

$$= (1.96)^2 \times (50 \times 50) / (.05)^2$$

$$= 384.$$

Here,

n = The desired sample size.

Z = The standard normal deviation, usually set at 1.96 which corresponds to 95% of the confidence interval.

p = The proportion of the target population.

q = 1-p.

d = Degree of accuracy i.e., 0.05, at 5% level.

So, my required sample size should be 384. But due to time constraints and other limitations of the study, my eventual sample size was 300. Respondents were selected in their school on the basis of their availability and with the permission of the school authority during their examination time. Among the respondents, all were female student's age group 13 to 19 years.

Period of Study: The total study period was from 1st January to 31st December 2013 according to the order of an authority.

Place of Study: The study was conducted at Nawab Faizunnesa Govt. Girls School. The school was established in 1873 at Sadar Thana under Cumilla district, Chattagram division in Bangladesh.

Research Instruments: According to the objectives of the study, a semi-structured questionnaire was prepared and the questionnaire was pre-tested before taking of final interview questionnaire was prepared after necessary modification. The instruments were first designed in English and then translated into Bengali.

Sampling Technique: A questionnaire was developed for collecting information on the selected variables. The questionnaire was pre-tested in another school after converting it into Bengali. After the final modification finally, it was prepared for data collection. A face-to-face interview was conducted as per the questionnaire to collect relevant information regarding the knowledge of the respondents.

Data Collection Procedure: By using a pre-tested semi-structured questionnaire, a face-to-face interview was conducted in the study school. The interview was conducted by the researcher himself. The researcher went to the selected school and interviewed the female adolescent students who were available in the classroom and who agreed to sit for the interview. Prior to the interview, the purpose of the interview was discussed clearly with the respondents.

Data Processing and Analysis: The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 17. The data was analyzed using proportions and percentages and the chi-square test was used to test the effect of knowledge.

All the data collected and the forms were checked on a regular basis for accuracy, consistency, and completeness. The collected data was entered into a computer, using the SPSS program and the editing and clearing of the data were made during and following entry. As per the objectives of the study, the data was analyzed.

RESULTS

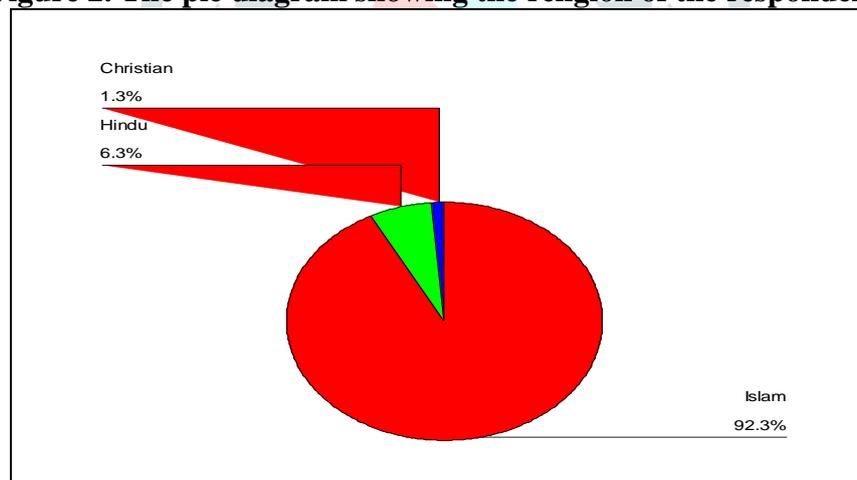
Table 1. Distribution of the respondents by age

Age of the respondents	Frequency	Percent
≤ 15 years	65	21.7
>15 years	235	78.3
Total	300	100.0

Mean: 15.01; (SD = ±.803)

The above table shows that highest number {235 (78.3%)} of the respondent belonged to >15 years age group and only 65 (21.7%) belonged to ≤ 15 years age group.

Figure 2. The pie diagram showing the religion of the respondents



The above figure shows that the majority {277 (92.3%)} of the respondents were Muslim and the rest 19 (6.3%) and 4 (1.5%) respondents were Hindu and Christian respectively.

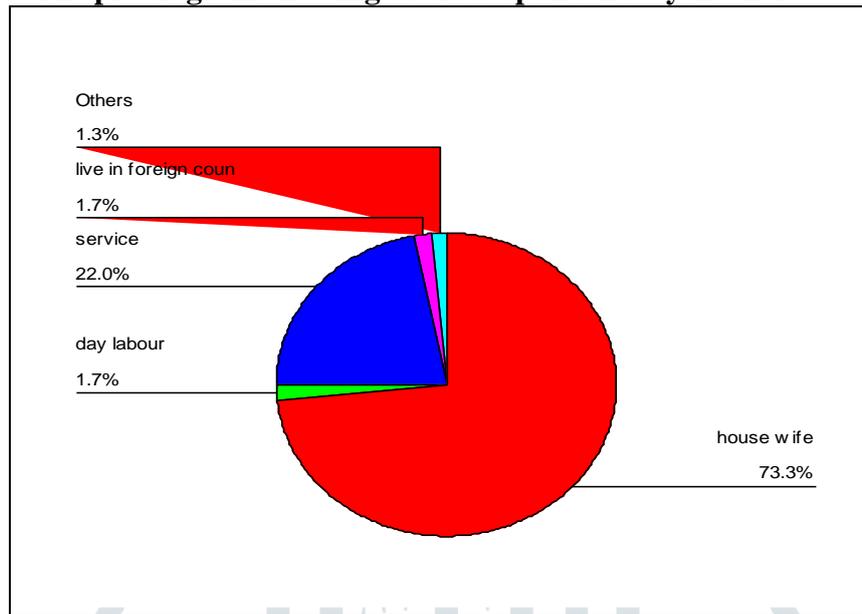
Table 3. Distribution of the respondents by mother's education

