# Knowledge of Adolescents' Sexual Reproductive Health and Academic Achievement of Students in Public Secondary Schools in Abak Local Government Area of Akwa Ibom State

**Mrs Jenny Church Akpan, PhD (Public Health)**

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## ABSTRACT

The **st**udy aimed to understand how learning about adolescents' sexual and reproductive health affects the school success of students in public high schools in Abak Local Government Area, Akwa Ibom State. Three research questions and three null hypotheses were created to help guide the study. The study used a type of research design called ex-post facto. This means looking at past events to understand their effects. The study focused on 862 Adolescents who were students in public high schools in Abak Local Government Area. The sample included 120 girls and 120 boys totaling, 240 subjects who were chosen using a random method. This involved drawing names from a group. Data collection was done with the use of a researcher made instrument, titled "The influence of knowledge of adolescent sexual reproductive health on academic achievement of students' questionnaire (TIKASRHOAASQ)'' To answer the research questions, Pearson Product Moment Correlation was used. The three null hypotheses were checked with an independent T-test, using a 0.05 level of significance. The t-value found in the study was higher than the critical t-value for all the hypotheses. Because of this, the hypotheses were rejected. This means that knowing about adolescents' sexual and reproductive health affects how well the adolescent boys and girls do in school. It is suggested that schools should offer counseling on sex education for both boys and girls. This will help reduce cases of sexually transmitted infections and unwanted pregnancies.

**Key Words:** Adolescents, Sexual Reproductive Health, Academic Achievement.

## INTRODUCTION

### Background of the study

Adolescent sexual and reproductive health refers to the physical and emotional wellbeing of adolescents and includes their ability to maintain good menstrual hygiene, remain free from unwanted pregnancy, unsafe abortion, STIs (including HIV/AIDS), and all forms of sexual violence and coercion. The objectives of increasing awareness for reproductive health are: It helps in educating every youth about sexual and reproductive health. It creates awareness among adolescents about safe sexual practices. It helps in preventing sexually transmitted infections, including HIV/AIDS.

Globally, there are roughly 1.2 billion teenagers, and in Sub-Saharan Africa (SSA), they make up about 25% of the population (UNICEF 2019). It is crucial to ensure that young people stay healthy and content for the continent's economic progress and future achievements. Worldwide plans, such as the Sustainable Development Goals (Targets 3.7 and 5.6) (UN 2015), emphasize that all children, including teenagers, need access to important information for their development and success. This information covers all the details about sexual and reproductive health. Not knowing enough about sexual and reproductive health (SRH) is a big reason why teenagers often take risky actions with sex. This can cause more teenage pregnancies and a rise in HIV and other sexually transmitted diseases globally (Olayiwole et al. 2014; UNFPA 2016). This issue is especially significant for the growing youth population in poorer countries. They face a higher risk of problems with sexual and reproductive health (SRH) because of social, economic, and cultural issues (Fonner et al. 2014). Teaching kids about sexual and reproductive health (SRH) in schools in a way that suits their age can help stop issues like sexually transmitted infections (STIs) and teenage or unwanted pregnancies (CDC 2019).

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Adolescence is a crucial time when girls learn how to handle their menstrual periods safely and cleanly (Ayele, 2013). It is also when many girls start high school and begin to think about their future adult lives. Many teenage girls reach puberty without being ready because they don't have enough information (Dasgupta,2008). For instance, in countries like Ethiopia, many people view menstruation as a bad thing, a sign of being sick, a punishment from God, or something that never ends. Because of this, teenage girls see menstruation as something shameful that they should hide (Adinma, 2008, Goel, 2010). This can lead teenage girls to face more mental, emotional, and physical problems (Takeda, 2010, Halbreich 2003). These conditions further impair the daily activities, academic performance, school attendance, and social relationships of adolescent girls (Adeuwya 2008, Omu etal, 2011).

How girls feel about menstruation affects how they take care of themselves during their period (Lawan, 2010). Girls who understand menstruation well usually manage their periods in a safe and clean way, while those who don't understand it as well might not (Czerwinski 1996). Bad menstrual hygiene can lead to several problems, such as infections in the reproductive or urinary system, cervical cancer, missing school, dropping out of school, low grades, low self-esteem, and a worse quality of life (Tegegne,2014). Many girls feel afraid, confused, and embarrassed during their periods because of issues like bad smells, leaks, stains on clothes, and dropping sanitary products while they are in class (Fakhri 2012). This can hurt their ability to focus, join in class activities, and feel confident in their studies (Poureslami 2002). Not knowing enough about menstruation and not practicing good hygiene can have serious effects on the girls and their future children.

Sixteen million girls aged 15-19 give birth each year, which is approximately 11% of all births worldwide;(WHO,2014) 95% of these births occur in Low and Medium Income Countries {LMICs}. Important regional differences exist; for example, births to adolescents as a percentage of all births range from approximately 2% in China, to 18% in Latin America and the Caribbean, to more than 50% in Sub-Saharan Africa. (Hodgekison etal2016). Teenagers are at a greater risk of problems and death from pregnancy compared to older women. For instance, in Latin America, girls under 16 years old are four times more likely to die from pregnancy-related issues than women in their twenties. Teenage pregnancies are linked to several problems, including anemia, malaria, HIV, other sexually transmitted infections (STIs), heavy bleeding after birth, and mental health issues like depression. When girls who have not finished growing give birth, they face problems that are less common in adult women. For example, 9% to 86% of women with obstetric fistula got this condition when they were teenagers, which can cause serious, long-lasting issues. Teen mothers often have low income, use drugs, and receive poor prenatal care. Their babies are more likely to be born too early, weigh too little, have trouble breathing, and have a higher risk of dying around birth. (Guttmacher Institute; 2018) The adolescents being the worst hit as a result of lack of knowledge in this area may record lower academic achievement.

Around the world, sexual and reproductive health education in countries like the United Kingdom and Germany covers topics such as the reproductive system, how babies develop, and the physical and emotional changes that happen during adolescence. In Germany, sexual and reproductive health education usually includes topics about growing up, body changes, emotions, how reproduction works, sexual activity, relationships, homosexuality, unplanned pregnancies, problems with abortion, dangers of sexual violence, child abuse, and sexually transmitted infections. (Sawsan et al., 2004).

In Tanzania, secondary schools teach about sexual and reproductive health through biology classes. Topics covered include: good health, how the immune system works, understanding diseases, sexually transmitted infections like HIV/AIDS, making healthy lifestyle choices, avoiding risky behaviors, making responsible decisions, being assertive, delaying sex, using protection during sex, supporting people with HIV, family planning, contraception, and maternal health care.

In Northern Nigeria, the Family Life and HIV/AIDS Education (FLHE) program has not been introduced in schools. State education officials and religious leaders are opposed to including it in the school program (Shiffman et al. 2018). In 2002, an agreement was made with leaders from Northern Ministries of Education. But, the school program was changed a lot to suggest that students should only have sex after they are married. Key subjects such as birth control, self-pleasure, ending a pregnancy, and different sexual orientations were left out. The term "sexuality" was also taken out from the curriculum because it was considered inappropriate.

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This situation was anticipated because of the traditional values in the northern states, where most people are Muslim. In these areas, discussing sex is usually not permitted and is often avoided. (Iliyasu et al. 2012). The effectiveness of programs for teenage sexual and reproductive health depends on the local culture and community attitudes. People may be wary of or distrust health programs that they think are based on Western ideas (Sarki et al. 2019). The complete ban on sexual and reproductive health education for teenagers is very different from what is happening in nearby central states. In those areas, teachers have requested that the national program be extended (Lan et al. 2019).

In Northern Nigeria, families are expected to take a major role in talking about teenage sexual and reproductive health when it is needed. The content of family discussions about sexual and reproductive health is not very clear, and it might only cover basic information needed for girls who are about to get married. Then teenage sexual and reproductive health is not doing well (SFH 2021), it's important to find out what teachers think about giving full sexual and reproductive health education.

In the Southern region of Nigeria, where people follow more modern and Western ideas, there have been better outcomes for the health of women and children (Nigeria Population Commission and ICF International 2014). In the southern and central parts of Nigeria, studies have looked into what teachers think about adding complete sexual and reproductive health education in schools. It also examined their willingness to help teach the program (Fawole et al. 1999; Adegbenro et al. 2006; Lan et al.2019). The research found that teachers in cities were more willing to teach complete lessons about sexual and reproductive health. On the other hand, teachers in rural areas were less interested in teaching this subject. There is still not much research on what teachers in Nigeria think about including full sexual and reproductive health education in school programs.

A teenager's sexual and reproductive health is closely connected to their social, cultural, and economic surroundings. Differences in experiences can be seen based on things like age, gender, marital status, education, where they live, moving to new places, sexual orientation, and economic situation, among other factors. Access to health care, education, information, and support varies greatly. To understand these differences, each country needs to analyze their specific patterns. This helps identify common problems, obstacles, and possible solutions.

In Akwa Ibom State, studies have shown a gap in knowledge about adolescent sexual reproductive health in areas of menstruation/ menstrual hygiene, sexually transmitted Infections, abortion, unwanted pregnancies etc. The first issue identified that needs to be addressed is adolescents' knowledge about the physiology of menstruation, and then the right perceptions and practices. Cultural practices have crept into this modern day and age in terms of various forms of restriction from domestic, academic and social activities during menstruation. (Ekong, 2015).

A study in Uyo L.G.A by Ekpenyong (2009) found that fewer than 60% of 15 to 19-year-olds knew about HIV/AIDS. Awareness of other sexually transmitted infections (STIs) was even lower. Knowledge about preventing pregnancy was similar to that of HIV and AIDS. In contrast, detailed knowledge about HIV/AIDS was found to be low when measured using a method suggested by the World Health Organization (WHO, 2004).

In this study, the researcher aims at studying three of these factors; knowledge of menstrual hygiene, knowledge of sexually transmitted infections, and knowledge of unwanted pregnancy.

Knowledge of menstrual hygiene implies the acquisition of information on the physiology of menstruation, safe practice and management of menstruation in a clean and acceptable way that promote and preserve health and wellbeing. Knowing about sexually transmitted infections (STIs) means learning about what causes them, how they spread, how to prevent them, their complications, and how to keep and improve sexual health.

Knowledge of unwanted pregnancy implies acquisition of information on what unwanted pregnancy means, it causes, consequences and prevention. It is this knowledge gap that this study intends to fill and find out the influence of knowledge of adolescent sexual reproductive health on academic achievement of female students of public secondary schools in Abak LGA.

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**Statement of problem**

Information about Adolescent Sexual and Reproductive Health (ASRH) has often been ignored in the past, even though countries face significant risks when they neglect this issue. Many women feel uneasy talking about menstruation because it is considered a taboo topic. As a result, teenage girls often don't have enough information about it [Lee 2002, Wall et al 2016). Researches have shown that mothers often shy away from ASRH education because of the misconception that those girls will become harlots if their knowledge base is widened in this area. The little, half-baked information these Adolescents receive from peers in their curiosity most time lead them to crisis and it becomes too late to remedy the situation (Sommer et al 2015).

Also, sexual and reproductive health topics are taught in secondary schools as part of the biology subject. Important topics like contraception, masturbation, abortion, STIs, unplanned pregnancies, and sexual diversity are not included. The term 'sexuality' is seen as inappropriate, so it has been taken out of the curriculum. Different political, religious, economic, and cultural factors limit the availability of the necessary information and services in this area.

