UNIVERSITY OF MEDIA ARTS AND COMMUNICATION

SCHOOL OF GRADUATE STUDIES AND RESEARCH

INVESTIGATING THE EFFECTIVENESS OF SEXUAL AND REPRODUCTIVE HEALTH EDUCATION PROGRAMMES AMONG ADOLESCENTS IN APAM: A CASE STUDY OF GHANA HEALTH SERVICE AND CAMFED INITIATIVES

BY

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A DISSERTATION SUBMITTED TO UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION-INSTITUTE OF JOURNALISM (UniMAC-IJ) IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS (MA) DEGREE IN DEVELOPMENT COMMUNICATION

DECEMBER, 2025

DECLARATIONS

STUDENT'S DECLARATION

I hereby declare that this research is a result of my own original research and that, no part of it has been presented for another degree in this University or any other higher education institute. I further declare that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

ANKOMAH SAKINA BADU		12th DECEMBER, 2025
Student	Signature	Date

SUPERVISOR'S DECLARATION

This Dissertation has been prepared and presented under my supervision according to the guidelines for supervision and formatting of Dissertation as laid down by the University of Media, Arts and Communication UniMAC-IJ.

Kobina Ano Bedu-Addo Ph.D.

Supervisor Date 30th December 2025

DEDICATION

This project is dedicated to my mother, who has never failed to provide me with financial and moral support, as well as meeting all of our needs during the development of our system and taught me that even the most difficult endeavour can be completed if approached in little steps. I also dedicate this project to my siblings, Mr. Odame Barnabas, Mr. Amoh Bernard, Miss Ohipeni Happy and all of the people who believed, supported and worked tirelessly to assist us in completing it.

ACKNOWLEDGEMENTS

First and foremost, praises and thanks to God, the Almighty, for how far he has brought me and for giving me the strength and wisdom to complete this research successfully.

I want to convey our heartfelt gratitude to my supervisor, Dr. Kobina Bedu-Addo, for his unwavering support for my final research dissertation, as well as his patience, encouragement, excitement, and vast expertise. His advice was invaluable during the research and writing of this dissertation, for my Master's studies, and I could not have asked for a better supervisor and mentor.

I would like to express my profound gratitude to the staff of Ghana Health Service, Apam, CAMFED, Apam, parents and adolescents in Apam for their selfless participation in availing themselves during the questionnaire and interview sessions of the research process. Thank you for eloquently expressing your opinions.

ABSTRACT

Education on sexual and reproductive health (SRH) is one area that is essential for the welfare of teenagers, but there are obvious disparities between the policies and the implementation processes in semi-urban areas in Ghana. Although the initiatives between the data collection organization, the Ghana Health Service (GHS), and the Campaign for Female Education (CAMFED) have been fruitful, the problem arising is the high prevalence of teen pregnancy, STDs, and the unavailability of youth-friendly health care in the town of Apam, where the research was carried out. This study explores the efficiency of the SRH education programs implemented in the town. The study, based on Social Cognitive Theory, the Health Belief Model, the Theory of Planned Behaviour, and Ecological Systems Theory, adopted a mixed-methods case study design. In this study, quantitative data was gathered with the aid of a structured questionnaire comprising questions for 196 participants, while qualitative information was gathered through in-depth interviews with participants, parents, health professionals, teachers, and programme administrators of the Ghana Health Service and CAMFED. The Data was analyzed through descriptive statistics and qualitative interpretation. It was found that SRH interventions in Apam are pedagogically solid, participatory, and well-received among all stakeholders. Adolescents showed marked improvement in knowledge, self-efficacy, communication, and awareness about health services. [However, incomplete follow-through, academic pressures, and resource limitations impeded effectiveness, lack of coordination among agencies, and existing sociocultural issues such as disapproval of parents and stigma associated with the community in Apam. Despite the fact that schools remained the primary setting, the majority of out-of-school youth remained neglected. The study concludes that although the outcomes of the GHS and CAMFED programs have been positive in improving the knowledge and attitudes among the group members, efforts must be made aimed at overcoming certain challenges in the implementation process. These recommendations include incorporating SRH education in school curricula, improving coordination, scaling up community-based programs, improving facilitator performance, and scaling up community sensitization. This research piece provides significant insights into the planning-implementation gap regarding adolescent SRH interventions in Ghana, as well as in other regions with similar settings.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Sexual and reproductive health (SRH) education is at the core of promoting adolescent well-being, safety, and development. SRH education equips young people with attitudes, knowledge, and skills for making responsible decisions regarding their sexual life, relationships, and reproduction. Sub-Saharan Africa is in dire need of it since adolescents are disproportionately less privileged in accessing the right information and quality health care. Such restricted access to information puts adolescents in most cases to diverse health experiences and social issues, including unwanted pregnancies, adolescent pregnancy, sexually transmitted infections (STIs), and abortion (Chandra-Mouli et al., 2015). Adolescents aged 10-19 years constitute approximately 23% of Ghana's population; therefore, their demographic significance and the reasons why their sexual and reproductive health-related issues should be addressed are noteworthy (Ghana Statistical Service, 2021).

Though critical, most Ghanaian youth are still inadequately schooled or ill-informed regarding some of the most important SRH issues. They thus bear negative consequences like teen pregnancies, STIs, including HIV, and unsafe abortion complications, as well as in some cases (Awusabo-Asare et al., 2008). These effects extend not just to reach lives at a personal level but also endanger broader public health and developmental goals. As serious as the situation has turned, global organisations like UNESCO have come out with guidelines that advocate for the application of evidence-based, culturally adapted, and age-appropriate integral sexuality education (CSE). The initiatives aim to educate adolescents on a conceptual basis of knowledge, human rights, gender equality, and healthy relationships (UNESCO, 2018).

Ghana has therefore instituted a range of interventions at the national and community levels to address adolescent SRH. Both government agencies, such as the Ghana Health Service (GHS) and non-government agencies such as the Campaign for Female Education (CAMFED), have also worked to promote increased access to SRH services and education among adolescents in the country (Okyere et al., 2024). Specifically, the Ghana Health Service initiated the Adolescent Health Service Policy in 2016 as a strategic policy that would guide the delivery of integrated, adolescent-centred SRH services. Its approach is that of taking to teenage girls, wherever they may be and wherever their future life may take them, access to respectful, non-discriminatory overall health care which responds to their needs (Ghana Health Service, 2016) CAMFED has sought to meet the special needs of teenage girls, however, by incorporating SRH education into its larger agenda of women's empowerment and education (Asiedu-Addo & Kumi, 2025). However, it is still a challenge to translate policy and program intention into action at the local level. In places like Apam, which is a semi-urban district in Ghana's Central Region, efforts to implement SRH education continue to be undermined by the synergy of customary cultural values, religious values, and modern influences (Darteh et al., 2014). These socio-cultural drivers influence the reception, interpretation, and response to SRH information by young people and adults.

Although virtuous motives drive the existing SRH programs, problems continue to exist at the community level. These include a lack of access to the SRH programs, poor coordination of implementing agencies, opposition to free and frank dialogue about sexuality, and the absence of active local stakeholder involvement with parents, teachers, and traditional leaders. They are all the problems that lead to incompatibilities between SRH education program design and implementation (Kyilleh et al., 2018, p. 6). In the context of such a backdrop, this study sets out to identify the extent and nature of such implementation gaps through the Apam case. I would like to ascertain the extent to which the SRH education programs have addressed the

needs of adolescents, identifying what prevents effective delivery, and integrating opportunities through which the gaps are bridged to achieve maximum health outcomes for the youth in the community.

1.2 Statement of the Problem

Despite collaborative initiatives by CAMFED and the Ghana Health Service to promote adolescent sexual and reproductive health through education, disturbing trends continue among some of the key health indicators. Among the most disturbing are the teen pregnancy rates, which have continued to be consistently high. For instance, the Central Region has registered teen pregnancy cases for 2022, which accounted for 13% of the total cases registered during that year (Ghana Statistical Service & ICF, 2023). It remains a public health issue, i.e., the existing SRH education interventions may not be as effective as expected among certain population groups.

There are several reasons why this may not be successful, including oppressive religious and cultural norms that discourage candid sexual discussion (Marrone et al., 2014), inadequate facilitator training, and limited resources (Aninanya et al., 2015). In addition, there is low systematic evidence about the specific challenges of implementing SRH education programs at the community level in semi-urban areas such as Apam. This study, therefore, sets out to explore the policy-practice gap: Why do adolescent pregnancy rates and poor SRH outcomes continue despite numerous SRH education programs? What institutional or environmental challenges prevent effective implementation in Apam? Answering these is central to making SRH programs more than paper talk, but real change in adolescents' lives.

This study, therefore, seeks to examine the policy-practice gap: Why, on so many occasions, do high teen birth rates and unfavourable SRH results persist despite numerous SRH education programs? What are the structural or context-level factors that prevent effective

implementation in Apam? Answering these is crucial so that SRH programs are not only on paper but also lead to meaningful change in the lives of teenagers.

1.3 Purpose of the Study

The purpose of this study is to examine the gaps between the planning and implementation of adolescent sexual and reproductive health education programmes in Apam, with particular attention to initiatives undertaken by the Ghana Health Service and the Campaign for Female Education.

1.4 Research Objectives

1. To analyse the structure, content, and delivery mechanisms of SRH education programs by CAMFED and GHS in Apam.

2. To identify structural, institutional, and sociocultural determinants that support or undermine the successful implementation of SRH programs.

3. To analyse perceptions of major stakeholders (parents, youth, teachers, and health professionals) towards the effectiveness of such programs.

1.5 Research Questions

1. What is the structure, content, and delivery mechanisms of sexual and reproductive health education programmes implemented by CAMFED and the Ghana Health Service in Apam?

2. Which structural, institutional, and sociocultural factors facilitate or constrain the successful implementation of sexual and reproductive health education programmes in Apam?

3. How do key stakeholders, including parents, youth, teachers, and health professionals, perceive the effectiveness of sexual and reproductive health education programmes in Apam?

1.6 Significance of the study

This study has important policy implications for policymakers, program planners, instructors, and health workers interested in adolescent welfare in Ghana and other comparable settings.

For adolescents in Apam, this study provides an opportunity to amplify their experiences and needs within sexual and reproductive health education programmes. The findings are expected to contribute to the design of more responsive, age-appropriate, and culturally sensitive SRH interventions that address existing gaps between programme intentions and actual delivery. Improved alignment between planning and implementation can enhance adolescents' access to accurate information, strengthen their capacity to make informed decisions, and promote healthier reproductive health outcomes.

The study offers the Ghana Health Service empirical evidence on implementation strengths and weaknesses within its adolescent SRH education initiatives. Such evidence is valuable for refining programme design, improving coordination with partner organisations such as CAMFED, and strengthening monitoring and evaluation frameworks. Insights from the study can also inform resource allocation, staff training, and community engagement strategies, thereby enhancing the effectiveness and sustainability of SRH education delivery.

For policymakers, particularly within the Ministry of Health and allied institutions, the study provides policy-relevant insights into how structural, institutional, and sociocultural factors influence the execution of adolescent SRH programmes. The findings can support evidence-based policy adjustments, guide the formulation of more implementable strategies, and ensure

that national adolescent health policies are better aligned with local realities and implementation capacities.

From an academic perspective, the study contributes to the literature on adolescent sexual and reproductive health education by offering context-specific empirical evidence from a peri-urban Ghanaian setting. It advances understanding of the planning–implementation gap in public health interventions and provides a foundation for comparative studies, theory development, and future research on SRH programme effectiveness in similar socio-cultural contexts.

1.6 Scope and Limitations of the Study

1.6.1 Scope

The study focuses on the 10–19-year-olds of Apam, a semi-urban township in the Central Region of Ghana in the Gomoa West District. The study assesses SRH education programs implemented by the Ghana Health Service and CAMFED between 2018 and 2023. It looks at school-based and community-based interventions for out-of-school and in-school youth.

The primary emphasis lies in the determination of the design, delivery, and implementation concerns of such programs rather than the measurement of behavioural outcomes or long-term health impacts. With studies of program design and stakeholder perspectives, the research seeks to explore whether or not these interventions meet the requirements of adolescents in the given socio-economic and cultural context of Apam.

1.6.2 Limitations

Given the localised nature of the research, its findings may not be transferable to every area in Ghana. However, Apam shares socio-cultural characteristics with most other rural and semi-urban areas, and thus observations are not confined to the local setting.

In addition, the emotional topic of SRH issues may influence the intent of participants to respond. This will be covered in the methods with thorough recruitment, gender-sensitive interviewing, and ensuring anonymity and confidentiality.

1.7 Study organisation

Chapter One presented the introduction and overall organisation of the study. It provided the background and context of the research, briefly defined the research problem, and outlined both the general and specific objectives of the study. The chapter also derived the research questions that guided the investigation, discussed the significance of the study to relevant stakeholders, and described the scope and limitations that defined the boundaries of the research. Collectively, these elements established the justification for undertaking the study.

Chapter Two reviewed relevant literature on adolescent sexual and reproductive health (SRH) education. It synthesised existing empirical studies, policy documents, and programme evaluations from Ghana and comparable contexts. The chapter identified gaps in the existing body of knowledge that the study sought to address and presented the conceptual and theoretical frameworks that informed the research. These frameworks guided the interpretation of key concepts and provided a systematic basis for examining implementation gaps in SRH programmes.

Chapter Three detailed the research methodology employed in the study. It explained the research design and justified the adoption of a qualitative, quantitative, or mixed-methods approach. The chapter described the target population, sampling techniques, and participant recruitment procedures. It further outlined the data collection instruments and methods, including interviews, focus group discussions, and document analysis, with particular emphasis on data analysis and interpretation procedures. Ethical considerations such as informed consent, confidentiality, and participant well-being were also addressed to ensure the ethical integrity of the research.

Chapter Four presented the study findings clearly and systematically. The results were organised according to the research questions and supported with direct quotations, summaries, and thematic analyses. Where applicable, quantitative data were presented using tables and charts to enhance clarity. The chapter offered a detailed analysis of the data collected and identified key trends, themes, and patterns that addressed the research questions, drawing on insights from the literature review and the conceptual framework.

Chapter Five concluded the thesis by examining the broader implications of the research findings. It synthesised the key results of the study, reflected on their implications for policy and practice, and proposed practical recommendations for improving the design and delivery of adolescent SRH education programmes. The chapter also highlighted areas for future research and articulated the study's contribution to academic scholarship and practical discourse in adolescent development and health communication.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Sexual and reproductive health (SRH) education has remained a critical component of public health interventions for adolescents, particularly in contexts where early sexual initiation, teenage pregnancy, and sexually transmitted infections persist. In Ghana, increasing attention has been directed toward adolescent SRH education through initiatives implemented by both state and non-state actors, including the Ghana Health Service and the Campaign for Female Education. Apam, a semi-urban community in the Central Region, provided a relevant context for examining how such programmes were designed, delivered, and implemented.

This chapter reviewed existing theoretical, empirical, and policy-oriented literature on adolescent SRH education, with particular emphasis on programmes implemented in Ghana and comparable sub-Saharan African settings. It examined key theoretical perspectives underpinning SRH education, outlined the conceptual framework guiding the study, and critically analysed empirical studies to identify implementation gaps and contextual challenges. Literature published between 2018 and 2023 was prioritised to ensure the review reflected current debates, practices, and evidence relevant to adolescent SRH programme implementation.

2.2 Theoretical Review

Understanding the theoretical foundations of sexual and reproductive health education programs is essential to the program design and delivery of effective interventions that can trigger intensive behaviour change in adolescents. This section presents the prominent theories

guiding SRH education program design and implementation, as well as how the theories can be applied to enhance the program in contexts like Apam.

2.2.1 Social Cognitive Theory

Social Cognitive Theory (SCT), developed by Albert Bandura, is a complex theory of how individuals learn and develop new behaviours through the interaction between personal, environmental, and behavioural factors (Bandura, 2018). SCT in SRH education emphasises the importance of observational learning, self-efficacy, and reciprocal determinism in adolescent sexual and reproductive health behaviour.

The theory's concept of self-efficacy is particularly relevant to SRH education programs. Self-efficacy is an individual's belief in being able to perform some behaviours required for desired results (Bandura, 1997). In adolescents participating in SRH education programs, enhancing self-efficacy for negotiating safer sex behaviour, obtaining reproductive health care, or addressing sexual health concerns is necessary to bridge knowledge and practice. There is evidence that SRH education programmes designed to enhance self-efficacy have a better effect of promoting protective behaviours among young people (Jacob et al., 2021).

The SCT observational learning component highlights the relevance of peer role models and community influences as part of SRH education programs. Adolescents learn about sexual and reproductive health through observing individuals within their social circle, thus making peer education approaches particularly efficient (Widnall et al., 2024, p. 78). Such a component of the theory supports the use of peer educators and role models in SRH programs, as adopted by some organisations, such as Camfed, in their community education programs.

Reciprocal determinism, the second significant SCT concept, is a dynamic interaction among influences at the individual level (e.g., knowledge, attitudes, and skills), environmental level (e.g., social norm, availability of services, and policy environment), and behaviour level (e.g.,

history of experience and existing practice) (Baranowski, T. (1989). It is such a notion that can be effectively applied in addressing how SRH education programs can impact more than one level of influence concurrently to stimulate sustainable adolescent behaviour change.

2.2.2 Health Belief Model

Health Belief Model (HBM) is also an important theoretical foundation with which to account for how adolescents make choices regarding sexual and reproductive health behaviours. Originally used to explain preventive health behaviour, HBM focuses on individual beliefs and perceptions as the central determinants of health-related action (Rosenstock et al., 2018, p. 67). The model suggests several important constructs that influence health behaviour, such as perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy.

Perceived susceptibility refers to the individual's belief regarding his or her risk of developing a particular health condition, e.g., teen pregnancy or sexually transmitted infections (Champion & Skinner, 2008, p. 75). In adolescents, susceptibility to SRH problems might be perceived by their age, sexual history, peer behaviours, and cultural attitudes toward adolescent sexuality. Effective SRH education programs have a tendency to calibrate adolescents' risk perceptions so that they are neither excessively scared nor unrealistically confident about being at risk.

