

Development of a Framework for Adolescence and Sexual Health Education for Students with Disabilities: Stakeholder Perspectives

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Abstract

Adolescence and sexual health education is an important component of formal education for students with disabilities. This study examined the perceptions of three stakeholder groups-special educators, parents/caregivers, and school administrators regarding the scope, challenges, and development of a framework for adolescence and sexual health education (ASHE) in Bangladesh. Using a convergent-parallel mixed-methods design, 200 participants (100 special educators, 80 parents/caregivers, and 20 school administrator) completed a survey, and 50 participants (20 special educators, 20 parents/caregivers, and 10 school administrator) took part in semi-structured interviews. Quantitative data were analyzed descriptively and qualitative data thematically; the two strands were then merged, compared, and interpreted. Participants generally supported ASHE in school and home settings, flexible and individualized instruction, stakeholder collaboration, and ethical practice. Key challenges included limited stakeholder knowledge, socio-cultural reservations, resource constraints, and limited confidence. Drawing on the integrated findings, the study proposes a framework emphasizing capacity building, collaboration, direct and hands-on instruction, accessible materials, government, non-governmental organization partnerships, ethical practice, cultural responsiveness, and awareness building. The framework provides a context-sensitive basis for planning ASHE for students with disabilities in Bangladesh.

Keywords: Adolescence and sexual health education, Students with disabilities, Stakeholders, Framework

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1. Introduction

Adolescence is the transitional period between childhood and adulthood, typically occurring between the ages of 10 and 19 years. During this period, individuals experience physical changes, reproductive maturation, and changes in emotional, behavioral, and social domains (Commendador, 2010; Flicker, Guilamo-Ramos, & Bouris, 2009). Students with disabilities experience the same developmental transition, although the way they understand, communicate, and adapt to puberty may be influenced by disability-related and environmental factors (Maxey & Beckert, 2017). Puberty can be difficult for adolescents and their caregivers, but it is also important for identity development and relationships with others (Murphy & Elias, 2006). For this reason, students with disabilities may need thoughtful and individualized educational support during this

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period. Multiple forms of support and instructional approaches should therefore be considered when planning puberty education (Cummins, Pellicano, & Crane, 2020).

Research has also identified continuing limitations in the provision of sexuality and sexual health education for students with disabilities. School- and family-centered approaches are needed (Qi et al., 2023), yet services, resources, and structured guidance remain limited in many settings (Taylor, 2023). Students with significant disabilities may have limited opportunities to develop knowledge about sexuality (Travers et al., 2014), while educators can struggle to define a common program that responds to the diversity of learners (Michielsen & Brockschmidt, 2021). A single standardized approach may therefore be insufficient. Instead, a comprehensive framework needs to recognize individual differences, social context, and the range of support required by students with disabilities (Groce, 2004).

In Bangladesh, many persons with disabilities have limited access to information about sexual and reproductive health and rights, and information gaps continue to affect disability-inclusive service provision (Hasan et al., 2021). Formal education can provide an important route to this knowledge. Integrated sexuality education in school settings may help address information gaps (Du et al., 2022), while practical and disability-responsive instructional approaches can support students' independence in managing puberty-related needs (Nadiv et al., 2024). Gender-sensitive sexual and reproductive health education is also relevant to the broader growth and wellbeing of persons with disabilities (Mohosin et al., 2025). These concerns relate to the wider commitments of SDG 4 on quality education and SDG 10 on reducing inequality. However, there has been limited research in Bangladesh on how stakeholders understand the scope, content, challenges, and organization of ASHE for students with disabilities. The present study therefore examined stakeholder perceptions and used the integrated findings to develop a context-sensitive framework for adolescence and sexual health education (ASHE).

The specific objectives of this study were to:

- a. understand stakeholders' perceptions of adolescence and sexual health education for adolescent students with disabilities;
- b. identify the factors to be considered in developing comprehensive adolescence and sexual health education for adolescent students with disabilities; and
- c. explore how stakeholders and identified factors can be integrated in developing a comprehensive framework for adolescence and sexual health education for students with disabilities.

1.1 Theoretical Framework

The study was guided by two complementary theoretical perspectives: Anderson and Krathwohl's (2001) revised taxonomy of educational objectives and the social model of disability. These perspectives were used together because the study concerned both the educational design of adolescence and sexual health education (ASHE) and the broader social and institutional conditions that may enable or restrict students with disabilities

from accessing such education.

Anderson and Krathwohl's revised taxonomy provided an educational lens for considering the relationship among learning objectives, knowledge, cognitive processes, instructional practices, and assessment. In the context of ASHE, this perspective was relevant to questions concerning what students should learn about adolescence and sexual health, how such learning should be organized and communicated, and how students' understanding and progress could be assessed. It therefore informed areas of the study related to curriculum content, individualized educational planning, instructional approaches, teaching-learning materials, practical learning experiences, and appropriate assessment procedures.

The social model of disability provided the disability and inclusion perspective of the study. Rather than locating educational difficulties solely within an individual's impairment, the social model emphasizes the barriers created by social attitudes, inaccessible environments, institutional practices, limited information and communication, and other features of the wider social environment (Hughes, 2010). This perspective was particularly relevant to ASHE because students with disabilities may face not only disability-related learning and communication needs but also social and cultural barriers surrounding sexuality, puberty, gender, and reproductive health. The study therefore considered stakeholders' attitudes and beliefs, cultural and religious reservations, availability of accessible information and materials, institutional support, stakeholder collaboration, and opportunities for disability-responsive instruction as important dimensions of access to ASHE. Accordingly, the analysis attended to barriers arising from societal attitudes, institutional practices, communication, and cultural conditions that could limit equitable access to ASHE.

