A LITERATURE REVIEW ON FACTORS INFLUENCING THE ACCEPTABILITY OF COMPREHENSIVE SEXUALITY EDUCATION (CSE) AT SECONDARY EDUCATION LEVEL IN BANGLADESH

EXPLORING BARRIERS, ENABLERS AND PERCEPTION

Nipa Das

Bangladesh

Master of Science in Public Health and Health Equity

KIT Royal Tropical Institute

Vrije Universiteit Amsterdam (VU)

A Literature Review on Factors Influencing the Acceptability of Comprehensive Sexuality Education (CSE) at Secondary Education Level in Bangladesh.

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science in Public Health and Health Equity

by

Nipa Das Bangladesh

Declaration:

Where other people's work has been used (from either a printed or virtual source, or any other source), this has been carefully acknowledged and referenced following academic requirements.

The thesis "A Literature Review on Factors Influencing the Acceptability of Comprehensive Sexuality Education (CSE) at Secondary Education Level in Bangladesh" is my work.

Signature: Was

Master of Science in Public Health and Health Equity

09 September 2024 – 29 August 2025 KIT Institute/Vrije Universiteit Amsterdam Amsterdam, The Netherlands August 2025

Organised by:

KIT Institute Amsterdam, The Netherlands

In cooperation with:

Vrije Universiteit Amsterdam (VU) Amsterdam, The Netherlands

Abstract

Background

Adolescents in Bangladesh face significant barriers to accessing accurate, inclusive, and culturally appropriate Comprehensive Sexuality Education (CSE). Despite global recognition of CSE's role in improving sexual and reproductive health outcomes, implementation in Bangladesh remains fragmented and controversial due to sociocultural and institutional challenges. This thesis investigates the factors influencing the acceptability of CSE among secondary school students in Bangladesh, to identify strategies for more culturally resonant and effective delivery.

Method

A theory-driven literature review was conducted, guided by the Socio-Ecological Model (SEM) and the Theoretical Framework of Acceptability (TFA). Sources included peer-reviewed journals, policy documents, and reports from international and local organizations.

Result and Conclusion

Study findings highlight that the adolescents' acceptability of CSE is shaped by limited and inconsistent information, gendered norms, and feelings of shame. Interpersonal influences, particularly parents, teachers, and peers, play a critical role and often reinforce stigma or misinformation. Institutional constraints, including inadequate training and weak curriculum coherence, hinder effective CSE delivery. At the community and policy levels, religious beliefs and a lack of a dedicated national CSE policy contribute to resistance and fragmentation.

The study concludes that acceptability can be improved through culturally adapted, participatory approaches that engage stakeholders, including parents, teachers, and religious leaders. Policy coherence, teacher training, and context-sensitive curriculum development are essential to creating supportive environments for adolescents to access accurate and respectful CSE.

Keywords: Comprehensive Sexuality Education (CSE), Acceptability, Adolescents, Bangladesh, Secondary Education Level

Word Count: 12,410

Contents

List of Abbreviations	6
Key Terms	7
Introduction	8
1 Background	9
1.1 Geography	9
1.2 Demography	10
1.3 Economy	11
1.4 Health System	11
1.5 Education System in Bangladesh	12
1.6 Status of Comprehensive Sexuality Education	12
2 Problem Statement	13
3 Justification	15
4 Methodology	17
4.1 Study design	17
4.2 Search Strategy	17
4.3 Data Analysis	18
4.4 Inclusion and Exclusion Criteria	19
4.5 Conceptual Framework	19
4.6 Study Limitation.	21
5 Study Results/ Findings	22
5.1 Individual Factors	22
5.1.1 Knowledge and Information Sources	22
5.1.2 Affective Attitude: Emotional Responses and Internalized Norms	22
5.1.3 Self-Efficacy	23
5.1.4 Perceived Effectiveness and Relevance	23
5.1.5 Socio-Demographic Influence	24
5.2 Interpersonal level	24
5.2.1 Family Dynamics and Parental Attitudes: Parental Gatekeeping, Ethicality, Communication Control, and Support	
5.2.2 Peer Influence and Social Learning: Gateways, Norms, and Leadership	25
5.2.3 Influence of Attitudes, Preparedness, and Gender Dynamics	
5.2.4 Interpersonal Ethicality, Opportunity Cost, and Extended Influences on CSE Acceptability .	
5.3 Institutional-Level Factors	27
5.3.1 Ethicality: Institutional Morality and Value Alignment	27

5.3.2 Appropriateness: Cultural Fit and Pedagogical Alignment	28
5.3.3 Perceived Effectiveness: Beliefs About CSE's Impact and Value	29
5.3.4 Intervention Coherence: Integration within Educational Systems and Organizational Pra	
	29
5.4 Community-Level Factors	30
5.4.1 Ethicality: Moral Acceptability within Community Norms	30
5.4.2 Appropriateness: Cultural Relevance and Contextual Fit of CSE	31
5.4.3 Intervention Coherence: Integration with Community Systems and Social Practices	32
5.5 Policy-Level Factors	33
5.5.1 Policy and Legal Framework: Foundations and Fragmentation	33
5.5.2 Intervention Coherence: Policy Alignment and System Integration	34
5.5.3 Ethicality: Moral Legitimacy and Societal Values in Policy	35
5.5.4 Opportunity Cost: Political and Social Trade-Offs in Policy Decisions	35
5.5.5 Perceived Effectiveness: Beliefs about Policy Impact and Success	36
6 Discussion	37
7 Conclusion and Recommendations	40
8 Reference	43
Annex	55
Annex 1:	55
Annex: 2	55
Annex: 3	56
Declaration of Artificial Intelligence (AI) Use	57

List of Abbreviations

CSE – Comprehensive Sexuality Education

SRHR – Sexual and Reproductive Health and Rights

STI – Sexually Transmitted Infection

HIV - Human Immunodeficiency Virus

LSE – Life Skills Education

LSBE – Life Skills-Based Education

NCTB - National Curriculum and Textbook Board

MoHFW – Ministry of Health and Family Welfare

MoPME – Ministry of Primary and Mass Education

MoE – Ministry of Education

DSHE – Directorate of Secondary and Higher Education

UNSDGs – United Nations Sustainable Development Goals

WHO – World Health Organization

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNFPA – United Nations Population Fund

IPV – Intimate Partner Violence

BDHS – Bangladesh Demographic and Health Survey

BBS – Bangladesh Bureau of Statistics

NIPORT – National Institute of Population Research and Training

ICF – Inner City Fund (partnered in demographic and health surveys)

SEM – Socio-Ecological Model

TFA – Theoretical Framework of Acceptability

TPB – Theory of Planned Behavior

CSO – Civil Society Organization

NGO – Non-Governmental Organization

Key Terms

CSE- Comprehensive sexuality education (CSE) is a curriculum-based approach that provides important knowledge and skills for young people to make sensible decisions about sexuality and relationships. It also includes issues like gender, sexual orientation, sexual rights, reproductive health, consent, sexually transmitted infections (STIs), human immunodeficiency virus (HIV), and personal well-being (1).

Adolescents: Adolescents are individuals in the transitional phase between childhood and adulthood, from ages 10 to 19 (2).

Acceptability: Acceptability means how suitable or acceptable a healthcare intervention is to the people delivering or receiving it, based on what they think or how they feel about the intervention (3).

Sexual and Reproductive Health and Rights (SRHR): SRHR refers to physical, emotional, mental, and social well-being in all aspects of sexuality and reproduction. This includes the ability to make informed, autonomous decisions about having responsible, satisfying, and safe sex, and the freedom to decide if, when, and how often to have children. Access to accurate information and the right health services to make an informed choice (4).

Official Terminology of CSE in Bangladesh: In Bangladesh, the term "Life Skills Education (LSE)" or "Life Skills-Based Education (LSBE) is used in the national curriculum, recommended by the National Curriculum and Textbook Board (NCTB) (5).

Appropriateness: This idea pertains to the fundamental suitability of an intervention for a particular context, population, or issue. It reflects how suitable the intervention aligns with the specific needs of a community, resonates with its sociocultural values, and integrates with established organizational practices (3).

Burden: Burden refers to the perceived amount of effort required to participate in or deliver the intervention. This includes time, cognitive effort, financial cost, and emotional or physical demands (3).

Ethicality: This aspect looks at how well an intervention fits with a person's morals and ideals, whether it is seen as morally right or good (3).

Effectiveness: Effectiveness is the measure of how well an intervention achieves its intended purpose or desired outcomes (3).

Introduction

As a public health professional, I have real-life experience in adolescent health programs in Bangladesh. While I was working on a project in 2021, I witnessed the multifaceted challenges adolescents face regarding sexual and reproductive health. My professional background and direct engagement with adolescents in both community and educational settings motivated me to learn more about CSE and investigate the factors that shape the acceptability of CSE among secondary school students in Bangladesh.

The central problem addressed in this thesis is the gap between acceptability and implementation of CSE for Bangladeshi adolescents. Particularly, the sociocultural barriers and the need for contextually appropriate approaches.

The reason behind choosing this subject, I believe empowering adolescents with accurate, culturally sensitive information and skills can transform their lives. The general objective of this thesis is to analyze the key factors influencing the acceptability of CSE among secondary education level adolescents in Bangladesh and to recommend strategies for enhancing CSE implementation in Bangladesh.

1 Background

1.1 Geography

Bangladesh is a country located in South Asia. The total area of Bangladesh is 148,460 km², comprising land of 130,170 km² and water of 18,290 km². Bangladesh shares borders with India and Myanmar, and the total land boundary is 4,413 km. To the west, north, and east, 4,142 km with India and 271 km with Myanmar to the southeast. To the south of Bangladesh lies the Bay of Bengal (6). Bangladesh is primarily composed of flat, fertile land formed by the Ganges, Brahmaputra, and Meghna rivers (7). About 80% of the country is low-lying and often experiences flooding (8).



Figure 1: Map of Bangladesh with bordering countries (9)

1.2 Demography

As of 2025, Bangladesh is the eighth most populous country globally, with an estimated population of 176,421,509 (10). Approximately 1,188 people live per km² (11). According to the 2022 Population and Housing Census, Bangladesh has a youthful demographic profile with a median age of approximately 26 years, reflecting a large proportion of young people in the population (12). Roughly 21% of the population is adolescents aged 10-19 years (13). The population is ethnically homogeneous, with the vast majority identifying as Bengali (11). Minority groups such as the Chakma, Marma, Tripura, and others reside in the Chittagong Hill Tracts area and other borders (14). Islam is the major religion, followed by Hinduism, Buddhism, and Christian communities (15).

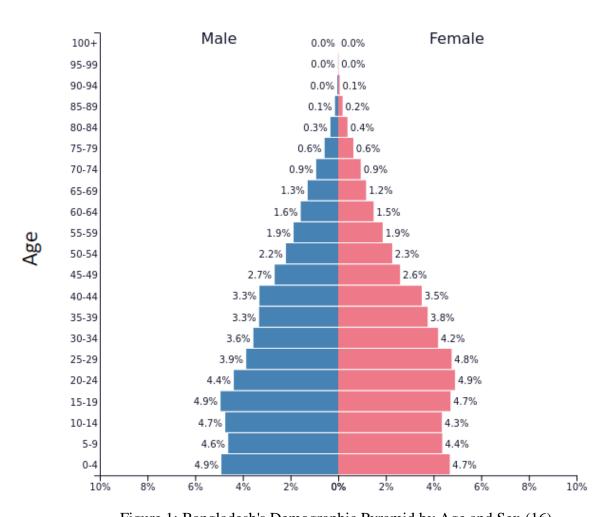


Figure 1: Bangladesh's Demographic Pyramid by Age and Sex (16)

1.3 Economy

Bangladesh's economy is mostly dependent on agriculture. Agriculture plays a role in food security and poverty reduction (17). Despite the economic shocks from COVID-19, this sector continued to support stable incomes among rural households (18). About 12.7% of GDP and employs nearly 40% of the workforce, mainly in rural areas (19, 20). Livestock and fisheries are another vital part of Bangladesh's rural economy, together valued at over \$6 billion, which is almost 4.5% of GDP (21, 22, 23, 24). These sectors are also increasingly important for diversifying rural livelihoods and enhancing resilience to climate and market shocks (25).

Bangladesh is one of South Asia's fastest-growing economies, with a nominal GDP of approximately \$460 billion in 2024 (20). Strong performance in agriculture, manufacturing (notably the ready-made garments sector), and remittances from overseas workers played an important role in this economic robustness (17, 26, 27). Bangladesh's economic outlook remains positive, with expected GDP growth of 6% in the coming years (28). Despite the positive growth, Bangladesh faces global price swings and conflicts because of its dependency on importing fuel, wheat, and fertilizer (29, 30, 31, 32).

1.4 Health System

The health system of Bangladesh is structured into three main tiers: primary, secondary, and tertiary care. It has a pluralistic health system that consists of government, private, and non-governmental sectors. Each of these sectors plays a distinct role in health service delivery and financing (33).

The Ministry of Health and Family Affairs (MoHFW) is responsible for policy formulation, regulation, and oversight of the health sector. While service delivery is managed through a tiered network (34). This network includes community clinics, Union Health and Family Welfare Centers, Upazila Health Complexes, district hospitals, and medical college hospitals. This system is designed to ensure that services are available from the community level up to tertiary care, and to provide a broader and more specialized range of services (35). In past decades private sector has grown rapidly, particularly in urban areas. This sector includes hospitals, clinics, and diagnostic centers, and they offer specialized services but at a higher cost. This expanding private sector is helping to improve service availability in cities. But also contributing to disparities in access and affordability, especially for rural and low-income populations (36). Non-government organizations are another vital component of the Bangladesh health system. Particularly, to reach underserved communities, focusing on primary care, maternal and child health, family planning, and health education. Their initiatives fill the gaps left by the public and private sectors (37). Despite the combined efforts of these three sectors, accessibility to quality healthcare remains uneven. According to a recent study, about 61% of the population had access to basic health services in 2022. It also shows the ongoing challenges in achieving universal health coverage (38).

While Bangladesh is making notable progress in reducing maternal and child mortality, there are still gaps in service coverage and quality, particularly for reproductive health. According to the Bangladesh Demographic and Health Survey, these disparities in reproductive health services are higher in rural and disadvantaged populations, including social stigma (39).

