DOI: 10.15575/ks.v4i1.14774

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman^{1*}, Sajal Roy², Ashish Kumar Singh^{3*}

¹Department of Gender and Development Studies, Faculty of Social Science , Begum Rokeya University, Rangpur, Bangladesh

²Centre for Livelihoods and Wellbeing (CLAW), UTS Business School, University of Technology Sydney, Australia

³National Research University Higher School of Economics, Moscow, Russia *Corresponding Author E-mail: Ashish.tiss@gmail.com

Abstract

This paper looks into the barriers faced by Bangladeshi adolescents in learning about sexual and reproductive health. A mixed method approach was used to generate data gathered from the two study sites named Dhormasor Mohisa Trimukhi Uchho Bidalay and the Jaforgonj High School located in the Rangpur district, the northern part of Bangladesh. Thematic analysis was employed to develop themes, priori and other memos. Our findings demonstrate several key issues, all of which negatively impact adolescent Sexual Reproductive Health (SRHR) education. First, there is the lack of teacher training and experience in SRHR class lectures, as well as parental ignorance. Second, there are social stigmas, social taboos and cultural rigidity. Third, there are significant institutional barriers like the lack of textbook information, combined classes and age discrepancies between teachers and students. Fourth, male teachers often give SRHR lectures to female students, and female teachers give SRHR lectures to males. Fifth, misuse of appropriate technology and sometimes its lack of access can also prevent adolescents obtaining correct information about SRHR. This study contributes to the field of gender and public health.

Keyword: Adolescents, Sexuality, Reproductive Health, Stigmas, Taboos.

Abstrak

Makalah ini melihat hambatan yang dihadapi oleh remaja Bangladesh dalam belajar tentang kesehatan seksual dan reproduksi. Pendekatan metode campuran digunakan untuk menghasilkan data yang dikumpulkan dari dua lokasi penelitian bernama Dhormasor Mohisa Trimukhi Uchho Bidalay dan SMA Jaforgonj yang terletak di distrik Rangpur, bagian utara Bangladesh. Analisis tematik digunakan untuk mengembangkan tema, apriori dan memo lainnya. Temuan kami menunjukkan beberapa masalah utama, yang semuanya berdampak negatif pada pendidikan Kesehatan Reproduksi Seksual (HKSR) remaja. Pertama, kurangnya pelatihan dan pengalaman guru dalam perkuliahan kelas SRHR, serta ketidaktahuan orang tua. Kedua, adanya stigma sosial, tabu sosial dan kekakuan budaya. Ketiga, ada hambatan kelembagaan yang signifikan seperti kurangnya informasi buku teks, kelas gabungan dan perbedaan usia antara guru dan siswa. Keempat, guru laki-laki sering memberikan kuliah HKSR kepada siswa perempuan, dan guru perempuan memberikan kuliah HKSR kepada laki-laki. Kelima, penyalahgunaan teknologi tepat guna dan terkadang kurangnya akses juga dapat menghambat remaja memperoleh informasi yang benar tentang HKSR. Studi ini memberikan kontribusi pada bidang gender dan kesehatan masyarakat.

Kata kunci :Remaja, Seksualitas, Kesehatan Reproduksi, Stigma, Tabu.

INTRODUCTION

This paper seeks to throw light on the obstacles faced by Bangladeshi adolescents' in acquiring knowledge about sexual and reproductive health. Adolescence is a phase of accelerated growth

This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License

Received: November 1, 2021; In Revised: December 20, 2021; Accepted: January 20, 2022

^{*}Copyright (c) 2022 Kamruzzaman et.al

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

characterized by changes in physical, cognitive, mental and sexual characteristics (Dube et al., 2012). Adolescence is a time of transformation that involves a wide range of shifts, including physical, biological, mental and social changes (Tang, 2017). Adolescent sexual and reproductive health refers to adolescent physical and emotional well-being (Rob et al., 2006). There is a large population of around 36 million young people in Bangladesh, showing that more than one-fifth of the total population is aged 10-19 (BBS, & UNICEF, 2014). Sexuality, particularly of young people, is a major taboo in Bangladeshi society. Many people avoid addressing young people's sexuality because they fear it will encourage them to participate in early sexual activity (Ahsan, et al., 2016). Studies show that, a large majority of adolescents (both married and unmarried) in Bangladesh do not have information about sexual and reproductive health (Barkat et al. 2000), despite of the fact that there are discussions taking place within Bangladeshi intelligentsia highlighting the importance of young people's rights to have access to reproductive health knowledge and services.

The Bangladeshi government's National Curriculum and Textbook Board (NCTB) added material on adolescence and reproductive health to the curricula requirements for Grades 6 to 10 in 2012. No specific research has been done on the effectiveness and implementation of the national SRH curriculum (Ainul et al., 2016). Due to many teachers' unwillingness to teach these subjects in the classroom, this program is not being enforced. Teachers are hesitant to discuss sensitive topics related to the SRHR with students, leaving the students to read these chapters on their own (Ainul et al., 2016). The structure of the family in Bangladesh remains very strong and plays an important role in adolescent life. Within the familial structures, often provides little or no information about reproductive health issues or problems are discussed (Rob et al., 2006). The parents' own reproductive health awareness contributes to their children's understanding on reproductive health. Similarly, parents' concerns about their children's reproductive wellbeing influence their attitudes toward adolescent sexual and reproductive health programs (Rob et al., 2006).

In Bangladesh SRH continues to be seen as a cultural taboo for adolescents, and SRH information and services creates a critical gap for unmarried teenagers, especially girls, making them vulnerable to health risks and discriminatory care (Ainul et al., 2017). Such educational and cultural constraints affect adolescent boys as well (Zakaria et al., 2020). Parents do not feel comfortable discussing SRH issues with their adolescent children, and schools provide minimal information on SRH BRAC (Institute of Educational Development, 2012). A dearth of adequate knowledge and appropriate information on SRH leads to confusion, fear, excitement and curiosity as well as causing insomnia and raising a number of questions in their minds (Cash, et al., 2001).

Reproductive health in Bangladesh is also primarily concerned with women's reproductive health. Few SRH services target males in order to assist them in providing better treatment for their partners, potentially worsening the SRH situation of older adolescent girls (Zakaria et al., 2020). Although there is no nationally representative data on the level of SRH awareness, attitudes, and practices among adolescent populations in Bangladesh, the Ministry of Health and Family Welfare (MOHFW) did release a report in 2016. A low level of knowledge is often linked to negative SRH consequences due to inaccurate or inadequate information (Zakaria et al., 2020). Sexual and reproductive health rights have a direct relationship to the sustainable development of the adolescent. Sexual and reproductive health and rights are directly or indirectly related to the various issues of sustainable development of adolescents, including SRHR and Education, SRHR and Economic Benefits, SRHR and the Broader Health Agenda, and SRHR and Gender Equality (Universal Access Project, n.d.). A study on Early Marriage, Age of Menarche, and Female Schooling Attainment in Bangladesh found that for each additional year of delay in marriage, a girl will gain

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

an average of 0.22 additional years of schooling, and the probability she is literate will rise by 5.6% (Field & Ambrus, 2008).

One of the key Sustainable Development Goals is to improve the sexual and reproductive health (SRH) of adolescents (Zakaria et al., 2020). The third Sustainable Development Goal (SDG) aims to 'ensure healthy lives and promote wellbeing for all at all ages.' Target 3.7 of the SDGs Goal 3 indicates that by 2030, universal access to sexual and reproductive health care services will be guaranteed by the Government. Target 3.7 also includes family planning, information and education, as well as the integration of reproductive health, into national strategies and programs. In 1994, the International Planned Parenthood Federation Charter outlined the key rights of adolescents (ASRHR), which encompass the rights to healthcare, information and education, life, liberty, privacy and freedom of thought. Some of the obstacles that adolescents face in accessing appropriate information regarding sexuality and reproductive health include social taboos about SRHR. A recent qualitative needs assessment undertaken in Dhaka (BRACU, 2012) found that adolescent girls and boys were insufficiently informed or misinformed about sexual and reproductive health and rights (SRHR) because of lack of information from parents and school teachers. A series of multifaceted barriers currently stand in the way of the sexual and reproductive health of Bangladeshi adolescents. Sexual and reproductive health is a key aspect of adolescent growth and should be safeguarded by SHR rights.