The two perspectives were used in a complementary rather than hierarchical manner. Anderson and Krathwohl's framework helped structure the pedagogical dimensions of ASHE by focusing attention on learning content, instructional processes, and assessment, whereas the social model directed attention to the social, attitudinal, communicational, and institutional conditions within which such education would be provided. Together, these perspectives informed the development of the survey and interview instruments and guided the interpretation of findings concerning curriculum, instructional practice, stakeholder roles, materials and teaching aids, ethical and cultural considerations, and institutional and policy support.

Finally, the theoretical perspectives also informed the development of the proposed ASHE framework presented later in the article. The framework was not derived from theory alone; rather, the theoretical perspectives provided an organizing lens through which the integrated quantitative and qualitative findings were interpreted. The resulting framework brings together pedagogical factors, stakeholder collaboration, capacity building, cultural and attitudinal considerations, accessible resources, and system-level support. In this way, the framework connects questions of what and how students should learn with the social and institutional conditions required for students with disabilities to access that learning meaningfully.

2. Methodology

2.1 Research Design

The study used a convergent-parallel mixed-methods design to examine stakeholder perceptions from complementary quantitative and qualitative perspectives. The survey was used to identify broad patterns across the stakeholder sample, while semi-structured interviews were used to explore participants' experiences, explanations, and concerns in greater depth. The two strands were analyzed separately and then integrated during interpretation so that areas of convergence, contrast, and contextual complexity could be examined together (Shorten & Smith, 2017).

2.2 Participants and Settings

The study population comprised special educators, parents/caregivers, and school administrator working with adolescent students with disabilities. For the quantitative component, 200 participants were included: 100 special educators, 80 parents/caregivers, and 20 school administrator. From these stakeholder groups, 50 participants were included in the qualitative component: 20 special educators, 20 parents/caregivers, and 10 school administrator. Participants were recruited from eight districts across Dhaka, Chattogram, Barisal, and Rajshahi divisions, including both urban and rural settings. Purposive and convenience sampling were used because of the study's focus, geographical spread, and practical time and budget constraints.

Table 1

Methodology Matrix

Study Design	Respondent Category	Number of Respondents	Total Number of Respondents	Selection Strategy	Location	Data collection techniques
Quantitative	Special Educators	100	200	Purposive & convenience	4 Divisions	Survey
	Parents/ Caregivers	80				
	School Administrative Body	20				
	Special Educators	20				Semi-structure
	Parents/ Caregivers	20				

Qualitative	School	10	50	d interview
	Administrative Body			

Purposive and convenience sampling were used to recruit participants who had relevant experience with adolescent students with disabilities. Variation in age, gender, professional experience, and other background characteristics was considered during recruitment to obtain a range of stakeholder perspectives. Table 1 summarizes the participant groups and data-collection methods.

2.3 Research Instrument

Two instruments were used for data collection. The quantitative instrument was a survey questionnaire consisting of four-point Likert-type items and multiple-choice questions. The qualitative instrument was a semi-structured interview schedule designed to explore participants’ experiences and perceptions in greater depth. Both instruments were developed with reference to relevant literature and the theoretical framework of the study. The instruments were reviewed by two independent researchers, piloted in several school settings, and revised following the pilot before finalization. The Likert-type items addressed different aspects of ASHE and were analyzed descriptively at the item level rather than combined into a single composite score.

2.4 Data Collection Strategy

Survey data were collected from all 200 quantitative participants. Semi-structured interviews were conducted with 50 participants (20 special educators, 20 parents/caregivers, and 10 school administrator). Trained research associates supported data collection across the selected locations. Participants were informed about the purpose of the study and their rights, and permission was obtained from the relevant institutions. All surveys and interviews were conducted in person.

2.5 Data Analysis

Survey data were analyzed using descriptive statistics, with frequencies and percentages used to identify overall response patterns. Interview data were analyzed thematically following Braun and Clarke (2006). The researchers read the qualitative data repeatedly, developed codes, reviewed preliminary themes in relation to the research questions, and refined the themes before final interpretation. After the separate analyses, the quantitative and qualitative findings were merged, compared, contrasted, and interpreted together within the major themes. This integration was used to identify convergence, divergence, and complementary explanations across the two data sources. The quantitative analysis was descriptive and was designed to identify overall stakeholder patterns; the study did not set out to test inferential differences among stakeholder subgroups.

3. Findings

The survey and interview findings revealed several interconnected dimensions of stakeholder perceptions, experiences, and recommendations. Quantitative and qualitative