1.5 Education System in Bangladesh

Bangladesh's education system is mainly divided into three levels: primary, secondary, and higher education. Primarily managed by two ministries (40). The Ministry of Primary and Mass Education (MoPME) oversees the pre-primary and primary, covering grades 1 to 5, and the Ministry of Education (MoE) oversees the secondary education (grades 6 to 10) and higher secondary (grades 11 to 12), as well as tertiary and technical vocational education (41). Secondary education typically targets adolescents aged 11 to 16 and is mostly school-based and managed by MoE through the Directorate of Secondary and Higher Education (DSHE) (42). In terms of health sector connection, the MoHFW collaborates with the MoE to address health issues, including nutrition, hygiene, preventive services, mental health, and adolescents' health (34, 43). In this context, CSE is important to equip adolescents with the knowledge and skills for young people to make sensible decisions about sexuality and relationships, and personal well-being. It also includes issues like gender, sexual rights, reproductive health, consent, sexually transmitted infections (STIs), and human immunodeficiency virus (HIV) (44, 45). It contributes to reducing early marriage and adolescent pregnancy, and supports progress toward national and global health goals (45).

1.6 Status of Comprehensive Sexuality Education

In Bangladesh, CSE refers to "Life Skills Education (LSE)" or "Life Skills-Based Education (LSBE) (46). Though CSE is not offered as a standalone subject in Bangladesh, but integrated into several subjects in the national curriculum. Particularly, under subjects such as Physical Education, Life Skills, Social Science, Biology, and Religion. Themes such as puberty, reproductive health, menstruation, STIs (including HIV and AIDS), consent, harmful gender norms, and child marriage are covered within these subjects. The LSE content is mostly included in grades 6 to 10, but there is no mandated minimum number of hours (47, 48). Moreover, the depth of CSE topics varies from school to school and often depends on the teacher's judgement (49). Though CSE is now formally included in the curriculum document. But there are still gaps in coverage and consistency. Also, implementation is not the same across all educational institutions (48).

2 Problem Statement

CSE for adolescents has increased global recognition in the past few decades. It is a fundamental component of the United Nations Sustainable Development Goals (UNSDGs), particularly Goals 3 (Good Health and Well-being), 4 (Quality Education), and 5 (Gender Equality) (50, 51, 52).

The World Health Organization (WHO) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) support CSE to prevent adolescent pregnancies, unintended pregnancies, STIs, and gender-based violence. Studies demonstrate that CSE also promotes gender equality and respect for human rights (53, 54). CSE also reduces the rates of STIs by promoting safe sexual practices and preventive measures (55). It also helps lower school dropout rates by preventing early pregnancies, allowing them to continue their education and break the cycle of poverty (56). Studies demonstrate that CSE also promotes gender equality and respect for human rights by opposing harmful gender norms, lowering gender-based violence, and encouraging healthier relationships (50).

Despite these benefits, a lack of CSE is associated with several negative outcomes. About 16 million girls between the ages of 15-19 give birth every year in low and middle-income countries (LMICs), and account for 45% of maternal deaths occurring from this age group (57). Moreover, high rates of STIs, including HIV/AIDS, are due to the lack of CSE. Almost one-third of new HIV infections are among those aged 15-19 years. In LMICs, 40-70% of women have been victims of physical or sexual violence at some point in their lives (58).

The situation is equally concerning in Bangladesh. Approximately 38% of girls become mothers or pregnant in the 15-19 age range (59). 70% of the women in Bangladesh experience at least one form of intimate partner violence (IPV), including sexual, physical, and emotional violence. This indicates the need for education on gender equality and healthy relationships (60). These statistics highlight how crucial it is to introduce effective CSE for adolescents in secondary education level (61).

However, because of socio-cultural factors, such as religious beliefs and traditional gender roles, and community norms, there are wide variation in the acceptability and application of CSE (54). Due to these barriers adolescents often feel embarrassed or ashamed to access information or ask questions (62). In addition to these barriers, the government has made some steps by presenting some forms of sexuality education in the curriculum since 2013 (63). The National Curriculum and Textbook Board (NCTB) included aspects of CSE in textbooks, such as physical education and health, life skills, and well-being; however, these efforts remain fragmented and insufficient. Additionally, there is a significant lack of experienced and skilled teachers (64). A recent report by SHARE-NET Bangladesh (2024) shows that 60% of teachers feel unprepared to teach CSE due to inadequate training and limited resources (65).

The sub-optimal implementation of CSE is leading adolescents to numerous health and social risks (66). Lack of CSE leads young girls to early pregnancy, and many young girls leave school and become school dropouts. Adolescents are also at high risk of sexually transmitted infections (STIs) and HIV, due to insufficient education on safe sexual practices (67).

Indicator	Value/Statistic	Source
Adolescent pregnancy (15–18 years)	8%	BDHS (68)
Share of all pregnancies among adolescents (10–19)	25.9%	BBS (69)
Modern contraceptive use (adolescent girls 15–19)	42.6% (2017-2018)	BDHS (70)
Child marriage (girls married before 18)	41%-51%	UNFPA (71)
Perinatal mortality rate (mothers <20 years)	30 per 1000 pregnancies	NIPORT & ICF (72)
Adolescents (15–19) as % of all abortions	18%	Chandra-Mouli et al (73)
Comprehensive HIV knowledge (girls 15–17)	5%	NIPORT & ICF (72)
Women aged 15-19 who have heard about HIV/AIDS	33%	NIPORT & ICF (72)
Women aged 15-19 who know where to get an HIV test	9%	NIPORT & ICF (72)
Ever tested for HIV and got results (girls 15–19) Child marriage (girls married before 18)	3%	NIPORT & ICF (72)

Table 1: Bangladesh SRH statistics for adolescents

3 Justification

Although it is a crucial issue, Bangladesh does not have any dedicated standalone policies to implement CSE at the secondary education level (74). Existing policy and strategies, such as the National Education Policy (2010), the National Adolescents' Health Strategy, and the Life Skill Education curriculum integrated by the NCTB to provide supportive frameworks for the inclusion of sexual and reproductive health education (75). This policy gap is further increased by inadequate teacher training, limited resources, and cultural and religious sensitivities, which collectively impede the effective delivery of CSE at the secondary education level (54). Dedicated implementation of CSE can reduce school dropouts caused by early pregnancy. By educating them on sexual health, CSE can prevent early pregnancy and support them to continue their education, which is vital for breaking the cycle of poverty (76). Identifying cultural barriers will help to develop culturally appropriate CSE materials and teaching methods (77). Also, identifying the influencing factors for adolescents to accept CSE is important to improving their sexual and reproductive health outcomes in Bangladesh (78).

Although previous studies show the positive impact of CSE on knowledge and health outcomes, there is a lack of studies on how to improve the social acceptance of CSE, especially how individual attitudes, perceived relevance, and community alignment with social and cultural norms collectively shape the implementation within the Bangladesh context. Moreover, how to adapt global frameworks to the Bangladeshi context remains unexplored (78). This study aims to explore the personal, interpersonal, community, and educational influences on CSE acceptability in Bangladesh and to examine effective approaches in a similar context. This study aspires to promote a supportive environment where adolescents can gain the knowledge and skills essential for making informed choices about their sexual and reproductive health.

Main Objective

To explore the acceptability of Comprehensive Sexuality Education (CSE) in Bangladesh and to develop recommendations for culturally appropriate strategies and recommendations for relevant stakeholders, including policymakers, education sector actors, community-based implementers, and researchers.

Specific Objectives

- 1. Identify individual and interpersonal factors influencing the CSE acceptability amongst adolescents in Bangladesh.
- 2. Identify how community, institutional, and policy factors influence the acceptability of CSE in secondary education in Bangladesh.
- 3. To explore successful strategies and interventions that have been implemented to improve the acceptance of CSE in similar contexts.

4. To develop context-spe CSE into the secondary implementing partners.			

4 Methodology

4.1 Study design

In this study, an extensive literature review was adopted to identify key factors influencing CSE in Bangladesh. Different sources were used to identify key factors. Including literature, peer-reviewed articles, online academic databases, published reports, grey literature, policies, and government reports, Google Scholar, the Vrije Universiteit online library, ResearchGate, the Education Resources Information Center (ERIC), and PubMed were used to find relevant articles. In addition, official websites of key organizations such as the Ministry of Health and Family Welfare (Bangladesh), NCTB, WHO, UNESCO, UNFPA, and the Guttmacher Institute were searched for relevant reports, policy documents, grey literature, and program evaluations.

In addition, interventions and best practices from similar sociocultural contexts were examined to recommend culturally appropriate strategies for the effective implementation of CSE in Bangladesh. The study was guided by the Socio-Ecological Model (SEM) and the Theoretical Framework of Acceptability (TFA). These together provided a comprehensive lens for examining the multi-level influences on CSE acceptability (see section 3.4).

4.2 Search Strategy

A systematized search was conducted across various databases to collect information on the acceptability of CSE among adolescents and the factors influencing the implementation of CSE in Bangladesh and comparable settings. Primary search was conducted in English. To find relevant articles, combinations of search terms were used, linked by Boolean operators. These terms included single or a combination of phrases such as Comprehensive Sexuality Education, CSE, acceptability, perception, attitude, Bangladesh, adolescents, secondary school, social determinants, socio-ecological model, theoretical framework of acceptability, cultural barriers, gender norms, policy, teacher training, SRH, HIV, STI, adolescent pregnancy as shown in table 2. The search strategy was guided by the SEM and TFA. The main geographical focus was Bangladesh. When relevant literature from Bangladesh was unavailable or limited, the search expanded to culturally similar South Asian countries. When further gaps remained, studies from other LMICs and global sources were also included to ensure that the findings are primarily grounded in Bangladesh and comparable settings.

Table 2: Keywords and Searching Strategies; Horizontally Connected Using "and"

Core Concept (OR)	Population Terms (OR)	Problem/issues (OR)	Factors related to terms (from SEM & TFA frameworks)	Geographical (AND)
			(OR)	
Comprehensive Sexuality Education (CSE), life skills education, sexuality education, SRH education	Adolescents, Secondary school students, youth, students	Adolescent pregnancy, HIV, STI, school dropout, school retention, acceptability, perception, attitude	Socio norms, cultural norms, cultural practices, stigma, gender norms, religious beliefs, cultural beliefs, family, peers, community attitudes, teacher training, school policy, curriculum, knowledge, beliefs, attitudes, self-efficacy, social influence, ethicality, feasibility, intervention coherence, policy support,	Bangladesh, South Asia, LMICs
			opportunity cost, access to health services, access to health information	

4.3 Data Analysis

A structured approach was used to analyze the data, combining the SEM and the TFA frameworks. First, the data were sorted into five SEM levels: individual, interpersonal, institutional, community, and policy. Then, within each level, the findings were matched to the key ideas from the TFA, such as: emotional responses (affective attitude), confidence in doing the behavior (self-efficacy), how effective people think the program is (perceived effectiveness), fit with values (ethicality), clarity and understanding (intervention coherence), suitability for the setting (appropriateness), how hard it is to take part (burden), what people give up to participate (opportunity cost). Key patterns such as barriers, supports, and local factors were also focused on to understand the influence of CSE acceptability. Also, looked at how findings differed based on location, gender, and economic status. Comparative analysis from similar South Asian and LMIC contexts was conducted to see what was unique or common.

4.4 Inclusion and Exclusion Criteria

Only papers, peer-reviewed articles, reports, policy documents, and relevant grey literature published in English between 2016 and 2025 discussing CSE, adolescent sexual and reproductive health, or related interventions in Bangladesh were included. The language English was chosen due to the availability of academic publications. In some instances, studies from similar context regions were considered in the absence of specific data for Bangladesh. Studies that did not focus on CSE or that did not address CSE or its acceptability were excluded from this study.

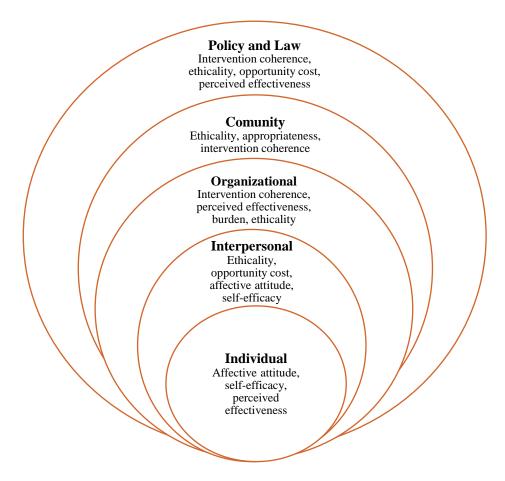
4.5 Conceptual Framework

This study employed the SEM as the primary analytical framework. This Framework was originally developed by Urie Bronfenbrenner in the 1970s (79) as Ecological Systems Theory for human development. Later adapted for health promotion by McLeroy et al. in 1988 (see annex 1) (80). The SEM was chosen because it helps to understand the multiple and contextual determinants influencing health behaviors and interventions. It looks at five interrelated layers: individual, interpersonal, community, institutional, and policy. And it aligns well with the study objectives and helps to analyze CSE issues in diverse contexts. At the individual level, SEM focuses on knowledge, beliefs, attitudes, and personal experiences with CSE. At the interpersonal level, SEM looks at how family, peers, and teachers influence a person's view and experience regarding CSE. Also, the community level helps to explore broader socio-cultural norms, stigma, and community attitudes. Its institutional level focuses on school policies, curriculum content, and teacher training, and the policy level encompasses national education policies, government support, and legal frameworks relevant to CSE delivery. The SEM levels systematically follow each other. This makes it easier to understand the interactions between each level and within the factors, which makes the model useful for this study.

In addition to the SEM, the Theoretical Framework of Acceptability (TFA) developed by Mandeep Sekhon and colleagues in 2017 was also used for this study (see annex 2) (3). TFA helps to analyze how adolescents and other stakeholders perceive the appropriateness, burden, ethicality, and effectiveness of CSE interventions. Also, structures the lens for understanding the acceptability of CSE from the perspective of both recipients and implementers.

To explore the influencing factors of the acceptability of CSE in Bangladesh, this study adopted an integrated analytical framework combining SEM and TFA. In this study, the individual and interpersonal levels of SEM are particularly focused on adolescents' acceptance of CSE in Bangladesh (see annex 3). As they are the direct recipients of CSE. Also, their knowledge, affective attitude, beliefs, and immediate social relationships are central to understanding the acceptability. Institutional, community, and policy levels were explored to understand how these levels collectively shape the broader acceptance and implementation of CSE in Bangladesh. Within each SEM level, the TFA will be used to explore how people feel about CSE, enriching the analysis. For instance, at the community level, findings relating to local norms and stigma will be further analyzed through the TFA constructs of ethicality and appropriateness. While institutional factors such as teacher training or curriculum coherence will be evaluated in terms of intervention coherence and perceived effectiveness. Combining both SEM and TFA provided a

structured foundation for developing the study's conceptual model and multidimensional synthesis of CSE.



Integrated SEM and TFA Model

During the conceptualization of the study, another framework Theory of Planned Behavior (TPB) (81), was also reviewed as a potential framework. TPB is used to predict and understand individual behavioral intentions and actions. Particularly, in the context of health-related behaviors. But this framework has not been selected for this study, as TPB focuses primarily on individual-level determinants and does not sufficiently address the broader social, community, and policy-level influences on CSE, which are important components to understand the acceptability of CSE in the Bangladeshi context.