Perceived severity incorporates perceptions of the seriousness of potential health problems and their consequences (Kusumawardani & Ayu, 2021). SRH education encompasses the knowledge of the potential physical, emotional, social, and economic consequences of unprotected sex, early pregnancy, or sexually transmitted infections. Programs that are successful in communicating the severity of potential consequences without employing fear appeals are more effective in influencing adolescents to modify their behaviour.

The barriers and benefits construct in HBM is of most importance to adolescent decision-making towards sexual and reproductive health behaviours. Perceived benefits are those beliefs that pertain to the effectiveness and advantages of prescribed health behaviours, while perceived barriers are those beliefs that pertain to the costs, difficulties, or detrimental effects of adopting these behaviours (Champion & Skinner, 2008). For adolescents, barriers to the uptake of protective SRH behaviours may be a lack of access to services, expense, fear of stigma, or concern for confidentiality.

2.2.3 Theory of Planned Behaviour

Icek Ajzen's Theory of Planned Behaviour (TPB) provides a framework for how attitudes, subjective norms, and perceived control over behaviour influence behavioural intention and subsequent behaviour (Ajzen, 2020). The TPB has been applied extensively in sexual and reproductive health behaviour explanations among adolescents and has informed the creation of many effective SRH education interventions.

Attitudes, according to TPB, are an individual's positive or negative opinion regarding the conduct of a particular behaviour (Crano & Prislin, 2011). In adolescent SRH, attitudes towards conduct such as condom use, seeking reproductive health care, or discussing sexual health matters with partners or healthcare providers can significantly influence whether or not adolescents will embrace these safe practices. SRH education programs aimed at changing attitudes via the provision of appropriate information, debunking myths, and encouraging good protective behaviour factors are more efficient.

Subjective norms reflect perceived social pressure to do or not do something, and they reflect people's perceptions of what important others think they must do or not do (Ajzen, 2020). For adolescents, family members, peers, religious leaders, and community members are generally a source of subjective norms related to sexual and reproductive health behaviours.

Understanding and reacting to these social influences is critical for SRH education programmes where there are culturally held traditional values that can be contradictory to health-commended behaviour.

Perceived behavioural control, similar to Social Cognitive Theory's self-efficacy, is the perceived capability to perform a behaviour on the basis of anticipated facilitators and barriers (Glanz, Rimer, & Viswanath, 2015). This would hold most true for adolescents who may face varying constraints when using SRH services or engaging in protective behaviours. Effective SRH education programs seek to enhance perceived behavioural control through competency development, correcting obstacles, and enabling environments for healthy practices.

2.2.4 Ecological Systems Theory

Bronfenbrenner's Ecological Systems Theory provides a more comprehensive model of understanding how multiple levels of influence affect adolescents' sexual and reproductive health behaviours (Bronfenbrenner, 2019). The theory is particularly suitable for developing integrated SRH education programs for the individual, family, community, and society together.

The microsystem level encompasses immediate environments with which adolescents come into contact, such as family, school, and peer groups (Bronfenbrenner, 1979). At this level, SRH education programmes can involve engaging families to promote parent-adolescent communication on sexual health, setting up comprehensive sexuality education in schools, and training peer educators to provide credible information and support.

The mesosystem is the interactions between different microsystems, such as the school and family or peer group and community organizations (Bronfenbrenner, 2019). Effective SRH education programs usually aim to strengthen these links so that similar messages and reinforcement are provided across the different settings in the lives of adolescents.

The exosystem holds bigger social systems that indirectly influence teens, such as health systems, community organizations, and community policies (Asare et al., 2021). At this level, SRH education programs can operate to increase access to adolescent-friendly health services, catalyze enabling policies, and empower community leaders in making environments supportive of adolescent sexual and reproductive health.

The macrosystem encompasses the broad cultural values, beliefs, and ideologies that organise all other levels (Bronfenbrenner, 2019). Understanding the macrosystem is crucial for the provision of SRH education programmes that respect local values and empower evidence-based health habits.

2.3 Conceptual Framework

The conceptual model for this research illustrates the complex dynamics of determinants of success of sexual and reproductive health education programs for adolescents in Apam. The model draws on theoretical assumptions covered in the previous section and bundles them into an integrated model that can be applied to guide programme implementation and evaluation.

2.3.1 Framework Components

The conceptual model has four key components: input factors, programme characteristics, mediating factors, and outcomes. Each of these components has several elements that influence each other in order to establish the overall effectiveness of SRH education programmes.

Input Factors are the conditions and characteristics in existence before programme implementation. They include adolescent characteristics (age, sex, education level, previous SRH knowledge, sexual experience), family characteristics (socioeconomic status, attitudes of parents towards sexuality education, family interaction patterns), community characteristics (cultural values and attitudes, religious beliefs, accessibility to health services, peer influences),

and organizational characteristics (capacity of implementing organization, resources available, staff training levels).

The adolescent input factors are particularly crucial because they set the stage for any SRH education intervention. Evidence has suggested that factors such as age of entry into the programme, gender, and previous exposure to SRH information play a significant role in having a big influence on the degree of response that adolescents have towards education programmes (Melnyk et al., 2009). Likewise, community and family factors form the larger context in which adolescents learn and receive SRH education, affecting their capacity to convert knowledge into a change in behaviour.

Programme Characteristics encapsulate the delivery and design components of SRH education interventions. They include programme content (scope of issues covered, accuracy of information, sensitivity to culture), delivery approach (classroom instruction, peer instruction, outreach, computer platforms), programme and intensity duration (programme duration, frequency of sessions, follow-ups), and implementation quality (trainers' training, curriculum quality, availability of materials).

Ghana Health Service and Camfed programs in Apam both have distinctive program elements that reflect their organizational missions and target populations. GHS programs tend to focus on clinical reproductive health and are often delivered through health facilities and community health programs, while Camfed programs are more likely to incorporate SRH education with support for general education and empowerment interventions (Ghana Health Service, 2016, p. 45; Camfed International, 2021, p. 67).

Mediating Factors are the intermediate changes that occur as a result of programme participation and that, in turn, cause outcomes. These, in accordance with the theoretical models mentioned hereinabove, are the following: knowledge and awareness changes

(knowledge of reproductive anatomy, awareness of contraceptive methods, knowledge of STI prevention), attitudes (attitudes towards protective behaviors, perceived benefits and barriers, normative beliefs), skill acquisition (communication skills, negotiation skills, decision-making skills), and self-efficacy changes (confidence in seeking services, belief that one can use protective behaviors).

Understanding these mediating factors is critical to programme evaluation because they explain how and why programmes have their intended impacts. Empirical work has consistently shown that effective SRH education programs must alter not only knowledge, but also attitudes, abilities, and self-perceived efficacy for changing behaviors in order to be maintained (Martinez et al., 2021).

Outcomes are the last goals of SRH education programs and can be categorized into short-term, medium-term, and long-term outcomes. Better SRH knowledge, more favourable attitudes toward protective behaviours, and increased intention to practice safely are short-term outcomes (within 6 months of program completion). Medium-term outcomes (6 months to 2 years) are measures of behaviour change like increased condom use, improved communication with sex partners about sexual health, and improved use of reproductive health services. Long-term outcomes (longer than 2 years) are reduced rates of unwanted pregnancy, decreased incidence of sexually transmitted diseases, and improved overall reproductive health outcomes.

2.3.2 Framework Interactions and Pathways

The conceptual framework illustrates several of the main channels through which SRH education programmes bring about their intended effects. The first of these channels extends from programme characteristics through mediating variables to outcomes, but this is moderated at each step by input variables.

For instance, youth who possess higher levels of baseline knowledge will need to be addressed differently through programme interventions than youth with minimal prior knowledge. Likewise, community factors like local cultural norms regarding the talk of sexuality can shape how content within the programme is received and processed by participants (Wight, Plummer, & Ross, 2012, p. 156).

The model also describes feedback loops between different elements. Positive outputs of SRH training programmes can influence community attitude and norms, creating more favourable settings for the delivery of subsequent programmes. Similarly, shifts in adolescent skills and knowledge can influence family communication patterns and peer relationships, exerting ripple effects that extend beyond programme beneficiaries themselves.

2.3.3 Applying Apam Context

In the Apam case, to be specific, several facets of this conceptual framework are particularly relevant. It is a coastal settlement with fishery and agricultural practices and thus has unique cultural attributes that shape adolescent sexual and reproductive health behaviour (Wikipedia contributors, n.d.). Traditional attitudes toward adolescent sexuality, gender roles, and family planning can create opportunities as well as problems for SRH education programmes.

The guidance recognises that the most successful programmes in such circumstances must be evidence-based but culturally appropriate. This involves bridging programme content and delivery structures to be respectful of local cultures but also challenging practices or assumptions that negatively impact the health outcomes among young people.

The presence of both the GHS and Camfed programmes in Apam represents an opportunity to observe how different programme characteristics combine with local input factors to produce differential outcomes. Information about these combinations can inform activities focused on

optimising programme effectiveness as well as integrating successful components from disparate programmes.

2.4. Empirical Review

This section discusses ten recent empirical studies that evaluate the effectiveness of sexual and reproductive health education programmes for young people, focusing on those from sub-Saharan Africa and other contexts like Apam. Each study is discussed for methodology, main findings, and applicability to SRH programme effectiveness.

2.4.1 Comprehensive Sexuality Education in Ghana

Firstly, Awusabo-Asare et al. (2006) conducted a comprehensive evaluation of sexuality education programs in three regions in Ghana, including the Central Region, where Apam town is located. The study utilised a mixed-methods design, combining quantitative surveys among 1,247 young people aged 15-19 and qualitative interviews with 48 programme participants, parents, and teachers.

The researchers' study showed that adolescents enrolled in comprehensive sexuality education programs had greater knowledge in terms of reproductive anatomy (78% vs. 45% control group, $p<0.001$), use of contraceptives (84% vs. 52%, $p<0.001$), and prevention of STIs (76% vs. 41%, $p<0.001$) (Awusabo-Asare et al., 2006, p. 234). More importantly, the study documented behaviour modification since participants in the programme experienced higher rates of condom use (67% vs. 34%, $p<0.01$) and higher probabilities of reproductive health service access (43% vs. 21%, $p<0.05$) than their non-participating peers.

However, the study also found strong programme barriers to impact, which were primarily cultural resistance and inadequate parent-child communication on sexuality. Qualitative findings indicated that young people appreciated receiving accurate information about sexual and reproductive health but often faced challenges in using protective behaviours due to social

pressures and inadequate access to services (p. 267). This is extremely relevant to the Apam setting, where such cultural issues may affect programme impact.

Strengths of the research include its vast sample size, multi-regional representation, and use of quantitative and qualitative approaches to deliver full-depth information. The authors, nevertheless, recognize some constraints with regard to potential selection bias as programme participants were not randomly selected, and potential social desirability bias from self-reported behaviour (p. 289).

2.4.2 Peer Education Approaches in Rural Ghana

Again, Cornell University (2017) evaluated the effectiveness of peer education approaches in delivering SRH education to adolescents in rural Ghanaian societies. The study was a cluster randomised controlled trial with 24 communities, where 12 of them received peer education interventions and 12 controls. There were 960 adolescents recruited for the study for 18 months.

The intervention involved training older adolescents (18-22 years) as peer educators who delivered structured SRH education sessions to younger adolescents (14-17 years) in community centers. Peer educators received 40 hours of training on topics such as reproductive anatomy, family planning methods, STI prevention, and communication skills. Curriculum was culturally adapted to be contextually integrated with local values and local languages while maintaining scientific accuracy (Cornell University, 2017).

The findings revealed that adolescents in peer education communities displayed significantly greater improvement in SRH knowledge compared to controls. Specifically, knowledge scores were enhanced by an average of 3.2 points (on a 10-point scale) in intervention communities compared to 0.8 points in control communities ($p<0.001$) (p. 178). It further showed positive effects concerning attitudes towards protective behaviours, with the intervention participants displaying better attitudes towards the use of condoms and family planning than controls.

Behavioural outcomes were less extensive but significant. Condom use at the last sex was higher for sexually active adolescents in intervention neighbourhoods (58% vs. 41%, $p<0.05$), and intervention participants more frequently reported discussing sexual health topics with partners (34% vs. 18%, $p<0.01$) (p. 189). The research also revealed that reproductive health service utilisation was greater in intervention communities, as clinic records showed teen visits up 45% during the intervention phase.

The qualitative section of the research revealed that peer education was adopted by teenagers who appreciated learning from peers who were a little older than them and could relate to their circumstances. However, there were difficulties reported, including initial resistance by some community members and maintaining motivation among peer educators in the long run (p. 201). These findings suggest peer education tactics like those used by Camfed can function in settings like Apam but need to exercise sensitive consideration of community outreach and teacher backing.

2.4.3 Technology-Enhanced SRH Education

Additionally, Senkyire et al. (2020) examined the effects of mobile phone-based SRH education interventions among urban Ghanaian youth. The study employed a randomized controlled trial among 600 youth aged 16-19 years, who were randomly assigned to receive SRH education via text messages, voice messages, or standard care (the control group).

Technology-based interventions delivered bi-weekly messages for 6 months on topics such as puberty, contraception, STI prevention, and healthy relationships. Messages were designed with the help of adolescents and health professionals to ensure they were age-suited and culturally appropriate. The information was made available in both English and local languages to increase accessibility (Senkyire et al., 2021, p. 67).

Pre- and post-intervention questionnaires measured large SRH knowledge gains among intervention vs. control groups. Adolescents who were text messaged averaged 4.1 knowledge points gained (out of 15), and that text messaged with voice messages averaged 3.7 points, compared with 1.2 points among the control group ($p<0.001$ in each comparison) (p. 134). Contrary to expectations, studies found that text messaging was more appropriate for teens who had improved literacy, while voice messages were more appropriate for individuals with low reading abilities.

The intervention also measured behaviour change outcomes and had small but significant effects. Sexually active participants in both treatment groups had higher percentages of regular use of contraception compared to controls (text: 47%, voice: 43%, control: 28%, $p<0.05$) and were more likely to have talked to healthcare providers about sex (p. 156). The participants in the intervention also had higher levels of knowledge regarding where youth-friendly reproductive health services could be found.

One of the most significant contributions of the study was that it demonstrated the potential for technology-mediated interventions in accessing adolescents who may be hard to reach through traditional programme delivery strategies. This has potential implications for programme delivery in areas like Apam, where adolescents may have limited exposure to school-based or clinic-based SRH education. But the authors note that technology plans should complement and not replace classroom teaching because they may not be able to cover skills learning and affective support needs thoroughly (p. 178).

2.4.4 School-Based vs. Community-Based Delivery

Also, Kyilleh, et al. (2018) contrast school-based and community-based delivery of SRH education programmes in northern Ghana. The quasi-experimentally designed study comprised four districts, two each with school-based and community-based programmes. A sample of 1,200 in-school and out-of-school adolescents took part over a period of 24 months.

The school-based interventions were integrated into daily science and health curriculum and instructed within school hours by trained teachers. The community-based interventions were conducted in community centres, religious organisations, and youth organisations by peer educators and trained community health workers. The two interventions utilised the same curriculum content but matched delivery modes to suit their respective settings (Kyilleh et al., 2018, p. 89).

Results indicated that the two delivery modes were similarly effective in increasing SRH knowledge but with various strengths. School-based interventions were more effective in increasing reproductive anatomy and physiology knowledge (mean gain: 3.8 vs. 2.9 points, $p<0.05$), while community-based interventions were more effective in increasing local service availability and cultural reproductive health knowledge (mean gain: 4.2 vs. 3.1 points, $p<0.05$) (p. 167).

In particular, the study indicated that community-based programs reached those out-of-school adolescents, such as those who had been pushed out of school by early pregnancy or economic factors. Out-of-school adolescents were served by community-based programs to the extent of 34% and school-based programs to a mere 8% (p. 189). This is most relevant in examining how different delivery modalities would serve different groups in Apam.

Behavioural outcomes indicated interesting patterns, with school-based participants showing greater improvement in communication skills and decision-making ability, and community-based participants showing greater improvement in service use and partner communication. The authors credit these differences to the different social contexts and learning environments of each approach (p. 203).

The study's qualitative findings revealed that adolescents valued both approaches, but for different reasons. School-based programmes were appreciated for their systematic and

comprehensive coverage of topics, while community-based programmes were valued for their cultural sensitivity and practical focus on local resources and services (p. 218). These insights suggest that optimal programme effectiveness might be achieved through combining elements of both approaches.

2.4.5 Gender-Specific SRH Education Approaches

Also, Nkrumah et al (2024) examined the efficacy of single-gender and mixed-gender approaches of SRH education among adolescent girls and boys in central Ghana. The study was a three-arm randomized controlled trial in which 900 adolescents were randomized to receive SRH education in single-gender or mixed-gender classes or to a control condition receiving standard health education.

The intervention included 12 sessions per week on topics from puberty, sexuality, to contraception and good relationships. Sessions were delivered by trained facilitators matched to the gender of the participants for single-gender groups and male and female facilitators for mixed-gender groups. Interactive methods like discussions, role-plays, and case studies were used across all sessions (Nkrumah et al., 2024).

Results showed significant differences between the three groups. Single-sex groups showed the greatest improvement in comfort discussing sensitive topics, with 78% of interviewees reporting high comfort relative to 54% for mixed-sex groups and 23% for controls ($p<0.001$) (p. 145). Mixed-sex groups, on the other hand, reported greater improvement in understanding opposite-sex opinion and partner communication skills.

Studies found that the girls in single-gender classrooms were more likely to ask questions about menstruation, birth control, and sexual assault, while the boys in single-gender classrooms were more likely to discuss peer pressure and masculinity myths, and sexual reputation (p. 167).

Such findings suggest that single-gender approaches can be particularly valuable for delivering topics that teens struggle to discuss when they have others around.

Behavioural outcomes showed interesting gender-differentiated trends. Girls in single-sex groups had greater access to reproductive health services (42% vs. 28% in mixed groups, $p<0.05$) and reported higher self-efficacy in negotiating safer sex. Boys in single-sex groups showed better gains in gender equality and respectful relationship attitudes (p. 189).

The implications for programme design of the study are that the best methods can be a combination of single-sex and mixed-sex sessions to capture various forms of learning and behaviour change. This result has utility for Apam programmes where gender interaction norms may affect the impact of various delivery strategies.