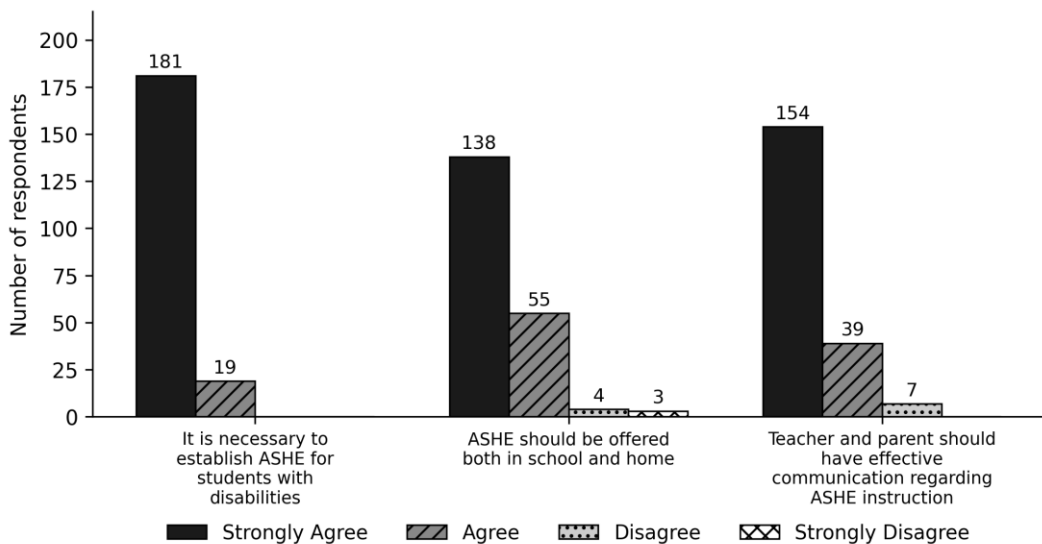
evidence is presented together within the major themes so that areas of agreement, difference, and explanation can be seen more clearly.

3.1 Scope and Setting for Adolescence and Sexual Health Education

Survey respondents showed strong support for establishing ASHE for students with disabilities (Figure 1). All 200 respondents supported its necessity: 181 selected Strongly Agree and 19 selected Agree. Support was also high for providing ASHE in both school and home settings, with 138 respondents selecting Strongly Agree and 55 selecting Agree; seven respondents disagreed. Effective communication between teachers and parents received similarly strong support, with 154 respondents selecting Strongly Agree and 39 selecting Agree, while seven respondents disagreed. These patterns indicate broad recognition that ASHE should be established and should involve both school and family contexts.

Figure 1

Scope and Setting for Adolescence and Sexual Health Education



The survey findings therefore suggest that participants did not view ASHE as the responsibility of a single setting or stakeholder. Rather, they emphasized a shared arrangement in which schools and families communicate and work together.

The interview findings were consistent with this pattern. Participants acknowledged the importance of comprehensive ASHE and described puberty as a period in which students with disabilities may require additional information, preparation, and support. One parent explained:

It is necessary because puberty is always a difficult time for us and specifically they are

the most sufferer. They don't actually cope with this changes easily; they need to know what to do exactly to adjust. That's why this type of program is needed in both school and home.

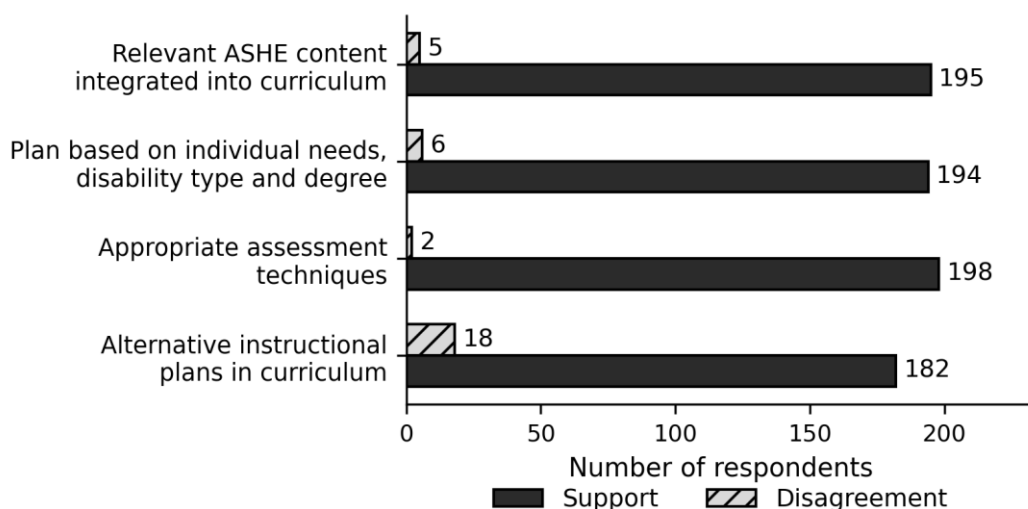
Teachers and school administrator also emphasized the need for planned support and parental involvement. Across the interviews, participants described both school and home as important settings and stressed the need for preparation before students enter puberty.

3.2 Nature of the Curriculum

Survey respondents supported several forms of curricular adaptation for ASHE (Figure 2). For integrating relevant ASHE content into the curriculum, 96 respondents selected Strongly Agree and 99 selected Agree, while five disagreed. For designing ASHE plans around students' individual needs, disability type, and degree of disability, 132 selected Strongly Agree and 62 selected Agree, while six disagreed. A total of 198 respondents supported the inclusion of appropriate assessment techniques, while two disagreed. Respondents also supported including alternative instructional plans in the curriculum: 100 selected Strongly Agree and 82 selected Agree, while 18 disagreed. Overall, the findings indicate strong support for curriculum integration, individualization, assessment, and flexible instructional planning.

Figure 2

Nature of the Curriculum for ASHE



These responses suggest that participants did not favor an isolated or rigid ASHE program. Instead, they supported approaches that could be incorporated into existing educational planning while being adapted to individual learning needs.

The interviews reinforced this position. Teachers and headteachers argued that the

existing curriculum would require modification, while parents emphasized flexibility so they could participate in preparing their children for puberty using different approaches. A teacher explained:

The puberty and sexual health education program should not be isolated from the curriculum. Rather, it should be included clearly so that a part of it can be integrated in IEP. Within IEP, we can work on the child's needs very effectively.