4.6 Study Limitation

This study only used existing literature and did not include primary data collection. As a result, the findings are entirely based on existing published sources. This may not represent all perspectives on CSE acceptability. Collecting primary data could have added deeper and more diverse insights. The search for relevant papers was conducted using the limited search engines, which may have limited the range of available papers. Only papers published in English were accessed and analyzed for this review. Evidence from other countries with similar contexts was used when data for a few determinants in Bangladesh were inadequate.

5 Study Results/ Findings

5.1 Individual Factors

To create effective CSE programs in Bangladesh, it is important to understand how affective attitudes, perceived effectiveness, ethicality, and self-efficacy collectively contribute to the acceptability of interventions at the individual level (82).

5.1.1 Knowledge and Information Sources

Most of the Bangladeshi adolescents have limited, fragmented, and inaccurate knowledge about sexual and reproductive health (SRH), which has often been biologically oriented (83). Mostly, they receive information on puberty, menstruation, reproduction, and STIs through science subjects. But often not taught clearly or consistently (22). This curriculum often lacks diversity and excludes important topics such as gender-based violence, consent, emotional development, and gender identity (84). Though some CSE components are integrated within LSE and science subjects, there is a lack of standardized, clearly defined modules. As a result, students from different schools receive inconsistent, uneven knowledge (85). Additionally, these topics are often taught as isolated facts instead of being connected in a meaningful way. This creates persistent misconceptions and makes it harder for students to understand the full picture (86). Girls are more exposed to menstrual hygiene information and are often described in stigmatizing and secretive terms. While many boys misunderstand the mechanics of reproduction and the risks associated with sexual activity, knowledge about contraception and STI prevention (87). As a result, many students rely on informal sources like friends, siblings, online content, and, for girls, older female relatives (88). But these sources often spread myths and misinformation (87, 90).

5.1.2 Affective Attitude: Emotional Responses and Internalized Norms

Affective attitude or emotional response to CSE is strongly influenced by cultural taboos, religious beliefs, and socialization. In Bangladesh, sexuality remains a sensitive topic. Due to cultural and religious norms, adolescents often feel discouraged from open discussion about sex or reproductive health (89). Many students feel embarrassed, ashamed, or discomfort when CSE topics are introduced in the classroom. Particularly in mixed-gender settings or when taught by teachers of the opposite sex (90). The psychological barrier of shame (lajja) is deeply rooted and often selfcensoring in group settings due to fear of social sanction or being perceived as immodest (85). Girls often express relief and validation when CSE addresses topics like menstruation or protection against harassment. While boys often feel pressured to appear knowledgeable or uninterested in CSE to fit dominant masculine norms, even when they lack confidence or clarity (91). This discomfort can make it harder for them to participate and reduce the effectiveness of CSE sessions. However, study shows that when CSE is delivered in a safe, respectful, and confidential environment, affective attitudes can shift positively (54). Interactive teaching methods, such as role-plays, group discussions, and anonymous question boxes, help to reduce anxiety and develop a sense of engagement and curiosity by providing safe spaces for practicing skills, normalizing conversations, and allowing confidential questions (92, 93).

5.1.3 Self-Efficacy

Adolescents who have previously encountered CSE or health education, even in minimal or fragmented formats, feel confident to ask questions, participate in dialogue (54, 94). However, many adolescents have low self-efficacy when it comes to using SRH information to make informed decisions. Such as how to negotiate consent, use contraception, or access health services (54). This lack of confidence is connected to the absence of practical, skills-based education in schools. Traditional, lecture-based teaching methods do not equip students with the communication and decision-making skills needed to apply CSE knowledge effectively. Evidence shows that when CSE programs that incorporate participatory, student-centered approaches improve self-efficacy significantly (95). For instance, role-playing that simulates real-life situations helps students practice assertiveness, negotiation, and problem-solving skills (54). These adaptive approaches consider individual learning needs and emotional readiness and empower students rather than positioning them as passive recipients (78).

5.1.4 Perceived Effectiveness and Relevance

Perceived effectiveness is adolescents' belief about how CSE will help them to improve their knowledge, skills, attitude, and decision-making related to CSE (95). This perception of effectiveness is typically stronger among adolescents who have directly or indirectly encountered risks. Such as unintended pregnancy, sexual violence, or sexually transmitted infections. Particularly when CSE is presented as a preventive tool (82). Adolescents who consider themselves out of these risks or who view the curriculum as disconnected from their lived experiences often consider CSE as unnecessary or irrelevant (89). Clear and accessible CSE content plays an important role in its acceptability. When CSE is included in subjects like biology or social science without a real-life context and a clear message, students struggle to engage meaningfully with the material. But when the content is delivered with a clear message, culturally appropriate examples, and relatable case studies, it helps students' understanding and willingness to participate (95).

Adolescents perceive CSE as relevant when it addresses their actual concerns. However, when it does not reflect their social or cultural context, it may seem inappropriate or unhelpful (76). When CSE content clashes with their local beliefs or overlooks issues like early marriage or gender norms, students may feel it doesn't reflect their lived experiences, leading to disengagement. This reduces the program's effectiveness and highlights the need for cultural sensitivity (96). Conversely, if CSE addresses locally relevant issues like early marriage, sexual harassment, and gender-based violence is considered more meaningful and acceptable (97). Adolescents expressed that when CSE only emphasizes biological aspects, less relevant to everyday social issues such as menstrual taboos, peer pressure, and gender norms, it fails to meet their informational needs (98).

5.1.5 Socio-Demographic Influence

The acceptability of CSE among Bangladeshi adolescents varies depending on their background. Urban adolescents typically have better access to diverse media, resources, and support networks, which makes them more receptive to sexuality education (99). On the other side, rural adolescents have less access to resources and face greater systemic barriers. Fewer trained teachers and stronger traditional beliefs might make them less likely to accept CSE (78). Socio-economic status also influences individual acceptance. Adolescents from better financial backgrounds or educated backgrounds often talk more openly about sexuality and have better access to information. Those from low-income and less educated families usually don't have enough information or safe places to talk about sexual health (83). Gender and minority status further complicate this landscape. Girls often face more stigma and social pressure than boys because of stigmatization and societal expectations. But boys may also face pressure because the curriculum may not match their language or culture. (76).

5.2 Interpersonal level

The successful acceptance and implementation of CSE at the secondary school level in Bangladesh is not determined exclusively by individual factors such as knowledge and attitude. But also profoundly shaped by interpersonal dynamics (54). The interpersonal level encompasses the immediate social networks and relationships, primarily parents and family members, teachers and school staff, and peer groups. These interpersonal relationships have a significant influence on adolescent understanding, attitudes, and behaviors, and play a crucial role in shaping the acceptability of CSE (3). This section critically explores how parental attitudes, peer interactions, and teacher roles can influence the acceptability of CSE at the secondary education level in Bangladesh.

5.2.1 Family Dynamics and Parental Attitudes: Parental Gatekeeping, Ethicality, Communication, Control, and Support

In Bangladesh, family dynamics play a big role in adolescents' access to CSE. Traditionally, parents have strong control over their children's personal development. Particularly regarding CSE, which includes topics like puberty, relationships, and sexual health (83, 78). This parental gatekeeping comes from deeply rooted cultural and religious values. Many parents believe that discussion on these kinds of topics is against family values, religion, and social norms (100). They feel anxious and worry that CSE conflicts with these values. Also, it might undermine moral standards, promote promiscuity, or contradict religious teachings (83). These concerns are mostly based on misconceptions like CSE only focuses on sexual techniques or early sexual activity. As a result, open conversation about SRH within families is not common, especially for girls (101). In reality, CSE covers broader topics such as gender equity, consent, and healthy relationships (102). Because of cultural taboos around sexuality, many parents limit parent-child communication and lead adolescents to confusion or misinformation (103).

This communication gap negatively affects adolescents' willingness to engage fully with CSE content. However, when parents do initiate conversations regarding CSE, often during life-important events such as menstruation or harassment, adolescents feel more open and comfortable. According to a study conducted in 2023 by Share-Net International in Bangladesh, if CSE is shown as part of family values (for example, preparing girls for safe womanhood or boys for responsibility), adolescents consider it more useful and respectful (76). Usually, mothers are responsible for discussing sexual health with daughters, but they often lack confidence and sufficient knowledge (104). Besides avoiding conversation, some parents also have strong control over adolescents' educational experiences, which sometimes restricts participation in CSE classes or related activities. This gatekeeping is more common in rural and religiously conservative areas (78). Where girls often face stricter rules curtailed by patriarchal norms (105). This fear of parental disapproval or punishment can cause adolescents to avoid CSE by making them reluctant to attend sessions, participate openly, or ask questions about sensitive topics (103, 106).

However, these views are not the same for all parents. Some parents with higher education levels in cities understand the importance of proper sexual health education (107). Particularly on practical issues like menstrual hygiene for girls and protection from abuse for all adolescents (108). The study found that, even so, the majority of parents prefer schools to handle these lessons, instead of having direct engagement with these sensitive topics (107). One major reason for these problems is that many parents have limited knowledge. As a result, they feel discomfort in discussing these topics (103). However, parents who are more educated often support CSE (107). Considering that it is an empowering tool to help adolescents make safe, informed choices and foster mutual respect (108). Report shows that programs that engage parents through workshops and informational sessions have helped clear up misconceptions, build trust, and improve CSE effectiveness (76).

5.2.2 Peer Influence and Social Learning: Gateways, Norms, and Leadership

Peers play a major role in attitudes toward sexuality among Bangladeshi adolescents. Often filling gaps left by family and teacher engagement, and helps to create openness and willingness to engage with CSE, depending on their friends' reaction. Peer norms often reflect wider cultural taboos. Male or mixed-gender groups may avoid sexuality topics out of fear of 'shame,' and girls often stay silent due to social constraints related to traditional gender roles (109). Negative peer pressure, such as bullying or teasing, remains a barrier, especially in conservative settings, and can restrict students from taking part (103). Fear of being judged and exclusion for showing interest in such topics hinders their (girls') participation. While boys might be teased for supporting girls' rights, and girls face labels of promiscuity for asking questions (76). The information shared among peers is not always correct. It may also lead to false information and strengthen harmful gender norms (78). However, positive change is possible through peer-led programs. Trained peer educators and youth leaders can promote respect, inclusivity, and open-mindedness. Gradually helping to challenge sexism and encourage open conversation about CSE (78). Information shared between peers is often not accurate, which underscores the need for reliable support (110). Peer-led education offers a safe space for discussion, increases disclosure, and knowledge uptake. Though success depends on supportive school environments (111). Establishing ground rules and zerotolerance policies helps to improve comfort and engagement with CSE, and everyone feels safer (78).

5.2.3 Influence of Attitudes, Preparedness, and Gender Dynamics

Teachers and school staff play an important role in delivering CSE in Bangladesh. However, many teachers feel unprepared or uncomfortable teaching CSE topics due to limited training and cultural taboos (112). Reports show that teachers might skip, downplay, or treat CSE as a formality. This leads students to think such topics are inherently problematic or shameful (83). These affective barriers ultimately suppress curiosity and limit the formation of trust between students and educators. This is not only making passive disengagement, but in a more active denial of CSE's relevance (115). Despite this, only a small number of teachers have formal training in sexuality education. In secondary school, teachers avoid sensitive topics because they fear community backlash or personal embarrassment (114). Their personal beliefs, often aligned with social and religious norms, strongly influence the depth and manner of CSE delivery, as we as their responsiveness to students' questions. When teachers' behaviors are open, respectful, and nonjudgmental, students feel safe and comfortable discussing sensitive sexual health topics (78, 76). Also, the "hidden curriculum", or the indirect signals from the teachers, can affect students' attitudes towards CSE (111). Teachers who shame or ignore their questions create fear and silence among students, which may make CSE less effective (111). Gender also plays a significant role in delivering CSE. Students feel awkward discussing sensitive issues with teachers of the opposite sex. This leads to a passive learning environment and students only focus on memorizing content instead of meaningful participation (78). Girls often feel more comfortable discussing issues like periods or body changes with female teachers. While boys may miss out because male teachers often avoid these topics (112).

Teachers' attitudes, teaching methods, cultural comfort, and classroom environment create a powerful effect on adolescents' acceptance of CSE. Comprehensive training for teachers, which contains both knowledge and socio-cultural challenges, is important to improve CSE delivery effectiveness (78).

Programs like the SERAC-BD CSE Mapping and NOW's "Breaking the Shame" emphasize the need to train teachers with not only factual knowledge but also with the skills to handle social taboos and manage personal discomfort (78, 111). Such as creating safe, respectful classrooms that encourage open discussions, training teachers to challenge stigma, and using participatory methods (78).

5.2.4 Interpersonal Ethicality, Opportunity Cost, and Extended Influences on CSE Acceptability

In Bangladeshi adolescents often struggle to balance different expectations from family, peers, teachers, and community regarding CSE. Many families often have conservative views regarding CSE. They frame CSE as conflicting with social norms about modesty, purity, and sexual ignorance (78, 112). For many adolescents, particularly girls, CSE engagement is risky. They fear losing parental trust, reduced marriage chances, and damaging family reputation due to social norms and values around modesty and sexual ignorance (101). But supportive relationships with parents, siblings, teachers, or peers can enhance adolescents' willingness to take part in CSE. Also, help them to deal with stigma and make better and healthier choices (78).

While open discussions are limited to family and school, digital platforms are transforming SRHR education. These platforms offer confidential and accessible spaces to learn and share experiences. However, to avoid risks such as misinformation and cyberbullying needs digital literacy and careful online engagement are needed (113).

Besides this, community and religious leaders also hold a strong influence on parental and teacher attitudes toward CSE. Through their public messaging, community and religious leaders can either promote or block CSE implementation. Therefore, engaging these leaders is important for gaining community acceptance and reducing resistance to CSE (116). Interpersonal messages from family, peers, teachers, and community interact in complex and sometimes contradictory ways. Support from one source may be weakened by opposition from another (111). Social norms, such as gender, modesty, and authority, determine what can be spoken, what can be discussed, and how openly. (117).

CSE acceptance of family and community members also depends on socio-demographic factors, such as location, education, and identity. In urban areas, educated families and progressive schools tend to be more open towards CSE (76). While in rural areas, low-income and marginalized groups face significant barriers. Rural communities have more traditional, conservative values around sexuality, sex education, and gender roles. Discussion on sexual and reproductive health is often considered shameful or inappropriate to discuss openly. Additionally, a lack of awareness and resources exacerbates the spread of myths and misconceptions about CSE (103).