To cover the shortcomings of previous research, this paper is organized into four sections. Section One discusses lack of information within particular book chapters of the educational manual titled *Physical Education* from Grades 6-10. Section Two examines institutional and academic barriers to learning about sexual and reproductive health. Section Three analyses socio-cultural beliefs and taboos about sexual and reproductive health, which create barriers to knowledge about them. Section Four looks at the misuses of technology and the lack of other, more reliable sources of information about SRHR.

RESEARCH METHOD

This study utilized a mixed research method, collecting and analyzing both quantitative and qualitative data within the same study (Bowers et al., 2013). Mixing data sets can provide a better understanding of the problem and yield more complete evidence – the investigator gains both depth and breadth. Mixed methods are used widely throughout the social and behavioral sciences. In this study we used mixed methods to better understand the learning barriers of adolescents regarding SRHR. Closed ended questionnaires were set up for conducting surveys. Surveys are useful research methods for collecting information from a selected group of people using standardized questionnaires. Quantity data was collected from this survey and 3 focus groups were also conducted through open ended questionnaires. A focus group discussion is a structured discussion used to obtain in-depth information from a group of people about a particular topic. It is also the combination of both interviewing and participant observation. Primary data was collected through surveys and focus group discussions during 8-15 November 2019 in Rangpur Sadar Upazila and in Kowniya Upazila under the Rangpur district. A survey was conducted on 100 school going adolescent students from Grades 6 to 10. A total of 30 people participated in three separate FGDs, including teachers, adolescent students and their parents. FGD and surveys were conducted with equal numbers of males and females to identify different perspectives about adolescent sexual and reproductive health. Respondents from different age groups were selected using purposive sampling methods. 50% female and 50% male students were selected for all surveys.

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

Reason for selecting the schools

This study was conducted across two schools. The first was *Jaforgonj High School* located at Rangpur Sadar Uazila, established in 1985. Currently more than nine hundred students are studying here, a combination of 50% males and 50% females. According to Banglapedia Rangpur Sadar Upazila (Rangpur District), the area covered is 330.33 sq km, located in between 25°39' and 25°50' north latitudes and in between 89°05' and 89°20' east longitudes. The second school is *Dhormasor Mohisa Trimukhi Uchho Bidalay* located at Kaunia Upazila, established in 1945. Currently more than one thousand three hundred students attend, with a male to female student ratio of 45/55. The Kaunia Upazila (Rangpur District) area covers 147.6 sq km, located in between 25°42' and 25°50' north latitudes and in between 89°18' and 89°30' east longitudes. This area has been selected using purposive sampling methods, because the socioeconomic conditions and access to information about SRH are very low in this region. The familiarity with this Upazila gave the advantage of getting access and easy transportation, thus this area was selected for study.

Reason for selecting the physical education textbook

Sexuality and in particular, youth sexuality are taboo subjects in Bangladeshi society. In its social systems, procedures, laws, and its secondary school resources, current sex education discourse is actively expressed in the framework of gender (Connell, 1995). It is of concern that sex education is often made part of the Physical Education curriculum. The National Curriculum Textbook in Bangladesh introduced 2012 SRHR subjects, including physical changes during puberty, menstruation and wet dreams, and is reproduced in the secondary school physical education textbook. Teachers across the school systems come from diverse educational and socioeconomic backgrounds and do not form a homogenous group. Many teachers feel unmotivated, embarrassed or reluctant to take extra classes on SRHR (Khan et al., 2020). Shame can be described as an effective cost that teachers experience when deviating from their prescribed role in the SRHR classroom. For information about SRHR, then, school-aged adolescents have to rely on this physical education textbook, which is why this study has selected it. Physical Education includes SRH- related chapters informing adolescents about their physical development and changes. However, due to continuing socio-cultural taboos and shame about SRH, adolescents are not benefitting fully from these chapters.

Data Analysis

In this study, data was mainly collected through surveys and focus group discussion. Data analyses were completed by following a series of activities including gathering and categorizing data, and transcription of qualitative data. A thematic analysis has been conducted to organize our findings, detailed in table 1.

Table 1. Questions asked to respondents

No	Question				
1	Do you think that the Physical Education textbook helps you in learning about sexual and reproductive health?				
2	Can you talk frankly with your teachers and parents about sexual and reproductive health?				
3	Do you think combined classes of males and females is a barrier to learning about sexual and reproductive health of adolescents?				
4	From where do adolescents gather information related to ASRH?				
5	What are the roles of teachers and parents in informing adolescents about SRH?				
6	What are the main harriers in learning about sexual and reproductive health?				

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

RESULT AND DISCUSSION

Adolescent sexual and reproductive health: reflections from literature

Teenagers account for roughly 20% of the world's population, or 1.4 billion people (WHO, 2013). According to the World Health Organization, the total number of adolescents in Bangladesh is 30,674,422. (WHO, 2020). Sexuality is a basic aspect of human nature, but it remains a taboo topic (Browes, 2014). Misinformation, a lack of awareness and skills, and negatively biased attitudes about sex have resulted from the stigma and apprehension of addressing sexuality with adolescents (Browes, 2014). Currently accepted norms can be at odds with program teachings, and studies have shown that, while having the skills to teach sexual education, teachers are often slow to question prevailing socio-cultural norms (Mkumbo 2012, Smith & Harrison, 2013). The teacher, in turn, becomes the key player, in relation to or in the context of the suitability of schools as a place for the introduction of sexual health programs (Browes, 2014).

Though scholars (such as Francis, 2010) emphasize the importance of teacher training in addressing these issues, some studies show that these problems continue even with training. Education policies, in general, affect teacher (and student) workloads and teaching goals, including an emphasis on exam-based content (Altinyelken 2010). Furthermore, since this research is based on teacher-student interaction, the way a teacher sees their students and how this influences teaching strategies is especially significant. If a female student expresses her knowledge or opinions during a sexual health class, she can feel humiliated and be labeled as "simple." Her classmate, on the other hand, may come from a home where she addresses SRHR problems with her parents or siblings, and thus feels reasonably relaxed sharing her information in the classroom. (In this setting, her agency is closer to the 'thick' end of the continuum) (Browes, 2014). According to Tabulawa (2004), students use a variety of techniques in the classroom to determine both the lesson and the teacher's position. Many countries have taken great strides to improve sexual and reproductive health by integrating key services in their universal health coverage (UHC) reforms (Sundewall & Jesper, 2019).

The Bangladesh Bureau of Statistics shows that 29.5 million adolescents in Bangladesh, including 14.4 million girls and 15.1 million boys, together represent nearly one-fifth of the country's total population of 144 million (Bangladesh Bureau of Statistics, 2011). Although the health and well-being of this group is critical to the country's future, issues surrounding sexual and reproductive health (SRH) remain culturally taboo, especially for adolescents and young unmarried people. Adolescents in Bangladesh too often enter their reproductive years poorly informed about SRH issues, without adequate access to SRH-related information or services (Ainul et al., 2017). Many adolescents, including those who are sexually active, have difficulty finding information and knowledge about adolescent sexual and reproductive health (ASRH). According to the United Nations Educational, Scientific and Cultural Organization those who are able to find accurate information about their sexual health and rights may still be unable to access the services needed to act on that knowledge and protect their health (UNESCO, 2009).