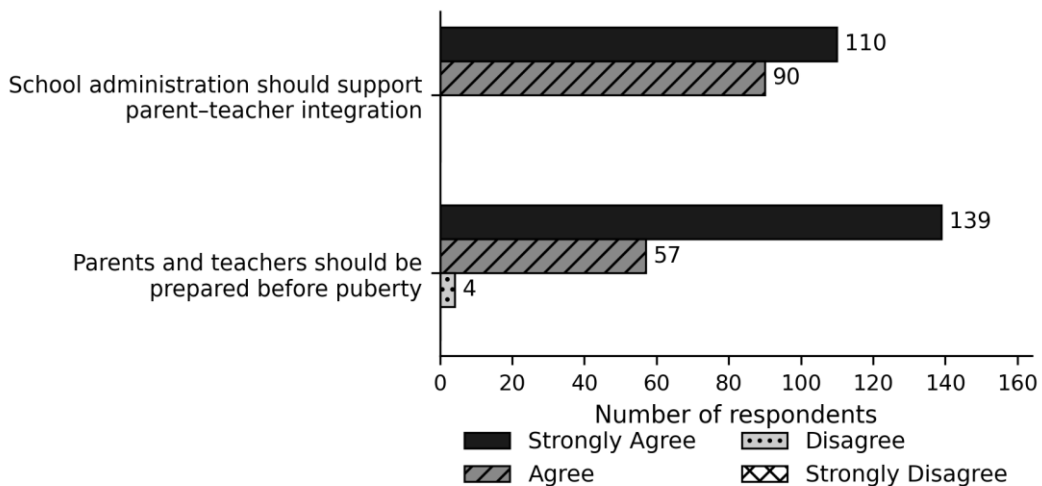
Teachers and parents also emphasized the importance of recognizing individual needs, disability type, learning characteristics, and appropriate assessment when planning ASHE.

3.3 Scope of Stakeholders' Integration

The survey findings also emphasized stakeholder integration. Most respondents supported collaborative work between parents and teachers, with 143 selecting Strongly Agree and 46 selecting Agree. For the two other stakeholder-integration items shown in Figure 3, all respondents supported an active role for school administration in facilitating implementation (110 strongly Agree; 90 Agree). Respondents also strongly supported preparing parents and teachers before students enter puberty (139 Strongly Agree; 57 Agree; 4 Disagree).

Figure 3

Scope of Stakeholders' Integration



Taken together, these findings position collaboration, administrative coordination, and stakeholder preparedness as central conditions for implementing ASHE.

The interview data provided further explanation. Participants described ASHE as a team effort involving parents, teachers, school administration, and, where relevant, other professionals. Teachers also noted that fathers were often less connected with school

activities and argued for their greater involvement.

Parents similarly acknowledged practical constraints on school involvement, including work and family responsibilities, while school administrators emphasized continuous home–school communication. These perspectives show both strong support for collaboration and the practical difficulties involved in sustaining it. As one teacher explained:

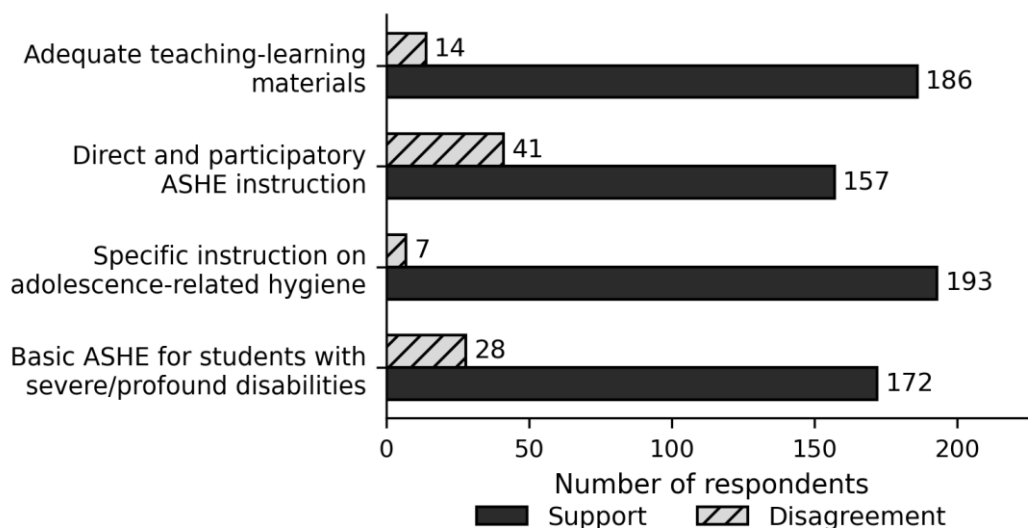
“Mostly the mothers come to the school and only they are connected with us mostly. But fathers are also needed because mother cannot always support their boys. Men should work here too”

3.4 Scope of Instructional Practice

Survey respondents supported a range of instructional practices for ASHE (Figure 4). Adequate teaching-learning materials were supported by 186 respondents (95 Strongly Agree; 91 Agree). Direct and participatory instruction was supported by 157 respondents, while 41 respondents expressed disagreement. Specific instruction on adolescence-related hygiene was supported by 193 respondents, and 172 respondents supported teaching basic ASHE content to students with severe and profound disabilities. These patterns indicate broad support for practical and explicit instruction, while also showing some reservation about how directly sexual health should be discussed.