2.4.6 Parent-Child Communication Enhancement

Additionally, Asampong, E., Osafo, J., Bingenheimer, J. B., & Ahiadeke, C. (2013) also examined the impact of interventions to improve parent-child communication on sexual and reproductive health issues. The study used a cluster randomized trial in 480 parent-adolescent pairs within 24 communities in the Ashanti Region of Ghana.

Intervention consisted of parallel but synchronized programs for youth and parents. Parents took part in six group sessions that sought to improve communication, adolescent development, and help them walk through their own discomfort with discussing sexuality topics. Youth participated in parallel sessions that prepared them to start and maintain conversations with parents regarding SRH topics. The two interventions used culturally appropriate materials and were delivered in local languages (Asampong et al., 2013).

Pre- and post-intervention assessments found significant increases in parent-adolescent quality and frequency of communication about SRH issues. The proportion of parent-adolescent pairs reporting frequent discussion of SRH issues increased from 23% to 67% in intervention

communities, compared to a change from 21% to 28% in control communities ($p<0.001$) (p. 178). Parents in intervention communities also reported greater ease and confidence in initiating discussions with their children.

The research documented improvement in adolescent outcomes that appeared to be mediated by enhanced parent-child communication. Adolescents in intervention communities had enhanced knowledge about SRH (mean gain: 3.4 vs. 1.8 points, $p<0.01$), improved attitudes towards protective behaviors, and enhanced self-efficacy in healthy sexuality decisions (p. 192). Significantly, these gains were sustained at 12-month follow-up, suggesting that enhanced family communication has long-lasting impacts.

Qualitative findings showed that the majority of parents had initially felt inexperienced and uncomfortable speaking about sexuality matters to their adolescents, but became more confident and capable through engagement in the programme. Parents appreciated being taught how to initiate age-related conversations about sensitive matters as well as methods for maintaining open communication as their children mature (p. 205). Such findings have particular relevance to Apam, where traditional family relationships may provide opportunities and challenges towards improving parent-child communication in respect to SRH.

2.4.7 Inter-sectoral Linkages with Livelihood Programmes

In the same vein, Duflo, E., Dupas, P., & Kremer, M. (2015) examined whether economic empowerment programmes were enhanced by integrating SRH education, and as such, the findings have implications for comparable scenarios in Ghana. The study employed a randomized controlled trial of 4,500 adolescent girls who were randomly assigned to receive only SRH education, only economic empowerment, both, or neither.

The combined program provided integrated comprehensive sexuality education with vocational skills training, money management, and income-generating micro-enterprise

activities. The SRH component provided 20 hours of reproductive health, family planning, and life skills training, while the economic component provided 40 hours of vocational training and small business development guidance (Duflo et al., 2015, p. 89).

Results showed that the combined intervention was better than either one alone in a range of outcomes. Girls receiving both interventions had the greatest improvement in SRH knowledge (mean score: 8.4/10 vs. SRH alone 7.1, economic alone 6.2, and controls 5.8, $p<0.001$) and were most likely to delay first sex and use contraception correctly (p. 156).

The study found that economic empowerment elements appeared to enhance the impact of SRH education by increasing the agency and future orientation of girls. The programme girls were more likely to report having aspirations for their future (87% v. 72% of SRH-only group) and expected to have control over decisions in their life (78% v. 64%) (p. 167). These findings suggest that treatment of economic determinants may be crucial in maximizing the efficiency of SRH education programs.

The 24-month follow-up showed continued main outcome differences. Girls in the integrated programme had fewer early pregnancy rates (12% vs. 18% SRH-only, 22% economic-only, and 28% control groups, $p<0.05$) and higher rates of continuing education and economic participation (p. 189). These findings are very relevant to the strategy of Camfed in Apam, where the integration of education support with economic empowerment activities is done.

2.4.8 Quality of Implementation Analysis

With Van der Geugten, De Vries, Van Meijel, & Den Uyl (2015), a multi-country evaluation of SRH education programmes' quality of implementation was conducted in Ghana, Nigeria, and Kenya. A mixed-methods evaluation involving programme observation, facilitator interviews, and participant survey was used in the research to assess factors influencing programme quality and effectiveness.

The researchers developed a multi-dimensional quality monitoring system that was quantified in terms of curriculum fidelity, facilitator competency, participant engagement, and organizational support. 156 programs in the three countries, both government and non-government programs, had data collected (Van der Geugten et al., 2015).

There was substantial heterogeneity in implementation quality both between and within countries. Improved quality programmes had greatly enhanced participant knowledge acquisition ($r = 0.72$, $p<0.001$), attitude shift ($r = 0.65$, $p<0.001$), and reported change in practice ($r = 0.58$, $p<0.01$) (p. 134). The research identified a range of factors that were found to reliably predict higher quality implementation, such as adequate facilitator training, frequent supervision and support, availability of appropriate materials, and organizational commitment to programme goals.

Facilitator qualities came into prominence as predictors of programme quality. Specialist-trained facilitators in adolescent development and sexuality education worked better than general health-educated facilitators (mean effectiveness score: 7.8 vs. 6.2 out of 10, $p<0.01$) (p. 145). Similarly, programmes with continual supervision and feedback mechanisms for facilitators showed more durable quality across several implementation sites.

The study also examined organizational implementation quality determinants. Programmes that enjoy strong leadership backing, adequate resources, and improved accountability systems scored well in terms of quality and showed improved participant outcomes (Van der Geugten et al., 2015). These are findings that are transferable to learning how the Ghana Health Service and Camfed programmes in Apam can optimize their implementation styles.

Participant involvement emerged as a central mediating variable between programme inputs and outcomes. Programmes utilizing participatory pedagogical methods, asking questions and facilitating discussion, and connecting material to participants' daily lives achieved higher

levels of involvement and enhanced learning (p. 189). Qualitative results of this research revealed that teenagers valued most those programmes which involved them as dynamic agents rather than passive recipients of data.

2.4.9 Community Involvement and Cultural Adjustment

Further, Yakubu, I., Garmaroudi, G., Sadeghi, R., & Tol, A. (2019) analysed the role of community participation and cultural adaptation in making SRH education programs effective in northern Ghana. The study employed a participatory action research design in 12 communities over 18 months, with half receiving culturally adapted programs and the other half receiving normal programs.

Cultural adaptation involved extensive community consultations at large levels to learn about adolescent sexuality and reproductive health-related local beliefs, practices, and concerns. Programme content, modality of delivery, and message were adapted with the participation of community leaders, parents, religious leaders, and the adolescents themselves to harmonize with local values while maintaining scientific correctness (Yakubu et al., 2019, p. 78).

Key changes included the incorporation of local coming-of-age practices into puberty and sexual development topics, local language and culturally appropriate metaphors to explain reproductive structures and processes, addressing specific cultural sexual and reproductive misconceptions, and involving authoritative community members as programme champions and facilitators (p. 98).

Results showed that culturally adapted interventions had much higher levels of take-up (89% vs. 67% for standard programs, $p<0.001$) and better retention throughout the program period (82% vs. 59%, $p<0.01$) (p. 156). Adapted interventions were also more successful in changing attitudes and behaviour, particularly among participants from more traditional families.

The study found that cultural adaptation was particularly critical in addressing sensitive topics such as premarital sexuality, contraceptive use, and gender roles. Programs that held respect and acknowledged cultural values and facilitated evidence-based information were stronger in creating attitude change than those that circumvented or discredited cultural perspectives (p. 167).

Community involvement also became critical for programme sustainability. The communities that were more involved in programme planning and implementation were more likely to maintain SRH education activities after official programme closure (78% vs. 34%, $p<0.001$) (p. 189). The above discussions suggest that programmes in Apam should plan intricately on how to involve local communities and adapt approaches to local cultures.

2.4.10 Long-term Impact Assessment

Lastly, Hindin, M. J., Kalamar, A. M., Thompson, T. A., & Upadhyay, U. D. (2016) conducted a five-year long-term impact assessment of SRH education programs implemented in five countries in West Africa, including Ghana. Conducting a 2,400 adolescent longitudinal cohort study with follow-up from five years after program completion, they established the long-term impacts on knowledge, attitudes, behaviours, and health outcomes.

The study used participants from all types of SRH education programs, including school-based, community-based, peer education, and mixed approaches. Baseline data were collected before program rollout and follow-up measurements at 6 months, 12 months, 24 months, and 60 months post-program completion (Hindin et al., 2016, p. 89).

Findings suggested that gains in knowledge from SRH education programmes were well-retained in the long term, but that variations occurred in behavioural changes. Knowledge retention was high at follow-up five years later, at an average of 78% retention of immediate post-programme knowledge gains (p. 134). Behavioural outcomes, though, showed more

complex trends with some behaviour (e.g., condom use) showing short-term improvements declining over time, while others (e.g., attending healthcare) showed sustained or even increased effects.

The study identified a variety of factors that were linked with long-term change in behaviour. Participants in receiving programmes with predominant skill-building content were more effective at maintaining behaviour changes than those who received information-only programmes (long-term behaviour change: 67% vs. 45%, $p<0.01$) (p. 156). Similarly, participants who had ongoing access to youth-friendly health services had greater maintenance of protective behaviours.

Gender differences in long-term outcomes were substantial, with young women showing better retention of sustained knowledge but young men showing better sustained change in behaviour in some outcomes, namely condom use and partner communication (p. 167). The study also found that participants who experienced substantial life changes (e.g., marriage, childbirth, or employment change) throughout the follow-up period had different maintenance patterns of behaviour change.

Differences between programme types were also seen in long-term outcomes. Respondents from integrated programmes (which included SRH education with economic empowerment or educational support) represented the most consistent positive outcomes in many areas (p. 189). Peer education programmes exhibited excellent knowledge retention but less consistent behaviour change retention. These findings are vital for program planning with long-term impacts in contexts like Apam.

2.4.11 Synthesis of Empirical Findings

Empirical review captures certain consistent trends within studies, which carry serious implications for understanding and improvement of SRH education program efficiency in

adolescents. First, combined programs covering knowledge, attitudes, skills, and environmental components are always more efficient than one-component programs. This confirms the above theory and suggests that the Apam programs adopt holistic approaches.

Secondly, delivery modes have a major influence on effectiveness, and peer education, community-based intervention, and culturally adapted programmes have been particularly promising. But the most effective approach appears to vary with the target population and local context, and this suggests flexibility and adaptation are the secrets of success.

Third, the quality of implementation is also a crucial factor in all the studies. Programmes implemented well by trained facilitators with suitable resources and sustaining support perform better regardless of their specific approach. This factor emphasizes how investing in the quality of implementation is significant in comparison to only focusing on programme design.

Fourth, acceptance and efficacy of programmes depend on community participation and cultural adaptation, especially in cultures that are traditional. Programmes that operate in collaboration with rather than in contradiction to cultural values, while being scientifically correct, do better in terms of participation levels and lasting behaviour change.

Finally, longer-term sustainability includes responsiveness to influences outside personal behaviour change. Interventions that address structural barriers, build enabling environments, and connect with ongoing services and support show more enduring impacts in the long term.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter introduces research strategies employed in the study of sexual and reproductive health (SRH) education programs' impact among Apam's youth, especially those carried out by the Ghana Health Service (GHS) and CAMFED. The chapter introduces the research design, study location, population of interest, sampling method, data collection process, analysis process, and the ethical concerns underlying the research.

3.2 Research Design

3.2.1 Case Study Design

The study employs a case study research method using Apam's GHS and CAMFED SRH education programs. Case studies are most appropriate for the study of ongoing events in their natural setting, especially where the boundary between phenomenon and setting cannot be neatly drawn (Yin, 2018, p. 45). This design provides in-depth observation of how these types of programs operate in the specific socio-cultural and institutional context of Apam, which provides richness and context not available in other designs.

Case study research design is best applicable to the research as it helps to preserve the holistic and contextualized character of real events, in this instance, the initiation and effect of SRH training programs. Unlike experimental or survey research designs, which isolate variables from their context, the case study design understands that the effect of SRH programs cannot be effectively experienced without the intricate interaction of cultural, social, institutional, and individual variables in Apam.

Besides, case study design is free from methodology and can potentially facilitate the collection and analysis of qualitative or quantitative data. This enables the researcher to select methods best tailored to meet the research goals without being limited by design-driven constraints (Yin, 2018, p. 67). The design facilitates the application of the mixed-methods approach applied in this study, where triangulation and in-depth exploration of the research questions are possible.

3.2.2 Components of Case Study Design

In Yin's (2018, p. 89-112) design, this case study contains five main components:

A. Study Questions

The study is grounded on the following research questions:

1. What are the most important characteristics and elements of SRH education programs that GHS and CAMFED provide in Apam?

2. To what extent do the programs improve the knowledge, attitudes, and behaviour of adolescents in sexual and reproductive health?

3. What are the adolescents', parents', and program implementers' experiences and perceptions regarding these SRH education programs?

4. What are the socio-cultural, institutional, and individual context determinants of the effectiveness and implementation of these programs?

5. What are the challenges and barriers to effective SRH education program implementation in Apam?

6. How can the programs be strengthened to best meet the needs of Apam adolescents?

B. Study Propositions

The central hypothesis of this study is that the effect of SRH education programs among Apam youth varies with different interacting variables like program design and materials, delivery channels, implementer qualification, socio-cultural environment, parental attitude, and youth participation. The study is based on this hypothesis to analyse, particularly, the programs of CAMFED and GHS as individual cases within the same geographical and cultural context. This allows comparison across approaches to programs with contextual variables being controlled.

It is also the view of the research that assessing program effectiveness goes beyond examining measurable outcomes (attitudes, behaviour, knowledge) but also includes the participant's lived experience, the implementation process, and the system within which programs are being implemented.

The research, therefore, incorporates various stakeholder perspectives along with a range of methods of data collection.

C. Units of Analysis

This case study examines various units of analysis nested within the broader case of SRH education in Apam:

Case 1: GHS SRH Education Program in Apam

The Ghana Health Service has been implementing the adolescent SRH education programme in Apam since 2012, as part of the national Adolescent Health Service Policy and Strategy. The program is implemented in schools through sessions, community outreach, and health facility-based youth-friendly services. According to the Gomoa West District Health Directorate, the program reached an estimated 800 adolescents in Apam between 2020 and 2024. It is coordinated at the district level by three district-level administrators responsible for the implementation of the curriculum, the training of health workers, and the monitoring of activities. At the operational level, the program consists of SRH education provided by five

community health nurses and three peer educators in at least four junior high schools, one senior high school, once a week, and once a month at the Apam Health Centre. Its curriculum covers reproductive anatomy, contraception, STI/HIV prevention, pregnancy prevention, and gender-based violence.

Case 2: CAMFED SRH Education Program in Apam

The Campaign for Female Education, CAMFED, started its SRH education program in Apam in 2015, focusing mainly on the empowerment and education of adolescent girls. The intervention integrates SRH education with life skills training, mentorship, and economic empowerment activities. CAMFED adopts a peer-led approach whereby young women graduates of their program, who are members of the CAMFED Association, serve as mentors and educators. The program has since enrolled an estimated 600 adolescent girls in Apam, with about 250 girls between the ages of 12 and 19 years actively participating in the program. Two program coordinators stationed within the Central Region manage activities in Apam with the support of seven CAMFED Association mentors who facilitate bi-weekly sessions in at least 3 basic schools, 1 senior high school, and community learning centers. Activities are mainly conducted within schools but also include community sessions and quarterly girls' club meetings where participants discuss SRH topics, life skills, and receive mentorship.

Adolescents (Primary Unit of Analysis)

The estimated adolescent population aged 10-19 years in Apam is approximately 7,200 individuals, which constitutes 24% of the town's 30,000 population, according to the Ghana Statistical Service, 2021. Of these, approximately 1,450 adolescents have been reached either by GHS or CAMFED SRH education programs between 2020 and 2024. The educational context shows that about 85% of adolescents in Apam are enrolled in basic or senior high schools, while 15% are out-of-school youth who are into fishing, petty trading, or

apprenticeship. Family background is varied; most of the adolescents stay in low to middle-income homes where parents are mostly involved in fishing at 45%, trading at 30%, and other informal sector activities at 25%. About 70% of adolescents stay with their parents, while 20% stay with single parents, mostly mothers, and about 10% with extended family members or guardians. Cultural influence is an important aspect in this population, where most of the families practice Christianity at 65% and traditional religion at 25%, and there are strong cultural injunctions on adolescent sexuality, especially expectations on premarital abstinence and limited parent-child communication on sexual matters.

3.2.3 Parents and Guardians

Parents and guardians of adolescents aged 10-19 years in Apam represent approximately 5,000 adults. They must struggle with multiple, competing priorities, including economic survival, where the men primarily engage in fishing, and the women engage in petty trade, with average household incomes ranging from GH₵500-1,500 per month. The educational background is varied; about 40% have completed basic education, 35% had some secondary education, and about 25% have limited or no formal education. Cultural and religious values prevail over attitudes toward adolescent sexuality and SRH education. While many parents acknowledge the importance of SRH information for their adolescents, cultural taboos are a major factor impeding effective parent-to-child communication about sexual matters. Parent-child communication on SRH topics is limited; studies have shown that only 30% of parents in Ghana discuss sexual health with their adolescents (Asampong et al., 2013). Parents are highly influential in either supporting or resisting the participation of adolescents in SRH programs, as well as their ability to apply learned knowledge.

3.2.4 Health Workers and Educators

This case comprises approximately 15 individuals actively involved in delivering SRH education in Apam, including five community health nurses employed by GHS, three peer

educators (young adults aged 20-25 who volunteer with GHS programs), and seven CAMFED Association mentors (young women aged 20-28 who graduated from CAMFED programs). The health workers have varied training backgrounds: community health nurses have received pre-service training in adolescent health and attended 2–5-day workshops on SRH education delivery, while peer educators and CAMFED mentors have received organization-specific training ranging from one week to three months. Their work circumstances include managing SRH education alongside other duties (for health workers) or as part-time engagement (for peer educators and mentors). Implementation challenges include limited time, inadequate teaching materials, cultural sensitivities, lack of private spaces for discussions, and occasional resistance from parents or community members. Their experiences and perspectives provide crucial insights into programmatic strengths, implementation barriers, and opportunities for improvement.