Healthcare workers often prevent young people from getting the help they need by not offering supportive, nonjudgmental, and age-appropriate services.

Neglecting Adolescent Sexual and Reproductive Health (ASRH) can lead to serious problems. A difficult or harmful transition to adulthood can have lasting negative effects. Early pregnancy or becoming a mother at a young age can be physically dangerous and can also affect education and future job opportunities. Teenage boys and girls face higher risks of getting HIV and sexually transmitted infections (STIs), as well as facing sexual pressure, exploitation, and violence. These issues can greatly affect their physical and mental health, their school performance, and have long-lasting effects on them, their families, and their communities. Based on this, the researcher wants to look at how knowing about Adolescent Sexual Reproductive Health affects the school performance of female students in public secondary schools in Abak Local Government, Akwa Ibom State.

**Purpose of the study**

The main purpose of the study is to examine the influence of the Knowledge of Adolescent Sexual Reproductive Health on academic achievement of students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

Specifically, the study seeks to:

1. Examine the influence of knowledge of menstrual hygiene on academic achievement of female students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

2. Look into how knowing about sexually transmitted infections (STIs) impacts academic achievement of males and female students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

3. Look into how knowing about unwanted pregnancy impacts on academic achievement of male and female students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

**Research questions**

The study is guided by the following questions:

1. How does understanding menstrual hygiene impact the school performance of girls in high schools in Abak, Akwa Ibom State?

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2. How does knowing about Sexually Transmitted Infections (STIs) affect the school performance of male and female students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise?
3. How does knowledge about unplanned pregnancy affect the academic performance of male and female students in public secondary schools in Abak Local Government, Akwa Ibom State?

**Hypothesis:**

1. Knowing about menstrual hygiene does not significantly affect the academic performance of female students in public secondary schools in Abak Local Government, Akwa Ibom State.

2. Knowing about Sexually Transmitted Infections (STIs) does not significantly affect the academic performance of male and female students in public secondary schools in Abak Local Government, Akwa Ibom State.

3. Learning about unplanned pregnancy does not have a big impact on how well male and female students do in public secondary schools in Abak Local Government, Akwa Ibom State.

**Significance of the study:**

This study on knowledge of adolescent sexual reproductive health and academic achievement of female students of public secondary schools will be of benefit to the students because this will afford the students an opportunity to learn about sexual reproductive health and create awareness among adolescent females on good menstrual hygiene. It will inform the students on prevention of sexually transmitted infections and HIV/AIDS and help address un unwanted pregnancies with it attendance challenges. It will help the adolescent to know what is going on in their bodies and get to know what is normal for them and will break taboos and dispel fables held about menstruation.

It will be of benefit to Teachers/School Health Educators because, it will motivate them to pay more attention to this aspect of adolescent health and render the needed support for them to navigate through their development with less challenges. School health educators may benefit from the findings of this study as they will use the results as a working document to support both curriculum innovations, modifications and other curricula development decisions on Adolescent sexual reproductive health and its effects on academic achievement issues and challenges.

It will be of benefit to families, communities / society because, it will churn out useful, and healthy adolescents who will grow up to very useful adults and add value to societal development.

It will be of benefit to policy makers because, the findings of this research will be utilized to bring up policies/ decisions on programs and procedures of inculcating adolescent reproductive health education in the school system to help build up a healthy future generation. Finally, findings of this study will serve as a reference material for educators, students and for further studies.

**Scope of the study:**

The study covers all public secondary schools in Akwa Ibom State, Abak Local Government to be precise. It only looks at how knowing about Adolescent Sexual and Reproductive Health affects the school performance of male and female students.

**Operational definition of terms:**

1. Adolescent sexual reproductive health:

Adolescent sexual and reproductive health refers to the physical and emotional wellbeing of adolescents and includes their ability to remain free from unwanted pregnancy, unsafe abortion, STIs (including HIV/AIDS), and all forms of sexual violence and coercion.

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2. Academic achievement

Academic achievement is the extent to which a student attains her short or long-term educational goals and completes his or her educational benchmarks such as a bachelor's degree etc. Academic achievement is often measured through examinations or continuous assessments.

3. Menstrual hygiene

Menstrual Hygiene is defined as the ability of a women and adolescent girl to use a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation, using soap and water for washing the body as required, to prevent infections, reduce odours, and help her stay comfortable during menstrual period and afterwards.

4. Sexually Transmitted Infections

A disease caused by infection with certain bacteria, viruses, or other microorganisms that can be passed from one person to another through blood, semen, vaginal fluids, or other body fluids, during oral, anal, or genital sex with an infected partner.

5. Unwanted pregnancy:

An unwanted or unintended pregnancy is a pregnancy that is either not desired, such as the pregnancy occurred when no children were wanted or the pregnancy is mistimed, such as the pregnancy occurring earlier and unexpectedly in an adolescent or a school girl that is not yet ready for family life.

# LITERATURE REVIEW

This chapter looks at key details related to the study. The review is divided into these sections:

**Conceptual Framework**

**Concept of knowledge of adolescent sexual reproductive health.**

Adolescent is viewed in different ways by different authors. To some authors adolescence period is looked at in terms of transition to adulthood. The adolescent is seen to have left the childhood behaviours, be more matured and begins to exhibit some other characteristics that will enable her flow into adulthood. Some psychologists see it as that of independency, they are independent of their parents, can take decisions and cling more to their peer/reference group for advice, standards and behaviours. The Adolescence period spans from 10 years to 24years, classified using chronological ages as follows; 10-13years –early adolescence, 14-17 years-mid adolescence and 18- 24 years- late adolescence. (Ebong, 2012).

From the period of adolescence, the child may choose (in our own African context) to be free from parental control, live outside the home, fend for himself / herself and can even get married. This is contrary to what obtains in some developed nations of the world where the adolescent has no choice but be on his own and out of parental home/control according to law once he /she attains the age of 18 years.

**Characteristics of an adolescent**

Adolescence stage is characterized by profound physical changes in an individual. This stage leads to puberty which is the onset of adolescent development expressed in terms of physical, emotional, social and intellectual characteristics.

**Physical characteristics**

In girls, there is development of fat hips. Breast, body size and widening of the pelvis. There is also appearance of pubic and axillary hairs and first menstruation. Girls also assume a more rounded and softer

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contour. This may vary in individuals depending on environmental factors like the types of foods, feeding habit, illnesses, socio- economic status and genetic factors. In boys there is broadening of shoulders with elongated arms, appearance of pigmented hairs in the pubic region, face and axillae. There is a change (deepening) of voice, the larynx enlarges with the appearance of Adam's Apple''. There is an enlargement of testes, scrotum and penis. Nocturnal emission is also expected and change in facial proportion. The forehead tends to become wider and higher in some, the mouth widens and the hips become fuller. Sometimes the face may become angular and harder (Goel, 2010). There is an overwhelming appetite for food.

**Emotional characteristics:**

Most adolescents are moody and easily provoked. This may be due to the fact that they see themselves as individuals that should not be labeled children any longer even though they are not yet a full adult. Environmental factors catch up with them in attempt to transit to adulthood.

Some of them are shy, some have emotional instability, while some have mood swing. They face so much frustration in an attempt to be liberated from adults and at the same time trying to take orders from their peer/ reference group.

**Social characteristics:**

The family is the basic unit of socialization. This is where the child is first exposed to the culture and norms of the society, such as ways of greeting, dressing, food types, way of life, etc. Once the child grows up, starts school, he/she keeps on growing and developing into adolescent. This the time he/she will try to get out of adult or parental control while trying to meet and mix with friends- a group he may identify as peer or reference group whom he takes orders from. They cling together and know more about themselves and what they are doing. They may pick unhealthy habits from such group. Whatsoever the group does seem to be the best. They like to move together, have same haircut, same style of clothing, enjoy same music and dance (Ebong, 2012).

**Adolescent sexual reproductive health**

Before the 1999 National Conference on Adolescent Reproductive Health, there was no national effort to address Adolescent Sexual and Reproductive Health (ASRH). This was due to strong cultural resistance based on prejudice. Many people linked open discussions about Adolescent Sexual and Reproductive Health (ASRH) with ideas like: young people being promiscuous, society being too permissive, a decline in social values, evidence of Western cultural influence, and attempts by Westernized groups to impose inappropriate values on the youth of the nation.

**Basic assumptions**

Adolescent could be a period of strong peer influence because these young people often believe it is their fellow peers only that fully understand their feelings and circumstances.

During adolescence, a person is developing the attitudes, beliefs, and skills needed to become an adult and to be an active member of society. The adolescent does this through 'learning and testing', of himself and the society. Adolescence is a: Time of major physical and physiological changes, time of opportunity, time of risk and a period when health problems that have serious immediate consequences can occur or when behaviours that can have adverse effects in the future are initiated. Adolescence comes with its challenges and most young people are unprepared for these changes and the society does little to allay their fears and concerns. The root of adolescent sexual reproductive health problems could be traced to absence of societal support and lack of adequate knowledge by the adolescent and youths. (Poureslami, 2012)

**Knowledge of Adolescent Sexual Reproductive Health**

Gaining knowledge is usually the first step in changing behavior. However, just having knowledge is often not enough by itself to change most people's sexual behavior (Coates,1991). Being aware of sexual and

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reproductive health includes knowing about menstrual hygiene, sexually transmitted infections (STIs), HIV/AIDS, and unplanned pregnancies. Sex education is a lifelong process of learning and developing attitudes, beliefs, and values about identity, relationships, and intimacy. It includes topics like sexual development, reproductive health, personal relationships, love, closeness, body image, and gender roles (NGTF, 1996).

Investing in sexual and reproductive health education in primary and secondary schools is very important for both economic and social development, as most adolescents are in these schools. This is one of the methods started to address the problems caused by risky sexual behaviors among adolescents (UNICEF, 1996). These problems include sexually transmitted diseases, unplanned pregnancies, abortion, and even HIV/AIDS infections. Adolescents (under 25 years old), who make up almost three billion people worldwide (UNFPA, 2006), are often sexually active, though not always by choice. This can lead to health issues, which have both direct and indirect negative effects on development. Many teenagers often leave school early and fail to reach their goals of learning and having a good life. Teaching them about sexual and reproductive health has been shown to have a positive impact on their sexual behaviors.

At the International Conference on Population and Development held on October 25, 2019, a key message was that, sexual and reproductive health (SRH) are an essential part of Universal Health Coverage (UHC). Nations were urged to consider how SRH of their population are met throughout the life course, from infancy and childhood through adolescence and into adulthood and old age. Prior to this period there were many international conventions of ASRH. This includes the following events: the Inter-African Conference on Adolescent Health in Nairobi in 1992, the International Conference on Population and Development (ICPD) in Cairo in 1994, the Fourth World Conference on Women in Beijing in 1995, and the African Forum on Adolescent Reproductive Health in Addis Ababa in 1997.

The results of these conferences were added to by a report from WHO, UNICEF, and UNFPA in 1996. This report had several important points: we need to create a safe and supportive space for delivering adolescent reproductive health services; we must make health education and information available to teenagers, including comprehensive sexuality education; and we need to provide skills training, counseling, and health services to young people. There are at least four imperatives: The human right imperative, the demographic imperative, the health imperative and the development imperative (WHO, 2019).