5.3 Institutional-Level Factors

In Bangladesh, schools, curriculum developers, educational authorities, and associated actors have a critical influence on the acceptability and reach of CSE programs at the secondary education level (78). This section explores how school-related institutional factors such as leadership support, teacher capacity, school culture, and resource availability affect the implementation of CSE.

5.3.1 Ethicality: Institutional Morality and Value Alignment

Institutional ethics refers to the moral acceptability of CSE in school environments and organizational guidelines. In Bangladesh, educational institutions are often influenced by deeprooted cultural and religious values. These values significantly influence what sexuality-related content is allowed and how it is delivered (118). While international frameworks recognize CSE as a right and health imperative, Bangladesh does not have any standalone CSE subject in secondary education. Instead, sexuality-related topics are included across subjects like physical education, life skills, biology, social studies, and religion. This makes the inconsistent CSE delivery. This cautious approach reflects that institutions are concerned about moral criticism and staying in line with community beliefs (78, 119).

School leadership often shows hesitation or is unwilling to support clear sexuality education. They worry about complaints from parents, religious opposition, or negative reactions from the community. This hesitation leads to reduced teaching time or thought in a limited way. This kind of gatekeeping is particularly common in rural and religiously conservative schools, where schools skip or censor sensitive topics to align with local moral expectations (76, 78). Further insights on stakeholder roles and community attitudes are discussed in section 5.4.1.

Also, teachers in Bangladesh are often influenced by the same cultural and religious values. As a result, many teachers worry about being accused of promoting immorality, which could damage their reputation (118, 120). More than 60% of teachers report that they feel unprepared and are uncomfortable about discussing sexuality. So they often skip the topic or teach it briefly. Furthermore, female teachers are usually assigned to teach girls even if they are not ready, which keeps gender roles in place (78, 118, 120). However, some teachers and administrators are starting to accept CSE, as they think it is important to prevent early marriage, violence, and STIs. When CSE is explained as a means to protect and maintain community health, it leads to institutional support growing. In such a case, leadership attitudes and professional support play a key role in establishing the legitimacy of the CSE educational setting (54, 78). These dynamics are further explored in section 5.2.3.

5.3.2 Appropriateness: Cultural Fit and Pedagogical Alignment

Appropriateness refers to how well CSE content and delivery resonate with institutional cultures, pedagogical practices, and local expectations (54). Bangladesh's National Curriculum and Textbook Board (NCTB) includes some CSE topics, but the focus is on biological facts. Important issues like consent, gender equity, and healthy relationships are often left out (64, 78). Also, there are not enough guidelines on how to teach these topics and how to make sure, according to the age groups (119).

Besides this, teaching methods are mostly lecture-based and dependent on textbooks, which often fail to encourage active participation of students or encourage critical thinking (78, 118). This approach is different from global recommendations. This suggests interactive methods like advocating participatory, experiential learning approaches, including role-plays, discussions, and peer activities, which make learning more meaningful and memorable (54, 78). However, in Bangladesh, schools often struggle to adopt these methods due to a lack of training, resources, and slow change within the education system (112).

To improve CSE acceptance according to the local context, some schools and NGOs have introduced context-sensitive changes like gender-separated classes and female facilitators for girls. These adaptations respect cultural norms around modesty and privacy, which helps gain support from parents and community (90). Involving teachers, students, parents, and religious leaders helps to develop culturally grounded materials and enhance credibility and community acceptance (76, 90). Media and technology, like community radio and social media, help to make sensitive topics easier to understand, and share sexual health messages that fit culturally. This complements school teaching and increases the approachability of sensitive topics. But still, it is important to teach people how to use these platforms to prevent false information and reduce panic (64, 120).

5.3.3 Perceived Effectiveness: Beliefs About CSE's Impact and Value

Perceived effectiveness means what people believe about whether CSE successfully achieves its goals, such as improving knowledge, attitudes, and behaviors, and whether it should be part of the curriculum. In Bangladesh, people have mixed feelings about the success of CSE. Many teachers and administrators doubt the impact of the limited and fragmented CSE delivery. This is because of inconsistent content, brief coverage, shallow teaching, and mostly lecture-based (118, 120). Teacher preparedness strongly influences effectiveness profoundly. Insufficient training and discomfort discussing sexuality reduce the quality of teaching and raise doubt about CSE values (120, 121). Schools that focus on teachers' professional development, supportive supervision, and participatory learning have more engaged students and better results. Also increases confidence in program effectiveness (122). Also, there is no regular monitoring and feedback on CSE, which means it is unclear whether the program is effective or not (78).

5.3.4 Intervention Coherence: Integration within Educational Systems and Organizational Practices

Intervention coherence concerns the extent how well CSE is integrated within institutional policies, resources, administrative procedures, and school culture. When CSE is well-integrated, it ensures sustainability, enhances program legitimacy, and supports effective delivery (78). Bangladesh does not have any clear, comprehensive national policy for CSE delivery. As a result, its quality and delivery vary a lot. (123). Absence of clear curriculum standards, teaching hours, materials, and assessments makes it hard to achieve systematic institutional integration (124). Monitoring and evaluation systems in schools are not well developed. Few schools use standardized tools to track CSE coverage or teacher performance. Because data collection is limited and unclear, it limits quality improvement and accountability (76, 78).

The condition of the school infrastructure and materials also influences coherence. Especially in rural regions, schools often lack private classrooms, sanitary facilities, teaching aids, and digital tools needed for sensitive, confidential CSE delivery. Limited budgets and slow administration processes further limit resource availability (125). NGOs, international agencies like UNESCO, UNFPA, and community partners support schools to build better CSE programs. These collaborations provide teacher training, develop resource materials, and pilot innovative programs to connect policies with real teaching (126). However, some schools hesitate to work with outsiders due to fear that it might affect their reputation (78). Lastly, there are differences between urban and rural schools, private and public institutions, and different regions. A comprehensive study on CSE programs found that urban schools usually have better-trained teachers, resources, and leaders to support CSE (76, 78). Whereas rural and marginalized schools face stronger resistance, resource shortages, and less institutional support (125).

5.4 Community-Level Factors

Community factors that influence the acceptability and effectiveness of CSE are deeply rooted, extending beyond the knowledge of the people or environment of a school. This segment analyzes the existence of these areas in Bangladesh, particularly the interaction with religious leadership, gender concepts, stigma, and the steps of adjustment across the community, which are crucial in the uptake of CSE at the secondary school level.

5.4.1 Ethicality: Moral Acceptability within Community Norms

The most central element of community-level influence on CSE is ethicality. At its root, this is about whether learning about sex is considered morally right and in line with the community's values, or as something that goes against cultural or religious beliefs (76, 78). In Bangladesh, where the majority of the population is Muslim and old cultural traditions are still extremely strong. Because of this, sexuality is seen as a very delicate subject that people don't talk about. These unwritten social conventions tell people to be modest, safeguard the family's reputation, and keep strict limits on talking about sex, especially when it comes to teaching young people (120, 123).

Religious and cultural values play a big role in what is seen as moral when it comes to CSE's content and even bringing it into classrooms in the first place. Local imams, elders, and other religious authorities often interpret and spread Islamic teachings that define sexuality education as a danger to both religion and the social order (116, 127). These leaders have a strong power over what information is acceptable and who gets to manage it. Because of this, CSE is often seen as a foreign or "Western" approach that could hurt Islamic morality and local customs (78, 128). This makes the discussion around CSE into an intellectual battleground, a type of cultural resistance where sexual knowledge is perceived as something that could threaten the very basis of family life and community morality (111, 129).

People in rural and traditional societies feel the most moral uneasiness with CSE. This is because elders retain a significant impact on social norms and the scope of instruction. There are practical consequences of such opposition, such as sexuality education being taken out of the school curriculum, and instances of parental objection or teacher harassment (76, 130). Schools face a moral dilemma between national policies that support CSE and local opposition based on strong moral values (78, 130).

There are also gendered ethical expectations that complicate things further. Female students encounter strong limitations of access to information about sexuality based on cultural ideas of modesty, purity, and obedience to parents. Families and communities fear that when girls learn about such issues, it can go against their positive reputation and make it harder for them to get married. To others, it is a threat to the family "honor", or "shomman". (76, 78, 130). In contrast, boys may have more freedom of movement, but they also have to deal with their demands to follow a "macho" code. Which says they shouldn't talk about or ask about sexual health issues. These gendered double standards create a barrier of silence, making it hard to get the important information they need (130).

Even while many people are against CSE on moral grounds, these attitudes are not absolute or universal. Some religious and community leaders started to comprehend the public health reasons for CSE, including how it can help to stop early marriage, sexual assault, and the transmission of sexually transmitted infections (78, 126). Such actors advocate for the inclusion of sexuality education as a means to keep youth safe and improve family health instead of promoting immorality (126). These reflections are examples of ethical recalibration, where evidence-based practices aligned with cultural values to reconnect CSE with local well-being and social goals (126, 130).

This shifting moral landscape highlights that early and respectful interaction involving moral gatekeepers is important. It's not about seeing religious and cultural leaders as problems, but as potential partners who can help reframe the acceptability of CSE. By involving them as advocates, CSE can be repositioned not as something immoral, but as a collective tool for protection and wellbeing. This approach will help to foster acceptance and ethical support (76, 126, 130).

5.4.2 Appropriateness: Cultural Relevance and Contextual Fit of CSE

The second community-level factor that is also essential is appropriateness. It includes how well CSE's content, messages, and teaching techniques fit into the local cultural practices, languages, and social realities, fostering a sense of relevance and honor among the communities (78).

In Bangladesh, the widespread rejection of CSE can be reduced substantially if it is framed as a health promotion or life skills program that is connected to community-wide interests, such as protecting families, promoting wellbeing, and preventing disease. People are much more likely to support a CSE program that relates to issues and social responsibilities of daily life (76, 130). Making CSE more appropriate often entails modifying how it is align with social conventions. For instance, organize separate workshops for boys and girls and have female facilitators to lead the sessions for girls. This is a way to respect cultural beliefs about privacy and modesty (131). This makes CSE acceptance better for both daughters and their parents. These kinds of changes reassures communities with a strong message that their traditions are respected, while still adhering to its main educational goals (126, 131).

In addition to this, the involvement of the community members in the material design and content development process increases the appropriateness. In Bangladesh, civil society organizations (CSOs) and non-governmental organizations (NGOs) play an important role in the development of culturally contextualized education resources, collaborating with local elders, mothers' groups, youth representatives, and religious leaders (120, 125). This kind of grassroots involvement helps to makes people feel like they own and care about the community. It also helps to deal with local misunderstandings directly, as well as putting sensitive issues into context within familiar social constructs (76, 126, 130).

Trusted forms of communication are also very important to ensure CSE is perceived as appropriate and relevant. Secondary school students can learn about sexual health through community radio shows, fun TV shows, and even social media (132). Though digital platforms make information easier to find, they also create issues of misinformation, moral panic, and privacy concerns. (133).

5.4.3 Intervention Coherence: Integration with Community Systems and Social Practices

Intervention coherence refers to how well CSE programs align with the existing community's current social systems, power structures, and cultural norms. Also, leverage community mechanisms to ensure legitimacy, sustainability, and effective implementation (78, 126).

In Bangladesh, acceptance of community leaders, religious authorities, school management committees, and health service providers is vital for CSE coherence. Their support helps to ensure easy access to resources, safe discussion spaces, and multi-sectoral coordination among families, schools, and health institutions (76, 120). Programs that are forced on communities and do not consider making changes according to the community standards usually do not work well. A standardized curriculum without consideration of regional languages, gender expectations, or cultural preferences will probably face resistance and low participation (126, 131). Being open to change by allowing for gender-separated groups, messages that align with faith-based beliefs, or enhancement of traditional health knowledge fosters coherence helps make aligning interventions with community realities (130, 131).

Another significant barrier to coherence is the moral panic and stigma. This can come with teaching sexuality education. The negative labelling and social exclusion of students and educators participating in CSE tend to increase social risks and face potential losses for participation (76, 111). These kinds of reactions from the community challenge the program's credibility and show how crucial it is to create trust and have safeguards in place (78, 126). In addition, the degree of coherence also depends on geographical and socio-economic factors. CSE is more open and better integrated in cities and areas where NGO-driven programs exist. On the other hand, rural and marginalized communities are sometimes more resistant since they value their cultural independence and don't have as much organizational support. The socio-economic disparities influence the dimensions of parental communication patterns and the opportunities of receiving CSE, with higher educational levels tend to have better interactions (76, 126, 125).

The use of multi-stakeholder community committees is a very good strategy to manage and increase coherence. These committees comprise parents, teachers, youth leaders, and health workers, and this provides grounds for feedback, adaptation, and conflict-solving. Their roles act as linkages between education intentions and local conventions, dissolving conflicts as well as creating shared ownership (76, 125).

Culture-based sexual health messages delivered through community-based radio and television programs, and interactive social media offer new engagement techniques to connect secondary education students. While taking initiatives, combining these media and school-based initiatives should consider finding a balance between message consistency, cultural sensitivity, and current dynamics of communication (54, 131).

5.5 Policy-Level Factors

The policy environment, encompassed in the outermost layer SEM, is fundamental in making CSE acceptable and practiced in Bangladesh. The legislative, regulatory, and financial framework is provided by the policies, and these influence how the institutions deliver the curriculum, teacher training, budgetary allocations, and the sensitivities in the socio-cultural implications (1, 78).

The chapter brings a critical reflection on the past and the current status of the Bangladesh CSE policy and its consequences. Depending on the international commitments and national laws, advocacy politics points to the gaps in the policy and the sociopolitical barriers, identifying possible ways of reform.

5.5.1 Policy and Legal Framework: Foundations and Fragmentation

Bangladesh has officially promised to preserve the sexual and reproductive health rights, including CSE. Based on its international commitments through various global policy issues such as International Conference on Population and Development (ICPD, 1994), Convention on the Rights of the Child (CRC), Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Sustainable Development Goals (SDGs) as especially SDG-3 (Good Health), SDG-4 (Quality Education), SDG-5 (Gender Equality) (78, 126).

Despite all these global commitments, there is no standalone national policy for CSE in secondary education in Bangladesh. Existing policy documents at national levels that mention sexuality education are scattered across the broad policy. Typically references adolescent health and rights broadly without outlining age-appropriate, rights-based, structured, and personalized delivery of CSE (64, 78, 126). This gap has widespread implications for the coherence of interventions. The absence of a harmonized policy framework could lead to inconsistent curriculum standards, teacher training, funds, and monitoring (76, 78).

The National Curriculum and Textbook Board (NCTB) has introduced CSE-related information since 2013 within such subjects as Physical Education, Life Skills, Biology, Social Science, and Religion (78). But these subjects aren't well-balanced or well-integrated and provide considerable discretion at the school and teacher levels. As a result, there is an inconsistent coverage of critical topics (consent, gender, sexuality, STIs, early marriage prevention), which is usually mediated by the threat-avoidant community fears and local resistance (78, 125).