Education of the respondent's mother	Frequency	Percent
No formal education	2	0.7
Up to primary completed	4	1.3
Class VI to class X	34	11.3
S.S.C or H.S.C. completed	111	37.0
Graduation and above	149	49.7
Total	300	100.0

The above table shows that almost half {149 (49.7%)} of the respondents represented the group having the highest level (graduation and above) and only 4 (1.3%) respondents were representing the lowest group (up to primary completed) of education. Only 2 (0.7%) respondents were found to have no formal education,

Class VI to class X, and S.S.C or H.S.C. completed education group was represented by 34 (11.3%) and 111 (37%) respondents respectively.

Figure 4. The pie diagram showing of the respondents by mother’s occupations



It is shown from the above figure that the highest number {220 (73.3%)} of the respondents mentioned that their mothers were housewives. Services, day labor, and wage-earning were mentioned by 66 (22.0%), 5 (1.7%), and 5 (1.7%) respondents respectively.

Table 5. Distribution of the respondents by monthly family income

Monthly family income	Frequency	Total
Taka ≤10,000	77	25.7
Taka 10,001-20,000	56	18.7
Taka 20,001-30,000	84	28.0
>Taka 30,000	83	27.6
Total	300	100.0

Mean = 28586.67; (SD = ± 19686.230)

It is revealed from the above table that lowest (Taka ≤ 10,000) and highest (> Taka 30,000) income groups were represented by 77 (25.7%) and 83 (27.6%) respondents respectively. Income group of taka 10,001-20,000 and taka 20,001- 30,000 were respondents by 56 (18.7%) and 84 (28%) respondents respectively.

Table 6. Distribution of the respondents by number of family members

Number of family members	Frequency	Percent
≤ 4	120	40.0
5-6	150	50.0
≥ 7	30	10.0
Total	300	100.0

Mean = 4.99; (SD = ± 1.298)

The above table shows that the highest number {150 (50%)} of the respondent belonged to the family having 5 to 6 members. Family with ≤ 4 and ≥ 7 members were represented by 120 (40%) and 30 (10%) respondents respectively.

Table 7. Distribution of the respondent’s opinion on different aspects of puberty and menstruation

Variable	Yes		No		Total
	No.	%	No.	%	
Have they T.V.in their houses?	293	(97.7)	7	(2.3)	300 (100.0)
Have they been informed about puberty previously?	288	(96.0)	12	(4.0)	300 (100.0)

Is menstruation a shameful event to them?	55	(18.3)	245	(81.7)	300 (100.0)
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It is evident from the above table that most of the respondents {293 (97.7%)} were found to have a TV. in their houses. Almost similar number {288 (96%)} of the respondents were found to be previously informed about puberty. Only 55 (18.3%) respondents opined that menstruation is a shameful event to them.

Table 8: Distribution of the respondents by the source of first information regarding reproductive health

First information	Frequency	Percent
Textbook	154	51.3
Newspaper	100	33.3
Internet	24	8.0
Poster	16	5.3
Banner	3	1.0
Radio	3	1.0
Total	300	100.0

It is revealed from the above table that almost half {154 (51.3%)} of the respondents opined that they have got first information regarding reproductive health from textbooks and 100 (33.3%) respondents from the newspaper. Internet, poster, banner, and radio had been mentioned as the source of first information by 24 (8%), 16 (5.3%), 3 (1%), and 3 (1%) respondents respectively.

Table 9. Distribution of the respondents by knowledge on reproductive health events

Variables	Knowledge level			
	Good	Average	Poor	Total
	No. (%)	No.(%)	No. (%)	
Physical changes occur in the female during puberty	154(51.3)	84(28.0)	62(20.7)	300(100.0)
Psychological changes occur in females during puberty	43(14.3)	171(57.0)	86(28.7)	300(100.0)
How to maintain menstrual hygiene?	56(18.7)	182(60.7)	62(20.7)	300(100.0)
Health consequences due to lack of menstrual hygiene	29(9.7)	189 (63.0)	82(27.3)	300(100.0)

The above table describes that more than half {154 (51.3%)} respondents were found to have good knowledge of physical changes during puberty. Good knowledge regarding psychological changes, menstrual hygiene, and health consequences was exhibited by 43 (14.7%), 56 (18.7%), and 29 (9.7%) respondents respectively.