**Matter of human right**

Everybody has the right to make informed choices about their own body and life, youths and adolescents are no exception. The Beijing Platform which emerged from ICPD of 1995, in paragraph 267, states: full attention should be given to the promotion of mutually respectful and equitable gender relations and particularly to meeting the educational and service needs of adolescents to enable them to deal in a positive and responsible way with their sexuality. Paragraph 108(i) recommends that specific programmes be designed for adolescents at all ages, ‘aimed at providing complete and accurate information on sex and responsible sexual and reproductive behavior, including voluntary, appropriate and effective methods for the prevention of HIV/AIDS and other sexually transmitted diseases through inter alia, abstinence and condom use.’

**Demographic issues**

Adolescents and youths form a significant segment of the population, over 1.8 billion of the 7.6 billion, a quarter of the population (UNFPA, 2019). In Nigeria, with about 200 million, about 30 million fall under adolescents (10-19years) and about 50 million are youths (10- 24 years) (AHI, 2019).

**Issues on national development**

All countries must invest in humans, because they are the resources that drive development. Nations like Nigeria with a large population of adolescents and youths can reap accelerated demographic dividend by doing so. Seventy (70%) percent of youths are hooked up to the internet but just internet connectivity Sustainable development can only be achieved through appropriate investment in adolescents and youths. Their future and

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indeed that of the nation depends on their being healthy, educated and responsible adults. The SDGs has at least 5 targets under SDGs 3 and 5 addressing issues related to ASRH: 3.7, 3.8, 5.2, 5.3 and 5.6 does not lead to robust digital economy.

**Public health issues**

More than half of all HIV infections occur in people under age 25(AHI,2019). Adolescents and youths face a wide range of barriers in accessing high-quality sexual and reproductive health (SRH) services. These include: structural, socio-cultural and individual barriers. Therefore, programmes must be designed to address these barriers in order to attract and retain young people for service. Although many think of the adolescents as a very healthy group but annually about 1.4 million of them die due to: Road traffic injuries, violence, suicide HIV and pregnancy related causes. The health and wellbeing of millions of adolescents are also adversely affected annually due to: depression, anemia, physical inactivity, tobacco use and substance abuse

**Concept of academic achievement**

The Dictionary of Education by Carter (1959) says that academic achievement is the knowledge or skills a student gets from school subjects. It is usually measured by test scores, grades given by teachers, or both. The Dictionary of Psychology by Chaplin (1959) explains that educational or academic achievement is how well a student does or how skilled they are in their school work. This success is judged by teachers, standardized tests, or both. Bhatnagar (1969) views a student's academic achievement as part of their overall behavior. A student's achievement comes from how they interact with their surroundings, including the school, teachers, and classmates. Gupta and Kapoor (1969) say that academic achievement isn't just one thing. It has many different parts and stages, like other types of performance.

Academic performance is the outcome of education simply meaning the extent to which student, teacher or institution has achieved their educational goal. In educational institutions, success is measured by academic performance or how well a student meets standards set by the institution. Sophie, Bhatnagar (1969) stated that "students with higher mental ability as demonstrated by IQ tests tends to achieve highly in academic settings" thus, academic performance is how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. As career competition grows fiercer in the working world, the importance of students doing well in school has caught the attention of parents, legislators and government education departments alike. It has become imperative that areas of achievement and failure in student's academic career be evaluated to foster improvement and make full use of learning process. Performance in school is evaluated in a number of ways such as written and oral tests, presentations, homework's and participating in class activities and discussions.

The role of intelligence in academic success is very important, but many other personality factors also play a big part. Overall, academic achievement means how well a person succeeds or performs in specific school subjects or academic tasks. To see how well students perform in a subject, people often use measures like academic age, accomplishment quotient, or achievement quotient. Good (1959) describes academic achievement as the knowledge or skills students get from their school subjects. This is often shown through test scores or grades from teachers. Christian (1980) explains that "achievement" usually means what students have learned. Learning from different subjects can change how students behave. Learning affects three main areas: thinking (cognitive), feelings (affective), and physical skills (psychomotor). He also notes that students do not always develop equally in all three areas at the same time. Students can be at different levels in each area. The cognitive area focuses mainly on a person's intellectual development and thinking skills. Growth in this area involves learning basic intellectual skills. This includes reading, adding and subtracting, and understanding facts, concepts, and general ideas. The cognitive domain, according to Bloom (1958), focuses on goals related to remembering and understanding information, as well as improving thinking skills. In this domain, there are six main levels to explore. First, we start with Knowledge, which is about remembering and recalling basic facts and information. Once you have that, you move on to Comprehension, where you begin to understand and explain ideas or concepts. The next step is Application, where you use your knowledge in practical situations to solve problems. After that, you reach Analysis, which involves breaking down information to understand how its parts fit together. Moving forward, you'll work on Synthesis, focusing on

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combining different ideas to create something new or original. Finally, at the Evaluation level, you assess and make judgments about the value or effectiveness of information and ideas. Each level builds on the previous one, helping you deepen your understanding and skills. Achievement is used in many areas like education, business, government, and counseling. It helps in important tasks such as: (1) giving grades, (2) promoting students to the next class, (3) classifying people, (4) offering counseling and extra help, (5) guiding career choices, (6) measuring how well learning works, and (7) choosing individuals for specific roles.

Academic achievement affects how students see themselves. It shows them how others judge their performance and helps them compare themselves to their peers. It also affects how much time and energy they can devote to social activities, which depends on how outgoing they become. Symons (1960) showed that academic achievement has many effects. He explains that the grades a student gets on exams can have a big impact on their success. Grades affect how a student feels about themselves. They can show whether the student thinks they are liked or disliked. Grades play a big role in determining whether a student stays with their current classmates or moves to a new group in a different class. Whether grades are good or bad can influence their success or challenges. They also affect if the student moves up to the next level, how likely they are to succeed in the future, and how their parents feel about them. Grades help a student see themselves as either successful and smart, or as a failure, outcast, or not very clever. Many researchers have found a link between good grades and positive feelings about school. Most teachers and researchers agree that how happy students are with school and their academic success affect each other. Bhatnagar (1966), Aggarwal (1967), Mehta (1968), Deo & Sharma (1970), Bhatanagar (1969), Tandon (1969), Shivappa (1969), Vasantha (1971), and others have studied this topic. They believe that spending a lot of time and effort to make students happy with their education is very important.

A student's academic success, whether high or low, often depends on their family's social and economic situation. In many democratic countries, families vary a lot from each other. They differ in culture, lifestyle, material possessions, jobs, and education levels. Families belong to different social and economic levels, ranging from high to low. People from higher social and economic levels often achieve better academic results. Even if the basic social and economic factors are similar in different places, their importance can vary from one country or society to another based on local conditions. Income may be more important in developing countries like India than in wealthy countries like America. In Western countries, other factors might matter more. So, studies about social and economic status done in one country might not apply to another. To make accurate conclusions, research needs to be done in different countries and societies.

Academic achievement shows how well a person has reached the goals set for their learning. It reflects their performance in school, college, and university. School systems usually set cognitive goals that apply to different subjects, like critical thinking, or focus on specific areas of knowledge, such as math, reading, science, and history. Academic achievement is a complex idea that includes various areas of learning. Since academic achievement covers many different educational results, how it is defined depends on the methods used to measure it. There are different ways to show academic achievement. Some are general, like the knowledge learned in school, while others are more specific, such as grades or test scores. There are also overall indicators, like degrees and certificates, that show long-term academic success.

All these measures show a person's intellectual efforts and give an idea of their thinking ability. In developed countries, academic achievement is very important in everyone's life. Academic success, shown by a student's GPA (Grade Point Average) or standardized tests like the SAT (Scholastic Assessment Test), decides if the student can keep studying and continue their education (Steinmay, 2014). Academic success decides if a person can go on to higher education. What degrees a person earns can also affect their future job opportunities. Besides being important for individuals, academic success is very important for a country's wealth and growth. One reason for doing international studies on academic success, like PISA (Programme for International Student Assessment) run by the Organization for Economic Cooperation and Development (OECD), is that there is a strong link between how well a society does in education and its overall economic growth. The results from these studies give details about how well a country's education system is doing. This information helps to see what is working well and what needs improvement in the education system, and it helps make decisions about educational policies. Because academic success is important for both individuals and society, many researchers, like those in psychology and education, focus on studying it.

Studying academic success has led to many research studies and important advancements. For example, Binet and Simon created the first intelligence test as a result of this research. Introductory textbooks such as Woolfolk 2007 provide theoretical and empirical insight into the determinants of academic achievement and its assessment. However, as academic achievement is a broad topic, several textbooks have focused mainly on selected aspects of academic achievement, such as enhancing academic achievement or specific predictors of academic achievement (Steinmay, 2014).

**Knowledge of menstrual hygiene**

Menstruation is a natural fact of life and a monthly occurrence for the 1.8 billion girls/ women, transgender men and non-binary persons of reproductive age. Yet millions of menstruators across the world are denied the right to manage their monthly menstrual cycle in a dignified, healthy way. Gender inequality, discriminatory social norms, cultural taboos, poverty and lack of basic services often cause girls' and women's menstrual health and hygiene needs to go unmet. Adolescent girls may face stigma, harassment and social exclusion during menstruation. Transgender men and non-binary persons who menstruate often face discrimination due to their gender identity that prevents them from accessing the materials and facilities that they need. All of this has far-reaching negative impacts on the lives of those who menstruate: restricting their mobility, freedom and choices; affecting attendance and participation in school and community life; compromising their safety; and causing stress and anxiety. The challenges are particularly acute for girls and women in humanitarian crises. The onset of menstruation coincides with new opportunities – and vulnerabilities – that arise during adolescence. Menstrual health and hygiene interventions can be an entry point for other gender-transformative programmes during this period, like sexual and reproductive health education and life skills development. By strengthening self-efficacy and negotiating ability, MHH programmes can help girls build the skills to overcome obstacles to their health, freedom and development, such as gender-based violence, child marriage and school dropout. Investments in adolescent girls' well-being yield triple dividends: for those girls, for the women they will become, and for the next generation.

The physiology of menstruation by Steinmay, 2014 defined the menstrual cycle as a process involving the reproductive and endocrine systems. The ovaries produce steroid hormones predominantly estrogens and progesterone. Several different estrogens are produced by the ovarian follicles which consists of the developing ovum and its surrounding cells. The most potent of the ovarian oestrogen is oesrtradiol. Oestrogens are responsible for developing and maintaining the female reproductive organs anr the secondary sex characteristics associated with adult females. It plays an important in the breast development and in monthly cyclic changes in the uterus. Progesterone is also important in regulating the changes that occur in the uterus during menstrual cycle. It is secreted bt the corpus luteum which is the ovarian follicle after the ovum has been released. Progesterone is most important hormone for conditioning endometrium in preparation for implantation of fertilized ovum. If pregnancy occurs, the progesterone situation becomes largely a function of the placenta and is essential for maintaining of a normal pregnancy. In addition, progesterone working with oestrogen prepares the breast for producing and secreting milk. Two gonadotrophic hormones are released by the pituitary gland; follicle stimulating hormones which secrete oestrogen and luteinizing hormone which produces progesterone.