Further, Bangladesh lacks a specific amount of funds for CSE in the national education sector budget. Because of this ongoing lack of priority, CSE is disadvantaged in resource allocation. Whereas the materials, teachers' training, and monitoring programs are dependent on the external donor-backed projects or programs run by the NGOs that are not institutionally sustainable (125, 126). This lack of finances comes with a high opportunity cost. Possible benefits to health and empowerment, and learning outcomes of adolescents and young adults are sacrificed in favor of safe budgetary spending and political soundness (76, 78).

5.5.2 Intervention Coherence: Policy Alignment and System Integration

Intervention coherence is about how effectively CSE policies fit with other relevant frameworks and how well they are incorporated into the overall legal, educational, and social goals of Bangladesh. Lack of coherence creates ambiguity, lacks accountability, and makes it difficult to implement a cohesive program (78, 111, 126).

Bangladesh's national policies on adolescent health, gender rights, and education are somewhat in line with its international commitments in this area. However, these commitments are not fully translated into legally binding policies or standardized curricula, resulting in fragmented and uneven implementation of CSE across regions, school types, and socio-economic groups, as several studies have shown (134, 135, 136). The lack of legally binding rules or a set national CSE curriculum makes the system less coherent. This gives a lot of flexibility to individual schools and districts, creating uneven implementation and large geographic and socio-economic stratification (76, 78). There is also a lack of strong regulatory and monitoring systems to direct, evaluate, and impose CSE implementation. Different ministries work separately on education, health, and women's affairs. As a result, coordination among ministers is rarely available to ease the delivery of CSE (78). Without central oversight, uniformity in quality and coverage is not the same, and it lowers the overall coherence of the program and institutional accountability (78, 125).

Alliances with international agencies and non-governmental organizations, like UNESCO and UNFPA, are also part of the coherence. As they help with capacity-building, resource development, and piloting pioneering methods with national alignment practices (78). However, not all schools and local governments are eager to embrace this outside influence, which makes it harder to carry out the program across the country (64, 78).

Institutionalization of the framework of monitoring and evaluation according to the SDG indicators is one of the major gaps and weaknesses for intervention coherence. The lack of regular feedback loops, standardized indicators, and legal accountability carries the risk of losing focus and consistency. Also struggle with adaptive responsiveness to the local community or emerging issues with policy implementation (78, 126).

5.5.3 Ethicality: Moral Legitimacy and Societal Values in Policy

Policy ethicality signifies the compatibility of national parameters and laws with the dominant cultural tendencies and religious prescriptions of sexuality, youth rights, and education (1, 134).

The concept of CSE is ethically limited by the social conservatism and religious sensitivities of the people of Bangladesh. To avoid getting criticized by powerful conservative groups, policymakers often tiptoe around issues like sexuality, contraception, or gender diversity in official documents (111). Instead, policy papers often utilize terms like "values education" or "life skills" to find a politically correct middle ground (1, 78).

This lack of moral clarity is one of the main reasons why CSE is not more firmly established in law and policy. Many policy actors think that promoting explicit content threatens parental authority, cultural traditions, or religious beliefs. This leads them not to want to use explicit CSE content or impose standards through the law (120, 137). The outcome is a "policy of avoidance" or a "policy of silence," which does not put the officials into controversy, but results in uncertainty of information and implementation (137).

National policies have tended to focus on a very narrow definition of reproductive health by putting a lot of emphasis on abstinence, marriage, and biology. Without focusing their attention on important issues such as sexual rights, gender norms, consumer, and diversity (1, 120). Regardless of these reservations, both international pressure and the activity of civil societies, and a growing urgency about adolescents' health have pushed progress toward more ethical discussion about making policy more inclusive (134). The language of protection of rights gradually entered the discourse of policy-makers and stakeholders, becoming visible in the National Adolescent Health Strategy. It demonstrates a progressive change toward a more morally assured support for the idea of CSE and its goals (78, 134).

5.5.4 Opportunity Cost: Political and Social Trade-Offs in Policy Decisions

Policy-level opportunity cost is defined in the context of risks and trade-offs inserted by policymakers in their decision to support CSE or not. Despite of benefits of improved health and empowerment of the adolescents, the social costs are often felt in forms as as political backlash, social instability, or damage to their public image (76, 134).

However, the policymakers of the country are quite frequently under intense pressure exerted by religious forces, traditionalist politicians, and other influential powers that speak out against explicit sexuality education in Bangladesh. This opposition shows up in policy avoidance, weakening the content, and cumulative experimentation to avoid public attention (138).

Also, inconsistent and untested policy stands are the usual outcome of the political or practical price of trying an ambitious CSE policy. Such as voter support, media backlash, or clashing with powerful institutions. These perceived or actual expenses result in the persistence of non-binding national regulations. These perceived costs are a big reason why national rules remain nonbinding and prevent the consistent and equitable delivery of CSE (76, 78). The existence of poorly

articulated policies that resist embracing CSE fully is a significant opportunity cost to national development and the health of populations (45). Thus, Bangladesh loses a lot of potential opportunities because of this. There is also a decrease in adolescent pregnancy rates and violence, an increase in gender equality, and better educational achievements (120).

5.5.5 Perceived Effectiveness: Beliefs about Policy Impact and Success

The perceived effectiveness affects the stakeholder support and prioritization of the CSE at policy levels. Political will and institutional commitment are determined by the policymakers' beliefs about whether policies are going to influence health and educational outcomes in positive ways (1, 76). In Bangladesh, perceptions about CSE are mixed. Policymakers and education leaders often question whether the present largely fragmented and optional CSE is making any significant impact on adolescent knowledge, attitudes, or behaviors. Such skepticism is largely due to poor curriculum consistency, teacher readiness, and a lack of oversight on CSE results (78, 111).

However, the developing mass of experience in the regions where NGOs have high success, piloting activities, and cross-national comparison. This impact is also felt at the community level, whether by NGOs or other centrally led programs, and has started to change minds. When the SDGs and national development plans, such as the reduction in young marriage and the promotion of gender equality, introduce and promote CSE as a strategic and long-term investment, they tend to be more successful and receive more political support (45, 125).

This combined analysis indicates that the CSE policy environment in Bangladesh is a complicated mix of weak legal frameworks, cautious ethical attitudes, fractured coherence, high-stakes opportunity costs, and evolving beliefs about performance. To create a policy framework that can promote fair and complete CSE for all secondary school students, all important aspects need to be addressed (120).

6 Discussion

The main objective of this thesis was to explore the acceptability of CSE in Bangladesh and to develop recommendations for culturally sensitive implementation strategies. The findings from this study highlight the interrelated obstacles and supportive factors across individual, interpersonal, community, institutional, and policy levels. This study combines the SEM and TFA to provide a thorough understanding of how these complex factors interact and affect the acceptability of CSE in Bangladesh. This study aligns with the global context and supports the main idea of the International Technical Guidance on Sexuality Education (ITGSE) developed by UNESCO (2018), which suggests a thorough, age-appropriate, gender-sensitive, and culturally relevant approach to CSE (45).

At the individual level, adolescents have limited, incomplete knowledge about CSE. The curriculum mostly emphasizes biological topics such as puberty and menstruation. Important topics such as race, gender identity, sexual orientation, gender-based violence, and healthy relationships are often absent or inadequately taught. Teens often rely on informal sources such as peers and family for information about CSE. This contributes to the growth of misinformation. Cultural taboos and religious customs prioritize modesty and privacy, intensifying feelings of shame and discomfort with CSE. Mixed-gender classes and teaching by teachers of the opposite sex can further exacerbate these feelings, resulting in a decrease in active student participation. Participatory, interactive methods such as group discussions, role-plays improve mental attitude and increase confidence in applying sexual health knowledge.

In the interpersonal level, parents are the primary caregivers. But they hesitate to talk about sex because they think and deeply fear that it will lead their children to promiscuity or violate their religious beliefs. This concern is more pronounced among their daughters, reflecting strict notions of female modesty and family honor, although many parents believe that it is better to conduct sex education in schools. But they also feel concerned about what their children are learning in class. Peer influence and informal networks can also increase misconceptions and taboos related to CSE. CSE is taught superficially due to teacher discomfort, limited training, and social pressure, leading to neglected content. Gender-related issues further complicate communication. Gender norms further complicate the communication. Students may feel uncomfortable with teachers of the opposite sex or may be reluctant to participate in classes together. Therefore, teachers need to be empowered in participatory methods and prepared to handle socio-cultural constraints. This will help improve the classroom environment and student participation. Digital platforms provide easy access to confidential information. However, digital literacy is needed to prevent the spread of misinformation and protect privacy.

Institutionally, lecture-based methods take priority. Though this is not the most suitable for CSE's experienced nature. Relevant adaptations like gender-divided classes and considering a female teacher for girls' classes have improved cultural acceptance. However, inadequate teacher training, a shortage of teaching materials, a lack of private classrooms and personal space, and a poor observation system hinder the implementation of the standard CSE. Cities and private schools often benefit from advanced infrastructure and trained staff. While rural and public schools are experiencing limitations and resistance of competence. NGOs and international organizations support teacher training and curriculum innovation. Although reliance on external actors creates sustainability concerns.

At the community level, sexuality is considered to be personal and forbidden in religious and cultural customs. The impact of religious beliefs limits open discussion on CSE in schools and families. Religious leaders and elders often oppose CSE and viewing it as a threat to family honor and social discipline. However, some communities acknowledge the role of CSE in the prevention of child marriage, violence, and disease. If the topic of participation in the community is included in the curriculum, it increases the acceptance of CSE. Culturally sensitive teaching, such as the use of native languages and trusted facilitators, helps to build trust and plays a vital role in creating confidence.

At the policy level, Bangladesh has a formal commitment to the sexual and reproductive health rights of adolescents. However, a dedicated, applicable national CSE policy is absent. This principal ambiguity causes inconsistent implementation and a lack of accountability. Ministries lack coordination, which is affecting consolidation. Policymakers often use words such as "life skills" or "values education" to avoid a reaction to the contents of sexuality or gender diversity. Also, the topics connected to the curriculum are mostly biology-centric. Although NGO-leadership pilot programs help in reasonable innovation. But due to the dependence on external funds, they also have concerns about sustainability. However, the positive results of the pilot initiative are affecting the integration with larger development goals, such as policy dialogue and child marriage, and promoting gender equality.

There are several interconnected problems at all levels of SEM. Gender -based social ideas affect attitude and behavior at all levels. These include parents' reluctance, avoiding teachers, discomfort of the students, and the resistance of the community. Due to limited training, a shortage of institutional assistance, and internal conservative policies, insufficient infrastructure, especially in rural areas, exacerbates these challenges. Sensitive issues make it difficult to create a safe, inclusive education environment. Digital platforms provide privacy and easily accessible benefits. But digital literacy and powerful protection measures are needed to prevent the spreading of false information and protect privacy. These intersection limitations indicate that successful CSE implementation requires adjustment to layers. Without dealing with these inter-associated obstacles, the implementation of CSE will become fragmented and void.

Implementation and progress on CSE in Nepal, Pakistan, and India provide valuable ideas from a similar cultural context. Nepal has shown success in reorganizing CSE as a defense against primary and respectful involvement, child marriage, and violence with religious and community leaders. Through culturally adapted distribution like gender-based classes and female educators for girls, it has increased parents' assistance and reduced embarrassing conditions (139). Pakistan highlighted the share of various partners and the session of various partners to deal with family and social sanctions (140). The consolidation of CSE and LSE in India's greater adolescent health program highlights the price of participatory teaching and improves involvement despite infrastructure constraints (141, 142). In all these cases, significant strategies such as the community's involvement, culturally respectful curriculum, colleague-led education, investment in infrastructure, and cautious digital medium were used.

It is possible to meet the knowledge and mental needs of adolescents by applying such widespread and interactive methods, multi-level techniques in Bangladesh. Culturally sensitive, ongoing training should strengthen the preparation of teachers and invest in school infrastructure. Especially in rural and marginal environments, safe, personal education should be ensured. In order to adjust CSE with cultural values and family welfare, communities and parents should be initially involved. The coordination between the government, NGOs, and international organizations must be strengthened through inclusive partnerships. Should emphasize national leadership to reduce dependence on external partners. At the same time, the desire for adolescents for participatory education and the gap between established lecture-based institutional cultures should be eliminated. It is a major obstacle to both the effective implementation of CSE and acceptance among students.

This research's key strength lies in its holistic, theory-driven approach, integrating extensive literature and program insights within internationally recognized SEM and TFA frameworks. By linking CSE challenges and opportunities in Bangladesh to similar contexts in low- and middle-income countries, the study provides a valuable toolkit for policymakers and advocates to design scalable, culturally sensitive programs. This study effectively connects high-level policy goals to practical reality and emphasizes how infrastructural, cultural, and institutional factors in the school environment determine the acceptance of CSE in various schools.

However, limitations exist. Dependence on secondary information and program evaluation has limited diverse life experiences. Especially, there is a need to learn more about marginal ethnic and gender minorities, disabled students, and remote or non-stream schools. The absence of primary data collection fails to address daily mobility and power relationships that influence the distribution of CSE. There is limited research and reports on the durability of post-funding-backed pilot initiatives. More research needs to be done for complex intersections of the ability to create gender, religion, ethnicity, and CSE experience.

7 Conclusion and Recommendations

This study indicates that CSE acceptability in Bangladesh is not a matter of different beliefs or morals. But also a matter of being deeply ingrained in the country's material, institutional, and social reality. The study presents a mix of ideas and comparisons between countries to find useful, scalable solutions to improve CSE acceptability. However, further research is needed to understand how people's real-life experiences, different types of inequality affect each other and enhance interventions according to rapidly shifting social and technological landscapes. It is necessary to address these dimensions to move forward with a CSE that is inclusive, successful, culturally relevant, and open to all Bangladeshi adolescents.

The purpose of this study was to find out what factors influence the acceptability of CSE in Bangladesh's secondary education level. This thesis contributes to uncovering the impact of cultural and religious reservations affect people, communities, organizations, and policies at all societal levels. Particularly, how people view CSE in terms of appropriateness, ethicality, and opportunity cost. Although it can be challenging to overcome such reservations. Material resources and institutional alignment also have a significant impact on the effectiveness and coherence of CSE. Adolescents lack access to accurate information on sexual health and feel afraid to discuss it due to the stigma. Openness about CSE is influenced by parental disapproval or peer attitudes. Religious and cultural gatekeepers are essential to the social legitimacy of CSE at the community level. Institutional obstacles such as inadequate teacher training and a lack of infrastructure further hamper the efficient delivery of CSE. At the policy level, coherence is hampered by the lack of a comprehensive framework and fragmented responsibilities across ministries.