Figure 4

Scope of Instructional Practice



The mixed response to direct instruction is important. Although most respondents supported a participatory and explicit approach, a notable minority expressed

reservations. This suggests that decisions about content and delivery are shaped not only by perceived learning needs but also by stakeholder comfort and socio-cultural expectations.

Interview participants generally described ASHE instruction as practical, flexible, respectful, and responsive to students' learning needs. They emphasized teaching materials, technologies, hands-on activities, role play, visual supports, and opportunities to monitor whether students were understanding the instruction. A teacher explained:

In puberty, students grow their sense of self-esteem. We have to instruct them respectfully so that they can't get hurt. The more hands-on learning, the better; and we need to monitor if our teaching strategies are appropriate or not!

Parents and headteachers similarly described the value of varied instructional approaches, including discussion, role play, photographs, animation, and practical instruction on hygiene. A parent explained:

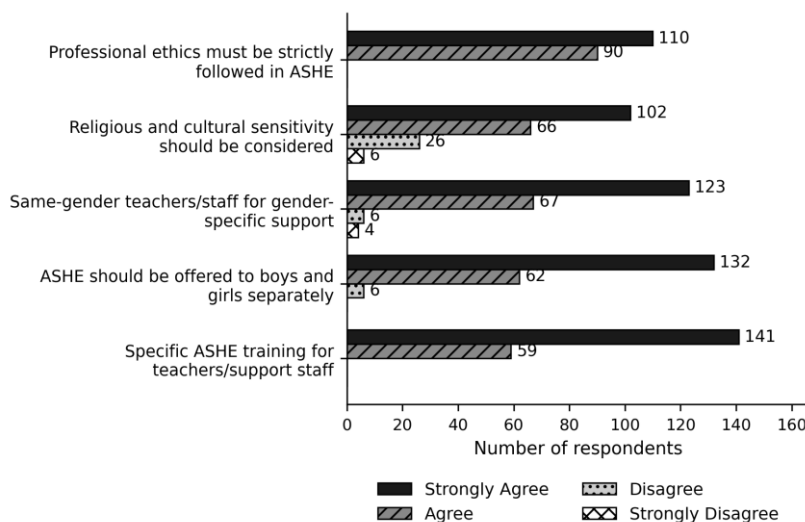
My boy likes to watch videos. We can show him puberty related videos and it'll be easier to teach him in this way. I think we need to understand students' interest so that teachers and parents can plan instruction plan according to their strengths and learning needs.

3.5 Ethical and Cultural Considerations

Ethical considerations were strongly emphasized in the survey (Figure 5). All respondents supported strict professional ethics in ASHE (110 Strongly Agree; 90 Agree). Most respondents (190) supported the use of same-gender teachers or staff for gender-specific support, and all respondents supported specific training for teachers and support staff (141 Strongly Agree; 59 Agree). The wider survey also showed that 168 respondents supported considering religious and cultural sensitivity when selecting and delivering ASHE content, while 32 disagreed; 194 respondents supported offering ASHE to boys and girls separately, while six disagreed. These results reveal strong support for professional ethics and training, alongside clear cultural and gender-related preferences.

Figure 5

Ethical and Cultural Considerations for ASHE



The interview findings showed that these preferences were not uniform. Some participants considered same-gender instruction and gender-separated sessions more culturally acceptable, and some parents emphasized the inclusion of religious values.

Some parents supported gender-specific arrangements for ASHE, including same-gender educators and separate instruction for boys and girls. As one parent explained:

Mother should teach the daughters and father should teach the sons. Also the male and female students should be treated by male and female teachers and staff respectfully. The boys and girls also need to be in separated classroom. I think this is acceptable in our society. Obviously we need to be careful about choosing words but we don't need to hide the basic contents of puberty and sexual health.

In contrast, another parent expressed concern that overly gender-specific arrangements could separate students from ordinary social life, stating: “both men and women co-exist and we can’t say otherwise.”

This contrast indicates that cultural responsiveness was important to participants, but there was no single stakeholder position on how gender and cultural expectations should shape ASHE.

Across these different positions, interview participants consistently emphasized the need for relevant training so that teachers, parents, and support staff could work within clear ethical and professional boundaries.

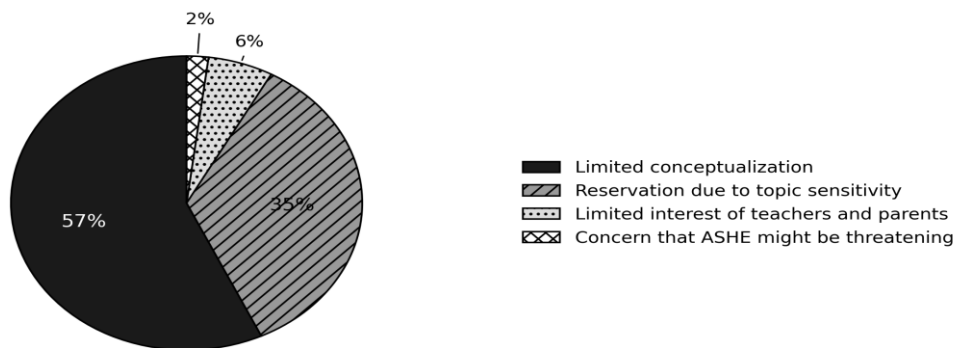
3.6 Challenges of ASHE

Participants identified several barriers to implementing ASHE. In the single-choice survey item on the biggest challenge (Figure 6), approximately 57% identified limited conceptualization of how to work with students with disabilities, 35% identified reservation because of the sensitivity of the topic, 6% identified limited interest among teachers and parents, and 2% considered ASHE itself potentially threatening to students.