He opined that the secretion of ovarian hormones follows a cyclic pattern that results in changes in the uterine endometrium and menstruation. This cycle is typically 28 days in length, but there are many manual variations (21-42 days). It has three phases; the proliferative phase, the secretory phase and the luteal/ menstruation phase. The proliferative phase occurs just after menstruation, follicle –stimulating hormone output increases, stimulating oestrogen secretion. This causes the endometrium to reach the peak of its thickening and vascularization. In the secretory phase the luteinizing hormones output increases, stimulating ovulation. Under the combined stimuli of oestrogen and progesterone, the endometrium reaches the peak of its thickening and vascularization at the middle of the cycle. The luteal phase begins after ovulation and is characterized by the secretion of progesterone from corpus luteum, if the ovum is fertilized, oestrogen and progesterone levels remains high and the complex hormonal changes of pregnancy follows.

Adolescence is the time when a person moves from being a child to an adult. During this period, they go through puberty and grow sexually. Fast changes happen because of hormones, affecting their physical body,

thinking skills, and social behavior. During adolescence, a natural event for girls is starting menstruation, also called menarche. This is an important physical and emotional milestone in a woman's life. Although menstruation shows that the female reproductive system is working normally, there are still many 03misunderstandings about it. Girls often feel uncomfortable talking about menstruation with others, whether in public, at school, or at home. Research from many low-income countries shows that many girls are not well-prepared for their first period. As a result, a lot of teenagers start menstruating without understanding what is happening or why (Guttmacher, 2018).

For this reason, girls in low-income countries reported of stress, confusion, shame, and fear due to a lack of knowledge and poor menstrual hygiene practices. Additionally, there is a report of teasing and harassment from boys and classmates, not standing in class to answer questions, concerns about odour, and an embarrassing menstrual leak in the classroom among adolescent girls Goel, 2010). Many cultures have rules about menstruation that can keep girls from taking part in social and cultural events, including religious ceremonies. These rules can make it harder for girls to stay clean during their periods, which can cause infections in the reproductive and urinary systems. This can also affect their school attendance and their ability to join in academic activities (Lawan et al, 2010).

Even though people are paying more attention to menstrual hygiene and how it affects teenage girls, there are still big gaps in what we know about it. (Sommer, 2018). Menstruation and keeping clean during periods are still big problems for women and girls in many tropical areas. This is mainly because people don't talk openly about menstruation, there aren't enough good sanitary products or places to use them, and schools often lack proper facilities. Every girl and woman needs a clean, private space to manage their periods with respect. This is a basic right and an important health issue. (Sommer, 2018).

Menstrual Health Hygiene (MHH) is important for the fulfilment of girls' and women's rights, a key objective of the Sustainable Development Goals (SDGs). Women and girls' access to MHH is a component of gender-responsive WASH services; SDG 6.2 acknowledges the right to menstrual health and hygiene, with the explicit aim to, "By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations". Without considering needs for safe and dignified menstruation, the world cannot achieve the vision for sanitation and hygiene under Goal 6, Women and girls' access to MHH is also central to achieving other SDGs. The lack of basic knowledge about puberty and menstruation may contribute to early and unwanted pregnancy; the stress and shame associated with menstruation can negatively affect mental health; and unhygienic sanitation products may make girls susceptible to reproductive tract infections – all affecting SDG health outcomes (Goal 3). Girls may be absent or less attentive in school during menstruation due to a lack of WASH facilities or support from the school community, affecting education (Goal 4), or at work, affecting economic opportunities (Goal 8). Gender equality (Goal 5) cannot be achieved when taboos and myths prevent menstruating women and girls from full participation in society. Failure to develop markets for quality menstrual materials can impact on sustainable consumption and production patterns (Goal 12).

United Nations International Children Emergency Fund (UNICEF) envisions a world where every girl can learn, play, and safeguard her own health without experiencing stress, shame, or unnecessary barriers to information or supplies during menstruation. UNICEF's support to menstrual health and hygiene is aimed at improving outcomes on education, health, and gender equality for girls and women. By comprehensively addressing a range of factors - such as building self-efficacy, developing a positive policy and programme environment, effecting social change and increasing access to materials and facilities - UNICEF will continue to support girls and women to have the confidence, knowledge, and skills to manage their menstruation safely, using appropriate materials and facilities, at home and away from the household. Specifically, achieving these goals requires addressing four interrelated determinants; social support, knowledge and skills, facilities and services, and materials and supplies – along with improvements in the enabling environment through appropriate policies, coordination, financing, capacity building, and monitoring in the education, health, and WASH sectors. Because of its transformational potential, MHH is one of UNICEF's five interlinked priorities for empowering adolescent girls in its Gender Action Plan 2018-2021, which accompanies its broader Strategic Plan for the same period and is approved by the Executive Board. The Gender Action Plan is UNICEF's commitment to achieving gender equality and girls' empowerment. The five priorities of the

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Gender Action Plan, implemented together and at scale, can dismantle some of the stubbornest barriers to gender equality and transform the lives of adolescent girls – supporting them to become healthy, educated and empowered women, able to direct the course of their own lives. The priorities of the Plan are monitored and reported on annually.

Clear government leadership and ministerial ownership of MHH is essential for reaching adolescent girls at scale. In most cases, however, MHH falls between the mandates of ministries responsible for health, education, public works and women's affairs, and therefore, often lacks clear leadership. UNICEF can support governments to determine a lead ministry responsible for MHH, and help to strengthen ownership through coordination and government-led multi-stakeholder action. National or sub-national MHH working groups led by a ministry responsible for either education or health have been central to the advancement of MHH in many countries around the world. Such working groups can jointly conduct an MHH situation analysis and coordinate programme planning, evaluation, and scale up. With a clear responsible ministry, coordination within government is frequently more effective. In some countries, an existing platform for school health or girls' education may be used to advance the MHH agenda. The decision to use an existing group or create a new one depends on the context. A MHH working group provides a platform for civil society, non-governmental organizations, academia, and private partners to come together under government leadership in support of shared goals. The process of forming an MHH working group is an, opportunity to carry out a mapping of different partners active in MHH, and other partners not active but with potential interest in MHH. Engaging a range of actors from across the national or sub-national sector will provide a solid basis for identifying programme partners.

MHH working groups have been essential for generating new evidence, sector-wide learning from such evidence, and successful interventions in many countries around the world. The activities of the working group might include evidence generation, advocacy, or coordination of different actors and initiatives, including the private sector. For example, in some countries, working groups have presented MHH issues in joint sector reviews, academic conferences, or ministerial planning and budget meetings. In humanitarian situations, clear leadership for MHH is equally important. Examples include MHH as a stand-alone working group or as a component of a technical working group on hygiene promotion, with a clear coordinator. MHH is frequently coordinated through the WASH sector or cluster, in close coordination with protection, education, and health sectors. A situation analysis identifies the problem that the intervention seeks to address, the causes and consequences of this problem, and the opportunities it may present, for example, synergies with other initiatives, or existing resources that can be leveraged or strengthened. Developing a shared situation analysis together with partners – such as those in the MHH working group – is a way of developing a shared understanding of the problem with decision-makers and actors who can affect girls' lives.

This analysis in turn informs the development of a theory of change, enables effective coordination of efforts under a common objective, and helps ensure the effective allocation of resources to achieve the result. UNICEF programming is first and foremost built on evidence, generated through national monitoring systems, research, needs assessments, and programme evaluations. This requires reviewing the available data and information on MHH in the country. Due to challenges in monitoring MHH, there are unlikely to be MHH-specific national data sets. Instead, some inferences can be made through the level of WASH services and performance on adolescent health and education indicators. In some cases, quantitative data on MHH is available through the Multiple Indicator Cluster Survey (MICS), national education management information systems (EMIS), or other sector-specific studies. The World Health Organization and UNICEF Joint Monitoring Programme on Drinking Water, Sanitation, and Hygiene reports on WASH in schools' coverage based on national data sets, and is a good source of data relevant to MHH. Good quality data for other priorities and programmes related to adolescent girls may be more readily available and are therefore important to analyse for their relevance to MHH programmes. Examples of related priorities may be advancing girls' secondary education, ending child marriage or female genital mutilation/cutting (FGM/C), avoiding unwanted or early pregnancy, improving adolescent girls' nutrition, or ending violence against girls. Descriptive statistics on these issues are usually available through administrative datasets. MHH programmes must be appropriate to the situation of adolescent girls in the country; for instance, if most girls at or before the average age of menarche are not in school, it makes sense to give greater focus to services reaching girls who are out of

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school. In another scenario where girls are affected by high rates of FGM/C, girls may have specific challenges managing their menstruation that program can respond to.

**Knowledge of sexually transmitted infections**

Sexually transmitted infections (STIs), previously known as sexually transmitted diseases, involve the transmission of an organism between sexual partners through different routes of sexual contact, either oral, anal, or vaginal. STIs affect all people and can be prevented with proper education and barrier control. The most common STIs include both curable (gonorrhea, chlamydia, syphilis, trichomonas) and treatable (herpes viruses, human papillomavirus, human immunodeficiency virus) conditions. The correlating symptoms generally fall into 2 categories: discharge/dysuria or ulcerative lesions. The likelihood of contracting these conditions depends on the prevalence of the disease, patient behavior, and underlying comorbidities. Early screening and recognition of STIs are key to preventing disease spread, morbidity, and mortality. These infections are more frequently under recognized and have a higher incidence in medically underserved populations. Emphasizing prevention through education and barrier control underscores the significance of early screening and recognition to prevent disease spread and associated morbidity and mortality. STIs disproportionately affect medically underserved populations, highlighting the need for heightened awareness and proactive intervention strategies. STIs become a concern and burden on healthcare systems, as many infections go untreated and lead to potentially serious complications.

STIs are a worldwide health problem and should be recognized by all public health agencies. STIs are more frequently under recognized and have a higher incidence in medically underserved populations. The presenting condition or disease depends on the specific organism, route, signs, and symptoms. Risk factors that increase the transmission of STIs include having unprotected sexual contact with multiple partners, having a history of STIs, sexual assault, prostitution, having a sexual partner who has additional concurrent sexual contacts or a prior history of an STI, and using alcohol or recreational drugs. Specific causative organisms are outlined below. Male circumcision appears to significantly reduce the likelihood of acquiring several STIs, including human papillomavirus, genital herpes, and especially human immunodeficiency virus (HIV), where the infective risk decreases by 50% to 60. The seven most common STIs include 5 curable infections (chlamydia, gonorrhea, syphilis, and trichomonas) and three incurable but treatable conditions (herpes simplex virus, HIV, and human papillomavirus (HPV). Of note, hepatitis B and hepatitis C can also be transmitted sexually but are more commonly spread through other forms of exposure.

The most common and relevant STIs include Chancroid caused by Haemophilus ducreyi. This fastidious Gram-negative coccobacillus (very short rod) requires special media and environmental conditions to grow in the culture. Microscopically, the organism will tend to form long strands, forming a pattern described as "railroad tracks" or "a school of fish." The organism significantly increases the risk and transmissibility of HIV. This infection is exceedingly rare in the United States (US) and developed countries globally.