Table 10. Distribution of the opinion regarding perception about Menstruation of the respondents

Even the menstruation	Frequency	Percent
It is a natural event	281	93.7
It is an abnormal event	10	3.3
Others	9	3.0
Total	300	100.0

It is revealed from the above table that most {281 (93.7%)} of the respondents were found to perceive menstruation as a natural event. It was perceived as an abnormal event by only 10 (3.3%) respondents.

Table 11. Distribution of the respondents by their knowledge regarding the age of menarche

Age of menarche	Frequency	Percent
Up to 11 years	52	17.4
12-13 years	226	75.3
14 and above years	22	7.4
Total	300	100.0

The above table shows that the highest number {226 (75.3%)} of the respondents perceived that age of menarche is 12 to 13 years and the lowest number {22 (7.4%)} perceived that age of menarche is 14 years or more. Only 52 (17.4%) respondents mentioned that menarche starts within 11 years.

Table 12. Distribution of the respondents by their perception of different aspects of reproductive health

Variables	Response		Total
	Correct	Incorrect	
	No. (%)	No. (%)	
Measures should be taken during the menstruation period	254 (84.4%)	46 (15.6%)	300 (100%)
Amount of meal needed during pregnancy	228 (76%)	72 (24%)	300 (100%)
Govt. approval age for marriage	266 (88.7%)	34 (11.3%)	300 (100%)
Types of family planning methods	141 (47%)	159 (53%)	300 (100%)

It is revealed from the above table that what measures should be taken during menstruation period, amount of meal needed, Govt. approval age and types of family planning methods were mentioned correctly by 254 (84.4%), 228 (76%), 266 (88.7%) and 141 (47%) respondents respectively.

Table 13. Distribution of the respondent's knowledge regarding the appropriate age of first pregnancy for a women

Appropriate age of pregnancy for a woman	Frequency	Percent
15-19 years	17	5.7
20-35 years	177	59.0
Unknown	106	35.3
Total	300	100.0

It is shown above from the table that the highest 177 (59%) number of the respondents could correctly mention the age of the pregnancy as 20 to 35 years.

Table 14. Distribution of the respondents by knowledge on reproductive health problems

Variables	Knowledge level			Total
	Good	Average	Poor	
	No. (%)	No. (%)	No. (%)	
Consequences of unsafe abortion	139 (46.3)	48 (16.0)	113 (37.7)	300 (100.0)
The complication of the early pregnancy	135 (45.0)	73 (24.3)	92 (30.7)	300 (100.0)
Health effects due to menstrual hygiene	111 (37.0)	59 (19.7)	130 (43.3)	300 (100.0)
Knowledge of reproductive health problems	100 (33.3)	83 (27.7)	117 (39.0)	300 (100.0)

It is evident from the above table that the highest number {139 (46.3%)} of the respondents could mention the consequences of unsafe abortion correctly. Complications of the early pregnancy, health effects due to lack of menstrual hygiene, and knowledge on reproductive health problems could be correctly mentioned by 135 (45%), 111 (37%) and 100 (33.3%) respondents respectively.

Table 15. Respondent's help-seeking behaviors on the reproductive health problem

Solution	Frequency	Percent
Mother	135	45.0
Physicians	103	34.3
Health workers	36	12.0
Friend / relatives/ family members	21	7.0
Traditional healers	5	1.6
Total	300	100.0

The above table shows that the highest number {135 (45.0%)} of the respondents were found to seek help from their mothers regarding the treatment of their reproductive health problems, which was followed by 103 (34.3%) respondents who consulted with physicians for the same problems. Health workers and friends/relatives/ family members were consulted by 36 (12%) and 21 (7%) respondents respectively. Only 5 (1.6%) respondents went to traditional healers for treatment of their reproductive health problems.

Table 16. Respondent's problem associated regarding consequences of early marriage

Opinion	No.	Percent
Academic discontinuation	240	34.2
Early pregnancy	175	25.0
Sexual disease	160	22.9
Unknown	125	17.9

The above table shows that the highest number {240 (34.2%)} of respondents mentioned academic discontinuation as the consequence of early marriage. Early pregnancy and sexual diseases were pointed out as the consequences of early marriage by 175(25%) and 160(22.9%) respondents respectively.

Table 17. Distribution the respondents by their opinion regarding available facilities for safe menstruation regulation

Safe facilities for menstruation regulation	Frequency	Percent
Health clinic	110	36.6
Unknown	66	18.3
NGOs	55	16.0
Govt. health center	48	16.0
Others (F.W.V.)	21	7.0
Total	300	100.0

The above table depicts that out of 300 respondents' highest proportion {110 (36.6%)} mentioned that safe facilities for menstruation regulation are available at health clinics. NGOs and Govt. health centers were mentioned by 55 (16%) and 48 (16%) respondents respectively whereas 66 (18.3%) respondents could not mention the name of any place as a facility for safe menstruation.