The dominant concerns therefore related to stakeholder knowledge and socio-cultural reservation rather than rejection of ASHE as an educational need.

Figure 6

Biggest Challenge of ASHE for Students with Disabilities



These survey findings suggest that implementation barriers are closely connected to stakeholders' confidence, knowledge, attitudes, and willingness to discuss sexual health.

The interviews provided similar evidence. Some teachers acknowledged limited knowledge and confidence, particularly when discussing puberty and sexual health with students of another gender. One teacher explained:

As a woman, I don't know much about boys. But in school I have to work with adolescent boys and physically adult guys. As I don't know their things, sometimes I feel that talking with this about sex or adolescence might be harmful.

Participants also described shortages of relevant materials, trained staff, and professional development opportunities as major barriers. School administrators noted that limited budgets could restrict access to teaching materials and aids. A headteacher explained:

Schools have a very limited budget and many schools are not capable of offering quality education with relevant materials. Our school largely depends on the parents' donations and with that donation we try to keep the necessary materials and aids. But many schools don't have such scopes. Without enough resources and training, this type of education cannot run.

4. Integration of Quantitative and Qualitative Findings

Table 2 provides a joint display of the main quantitative and qualitative findings. The purpose is to make explicit how the two strands were compared and combined in developing the interpretation and the proposed framework.

Table 2

Joint Display of Integrated Quantitative and Qualitative Findings

Integrated theme	Quantitative evidence	Qualitative evidence and integrated interpretation
Scope and setting	All 200 respondents supported establishing ASHE; 193 supported both school-home provision and 193 supported effective teacher-parent communication.	Interview participants also described ASHE as necessary and emphasized both school and home. Together, the findings support a shared school–family setting.
Curriculum and individual needs	195 respondents supported integrating relevant ASHE content into the curriculum; 194 supported designing education plans around individual needs, disability type, and degree of disability; 198 supported appropriate assessment techniques; and 182 supported alternative instructional plans.	Teachers, administrators, and parents called for curriculum modification, individualized planning, varied instruction, and assessment. The strands converge on flexible, learner-responsive curriculum design.
Stakeholder collaboration	189 respondents expressed agreement with parent-teacher collaboration; all respondents supported an active administrative role; and 196 supported preparing parents and teachers before puberty.	Participants described ASHE as teamwork but also identified practical limits on parent participation. Collaboration therefore requires clear roles and workable communication arrangements.
Instruction and resources	186 respondents supported adequate materials; 157 supported direct and participatory instruction; 193 supported hygiene instruction; 172 supported basic ASHE for students with severe and profound disabilities.	Interviewees emphasized visual supports, role play, videos, practical activities, respectful instruction, and disability-responsive teaching. The findings support concrete and adaptable pedagogy.

Integrated theme	Quantitative evidence	Qualitative evidence and integrated interpretation
Ethics, culture, and gender	All respondents supported professional ethics and staff training; 190 supported same-gender staff. In the wider survey, 168 supported cultural/religious sensitivity and 194 supported separate provision for boys and girls.	Interviews revealed both support for gender-specific arrangements and concern that excessive separation could be exclusionary. The integrated finding is a need for cultural responsiveness without treating one conservative position as universal.
Barriers and implementation priorities	The leading barriers were limited conceptualization (~57%) and topic sensitivity (~35%). In separate prioritization items, 76% prioritized parent-teacher collaboration for safe, learner-centered ASHE, while 63% identified government support as the leading state-level factor.	Participants requested clear guidelines, training, awareness building, government support, accessible materials, and government-NGO collaboration. These findings directly informed the proposed framework and its implementation priorities.

5. Proposed Framework of ASHE for Students with Disabilities

The proposed framework was synthesized from the integrated survey and interview findings, including the identified scope and setting of ASHE, stakeholder roles, instructional preferences, barriers, and recommendations. It is intended to inform policymakers, schools, families, and other stakeholders about the conditions that may support ASHE in the Bangladeshi context. Anderson and Krathwohl's (2001) taxonomy informs the educational dimensions of the framework, while the social model of disability directs attention to attitudinal, informational, institutional, and social barriers that may restrict students' access to appropriate education. The framework therefore connects pedagogical practice with the wider social and institutional conditions required for meaningful implementation.

5.1 Pedagogical and System Factors of the ASHE Framework

Several interconnected pedagogical and system-level factors emerged from the findings. Figure 7 summarizes these factors and their relationship to effective ASHE.