Chlamydia Gram-negative obligate, nonmotile intracellular bacteria known as *Chlamydia* trachomatis (C trachomatis). Typically, serotypes D-K The most common curable sexually transmitted infection in the United States, according to the Centers for Disease Control (CDC) and the World Health Organization (WHO)Two infectious forms exist: the elementary (EB) and reticulate body (RB) The EB form invades the cell, and the RB form will produce other infectious EB that will infect other non-infectious form.

Genital herpes is caused by the herpes simplex virus 1 (HSV-1) or herpes simplex virus 2 (HSV-2). HSV is a double-stranded DNA virus coated by a lipoglyco protein with an affinity to infect target cellsHSV-1 is usually associated with orolabial infections, but according to the CDC, HSV-1 is now leading in the cause of genital herpes in young and homosexual patients. There is an estimation that 50 million people in the US are infected with HSV.

Gonorrhea is caused by Gram-negative diplococci bacteria Neisseria gonorrhoeae. (N gonorrhoeae). This is the second most common sexually transmitted infection in the US (the first is C trachomatis.) Gonorrhea uses glucose to invade mucus epithelial cells. Gonorrhea modifies cellular proteins that allow further penetration of

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other organisms. The proliferation of gonorrhea leads to a localized inflammatory reaction, leading to signs and symptoms of an STI.

Granuloma inguinale is caused by Gram-negative intracellular Klebsiella granulomatis, formerly known as Calymmato bacterium granulomatis. (This is also referred to as Donovanosis.). Rarely found in the US, granuloma inguinale is seen mostly in developing countries, especially in the tropics. This condition is most commonly found in the Caribbean, southern Africa, South America, New Guinea, and India.

Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome. These are enveloped retroviruses encapsulated with 2 single-stranded ribonucleic acids. Primary HIV signs and symptoms are described as flu-like and often diagnosed as an acute viral syndrome. The duration of onset of symptoms ranges from 4 to 10 weeks. Most HIV infections in the US are HIV1.Acquired immunodeficiency syndrome (AIDS) is described as the late stage of HIV disease. The median time to progression from HIV to AIDS is about 11 years but is highly variable. The risk of syphilis in patients infected with HIV is 77 times greater than in the general population.

Human Papillomavirus (HPV) is a double-stranded deoxyribonucleic acid virus that replicates in the basal cell layer of the stratified squamous epithelial cells. This replication cycle induces hyperplasia and possible conversion carcinoma. HPV types 16 and 18 are oncogenic strains that induce malignant transformation. Types 6 and 11 are common strains that induce anogenital warts, known as condyloma acuminata. By far, HPV is the most common sexually transmitted infectious organism in the US and worldwide.

Lymphogranuloma venereum is a condition is caused by Chlamydia trachomatis, *a* Gram-negative obligate, nonmotile intracellular bacteria but a different serotype from the more common chlamydial infections. The bacteria are serotypes or serovars. This infection is rare in the US but common in tropical and subtropical regions. Lymphogranuloma venereum is most frequently found in men who have sex with other men. Closely associated with HIV infection.

Mycoplasma genitalium is the second most common cause of nongonococcal urethritis after chlamydia and a common cause of female cervicitis and resistant or recurrent urethritis. Mycoplasma is very slow growing in a culture, which can take up to 6 months. Since it lacks a cell wall, it cannot be Gram-stained. Risk factors include young age (<25 years), smoking, frequent sexual contact, and a large number of sexual partners. This condition is closely associated with HIV infections.

Syphilis is caused by a spirochete bacterium, Treponema pallidum (T pallidum). T pallidum is very slow-growing and cannot be cultured nor seen on standard light microscopy. The initial immune response is muted because T pallidum has few exposed proteins and no lipopolysaccharides in its outer membrane. According to the CDC, infections of this type are increasing compared to previous reports. Syphilis is far more common in the developing world, particularly among the poorest populations with the most limited access to healthcare. This condition presents with a painless chancre, a well-demarcated lesion at the inoculation site. Syphilis presents in various forms and, depending on the duration, is classified as primary, secondary, or tertiary. Globally, this condition affects about 12% of men who have sex with men.

Trichomoniasis is caused by single-celled flagellated anaerobic protozoa known as Trichomonas vaginalis. Trichomoniasis causes direct damage to the epithelium. The injuries lead to microul cerations primarily in the vagina, cervix, urethra, and para urethral glands.

The epidemiology of STI in the US has the human papillomavirus or HPV as the highest. At any given time, about 80% of sexually active people are estimated to be infected, including 42% of adults 18 to 59 years. Of those infected, 7% will have oral HPV, and roughly 14 million new cases of this condition are estimated to be reported yearly. HPV is very common; the CDC estimates that virtually all sexually active persons who are not vaccinated will become infected at some point in their lives. Worldwide, at least 291 million women have been infected with HPV. The CDC has determined that roughly 2.4 million non-HPV-related STIs were reported in the US in 2020. Chlamydia was the most common of these at 1.6 million cases. Next, 677,769 cases of

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gonorrhea were reported in 2020, up 45% from 2016, and 133,945 cases of primary and secondary syphilis, up 52% over the same period. In 2020, congenital syphilis was identified in 2148 infants, up 235% from 2016.

Over 80% of the reported cases of primary and secondary syphilis are found in men. Men who have sex with men account for almost half (47%) of the reported cases of men. The CDC also estimates that 44% of men who have sex with men and bisexual men who test positive for syphilis will also have HIV.

In general, the overall rate of STIs is increasing in the US. According to the WHO, global epidemiological data for STIs indicates the following: Worldwide, over 1 million new potentially curable STIs are acquired daily, most of which are asymptomatic. There is an estimation that 376 million new infections occur annually, with one of the four curable STIs (chlamydia, gonorrhea, syphilis, and trichomoniasis). Of these, trichomonas is the most common globally, with 156 million new cases yearly, followed by chlamydia at 127 million, gonorrhea at 87 million, and syphilis at 6.3 million. The US incidence of STIs is rising; there was close to a 30% increase in reportable STIs between 2015 and 2019. About 12% of the US population between 14 and 49 years is estimated to be infected with herpes currently. Herpes simplex virus type 2 has a global prevalence estimated at over 500 million people. About one million pregnant women were estimated to have an STI in 2016, causing over 350,000 birthing or neonatal complications. HPV infections have been linked to over 310,000 cervical cancer deaths annually. Syphilis is the second leading cause of stillbirths worldwide. HIV/AIDS affected about 37 million people worldwide in 2016. About 15% of HIV-infected individuals in the US are unaware they have the infection and are responsible for 40% of all new HIV infections. According to the CDC, there are approximately 35,000 new cases of HIV in the US annually. Mycoplasma genitalium causes 15% to 20% of all non-gonococcal urethritis (NGU), 20% to 25 % of all non-chlamydial NGU cases, and 40% of all recurrent or persistent urethritis infections.

During adolescence, changes in the body and behavior can make it easier to get HIV and other sexually transmitted infections. These infections can have serious effects on their sexual and reproductive health. Being a teenager can affect sexual and reproductive health later in life. Many teenagers don't use protection during sex (Francis et al., 2018). Teenagers face risks of sexually transmitted infections (STIs) due to both their actions and their bodies. For example, teenagers are more likely to have multiple sexual partners. Teenage girls are more likely to get sexually transmitted infections (STIs) like Chlamydia and human papillomavirus (HPV) because their cervix is not fully developed and is more prone to infections. This makes teenage girls more at risk for STIs compared to adult women (Centers for Disease and Prevention, 2014).

Most studies focus on infections and treatments for adults (Shannon & Klausner, 2018) and pay little attention to the behaviors and biological traits that make teenagers more likely to get infections. In sub-Saharan Africa, many teenagers are aware of HIV. However, teenagers aged 10 to 14 often know very little about other sexually transmitted infections (STIs) (Finlay et al., 2020). This could be because HIV gets a lot of attention, while other STIs are often ignored. Teenagers who don't know much about STIs might not notice the symptoms or look for ways to prevent or treat them. A study showed that teenagers often judge the risk of sexually transmitted infections (STIs) based on how attractive people look in their online dating profiles (Krishnamurti et al., 2020). Teenagers often think that more attractive people are less likely to have sexually transmitted infections (STIs). Around the world, efforts are being made to improve sexual and reproductive health for teenagers. The global strategy called "Every Woman, Every Adolescent, Every Child" aims to tackle specific challenges that teenagers face in reaching their health goals. Teenagers often face big problems, like discrimination, when they try to get information and services related to sexual and reproductive health.

The strategy aims to make sure everyone can access sexual and reproductive healthcare. This would help teenagers learn more about sexually transmitted infections (STIs) and lead to better choices about sexual health (Who & Mathers, 2016). Traditional sources of information, like parents and schools, are very important for teaching sexual health. When teenagers talk about sex with their parents, it helps them practice safer sex (Widman et al., 2016). Studies show that when teenagers get sexual education at school, it helps them learn more about sexual and reproductive health. This education also affects their sexual behaviors and health outcomes. (Li et al., 2017). To reduce the high rates of STIs, it's very important to first understand how these infections affect teenagers and then find ways to prevent them. A good place to start is by learning what teenagers already know about STIs and how much they have been taught.

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Sexually transmitted infections (STIs) include over 30 different types of infections caused by viruses, bacteria, and parasites. These infections spread through sexual contact between people, such as vaginal, oral, and anal sex. Some STIs, like syphilis and HIV, can also be passed from a mother to her baby during pregnancy. STIs are a major health problem worldwide. Every day, over one million people get an STI. Each year, about 500 million people around the world get infections like Chlamydia, gonorrhea, syphilis, and trichomoniasis. Many people also have viruses that cause genital herpes (HSV2) and human papillomavirus (HPV) globally (Swiss, 2016). Most STIs can be cured, and all of them can be prevented. Focusing on preventing and treating these infections can significantly improve public health. The World Health Organization (WHO) recognizes that addressing this issue is important (Toskin, 2015)

When teenagers start sexual activity early while still in school, it can lead to many negative outcomes, including sexually transmitted infections (STIs). School years are a time when teenagers often explore their sexuality, which can result in risky behaviors like having unprotected sex, being unfaithful, and engaging in anal sex. These actions put teenagers at a higher risk for STIs. Every day, over one million people around the world get sexually transmitted infections (STIs) (Tanak, Yamaguchi, & Matsuo, 2018). Around the world, there are about 3 million new cases of curable STIs each year. The highest number of cases is among people aged 20-24, followed by those aged 15-19 (WHO, 2018). According to Kim and Ha (2016), 20% of women and 38% of men know a lot about how STIs spread and how to prevent them. Many studies worldwide have examined knowledge about STIs. For example, in India, 74.7% of people have good knowledge about STIs, while in Nigeria, it's 92.4%, and in Brazil, it's 89.9%. In Tanzania, 98% have good knowledge, and in Jimma, Ethiopia, it's 88.5%. In Dhaka, Bangladesh, 79% are informed, and in Malaysia, 86.6% have good knowledge. Among university students in Pakistan, 74% of medical students and 61.6% of non-medical students know a lot about STIs. In Turkey, 83.1% are knowledgeable, while in Klang Valley, Malaysia, it's 68.3%. In Udupi Taluk, India, only 27% have good knowledge, and in Northern Cape Province, South Africa, 70.1% are informed. The level of knowledge about STIs is influenced by various factors such as age, gender, where people live, marital status, academic year, and whether they get information from friends, the internet, or mass media (Nayak, 2016; Karki & Niraula, 2017). Previous studies show that many teenagers are engaging in sexual activities that increase their risk of reproductive health issues, such as unwanted pregnancies, abortions, and STIs. This is often due to a lack of basic knowledge about reproductive health and ways to prevent these problems (Titiloye & Ajuwon, 2017). Common STIs around the world include bacterial vaginosis, herpes, chlamydia, trichomoniasis, gonorrhea, Hepatitis B, HIV, and syphilis (WHO, 2016). Tareq Mahmud (2020) highlighted that STIs can have serious effects on the reproductive health and overall well-being of both men and women. The situation is likely similar in sub-Saharan Africa.