Table18. Recommendations of the respondents for better accessibility of reproductive health information

Recommendations	No.	Percent
Sharing with female family members	270	37.0
Giving proper importance to reproductive health issues in secondary level curriculum.	234	32.0
Increasing Media coverage of reproductive issues	118	16.1
Offering opportunity to participate in various relevant GOVT./NGOs programs	108	14.8

It is evident from the above table that highest number {270 (37%)} of the respondents mentioned that better accessibility of reproductive health information can be ensured by sharing with female family members and the lowest {108 (14.8)} number suggested to give proper importance to reproductive health issues in secondary level curriculum. Media coverage of reproductive issues and participation in various relevant GOVT./ NGOs programs were mentioned by 234(32%) and 118 (16.1%) respondents respectively.

Table19. Distribution of the respondents by knowledge on sexually transmitted diseases (STDs)

Variables	Knowledge level			Total
	Good	Average	Poor	
	No. (%)	No. (%)	No. (%)	
What are the sexually transmitted diseases	55(18.3)	120(40.0)	125(41.7)	300(100.0)
How STDs are transmitted?	72(24.0)	104(34.7)	124((41.3)	300(100.0)
How STDs can be prevented?	131(43.7)	67(22.3)	102((34.0)	300(100.0)

The above table describes that the highest number {131 (43.7%)} of the respondents were found to have good knowledge of the prevention of STDs. Good knowledge regarding the names and way of transmission could be correctly mentioned by 55 (18.3%) and 72 (24%) respondents respectively.

Table 20. Distribution of the respondents by their knowledge on different aspects of age and doses of Vaccination (TT. & HPV.)

Variables	Response on different aspects of reproductive health		
	Correct	Incorrect	Total
	No. (%)	No. (%)	No. (%)
Age of taking tetanus toxoid vaccine	175 (58.3%)	125 (41.7%)	300 (100%)
Doses of tetanus toxoid vaccine	96 (32.0%)	204 (68.0%)	300 (100%)
Age of taking human papilloma vaccine	4 (1.3%)	296 (98.6%)	300 (100%)

It is evident from the above table that more than half {175 (58.3%)} of the respondents were found to have the correct knowledge on the age of taking the tetanus toxoid vaccine. Only 96 (32.0%) and 4 (1.3%) respondents were found to have the correct knowledge on doses of tetanus toxoid vaccine and the age of taking human papilloma vaccine was mentioned correctly.

Table 21: Distribution of the respondents by age and knowledge on Physical changes during puberty

Age groups in years	Knowledge Level			Total	Test statistics
	Good	Average	Poor		
≤ 15 years	25(38.5%)	25(38.5%)	15(23.1%)	65(100%)	X ² =6.15 df = 2 p =0.046
>15 years	129(54.9%)	59(25.1%)	47(20.0%)	235 (100%)	
Total	154(51.3%)	84(28%)	62(20.7%)	300 (100%)	

It is evident from the above table that a higher number of the respondents {129 (54.9%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 25 (38.5%) respondents were found to have good knowledge on the same issue. There was a significant relationship between age and knowledge on physical change during puberty.

Table 22: Distribution of the respondents by age and knowledge on reproductive health problems

Age groups in years	Knowledge Level			Total	Test –Statistics
	Good	Average	Poor		
≤ 15 years	21(7%)	9(3%)	35(11.7%)	65 (100%)	X ² =10.44 df = 2 p =0.005
>15 years	79(26.3%)	74(24.7%)	82(27.3%)	235 (100%)	
Total	100(33.3%)	83(27.7%)	117(39%)	300 (100%)	

It is revealed from the above table that a higher number of the respondents {79 (26.3%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 21 (7.0%) respondents were found to have good knowledge on the same issue. There was a significant relationship between age and knowledge on reproductive health problems.

Table23: Distribution of the respondents by age and knowledge of sexually transmitted Diseases

Age groups in years	Knowledge Level			Total	Test statistics
	Good	Average	Poor		
≤ 15 years	21 (7.0%)	17 (5.7%)	27 (9.0%)	65 (100%)	X ² =4.12 df = 2 p =0.127
>15 years	51(17.0%)	87 (29.0%)	97(32.3)	235(100%)	
Total	72(24%)	104(34.7%)	124(41.3%)	300(100%)	

The above table shows that a higher number of the respondents {51 (17.0%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 21 (7.0%) respondents were found to have good knowledge on the same issue. There was no significant relationship between age and knowledge on sexually transmitted diseases.