Good sexual and reproductive health is a part of complete physical, mental and social wellbeing in all matters relating to sexuality and the reproductive system. All individuals have a right to make decisions governing their body and to access services that support that right (Starrs, et al.,2018) Adolescents are a key section of the population for nearly all sexual and reproductive health services. From age 10 to 19 years, adolescents experience major transitions, including the onset of puberty and, for some, the beginning of sexual activity, cohabitation or married life and childbearing (Starrs et al., 2018). Very

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

young adolescents, aged 10–14 years, are particularly vulnerable as they have limited or no access to appropriate sexual education and are often exposed to sexual coercion and/or sexual violence (Woog & Kågesten, 2017). At the same time, social norms, stigma, laws and policies, including age of consent restrictions, often hinder adolescents from accessing contraceptives and other sexual and reproductive health services. Adolescence is a time when future health and SRHR needs are defined. Early marriage or parenthood together with limited education will have a negative impact on health and will hamper the attainment of SRHR (Patton et al, 2016).

Education can help to promote SRHR through socialization, education programs and counseling services (Altinyelken & Olthoff, 2014). Young people can also learn about sexuality during their formal schooling. During socialization processes, however, parents and elders in rural Bangladeshi families rarely offer an enabling environment for their children to gain information about SRHR. The education system can play an important role in promoting SRHR by incorporating sex education into its curriculum subjects, or by offering specific sex education programs. Sex education has long been a highly contentious topic in many countries (Altinyelken & Olthoff, 2014). School is one of the best institutional settings whereby children and adolescents can have access to counseling and other services related to sexual and reproductive health. The level of education of each individual directly influences various SRHR indicators. Education is important because young people who can read and write are more able to inform themselves about their sexual and reproductive rights (Altinyelken & Olthoff, 2014). SRHR issues have various direct and indirect consequences on the education system and on the schooling of children, including unwanted pregnancies, sexual abuse, early marriage and HIV/AIDS or other STIs. Schools are sites where some of the most distressing concerns relating to SRHR originate, such as sexual abuse (Jewkes & Abrahams, 2002), the spread of HIV/AIDS and other STIs.

Cultural preservation often perceives education as a tool to help convey the dominant religious beliefs, norms and values in relation to sexuality. A variety of distressing SRHR concerns can also be alleviated by education. The intersectional features of age, marital status, sexual orientation and socioeconomic status all affect sex education. Young people seek and receive information on issues related to sexuality from both formal and informal sources, including family peers, school programs, media and pornography. These sources might have different importance and play different roles for girls and boys, thus providing different, sometimes contradictory types of information. Since the great majority of young people attend schools before they become sexually active, schools are well placed as an intervention site (Giami et al., 2006). Many also appear to be in denial of youthful sexual activity, and the objectivity and the accuracy of the information provided at home would be questionable. Studies find that parents or other adult relatives are not necessarily the best sources of information or support in this area. Also, girls may be sexually preyed upon by family members who live in the same household (Abuya et al., 2012).

In a meta-analysis of 30 countries in sub-Saharan Africa, Latin America and the Caribbean, Singh et al. (2003), demonstrate that high proportions of young people become sexually active during their teenage years. Yet there are significant gaps in their knowledge about contraception and other protective behaviors. The needs of boys and girls in sex education programs can differ as well as the level and the nature of their participation when taught in mixed classes. Most sex education programs do not include any discussion about emotions, feelings and relationships with significant others, even though emotions and relationships in such broader contexts is critical (Francis, 2010). In fact any sex curriculum cannot be discussed without considering the input from adolescents about their sexuality and their experiences. Hence there is a need for what is called emotional teaching and support in relationships as well as practical and social information. Teachers often lack the requisite skills and knowledge and find that talking about

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzaman et.al

sexuality generates much stress, anxiety, embarrassment and discomfort in a society where talking about sexuality is viewed as a taboo (Altinyelken & Olthoff, 2014).

According to the International Planned Parenthood Federation (IPPF) every person has the right to control their bodies and to decide freely and responsibly on matters related to sexuality, including sexual and reproductive health, freedom from coercion, discrimination and violence. The IPPF attempted to establish a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. The IPPF set out 10 goals related to SRHR (IPPF, 2013). Goals related to Vision 2020 of the IPPF focuses on establishing a framework that includes sexual and reproductive health and rights as essential priorities. These include increased access to sexual and reproductive health and rights and recognize sexual and reproductive rights as being human rights.

Lack of information regarding SRHR in physical education textbook from Grades 6-10

We argue that although teenage pregnancies, unsafe abortions and pornography remain key issues for adolescents, information about these issues is lacking in the relevant text book chapters. *Physical Education* was introduced as a new subject of study for high school students (Grade 6 to Grade 10) in Bangladesh in 2012. It includes chapters covering topics such as Physical Exercise and Healthy Life, Scouting and Girl Guiding, Personal Safety of the Adolescent, and Sports for Life. It also includes an important chapter for adolescents titled Puberty and Reproductive Health. All these chapters are relatively effective in providing adolescents with at least a basic knowledge about SRH.

Invisible academic barriers in learning about SRHR

This section argues that adolescents do not benefit sufficiently from the textbook on SRH due to invisible academic barriers. This study finds more specific factors that create barriers to adolescent understanding of SRHR. These factors are somehow related to academic barriers. See table 2.

Table 2. Students' and teachers' opinions regarding chapters related to SRHR

Table 2. Students and teachers opinions regarding chapters related to sixtik					
Grade	Name of the chapters regarding SRH	Content	Opinions of students	Opinions of teachers	
Grade-6	Adolescent Period of our Life	Physical changes with age	From this chapter, teachers do not take a written examination, that's why we give less priority to this book.	We give emphasis on physical exercise rather than class teaching in Grade 6.	
Grade-7	The Personal Safety of the Adolescent	Nutritious foods, bad touching and good touching	Teacher does not take any classes on this topic, like good and bad touches.	Students are already informed about good and bad touching. Do not need to take classes on this topic.	
Grade-8	Reproductive Health of our Life	Physical, mental and social welfare of adolescents. Teen pregnancy, safe motherhood.	First time we are informed about pregnancy.	I have no training regarding SRH and that's why it is difficult to teach my students about SRH related problems.	
Grades-9 &10	Reproductive health & Puberty	Physical, mental and behavioral changes in puberty. Autism and nutrition.	Teachers' questions and concerns related to autism and nutrition rather than SRH.	In this chapter autism and nutrition are the most important topics rather than SRH related issues.	

Source: Field survey, November 2019

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

The textbook should inform adolescent students about abortion and its consequences. Here information about pornography and masturbation must be included and their affect and implications should be discussed frankly with adolescents (Publique & Bettinger, 2020).

Adolescents are the highest consumer of porn films, while masturbation typically begins in adolescence. Estimates say that up to 95% or more of young people between the ages of 12 and 18 have access to the Internet (Anderson, & Jiang, 2018). There has been concern that this increased accessibility may lead to an increase in the search for pornography among children and adolescents, with potentially serious implications for their sexual development (Ybarra & Mitchell, 2005). It is very important then to create safe, open spaces to discuss adolescent problems. Teachers' time-related limitations means that a text book titled *Physical Education* is being heavily relied upon to provide all kinds of information and offer possible solutions about problems related to ASRHR. Also, there needs to be specified activities where the teacher shares information about SRHR with students. Text books must introduce new types of activity to measure and assess student understanding of SRHR.

Unsafe abortion, often an outcome of an unintended pregnancy, results in the deaths of 80,000 women every year worldwide, 95% of which take place in developing countries. Unintended pregnancies can produce a wide range of negative impacts on mental health, antenatal care, breastfeeding and infant mortality (Kamal & Islam, 2011). In terms of the women who are most at risk of unsafe abortion, the data is limited. However, a number of studies suggest that adolescents may be at a greater risk of using unsafe abortion services, although this is difficult to verify, as it is a stigmatized issue within many communities (Ahmed et al., 2005). The risk of abortion for unmarried adolescents was 35 times greater than among those who were married, where pregnancies outside of marriage were deemed socially unacceptable. The odds ratio (OR) among 19-year-olds was 26% lower than 18-year-old adolescents, indicating that abortions were more common among young adolescents (Ahmed et al., 2005). A range of physical complications resulting from unsafe abortion has been documented in Bangladesh. One study reports that 29% of women had more than three weeks of bleeding post-abortion and 70% had a persistent fever (Bhuiya et al., 2001).