A key insight from this study is that addressing issues with CSE acceptability requires more than just challenging societal and cultural norms. To improve CSE acceptance and delivery it also important to address systemic obstacles like limited teacher capacity, infrastructural deficits, and policy fragmentation. This two-pronged approach makes it evident that we need strategies that will influence institutional reform as well as norms.

Bringing lessons from similar situations to Bangladesh demonstrate the importance of a culturally suitable curriculum that balances global best practices and local norms. It also highlights how important it is to involve gatekeepers (parents, religious leaders, and community elders) in the early stage and maintain their involvement in order to achieve positive CSE engagement in families and communities. Enhancing teacher's ability is also important to teach a curriculum that is both participatory and compassionate. Peer education and digital learning platforms should combine with official schooling to reach those who are on the fringes of society and break down social and cultural barriers. For institutional and policy coherence to survive, there needs to be political will, dedicated resources, legal frameworks, and cooperation across sectors.

However, there are still gaps, especially when it comes to address consistent policy frameworks, scaling up teacher training, and addressing equitable access for everyone. These are all significant areas for future research and development. Based on these findings, the following recommendations are arranged according to their significance and classified by who they are for and what they are for:

For Ministries and Policymakers:

- 1. Develop a comprehensive national CSE policy that outlines curriculum requirements in detail, based on human rights and adolescent health. Also supported by dedicated budget allocations and legal assistance as well.
- 2. Develop standard curriculum content that covers important topics such as consent, gender equity, prevention of early marriage, and healthy relationships, ensuring age-appropriateness and cultural sensitivity.
- 3. To improve policy implementation, resource sharing, and accountability, we need to promote multisectoral coordination among education, health, women's affairs ministries, NGOs, and community stakeholders.

For Stakeholders and Program Implementers in the Education Sector:

- 4. Need to strengthen teacher capacity through pre-service training and continuous professional development. Addressing social taboos and emphasizing gender-sensitive, participatory teaching.
- 5. Long-term efforts such as awareness and dialogue initiatives should be taken to engage parents, religious leaders, adolescents, and community gatekeepers. These initiatives reframe CSE as aligned with family protection and community wellbeing.
- 6. Expand peer education programs and safe digital platforms to create confidential, accessible spaces for adolescents. Especially where direct interaction is socially constrained.
- 7. Improve institutional strength by equipping schools with appropriate teaching materials, private and gender-sensitive learning environments, and supportive leadership.
- 8. Targeted interventions that focuses on rural, marginalized, and socioeconomically disadvantaged populations should be considered to reduce disparities in order to ensure equitable access to CSE.

For Monitoring and Research:

- 9. Establish a robust system for monitoring, evaluation, and feedback mechanisms on the impact, quality, and accessibility of CSE. Enabling data-driven adaptations responsive to adolescent and community needs.
- 10. A mixed-methods approach to examine the efficacy of CSE and identify best practices for engaging conservative communities. Studies should focus on participatory research with teenagers, cultural background analysis, and cost-effectiveness assessment.

Priorities for implementation:

Immediate actions: Adoption Policy, multisectoral coordination, teacher training, curriculum standardization, increased community engagement, and introduction of pilot digital or peer platforms.

Medium-term: Increase monitoring, strengthen institutional capacity, and expand resource support to all schools.

Long-term: Address persistent disparities, implement evidence-based innovations, and improve programs based on feedback and new research findings.

8 Reference

- 1. UNESCO. Comprehensive sexuality education [Internet]. Paris: UNESCO; [cited 2025 Jan 23]. Available from: https://www.unesco.org/en/health-education/cse
- 2. World Health Organization. Adolescent health. Available from: https://www.who.int/health-topics/adolescent-health#tab=tab_1
- 3. Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. BMC Health Serv Res. 2017 Jan 26;17(1):88. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2031-8
- 4. World Health Organization. Sexual and reproductive health and rights (2024). Available from: https://www.who.int/health-topics/sexual-and-reproductive-health-and-rights
- 5. UNICEF Bangladesh. Life Skills-Based Education Factsheet. 2014. [cited 2025 Jul 31]. Available from: https://bangladesh.unfpa.org/sites/default/files/pub-pdf/2025-06/Life%20Skills%20Education%20in%20Bangladesh.pdf
- 6. Central Intelligence Agency (CIA) (2025) *The World Factbook: Bangladesh*. Available at: https://www.cia.gov/the-world-factbook/countries/bangladesh/
- 7. Akter J, Sarker MH, Popescu I, Roelvink D. Evolution of the Bengal Delta and Its Prevailing Processes. J Coast Res. 2016;32(5):1212-1226. Available from: <a href="https://bioone.org/journals/journal-of-coastal-research/volume-32/issue-5/JCOASTRES-D-14-00232.1/Evolution-of-the-Bengal-Delta-and-Its-Prevailing-Processes/10.2112/JCOASTRES-D-14-00232.1.full
- 8. Hasib MR, Chathoth S. Bangladesh: Finding It Difficult to Keep Cool. World Bank; 2016 [cited 2025 Jul 8]. Available from: https://documents1.worldbank.org/curated/en/856261634014774504/pdf/Bangladesh-Finding-It-Difficult-to-Keep-Cool-Synthesis-Report.pdf
- 9. FreeWorldMaps.net. Bangladesh physical map [Internet]. [cited 2025 Jul 9]. Available from: https://www.freeworldmaps.net/asia/bangladesh/bangladesh-physical-map.jpg
- 10. Macrotrends. Bangladesh population (1950–2025) [Internet]. 2025 [cited 2025 Aug 5]. Available from: https://www.macrotrends.net/global-metrics/countries/bgd/bangladesh/population
- 11. World Population Review (2025) *Bangladesh Population 2025*. Available at: https://worldpopulationreview.com/countries/bangladesh
- 12. Bangladesh Bureau of Statistics. Population and housing census 2022: National report (Volume 1) [Internet]. Dhaka: Ministry of Planning, Government of the People's Republic of Bangladesh; 2023 [cited 2025 Jun 21]. p. 36. Available from:
- https://bbs.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/7b1b3a1a_5b59_4a2a_b1e6_6daec38535_86/2023-07-27-13-17-8f2c1b6e8d0b7a0a7e1e0e9f7e8c7e8c.pdf
- 13. UNICEF Bangladesh. Bangladesh 2023 Country Office Annual Report [Internet]. 2024 Feb 19 [cited 2025 Jun 21]. Available from: https://www.unicef.org/media/152681/file/Bangladesh-2023-COAR.pdf

- 14. Minority Rights Group International. Bangladesh World Directory of Minorities & Indigenous Peoples [Internet]. London: Minority Rights Group International; 2023 [cited 2025 Jun 21]. Available from: https://minorityrights.org/country/bangladesh/
- 15. UK Home Office. Country policy and information note: religious minorities and atheists in Bangladesh [Internet]. 2025 Jun 17 [cited 2025 Jun 21]. Available from: https://www.gov.uk/government/publications/bangladesh-country-policy-and-information-note-religious-minorities-and-atheists-bangladesh-june-2025
- 16. PopulationPyramid.net. Population of Bangladesh 2025 [Internet]. 2025 [cited 2025 Jul 9]. Available from: https://www.populationpyramid.net/bangladesh/2025/
- 17. Mohajan HK. Analysis of Food Production and Poverty Reduction of Bangladesh. Annals of Spiru Haret University Economic Analysis [Internet]. 2018;18(1):151-162 [cited 2025 Jul 8]. Available from: https://mpra.ub.uni-muenchen.de/85653/2/MPRA_paper_85653.pdf
- 18. Talukder B, Ahammed B, Ahmed Z, Rafiq S, Alam AS, Rahman SM, et al. COVID-19's implications on agri-food systems and human health in Bangladesh. Glob Food Sec. 2021;28:100492. Available from: https://www.sciencedirect.com/science/article/pii/S2666049021000098
- 19. Bangladesh Bureau of Statistics. Statistical Yearbook of Bangladesh 2022 [Internet]. Dhaka: Statistics and Informatics Division, Ministry of Planning; 2023 [cited 2025 Jul 8]. Available from: https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b2db8758_8497_412c_a9ec_6bb2_99f8b3ab/2023-06-26-09-19-2edf60824b00a7114d8a51ef5d8ddbce.pdf
- 20. World Bank. Bangladesh Overview [Internet]. Washington, DC: The World Bank Group; 2023 [cited 2025 Jul 8]. Available from: https://www.worldbank.org/en/country/bangladesh/overview
- 21. Al Mamun, Afrooz N, Nasrin S. The Economy of the Fisheries Industry in Bangladesh. Emerging Credit Rating Ltd. Working Paper 04 [Internet]. April 2024 [cited 2025 Jul 8]. Available from: https://emergingrating.com/wp-content/uploads/2024/04/ECRL-Working-Paper-4- -The-Economy-of-the-Fisheries-Industry-in-Bangladesh.pdf
- 22. Department of Fisheries. Fisheries Sector: Prospects and Potentials [Internet]. Dhaka: Department of Fisheries, Government of Bangladesh; 2024 [cited 2025 Jul 8]. Available from: https://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/
- 23. Bangladesh Investment Development Authority. Livestock & Fisheries Invest Bangladesh [Internet]. Dhaka: BIDA; 2023 [cited 2025 Jul 8]. Available from: https://investbangladesh.co/livestock-and-fisheries/
- 24. Department of Livestock Services. Livestock Economy at a Glance [Internet]. Dhaka: Department of Livestock Services, Government of Bangladesh; 2024 [cited 2025 Jul 8]. Available from: https://dls.gov.bd/site/page/22b1143b-9323-44f8-bfd8-647087828c9b/Livestock-Economy
- 25. Herrero M, Godde C, Mason-D'Croz D, Thornton PK, Ash A, Campbell B, et al. Climate change and livestock: Impacts, adaptation, and mitigation. In: Bangladesh country profile [Internet]. Nairobi: International Livestock Research Institute; 2021 [cited 2025 Jul 8]. Available from: https://cgspace.cgiar.org/bitstreams/89d238b2-fe1a-4128-9ac9-2210252e1708/download

- 26. Mia S, Akter M. Ready-Made Garments Sector of Bangladesh: Its Growth, Contribution and Challenges. Journal of Business and Economics [Internet]. 2019;10(1):31-47 [cited 2025 Jul 8]. Available from: https://www.davidpublisher.com/Public/uploads/Contribute/5dd507c82e7dd.pdf
- 27. Migration Policy Institute. Bangladesh's Economic Vitality Owes in Large Part to Its Diaspora [Internet]. Washington, DC: Migration Policy Institute; 2024 [cited 2025 Jul 8]. Available from: https://www.migrationpolicy.org/article/bangladesh-migration-remittances-profile
- 28. International Monetary Fund. Bangladesh: Staff Report for the 2023 Article IV Consultation [Internet]. IMF Country Report No. 23/409. Washington, DC: International Monetary Fund; 2023 Nov 21 [cited 2025 Jul 8]. Available from: https://www.imf.org/-/media/Files/Publications/CR/2023/English/1BGDEA2023003.ashx
- 29. World Bank. South Asia Development Update: Jobs for Resilience [Internet]. Washington, DC: World Bank; 2025 Apr [cited 2025 Jul 8]. Available from: https://documents1.worldbank.org/curated/en/099740404232536373/pdf/IDU-57df111d-3695-43ba-a852-173326850600.pdf
- 30. CEIC. Bangladesh Imports: Petroleum Products [Internet]. 2025 [cited 2025 Jul 8]. Available from: https://www.ceicdata.com/en/bangladesh/trade-statistics-imports-by-commodity-bangladesh-bank/imports-petroleum-products
- 31. USDA Foreign Agricultural Service. Grain and Feed Annual_Dhaka_Bangladesh_BG2024-0002 [Internet]. 2024 [cited 2025 Jul 8]. Available from: https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Grain+and+Feed+Annual_Dhaka_Bangladesh_BG2024-0002.pdf
- 32. CEIC. Bangladesh Imports: Fertilizer | Economic Indicators [Internet]. 2024 [cited 2025 Jul 8]. Available from: https://www.ceicdata.com/en/bangladesh/trade-statistics-imports-by-commodity-bangladesh-bank/imports-fertilizer
- 33. Islam MS, Biswas T. Health Sector Governance: An Overview of the Legal and Regulatory Framework in Bangladesh. Open J Polit Sci. 2021;11(4):579-597. Available from: https://www.scirp.org/journal/paperinformation?paperid=113588
- 34. **Ministry of Health and Family Welfare (MoHFW).** Health Bulletin 2022. Dhaka: Management Information System, Directorate General of Health Services, MoHFW, Government of the People's Republic of Bangladesh; 2022. Available from: https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/8983ee81_3668_4bc3_887e_c99645bbfce4/2024-10-30-15-17-04fcbbc3747cbf6cc6983a34770666d1.pdf
- 35. World Bank. Bangladesh Improving Hospital Services Quality and Financial Protection for the Poor (P174439) [Internet]. Washington, DC: World Bank; 2021 Aug 10 [cited 2025 Jul 8]. Available from: https://documents1.worldbank.org/curated/en/663601629632589456/pdf/Concept-Project-Information-Document-PID-Bangladesh-Improving-Services-Quality-of-Hospital-Network-and-Financial-Protection-for-the-Poor-P174439.pdf
- 36. Chowdhury SR, Hossain SA, Halim A. Private sector in Bangladesh health system: opportunities and challenges. Health Syst Reform. 2018;4(3):173-182
- 37. BRAC (2022) *Annual Report 2022*. Dhaka: BRAC. Available at: https://www.brac.net/annualreport2022