DISCUSSION

It was a descriptive type of cross-sectional study and was carried out among 300 secondary school students aged from 13 to 19 years. The study was conducted at “Nawab Faizunnesa Govt. Girls School”. To assess the level of knowledge regarding reproductive health among secondary school students in an urban community. Information was collected by face-to-face interview using a pre-tested semi-structured questionnaire. Girls between 13 to 19 years, who received menarche and according to other selection criteria

were included in this study. The early adolescent stage is 10 to 12 years, the middle and late adolescent stage is 13 to 15 years and 16 to 19 years respectively. In the early adolescent stage, as the girls do not receive menarche, they do not have so much curiosity about reproductive health, that's why they were not included in this study. After menarche, girls are vulnerable because at this age reproductive capacity is established. With limited knowledge about their bodies and sexuality, they are vulnerable to early marriage, adolescent pregnancies, STDs, HIV/ AIDS, the influence of peer groups, and media. So my study sample was students from classes IX and X, age ranges between 13 to 19 years. No married girls were included in the study. Because there may different levels of knowledge between unmarried and married girls. The mean age of the respondents was 15.01 the highest number {235 (78.3%)} of the respondent belonged to >15 years age group and only 65 (21.7%) belonged to the ≤ 15 years age group (Table 1). The demographic profiles of the study population before 656 students and after 554 students were in the age group of 16-17 years with a mean of 16.68 years. This study shows that the majority {277 (92.3%)} of the respondents were Muslim and the rest 19 (6.3%) and 4 (1.5%) respondents were Hindu and Christian respectively (Table 2). A study revealed that almost half {149 (49.7%)} of the respondents represented the group having the highest level (graduation and above) and only 4 (1.3%) respondents were representing the lowest group (up to primary completed) of education. Only 2 (0.7%) respondents were found to have no formal education, Class VI to class X, and S.S.C or H.S.C. completed education group was represented by 34 (11.3%) and 111 (37%) respondents respectively (Table 3). Regarding occupation highest number {220 (73.3%)} of the respondents mentioned that their mothers were housewives. Services, day labor, and wage-earning were mentioned by 66 (22.0%), 5 (1.7%), and 5 (1.7%) respondents respectively (Table 4). Lowest (Taka $\leq 10,000$) and highest (> Taka 30,000) income groups were represented by 77 (25.7%) and 83 (27.6%) respondents respectively. Income group of taka 10,001- 20,000 and taka 20,001- 30,000 were respondents by 56 (18.7%) and 84 (28%) respondents respectively (Table 5). The highest number {150 (50%)} of the respondent belonged to the family having 5 to 6 members. Family with ≤ 4 and ≥ 7 members were represented by 120 (40%) and 30 (10%) respondents respectively (Table 6). Most of the respondents {293 (97.7%)} were found to have a TV. in their houses. Almost similar number {288 (96%)} of the respondents were found to be previously informed about puberty. Only 55 (18.3%) respondents opined that menstruation is a shameful event to them (Table 7). Almost half {154 (51.3%)} of the respondents opined that they have got first information regarding reproductive health from textbooks and 100 (33.3%) respondents from the newspaper. Internet, poster, banner, and radio had been mentioned as the source of first information by 24 (8%), 16 (5.3%), 3 (1%), and 3 (1%) respondents respectively (Table 8). A study conducted by Ubaldeetal. 2012 overall knowledge of adolescent reproductive health (ARH) revealed that most applications of peer education combine many different messages concerning adolescent reproductive health. Outcome evaluations clearly indicate an increased level of awareness and knowledge about ARH. For instance, an evaluation of the West African Youth Initiative in Nigeria and Ghana "indicates significant positive effects of program participants' knowledge, perceived self-efficacy, and behavior". A peer education effort in Sri Lanka reported that over 50,000 adolescents in predominantly rural areas had been reached with information concerning adolescent reproductive health problems. A similar effort in Cambodia reported that 2000 young people had received critical ARH information through just one activity of its Youth RH Program. More than half {154 (51.3%)} respondents were found to have good knowledge of physical changes during puberty. Good knowledge regarding psychological changes, menstrual hygiene, and health consequences were exhibited by 43 (14.7%), 56 (18.7%), and 29 (9.7%) respondents respectively (Table 9).

FIGO Workshop, 2011 Bangladesh and India published in the mid- 1990s found that most adolescent girls were using old pieces of cloth or even no protection at all during menstruation. This appears to be changing for the better. In a more recent study in India, it was observed that younger women were more likely to use sanitary pads compared to older women. The same observation was made in Egypt in 1999. Nonetheless, apart from the method of protection used, menstrual hygiene was generally poor among the adolescent girls in this study. Nine girls (1.4%) reported the re-use of unclean pads. Only 11.7% changed pads four or more times per day and only 26.2% changed pads at night before going to bed. Avoiding showering or bathing is common during menstruation traditionally. In a study in Alexandria, Egypt, published in 1990, about one-quarter of girls avoided bathing during menstruation, due to a belief. In Riyadh, Saudi Arabia, 62.3% of girls abstained from showering during menstruation, as they believed it might stop the menstrual flow or increase the intensity of pain. On the other hand, bathing after menstruation is a religious requirement in order to be able to pray and practice other religious obligations. In Egypt, in poor areas, there is a problem of overcrowding and poor infrastructure both in schools and homes. Toilets may be totally absent or few in number, with broken doors or defective water supply and sewerage. No privacy for taking care of menstrual