In sub-Saharan Africa, most countries still have low levels of accurate knowledge about STIs. This region has the highest number of new STI cases each year compared to other parts of the world. The World Health Organization estimates that each year in Africa, there are 3.5 million cases of syphilis, 15 million cases of chlamydia, 16 million cases of gonorrhea, and 30 million cases of trichomoniasis. Sexually transmitted infections (STIs) are a major health concern because they are very common and can be treated. In sub-Saharan Africa, not only infections like human papillomavirus but also herpes simplex virus are becoming increasingly serious issues. In 2019, UNAIDS estimated that sub-Saharan Africa had a significant share of global HIV issues. The region accounted for 68% of the world's HIV infections and 68% of new HIV cases in adults. Additionally, 92% of new HIV cases in children were in sub-Saharan Africa, and the area was responsible for 72% of all AIDS-related deaths. It is estimated that over 14.1 million children in the area lost one or both parents to AIDS that year. In sub-Saharan Africa, the HIV/AIDS crisis impacts women and girls more than anyone else (UNAIDS, 2019). In Africa, the number of STIs is rising because the population is growing. Nigeria, the most populous country in Africa, is also affected by this increase.

In Nigeria, data show that sexually transmitted diseases (STDs) are a big problem for young people. These diseases cause serious health, social, and economic issues. Not only do people in cities suffer from these diseases, but they are also spreading quickly to rural areas. Gonorrhea is the most common sexually transmitted infection (STI) in Nigeria. In 1963, the World Health Organization found that Lagos had the highest rate of gonorrhea in the world. Recent surveys show that the rate of gonorrhea can be as high as 28.1%. Studies also show that gonorrhea is strongly linked to infertility in both men and women. The prevalence of a type of gonorrhea bacteria that produces penicillinase ranges from 44.4% in Zaria to 80% in Ibadan. The rate

of gonorrhea is rising among girls, partly because of cultural beliefs. Some people think that having sex with a girl who has urethritis will cure the condition. However, gonorrhea is not always the most common cause of urethritis. For example, in a study in Ibadan, 61% of cases of male urethritis were due to nonspecific urethritis. Also, schistosomiasis can cause symptoms in the urethra that are similar to those of gonorrhea. Most women who visit STI clinics have vaginitis and vaginal discharge. Although trichomoniasis and candidiasis are quite common (10.2-22.3% and 4.3-33.1%, respectively), bacterial vaginosis is the main cause of vaginitis and vaginal discharge in Nigeria. In Nigeria, the most common cancer among women is cervical cancer. This may be linked to high rates of infections like trichomoniasis and Herpes virus II. Another common sexually transmitted infection (STI) is syphilis, but many people with it do not have symptoms. For example, a study found that 10.3% of women at a prenatal clinic in Lagos tested positive for syphilis, but the doctor thought that only 1.5% actually had it. In Nigeria, tropical venereal diseases still cause genital ulcers. Other problems like fungal infections, genital warts, and pubic lice also happen, but there is little information about them. Many people think they have a sexually transmitted infection (STI) when they do not, and they often insist they do. This may be due to a common fear that STIs can lead to infertility. Even though STIs are very common in Nigeria, there is not enough evidence showing that teenagers and young people in the area know much about them. To create effective programs for improving STI knowledge among teenagers, it is very important to have enough information about these infections. Sexually transmitted infections (STIs) are spread from one person to another through sexual contact. Most STIs can be easily prevented and treated. Sexually transmitted infections (STIs) are infections that mainly spread through sexual contact between people (WHO, 2016). There are over 30 different sexually transmitted infections (STIs) caused by bacteria, viruses, and parasites. Out of these, eight are the most common. Four of them can be cured: chlamydia, gonorrhea, syphilis, and trichomoniasis. The other four are viral STIs that cannot be cured: hepatitis B, Herpes Simplex Virus (HSV), Human Immunodeficiency Virus (HIV), and Human Papilloma Virus (HPV), (WHO, 2019).

Available data show that sexually transmitted diseases constitute great medical, social and economic problems. Apart from the heavy affliction of urban dwellers, there is rapid excursion of these diseases to the rural areas as well. Gonorrhea is the most prevalent sexually transmitted Infection (STI) in Nigeria. In fact, in 1963, WHO found Lagos to have the highest gonorrhea rate in the world. Recent surveys report gonorrhea prevalence to be as high as 28.1%. Further studies show a clear association between gonorrhea and male and female infertility. Penicillinase producing Neisseria gonorrhea prevalence varies from 44.4% in Zaria to 80% in Ibadan. There is an increase in the prevalence of gonorrhea among girls, mostly due to sociocultural factors such as the belief that sexual intercourse with a girl who has urethritis cures the condition. Gonorrhea is not always the most common form of urethritis, however. For example, in a study in Ibadan, 61% of male urethritis cases had nonspecific urethritis. Further schistosomiasis often causes urethral symptoms like those of gonorrhea. Most women at STI clinics have vaginitis and vaginal discharge. Even though the prevalence of trichomoniasis and candidiasis are rather high (10.2-22.3% and 4.33.1% respectively), bacterial vaginosis is the leading cause of vaginitis and vaginal discharge in Nigeria. The predominant malignancy of women in Nigeria is cervical cancer which may be due to the high rates of infection of trichomoniasis and Herpes virus II. Another prevalent STI is syphilis, yet many people with the infection are asymptomatic.

Tropical venereal diseases still cause genital ulcers in Nigeria. Dermatophyte infection, genital warts, and pedicubsis pubis also occur, but scant data exist. Many people believe they have an STI and do not, yet they insist they do. This phenomenon may be a result of the common fear of infertility which results from STIs. Despite the fact that the prevalence of STIs is high in Nigeria, there is no sufficient shreds of evidence that showed knowledge about STIs among adolescents and youths in the study area. To design appropriate intervention for improving the knowledge of STIs among adolescent, the availability of sufficient data on sexually transmitted infection is of paramount importance.

Sexually transmitted infections (STIs) are infections that are transmitted from one person to another through sexual contact, and most of them are easily preventable and treatable. Sexually transmitted infections (STI's) are infections that are spread primarily through person to person sexual contact (WHO, 2016). There are more than 30 different sexually transmitted infections caused by bacteria, viruses and parasites. Out of which eight are most common and made up of 4 curable STI: chlamydia, gonorrhoea, syphilis and trichomoniasis and 4 are viral STIs which are incurable: hepatitis B, Herpes Simplex Virus (HSV or Herpes), Human Immunodeficiency Virus (HIV) And Human Papilloma Virus (HPV), (WHO, 2019). The most reliable way to

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avoid infection is to not have anal, vaginal, or oral sex. Many STIs have no signs or symptoms (asymptomatic)..

**Knowledge of unwanted pregnancy**

Pregnancy is term used to describe the period in which a fetus develops inside a woman's womb or uterus. Pregnancy usually lasts forty weeks, or just over 9 months, as measured from the last menstrual period to delivery. Health care providers refer to the three stages of pregnancy, called trimesters. A Normal Pregnancy takes 38 weeks, a fertilized egg (ovum) matures from a single cell to a fully developed fetus ready to be born. Fetal growth and development are typically divided into three periods: pre embryonic (first 2 weeks, beginning with fertilization), embryonic (weeks 3 through 8), and fetal (from week 8 through birth). Fertilization (also referred to as conception and impregnation) is the union of an ovum and a spermatozoon. This usually occurs in the outer third of a fallopian tube, the ampulla portion. Terms used denote fetal growth are; ovum from ovulation to fertilization, zygote from fertilization to implantation, embryo from implantation to 5–8 weeks, fetus from 5–8 weeks until term. Conceptus developing embryo or fetus and placental structures throughout pregnancy age of viability. The earliest age at which fetuses could survive if they were born at that time, generally accepted as 24 weeks, or fetuses weighing more than 400 g.

The embryonic and fetal structures include; the placenta, which will serve as the fetal lungs, kidneys, and digestive tract in utero, begins growth in early pregnancy in coordination with embryo growth.

After fertilization, the corpus luteum in the ovary continues to function rather than atrophying, because of the influence of human chorionic gonadotropin (hCG), a hormone secreted by the trophoblast cells. This causes the uterine endometrium to continue to grow in thickness and vascularity, instead of sloughing off as in a usual menstrual cycle. The endometrium is now termed the decidua (the Latin word for ―falling off‖), because it will be discarded after the birth of the child. The decidua has three separate areas namely; decidua basalis, the part of the endometrium that lies directly under the embryo (or the portion where the trophoblast cells establish communication with maternal blood vessels, decidua capsularis, the portion of the endometrium that stretches or encapsulates the surface of the trophoblast, and decidua vera, the remaining portion of the uterine lining. As the embryo continues to grow, it pushes the decidua capsularis before it like a blanket. Eventually, the embryo enlarges so much that this action brings the decidua capsularis into contact with the opposite uterine wall (the decidua vera). Here, the two decidua areas fuse, which is why, at birth, the entire inner surface of the uterus is stripped away, leaving the organ highly susceptible to hemorrhage and infection. Chorionic Villi Once implantation is complete, the trophoblastic layer of cells of the blastocyst begins to mature rapidly. As early as the 11th or 12th day, miniature villi that resemble probing fingers, termed chorionic villi, reach out from the single layer of cells into the uterine endometrium to begin formation of the placenta.

The placenta (Latin for ―pancake, which is descriptive of its size and appearance at term) arises out of the continuing growth of trophoblast tissue. Its growth parallels that of the fetus, growing from a few identifiable cells at the beginning of pregnancy to an organ 15 to 20 cm in diameter and 2 to 3 cm in depth, covering about half the surface area of the internal uterus at term. The amniotic fluid is constantly being newly formed and reabsorbed by the amniotic membrane, so it never becomes stagnant. Some of it is absorbed by direct contact with the fetal surface of the placenta. The major method of absorption, however, occurs because the fetus continually swallows the fluid. In the fetal intestine, it is absorbed into the fetal bloodstream. From there, it goes to the umbilical arteries and to the placenta, and it is exchanged across the placenta. At term, the amount of amniotic fluid has increased so much it ranges from 800 to 1200 milliliter, sometimes, excessive amniotic fluid, or hydramnios (more than 2000 mL in total may occur. Hydramnios also tends to occur in women with diabetes, because hyperglycemia. oligohydramnios, or a reduction in the amount of amniotic fluid (less than 300 mL in total. Amniotic fluid is slightly alkaline, with a pH of about 7.2. Checking the pH of the fluid at the time of rupture helps to differentiate it from urine, which is acidic (pH 5.0–5.5).