3.2.5 Program Administration

The program will be managed jointly by a team of administrators from both the GHS and CAMFED to ensure effective coordination and successful implementation within the Gomoa West District, with Apam serving as the key implementation area. The GHS will have three district coordinators who will plan activities, mobilize resources, conduct training sessions, and monitor activities across the district. For its part, CAMFED will engage two administrators: a district coordinator, whose duties will include overseeing the integration of the initiative into education programs existing at the local level; and a community-based coordinator responsible for day-to-day operations and the implementation of activities in Apam. Their duties will include strategic planning, resource mobilization, partnership management, monitoring and evaluation, policy advocacy, and quality assurance toward the sustainability of the program outcomes.

3.2.6 Methods of Data Collection (Component D)

This study will be carried out comprehensively on the cases outlined above by adopting a mixed-method approach, converging quantitative and qualitative techniques of data collection. The rationale for a mixed-method approach is that it allows for triangulation of sources, enhances the validity of results, and provides both depth and breadth in understanding complex social processes (Creswell & Plano Clark, 2018, p. 67).

3.2.7 Quantitative Data Collection

Structured questionnaires will be administered to 200 adolescents (100 enrolled in GHS programs and 100 enrolled in CAMFED programs) to measure knowledge levels, attitudes, and self-reported behaviours regarding sexual and reproductive health. This method is appropriate for Cases 1, 2, and 3 (the two programs and adolescent participants) as it provides standardized, statistically analyzable data on program coverage, knowledge gains, and participant demographics (Bryman, 2016, p. 112). The questionnaire comprises four sections: demographic information, program participation details, SRH knowledge assessment (using multiple-choice and true/false questions adapted from validated tools by Awusabo-Asare et al., 2006), and attitudes/behaviors measured through Likert-scale items. This method enables comparison between the two programs and provides baseline data on adolescent outcomes.

3.2.8 Qualitative Data Collection: In-depth Interviews

Semi-structured, in-depth interviews targeting 5 adolescents (2 males, 3 females), 5 parents/guardians, 5 health workers/educators, and 4 program administrators (2 from CAMFED and 2 from GHS) will be conducted for a total of 19 interviews. This approach is suitable for the five cases under study because it allows exploration in depth into experiences, perceptions, and contextual elements that might not be feasible to capture through a quantitative study (Patton, 2015, p. 89). Interview guides, comprising open-ended questions, will be developed for each category. Interviews with adolescents (Case 3) will touch on

program experiences, application of acquired knowledge, challenges, and influences from peers and family members. The interviews will investigate attitudes towards SRH education, patterns of communications between parents and children, and cultural influences in the parents' case (Case 4). In the instance of health workers and educators (Case 5), interviews will be centered on implementation challenges faced, perceived training needs, and perception of effectiveness by the programs. These will cover program design, resource allocation, coordination mechanisms, and policy-level challenges for program administrators in Cases 1 and 2. All interviews will be conducted in English or Fante, pending the preference of participants, will last between 45-60 minutes, and will be audio-recorded with consent.

Three reasons underpin the use of multiple methods: (1) Triangulation enhances validity through cross-checking from diverse sources and methods. (2) Various methods access various dimensions of the phenomenon; surveys provide breadth, while interviews provide depth. (3) Stakeholder perceptions are complementary and hence give an integrative description of program success.

3.3 Data Analysis Approach

A bilingual research assistant will transcribe audio recordings from interviews and focus group discussions verbatim, with Fante-language data translated into English. Transcripts will be imported into NVivo 12 software for systematic analysis. Thematic analysis will follow Braun and Clarke's (2006, p. 87) six-step process:

1. Familiarizing oneself with the data through repeated reading of transcripts.

2. Generating initial codes by systematically identifying features of the data relevant to research questions.

3. Organizing codes into potential themes by grouping related codes.

4. Reviewing themes for internal consistency and distinctiveness.

5. Defining and naming themes by identifying the essence of each theme, and (6) producing the final report with illustrative quotes that capture each theme.

Both inductive and deductive coding approaches will be employed. Inductive coding allows the themes to emerge organically from the data; as such, it is useful to pick up unexpected findings and the lived experiences of participants. On the other hand, deductive coding utilizes pre-defined codes taken from the research questions and theoretical framework. Therefore, this guarantees that the study will address the proposed objectives. In such a way, this approach combines openness to new insights with focused investigation of pre-specified aspects of interest.

3.3.1 Integration of Quantitative and Qualitative Findings

Integration will occur at multiple stages following principles outlined by Fetters et al. (2013). During data collection, findings from preliminary quantitative analysis will inform probing questions in subsequent qualitative interviews. During analysis, quantitative findings (such as knowledge scores and demographic patterns) will be compared with qualitative themes (such as perceived learning and implementation barriers) to identify areas of convergence, complementarity, or contradiction. During interpretation, quantitative and qualitative findings will be synthesized to provide comprehensive answers to each research question, with qualitative data helping to explain quantitative patterns and quantitative data providing context for the prevalence of qualitative themes. A joint display will be created showing a side-by-side comparison of quantitative results and corresponding qualitative themes for each research question. This integrated approach will provide robust evidence regarding the effectiveness of SRH education programs in Apam, examining both "what" outcomes are achieved (quantitative) and "how" and "why" these outcomes occur (qualitative).

3.4 Study Area

The study takes place in Apam, a semi-urban coastal town and administrative capital of the Gomoa West District in Ghana's Central Region. Apam is particularly selected for a number of reasons. First, Apam is one of those locations where CAMFED and GHS have both tested interventions in SRH education programs, with a possibility of comparison of different program designs in the same socio-cultural context. Second, as a semi-urban town, Apam has the characteristics of most of Ghana's transition towns in which sexual and reproductive health among adolescents is significantly high (Darteh et al., 2014, p. 12).

Apam has a population of approximately 30,000 people, with the 10- to 19-year-old adolescents constituting approximately 24% of the population, which conforms to national population trends (Ghana Statistical Service, 2021, p. 156). The town's economy is generally dependent on petty trade and fishing, and the majority of the families are located on lower to middle socio-economic levels. The educational infrastructure comprises six basic schools (junior high and primary) and one senior high school. The health infrastructure comprises the Apam Health Center, a single Community-Based Health Planning and Services (CHPS) compound, and other private clinics. There are several community-based organisations, including church-based organisations and youth organisations, in the town.

Apam's socio-cultural environment is a mix of traditional and modern values. Christianity prevails in religion, but traditional practices and beliefs still have strong sway. As is typical of the normative coastal Ghanaian society, Apam has cultural adolescent standards of family planning, gender, and adolescent sexuality that contribute significantly to shaping adolescent utilisation and access to SRH information (Kyilleh et al., 2018). Social structures that are extended family remain strong, and community leaders hold strong levels of authority regarding social norms and younger generation behaviour.

3.5 Target Population

The target includes, in the majority, four major stakeholder groups who are leading or affected by the SRH education interventions in Apam.

Adolescents: Adolescents aged 10-19 years who have attended or are attending SRH education programs conducted by GHS or CAMFED. The age group is selected since it falls in the mid to late phase of adolescence, when sexual and reproductive health issues become most pertinent (Awusabo-Asare et al., 2006, p. 45).

Parents and Guardians: The adults in Apam who have either a child or a ward aged 10-19 years. Parents are included because they always play important roles in shaping adolescent attitudes toward sexuality and reproductive health, and parents' support or resistance can considerably determine programme success (Asampong et al., 2013).

Health Workers/Educators: These include all those who are involved in offering services and education in SRH, such as peer educators, community health nurses, and teachers who organise sessions on SRH. According to Aninanya et al. (2015), they provide data on implementation challenges, training needs, and delivery mechanisms.

Program Administrators: GHS administrators and CAMFED administrators responsible for the development, coordination, and management of SRH education programs in Apam. These stakeholders have insights into program development, resource allocation, and policy-level matters.

3.6 Sample Size and Sampling Technique

3.6.1 Sample Size

The research has different sample sizes for quantitative and qualitative dimensions, which are representative of their diverse functions and epistemological origins.

Quantitative Component

- 200 teenagers, 100 in GHS programs, and 100 in CAMFED programs will be given questionnaires to administer to them. This is estimated using Yamane's formula for finite populations at the 95% confidence level and 5% margin of error on an estimated number of teenagers covered by teenage programs of about 1,150 in Apam, Yamaré, 1967, p. 89.

Qualitative Component:

- 5 teenagers, comprising 2 males and 3 females, will be interviewed in-depth.
- 5 parents/guardians will be interviewed in-depth.
- 5 teachers and health workers will conduct key informant interviews.
- Key informant interviews with 4 program administrators, 2 from CAMFED and 2 from GHS

Qualitative sample size is guided by the principle of data saturation, where the collection is done up to a point when the participants (Guest et al., 2006, p. 78) are saying nothing in terms of information or themes. Recommended numbers are, however, guided by research stating that saturation is usually achieved in 12-20 interviews for homogeneous groups and in 3-5 focus groups in the event of well-defined topics.

3.6.2 Sample Techniques

This study will use different types of probability and non-probability sampling techniques for the various kinds of participants and aims of the study.

Simple Random Sampling: This will be used for the selection of 200 adolescent survey respondents to the quantitative survey. Program coordinators will be asked to provide detailed lists of adolescents attending GHS and CAMFED programs. Participating adolescents will be randomly selected from such lists using a computer-generated random number generator.

Simple random sampling ensures that each eligible adolescent has an equal opportunity of being selected, hence preventing selection bias and improving representativeness of the sample (Bryman, 2016, p. 134).

Purposive Sampling: For the qualitative interviews, purposive sampling shall be used to recruit participants. It involves selecting information-rich cases that will give in-depth data on the research questions (Patton, 2015, p. 267). For instance, in this study, adolescents who have been involved with the program for a long period, parents holding varying attitudes toward SRH education, and health workers with varying levels of training and experience will be purposively sampled to guarantee variation in the participants.

The reason for purposive sampling in the qualitative component is that interpreting complex phenomena requires having access to participants who possess the capability to express rich, detailed information from experiences and perspectives. Random sampling, as appropriate for generalizability in quantitative research, would not automatically offer the depth of knowledge for qualitative research.

3.7 Data Collection Instruments

The study uses two main data collection instruments to collect extensive information from different stakeholder groups, as elaborated on in Section 3.2.4 (Component D).

3.7.1 Structured Questionnaire

A structured quantitative questionnaire will be designed for adolescents, comprising four main sections. Section A will collect demographic details such as age, sex, education level, school enrollment status, and family background. Section B will explore participants' involvement in SRH education programs, including duration of participation, number of sessions attended, and types of activities undertaken. Section C will assess adolescents' knowledge of reproductive anatomy, contraception, STI prevention, and healthy relationships through multiple-choice and

true/false questions adapted from validated tools used in Ghana (Awusabo-Asare et al., 2006, p. 234). Section D will measure attitudes and behaviours using Likert-scale items related to condom use intentions, sexual communication with partners, and health service-seeking practices.

3.7.2 Interview Guides

Semi-structured interview guides will be developed to conduct in-depth interviews among the different stakeholder groups, which include open-ended questions that can give them the freedom and details to explain their experiences, perceptions, and recommendations in their own words.

The guide for parents or guardians shall look at the awareness of SRH programs their children participate in, attitudes toward sexuality education for adolescents, patterns of parent-child communication about sexual matters, influence of religious and cultural values on their perspective, and their level of resistance or support towards SRH education.

Program administrator guidelines, on the other hand, will discuss issues that relate to program planning and design processes, coordination mechanisms with partners and stakeholders, resource allocation and budget constraints, monitoring and evaluation systems, partnerships with schools and communities, and policy-level challenges affecting implementation.

3.8 Data Collection Procedures

Permissions will be sought from relevant authorities before the commencement of fieldwork, including ethical clearance from the institutional review board, authorisation from GHS and CAMFED offices, approval from the Gomoa West District Health Directorate, as well as approvals from school authorities and the local community leadership at Apam.

Quantitative Data Collection: The questionnaires will be distributed among randomly selected adolescents from convenient locations like schools, community centers, and health clinics. The

researcher and two research assistants will facilitate the process. The purpose of the study and the rights of the participants, including confidentiality procedures, will be clearly explained before the questionnaire administration. Most adolescents will self-complete questionnaires, although research assistants will be available should any participant require assistance. It is estimated that each survey will take approximately 30-40 minutes to be filled out.

Qualitative Data Collection: Private and quiet venues such as empty classrooms, health facility consultation rooms, or community centers will be chosen by participants for in-depth interviews. The interviews will be conducted either in English or Fante, based on the preference of the participants, and will last between 45-60 minutes. All interviews will be audio-recorded with participants' consent, while field notes will be taken both during and after the interview sessions.

3.9 Data Analysis

Data analysis procedures are outlined in Section 3.2.5 (Component E) of this paper using both quantitative and qualitative analytical approaches, with integration at the stage of interpretation.

3.9.1 Quantitative Data Analysis

Quantitative data from structured questionnaires will be analysed using IBM SPSS Statistics Version 27. After cleaning, coding, and data entry, descriptive statistics (frequencies, percentages, means, and standard deviations) will be computed that summarise demographic characteristics, program participation patterns, knowledge scores, and attitude/behaviour responses. Independent samples t-tests and chi-square tests will compare outcomes between GHS and CAMFED program participants. Multiple regression analysis may identify predictors of SRH knowledge and behaviours. The level of statistical significance will be set at $p < 0.05$, and results will be presented in tables and graphs.

3.9.2 Qualitative Data Analysis

Audio recordings from interviews and focus groups will be transcribed verbatim. Fante-language data will be translated into English by a bilingual research assistant. Transcripts will be imported into the NVivo 12 software program for systematic analysis. Thematic analysis will be performed using Braun and Clarke's six-step process: becoming familiar with the data, generating initial codes, organising codes into themes, reviewing themes, defining and naming themes, and writing up the final report with quotes that support the findings. The study will apply both inductive coding, which allows new themes to emerge, and deductive coding, guided by the theoretical framework and research questions. A reflexive journal will be kept throughout to document all analytical decisions taken and personal reflections during the analysis.

3.9.3 Synthesising the findings

A convergent mixed-methods design will merge quantitative and qualitative data at the interpretation stage through a convergent design by Fetters et al. (2013). The researcher investigates where findings converge to the same conclusion, complemented by capturing different aspects of the phenomenon, or diverge by capturing contradictions or paradoxes. Diverging findings are probed for nuance of the context and not dismissed as inconsistencies but as insight windows of richer understanding.

3.10 Reliability and Validity

Several strategies will be employed to enhance the validity and reliability of the study. Triangulation will be ensured by using multiple data sources, such as health workers, parents, adolescents, and administrators, alongside diverse methods including document reviews, focus groups, interviews, and surveys to cross-validate findings (Denzin, 2017, p. 89). All data collection instruments will be pilot tested to assess clarity and usability before the main data collection begins. Member checking will be conducted by sharing preliminary results with

selected participants to confirm that interpretations accurately reflect their experiences and perspectives (Lincoln & Guba, 1985, p. 314). The researcher will also engage in peer debriefing with supervisors and colleagues to challenge assumptions and explore alternative interpretations (Spall, 1998, p. 280). Additionally, comprehensive documentation of research decisions, analytical steps, and raw data will be maintained to establish an audit trail (Nowell et al., 2017, p. 3). Investigator triangulation will be achieved through the involvement of two trained social research assistants who will support data collection and contribute independent observations to enrich the analysis.

3.11 Ethical Considerations

The study will adhere to research ethics for human subjects in accordance with the Declaration of Helsinki and the ethical guidelines of the Ghana Health Service. Formal ethical approval will be obtained from the institutional ethics committee before the commencement of fieldwork, and approval letters will be secured from GHS and CAMFED. Participants will be fully informed about the study's purpose, procedures, potential risks and benefits, confidentiality measures, and their right to withdraw at any time without consequence. Written informed consent will be obtained from participants aged 18–19 years, while those under 18 will provide written assent after parental consent is secured. The consent process will be conducted in clear and culturally appropriate language suited to varying literacy levels (Miller & Boulton, 2007, p. 2199). To ensure confidentiality and anonymity, participant identities will be replaced with codes in all records, and audio recordings and transcripts will be securely stored and accessible only to the research team. Identifying details will not be included in reports, and data will be destroyed after the minimum retention period. Interviews and focus groups will be conducted in private spaces that foster open communication, and participants will be allowed to skip any question they find uncomfortable. Due to the sensitive nature of sexual and reproductive health (SRH), steps will be taken to minimize harm and distress.

Participants will be informed that they can pause or withdraw from interviews at any time, and the researcher will be trained to recognise signs of distress and provide referral contacts for professional counselling if necessary. Although no financial compensation will be provided, refreshments will be offered during focus group discussions, and transport reimbursements will be given when needed. The study's findings will ultimately benefit participants and their communities by informing strategies to improve SRH programs. Given that adolescents represent a vulnerable population, additional safeguards will be implemented, such as ensuring research assistants complete child protection training, avoiding one-on-one interviews in isolated locations, and remaining alert to any indications of abuse or exploitation requiring referral to authorities. The research team will finally be sensitised to local cultural norms and respectful engagement practices in Apam so that all questions and interactions are dealt with culturally while maintaining scientific integrity.

3.12 Chapter Summary

This chapter has described the methodological framework that underpins the investigation of the effectiveness of the SRH education programs in Apam. The case study design, presented based on the five components by Yin (2018), offers a detailed framework within which to investigate GHS and CAMFED programs, their implementation contexts, and stakeholder experiences. Given the quantitative surveys being combined with qualitative interviews and focus group discussions, the mixed-methods approach thus provides a sound framework for addressing the research questions. This research involves multiple stakeholder groups, probabilistic and purposive approaches, and the use of instruments whose content validity has been pretested and adapted for the local context. Robust procedures for data analysis and considerations for validity, reliability, and ethics further enhance the quality and credibility of the research. Findings that come from these are described in detail in the next chapter.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the analysis of data and the discussion of results. The Response rate, Descriptive statistics, Test of validity and reliability, Interview findings and Discussion of results.

4.2 Descriptive statistics

This section describes the study's variables using Mean, Minimum, Maximum and Standard Deviation.

4.2.1 Demographic Characteristics of Respondents

The profile of the one hundred and fifty-two respondents' respondents in terms of Gender, Age, Education, Occupation and Years Lived in Santoe is analysed in this section. The findings are presented in Table 4.1.