hygiene at home and at school was reported by 24.6% and 97% of girls, respectively. FIGO, at el. 2011. shown that students spend a short time in school, as many schools have two and even three shifts per day, only 6.7% of girls changed pads at school. In schools attended by both sexes, the toilets for girls should be separated from those for boys. Lack of space and privacy were also reported in the recent Indian study mentioned above and in an Iranian study among adolescents in the Tehran suburbs, where 27% of the girls did not practice menstrual hygiene at all. The maintenance of hygiene during menstruation is a vital aspect of the adolescent reproductive health of female adolescents. Almost 70% of the adolescent girls in the FPAB study were aware of the need of maintaining some cleanliness during the menstruation period. In the JOPSOM Journal, 2001 revealed that Knowledge and Practice of NEPE-AG graduates regarding menstruation it was found that, about 80% used pieces of old rags (nekra) as pads during menstruation, while others did not use anything, 60% of adolescent girls used rags that were wet or had not been dried in a hygienic fashion. A study of Sultana, N. at el. 2001 revealed that the majority of respondents 69.2 % used old clothes and a few of them 21.3% used sanitary pads. More than half 53.8% cleaned the cloths with soap and water. In the baseline survey of adolescent reproductive health interventions in Bangladesh in 2003, conducted by the Association for Community and Population Research (ACPR), respondents were asked whether they ever discussed with others anything about the changes they experienced during puberty. About 42% of the male and 69% of the female adolescents discussed with others the physical changes they experienced during puberty. Khan, H. S. M. 2003 depicts that about 61% of married females against 51% of married males discussed conception with others. In Biomedical Research Volume conducted by Malleshappa, K. et al, 2003 knowledge about puberty changes improved significantly after intervention ($p < 0.005$). Students had good knowledge regarding age at first menarche and maintaining hygiene during menses at pre-test. Their knowledge about menstruation & menstrual hygiene improved significantly from 78.3% to 96.4% and from 92.5% to 98.9% respectively after intervention ($p < 0.005$). All most {281 (93.7%)} of the respondents were found to perceive menstruation as a natural event. It was perceived as an abnormal event by only 10 (3.3%) respondents (Table 10). The highest number {226 (75.3%)} of the respondents perceived that the age of menarche is 12 to 13 years and the lowest number {22 (7.4%)} perceived that age of menarche is 14 years or more. Only 52 (17.4%) respondents mentioned that menarche starts within 11 years (Table 11). This finding is consistent with the study of Sultana N et al. in Dhaka in 2001 which revealed the age at menarche 12.6 years. The study of BIRPERHT IN 1998 and Chowdhury, et al. 1998 is also more or less. It is revealed from the above table that what measures should be taken during menstruation period, amount of meal needed, Govt. approval age and types of family planning methods were mentioned correctly by 254 (84.4%), 228 (76%), 266 (88.7%) and 141 (47%) respondents respectively (Table 12). A baseline survey of adolescent reproductive health interventions in Bangladesh, 2003 conducted by the Association for Community and Population Research (ACPR), reveals that the reported ideal age at marriage for girls is in line with the legal age for marriage (18 years). The stated ideal age at marriage for an adolescent male is about 24 years which is well above the legal age (21 years). According to the DHS 2000, Bangladesh had 20 percent of adolescent women ages 15–19 and 18 percent of adolescent women ages 20–24 have an unmet need. Although fieldworker contact was found to have a significant positive effect on current contraceptive use, over 30 percent of the married teenage women surveyed were never contacted by a family planning worker.

In the study conducted by Gupta, 2005 it is estimated that in some parts of India, as the state of Rajasthan, nearly 80 percent of the marriages are among girls under the age of fifteen. In India overall, roughly 47.6 percent of girls are married by the age of eighteen. A study conducted by Singh, 2004. Over 75 percent of the Indian population resides in rural areas in India. Approximately 30 percent of women are married between the ages of 15 - 19 years. This is normally followed by closely spaced pregnancies. The state of Rajasthan located in northwestern India has the highest level of early marriage in India; almost one out of every three girls between the ages of 15 to 19 is married. The prevalence of early marriage and the general lack of literacy among many Rajasthan girls has created an urgent need for effective sexual and reproductive health education programs.

Briefing Paper Series Innovations, Lessons and Good Practices UNICEF/India/Giacomo Pirozzi: Situation Analysis shows that physical, biological, and hormonal changes result in psychosocial, behavioral, and sexual maturation. Adolescence is a period of rapid growth: up to 45 percent of skeletal growth takes place and 15 to 25 percent of adult height is achieved during adolescence. During the growth spurt of adolescence, up to 37 percent of total bone mass may be accumulated. So, need a nutritional diet in this adolescent group. Biomedical Research Volume, 2003 shows the awareness of students regarding different contraceptive

methods. It was observed that their knowledge was poor during the pre-test and remarkable improvement was noted following intervention ($p < 0.0001$) Highest 177 (59%) number of the respondents could correctly mention the age of first pregnancy as 20 to 35 years (Table 13). Generally, mothers face a greater risk of dying below the age of 20 and above the age of 35. In many countries, complications of pregnancy and delivery show the same pattern of risk, with the highest rate below 20 and over 35 years of age (Park, K. 2009). Henig and Henig, 2013, found that women who had babies after age 35, Alonzo found, had higher systolic blood pressure, higher blood glucose, poorer health as assessed by a physician, and poorer mobility later in life than women who had all their babies before 35. This doesn't contradict Mirowsky's findings, exactly. It just means that two different studies came to two slightly different conclusions, and it would be mighty tricky to abide by both of them. For the sake of her long-term health, this collective wisdom goes, a woman should have her first pregnancy at 34--and her last pregnancy before 35.