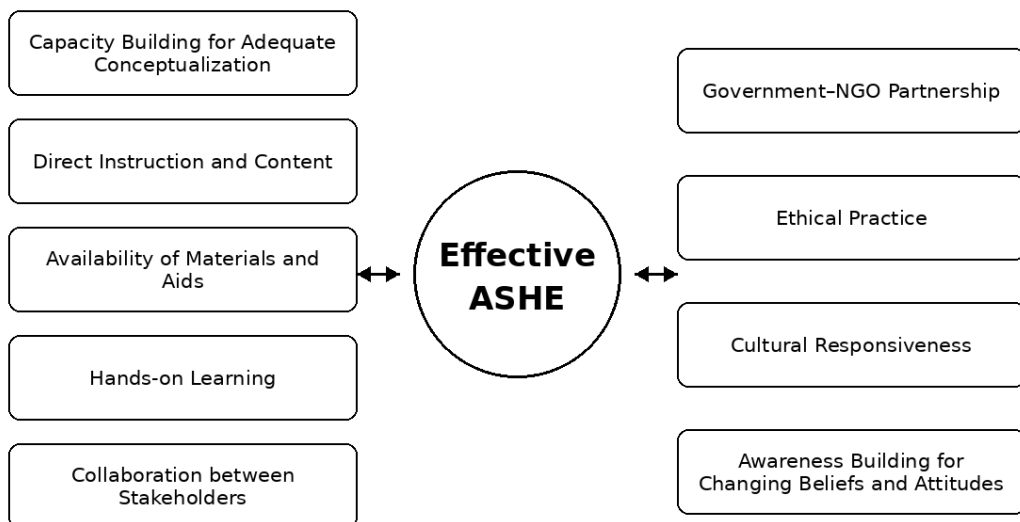
- **Capacity Building for Adequate Conceptualization**

Capacity building is necessary because limited stakeholder conceptualization was the most frequently identified barrier. Skill- and knowledge-based training should therefore prepare parents, teachers, school administrators, and other relevant professionals to

understand puberty, sexual health, disability-related learning needs, and their own roles in ASHE.

Figure 7

Pedagogical and System Factors of the ASHE Framework



- **Collaboration between Stakeholders:** Meaningful collaboration among schools, teachers, support staff, and families emerged as a central condition for implementation. Clear role definitions, regular communication, and agreed procedures are needed so that stakeholders can share information and responsibility while recognizing practical limitations on participation.
- **Direct Instruction and Content:** The findings support direct, clear, and participatory instruction while also showing that some stakeholders remain cautious about explicit sexual health content. ASHE should therefore include core information about puberty, hygiene, safety, relationships, privacy, and sexual health, with content and communication approaches adapted to students' age, learning needs, and communication profiles. Diverse instructional techniques are necessary to address the wide range of disabilities.
- **Hands-on Learning:** Participants emphasized practical learning. Concrete experiences, modeling, visual supports, role play, and repeated practice can make

puberty and sexual health concepts more understandable, particularly for students who require intensive or individualized support.

- **Availability of Materials and Aids:** Schools and families need appropriate teaching materials, communication supports, and hygiene-related resources. Interview participants also identified disability-responsive tools such as visual materials, Braille, PECS, and augmentative and alternative communication as possible ways of making ASHE more accessible.
- **Government–NGO Partnership:** In the survey prioritization item, government support was identified as the leading state-level factor. Policy guidance, financial support, monitoring, and awareness initiatives should therefore be coordinated with schools, families, non-governmental organizations (NGOs), and media where appropriate. Such partnerships can support resource development, professional learning, and wider access, particularly in settings with limited school resources.
- **Ethical Practice:** Professional integrity, transparent communication, informed stakeholder roles, privacy, and appropriate safeguards are fundamental to ASHE. Training should prepare stakeholders to address sensitive topics respectfully while protecting students' dignity, safety, and access to accurate information.
- **Cultural Responsiveness:** Religious and cultural concerns influence stakeholder expectations about ASHE, including preferences regarding gender and the explicitness of content. These concerns should be acknowledged through respectful engagement with families and communities. At the same time, cultural responsiveness should not be treated as a reason to withhold essential, accurate, and developmentally appropriate information from students with disabilities.
- **Awareness Building for Changing Beliefs and Attitudes:** Awareness-building activities are needed to address misconceptions, reservations, and limited confidence around puberty and sexual health education. Workshops, professional development, parent education, and media engagement can help stakeholders develop the knowledge and confidence needed to participate more actively in ASHE.

Overall, the framework links pedagogical practice with stakeholder capacity, collaboration, ethical safeguards, cultural responsiveness, and system-level support. Its purpose is not to prescribe a single uniform lesson for all students, but to provide an organized structure within which accessible and individualized ASHE can be planned and implemented.

5.2 Implementation Priorities

Based on the integrated findings, the framework suggests the following priorities for implementation:

- Establish a school-home collaboration protocol that defines the roles of teachers, parents/caregivers, school administrators, and relevant professionals and provides regular channels for communication.

- Develop a comprehensive ASHE guideline that specifies core content, allows disability-responsive adaptation, supports individualized education planning and assessment, and identifies appropriate teaching materials and communication supports.
- Provide continuing capacity building for educators, parents/caregivers, administrators, and support staff, with attention to sexual and reproductive health knowledge, disability-responsive pedagogy, professional ethics, and culturally sensitive communication.
- Strengthen government-led policy, funding, monitoring, and partnerships with non-governmental organizations (NGOs) and media to expand resources, awareness, and access across different school settings.
- Include students with disabilities directly in future validation and refinement of the framework so that implementation is informed by their own experiences, preferences, and communication needs.

6. Discussion

The findings show broad stakeholder support for adolescence and sexual health education for students with disabilities, particularly when school and family are treated as connected settings. Teachers, parents/caregivers, and school administrator all emphasized the importance of collaboration and preparation. This aligns with previous studies that identify both parents and educators as central to sexuality education for young people with disabilities (Carew et al., 2020; Colarossi et al., 2023; Fahriyah, 2024). The present study extends this discussion by showing that stakeholders also expect school administration to create the conditions for collaboration rather than leaving responsibility to individual teachers or families.