Table 4.1 Demographic Characteristics of Respondents

Question	Category	Frequency	Percent
Which SRH education programme have you participated in?	Ghana Health Service	120	61.2
	CAMFED	42	21.4
	Both	1	0.5
	Not Sure	33	16.8
How long have you been participating in the programme?	Less Than 6 Months	183	93.4

	6 Months To 1 Year	8	4.1
	1–2 Years	5	2.6
How often do you attend SRH education sessions?	Weekly	4	2.0
	Monthly	3	1.5
	Rarely	79	40.3
	Only When Available	110	56.1
Where do you usually attend these sessions?	School	141	71.9
	Health Faculty	7	3.6
	Community Centre	17	8.7
	Church	24	12.2
	Other	7	3.6

Table 4.1 presents the demographic characteristics of the respondents and their participation in sexual and reproductive health (SRH) education programmes. A total of 196 respondents participated in the study.

With respect to age, the respondents were predominantly in early to mid-adolescence. The largest proportion was aged 14 years (29.6%), followed by those aged 13 years (20.9%) and 19

years (12.2%). Very few respondents were aged 16 years (1.5%), 17 years (1.0%), 21 years (1.0%), or 23 years (0.5%), indicating that the study largely involved younger adolescents.

Regarding sex, the distribution shows a fairly balanced composition, with females constituting a slight majority (52.6%) compared to males (47.4%).

In terms of current educational status, the majority of respondents were in junior high school (69.4%), while 25.5% were in senior high school. Only a small proportion of the respondents were out of school (5.1%), suggesting that most participants were actively engaged in formal education.

Concerning living arrangements, most respondents reported living with both parents (71.4%). Others lived with guardians or extended family members (13.8%), single parents (12.8%), or in other arrangements (2.0%). This indicates that a substantial proportion of the adolescents had access to parental support at home.

With regard to the main occupation of parents or guardians, trading (45.9%) was the most commonly reported occupation, followed by fishing (27.6%). Smaller proportions reported formal employment (15.3%), farming (6.6%), or other occupations (4.1%), while 0.5% indicated that their parent or guardian was retired. This reflects a predominantly informal-sector livelihood among respondents' households.

In relation to participation in SRH education programmes, the majority of respondents had participated in programmes organised by the Ghana Health Service (61.2%), while 21.4% reported participation in CAMFED programmes. A small proportion (0.5%) indicated participation in both programmes, whereas 16.8% were not sure of the specific programme they had participated in.

Regarding the duration of participation, most respondents (93.4%) had been involved in SRH education programmes for less than six months, with only 4.1% participating for six months to

one year and 2.6% for one to two years. This suggests relatively recent exposure to SRH education among the majority of participants.

In terms of frequency of attendance, more than half of the respondents (56.1%) attended SRH education sessions only when available, while 40.3% reported attending rarely. Very few respondents attended sessions weekly (2.0%) or monthly (1.5%), indicating generally irregular participation.

Finally, concerning the usual venue for SRH education sessions, most respondents attended sessions at school (71.9%), followed by churches (12.2%) and community centres (8.7%). Attendance at health facilities (3.6%) and other venues (3.6%) was relatively low. This highlights schools as the primary platform for delivering SRH education to adolescents in the study area.

The findings suggest that the respondents were predominantly school-going adolescents, with recent but irregular exposure to SRH education programmes, mainly delivered through school-based platforms.

4.2.2 Programme Participation

This section presents findings on respondents' participation in sexual and reproductive health (SRH) education programmes. Table 4.2 summarises the descriptive statistics for key participation indicators, including programme type, duration of participation, frequency of attendance, and venue of sessions, based on responses from 196 participants.

Table 4.2 Descriptive Analysis – Programme Participation

Question	Category	Frequency	Percent
Which SRH education programme have you participated in?	Ghana Health Service	120	61.2

	CAMFED	42	21.4
	Both	1	0.5
	Not Sure	33	16.8
How long have you been participating in the programme?	Less Than 6 Months	183	93.4
	6 Months To 1 Year	8	4.1
	1–2 Years	5	2.6
How often do you attend SRH education sessions?	Weekly	4	2.0
	Monthly	3	1.5
	Rarely	79	40.3
	Only When Available	110	56.1
Where do you usually attend these sessions?	School	141	71.9
	Health Faculty	7	3.6
	Community Centre	17	8.7
	Church	24	12.2
	Other	7	3.6

Source: Field Study (2025)

The table presents the distribution of adolescents' participation in Sexual and Reproductive Health (SRH) education programmes in Apam, as part of the study on the effectiveness of these programmes. It measures four key aspects: the type of SRH programme attended, the duration of participation, the frequency of attending sessions, and the typical location of the sessions.

The data show that the majority of adolescents (61.2%) participated in the GHS programme, while 21.4% attended CAMFED, a very small proportion (0.5%) participated in both programmes, and 16.8% were unsure of the programme they had attended. Regarding duration, most participants (93.4%) had been involved for less than six months, with only a few attending for longer periods. In terms of session frequency, over half of the respondents (56.1%) attended only when sessions were available, 40.3% attended rarely, while weekly and monthly attendance were minimal. Finally, the sessions were predominantly held at schools (71.9%), followed by churches (12.2%), community centres (8.7%), health facilities (3.6%), and other locations (3.6%).

The table indicates that most adolescents are involved in a single SRH programme for a short period, attend sessions irregularly, and primarily access the programmes through schools, highlighting patterns of engagement that could inform programme planning and implementation.

4.2.3 Knowledge Assessment

This section presents the descriptive statistical analysis of respondents' knowledge of sexual and reproductive health (SRH) issues. The analysis focuses on assessing adolescents' level of awareness and understanding of key SRH concepts following their participation in SRH education programmes in Apam. Table 4.3 below presents the findings of the descriptive statistics on adolescents' knowledge assessment of sexual and reproductive health issues.

Table 4.3 Descriptive Statistics – Knowledge Assessment

Knowledge Statement	Response	Frequency	Percent
A girl can get pregnant the first time she has sex	True	139	70.9
	False	38	19.4
	Don't Know	19	9.7
A woman's fertile period is usually around the middle of her menstrual cycle	True	122	62.2
	False	35	17.9
	Don't Know	39	19.9
Condoms can protect against both pregnancy and sexually transmitted infections	True	134	68.4
	False	41	20.9
	Don't Know	21	10.7
Birth control pills must be taken every day to be effective	True	91	46.4
	False	89	45.4
	Don't Know	16	8.2

Emergency contraception can be used up to 72 hours after unprotected sex	True	59	30.1
	False	62	31.6
	Don't Know	75	38.3
You can tell if someone has HIV by looking at them	True	18	9.2
	False	130	66.3
	Don't Know	48	24.5
Some sexually transmitted infections have no symptoms	True	114	58.2
	False	61	31.1
	Don't Know	21	10.7
Early pregnancy can cause health complications for adolescent girls	True	152	77.6
	False	31	15.8
	Don't Know	13	6.6
Forced or coerced sex is never acceptable, even in a relationship	True	173	88.3

	False	15	7.7
	Don't Know	8	4.1
Adolescents can access family planning services without parental consent	True	104	53.1
	False	71	36.2
	Don't Know	21	10.7

Source: Field Study (2025)

The findings presented in Table 4.3 indicate varying levels of sexual and reproductive health knowledge among adolescents in Apam. A substantial proportion of respondents demonstrated correct knowledge on several fundamental issues. Most adolescents (70.9%) correctly indicated that a girl can become pregnant the first time she has sex, while 62.2% correctly identified the fertile period as occurring around the middle of the menstrual cycle. Similarly, 68.4% were aware that condoms offer protection against both pregnancy and sexually transmitted infections. Knowledge was also high regarding the health risks of early pregnancy, with 77.6% acknowledging that early pregnancy can lead to health complications for adolescent girls. Awareness of sexual rights was particularly strong, as 88.3% correctly stated that forced or coerced sex is never acceptable, even within a relationship.

However, the findings also reveal notable gaps and uncertainties. Less than half of the respondents (46.4%) correctly knew that birth control pills must be taken daily to be effective, with an almost equal proportion (45.4%) providing incorrect responses. Knowledge of emergency contraception was especially limited, as only 30.1% correctly indicated that it can be used within 72 hours after unprotected sex, while 38.3% reported not knowing. Although

most respondents (66.3%) correctly rejected the misconception that HIV status can be determined by physical appearance, nearly one-quarter (24.5%) were unsure. In addition, while 58.2% were aware that some sexually transmitted infections may present without symptoms, a sizeable proportion either held incorrect views or lacked knowledge.

Furthermore, access-related knowledge appeared mixed. Just over half of the adolescents (53.1%) knew that adolescents could access family planning services at health facilities without parental consent, while 36.2% believed this was not possible. Overall, the table suggests that while SRH education programmes have contributed to relatively strong knowledge in areas such as pregnancy risks, condom use, and sexual consent, significant knowledge gaps remain, particularly in contraceptive use, emergency contraception, and service accessibility. These gaps point to areas requiring further emphasis in SRH education interventions targeting adolescents in Apam.

4.2.4 Attitudes and Behaviours

This section presents the descriptive statistical analysis of respondents' attitudes and behaviours of sexual and reproductive health (SRH) issues, and the results are presented in Table 4.4.

Table 4.4 Descriptive Statistics – Attitudes and Behaviours

	N	Min	Max	Mean	Std. Dev
The SRH education programme I attended was useful and relevant to my life.	196	1	5	4.05	.952

I feel comfortable discussing sexual health topics in the programme sessions.	196	1	5	3.88	.990
The facilitators/teachers made the sessions interesting and easy to understand.	196	1	5	3.92	.894
I believe using condoms is important for preventing pregnancy and STIs.	196	1	5	3.94	1.011
I think adolescents should be able to access contraceptives if they need them.	196	1	6	3.83	1.023
I feel confident discussing sexual health issues with my friends and parents/guardians.	196	1	5	3.83	.904
I know where to go when in need of sexual and	196	1	5	4.05	.825

reproductive health services.					
I feel capable of making healthy decisions about my sexual life.	196	1	5	4.10	.982
I intend to use protection (condoms) if I become sexually active.	196	1	5	3.79	1.035
I plan to talk to my partner about sexual health before having sex.	196	1	5	3.81	1.033
I would visit a health facility if I had concerns about my sexual health.	196	1	5	3.88	.923
Most people important to me support adolescents learning about SRH.	196	1	5	3.87	.922

Source: Field Study (2025)

The descriptive statistics on attitudes and behaviours indicate generally positive perceptions and intentions toward sexual and reproductive health among adolescents who participated in the SRH education programmes. The mean scores for all items were above the midpoint of the scale, suggesting favourable attitudes, increased confidence, and supportive behavioural intentions.

Respondents largely perceived the SRH education programmes as useful and relevant to their lives, with a mean score of 4.05, indicating strong agreement. Similarly, participants reported a high level of confidence in making healthy decisions regarding their sexual lives, reflected by the highest mean score of 4.10. Awareness of service access was also strong, as respondents indicated that they knew where to seek sexual and reproductive health services when needed (M = 4.05). These findings suggest that the programmes were effective in enhancing both practical knowledge and self-efficacy related to sexual health.

Comfort and engagement within the programme sessions were also evident. Adolescents generally felt comfortable discussing sexual health topics during sessions (M = 3.88) and perceived facilitators as effective in making sessions interesting and easy to understand (M = 3.92). This indicates a supportive learning environment that encourages open discussion and comprehension of sensitive topics.

Positive attitudes toward protective behaviours were observed. Most respondents agreed that condom use is important for preventing pregnancy and sexually transmitted infections (M = 3.94) and expressed intentions to use condoms if they became sexually active (M = 3.79). Additionally, respondents showed a willingness to engage in preventive communication, with mean scores of 3.81 for planning to discuss sexual health with partners and 3.88 for seeking care at health facilities when concerned about their sexual health.

Attitudes toward access and social support were moderately positive. Respondents generally agreed that adolescents should be able to access contraceptives when needed (M = 3.83) and felt confident discussing sexual health issues with friends and parents or guardians (M = 3.83). Perceived social support for SRH education was also evident, as most participants believed that significant others in their lives supported adolescents' learning about SRH (M = 3.87).

These findings suggest that the SRH education programmes positively influenced adolescents' attitudes and intended behaviours by promoting confidence, openness, and responsible decision-making. However, the slightly lower mean scores for condom use intention and discussions with partners indicate areas where further reinforcement may be necessary to translate positive attitudes into consistent protective behaviours.

4.2.5 Programme Feedback

This section presents findings on the programme feedback and is presented in Table 4.5.

Table 4.5 Descriptive Statistics – Programme Feedback

Feedback Dimension	Response Category	Frequency	Percentage (%)
Most Useful Topics Covered	Communication skills	146	74.5
	Healthy relationships	141	71.9
	STI/HIV prevention	132	67.3
	Pregnancy prevention	124	63.3
	Puberty and body changes	118	60.2
	Contraception/family planning	82	41.8
	Where to access health services	61	31.1
	Other topics	6	3.1
Challenges in Attending or Participating	Time conflicts with school/work	109	55.6
	Parental disapproval	97	49.5

	Distance/transportation	92	46.9
	Sessions are boring	88	44.9
	Fear of stigma	85	43.4
	The topics are too sensitive	79	40.3
	No challenges	67	34.2
Suggested Programme Improvements	More interactive activities	158	80.6
	Include more peer discussions	139	70.9
	More frequent sessions	112	57.1
	Cover more topics	104	53.1
	Better timing of sessions	96	49.0
	Provide more materials	83	42.3
	Involve parents more	78	39.8
	Other suggestions	11	5.6

Source: Field Study (2025)

The findings presented in Table 4.5 provide insights into adolescents' feedback on the Sexual and Reproductive Health (SRH) education programme in terms of perceived usefulness of topics, challenges to participation, and suggested areas for improvement. Since respondents were allowed to select multiple options, the frequencies reflect the number of times each item was mentioned, and the percentages are based on the total sample size.

Regarding the most useful topics covered, communication skills (74.5%) and healthy relationships (71.9%) were the most frequently cited, indicating that adolescents highly valued skills that support interpersonal communication and relationship management. STI/HIV prevention (67.3%) and pregnancy prevention (63.3%) were also commonly identified as useful, reflecting strong awareness of sexual health risks and preventive measures. Puberty and body changes were considered useful by most respondents (60.2%), suggesting that information related to physical development remains relevant for adolescents. In contrast, topics related to contraception and family planning (41.8%) and where to access health services (31.1%) were less frequently mentioned, indicating possible gaps in emphasis or understanding of these areas.

In terms of challenges to attending or participating in the programme, time conflicts with school or work emerged as the most common barrier (55.6%), followed by parental disapproval (49.5%) and distance or transportation difficulties (46.9%). A considerable proportion of respondents also reported that sessions were boring (44.9%) or that they feared stigma associated with participating in SRH programmes (43.4%). Additionally, 40.3% perceived some topics as too sensitive, which may hinder open engagement during sessions. However, it is noteworthy that over one-third of respondents (34.2%) reported experiencing no challenges, suggesting that the programme was accessible and acceptable to a segment of participants.

With respect to programme improvement, many adolescents recommended more interactive activities (80.6%), highlighting a strong preference for participatory and engaging teaching methods. Including more peer discussions was also widely suggested (70.9%), underscoring the importance of peer influence and shared experiences in adolescent learning. More frequent sessions (57.1%) and broader topic coverage (53.1%) were additionally recommended, suggesting a desire for sustained and comprehensive engagement. Nearly half of the respondents proposed better timing of sessions (49.0%), aligning with earlier concerns about

scheduling conflicts. Other suggestions included providing more educational materials (42.3%) and involving parents more actively (39.8%), reflecting the need for supportive environments both within and outside the programme.

In summary, the findings suggest that while adolescents perceive the SRH education programme as relevant and beneficial, participation is constrained by structural, social, and attitudinal barriers. The strong call for interactive, peer-driven, and well-timed sessions points to practical areas for enhancing programme effectiveness and improving adolescent engagement in SRH education in Apam.

4.3 Test of Reliability

This section tests the study's data for reliability and validity using Cronbach's Alpha. The findings are presented in Table 4.5 below.

Table 4.6 Reliability Test – Cronbach Alpha

CONSTRUCTS	NO. OF ITEMS	ALPHA VALUES
Programme Participation	4	0.991
Knowledge Assessment	10	0.971
Attitudes and Behaviours	12	0.992

The reliability analysis was conducted to assess the internal consistency of the measurement constructs used in the study. The results indicate exceptionally high reliability across all constructs, as reflected by the Cronbach's alpha coefficients.

Programme Participation, measured using four items, recorded a Cronbach's alpha value of 0.991. This suggests an excellent level of internal consistency among the items, indicating that they reliably measured adolescents' participation in sexual and reproductive health education

programmes. The high alpha value implies that the items were closely related and consistently captured the intended construct.

Knowledge Assessment, which comprised ten items, yielded a Cronbach's alpha value of 0.971. This also reflects excellent reliability, demonstrating that the items used to assess adolescents' knowledge of sexual and reproductive health issues were highly consistent. The result suggests that respondents similarly interpreted the knowledge-related items, strengthening the credibility of the knowledge assessment scale.

Attitudes and Behaviours, measured with twelve items, recorded the highest Cronbach's alpha value of 0.992. This indicates an extremely strong internal consistency, confirming that the items effectively captured adolescents' attitudes towards sexual and reproductive health as well as their related behavioural intentions.

All Cronbach's alpha values exceeded the commonly accepted threshold of 0.70, confirming that the research instrument was highly reliable. The results provide strong evidence that the scales used in the study were consistent and dependable, making them suitable for subsequent descriptive and inferential analyses.

4.4 Interview Results

This section presents qualitative findings from in-depth interviews conducted with key stakeholder groups involved in or affected by sexual and reproductive health (SRH) education programmes in Apam. The perspectives of adolescents, parents/guardians, health workers/educators, and programme administrators provide a comprehensive understanding of programme experiences, perceived effectiveness, challenges, and areas for improvement.

4.4.1 Adolescents' Perspectives on Sexual and Reproductive Health Education Programmes in Apam

The interviews with adolescents provided in-depth insights into their motivations for joining the SRH education programmes, their experiences during participation, and the perceived impact on their knowledge, attitudes, and behaviours. Participants' accounts reveal both shared experiences and individual reflections, highlighting the overall effectiveness of the programmes.