- 38. National Institute of Population Research and Training (NIPORT), ICF. Bangladesh Demographic and Health Survey 2022: Key Indicators Report. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT and ICF; 2023. Available at: https://dhsprogram.com/pubs/pdf/PR148/PR148.pdf
- 39. National Institute of Population Research and Training (NIPORT), International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Data for Impact. Bangladesh Adolescent Health and Wellbeing Survey 2019–20: Final Report. Dhaka, Bangladesh, and Chapel Hill, NC, USA: NIPORT, icddr,b, and Data for Impact; 2021. Available from:
- $\frac{https://niport.gov.bd/sites/default/files/files/niport.portal.gov.bd/miscellaneous_info/bdef7b22_7022_483}{4_a03d_16458cc9f029/2021-05-17-08-29-f795684bc20f5517da519c409d4274f8.pdf}$
- 40. Ministry of Education (Bangladesh). Ministry of Education overview. Wikipedia [Internet]. 2025 Apr 9 [cited 2025 Aug 5]. Available from: https://en.wikipedia.org/wiki/Ministry of Education (Bangladesh)
- 41. Mousumi MA, Kusakabe T. School education system in Bangladesh. In: Handbook of Education Systems in South Asia. Singapore: Springer Singapore; 2021. p. 443–477. doi:10.1007/978-981-15-0032-9_11. Available from:
- https://www.researchgate.net/publication/367821654_School_Education_System_in_Bangladesh
- 42. Directorate of Secondary and Higher Education. Annual Report 2024. Dhaka: DSHE; 2025
- 43. UNICEF Bangladesh (2014) *Life Skills Based Education*. Dhaka: UNICEF. Available at: https://www.iccwtnispcanarc.org/upload/pdf/3093329188Life%20Skills%20Based%20Education%20.pdf
- 44. World Health Organization (WHO). WHO recommendations on adolescent sexual and reproductive health and rights. Geneva: WHO; 2017. Available from: https://www.who.int/publications/i/item/9789241514606
- 45. UNESCO. (2018). *International technical guidance on sexuality education: An evidence-informed approach*. United Nations Educational, Scientific and Cultural Organization. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000260770
- 46. UNICEF Bangladesh (2014) *Life Skills Based Education*. Dhaka: UNICEF. Available at: https://www.iccwtnispcanarc.org/upload/pdf/3093329188Life%20Skills%20Based%20Education%20.pdf
- 47. Education Profiles (2024) 'Comprehensive Sexuality Education in Bangladesh', Education Profile for Central and Southern Asia. Available at: https://education-profiles.org/central-and-southern-asia/bangladesh/~comprehensive-sexuality-education
- 48. UNFPA Bangladesh (2025) *Life Skills Education in Bangladesh: Review of National Curriculum in Secondary Education*. Dhaka: UNFPA. Available at: https://bangladesh.unfpa.org/en/publications/review-national-curriculum-secondary-education
- 49. **Biswas A, Rafi MI, Rahman MA, Sojib MFU.** Barriers to discussing comprehensive sexuality education: a qualitative study of home tutor–student interpersonal communication in Bangladesh [Internet]. ResearchGate; 2024 [cited 2025 Aug 5]. Available from: https://www.researchgate.net/publication/378969580 Barriers to discussing comprehensive sexuality education a qualitative study of home tutor-student interpersonal communication in Bangladesh
- 50. United Nations. Goal 3: Good health and well-being [Internet]. New York: United Nations Sustainable Development Goals Knowledge Platform. Available from: https://sdgs.un.org/goals/goal3

- 51. United Nations. Goal 4: Quality education [Internet]. New York: United Nations Sustainable Development Goals Knowledge Platform. Available from: https://sdgs.un.org/goals/goal4
- 52. United Nations. Goal 5: gender equality [Internet]. New York: United Nations Sustainable Development Goals Knowledge Platform. Available from: https://sdgs.un.org/goals/goal5
- 53. World Health Organization (WHO). WHO recommendations on adolescent sexual and reproductive health and rights. Geneva: WHO; 2017. Available from: https://www.who.int/publications/i/item/9789241514606
- 54. UNESCO. (2018). *International technical guidance on sexuality education: An evidence-informed approach*. United Nations Educational, Scientific and Cultural Organization. Available from: <u>UNESCO CSE Guidance</u>
- 55. World Health Organization. Comprehensive sexuality education: questions and answers [Internet]. Geneva: World Health Organization; 2023 [cited 2025 Apr 14]. Available from: https://www.who.int/news-room/questions-and-answers/item/comprehensive-sexuality-education
- 56. UN Women. The journey towards comprehensive sexuality education: Global status report. 2021 Nov [cited 2025 Jun 28]. Available from: https://www.unwomen.org/sites/default/files/2021-11/Journey-towards-comprehensive-sexuality-education-Global-status-report-en.pdf
- 57. United Nations Population Fund (UNFPA). (2020). *State of World Population 2020: Against My Will*. Retrieved from: https://www.unfpa.org/publications/state-world-population-2020
- 58. World Health Organization (WHO). (2021). *Violence Against Women Prevalence Estimates*, 2018. Retrieved from: https://www.who.int/publications/i/item/9789240022256
- 59. United Nations Children's Fund (UNICEF). (2021). *The State of the World's Children 2021: On My Mind Promoting, Protecting and Caring for Children's Mental Health*. Retrieved from: https://www.unicef.org/reports/state-worlds-children-2021
- 60. Bangladesh Bureau of Statistics, United Nations Population Fund. 2024 Violence Against Women Survey: Intimate partner violence remains widespread in Bangladesh [Internet]. United Nations in Bangladesh; 2025 Mar 2 [cited 2025 Jul 15]. Available from: https://bangladesh.un.org/en/290080-2024-violence-against-women-survey-intimate-partner-violence-remains-widespread-bangladesh
- 61. Smith J., Johnson M. Exploring public health approaches. *Front Public Health*. 2023; 11: 1088465. Available from: https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2023.1088465/full
- 62. ResearchGate. (2023). Barriers to Discussing Comprehensive Sexuality Education: A Qualitative Study of Home Tutor-Student Interpersonal Communication in Bangladesh. Retrieved from https://www.researchgate.net/publication/378969580 Barriers to discussing comprehensive sexuality e ducation a qualitative study of home tutor-student interpersonal communication in Bangladesh
- 63. Rutgers International. Lack of comprehensive sexuality education takes its toll on Bangladeshi young people. Available from: https://rutgers.international/news/lack-of-comprehensive-sexuality-education-takes-its-toll-on-bangladeshi-young-people/

- 64. Share-Net Bangladesh. Comprehensive sexuality education (CSE) [Internet]. Dhaka: Share-Net Bangladesh; [cited 2025 Apr 14]. Available from: https://www.share-netbangladesh.org/comprehensive-sexuality-education-cse/
- 65. <u>United Nations Population Fund (UNFPA). (2017). Adolescent Pregnancy: A Review of the Evidence. Retrieved from: https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA Adolescent Pregnancy Evidence 2017.pdf</u>
- 66. Viamedica. Factors influencing adolescent health outcomes in Bangladesh: a focus on sexuality. Forum Dermatologicum [Internet]. 2020 [cited 2025 Apr 14]. Available from: https://journals.viamedica.pl/forum_dermatologicum/article/download/49796/37413
- 67. Chavula MP, Zulu JM, Hurtig AK. Factors influencing the integration of comprehensive sexuality education into educational systems in low- and middle-income countries: a systematic review [Internet]. Reprod Health. 2022;19(1):196 [cited 2025 Apr 14]. Available from: https://www.diva-portal.org/smash/get/diva2:1700967/FULLTEXT01.pdf
- 68. National Institute of Population Research and Training (NIPORT), ICF. Bangladesh Demographic and Health Survey 2017-18. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT and ICF; 2020. Available from: https://dhsprogram.com/pubs/pdf/FR344/FR344.pdf
- 69. <u>Bangladesh Bureau of Statistics (BBS)</u>. <u>Bangladesh Sample Vital Statistics 2023 [Internet]</u>. <u>Dhaka:</u> <u>BBS</u>; 2024 [cited 2025 Jul 9]. <u>Available from:</u> https://www.dhakatribune.com/bangladesh/342929/adolescent-childbearing-remains-high-in
- 70. <u>National Institute of Population Research and Training (NIPORT), ICF. Bangladesh Demographic and Health Survey 2017-18.</u> <u>Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT and ICF; 2020. Available from: https://dhsprogram.com/pubs/pdf/FR344/FR344.pdf</u>
- 71. <u>UNFPA. State of World Population 2023: 8 Billion Lives, Infinite Possibilities [Internet]. 2023 [cited 2025 Jul 9]. Available from: https://www.dhakatribune.com/bangladesh/310116/report-bangladesh-has-highest-rate-of-adolescent</u>
- 72. <u>National Institute of Population Research and Training (NIPORT), ICF. Bangladesh Demographic and Health Survey 2017-18 [Internet]. Dhaka, Bangladesh and Rockville, Maryland, USA: NIPORT and ICF; 2018 [cited 2025 Jul 9]. Available from: https://dhsprogram.com/pubs/pdf/FR344/FR344.pdf</u>
- 73. Chandra-Mouli V, et al. Abortion knowledge, attitudes and experiences among adolescent girls: a review of the literature. Reprod Health. 2020;17:55. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC7888105/
- 74. Shaikat SM, Ahmed T. Comprehensive sexuality education (CSE) mapping for adolescent people in Bangladesh [Internet]. Dhaka: Share-Net Bangladesh; 2022 [cited 2025 Apr 14]. Available from: https://www.share-netbangladesh.org/wp-content/uploads/2023/03/Research-report-with-Youth-Declaration.pdf
- 75. Ministry of Education, Government of the People's Republic of Bangladesh. National Education Policy 2010 [Internet]. Dhaka: Ministry of Education; 2010 [cited 2025 Aug 5]. Available

- from: https://planipolis.iiep.unesco.org/sites/default/files/ressources/bangladesh_national_education_policy_2010.pdf
- 76. Share-Net Bangladesh. Policy Brief on Strengthening Delivery of Comprehensive Sexuality Education in Bangladesh [Internet]. Dhaka: Share-Net Bangladesh; 2023 [cited 2025 Aug 5]. Available from: https://serac-bd.org/wp-content/uploads/2024/04/Policy-Brief-on-Strengthening-Delivery-of-Comprehensive-Sexuality-Education-2.pdf
- 77. UNFPA Bangladesh. (n.d.). Young People and Reproductive Health. Retrieved from: https://bangladesh.unfpa.org/en/topics/young-people-10
- 78. SERAC-Bangladesh (2023) Comprehensive Sexuality Education (CSE) Mapping for Adolescent People in Bangladesh: Research Report with Youth Declaration. Available at: https://serac-bd.org/wp-content/uploads/2023/05/Research-report-with-Youth-Declaration.pdf
- 79. Bronfenbrenner U. The Ecology of Human Development: Experiments by Nature and Design. Cambridge, MA: Harvard University Press; 1979. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10801006/
- 80. UNICEF. A Socio-Ecological Model of Communication for Social and Behavior Change UNICEF; 2023. Available from: McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Q. 1988;15(4):351-377. Available from: https://journals.sagepub.com/doi/10.1177/109019818801500401
- 81. Ajzen I. The theory of planned behavior. Organ Behav Hum Decis Process. 1991;50(2):179-211. Available from: https://www.sciencedirect.com/science/article/abs/pii/074959789190020T
- 82. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Q. 1988;15(4):351-77. https://pubmed.ncbi.nlm.nih.gov/3068205/
- 83. Bak A. A Review Report on Comprehensive Sexuality Education in Bangladesh. BRAC JPGSPH; 2018. Available from: https://www.bracjpgsph.org/assets/pdf/research/research-reports/Bak%20A%20Review%20Report%20on%20Comprehensive%20Sexuality%20Education%20in%20Bangladesh_July%202018.pdf
- 84. National Curriculum and Textbook Board. Status of Sexual and Reproductive Health Education in Bangladesh. Dhaka: NCTB; 2021.
- 85. Chowdhury A, Reza M, Akter S, Hossain M. Knowledge and attitudes towards sexual and reproductive health among secondary school students in Dhaka, Bangladesh. J Asian Midwives. 2018;5(2):12-30.
- 86. UNICEF. Bangladesh | Comprehensive Sexuality Education (Country Profile). 2024. Available from: https://education-profiles.org/central-and-southern-asia/bangladesh/~comprehensive-sexuality-education
- 87. UNFPA. Adolescent and Youth Situation Analysis Bangladesh. Dhaka: UNFPA; 2020.Available from: https://bangladesh.unfpa.org/en/publications/adolescent-and-youth-situation-analysis-bangladesh
- 88. Ahmed S, Hossain MS, Sultana F, et al. Understanding Comprehensive Sexuality Education among Bangladeshi Secondary School Students: Challenges and Opportunities. Sex Reprod Healthc. 2021;28:100602. Available from: https://doi.org/10.1016/j.srhc.2021.100602

- 89. Khan N, Reza M, Akter F. Acceptability of School-based Sexuality Education in Bangladesh: A Mixed-methods Study. Int J Adolesc Youth. 2020;25(1):537-548. Available from: https://www.tandfonline.com/doi/full/10.1080/02673843.2020.1723683
- 90. Roodsaz M. Challenges of teaching comprehensive sexuality education in Bangladesh: Student perspectives on embarrassment and discomfort in the classroom. Sex Education. 2018;18(5):489-502. Available from: https://www.tandfonline.com/doi/full/10.1080/14681811.2018.1431881
- 91. Jahan N, Islam Z, Rahman MM. Perceptions of school-based sexuality education among adolescents in Bangladesh: Findings from qualitative interviews. Sex Reprod Health Matters. 2021;29(1):1999014. Available from: https://www.tandfonline.com/doi/full/10.1080/26410397.2021.1999014
- 92. Adda-Balinia S. Interactive methods in sexuality education: Reducing anxiety and promoting engagement among adolescents. International Journal of Sexual Health. 2016;28(4):304-317.
- 93. Pound P, Langford R, Campbell R. What do young people think about their school-based sex and relationship education? A qualitative synthesis of young people's views and experiences. BMJ Open. 2016;6:e011329. Available from: https://bmjopen.bmj.com/content/6/9/e011329
- 94. National Institute of Population Research and Training (NIPORT), and ICF. Bangladesh Demographic and Health Survey 2022: Key Indicators Report. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT and ICF; 2023. Available from: https://www.dhsprogram.com/pubs/pdf/PR148/PR148.pdf
- 95. Kim EJ et al. A meta-analysis of the effects of comprehensive sexuality education. Child Youth Serv Rev. 2023;147:106659. Available from: https://www.sciencedirect.com/science/article/pii/S0190740924004985
- 96. Zulu E, Siziya S, Mwanza J, Mushota M. 2024. Cultural appropriateness of a comprehensive sexuality education program: Evidence from Kitwe district, Zambia. *Sex Education*. Available at: https://www.tandfonline.com/doi/full/10.1080/14681811.2024.2367761
- 97. Hague F, Miedema EAJ, Le Mat MLJ. Understanding the 'Comprehensive' in Comprehensive Sexuality Education: A Literature Review. Amsterdam: University of Amsterdam; 2017. Available from: https://pure.uva.nl/ws/files/29609180/Hagueetal_ComprehensiveSexualityEducation_ALiteratureReview_2018.pdf
- 98. Van Reeuwijk M. The importance of a positive approach to sexuality in Bangladesh: a study among unmarried adolescents. Sex Transm Infect. 2013 Dec;89(7):516-20. doi: 10.1136/sextrans-2013-051199. Available from: https://pubmed.ncbi.nlm.nih.gov/23684189/
- 99. SERAC-Bangladesh. Research report with youth declaration 2023 [Internet]. Available from: https://serac-bd.org/wp-content/uploads/2023/05/Research-report-with-Youth-Declaration.pdf
- 100. Camellia S, Khanam R, Chowdhury F, Tasneem S. The value of silence on sexuality in youth-parent relations in Bangladesh. 2021. Available from: https://repository.ubn.ru.nl/bitstream/handle/2066/219528/219528.pdf