The findings also support a curriculum that is integrated, flexible, and individualized. Participants favored inclusion of ASHE within the curriculum and individualized education planning rather than treating it as an isolated activity. This is consistent with research emphasizing meaningful access to sexual health knowledge and adaptation to individual needs (Taylor & Abernathy, 2022; Steward et al., 2018). Practical and hands-on approaches were also strongly supported, suggesting that curriculum design should connect content with the communication, cognitive, and functional learning needs of students with disabilities rather than relying heavily on written information alone (Grove et al., 2018).

Stakeholder preparedness emerged as a recurring issue across the quantitative and qualitative findings. Participants wanted parents and teachers to be prepared before students enter puberty, but they also described uncertainty about roles, limited knowledge, and uneven confidence. School administrators were therefore positioned as important coordinators who can help clarify responsibilities and support communication. These findings reinforce previous work on the need to equip parents, educators, and other stakeholders with information and coordinated support before implementing sexual

health education (Colarossi et al., 2023; Melnikova, 2024; Taylor & Abernathy, 2022).

The instructional findings reveal both support for openness and continuing reservation. Most respondents supported direct and participatory instruction, adequate materials, and specific teaching on hygiene, while interview participants emphasized visual supports, role play, practical activities, and respectful communication. At the same time, some respondents were uncomfortable with direct discussion of sexual health. This supports the argument that ASHE should move beyond narrowly reactive or purely technical instruction and provide broader, proactive learning opportunities while remaining responsive to learners' communication and support needs (Colarossi et al., 2023; Gerchenovitch & Rusu, 2018; Taylor & Abernathy, 2022).

Viewed through the study's two theoretical lenses, the emphasis on curriculum content, individualized planning, instructional processes, and assessment reflects the educational concerns foregrounded by Anderson and Krathwohl's (2001) taxonomy. At the same time, barriers related to attitudes, communication, resources, institutional support, and cultural expectations are consistent with the social model's focus on disabling social and environmental conditions (Hughes, 2010). The proposed framework brings these pedagogical and contextual dimensions together.

A particularly important finding is the tension between cultural responsiveness and students' rights to information and education. Many participants preferred same-gender support and gender-separated instruction, reflecting cultural and religious expectations. However, the qualitative data also included parents who questioned strict gender separation because it could isolate students from ordinary social life, and participants who argued that cultural reservations should not prevent essential education. This tension should not be reduced to a choice between respecting culture and providing rights-based education. Rather, culturally responsive implementation should involve families and communities while preserving students' access to accurate, developmentally appropriate, and disability-responsive sexual and reproductive health information. This is consistent with rights-based literature that emphasizes access to sexual and reproductive health information and education for persons with disabilities (Addlakha et al., 2017; World Health Organization, 2015).

The study also identified practical barriers: limited stakeholder conceptualization, topic sensitivity, shortages of resources, and limited training. These barriers help explain why stakeholders can strongly support ASHE in principle while remaining uncertain about its content, roles, and implementation. The proposed framework therefore brings together pedagogical factors and system-level conditions rather than treating the problem as a matter of curriculum alone. Capacity building, clear guidance, stakeholder collaboration, government support, accessible materials, ethical safeguards, and awareness building are mutually reinforcing components. Importantly, the framework should be treated as a basis for further development and validation rather than as a finalized model that can be implemented without adaptation across all students and settings.

The prioritization findings also provide a basis for implementation. Parent-teacher collaboration was the most frequently selected factor for making ASHE safe and learner-

centered, while government support was the most frequently selected state-level factor. Interview participants similarly called for comprehensive guidelines, professional development, government financial and policy support, disability-responsive materials, and cooperation with NGOs. These priorities give the framework a more actionable direction: local collaboration and capacity building need to be supported by clear policy, resources, and system-level responsibility.

7. Limitations

A central limitation is that students with disabilities were not recruited as research participants. The study deliberately focused on parents/caregivers, special educators, and school administrator as stakeholders involved in planning and implementing ASHE, but this means that the proposed framework is based on adult and professional perspectives rather than students' own experiences. This limitation is particularly important in a rights-based area such as sexual and reproductive health education. Notably, some participants themselves argued that students' views should be sought before any guideline is finalized. Future research and framework validation should therefore directly involve students with disabilities and use accessible methods that allow students with different communication needs to express their preferences and experiences.

The study was also limited by its purposive and convenience sampling, geographical coverage, and descriptive quantitative analysis. It was designed to identify overall stakeholder patterns rather than test differences among teachers, parents/caregivers, and school administrator. Future studies could use larger and more systematically selected samples, examine subgroup differences, include students and other professionals such as therapists and health personnel, and test the proposed framework across diverse educational settings.

8. Conclusion

This study examined a rarely explored area in Bangladesh: adolescence and sexual health education for students with disabilities. The findings show strong stakeholder support for ASHE while also revealing important challenges related to knowledge, confidence, resources, cultural expectations, and role clarity. By integrating the quantitative and qualitative findings, the study developed a framework that connects curriculum and instruction with stakeholder collaboration, capacity building, ethical safeguards, cultural responsiveness, accessible materials, awareness building, and government and NGO support. The findings indicate that implementation should begin with clear school-home collaboration, comprehensive guidance, continuing professional and parent education, and system-level support. The study also recommends addressing restrictive attitudes and disability-related stigma through stakeholder education, professional development, and wider public awareness initiatives. The proposed framework should now be refined and validated with direct participation from students with disabilities and tested across a wider range of settings. In this way, it can serve as a practical starting point for planning more equitable, meaningful, and context-sensitive ASHE in Bangladesh.

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