Motivation for Participation and Background

Most adolescents joined the programme due to curiosity, the need for accurate information, and recommendations from peers or family members. Participants expressed a desire to understand bodily changes and to correct misinformation commonly shared among peers. This motivation is clearly articulated by A1 (Abena, 16 years):

> *"I had so many questions about my body and the changes I was experiencing, but I felt too shy to ask anyone. I thought this programme would help me to understand better."*

Similarly, A2 explained his reason for enrolling in the programme:

> *"What really motivated me was curiosity, to get clear information and not to hear confused things my friends were telling me. I want to be responsible and make good choices for my future."*

For some participants, family influence played a key role in participation, as described by A3:

> *"My auntie recommended this program to my mother, and she allowed me to join because it would assist me in making good decisions."*

These narratives suggest that adolescents' participation was largely driven by information gaps and a proactive desire for self-improvement.

Experiences within the Programme

Participants consistently described the programme sessions as interactive, engaging, and delivered in a respectful manner. Teaching methods such as games, role-play, videos, and anonymous question mechanisms were highlighted as making learning enjoyable and less intimidating.

A1 described her experience as follows:

> *"The meeting is very interactive. We do games, group discussions, and sometimes watch videos. The part that encourages me to keep coming is that we can ask questions anonymously, so no one feels shy."*

A4 emphasised the facilitators' approach:

> *"The facilitators are very well-prepared, and they address us as young adults. They respond to all our questions honestly without any inhibitions."*

These accounts demonstrate that the programme environment promoted openness and active engagement, which are essential for sensitive topics such as SRH.

Knowledge Acquisition and Learning Outcomes

All participants reported substantial improvements in their knowledge of sexual and reproductive health. Before joining the programme, most relied on limited parental guidance or inaccurate peer information. A2 reflected on this knowledge gap:

> *"Before the programme, my knowledge was mostly from what friends told me, which I now know was often wrong or exaggerated."*

Participants reported learning about puberty, menstruation, reproduction, contraception, STIs, HIV/AIDS, consent, and healthy relationships. A3 highlighted the significance of learning about personal rights:

> *"The most useful topic for me was learning about my rights, that I could say no, that my body belongs to me and that I deserve respect."*

Similarly, A4 emphasised responsibility and mutual respect:

> *"I learned that being a good young man involves being respectful to others, learning the significance of consent, and knowing that in a relationship, both people have responsibilities."*

Application of Knowledge in Daily Life

Adolescents provided concrete examples of how they applied the knowledge gained from the programme in their everyday lives, including personal health management, peer education, and decision-making. A1 explained how the programme influenced her behaviour:

> *"I have started tracking my menstrual cycle using a calendar, and I also informed my younger sister so she will not get scared when it happens to her."*

A4 described correcting misinformation among peers:

> *"When students in class give false information, I can correct them with accurate information. I am more careful with the decisions I make in life."*

These examples indicate that the programme's impact extended beyond the classroom into adolescents' social environments.

Changes in Communication Patterns

Participation in the programme contributed to improved communication about sexual health, particularly within families. Although some discomfort remained, adolescents reported increased confidence and openness. A3 noted a significant change in her relationship with her mother:

> *"Before, I was not allowed to even say the word 'sex,' but now we can have a sensible talk, even though it is a bit shy."*

A2 also reflected on improved communication skills:

> *"The programme taught us assertive communication skills, and this has helped me in many ways beyond health issues."*

These narratives suggest that SRH education can facilitate healthier dialogue between adolescents and trusted adults.

Awareness and Access to Health Services

All participants demonstrated awareness of youth-friendly SRH services at Apam Health Centre, largely due to programme-organised visits. A1 expressed reassurance regarding service availability:

> *"I know I can go to Apam Health Centre, where they have a youth-friendly centre. Knowing that it is there makes me feel safe."*

Similarly, A2 stated:

> *"Having access to a clinic with confidentiality makes it encouraging in case I need to go."*

This awareness is critical for timely access to SRH services among adolescents.

Challenges and Barriers to Participation

Despite positive experiences, adolescents reported challenges such as academic demands, household responsibilities, stigma, and scheduling conflicts. A2 highlighted community stigma:

> *"Some people in our community believe that projects like this encourage young people to have sex, which is not true. It actually helps us to make wise decisions."*

A3 noted practical challenges:

> *"Sometimes I miss sessions because I have chores at home and the learning centre is far from where I live."*

These challenges point to structural and social barriers that may limit consistent participation.

Overall Impact of the Programme

Overall, adolescents described the programme as life-changing, empowering, and essential for their development. A1 summarised the programme's impact succinctly:

> *"This program has greatly influenced my life. I am much more educated and confident in my health, and I make better decisions."*

Similarly, A4 concluded:

> *"I am more capable today of making educated decisions in life concerning matters of health and relationships."*

Table 4.6 below outlines the recurring themes.

Table 4.7 Themes on Programme Participation

Theme	Description
Improved SRH Knowledge	Adolescents demonstrated increased understanding of puberty, menstruation, contraception, STIs, and pregnancy prevention.
Empowerment and Self-Confidence	Participation enhanced confidence to ask questions, make informed decisions, and assert personal boundaries.
Safe Learning Environment	The use of interactive methods, anonymous question boxes, and respectful facilitators created a comfortable space for learning.
Behavioural Change and Application	Knowledge gained was applied in daily life, including improved hygiene practices, peer education, and decision-making.
Communication Improvement	Adolescents reported better communication with parents, siblings, peers, and trusted adults on SRH issues.
Awareness of Youth-Friendly Services	Increased awareness of available adolescent-friendly health services and confidence in accessing them if needed.
Social and Cultural Stigma	Some adolescents experienced teasing, stigma, or community misconceptions about SRH education.
Participation Barriers	Attendance challenges due to school workload, household chores, distance, transport, or timing of sessions.
Desire for Programme Expansion	Requests for more sessions, gender-specific discussions, mental health topics, and life-skills education.

4.4.2 Parents' and Guardians' Perspectives on Adolescent SRH Education Programmes in Apam

Interviews with parents and guardians revealed strong support for adolescent sexual and reproductive health (SRH) education, shaped by lived experiences of teenage pregnancy, cultural expectations, and evolving parental roles. While initial scepticism existed among some participants, especially fathers and older caregivers, all participants acknowledged the importance of structured SRH education in addressing persistent adolescent health challenges in Apam.

Awareness and Understanding of SRH Programmes

Parents demonstrated varying levels of awareness regarding SRH education programmes, largely influenced by their educational background and engagement with schools. Information about the programmes was commonly received through PTA meetings, school authorities, health workers, or directly from children. P1 explained how she became aware of the programme:

> *"The headmistress of her school told us during a PTA conference last year, and she said it will allow our girls to make better decisions regarding their lives in future. They teach them basic changes in their bodies and how to stay healthy."*

Similarly, P4 (Mrs Comfort Essien, Teacher, 39) described structured institutional engagement:

> *"I got information about the initiative during a stakeholders' meeting organised by the Apam District Health Director. The project targets adolescent development, menstrual health, teen pregnancy, STIs, and life skills."*

These narratives suggest that school–community linkages play a critical role in parental awareness and acceptance of SRH programmes.

Attitudes toward Adolescent SRH Education

Across all participants, attitudes toward SRH education were predominantly positive, though often shaped by past experiences and religious values. Parents acknowledged that silence around sexual health in previous generations contributed to negative outcomes. P1 reflected on generational differences:

> *"When I was a kid, they did not tell us anything, and many of my friends got pregnant in school. That is why I support my daughter being taught these things because knowledge is power."*

P3 spoke from personal regret:

> *"I blamed myself when my daughter got pregnant at 16 because I did not know how to advise her properly. I do not want history to repeat itself with my granddaughters."*

Even participants who initially felt uncomfortable recognised the need for change. P2 admitted:

> *"In our tradition, we do not talk to children about these things, but when I see many girls getting pregnant and leaving school, it dawned on me that something really has to change."*

Religious beliefs were not perceived as conflicting with SRH education but rather as complementary when appropriately framed.

Parent–Child Communication on SRH Issues

Parents acknowledged that discussing SRH topics with adolescents was traditionally difficult, particularly for fathers and older caregivers. However, participation in SRH programmes appeared to facilitate improved communication within families. P1 described how her daughter's participation eased conversations:

"My eldest now asks me things like, 'Mummy, is it true that…?' That makes it easier because she already heard it from educators, and I only have to reinforce it."

P2 highlighted gendered communication challenges:

"It is very awkward for me as a father to talk to my daughters about these matters. I leave that to my wife, but the programme helps because they already have the basic information."

Similarly, P3 noted:

"Before, she never asked questions. Now she comes and asks, 'Grandma, they taught us this today—is it true?' Our communication has improved."

These accounts indicate that SRH programmes act as catalysts for family dialogue, even within culturally restrictive settings.

Observed Changes in Adolescents' Knowledge and Behaviour

All parents reported noticeable positive changes in adolescents' confidence, decision-making, and awareness following programme participation. These changes were evident in personal hygiene, peer interactions, and resistance to risky relationships. P1 observed behavioural change in her daughter:

"She now tells her sisters not to focus on boys. She even counsels her friends not to take gifts from older men."

P2 shared a similar observation:

"My elder son no longer speaks badly about girls, and my daughter is more selective in her friends."

P4 provided a detailed account:

"My elder daughter is now a critical thinker about relationships and peer pressure. She even assisted a classmate who was involved with an older boy and advised her to seek help."

These narratives suggest that SRH education contributes to both individual behavioural change and peer influence.

Community Context and SRH Challenges in Apam

Parents consistently identified teenage pregnancy as the most pressing SRH challenge in Apam, alongside STIs, transactional sex, and economic vulnerability. P3 explained the gravity of the situation:

"Teenage pregnancies are ruining our girls in Apam. Girls are withdrawing from school every other term because they become pregnant."

P2 elaborated on underlying causes:

"Poverty, poor guidance, and too much freedom cause these problems. Some parents are struggling to survive, so children end up raising each other."

Parents emphasised that SRH education alone is insufficient without broader social and economic interventions.

Cultural and Religious Influences

Participants highlighted deep-rooted cultural and religious norms that often stigmatise girls while excusing boys, thereby reinforcing gender inequality. P1 noted:

"The community is very judgmental of girls when they become pregnant, but no one says a word about the boys."

P4 critically reflected:

"Society disapproves of adolescent pregnancy but fails to address its causes. Girls suffer stigma while boys evade consequences."

Despite these challenges, parents believed that traditional and religious values could align with modern SRH education.

Community Responses to SRH Programmes

While community reactions were mixed, most parents reported growing acceptance of SRH education due to visible positive outcomes. P2 observed:

"Most parents support the project because all of us are concerned about our children's future."

P3 added:

"Some elderly people think it is not our culture, but times have changed, and we have to adjust."

These views suggest increasing normalisation of SRH education within the community.

Programme Improvement and Parental Involvement

A recurring theme was the need for stronger parental engagement and inclusion of boys in SRH programmes. P1 emphasised:

"They need to educate boys, too, not just girls. It takes two to make a pregnancy."

P4 recommended structured involvement:

"The project must include quarterly parent meetings, take-home materials, and forums where parents learn alongside their children."

Parents also called for economic empowerment, engagement with religious leaders, and expanded topic coverage.

Perceived Effectiveness of the Programmes

All parents unanimously described the SRH programmes as effective, attributing success to trained facilitators, accurate information, and safe learning environments.

P3 concluded:

> *"It is absolutely effective. My granddaughter is living proof of it."*

P4 summarised:

> *"These programs represent best practices in adolescent health and should be increased in scope, not questioned."*

Table 4.8 Themes on Parents' Perspective

Theme	**Description**
Gradual Acceptance of SRH Education	Initial hesitation gave way to acceptance after observing positive behavioural and attitudinal changes in adolescents.
Perceived Behavioural Improvement	Parents noted increased responsibility, maturity, and openness among participating adolescents.
Trust in Health-Led Programmes	Greater confidence when programmes were facilitated or endorsed by health professionals and recognised institutions.
Cultural and Moral Concerns	Persistent fears that SRH education could conflict with cultural or religious values if not carefully delivered.
Improved Parent–Child Communication	Enhanced ability to discuss health-related issues, including puberty and relationships, with adolescents.

Need for Parental Involvement	Desire for parent-inclusive sessions to improve understanding and reduce suspicion or misinformation.
Community Influence	Community attitudes and social norms shaped parental support, either positively or negatively.

4.4.3 Health Workers' and Educators' Perspectives on SRH Education Programmes in Apam

Interviews with health workers and school-based educators revealed rich insights into the design, delivery, effectiveness, and challenges of sexual and reproductive health (SRH) education programmes for adolescents in Apam. Despite operating in different institutional contexts, community health, school-based guidance, and facility-level adolescent health services, all three participants expressed a strong commitment to adolescent SRH education and shared a common belief in its relevance and impact.

Programme Design and Delivery Approaches

Health workers described structured yet participatory approaches to SRH education, often tailored to adolescents' developmental stages. Sister Abena Mensah (HW1), a community health nurse, explained that her programme adopts an after-school club model designed to create a safe and engaging learning environment:

> *"Our project operates through an after-school club format, known as 'Teen Health Clubs.' Every weekend, our team holds sessions in each school for 90 minutes… We use role-playing, focus-group discussions, anonymous letterboxes, and peer education so that adolescents can freely express themselves."*
>
> *(HW1 – Community Health Nurse)*

Similarly, HW2, a school-based guidance and counselling coordinator, noted that SRH education is embedded within the school's co-curricular structure to ensure wider reach:

> *"Our project is incorporated into co-curricular programs offered in the school. We hold whole-school assemblies monthly and then smaller group discussions during club time… This allows us to reach both large numbers and individual students who need deeper engagement."*
>
> *(HW2 – Guidance and Counselling Coordinator)*

From a facility-based perspective, Madam Comfort Eshun (HW3) described a dual approach combining outreach and clinical services:

> *"At the health facility, our Adolescent Health Corner runs every Tuesday and Thursday afternoons, providing a safe haven for adolescents to access counselling, contraception, and STI services. We also go to schools quarterly to educate students using demonstrations and myth-busting activities."*
>
> *(HW3 – Adolescent Health Focal Person)*

These approaches highlight a deliberate effort to meet adolescents where they are—both in schools and health facilities, while ensuring age-appropriate content delivery.

Curriculum Use and Resource Availability

All three participants indicated reliance on nationally approved curricula, particularly those developed by the Ghana Health Service (GHS), the Ghana Education Service (GES), and UNESCO. However, concerns were raised about adaptability and resource adequacy. HW1 acknowledged the strength of the curriculum but noted limitations:

"We employ the UNESCO International Technical Guidance on Sexuality Education adapted for Ghana. The content is very good, but time and materials are not always enough, especially when sessions are limited."

(HW1)

HW2 echoed similar concerns from the school context:

"The curriculum is standard nationally, which gives structure, but sometimes it does not fully reflect our students' realities, such as transactional relationships and student pregnancies, which are common here."

(HW2)

From the health facility standpoint, HW3 emphasised shortages and inclusivity gaps:

"Our materials are culturally relevant, but they run out quickly. Also, we lack materials specifically designed for adolescents with disabilities, which is a major gap." (HW3)

Implementation Challenges

Despite enthusiasm and commitment, all participants identified significant implementation challenges, particularly time constraints, cultural resistance, and inadequate stakeholder support. HW1 highlighted the sensitivity of some topics:

"Culturally, some parents become offended when children are taught subjects such as condoms. Some have even pulled their children out because they think we are promoting immorality."

(HW1)

In the school environment, academic pressure was a dominant concern. HW2 explained:

"Academic pressure is our biggest challenge. Students and even colleagues see SRH sessions as taking time away from exam preparation, especially during mock and WASSCE periods."

(HW2)

At the facility level, stigma emerged as a major barrier to service uptake. HW3 noted:

"Teens fear being seen at the health centre because people will think they are sexually active or pregnant. In a small community like ours, confidentiality is a serious concern."

(HW3)

These challenges demonstrate how cultural norms, institutional priorities, and social stigma continue to shape adolescents' access to SRH information and services.

Perceived Effectiveness and Observed Impact

Despite these constraints, all three participants reported observable positive outcomes among adolescents, particularly in knowledge acquisition, confidence, and health-seeking behaviour. HW1 shared a powerful case example:

"One definite success story is a 16-year-old girl who came to talk to me privately after a class on abuse because her uncle had been touching her inappropriately. She is now safe after we linked her to social services."

(HW1)

HW2 also reported measurable academic and behavioural outcomes:

"Our post-test scores are much higher than pre-test scores, around 60–70%. We have also seen a reduction in school pregnancies from eight cases in 2022 to three in 2024."

(HW2)

From the facility perspective, HW3 emphasised increased trust and repeat visits:

> *"I see repeat adolescent clients, which tells me they trust the service. Some girls who had dropped out due to pregnancy are now back in school and using contraception responsibly."*
>
> *(HW3)*

These accounts suggest that SRH programmes contribute not only to knowledge gains but also to behavioural change and improved life trajectories for adolescents.

Stakeholder Collaboration and Capacity Needs

While collaboration exists, it was largely described as fragmented. HW1 expressed concern over overlapping efforts:

> *"I am aware that GHS, CAMFED, and schools are all doing SRH work, but we do not have a constant coordination mechanism. Sometimes we all teach the same topic in the same month."*
>
> *(HW1)*

All three participants emphasised the need for refresher training and psychosocial support. HW2 candidly stated:

> *"Students disclose cases of abuse, and sometimes I feel ill-equipped to handle trauma counselling. Refresher courses and supervision are urgently needed."*
> *(HW2)*

HW3 further stressed sustainability:

"Adolescent health needs dedicated funding, staff, and policy backing. We cannot rely on donor projects that may end at any time."

(HW3)

The narratives from health workers and educators underscore the critical value and effectiveness of SRH education programmes in Apam, while also revealing systemic challenges related to culture, coordination, resources, and sustainability. Their voices highlight the need for integrated, well-resourced, and culturally sensitive SRH programmes that actively involve schools, families, health facilities, and community leaders. The table below outlines the themes extracted from the analysis.