A recent Bangladeshi study reported that the prevalence rate for having accessed online pornography among those aged 20 to 25 years was 54% in males and 12.5% in females (Al Mamun, at el., 2018). As the Internet has become more accessible, affordable and anonymous, it has allowed many more individuals to obtain online material of a sexual nature including online pornographic videos, online sexual chatting, and so on (Owens et al., 2012). Adolescence is the most vulnerable period to encounter pornography; a study found that 67% of respondents were exposed to pornography at high school ages (13–17 years old). However, females were just as likely to first encounter pornography at university as they were at high school,

Adolescent sexual development is complex and dynamic. As children get older, they gain a greater sense of their sexual self, enhanced by an interplay of biological and social changes as the individual matures through childhood into adolescence (Ponton & Judice, 2004). Although puberty can begin at different ages, virtually all boys and girls have begun the process by 14 years of age (Ponton & Judice, 2004). Sexual interest increases with age and biological changes, with the average age of first sexual experience in the United States being 15.8 years (Berne & Huberman, 1999). Expressions of sexual curiosity span a continuum of behaviors, from talking about sex and looking at sexual materials, to engaging in sexual activity. Although sexual activity can represent risks in and of itself (e.g. sexually transmitted diseases), researchers and other adolescent health professionals have posited that exposure to pornography itself poses risks (Ybarra & Mitchell, 2005). This is the case especially with regard to the

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

growth of violent material and material that is degrading to women – which adolescent viewers may come to accept as normal.

Institutional barriers in learning about sexual and reproductive health

A number of invisible barriers exist within the educational activities intended to teach adolescents about SRH. Some of these barriers are: age differences between teachers and students, unfavorable teaching environments, shame, mixed classes (boys and girls), male teachers for female students, or female teachers for male students. Bangladesh still retains a traditional expectation of physical education teachers to be male.

Problems Number of participants Percentage Teachers have inadequate skills and 25% 38 knowledge to teach about sexuality 13% Shame 13 Combined classes of males and 45 33% females 4% Others 4 100 100% Total

Table 3. Invisible academic barriers to SRHR education

Source: Field survey, November 2019

Invisible academic barriers to SRHR education

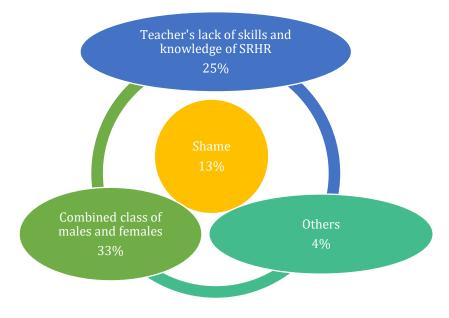


Figure 1. (Field survey, November 2019)

According to Table 3 and Figure 1, out of 100 participants, 38% stated that teachers had less (or insufficient) skills and knowledge to teach about sexuality. 45% said that male and female combined classes created a barrier to learning about adolescent sexual and reproductive health. 13% of students reported feeling ashamed to discuss SRH with teachers. The remaining 4% of students mentioned other factors, such as male teachers for females and female teachers for males forming a significant barrier to

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

learning about sexual and reproductive health. From the study's finding, it is clear that teachers often lack sufficient skills and knowledge to teach adolescents about sexuality. Age differences between students and teachers was also a factor, including combined classes of males and females, and males teaching females or females teaching males. All these factors created barriers to an improved understanding of SRHR by students. A highly significant problem was found to be shame.

Issues such as embarrassment, lack of knowledge and discomfort are key factors at work in discussions of sexual and reproductive health of adolescents. Some teachers are uncomfortable talking about sex to such young learners, or are apprehensive about parental resistance or possible accusations (Jewkes, 2009). This study interviewed an assistant teacher who had been employed as a physical instructor since the start of his career. This participant had now been teaching physical education for about 25 years. He had completed a Bachelor of Physical Education in 1997 but received no special training in Adolescent Sexuality and Reproductive Health. His teaching is based only on his own life experiences or limited to particular lessons in the text book. He claimed to have never heard of the term "sexual and reproductive health" in his life. He reported that he always read from the chapters in class, providing examples from his own life experience. In his early years, when he had started to take classes on particular chapters of SRH, he felt uncomfortable sharing such information with young children who were in Grades 6/7. One of the male research participants from Grade 7 said in response to the question D:

that "reproductive health related discussion is a private matter that can only be discussed With friends not with teachers because teachers do not face changes or problems that I am facing right now and they are not our friends".

Mixed classes can create a hostile or uncomfortable environment for open discussion about sexual and reproductive health. Boys and girls have different needs regarding SRH, and studies havefound that girls remain silent and hesitant to express their opinion in mixed classes (Pattman & Chege, 2003). A male participant from Grade 9 recalled:

"For having combined class of male and female none of the students among us can discuss openly about sexual and reproductive health. If anyone wants to know about SRH related problems then he is insulted by his classmates. We need a private environment to discuss openly about these issues".

As well as a manual that adequately covers SRH, a comfortable class environment is very important. Combined classes of males and females is a significant barrier to open discussion about sexual and reproductive health. Comfort zones for individuals are important to improve adolescents' understanding of SRH. To build a sustainable environment, it is important to tackle large, individual systemic factors that are essential to SRH outcomes and other health and development aspects. (Gupta et al., 2008).

Of the 100 participants, 33% claimed that male teachers for females and female teachers for males created an obvious barrier to learning about sexual and reproductive health. Studies find contradictory opinions from adolescents and teachers. According to adolescents, mixed classes create barriers while teachers claim that combined classes are necessary to break students' shame around SRHR. An assistant teacher of physical instruction stated that:

"Combined classes of male and female is one of the most important barriers to open discussion about SRH but on the other hand combined class are also very important to break down their traditional stereotype taboos about SRH. Every adolescent must have knowledge about what is happening with their brothers and sisters at this time. It is very important to know about each other's problem to be co-operative each other."

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

Participants identified shame as a key invisible barrier to better understanding of SRH in Bangladesh. Several studies (Boonstra, 2011; Breuner, & Mattson, 2016; Van Der Vlugt & Bonjour, 2018) including those on the needs of adolescents and young people themselves, point to the importance of teaching SRHR topics and show that such teaching leads to less (risky) sexual practices and more informed choices by young people. In practice, such teaching rarely takes place in schools in Bangladesh. Teachers act as gatekeepers and their perceptions of shame, and how they experience it in the classroom, constitutes a largely unexplored area of enquiry in Bangladesh. Research on SRHR (Francis & DePalma, 2015) highlights the importance of personal comfort if teachers are to teach SRHR effectively.

A male participant of the study, from Grade 9, recalled: "Some lessons of this book were skipped by our teacher, who said that you people will know about that automatically in upper class". A female participant from Grade 10 added:

"We can't share about our problems within class for having male teachers and male students. If there is a female teacher it would be easy to share our needs and problems with teachers or if there was any male and female separate class systems. We need a comfortable environment; if suddenly a period cycle starts within class what will we do? If there are any systems or special facilities for us it would be helpful for us to manage the situation."

The study found that adolescents prefer separate class rooms for males and females. According to most of the participants, privacy regarding SRH would be easier to guarantee with separate class rooms. Comprehensive Sexuality Education (CSE) has been thoroughly evaluated and has been shown to improve adolescent SRH knowledge, attitudes, and behaviors when implemented well. Comprehensive Sexuality Education and appropriate SRH services are therefore proven to be helpful practices but are often poorly implemented (Chandra-Mouli et al., 2015).