The umbilical cord is formed from the fetal membranes (amnion and chorion) and provides a circulatory pathway that connects the embryo to the chorionic villi of the placenta. Its function is to transport oxygen and nutrients to the fetus from the placenta and to return waste products from the fetus to the placenta. It is about 53 cm (21 in) in length at term and about 2 cm (3⁄4 in) thick. The bulk of the cord is a gelatinous muco-

polysaccharide called Wharton's jelly, which gives the cord body and prevents pressure on the vein and arteries that pass through it. The outer surface is covered with amniotic membrane. An umbilical cord contains only one vein (carrying blood from the placental villi to the fetus) but two arteries (carrying blood from the fetus back to the placental villi).

Unwanted pregnancy is pregnancy that is not desired by one or both biological parents. It is part of unintended pregnancy and account for about 45 million pregnancies in the world (Guttmacher Institute, 2018). Teenage years are a very important time in life when a child grows into an adult, both physically and emotionally. When puberty begins, teenagers start to become interested in their own bodies. This curiosity can lead to risky sexual behaviors. Research shows that starting sexual activity too early can raise the chance of an unplanned pregnancy. Unsafe sex, combined with misunderstandings about sex, getting pregnant, and reproductive health, is a major reason for teenage pregnancies. Unplanned pregnancies in teenagers often happen because they don't have enough information about their sexual and reproductive health. Not knowing this information can cause problems with their health and lead to risky behavior before marriage. There are many things that can lead to unplanned pregnancies. These factors include personal, social, organizational, and environmental issues. Personal factors, like not knowing enough about sexual and reproductive health, are one example. Personal issues can come from not talking enough about sexuality between partners, parents, and friends. Organizational issues include not having enough education and limited access to reproductive health services. Contextual issues involve problems like gender inequality, cultural traditions, and moving to new places (Tuan, 2017). Unwanted pregnancy is a big problem around the world that impacts women, their families, and their communities. In developing countries, between 20% and 40% of births are not planned. This creates difficulties for families and puts the health of many women and children at risk.

There are many problems worldwide with pregnancies in teenagers aged 15-19. According to the UNFPA (2019), there are 50 births per 1,000 girls in this age group. Teenage pregnancies affect both the health of young mothers and their babies, especially in places with weak health systems. Complications during pregnancy and childbirth are the main causes of death for girls aged 15-19 (WHO, 2014). According to the World Health Organization (WHO), teenage pregnancy happens in rich, middle-income, and poor countries. In developing countries, about 12 million girls under 15 have given birth, with a total of around 777,000 births. Additionally, around 21 million teenagers aged 15-19 experience unwanted pregnancies (WHO, 2020).

Teenage pregnancies can lead to health problems. Unplanned pregnancies in teenagers often result in more miscarriages, early births, and babies with low birth weight. These pregnancy problems can be very dangerous for teenagers and cause a lot of emotional stress (Fahmida, 2016). Teenagers with unwanted pregnancies often leave school. They might be rejected by people around them and may try unsafe methods to end their pregnancies (Soura et al., 2018). They might choose to have an abortion in an unsafe way. After the abortion, the teenager often feels deep regret and guilt, which can affect her for the rest of her life. (Domingos et al., 2013). Unwanted pregnancy is one of the worldwide problems that affect women, their families and societies. In developing countries, 20-40% of births are unplanned. This creates difficulties for families and puts the health of many women and children at risk. After these unplanned pregnancies, around 50 million abortions are done in unsafe conditions. Unwanted pregnancy is pregnancy that is not desired by one or both biologic parents. It is part of unintended pregnancy and about 45 million unwanted pregnancies are present in the world.

There are many contributing factors for unwanted pregnancy among those factors the common ones are limited knowledge of RH information, early marriage, limited use of contraceptives, limited knowledge of sexual physiology, contraceptive failure premarital sex and cultural factors like peer pressures. Unplanned pregnancy is also common among abused women. Research has found that some abusers force their partners to have sex without birth control and/ or sabotage the birth control their partners are using leading to unplanned pregnancy. About 1 in 2 men who abuse their wives also abuse their children. And children who grow up with violence in the home are more likely to become abusers as adults and have physical and emotional problems.

Several studies found that those who experienced unwanted pregnancy were often poorly informed about sex. Adolescents who were not interested in school or in future careers often had unwanted pregnancy. These pregnancies probably represent an attempt to establish a social identity. Limited knowledge of sexual

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physiology, early marriages, limited access to reproductive health information and girly limited agency over their sex lives all contribute to the high rate of unwanted pregnancy. In sub-Saharan Africa approximately 14 million unintended pregnancies occur every year. Unwanted pregnancy is one of the major reproductive health challenges faced by adolescents Ethiopia. 54% of pregnancies to girls under 15 are unwanted compared to 37% for those ages 20-24.

**Theoretical framework**

The theoretical framework that will be used for this study are:

1. The Health Belief Model
2. The Social Cognitive Theory

**Health Belief Model (1950)**

The health belief model (HBM) was developed in 1950s by social psychologists Hochbaum, Rosenstock and others, who were working in the U.S Public Health Service to explain the failure of people participating in programs to prevent and detect disease. This model suggests that a person's readiness to make changes depends on how serious they think a health problem is and whether they believe they can reduce the risk by taking personal actions. The Health Belief Model helps students think about several things. It looks at how much they feel at risk (their personal view of danger), how serious they think the risk is (their feelings about the problem's seriousness), how useful they believe certain actions are (their beliefs about how well actions can reduce the risk), and any obstacles they see (the possible problems with taking steps to protect themselves or reduce the risk). This model helps students think about different factors before making a decision. Besides considering their options, students need to believe that their actions will lead to a good result. They also need to be confident that they can achieve this result to make it more likely that they will choose the behavior. This model focuses on setting personal goals, assessing risks, believing in one's abilities, and making decisions. For example, a typical activity in sexuality education using this model might involve students thinking about why someone might choose to abstain from sex (the benefits) and why they might avoid risky sexual behavior (the obstacles).

Rosenstock 1966). Demographic characteristics such as socio-economic status, gender, ethnicity, and age were known to be associated with preventive health-related behaviour patterns (i.e. patterns of behaviour predictive of differences in morbidity and mortality) as well as differential use of health services (Rosenstock 1974). Even when services were publicly financed, socio-economic status was associated with health-related behaviour patterns. Demographic and socio-economic characteristics could not be modified through health education but it was hypothesized that other potentially modifiable individual characteristics associated with health-related behaviour patterns could be changed through educational interventions, and thus shift health behaviour patterns at population levels. Beliefs provide a crucial link between socialization and behaviour. Beliefs are enduring individual characteristics that shape behaviour and can be acquired through primary socialization.

Beliefs are also modifiable and can differentiate between individuals from the same background. If persuasive techniques can be used to change behaviour-related beliefs and such interventions result in behaviour change, this provides a theoretical and practical basis for evidence-based health education. The relationship between health beliefs and behaviours was conceptualized primarily in terms of Lewin's (1951) idea of 'valence'. Particular beliefs were thought to make behaviours more or less attractive. This resulted in an expectancy-value model of belief behaviour relation-ships in which events believed to be more or less likely were positively or negatively evaluated by individuals. In particular, the likelihood of experiencing a health problem, the severity of the consequences of that problem, and the perceived benefits of a preventive behaviour, in combination with its potential costs, were seen as key beliefs that shaped health-related behavioural variables that potentially account for variance in health behaviours. Even the definition of these six constructs was left open to debate. Rosenstock (1974) and Becker and Maiman (1975) illustrated how various researchers used somewhat different operationalization of these constructs and, in a meta-analysis of

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predictive applications of the HBM, Harrison et al. (1992) concluded that this lack of operational homogeneity weakens the HBM's status as a coherent psychological model of the prerequisites of health behaviour. Nevertheless, a series of studies has shown that this various operationalization allowed identification of beliefs correlated with health behaviours (e.g. Janz and Becker 1984).


Figure 2.1. Health Belief Model

**Relevance of health belief model to the research topic**

The Health Belief Model is a theoretical model that can be used to guide health promotion and disease prevention programs. It is used to explain and predict individual changes in health behavior. The model is a tool for educating and sensitizing the Adolescents on their susceptibility, perceived threats and danger of poor menstrual hygiene, sexually transmitted infections and unwanted pregnancies if they ignore healthy sexual behaviours. The severe effects of risky sexual behaviours on their academic performance can be reiterated with this model. The likelihood of their taking a positive action so as not to fall victim of negative experiences can be achieved in the process. Thus, the Health Belief Model helps an adolescent to make changes in behavior based on their perception of the severity of the potential illness, susceptibility to the illness, benefits of changing behavior to prevent or reduce effects of the illness and obstacles to the recommended behavior change.

**Social Cognitive Theory (1960)**

The Social Cognitive Theory (SCT) started as a Social Learning Theory (SLT) in the 1960s by Albert Bandura. It developed into SCT in 1986 and posits that learning occurs in a social context with a dynamic and reciprocal interaction of the persons, environment and behavior. The unique feature of SCT is the emphasis on social influence and its emphasis on internal and external reinforcement. It considers the unique way in which individual acquire and maintain behavior.

It involves a mix of personal understanding, skills, attitudes, relationships with others, and the impact of the environment. Most programs about sexuality focus on teaching facts and information. But just knowing things isn't enough to change how someone behaves. Sexuality education programs that use social cognitive theory include practicing good behaviors and showing examples of healthy sexual actions. By practicing and seeing good examples, students gain confidence in their ability to change their own behaviors, even when they face difficulties or obstacles.

Albert Bandura developed the Social Cognitive Theory based on the concept that learning is affected by cognitive, behavioral, and environmental factors (Bandura, 1991). In contrast to the traditional psychological

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theories that emphasized learning through direct experience, Bandura posited that virtually all learning phenomena can occur by observing other people's behavior and consequence of it (Bandura, 1986).

Bandura posited that the process of observational learning was governed by four key aspects: attention, retention, reproduction, and motivation. Attention is a process in which people selectively observe and extract information from the ongoing modeled activities (Wood & Bandura, 1989). Retention involves a process of "transforming and restructuring information in the form of rules and conceptions" and store the information into memory. Reproduction is the act of performing the actual behavior that was observed. The fourth aspect concerns motivation which propels the learner to attention, practice and retention. The Social Cognitive Theory emphasizes that observational learning is not a simple imitative process; human beings are the agents or managers of their own behaviors (Bandura, 2001).