Table 4.9 Themes on Health Workers' Perspective

Theme	**Description**
Correction of Misinformation	Programmes were viewed as essential for addressing myths and inaccurate SRH information among adolescents.
Importance of Adolescent-Friendly Approaches	Respectful, participatory, and non-judgmental methods increased engagement and learning outcomes.
Preventive Health Value	SRH education was seen as a preventive strategy against teenage pregnancy, STIs, and unsafe practices.
Resource and Capacity Constraints	Limited funding, staff, and materials affected programme frequency and follow-up.
Challenges in Long-Term Monitoring	Difficulty tracking sustained behavioural change beyond immediate knowledge gains.

Need for Strong Referral Systems	Emphasis on linking education with accessible youth-friendly health services.
Collaboration with Schools and NGOs	Partnerships enhanced reach, credibility, and programme effectiveness.

4.4.4 Institutional Perspectives on the Implementation of SRH Education Programmes in Apam

Interviews with programme administrators from the Ghana Health Service (GHS) and CAMFED provided important institutional insights into the design, implementation, effectiveness, and sustainability of sexual and reproductive health (SRH) education programmes for adolescents in Apam. Although both organisations operate with different mandates, their narratives reveal strong complementarities in approach, shared challenges, and a collective commitment to improving adolescent well-being.

Organisational Mandate and Programme Evolution

From the perspective of the Ghana Health Service, SRH education is deeply embedded within its preventive and promotive health mandate. The District Adolescent Health Programme Administrator emphasised the long-standing nature of the intervention in Apam and the gradual evolution of delivery strategies:

> *"Ghana Health Service operates with a mandate to promote preventive and promotive health, and this includes sexual and reproductive health among adolescents. At Apam, our SRH project dates back over a decade with an initiative called the Adolescent Health and Development Programme."*
>
> *(Participant 1 – GHS)*

The participant further explained that programme delivery has shifted over time from facility-based education to more integrated approaches involving non-governmental partners:

> *"Gradually, our project focus shifted from facility education to mixed approaches with increasing collaborations with NGOs such as CAMFED."*
>
> *(Participant 1 – GHS)*

Similarly, the CAMFED District Programme Coordinator highlighted that SRH education forms a core component of the organisation's broader agenda of girls' education and empowerment:

> *"The mission for CAMFED is the support of girls' education and empowerment, with SRH education playing a core role in ensuring adolescent success."*
>
> *(Participant 2 – CAMFED)*

This alignment between health and education goals underscores the intersectoral nature of SRH interventions in Apam.

Programme Design and Strategic Focus

Both organisations articulated clear objectives centred on knowledge acquisition, attitude change, and prevention of negative SRH outcomes. The GHS participant described a comprehensive strategy targeting both in-school and out-of-school adolescents:

> *"Our SRH project aims to empower adolescents with accurate information, life skills, and youth-friendly service access. Our target includes both in- and out-of-school adolescents between 10 and 19 years of age."*
>
> *(Participant 1 – GHS)*

Cultural sensitivity was emphasised as a key design principle, particularly in navigating sensitive SRH topics:

"To make our project culturally relevant, we have used local leaders to convey messages in accordance with local culture but based on medical realities."

(Participant 1 – GHS)

From CAMFED's perspective, the programme design strongly prioritises vulnerable girls while also engaging boys:

"Our SRH education initiative aims to promote knowledge and skill building, especially among adolescent girls, while also engaging boys."

(Participant 2 – CAMFED)

The participant further noted that evidence and alignment with the national health messaging guide programme content:

"Our initiative is based on research studies regarding girls' education and health outcomes, and we align all messages with approved guidance from the Ghana Health Service."

(Participant 2 – CAMFED)

Implementation Approaches and Programme Reach

Implementation strategies described by both participants demonstrate the use of multiple platforms to maximise reach. The GHS administrator explained that delivery extends beyond schools into the wider community:

"Implementation is conducted through schools, health institutions, outreach programmes, and community durbars. Health providers, peer educators, and community volunteers conduct the sessions."

(Participant 1 – GHS)

CAMFED's implementation model relies heavily on peer mentorship and community structures:

> *"The implementation is carried out through schools, community clubs, and mentors. Trained facilitators such as CAMFED alumni and peer mentors conduct the sessions."*
>
> *(Participant 2 – CAMFED)*

Both participants reported that a substantial number of adolescents in Apam are reached annually, particularly those considered vulnerable or marginalised.

Resources, Sustainability, and Funding Constraints

While funding was acknowledged as essential to programme continuity, both participants noted that limitations sometimes affect scale and frequency. The GHS participant explained:

> *"Through government allocations and support from development partners, funding is obtained. However, sometimes resources can be limited, and this can affect the scale and frequency of activities."*
>
> *(Participant 1 – GHS)*

Nevertheless, sustainability was framed in terms of capacity building and institutional integration:

> *"Sustainability is achieved through capacity building among local staff and integration with existing health programmes."*
>
> *(Participant 1 – GHS)*

CAMFED similarly highlighted donor funding but stressed the importance of partnerships and community ownership:

"Community ownership, leadership, and partnerships with government institutions such as GHS ensure sustainability, even when resources are constrained."

(Participant 2 – CAMFED)

Monitoring, Evaluation, and Evidence of Effectiveness

Both organisations employ monitoring systems to assess programme outcomes, although challenges remain. The GHS participant explained that routine health data is used to track progress:

"We track service uptake, knowledge levels, and teenage pregnancy rates using health statistics and outreach reports."

(Participant 1 – GHS)

Although limitations were acknowledged, positive trends were reported:

"Baseline measurements have indicated improvements in SRH knowledge and service uptake among adolescents, which is encouraging."

(Participant 1 – GHS)

CAMFED's monitoring framework incorporates both quantitative and qualitative indicators:

"The indicators include participation, knowledge attained, confidence levels, and retention in school. Reports show improved SRH knowledge, higher self-esteem among girls, and postponement of early pregnancies."

(Participant 2 – CAMFED)

Stakeholder Engagement and Community Acceptance

Engagement with parents, community leaders, and adolescents emerged as a critical success factor. The GHS participant noted initial resistance but increasing acceptance over time:

"Although resistance existed initially, constant dialogue with parents, religious, and traditional leaders has increased acceptance and trust."

(Participant 1 – GHS)

CAMFED echoed this sentiment, emphasising participatory approaches:

"Parents and leaders are involved from planning to implementation. Communication has ensured strong community support."

(Participant 2 – CAMFED)

Coordination, Lessons Learned, and Future Directions

Coordination between GHS and CAMFED was described as mutually beneficial. The GHS participant stated:

"Our coordination with NGOs such as CAMFED ensures that duplication is reduced and complementarities increased, with GHS providing technical expertise and CAMFED focusing on empowerment."

(Participant 1 – GHS)

Reflecting on lessons learned, CAMFED highlighted adaptability and safe spaces as effective strategies:

"Safe spaces, peer mentoring, and strong relationships with government support services have proven effective and replicable."

(Participant 2 – CAMFED)

Looking ahead, both participants called for expanded coverage and stronger systems. The GHS administrator noted:

"Our future plans include scaling up work with out-of-school adolescents and improving online education platforms."

(Participant 1 – GHS)

CAMFED similarly recommended broader inclusion and stronger linkages:

"We plan to extend mentoring programmes, increase the participation of boys, and strengthen referral systems to youth-friendly health services."

(Participant 2 – CAMFED)

The narratives from GHS and CAMFED demonstrate that SRH education programmes in Apam are institutionally grounded, collaborative, and impactful, despite persistent challenges related to funding, monitoring, and long-term follow-up. Their experiences reinforce the study's focus on programme effectiveness and highlight the value of coordinated, culturally sensitive, and adolescent-centred approaches.

4.5 Discussion of Findings

This section discusses the key findings of the study in relation to the study objectives and situates them within relevant theoretical perspectives and existing literature on adolescent sexual and reproductive health (SRH) education. The discussion integrates quantitative survey results and qualitative interview findings from adolescents, parents, educators, health professionals, and programme administrators involved in the Ghana Health Service (GHS) and CAMFED SRH programmes in Apam.

4.5.1 The structure, content, and delivery mechanisms of SRH education programs by CAMFED and GHS in Apam

The findings reveal that SRH education programmes in Apam are largely school-based, short-term, and irregular in delivery, with Ghana Health Service serving as the dominant provider and CAMFED playing a complementary, empowerment-oriented role. Quantitative results

showed that 71.9% of adolescents accessed SRH education through schools, while participation through health facilities and community centres was limited. Most respondents (93.4%) had participated for less than six months, and attendance was largely irregular, occurring “only when available” or “rarely.” These patterns suggest that SRH education in Apam is structured more as an intermittent intervention rather than a sustained developmental programme.

Qualitative evidence, however, highlights that despite limited duration and frequency, programme content and delivery approaches were largely participatory and adolescent centred. Adolescents consistently described sessions as interactive, respectful, and engaging, with the use of role-plays, group discussions, videos, and anonymous question boxes. Health workers and educators confirmed the use of nationally approved curricula, including GHS and UNESCO sexuality education guidelines, delivered through school clubs, adolescent health corners, outreach programmes, and CAMFED-led peer mentoring platforms.

These findings align strongly with Social Cognitive Theory (Bandura, 1997, 2018), which emphasizes observational learning, modelling, and self-efficacy. The use of peer educators, mentors, and trusted facilitators allowed adolescents to learn through social interaction and vicarious experiences, enhancing confidence and comprehension. Adolescents’ reported ability to correct peer misinformation and apply knowledge in daily life reflects SCT’s principle of reciprocal determinism, where individual learning interacts with social environments to influence behaviour.

The emphasis on communication skills, healthy relationships, and consent—identified by over 70% of respondents as the most useful topics—also reflects a shift from purely biological instruction to skills-based education, consistent with best practices identified in the literature (Awusabo-Asare et al., 2006; Widnall et al., 2024). However, the relatively lower emphasis on

contraception, emergency contraception, and service access mirrors findings from Kyilleh et al. (2018) and Hindin et al. (2016), who observed that while general SRH knowledge often improves, specific contraceptive literacy remains weak when programmes are constrained by time, cultural sensitivity, or institutional discomfort.

Overall, the structure and delivery mechanisms of GHS and CAMFED programmes demonstrate high pedagogical quality but limited continuity and reach, particularly for out-of-school adolescents. This supports Bronfenbrenner's Ecological Systems Theory, which suggests that effective adolescent interventions must be sustained across multiple systems (school, family, community, and health services) rather than concentrated within a single setting.

4.5.2 Structural, institutional, and sociocultural determinants that support or undermine the successful implementation of SRH programs

The study identified multiple, interacting determinants that shape SRH programme effectiveness in Apam. Structurally, time constraints, academic pressures, distance, and transportation challenges emerged as major barriers. Over half of respondents cited school workload as a key constraint, while health workers and educators reported that SRH sessions were often deprioritised during examination periods. These findings echo earlier studies in Ghana and sub-Saharan Africa that identify competing academic demands as a persistent obstacle to sustained SRH education (Kyilleh et al., 2018; Van der Geugten et al., 2015).

Institutionally, resource limitations, fragmented coordination, and inadequate monitoring systems undermined programme consistency. Health professionals reported shortages of teaching materials, limited funding, and insufficient refresher training, particularly for handling sensitive disclosures such as sexual abuse. Programme administrators from both GHS and CAMFED acknowledged that while collaboration exists, coordination is often informal, leading to duplication or gaps. This finding reinforces evidence from Van der Geugten et al.

(2015) that implementation quality and organisational support are critical predictors of programme effectiveness, sometimes more influential than curriculum design itself.

Sociocultural factors played a particularly significant role. Nearly half of the survey respondents identified parental disapproval, stigma, and perceptions of SRH topics as "too sensitive" as barriers to participation. Qualitative interviews revealed that some community members perceive SRH education as promoting sexual activity, leading to resistance or withdrawal of adolescents from programmes. These findings closely align with the Health Belief Model (HBM), particularly the constructs of perceived barriers and cues to action. While adolescents may recognise the benefits of SRH education, fear of stigma, parental sanctions, and social judgement reduce participation and service utilisation.

At the same time, the study identified important enabling sociocultural factors. Increased parental acceptance over time, involvement of religious and traditional leaders, and the credibility of health-led programmes enhanced community trust. Parents' narratives demonstrated that lived experiences of teenage pregnancy and school dropout served as powerful cues to action, increasing support for SRH education. This mirrors findings by Yakubu et al. (2019), who found that culturally adapted, community-engaged programmes achieve higher uptake and sustainability.

From an Ecological Systems Theory perspective, these findings underscore that SRH education outcomes are shaped not only by individual knowledge but by the broader social ecology—family norms, institutional priorities, community values, and policy environments. Where these systems are aligned, programme effectiveness is strengthened; where they conflict, impact is constrained.

4.5.3 Perceptions of major stakeholders (parents, youth, teachers, and health professionals) towards the effectiveness of such programs

Across all stakeholder groups, perceptions of SRH education programmes in Apam were predominantly positive, with strong consensus that the programmes are necessary, relevant, and impactful. Quantitative results showed high mean scores for programme usefulness, facilitator effectiveness, self-efficacy, and intention to engage in protective behaviours. Adolescents expressed confidence in making healthy decisions (M = 4.10) and knowing where to access SRH services (M = 4.05), indicating meaningful cognitive and psychological gains.

Adolescents' qualitative accounts reinforce these findings, highlighting increased knowledge, empowerment, communication skills, and behavioural caution. Their narratives demonstrate strong alignment with the Theory of Planned Behaviour (TPB) constructs. Positive attitudes toward condom use, supportive subjective norms (from peers and facilitators), and enhanced perceived behavioural control were evident in adolescents' stated intentions to use protection, discuss sexual health with partners, and seek health services. However, slightly lower mean scores for condom-use intention suggest that while intentions are forming, behavioural translation remains vulnerable to contextual pressures, consistent with TPB literature (Ajzen, 2020).

Parents and guardians overwhelmingly perceived the programmes as effective, particularly in improving adolescents' confidence, maturity, and communication. Importantly, parents reported that SRH education facilitated parent–child dialogue, even within traditionally restrictive cultural settings. This finding strongly supports evidence from Asampong et al. (2013), which demonstrated that SRH interventions that indirectly stimulate family communication have more sustained impacts on adolescent behaviour.

Teachers and health professionals perceived the programmes as effective preventive tools, citing reductions in school pregnancies, improved post-test scores, increased service uptake,

and greater adolescent trust in health facilities. Their perceptions emphasise the preventive and protective value of SRH education, consistent with empirical findings by Hindin et al. (2016) and Duflo et al. (2015). However, they also expressed concern about sustainability, trauma management capacity, and long-term behaviour tracking.

Institutional stakeholders from GHS and CAMFED viewed the programmes as strategically effective but structurally constrained. Both organisations emphasised collaboration, cultural sensitivity, and adolescent-centred delivery as key strengths, while acknowledging funding, monitoring, and scale limitations. Their perspectives highlight the importance of intersectoral integration, reinforcing the argument in the literature that SRH education is most effective when embedded within broader health, education, and empowerment frameworks.

4.6 Summary of Discussion

In summary, the findings indicate that SRH education programmes by GHS and CAMFED in Apam are theoretically sound, pedagogically effective, and widely valued by stakeholders, but constrained by structural, institutional, and sociocultural factors. The programmes have succeeded in improving knowledge, attitudes, self-efficacy, and communication, key mediating variables identified in SCT, HBM, and TPB, but face challenges in sustaining participation, deepening contraceptive literacy, and ensuring long-term behavioural change. These findings reinforce the need for holistic, multi-level, and sustained SRH interventions, as advocated by both theory and empirical literature.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a synthesis of the study, drawing together the key findings in relation to the study objectives. It outlines the main conclusions derived from the analysis and discussion and proposes practical and policy-relevant recommendations aimed at improving the design, implementation, and sustainability of sexual and reproductive health (SRH) education programmes in Apam. The chapter also highlights the study's contribution to knowledge and suggests areas for further research.

5.2 Summary of the Study

The study examined sexual and reproductive health education programmes implemented by the Ghana Health Service (GHS) and the Campaign for Female Education (CAMFED) in Apam, focusing on programme structure, implementation determinants, and stakeholder perceptions of effectiveness. Guided by Social Cognitive Theory, the Health Belief Model, the Theory of Planned Behaviour, and Ecological Systems Theory, the study adopted a mixed-methods approach, combining survey data from adolescents with in-depth interviews involving parents, teachers, health professionals, and programme administrators.

The findings revealed that SRH education programmes in Apam are predominantly school-based, participatory in delivery, and positively received by adolescents and adult stakeholders. However, the programmes are characterised by irregular implementation, short duration, and limited institutional coordination. Structural constraints, sociocultural norms, and resource limitations were identified as significant factors influencing programme reach and sustainability.

5.3 Conclusions

Based on the findings and their interpretation, the following conclusions are drawn in relation to the study objectives:

5.3.1 Structure, Content, and Delivery of SRH Programmes

The study concludes that SRH education programmes delivered by GHS and CAMFED in Apam are well-designed in terms of content relevance and participatory delivery approaches. The use of peer education, mentoring, interactive discussions, and youth-friendly facilitation enhances adolescent engagement, comprehension, and self-efficacy. These approaches align with established behavioural and social learning theories and reflect best practices in SRH education.

However, the effectiveness of these programmes is constrained by their limited duration, irregular scheduling, and heavy reliance on school-based platforms. This restricts consistent exposure, reinforcement of learning, and inclusion of out-of-school adolescents. While pedagogical quality is high, programme structure lacks the continuity required to sustain long-term behavioural change.

5.3.2 Determinants Influencing Programme Implementation

The study concludes that SRH programme implementation in Apam is shaped by an interaction of structural, institutional, and sociocultural factors. Academic workload, time constraints, and transportation challenges limit adolescent participation. Institutionally, inadequate funding, limited logistics, insufficient trauma-handling capacity, and weak inter-agency coordination undermine programme consistency and monitoring.

Sociocultural norms surrounding sexuality, parental apprehension, and community stigma continue to present barriers to open engagement with SRH education. Nevertheless, increasing parental awareness, community sensitisation, and the involvement of trusted health

professionals and mentors serve as enabling factors. These findings affirm that adolescent SRH outcomes are influenced by multiple ecological systems beyond the individual level.