Socio-cultural beliefs and taboos regarding SRH

In this section we argue that socio-cultural beliefs and taboos regarding SRHR is another key barrier for adolescents. Adolescent boys and girls are particularly vulnerable to being misled if they are not properly informed around a range of SRH matters. These include physical and mental changes during their adolescent years and issues related to their sexual and reproductive health. Accurate and timely sex education is therefore crucial, and helps them to control their behavior and cope with their physical and mental changes. Ideally, family and society should play important roles in disseminating information about SRH to the adolescent. But the reality falls far short, unfortunately. Quantitative data of our study shows that most of the research participants had not been informed about SRH from family members. Table 3 shows the responses of participants regarding SRH information shared by family members.

Table 4. Information shared by the family members

Information shared by the family	Number of participants	Percentage
members		
Yes	42	42%
No	58	58%
Total	100	100%

Source: Field survey, November 2019

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents Kamruzzman et.al

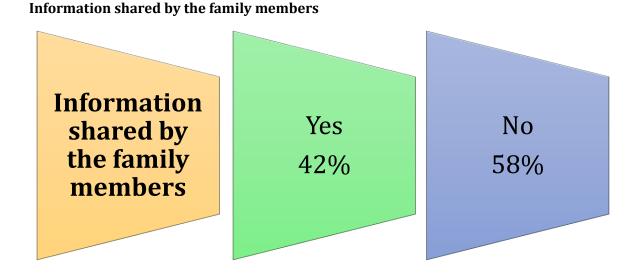


Figure 2. (Field survey, November 2019)

According to Table 4 and Figure 2, of the 100 participants, 42% said their family provided them with basic information about SRH. Most of these were female and were informed by their mother or elder sister. On the other hand 58% respondents received no information about SRH from their family. Unfortunately most of these were male. [This clear-cut split clearly suggests that many families do not feel that males need any SRH information or guidance. June]

Social norms and taboos concerning gender, sexuality and SHR generate a culture of silence in the search for information, and in discussing and voicing concerns about SRH issues, especially for adolescent girls (Svanemyr et. al., 2015). Parents and family members have always played a critical role in helping young people establish their sexual and reproductive awareness. African research as well as other studies have shown that there is often very little communication between teens and parents regarding certain sexual relationships, early pregnancy, HIV and contraception (Biddlecom et. al., 2015). Barriers to communication about sexuality include a lack of parental knowledge, reliance on school teachers, and a perception that talking about sexuality encourages sex (Svanemyr et. al., 2015). Secondary education however has repeatedly been associated with a whole range of better SRH outcomes in contraceptive use, age of marriage, number of births, and use of health services. Even if sex education is not taught. (Svanemyr et. al., 2015). Adolescents feel a strong interest in SRH simply because it is a taboo issue, and since their parents are not providing SRH information, they seek it elsewhere, often from unreliable and misleading sources. Socio-cultural taboos about sexuality influence the relationships between parents and children regarding SRHR. Silence on sexuality in a youth-parent relationship has been identified as a major barrier to effectively implementing youth SRH interventions particularly in the low- and middle-income countries (LMICs) (Denno et al., 2015). Parents do not feel comfortable sharing SRH information with their children. Open discussion is however needed about menstruation, contraception, maturation and STIs/STDs for school-aged adolescents. Their parents' reluctance to openly discuss sexuality discourages young people from sharing their concerns about menstruation, contraception, masturbation, size and shape of penis, STIs/STDs and sexual harassment (Gani et al., 2014; Nahar & Reeuwijk, 2013), which leaves many of them without information or support.

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

One of the female participants from Grade 10 said: "Although I am a Grade 10 student, I have no clear knowledge of menstruation, contraception and sexuality. Sexuality is a taboo issue and my family never discusses SRH with me or other members."

The study found that most of the participants did not have enough knowledge about sexually transmitted diseases. Parental monitoring and control has been understood to have contributed to decreasing the rates of unprotected sex and early sexual debut among young people (Wight & Fullerton, 2013). Parents are often seen as gatekeepers who withhold access to essential information on SRH from unmarried boys and girls out of fear that having knowledge will encourage them to be sexually active (Gani et al., 2014; Nahar & Reeuwijk 2013). A Grade 5 female participant recalled that: "After my first menstrual cycle my family started a discussion about marriage. And I lost my freedom to move here and there, because of safety and security purposes. I left the school if suddenly a menstruation period started when I was in school."

Globally the vulnerability of menstruating girls and issues of menstrual hygiene causes millions of girls and women to absent themselves from school and raises their risk of dropping out of school (Mathiaud, 2014). According to the United Nations Educational, Scientific and Cultural Organization, many teens remain at home due to menstrual cramps, menstrual vulnerabilities, lack of water and sanitation in schools, unsustainable conditions and menstrual anxiety (UNESCO, 2014). Due to continuing social taboos around menstruation, many girls do not feel comfortable discussing menstruation and often leave school (do you mean permanently?). Statistics says that 40% of school girls surveyed in the National Hygiene Baseline Survey reported missing school during menstruation (Aowsaf, 2018). Educational institutions and families must break down these taboos regarding SRH. Educational institutions must also provide some facilities for adolescent girls to manage their uncertain, often irregular periods. Schools must also provide water and sanitation in classrooms, ensure comfortable conditions, and promote awareness among girls that removes fear of menstrual accidents.

Technological misuse and lack of reliable sources regarding SRHR

Adolescent boys and girls generally exchange their queries and concerns about SRH with their peers. Their key concerns are why the body transforms, why facial and body hair appears, why the menstrual cycle starts and so on. Apart from textbook information regarding SRH, the adolescents' sources of SRH information in Bangladesh are insecure and unreliable. They tend to take text book information as a secondary source, yet cannot rely on full information about puberty from their families or teachers. Most adolescents have mobile phones and access to the Internet so this is where they seek to fill the gaps in their SRH knowledge. Misuse of technology and unreliable sources of information regarding SRHR create key barriers to adolescent understanding of sexual and reproductive health.

Table 5. Technological attachment of adolescent

Variables	Number of participants	Percentage		
Having smartphone	38	38%		
Using Internet	21	21%		
Using friends' and relatives'	41	41%		
smartphones				

Source: (Field survey, November 2019)

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzman et.al

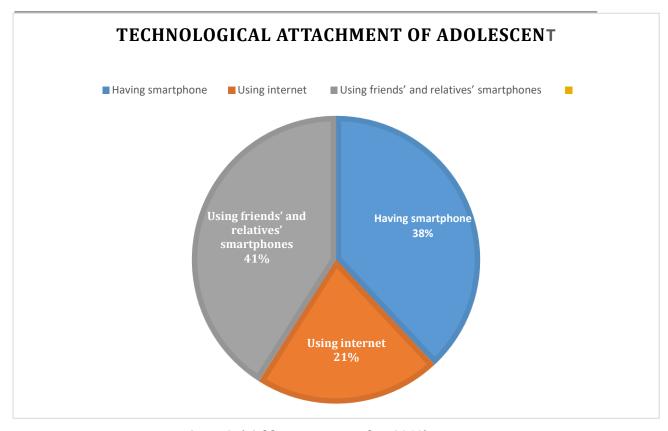


Figure 3. (Field survey, November 2019)

Table 5 and Figure 3, demonstrates that out of 100 participants, 38% had their own smartphone and 21% had direct access to the Internet and mobile technology in their daily life. 41% used smartphones from friends or relatives. Technology has a direct connection with sexual and reproductive health. Access to reliable sources of information and knowledge about ASRH is vital for every school-aged adolescent. However, there is a lack of quality information about SRHR on the Internet and it can be difficult for young people to find reliable answers to their specific SRH queries (Coiera, 2000). Often they are misguided by erroneous or misleading online content. Studies have found that the quality of Internet access varies and is not equally available to all, which greatly affects young people's ability to access correct health information and resources (Skinner et al 2003). There is also significant risk to an adolescent's understanding of sexuality in the easy access to illegal, violent and pornographic sexual content found on the Internet (İşçibaşı, 2011). The study also found that adolescents had less access to reliable online information regarding SRHR.