- 101. Islam MZ, Paul B, Hossain MK, et al. Comparing reproductive health communication with mothers between urban and rural adolescent girls in Bangladesh. Int J Res Med Sci. 2024;12(8):2767–72. Available from: https://pubmed.ncbi.nlm.nih.gov/17686707/
- 102: UNFPA. Scaling up comprehensive sexuality education in Bangladesh: Status and lessons learned [Internet]. Dhaka: United Nations Population Fund; 2020. Available from: https://www.unfpa.org/sites/default/files/admin-resource/Bangladesh Final report Main volume v2.pdf
- 103: Barriers facing Bangladeshi Adolescents in Learning about Sexual and Reproductive Health [Internet]. Available from:
- https://www.researchgate.net/publication/358309061_Barriers_facing_Bangladeshi_Adolescents_in_Lear_ning_about_Sexual_and_Reproductive_Health
- 104. Mataraarachchi D, et al. Mother-daughter communication of sexual and reproductive health: Barriers and preferences among adolescent girls in Sri Lanka. BMC Womens Health. 2023;23:365. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10472576/
- 105. Sarkar RK, Reza MM, Hossain E. Socio Cultural Barriers of Girls' Educational Attainment: Experiences From Rural Bangladesh. Antrocom Online Journal of Anthropology. 2014;10(2):349-58. Available from:
- $\frac{\text{https://citeseerx.ist.psu.edu/document?repid=rep1\&type=pdf\&doi=ecd7f306e2c5f3cf1b24185c4c28b06d0}{2c57e43}$
- 106. Hendriks J. 2024. Parental opposition to comprehensive sexuality education in Australia: Associations with religiosity and school sector. *Frontiers in Psychology*. Available at: https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2024.1391197/full
- 107. Bhuiyan MK. 2014. Inclusion of sex education in school curriculum of Bangladesh: Parents' attitude. *IOSR Journal of Research & Method in Education*. Available at: https://www.iosrjournals.org/iosr-jrme/papers/Vol-4%20Issue-5/Version-6/F04563240.pdf
- 108. Rob U, Ghafur T, Bhuiya I, Talukder N. Reproductive and sexual health education for adolescents in Bangladesh: parents' view and opinion. Int Q Community Health Educ. 2005;25(4):351-65. https://journals.sagepub.com/doi/10.2190/G52U-1301-2444-0138
- 109. Adolescents in Bangladesh: Programmatic approaches to sexual and reproductive health [Internet]. Available from:
- $\frac{https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=1682\&context=departments_sbsr-rh$
- 110. NWO. SRHR in Bangladesh policy brief. 2023 [cited 2025 Jul 24]. Available from: https://www.nwo.nl/sites/nwo/files/media-files/SRHR%20-%20Joint%20policy%20brief%20-%20Bangladesh_0.pdf
- 111. NWO. Breaking the shame. Towards improving SRHR education for adolescents in Bangladesh. 2017 Aug 21 [cited 2025 Jul 24]. Available from: https://www.nwo.nl/en/projects/w-08560003
- 112. SERAC-BD. *Policy Brief on Strengthening Delivery of Comprehensive Sexuality Education*. 2024. https://serac-bd.org/wp-content/uploads/2024/04/Policy-Brief-on-Strengthening-Delivery-of-Comprehensive-Sexuality-Education-2.pdf

- 113. Pathfinder International. *Advancing Digital Health to Improve the Sexual and Reproductive Health and Rights of Adolescents and Youth in Bangladesh: The Shukhi Jibon Project.* DIGITAL HEALTH TECHNICAL BRIEF, May 2022. https://www.pathfinder.org/wp-content/uploads/2023/01/BD_ShukhiJibon-Digital-Health_5-24.pdf
- 114. Chowdhury TBM, Siddique AM. Teachers' discomfort and social barriers to delivering sensitive topics in secondary science curriculum in Bangladesh. *Science Education International*. 2017;28(2):150-161. Available at: https://files.eric.ed.gov/fulltext/EJ1155928.pdf
- 115. Haque MT, Sultana M, Sarker AR. Barriers to effective adolescent sexual and reproductive health education in Bangladesh: A qualitative study. J Public Health Dev. 2019;17(2):13-25. https://he01.tci-thaijo.org/index.php/AIHD-MU/article/view/178673
- 116. Ali M, et al. A Qualitative Study with Bangladeshi Islamic Leaders on Sexual and Reproductive Health Education, 2023.
- https://www.researchgate.net/publication/347065651 Challenges_and_Opportunities_for_Schoolbased_Sexual_and_Reproductive_Health_Education_A_Qualitative_Study_with_Bangladeshi_Islamic_L eaders
- 117. Alam P, et al. Socio-sexual norms and young people's sexual health experiences in urban Bangladesh. PLOS ONE. 2024; [cited 2025 Aug 5]. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10878529/
- 118. Petersen J, Brouns M, Pels T, et al. Breaking the shame. Towards improving SRHR education for adolescents in Bangladesh [Internet]. 2017 [cited 2025 Jul 28]. Available from: https://www.nwo.nl/en/projects/w-08560003
- 119. UNFPA Bangladesh. A review of the national curriculum in secondary education [Internet]. 2025 Jun [cited 2025 Jul 28]. Available from: https://bangladesh.unfpa.org/en/publications/review-national-curriculum-secondary-education
- 120. UNFPA, UNESCO, IPPF. Learn. Protect. Respect. Empower. The Status of Comprehensive Sexuality Education in Asia-Pacific: A Summary Review. 2020 [cited 2025 Jul 28]. Available from: https://www.aidsdatahub.org/sites/default/files/resource/3-teachers-preparedness-comprehensive-sexuality-education.pdf
- 121. Rashid S, Michaud PA. A formative assessment of comprehensive sexuality education within the Health and Family Life Education curriculum in the Caribbean. UNFPA Caribbean; 2021 [cited 2025 Jul 28]. Available from: https://caribbean.unfpa.org/sites/default/files/pub-pdf/unfpa_-
- <u>a formative assessment of comprehensive sexuality education within the health and family life e</u> ducation_curriculum_in_the_caribbean_0.pdf
- 122. Ahmed SN, Pasha AR, Malik M. The role of teacher training programs in optimizing teacher motivation and professional development skills. Bull Educ Res. 2021;43(2):17-37. Available from: https://files.eric.ed.gov/fulltext/EJ1338294.pdf
- $123. \ Rutgers \ International. \ Bangladesh \ | \ Rutgers \ International \ [Internet]. \ 2023. \ Available \ from: \\ \underline{https://rutgers.international/wp-content/uploads/2023/07/Asia-Pacific-Bangladesh-Rutgers-ICPD-interactive.pdf}$
- 124. Islam KF, Pritom GSM, Farnaz N. A review report on comprehensive sexuality education in Bangladesh [Internet]. Dhaka (Bangladesh): BRAC James P Grant School of Public Health, BRAC

University; 2018 Jul [cited 2025 Jul 28]. Available from: https://www.bracjpgsph.org/assets/pdf/research/research-reports/Bak%20A%20Review%20Report%20on%20Comprehensive%20Sexuality%20Education%20in%20Bangladesh_July%202018.pdf

- 125. Plan International. Translating Comprehensive Sexuality Education: Core concepts, standards, and effective practice [Internet]. 2021 [cited 2025 Jul 28]. Available from: https://plan-international.org/uploads/2021/12/plan-cse_brief-v7.pdf
- 126. UNFPA. Operational Guidance for Comprehensive Sexuality Education [Internet]. 2023. Available from: https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA%20Operational%20Guidance%20for%20CSE%20-Final%20WEB%20Version.pdf
- 127. Islamic research fatwa on sex education under Sharia. Aliftaa. Available from: https://www.aliftaa.jo/research-fatwa-english/792/Does-Islam-recommend-sex-education-for-children
- 128. Rahatulquloob. "Sex Education: An Islamic View" [PDF]. Academia.edu. 2024. Available from: https://www.academia.edu/453374/Sex_Education_An_Islamic_View
- 129. Religious & cultural barriers to comprehensive sexuality education (CSE) [Internet]. Petaling Jaya (Malaysia): Asian-Pacific Resource & Research Centre for Women (ARROW); 2023 [cited 2025 Jul 28]. Available from: https://arrow.org.my/publication/religious-cultural-barriers-cse/
- 130. Vanwesenbeeck I, Boonstoppel E, Kooistra A, Chowdhury S, Oosterhoff P. Probing the politics of comprehensive sexuality education: 'Universality' versus 'Cultural Sensitivity': a Dutch—Bangladeshi collaboration on adolescent sexuality education [Internet]. The Share-Net International Digital Platform; 2023 [cited 2025 Jul 28]. Available from: https://share-netinternational.org/resources/probing-the-politics-of-comprehensive-sexuality-education-universality-versus-cultural-sensitivity-a-dutch-bangladeshi-collaboration-on-adolescent-sexuali/
- 131. Mukanga, B., Dlamini, S. B., & Taylor, M. (2024). *Process evaluation of comprehensive sexuality education programme in Zambia: A focus on contextual factors, mechanisms of impact, quality of development and implementation process.* BMC Health Services Research, 24, 840. Published 25 July 2024. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-024-11083-z
- 132. <u>U</u>NESCO. Global education monitoring report 2022: gender equality in education [Internet]. Paris: UNESCO; 2022 [cited 2025 Aug 5]. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000381329
- 133. UNICEF. Connecting & Protecting: How UNICEF Supports Children's Futures in the Digital Age [Internet]. 2024 [cited 2025 Aug 5]. Available from: https://www.unicefusa.org/stories/connecting-protecting-how-unicef-supports-childrens-futures-digital-age
- 134. Ministry of Health and Family Welfare (MoHFW), Government of Bangladesh. *National Adolescent Health Strategy 2017–2030*. 2017. Available from: https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/National-Strategy-for-Adolescent-Health-2017-2030.pdf
- 135. FAMILY PLANNING 2020 COMMITMENT. Government of Bangladesh Commitment 2017.

Available from:

https://www.fp2030.org/app/uploads/2023/08/Govt_Bangladesh_FP2020_Commitment_2017_1.pdf

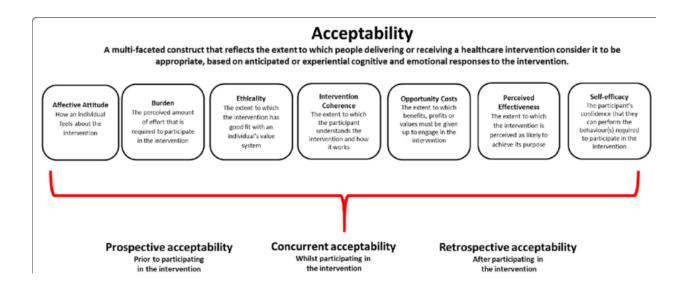
- 136. NWO. *SRHR Bangladesh Joint Policy Brief*. 2017. Available from: https://www.nwo.nl/sites/nwo/files/media-files/SRHR%20-%20Joint%20policy%20brief%20-%20Bangladesh 0.pdf
- 137. Rashid SF. Providing sex education to adolescents in rural Bangladesh: Experiences from BRAC. Gender Dev. 2000;8(3):32-39. Available from:
- https://www.researchgate.net/publication/11127218_Providing_sex_education_to_adolescents_in_rural_Bangladesh_Experiences_from_BRAC
- 138. ARROW thematic paper on religious and cultural barriers to CSE in Bangladesh (2017). Available from: https://arrow.org.my/wp-content/uploads/2017/08/Thematic-Paper-Religious-and-Cultural-Barriers-to-CSE.pdf
- 139. Panthee S, Shrestha S, Shrestha R, et al. Exploring comprehensive sexuality education experiences and perceptions among students, teachers, and principals in Nepal: A qualitative study. Reprod Health. 2024;21(1):98. Available from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-024-01876-0
- 140. <u>Understanding local power dynamics can help overcome resistance to comprehensive sexuality education. BMJ Blogs [Internet]. 2021 Jun 28 [cited 2025 Aug 5]. Available from: https://blogs.bmj.com/bmj/2021/06/28/understanding-local-power-dynamics-can-help-overcome-resistance-to-comprehensive-sexuality-education/</u>
- 141. Population Foundation of India. A review of government and civil society-led CSE curricula and strategies in India [Internet]. 2022 [cited 2025 Aug 5]. Available from: https://www.populationfoundation.in/wp-content/uploads/2022/07/A-review-of-government-and-civil-society-led-CSE-curricula-and-strategies-in-India-1.pdf
- 142. UNESCO. Evidence Review on Comprehensive Sexuality Education, India section [Internet]. 2022 [cited 2025 Aug 5]. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000380513

Annex

Annex 1:



Annex: 2



Annex: 3

Level	Key Acceptability Constructs (TFA)	Key Influencing Factors (SEM)
Policy and Law	Intervention coherence, ethicality, opportunity cost, perceived effectiveness	-Absence of a dedicated CSE policy -Fragmented legal frameworks -Government priorities and political will -Resource allocation and funding mechanisms -Cultural/religious sensitivities influencing policy decisions
Community	Ethicality, appropriateness, intervention coherence	-Cultural and religious norms around CSE -Community attitudes and stigma -Influence of religious/local leaders -Social acceptance and taboos -Media and public discourse on sexuality and youth education
Organizational or Institutional	Intervention coherence, perceived effectiveness, burden, and ethicality	-School curriculum content and integration of CSE -Teacher training and capacity -Availability of educational resources -Institutional support and leadership -Workload and competing priorities for teachers
Interpersonal	Ethicality, opportunity cost, affective attitude, self-efficacy	-Parental attitudes, knowledge, and support -Peer norms and peer support -Teacher attitudes and communication styles -Family communication patterns -Peer pressure or encouragement
Individual	Affective attitude, self-efficacy, and perceived effectiveness	-Adolescent knowledge and awareness of SRH/CSE -Personal beliefs and values -Emotional responses such as shame, curiosity -Prior experience with CSE or SRH

Declaration of Artificial Intelligence (AI) Use

Check the box that applies to your completion of this assignment:

☑ I confirm that <u>I have not used</u> any generative AI tools to complete this assignment.

I confirm that <u>I have used</u> generative AI tool(s) in accordance with the "Guidelines for the use of Generative AI for KIT Institute Master's and Short course participants". Below, I have listed the GenAI tools used and for what specific purpose:

Generative AI tool used	Purpose of use
1. Perplexity	For brainstorming and enhancing my literature search, in addition to PubMed
2. Google Translate	Google Translate was used in some places to improve understanding
3. Grammarly	To check grammar and restructure sentences