The highest number {139 (46.3%)} of the respondents could mention the consequences of unsafe abortion correctly. Complications of the early pregnancy, health effects due to lack of menstrual hygiene, and knowledge on reproductive health problems could be correctly mentioned by 135 (45%), 111 (37%) and 100 (33.3%) respondents respectively (Table 14). In the study conducted by the population council in, 2004 90% of the respondents were aware of the complication of early pregnancy. In the article Barkat A, 2003 it was stated that in Bangladesh, 14% of all obstetric deaths are due to abortion complications. The health consequences of abortion are particularly acute for adolescents. Unmarried adolescents are considerably more likely than older women to delay seeking abortion services and hence undergo second-trimester abortions. In Bangladesh, according to UNICEF's State of the World's Children 2009 reported that 64% of girls are married before they reach the age of 18. As a result, both maternal and child mortality rates are increasing in the country. With early marriage comes early pregnancy. One-third of teenage girls aged 15 to 19 years are mothers or pregnant in Bangladesh today, with adolescent mothers more likely to suffer birth complications than adult women, the British Medical Journal reported by Lagman, 2008. research shows that the risk of maternal mortality could be five times higher for mothers aged 10 to 14 than for those aged 20 to 24, while babies born to mothers younger than 14 are 50% more likely to die than babies born to mothers older than 20. Adolescents may also experience resistance or even hostility and bad attitudes from adults when young people attempt to obtain the RH information and services they need. They therefore may be at increased risk of sexually transmitted infections (STIs), HIV, unintended pregnancy, and other health consequences. For women aged 15 to 19, complications of pregnancy, childbirth, and unsafe abortion are the major causes of death. Young people aged 15 to 24 have the highest rates of sexually transmitted infections (STIs), including HIV/AIDS. Ethiop J. Health Dev. 2008 reported that particularly, adolescents in the Sub-Saharan region have low family planning utilization rates and limited knowledge about RH and services, and they account for a higher proportion of the region's new HIV infections, maternal mortality ratios, and unmet need for RH information and services. These circumstances can be attributed to a number of social, cultural, economic, and gender-related factors, many of which are avoidable problems. The highest number {135 (43.2%)} of the respondents were found to seek help from their mothers regarding the treatment of their reproductive health problems, which was followed by 103 (34.3%) respondents who consulted with physicians for the same problems. Health workers and friends/relatives/family members were consulted by 36 (12%) and 21 (7%) respondents respectively. Only 5 (1.6%) respondents went to traditional healers for treatment of their reproductive health problems (Table 15). Mittal et al. 2010 study found that mothers were the most important source of knowledge (47.4%) regarding menstruation among the study subjects followed by friends/peers (23.8%), teachers (4.9%), and mass media (4.8%). Regarding contraception, friends/peers were the most important source of information (23.2%) followed by mass media (20.1%), mothers (14.8%), and teachers (10.4%). In relation to information regarding abortion, friends were the most important source (16.1%) followed by mothers (9.3%), mass media (8.7%), and teachers (5.4%) while for safe sex, friends were the most important source (4.0% only) followed by mass media (3.0%), teachers (2.4%), and mothers (1.3%). The highest number {240 (34.2%)} of respondents mentioned academic discontinuation as the consequence of early marriage. Early pregnancy and sexual diseases were pointed out as the consequences of early marriage by 175(25%) and 160(22.9%) respondents respectively (Table 16). This study depicts that out of 300 respondents' highest proportion {110 (36.6%)} mentioned that safe facilities for menstruation regulation are available at health clinics. NGOs and Govt. health centers were mentioned by 55 (16%) and 48 (16%) respondents respectively whereas 66 (18.3%) respondents could not mention the name of any place as facilities for safe menstruation (Table 17). The highest number {270 (37%)} of the respondents mentioned that better accessibility of reproductive health information can be ensured by sharing with female family members and the lowest {108 (14.8)} number

suggested to give proper importance to reproductive health issues in secondary level curriculum. Media coverage of reproductive issues and participation in various relevant GOVT./NGOs programs were mentioned by 234(32%) and 118 (16.1%) respondents respectively (Table 18).

Highest number {131 (43.7%)} of the respondents were found to have good knowledge on prevention of STDs. Good knowledge regarding the names and way of transmission could be correctly mentioned by 55 (18.3%) and 72 (24%) respondents respectively (Table 19). A study of Haider, et al. 1993 found that more than two third of the respondents could not identify the correct response regarding the mode of transmission and regarding the way of prevention of AIDS, 36% identify a single mode of transmission and 9% identify two way of spread of STDs. The difference of two studies may be due to that the role of mass media increases day by day as the people are more prone to exposed now a days.