A male participant from Grade 9 recalled: "A Facebook page named 'Doctors' tips' provides interesting information such as how to have sex and the timing of sex. Watching porn is a part of learning about sexuality that is available on the Internet."

None of those sources, however, are safe or 100% accurate. Pornography is not a part of learning about sexuality, while underage or unrestricted access to it constitutes a crime Adolescents with a smartphone and Internet access have little understanding about their own sexual and reproductive health rights and needs. Evidence suggests that young people are responsive to and enthusiastic about digital solutions related to health (Feroz et al., 2019). In 2019, a study that interviewed more than 1,500 young people across more than 125 countries found that 92 percent of young people agreed that technology is a

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

critical enabler of health care solutions, and 62 percent said they already used technology in some capacity for their own health related needs (Women Deliver, 2019). Merging technology and correct, reliable SRHR can promote an open discussion about taboo issues in the wider community, increase the self-efficacy of young people, and engage mass audiences in a cost–effective and substantive manner. Currently, the re are a number of interactive solutions for discussing particular SRHR issues, including stigma and SRHR awareness, fertility and abortion, sexual abuse, and youth-friendly health programs (Girl Effect & Women Deliver, 2020).

CONCLUSION

In this study the hidden barrier of SRH of adolescent boys is clearly understood. This study focuses on the current barrier to access to SRH information for adolescents boys and girls. The lack of teacher experience and the classroom environment also represent an important barrier to SRH for the adolescent. Social taboo and adolescent SRH stigma have adverse consequences for adolescents. This study discovered a negative perception of family members' contributions to knowledge sharing about SRH with their children. Easy access to technology impacts SRH learning for teenage boys and girls negatively. Sexual and Reproductive Health Rights are vitally important for every adolescent. Adequate access to correct information about sexuality and reproductive health must be assured for every adolescent. Sexual and reproductive health rights should allow adolescents to openly discuss problems, changes and solutions. Sadly, none of the participants in our study knew of the term 'sexual and reproductive health rights'. Bangladeshi parents' contributions to sharing knowledge about sexual and reproductive health remains very limited. Most Bangladeshi adolescents learn about sexuality and reproductive health from secondary sources, such as text books or from their peers or the Internet. Age differences between teachers and students, mixed classes, and lack of, or unskilled, teachers create serious barriers to an understanding of their SRH. Bangladeshi adolescents have no clear guidance about how to find appropriate health workers who can provide answers to their questions, offer contraception and sexual health advice. The capacity of the teachers, parents and health workers should be developed by providing them with appropriate knowledge. Social practices and norms are major barriers to open discussion about sexuality and reproductive health. Immense health and social challenges face these young Bangladeshi people. It is time to improve our understanding of these age groups and to focus our energies on alleviating these problems. Since the arrival of Covid 19 in early 2020, it has had severe impacts on in person classroom teaching and learning. Further research could be conducted documenting the ways in which SRHR education in post-COVID-19 are received by adolescents in South Asia.

REFERENCES

Abuya, B.A., Onsomu, E. O., and Moore, D. (2012). Educational challenges and diminishing family safety net faced by high-school girls in a slum residence, Nairobi, *Kenya. International Journal of Educational Development* 32, 81–91.

Ahmed, K. M., van Ginneken, J., & Razzaque, A. (2005). Factors associated with adolescent abortion in a rural area of Bangladesh. *Tropical Medicine and International Health, 10(2), 198–205. doi:10.1111/j.1365-3156.2004.01362.x*

Ahsan, M. F., Afrin, R., & Adnan, M. (2016). Sexual and reproductive health and rights in the teacher training curriculum. *Bangladesh Medical Journal*, 1–6.

- Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

 Kamruzzman et.al
- Ainul,S., Bajracharya, A., Reichenbac, L., Gilles, K. (2017). "Adolescents in Bangladesh: A Situation Analysis of Programmatic Approaches to Sexual and Reproductive Health Education and Services," Situation Analysis Report. Washington, DC & Dhaka, Bangladesh: Population Council, the Evidence Project. *Int. J. Environ. Res. Public Health*, 17(21), 7720; https://doi.org/10.3390/ijerph17217720
- Al Mamun, M. A., Yasir Arafat, S. M., Ambiatunnahar, M., & Griffiths, M. D. (2018). Attitudes and Risk Factors of Pornography Consumption Among Bangladeshi University Students: An Exploratory Study. International Journal of Mental Health and Addiction. doi:10.1007/s11469-018-0021-7
- Anderson, M. & Jiang, J., (2018). Teens, Social Media and Technology 2018,retrieved from: https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018/, accessed in , 04-07-2021
- Ainul, Sigma, Bajracharya, A., & Reichenbach, L. (2016). Adolescents in Bangladesh: Programmatic Approaches to Sexual and Reproductive Health Education and Services. Situation Analysis Brief.
- Altinyelken, H. K., & Olthoff, J. (2014). Education and sexual and reproductive health and rights: a review of the critical debates. AISSR, University of Amsterdam. Retrieved from: https://educationanddevelopment.files.wordpress.com/2013/11/sexual-and-reproductive-health-and-rights-andeducation-a-review-paper.pdf (Accessed: 10 December, 2020).
- Altinyelken, H. (2010) Changing Pedagogy: A comparative analysis of reform efforts in Uganda and Turkey
- Aowsaf, A.S. M., (2018). World Menstrual Hygiene Day: Menstruation taboos pose major health risks for Bangladeshi women. Dhaka Tribune, retrieved from: <a href="https://www.dhakatribune.com/opinion/special/2018/05/28/world-menstrual-hygiene-day-menstruation-taboos-pose-major-health-risks-for-bangladeshi-women?fbclid=IwAR248YVfi4HQ8OJcqEpfKTwLZ0EJGR4zXHtONm-h-FOtGOYeqbOtdtfvaJc, (Accessed: 11 December 2020)
- Bangladesh Bureau of Statistics (BBS), & UNICEF Bangladesh. (2014). Bangladesh multiple indicator cluster survey 2012-2013, ProgotirPathey: Final report. (Vol. 9).
- Barkat, A., & Majid, M., (2003). "Adolescent reproductive health in Bangladesh: Status, policies, programs and issues." POLICY Project Report, USAID Asia/Near East Bureau.
- 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.
- Berne, J., & Huberman, B. (1999). European approaches to adolescent sexual behavior and responsibility. Washington, D.C., Advocates for Youth
- Biddlecom A, Awusabo-Asare K, Bankole A., (2015). Role of parents in adolescent sexual activity and contraceptive use in four African countries. *Int Perspect Sex Reprod Health*, 35:72e81.
- Bracu, Bied. (2012). "Adolescents' Life in Dhaka: Needs Assessment of Adolescent Girls and Boys in Bangladesh." Dhaka: BRAC Institute of Educational Development, BRAC University.
- Bowers, B., Cohen, L. W., Elliot, A. E., Grabowski, D. C., Fishman, N. W., Sharkey, S. S., & Kemper, P. (2013). Creating and Supporting a Mixed Methods Health Services Research Team. *Health Services Research*, 48(6pt2), 2157–2180.