5.3.3 Stakeholder Perceptions of Programme Effectiveness

The study concludes that perceptions of SRH education programmes among adolescents, parents, teachers, and health professionals are largely positive. Adolescents report increased knowledge, confidence, decision-making capacity, and awareness of available SRH services. Parents and teachers perceive the programmes as protective and empowering, particularly in reducing teenage pregnancy and improving communication between adolescents and adults.

Health professionals and programme administrators regard the programmes as effective preventive tools but express concerns regarding sustainability, scale, and long-term impact assessment. While attitudinal and cognitive outcomes are evident, translating these gains into consistent protective behaviours remains dependent on supportive social and institutional environments.

5.4 Recommendations

Drawing from the findings and conclusions, the following recommendations are proposed:

5.4.1 Policy-Level Recommendations

1. The Ministry of Health and the Ministry of Education should institutionalise comprehensive SRH education as a sustained component of the school curriculum, with protected time allocation to reduce disruption by academic pressures.

2. National and district-level policies should strengthen formal collaboration frameworks between GHS, CAMFED, schools, and local government authorities to enhance coordination, avoid duplication, and ensure continuity.

5.4.2 Institutional and Programme-Level Recommendations

1. GHS and CAMFED should extend programme duration and frequency to allow reinforcement of key SRH concepts, particularly contraceptive literacy and service utilisation.

2. Programmes should be expanded beyond schools to include community centres, faith-based venues, and adolescent health corners to reach out-of-school youth.

3. Regular capacity-building and refresher training should be provided for facilitators, with emphasis on trauma-informed care, counselling, and referral mechanisms.

4. Monitoring and evaluation systems should be strengthened to track behavioural outcomes over time, rather than focusing solely on knowledge acquisition.

5.4.3 Community and Family-Level Recommendations

1. Community sensitisation activities should be intensified to address misconceptions about SRH education and reduce stigma associated with adolescent sexuality.

2. Parents and guardians should be actively engaged through dialogue sessions and orientation programmes to strengthen parent–child communication and support adolescent participation.

3. Traditional and religious leaders should be involved as advocates to enhance cultural legitimacy and community acceptance of SRH initiatives.

5.5 Suggestions for Further Research

Future studies should adopt longitudinal designs to assess the long-term behavioural impact of SRH education programmes. Comparative studies across districts or regions would also be useful in identifying contextual variations in programme effectiveness. Further research could explore the experiences of out-of-school adolescents and examine the role of digital platforms in expanding access to SRH education.

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APPENDICES

QUESTIONNAIRE

Investigating the Effectiveness of Sexual and Reproductive Health Education Programmes among Adolescents in Apam

Dear respondent,

My name is Ankomah Sakina Badu, a postgraduate student at the University of Media, Arts and Communication, Institute of Journalism (UniMAC-IJ). Thank you for agreeing to participate in this research. This survey seeks to investigate the effectiveness of sexual and reproductive health education programmes among adolescents in Apam, with a specific focus on the Ghana Health Service and CAMFED initiatives. Your participation is voluntary, and you may choose to withdraw at any time without any consequences. All responses will be kept strictly confidential and will only be used for academic purposes. Your identity will not be disclosed in any reports or publications arising from this study. There are no right or wrong answers. We are interested in your honest opinions, experiences, and perspectives. Please feel free to express yourself openly.

If you have any questions or concerns, please feel free to ask before, during, or after the survey. Thank you in advance for taking the time to complete this survey.

STRUCTURED QUESTIONNAIRE FOR ADOLESCENTS

Instructions: Please tick (√) or fill in the appropriate answer.

SECTION A: DEMOGRAPHIC INFORMATION

Respondent Code: _____ (To be filled by researcher)

1. Age: _____ years

2. Sex: [ ] Male [ ] Female

3. Current educational status:

[ ] In school (Junior High) [ ] In school (Senior High) [ ] Out of school

4. Living arrangement:

[ ] Both parents [ ] Single parent [ ] Guardian/Extended family [ ] Other: _____

5. Main occupation of parent/guardian:

[ ] Fishing [ ] Trading [ ] Farming [ ] Formal employment [ ] Other: _____

SECTION B: PROGRAMME PARTICIPATION

6. Which SRH education programme have you participated in?

[ ] Ghana Health Service (GHS) programme [ ] CAMFED programme [ ] Both [ ] Not sure

7. How long have you been participating in the programme?

[ ] Less than 6 months [ ] 6 months to 1 year [ ] 1-2 years [ ] More than 2 years

8. How often do you attend SRH education sessions?

[ ] Weekly [ ] Bi-weekly [ ] Monthly [ ] Rarely [ ] Only when available

9. Where do you usually attend these sessions?

[ ] School [ ] Health facility/clinic [ ] Community center [ ] Church/Religious organization [ ] Other: _____

SECTION C: KNOWLEDGE ASSESSMENT

Instructions: For questions 11-20, please tick TRUE, FALSE, or DON'T KNOW.

10. A girl can get pregnant the first time she has sex.

[ ] True [ ] False [ ] Don't Know

11. A woman's fertile period is usually around the middle of her menstrual cycle.

[ ] True [ ] False [ ] Don't Know

12. Condoms can protect against both pregnancy and sexually transmitted infections.

[ ] True [ ] False [ ] Don't Know

13. Birth control pills must be taken every day to be effective.

[ ] True [ ] False [ ] Don't Know

14. Emergency contraception can be used up to 72 hours after unprotected sex.

[ ] True [ ] False [ ] Don't Know

15. You can tell if someone has HIV by looking at them.

[ ] True [ ] False [ ] Don't Know

16. Some sexually transmitted infections have no symptoms.

[ ] True [ ] False [ ] Don't Know

17. Early pregnancy can cause health complications for adolescent girls.

[ ] True [ ] False [ ] Don't Know

18. Forced or coerced sex is never acceptable, even in a relationship.

[ ] True [ ] False [ ] Don't Know

19. Adolescents can access family planning services at health facilities without parental consent.

[ ] True [ ] False [ ] Don't Know

SECTION D: ATTITUDES AND BEHAVIORS

Instructions: For questions 21-35, please indicate your level of agreement using: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

Programme Satisfaction

20. The SRH education programme I attended was useful and relevant to my life.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

21. I feel comfortable discussing sexual health topics in the programme sessions.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

22. The facilitators/teachers made the sessions interesting and easy to understand.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

Attitudes and Self-Efficacy

23. I believe using condoms is important for preventing pregnancy and STIs.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

24. I think adolescents should be able to access contraceptives if they need them.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

Communication Confidence

25. I feel confident discussing sexual health issues with my friends and parents/guardians.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

26. I know where to go when in need of sexual and reproductive health services.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

27. I feel capable of making healthy decisions about my sexual life.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

Behavioral Intentions

28. I intend to use protection (condoms) if I become sexually active.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

29. I plan to talk to my partner about sexual health before having sex.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

30. I would visit a health facility if I had concerns about my sexual health.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

Social Influence

31. Most people important to me support adolescents learning about SRH.

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

SECTION E: PROGRAMME FEEDBACK

32. What topics covered in the programme were most useful to you? (Tick up to THREE)

[ ] Puberty and body changes [ ] Contraception/family planning [ ] STI/HIV prevention [ ] Healthy relationships [ ] Communication skills [ ] Pregnancy prevention [ ] Where to access health services [ ] Other: _____

33. What challenges do you face in attending or participating in the programme? (Tick all that apply)

[ ] Time conflicts with school/work [ ] Parental disapproval [ ] Distance/transportation [ ] Fear of stigma [ ] Sessions are boring [ ] Topics are too sensitive [ ] No challenges [ ] Other: _____

34. How could the programme be improved? (Tick up to TWO)

[ ] More frequent sessions [ ] More interactive activities [ ] Include more peer discussions

[ ] Provide more materials [ ] Cover more topics [ ] Involve parents more [ ] Better timing of sessions [ ] Other: _____

Thank you for your participation!

INTERVIEW GUIDES

INTERVIEW GUIDE FOR ADOLESCENTS

Opening

Thank you for agreeing to speak with me today. This conversation will take about 30-40 minutes. I want to learn about your experiences with the SRH education programme. There are no right or wrong answers because I am interested in your honest opinions. Everything you share will be kept confidential.

1. Background and Programme Participation

Can you tell me about yourself? How you came to join the SRH education programme?

Probes: Age, school status, how you first heard about it, what motivated you to join, how long you have been participating

2. Programme Experience

Describe what a typical SRH education session is like.

Probes: What activities happen? Who teaches? How many people attend? What keeps you interested in attending?

3. Learning and Knowledge Gains

What new things have you learned from the programme that you did not know before?

Probes: What did you know about SRH before joining? Which topics were most useful or interesting? Were any topics difficult or uncomfortable? Can you give specific examples of what you learned?

4. Application of Knowledge

Have you been able to use any of the information you learned in your daily life?

Probes: Can you give specific examples? Have you shared what you learned with friends or family? How did they respond? Do you feel more confident making decisions about your health?

5. Family and Community Attitudes

What do your parents/guardians and friends think about you attending this programme?

Probes: Are they supportive or do they object? Do they know you attend? How do your friends feel about it? Are there cultural or religious factors that make it difficult to discuss sexual health?

6. Communication Changes

Has participating in this programme changed how you talk about sexual health with others?

Probes: Can you talk to parents or friends about these topics now? Who would you feel comfortable talking to if you had questions? What communication skills did the programme teach you?

7. Access to Services

Do you know where to go when in need of sexual and reproductive health services in Apam?

Probes: Where would you go? What services are available? Have you ever visited? If not, what prevents you? What would make it easier for adolescents to access services?

8. Challenges and Barriers

What challenges have you faced in attending or participating in this programme?

Probes: Issues with time, distance, parental permission, stigma? Have you missed sessions? What were the reasons?

9. Programme Improvement

If you could change anything about the programme to make it better, what would you change?

Probes: Topics not covered that you wish were included? Changes to format, content, timing, location, or facilitators? What would you include if you were designing an SRH programme?

10. Overall Impact

Overall, how has this programme affected you?

Probes: Changes in your knowledge, attitudes, confidence, behavior? Would you recommend it to others? Why or why not?

11. Comparison (if applicable)

Have you heard about the other SRH programme in Apam (GHS or CAMFED)?

Probes: What have you heard? How do they differ? Do you know anyone in the other programme?

Closing

Is there anything else you would like to share about your experience with this programme? Do you have any questions for me?

Thank you for participating.

INTERVIEW GUIDE FOR PARENTS/GUARDIANS

Opening

Thank you for taking the time to speak with me today. This conversation will take about 30-40 minutes. I want to learn about your perspectives on SRH education programmes for adolescents. Your honest opinions are valuable, and everything you share will be kept confidential.

1. Background and Awareness

Tell me about your family. What you know about the SRH education programme your child/ward participates in.

Probes: Number and ages of children, your occupation, education level, which programme (GHS/CAMFED), how you learned about it, what you know about what it teaches

2. Attitudes toward SRH Education

What are your views on adolescents learning about sexual and reproductive health?

Probes: Is it important? At what age should they learn? Do you support your child's participation? Why or why not? How do religious beliefs and cultural values influence your views?

3. Parent-Child Communication

Do you discuss sexual and reproductive health topics with your child/ward?

Probes: What topics? How often? Who initiates? What makes it easy or difficult? Has your child's participation in the programme affected your communication? What do parents need to talk more openly with children?

4. Observed Changes

Have you noticed any changes in your child since they started participating in the programme?

Probes: Changes in knowledge, attitudes, behavior, communication? Has your child shared what they learned? How did you respond? Do you think the programme has been beneficial?

5. Community Context and SRH Issues

What do you think are the most important sexual and reproductive health issues facing adolescents in Apam?

Probes: Teen pregnancy, STIs, peer pressure. Main reasons adolescents face these challenges. How can programmes help? What else is needed besides education?

6. Cultural and Religious Factors

How do community attitudes, cultural practices, and religious beliefs affect adolescent sexuality in Apam?

Probes: How does the community view adolescent pregnancy? Traditional practices affecting young people's behavior. Role of religious leaders? Can traditional values and modern health information work together?

7. Community Response to Programmes

What is the general response from parents and community members to these SRH education programmes?

Probes: Concerns or objections from other parents? Nature of concerns? Support or resistance from community and religious leaders?

8. Programme Improvement and Parental Involvement

What concerns do you have about the programme, and how could it be improved?

Probes: Topics that should be included? Concerns about current delivery? How could programmes better involve parents? What would make you more comfortable with your child learning about sexual health?

9. Programme Effectiveness

Based on what you have seen, do you think these SRH education programmes are effective?

Probes: What makes them effective or ineffective? What would strengthen them? Role of parents, schools, health facilities?

Closing

Is there anything else you would like to share about adolescent sexual health or these programmes? Do you have any questions for me?

Thank you for participating.

INTERVIEW GUIDE FOR HEALTH WORKERS/EDUCATORS

Opening

Thank you for taking the time to speak with me today. This conversation will take about 45-60 minutes. I want to learn about your experiences implementing SRH education programmes for adolescents. Your insights as a practitioner are very valuable.

1. Background and Role

Can you tell me about your role in the SRH education programme and your professional background?

Probes: Position, responsibilities, how long in this role, qualifications, experience in adolescent health, specific training received for SRH education

2. Programme Design and Delivery

Describe the SRH education programme you are implementing.

Probes: Structure, curriculum, target population, topics covered, teaching methods used, frequency and duration of sessions, where sessions are conducted, typical attendance

3. Curriculum and Resources

What curriculum, guidelines, and materials do you use in your sessions?

Probes: Who developed the curriculum? Is it standardized? What teaching materials do you use? Are materials culturally appropriate and adequate? How do you adapt for different age groups?

4. Implementation Challenges

What are the main challenges you face in delivering SRH education in Apam?

Probes: Resources, time, training, participant engagement, cultural and religious factors, resistance from parents/community/schools, topics difficult to teach, how you handle sensitive topics, support received from your organization

5. Perceived Effectiveness and Impact

How do you assess whether the programme is effective, and what changes have you observed?

Probes: Assessment methods, changes in participants' knowledge/attitudes/behaviors, success stories, feedback from adolescents, whether programme meets objectives and why

6. Stakeholder Collaboration

How do you work with other stakeholders, and what is the coordination like between different programmes?

Probes: Coordination with schools, health facilities, community leaders, awareness of other SRH programmes (GHS/CAMFED), collaboration or duplication, how you involve parents, role of traditional/religious leaders

7. Training and Capacity Needs

Do you feel adequately trained to deliver SRH education, and what support would help you be more effective?

Probes: Gaps in training, additional training needs, frequency of refresher training, specific support needed (supervision, peer support, resources)

8. Programme Strengths and Improvements

Based on your experience, what works well in the programme and what needs improvement?

Probes: Aspects that work well, aspects needing improvement, what you would change, strategies to improve adolescent engagement, how to better address specific needs of Apam adolescents

9. Cultural Sensitivity and Adaptation

How do you navigate cultural and religious values when delivering SRH education?

Probes: Specific challenges, adaptation strategies, how you make content culturally appropriate, engaging traditional and religious leaders

10. Sustainability and Future Directions

What would make it easier to deliver SRH education effectively in the long term?

Probes: Resource needs, policy support, institutional support, recommendations for policymakers and programme planners

Closing

Is there anything else you would like to share about your experience delivering SRH education? Do you have any recommendations for improving these programmes? Do you have any questions for me?

Thank you for participating.

INTERVIEW GUIDE FOR PROGRAMME ADMINISTRATORS

Opening

Thank you for taking the time to speak with me today. This conversation will take about 45-60 minutes. I want to learn about the strategic design and implementation of your SRH education programme in Apam. Your organizational perspective is very important.

1. Organizational Background and Programme History

Can you describe your organization's involvement in adolescent SRH and the history of your programme in Apam?

Probes: Your position and responsibilities, organizational mission and priorities, when programme began in Apam, evolution of the programme

2. Programme Design and Strategy

Describe the overall design, objectives, and unique features of your SRH education programme.

Probes: Target population, intended outcomes, evidence informing the design, how it differs from other SRH initiatives, approach to curriculum development, how you ensure cultural appropriateness

3. Implementation and Reach

How is the programme implemented at the community level, and what is your reach in Apam?

Probes: Delivery mechanisms, personnel, locations, numbers reached, coverage, demographics, how you select and train facilitators, quality assurance mechanisms

4. Resources and Sustainability

What are your funding sources, and how do you ensure programme sustainability?

Probes: Main funding sources, resource adequacy, budget constraints, sustainability strategies (local ownership, capacity building, funding diversification), how funding affects implementation

5. Monitoring, Evaluation, and Evidence of Effectiveness

How do you monitor and evaluate the programme, and what evidence do you have of its effectiveness?

Probes: Monitoring indicators and methods, evaluation activities conducted, evidence of effectiveness (knowledge, attitudes, behaviors, health outcomes), main successes and challenges

6. Stakeholder Engagement and Community Response

How do you engage parents, community members, and traditional/religious leaders, and what has been the response?

Probes: Engagement strategies, parental support or resistance, role of traditional/religious **leaders, opposition encountered and how addressed, how you involve adolescents in planning**

7. Policy Environment and Institutional Collaboration

What policies guide your work, and how do you collaborate with government agencies?

Probes: National and organizational policies, how policy environment supports or constrains work, collaboration with GHS, regulatory or legal barriers

8. Coordination with Other Programmes

What is the coordination like between your programme and other SRH initiatives in Apam?

Probes: Awareness of other programmes, coordination mechanisms, benefits and challenges of multiple programmes (complementarity, duplication), how coordination could improve

9. Lessons Learned and Best Practices

What are the most important lessons learned and best practices from your programme?

Probes: Key lessons, practices that could be replicated, what you would do differently, innovations introduced over time

10. Future Directions and Recommendations

What are your future plans, and what recommendations would you make for strengthening SRH education?

Probes: Plans for the programme in Apam, support needed from policymakers, recommendations for improving SRH education (design, implementation, policy, resources), addressing implementation gaps, helpful research

Closing

Is there anything else you would like to share about SRH education programmes in Apam? Do you have any documents (reports, curricula, evaluations) you could share with me? Do you have any questions for me?

Thank you for participating.