WHO denotes- Adolescents are at the highest risk of sexual and reproductive health problems, the social context of Bangladesh disregards sexual relationships outside marriage, and this leaves the impression that premarital sexual relationships are uncommon among adolescents in Bangladesh. Information about premarital sex is limited. However, a survey of the Population Council, Bangladesh suggests that this assumption is incorrect. The survey showed that 88% of unmarried urban boys and 35% of unmarried urban girls had engaged in sexual activity by the age of 18 years. By this age, a smaller, but important proportion of unmarried boys and girls living in rural areas also reported having engaged in sexual activity (38% and 6% respectively). It has also been estimated that 55% of patients seen for sexually transmitted infections (STIs) are aged less than 24 years (Bangladesh Ministry. 2001). The recent surveys conducted by the ICDDR, Centre for Health and Population Research and other organizations in Bangladesh among adolescents have consistently documented their generally poor knowledge of sexual and reproductive health. Malleshappa et al. Andhra Pradesh has the second-highest number of HIV cases in the country, with a prevalence of 0.90% & the prevalence are high in the 15-45 years age group (88.7% of all cases) indicating that assessment of knowledge & awareness levels about reproductive health among adolescents is an important issue based on which the education intervention program can be decided. After they have done intervention program knowledge of the participants regarding STDs especially HIV/AIDS and its prevention. Their knowledge improved remarkably following intervention ($p < 0.0001$).

More than half {175 (58.3%)} of the respondents were found to have the correct knowledge on the age of taking the tetanus toxoid vaccine. Only 96 (32.0%) and 4 (1.3%) respondents were found to have the correct knowledge on doses and age of taking tetanus toxoid vaccine and human papilloma vaccine respectively (Table 20). A recent study by Raikes, et al, 2003 revealed that about one-fifth of adolescents did not receive any tetanus toxoid (TT) during their last pregnancy. The mother's blood pressure was not taken in four out of five births, nor was urine taken and tested during pregnancy. Antenatal care coverage was only 25 percent.

The higher number of the respondents {129 (54.9%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 25 (38.5%) respondents were found to have good knowledge on the same issue. There was a significant relationship between age and knowledge on physical change during puberty (Table 21). The higher number of the respondents {79 (26.3%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 21 (7.0%) respondents were found to have good knowledge on the same issue.

There was a significant relationship between age and knowledge on reproductive health problems (Table 22). The highest number of the respondents {51 (17.0%)} of the senior group (>15 years) were found to have good knowledge than their counterpart in the junior group (≤ 15 years) among whom only 21 (7.0%) respondents were found to have good knowledge on the same issue. There was no significant relationship between age and knowledge on sexually transmitted diseases (Table 23).

For this reason, Economic progress and greater investment in the human capital of women will not necessarily translate into better reproductive outcomes if women lack access to reproductive health services. It is important to ensure that health systems provide a basic package of reproductive health services, including family planning and vaccination.

CONCLUSION

Knowledge regarding reproductive health among the secondary school students was satisfactory the physical changes taking place in them during menstruation and psychological changes. In order to prepare secondary school students, the fight against all negative aspects of reproductive health including HIV/AIDS, they should be provided with accurate information and clarification for any misperceptions. Correct knowledge may get blurred with misperceptions and incorrect attitudes, and thus the high level of knowledge may not be conducive to desirable behavior change. Knowledge of attitude toward and behavior regarding other reproductive health problems such as conception about family planning, vaccination, and STDs are also should be improvised. Although social customs usually discourage premarital or extra-marital sexual relationships, there is every chance of these groups becoming vulnerable to unwanted pregnancy and disease, with stigma and discrimination associated with either condition. The risk of contracting STDs including HIV/AIDS is a major public health concern for secondary school students.

In this study, the maximum numbers of students are from lower-middle socio-economic conditions. They have good knowledge regarding reproductive health events, reproductive health problems and factors related to reproductive health, consequences of early marriage, early pregnancy, and unsafe abortion. Female secondary school students surveyed for this study demonstrated a high level of knowledge about physical changes that occur in females during puberty and the majority of them heard the term of puberty and reproductive health from the textbook of physical education. The majority of the known consequences of unsafe abortion and how to prevent sexually transmitted diseases. So in the end, we can conclude the knowledge level of the respondents in three major groups like knowledge regarding reproductive health events, knowledge regarding reproductive health problems, and knowledge on sexually transmitted is satisfactory.

RECOMMENDATIONS

This study was conducted to assess the knowledge level of secondary school students about reproductive health and the need to develop reproductive health education intervention programs, it should be arranged Prevention of anemia, vaccination, perception about contraception. Special counseling services and training should be conducted for adolescent girls.

Develop and implement mass media campaign- Based on the research results. This mass media campaign would support secondary school students to reduce the incidence of early marriage and prevent anemia.

Guardians should develop a friendly relationship with their adolescents to inform and consult about reproductive health and their problems. Especially working mothers should spend enough time with their children.

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