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

- Browes, N. (2014). The Strategies of Teachers and Students in Sexuality Education The case of one school-based programme in Ethiopia. May. https://educationanddevelopment.files.wordpress.com/2013/11/natalie-browes_thesis.pdf
- Breuner, C. C., & Mattson, G. (2016). *Sexuality Education for Children and Adolescents. Pediatrics,* 138(2), e20161348. doi:10.1542/peds.2016-1348
- Boonstra, H.D. 2011. "Advancing Sexuality Education in Developing Countries: Evidence and Implications." *Guttmacher Policy Review 14 (3): 17–23.*
- BRAC Institute of Educational Development (BIED), (2012). Adolescents Life in Dhaka: Needs Assessment of Adolescent Girls and Boys in Bangladesh; BRAC University & Population Council: Dhaka, Bangladesh, 2012; Available online: https://www.popcouncil.org/uploads/pdfs/2015PGY_BRAC-AdolSurveyReport.pdf (accessed on 5 April 2018).
- Cash, K., Hashima-E-Nasreen, Aziz, A., Bhuiya, A., Chowdhury, A. M. R., & Chowdhury, S. (2001). Without Sex Education: Exploring the social and sexual vulnerabilities of rural Bangladeshi girls and boys. Sex Education, 1(3), 219–233. doi:10.1080/14681810120080622
- Chandra-Mouli V, Lane C, Wong S., (2015). What does not work in adolescent sexual and reproductive health: a review of evidence on interventions commonly accepted as best practices. *Glob Health Sci Pract.* 3(3):333-340. http://dx.doi.org/10.9745/GHSP-D-15-00126.
- Chowdhury, M. R. H. K., Chowdhury, M. R. K., Kabir, R., Perera, N. K. P., & Kader, M. (2018). Does the addiction in online pornography affect the behavioral pattern of undergrad private university students in Bangladesh? *International Journal of Health Sciences*, 12(3), 67–74.
- Cline RJ, Haynes KM., (2001). Consumer health information seeking on the Internet: the state of the art. *Health Educ Res*; 16(6):671-692.
- Coiera E., (2000). Information economics and the Internet. *J Am Med Inform Assoc*; 7(3):215-221. Connell, R. (1995). *Masculinities*. Sydney: Allen and Unwin
- Denno, D. M., Hoopes, A. J., & Chandra-Mouli, V. (2015). *Effective Strategies to Provide Adolescent Sexual and Reproductive Health Services and to Increase Demand and Community Support. Journal of Adolescent Health, 56(1), S22–S41.* doi:10.1016/j.jadohealth.2014.09.012
- Department of International Development, (2004). Sexual and Reproductive Health and Rights.

 Retrieved from- https://www.hivpolicy.org/Library/HPP000499.pdf, Accessed: 15

 December 2020
- Donevan, M., & Mattebo, M., (2017). The relationship between frequent pornography consumption, behaviours, and sexual preoccupancy among male adolescents in Sweden. *Sexual & Reproductive Healthcare*, 12, 82–87.
- Dube, Shubha & Sharma, K., (2012). "Knowledge, Attitude and Practice Regarding Reproductive Health among Urban and Rural Girls: A Comparative Study." *Ethno Medicine, 6(2): 85-94*
- Farih,M.I., (2017). An Exploratory Study of Sexual and Reproductive Knowledge, information-seeking Behavior and Attitudes among Saudi women: A Questionnaire survey of University Students, Journal of community medicine & Health Care. Retrieved from-https://www.researchgate.net/publication/262810041 Protocol study Sexual and reproductive health knowledge informationseeking behaviour and attitudes am ong Saudi women A questionnaire survey of university students, Accessed: 25 December 2020
- Fathalla, M., (1998). Research Needs in Human Reproduction. In E. Diczfalusy, editor; P.D. Griffin, editor, and J. Kharlna, editor., eds., Research in Human Reproduction, Biennial Report (1986-87). Geneva, Switzerland: World Health Organization.

- Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

 Kamruzzman et.al
- Feroz, A., Abrejo, F., Ali, A. S., et al., (2019). "Using Mobile Phones to Improve Young People's Sexual and Reproductive Health in Low- and Middle-Income Countries: A Systematic Review Protocol to Identify Barriers, Facilitators and Reported Interventions," *Systematic Reviews, no. 8: 117*
- Field, E., & Ambrus, A. (2008). Early Marriage, Age of Menarche, and Female Schooling Attainment in Bangladesh. Journal of Political Economy, 116(5), 881–930. doi:10.1086/593333
- Francis, D. A., & DePalma, R. (2015). "You need to have some guts to teach": Teacher preparation and characteristics for the teaching of sexuality and HIV/AIDS education in South African schools. SAHARA-J: Journal of Social Aspects of HIV/AIDS, 12(1), 30–38. doi:10.1080/17290376.2015.1085892
- Francis, D.A. (2010). Sexuality education in South Africa: Three essential questions, *International Journal of Educational Development*, *30*, *314-319*.
- Germain, A., & Antrobus, P., (1989). New Partnerships in Reproductive Health Care. *Populi 16(4):18-30.*
- Giami, A., Ohlrichs, Y., Quilliam, S., Wellings, K., Pacey, S., Wylie, K.R. (2006). Sex education in schools is insufficient to support adolescents in the 21st century. *Sexual & Relationship Therapy 21* (4), 485–490.
- Girl Effect & Women Deliver, (2020). Going online Sexual and Reproductive Health Meaningfully Engaging Adolescent Girls and Young Women, retrieved from: https://hivpreventioncoalition.unaids.org/wp-content/uploads/2020/08/Going-Online-for-Sexual-and-Reproductive-Health.pdf, Accessed: 2 January 2021
- Gupta, G. R., Parkhurst, J. O., Ogden, J. A., Aggleton, P., & Mahal, A., (2008). Structural approaches to HIV prevention. *The Lancet, 372(9640), 764–775.* doi:10.1016/s0140-6736(08)60887-9
- IPPF, (2013). International Planned Parenthood Federation (IPPF), vision 2020, retrieved from: https://www.ippf.org/sites/default/files/v2020_manifesto_en_web.pdf, Accessed: 2 January 2021
- İşçibaşı, Y. (2011). Bilgisayar, internet ve video oyunları arasında çocuklar. Selçuk Üniversitesi İletişim Fakültesi Akademik Dergisi, 7(1), 122–130.
- Jewkes, R. & Abrahams, N. 2002. The epidemiology of rape and sexual coercion in South Africa: an overview, *Social Science & Medicine*, 55(7), 1231-1244.
- Jewkes, R. 2009. Growing up sexual in the age of HIV & AIDS. In: Mitchell, C., Pithouse, K. (Eds.), Teaching and HIV& AIDS in the South African Classroom. Macmillan, Northlands, pp. 147–158.
- Kamal M, Islam A., (2011). Prevalence and socioeconomic correlates of unintented pregnancy among women in rural Bangladesh. *Salud publica de Mexico*; *53(2):108-15.*
- Khan, A. S., Alam, F., Rommes, E., & Rashid, F. S., (2020): Experiencing shame: An affective reading of the sexual and reproductive health and rights classroom in Bangladesh, Sex Education, DOI: 10.1080/14681811.2019.1707651
- Management Science for Health, Sexual and Reproductive Health and Rights (SRHR), and Post 2015 Development Agenda (Briefing Card). Retrieved from https://www.unhcr.org/3bb822174.pdf, Accessed: 4 January 2021
- Mathiaud, C., (2014). "Menstrual hygiene matters: menstrual hygiene insecurity (MHI) and the need for a global recognition of adequate menstrual hygiene management (MHM) as a fundamental right for all women and girls," retrieved from: https://www.graduatewomen.org/wp-content/.../30.04.18 MH-Day Advocacy-Report.pdf%0A%0A, Accessed: 2 January 2021
- McClosky, H. (1969), Political Inquiry: The Native and Uses of Survey Research. Macmillan, New York.
- Ministry of Health and Family Welfare (MOHFW), (2016). National Strategy for Adolescent Health 2017–2030; MOHFW, Government of Bangladesh: Dhaka, Bangladesh, Available online:

Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

Kamruzzaman et.al

- https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/National-Strategy-forAdolescent-Health-2017-2030.pdf (accessed on 2 April 2021).
- Mkumbo, K. A. (2012) Teachers' Attitudes towards Comfort about Teaching School-based Sexuality Education in Urban and Rural Tanzania in Global Journal of Health Science, Vol. 4, No. 4 pp149-158
- Nahar, Q., Tunon, C., Houvras, I., Reza, M., AND Huq,N., & Khuda, B., (1999). Reparoductive Health Needs of Adolescent in Bangladesh: A Study Report, ICDDR, B: Center for Health and Population Research Mohakhali. Dhaka, working paper no.130, ISBN: 984-551-207-0.
- Nahar, Q., S. Amin, R. Sultan, et al. (1999). "Strategies to Meet the Health Needs of Adolescents: A Review." Operations Research Project, Health and Population Extension Division. Dhaka: iccdr,b.
- Nahar, P. & Reeuwijk,M.,(2013) The importance of a positive approach to sexuality in sexual health programmes for unmarried adolescents in Bangladesh, Reproductive Health Matters, 21:41, 69-77, DOI: 10.1016/S0968-8080(13)41694-4
- National Research Council (1989). Contraception and Reproduction: Health Consequences for Women and Children in the Developing World. Committee on Population, Working Group on.
- Owens, E. W., Behun, R. J., Manning, J. C., & Reid, R. C. (2012). The impact of internet pornography on adolescents: A review of the research. *Sexual Addiction & Compulsivity*, 19(1–2), 99–122
- Patton, George, and others (2016). Our future: a Lancet Commission on adolescent health and wellbeing. *Lancet, vol. 387, pp. 2423–78.*
- Ponton, L.E., & Judice, S. (2004). Typical adolescent sexual development. Child and Adolescent Psychiatric Clinics of North America 13:497–511.
- Program of Action of the 1994 International Conference on Population and Development (1994) (A/CONF.171/13). Reprinted in Population and Development Review *21(1):187-213* and *21(2): 437-461*.
- Publique, D. S., & Bettinger, J. (2020). Master of Public Health. Definitions. https://doi.org/10.32388/zl0szg
- Pattman, R., Chege, F. (2003). "Dear diary, I saw an angel, she looked like heaven on earth": Sex talk and sex education. African Journal of AIDS Research 2 (2), 103–112.
- Rob, U., Ghafur, T., Bhuiya, I., & Talukder, M. N. (2006). Reproductive and Sexual Health Education for Adolescents in Bangladesh: Parents' View and Opinion. International Quarterly of Community Health Education, 25(4), 351–365. doi:10.2190/g52u-1301-2444-0138.
- Sçibaşı, Y. (2011). Bilgisayar, internet ve video oyunları arasında çocuklar. Selçuk Üniversitesi İletişim Fakültesi Akademik Dergisi, 7(1), 122–130.
- Shah, I.H., & Åhman, E., (2012). "Unsafe abortion differentials in 2008 by age and developing country region: High burden among young women." *Reproductive Health Matters, 20, 169–173.*
- Shon J, Marshall J, Musen MA. (2000). The impact of displayed awards on the credibility and retention of Web site information. *Proc AMIA Symp: 794-798*
- Singh, S., Henshaw, S. & Berentsen, K. (2003) Abortion: a worldwide overview, in: A. M. Basu (Ed.) The sociocultural and political aspects of abortion: global perspectives (Westport, CT, Praeger Publishers), 15–48.
- Skinner H, Biscope S, Poland B., (2003). Quality of internet access: barrier behind internet use statistics. *Soc Sci Med*; *57*(*5*):*875-880*.
- Smith, K., Harrison, A. (2013) Teacher's attitudes towards adolescent sexuality and life-skills education in rural South Africa in Sex Education: Sexuality, Society and Learning, 13:1 pp68-81.

- Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

 Kamruzzman et.al
- Starrs, Ann, and others (2018). Accelerate progress sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *Lancet, vol. 391, pp. 1642–92.*
- Sundewall & Jesper (2019). UHC as a means to advance sexual and reproductive health and rights: Lessons from health benefits packages and prioritization processes in six countries in sub-Saharan Africa.
- Svanemyr, J., Amin, A., Robles, O. J., & Greene, M. E. (2015). *Creating an Enabling Environment for Adolescent Sexual and Reproductive Health: A Framework and Promising Approaches. Journal of Adolescent Health, 56(1), S7–S14.* doi:10.1016/j.jadohealth.2014.09.011
- Tabulawa, R. T. (2004) Geography students as constructors of classroom knowledge and practice: a case study from Botswana in *Journal of Curriculum Studies*, Vol.36, No.1 pp53-73
- Tang, Y.-Y. (2017). Mindfulness Meditation Impact on the Adolescent Brain. The Adolescent Brain: A Second Window of Opportunity, 1–72. www.unicef-irc.org
- The International Planned Parenthood Federation (IPPE), (2013). Sexual and Reproductive Health and Rights-a Crucial Agenda from the Post-2015 Framework. Retrieved from https://www.ippf.org/sites/default/files/report_for_web.pdf
- UNESCO, (2009). International technical guidance on sexuality education: An evidence-informed approach for schools, teachers and health educators (Final version, 2 vols.).
- UNESCO, (2014). Puberty Education & Menstrual Hygiene Management. Booklet 9, United Nations Educational, Scientific and Cultural Organization, Paris, France. Retrieved from: https://www.susana.org/en/knowledge-hub/resources-and
 Publications/library/details/2213, Accessed: 1 January 2021
- UNIFA, (2013). ICPD AND HUMAN RIGHTS: 20 years of advancing reproductive rights through UN treaty bodies and legal reform, Centre for Reproductive Rights, retrieved from: https://www.unfpa.org/sites/default/files/pubpdf/icpd and human rights 20 years. pdf, Accessed: 2 January 2021
- United Nations Population Fund (2014). Programme of Action of the International Conference on Population Development. 20th anniversary edition. New York.
- Universal Accesses Project, (n.d). Sexual and Reproductive Health and Rights (srhr) and Sustainable Development, retrieved from: http://www.universalaccessproject.org/wp/wpcontent/uploads/2015/06/BriefCards RH_6.30.2015.pdf, accessed in 20-04-2021
- Van Der Vlugt, I., & Bonjour, M. (2018). Comprehensive Sexuality Education Knowledge file Index. Rutgers International, December, 1–31. https://www.rutgers.international/sites/rutgersorg/files/PDF/knowledgefiles/201812 18_knowledge file_CSE.pdf
- Woog, Vanessa & Kågesten, A., (2017). The Sexual and Reproductive Health Needs of Very Young Adolescents Aged 10–14 in Developing Countries: What Does the Evidence Show? Guttmacher Institute, New York.
- WHO, (2020). POPULATION AND DEMOGRAPHICS, Bangladesh, retrieved from: https://www.who.int/docs/default-source/country-profiles/bangladesh.pdf?sfvrsn=3c5a0134_6
- Large proportion, Accessed in 4-4-2021, accessed in 2-4-2021
- WHO, (2013) Global Health Observatory Data Repository. Accessible online at: http://apps.who.int/gho/data/node.main, accessed in 2-4-2021
- Wight, D., & Fullerton, D. (2013). A Review of Interventions With Parents to Promote the Sexual Health of Their Children. Journal of Adolescent Health, 52(1), 4–27. doi:10.1016/j.jadohealth.2012.04.014

- Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health Learning about Sexual and Reproductive Health: Perspectives of Bangladesh Adolescents

 Kamruzzaman et.al
- Ybarra, M. L., & Mitchell, K. J. (2005). Exposure to Internet Pornography among Children and Adolescents: A National Survey. CyberPsychology & Behavior, 8(5), 473–486. doi:10.1089/cpb.2005.8.473
- Zakaria, M., Karim, F., Mazumder, S., Cheng, F., & Xu, J. (2020). Knowledge on, attitude towards, and practice of sexual and reproductive health among older adolescent girls in Bangladesh: An institution-based cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(21), 1–14. https://doi.org/10.3390/ijerph17217720