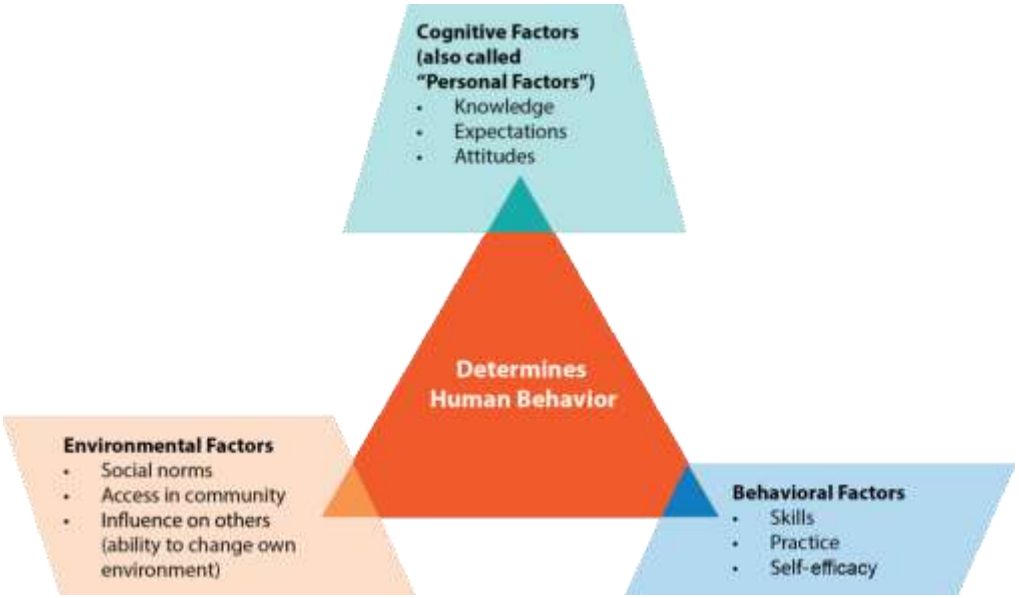


Figure 2.2. Social Cognitive Theory

**Relevance of Social Cognitive Theory to the research topic**

Social cognitive theory is relevant to adolescent sexual reproductive health in the sense that, it provides for school- based approaches to impact adolescents' health knowledge base and the precursors that inform behavior. Social cognitive theory perspectives highlight the importance of knowledge, motivation, attitudes, intentions and self- efficacy for adolescents' health promotion. A central tenet of social cognitive theory is the concept of self-efficacy- adolescent's belief in their capability to perform a behavior. This theory has explained numerous behaviours in adolescents, such as those involved in development, anxiety and depression. It is frequently used to guide behavior change interventions. It is particularly used for adolescents for examining how individuals interact with their parents, teachers peer etc. and the effects of these interactions in their behaviour (Bandura, 1977).

**Empirical studies:**

The influence of menstrual hygiene on adolescents' academic achievement

Several studies have found that, menstrual hygiene has a strong influence on the adolescents' Academic achievement. Many teenage girls, aged 10 to 19, start puberty without being ready because they don't have enough information. As a result, adolescent girls perceive menstruation as something embarrassing that should be kept hidden (Goel, 2011) This can increase the vulnerability of adolescent girls to have mental, emotional and physical problems. These conditions further impair the daily activities, academic performance, school attendance, and social relationships of adolescent girls. This was supported by a study of knowledge and menstrual hygiene practice among adolescent school girls in Southern Ethiopia by Belayneh (2019). The study says that menstruation is a normal part of being a female who can have children. However, it is often

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surrounded by social taboos and old beliefs. Not knowing enough about menstruation can lead to poor hygiene practices. This can increase the risk of infections, cervical cancer, dropping out of school, low academic performance, and a lower quality of life.

In a study about how menstruation affects the school performance of senior secondary school biology students in Irewole Local Government, Osun State, Nigeria, teenage girls scored much lower on exams compared to boys. The following were the challenges of menstruation and its hygiene: Many problems make it hard for girls during their period. They often cannot get affordable and clean sanitary products. Schools might not have private places for girls to change their pads, clean themselves, or take a shower. Girls might also worry about answering questions in class if they have stains on their clothes. They may feel embarrassed or scared that others will find out they are menstruating. They might not have accurate information or support from teachers, and there can be strict rules about what they can and cannot do during their period (Splash, 2015). The study shows that many girls in public secondary schools in Osun State, Nigeria, come from poor families. Because of this, they might have trouble buying disposable sanitary pads. Because they can't afford disposable pads, these girls might use cloth rags to absorb menstrual blood. These rags might not be clean, which can lead to infections, discomfort, and leaks during school. Also, none of the public schools in the study have proper toilets that give girls privacy to manage their period needs. All of the above experiences pose a problem to an adolescent girl child and has a negative influence on her academic achievement.

Maurya and Kushwaha (2017) found that UNICEF estimates one in ten girls who are menstruating misses school for four to five days each month or even drops out completely. If a girl misses school for four days each 28-day cycle because of menstruation and hygiene issues, she loses 13 days of learning and 104 hours of school each term. About 23% of girls aged 12 to 18 drop out of school after they start menstruating, mainly because they don’t have enough menstrual protection like disposable pads and don’t have good toilet facilities at school. If a girl misses school for so many days each term because of menstruation and hygiene issues, how can she compete fairly with boys in exams? It’s important to carefully look at how problems with menstrual hygiene affect girls' education, especially in secondary school. Education leaders need to pay close attention to these issues, as they have a big impact on girls' schooling. Educated women play a very important role in a country’s development. For example, women often stay at home and spend a lot of time with their children. If they are educated, they can help and influence more people, which will help the country grow and develop.

**The influence of sexually transmitted infections on adolescents’ academic achievement**

From various literature, the main underlying mechanisms by which HIV affects academic achievement on an adolescent can be identified. This is mainly, sickness of the adolescent which most likely causes a drop out. Some STIs can spread into the uterus and fallopian tubes and cause PID. This can lead to both infertility and ectopic (tubal) pregnancy. Some strains of HPV infection may also be linked to cervical cancer. STIs can be passed from a birthing parent to their baby before or during birth. (UNICEF, 2006). A study on the effect of sexually transmitted infection on students’ achievement scores in Kogi State, by Carlos in 2014 concluded that Sexually transmitted infection can influence mental health and academic achievement of an adolescent. It further discovered That STIs negatively impact academic achievement and lead to gap in knowledge amongst the adolescent.

In a study, Adolescents and Sexually Transmitted Diseases by William, 2010, it was concluded that. sexually transmitted Infections (STIs) are a serious health problem for adolescents, occurring in an estimated one-quarter of sexually active teen-agers. Many of the health problems – including STIs – result from specific risk-taking behaviors. Determinants of STI risks among adolescents include behaviorial, psychological, social, biological, institutional factors which in turn affect the adolescent’ s academic achievement to a great extent.

In a study by Risa et al. (2016) about sexually transmitted infections (STIs) in at-risk teenage girls at a health center in New York City, it was found that STIs are a major health problem for these girls. Sexually transmitted infections (STIs) can have serious effects on health. They might cause immediate problems, like getting other STIs, or long-term issues such as pelvic inflammatory disease (PID), ongoing pelvic pain, trouble getting pregnant, cancer, and infections that affect the whole body. STIs can also lead to negative feelings and mental health problems, such as depression, feeling like it's your fault, and withdrawing from activities. The

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above scenario as concluded by the study gives rise to increase absenteeism from school due to ill health by the adolescents, school drop-outs and in some cases serious complications and death which in turn affect their academic achievement.

**The influence unwanted pregnancy on adolescents' academic achievement**

A study by TA and TB in 2019 looked at how teenage pregnancy affects a girl's education and future. They found that becoming pregnant at a young age can be a big problem and can hurt a girl's future. The study also showed that teenagers often don't have the skills needed to manage pregnancy and being a mother. Teachers noticed that students' grades often drop significantly after they become pregnant. This is because pregnant students miss a lot of schoolwork, including lessons, homework, and tests. According to teachers, this drop in performance is due to problems related to pregnancy, like skipping school and feeling very tired, especially close to the time of giving birth. One teacher described a situation where a very bright student became pregnant, and this caused her grades to drop, leading her to fail at the end of the year. The teacher shared these comments to explain the issue: "Yes, they do very badly because pregnancy is a lot of work on its own," said TB. TA also mentioned, "I had a student who was doing great in class, but once she got pregnant, everything changed completely." Teenage mothers often begin to have a negative attitude towards their schoolwork. They start focusing more on their responsibilities with their baby and forget about their future. This can lead to strong emotional problems, especially if they don't want the baby. In some cases, this distress might lead them to consider extreme actions like trying to have an abortion or even suicide. Teenage mothers who are expecting will fall behind in their schoolwork while they are on maternity leave. As a result of teenage pregnancy, these students often end up dropping out of school because they are afraid of being embarrassed by their classmates. The study found that teenage pregnancy affects a girl's education negatively. Pregnant students and young mothers usually do worse in school than they did before. This is because they lack experience in being a mother, have to handle both school and parenting duties, may have health problems, and sometimes don't get enough support from their parents.

In a 2013 study by Gyan on the effects of teenage pregnancy on girls' education in Chorkor, a suburb of Accra, it was found that dropping out of school is a strong indicator that a teenager might become pregnant. The study suggested that dropping out of school often happens before a teenager gets pregnant, rather than being caused by the pregnancy (Bonell et al, 2004). Problems with school can be explained in several ways. First, some students strongly dislike school, which can lead to skipping classes, dropping out, or being expelled (Hosie, 2007). Second, other students struggle with their schoolwork and do not achieve good grades (Hobcraft & Kiernan, 1999). Finally, some students have low hopes and do not see school as important for their future jobs (Luker, 1996). Hosie (2007) discovered that bullying by teachers or other students often makes students dislike school more. Students who already have poor attendance and dislike school before becoming pregnant tend to get negative reactions from their school when they reveal their situation. As a result, they are less likely to stay in school compared to students who had good attendance before. Dilworth (2000) reviewed a lot of research and found that young mothers often experience poverty. They usually have lower levels of education and fewer job opportunities compared to teenagers who are not parents.

In a 2013 study by Stratford on the impact of early pregnancy on girls' school performance in public secondary schools in Bugesera District, Rwanda, it was found that there is a strong link between early pregnancies and poor academic results. The study also highlighted that early sexual activity, especially with multiple partners or without protection, often leads to serious problems, including higher rates of death during pregnancy from unwanted pregnancies. Based on the findings, the study suggests that parents should give more guidance to their children. School leaders and head teachers should closely monitor and manage students' behavior at school. This is important because the high rates of illness and death among young mothers and their babies make it crucial to reduce teenage pregnancies.

Adolescence pregnancy also has significant long term social consequences for the adolescents, their children, their families and their communities; it leads adolescents to less educational attainment and high school dropout, poor health and poverty. The children of teenage mothers are also more likely to have lower school achievement and drop out of high school, have more health problems, are incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult. Although adolescent

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pregnancy occurs among all racial, cultural and socioeconomic groups, some adolescents are more likely than others to become pregnant. Factors such as economic status, education, religion, place of residence, peer's and partners' behaviours, family and community attitudes, age, mass media, lack of reproductive health services and knowledge are contributing factors to the increase of unwanted pregnancy among adolescents in many nations. The government of Ethiopia developed strategies to achieve four major objectives: increasing access to quality reproductive health services for adolescents, increase awareness and knowledge about reproductive health issues, strengthen multi -sectoral partnerships, and design and implement adolescent and youth reproductive health programs. However, teenage pregnancy remains high in the country.

(Dilworth, 2000).

**Appraisal of Reviewed Literature**

The literature review explained the concepts of menstrual hygiene, sexually transmitted infections, unwanted pregnancy and their influence on academic achievement of adolescents. The theoretical framework as it relates to the study was reviewed using the Health Belief Model and Social Cognitive Theory. The review of empirical studies was done using relevant sub-headings. The review of past research shows that no studies have been done in public high schools in Abak Local Government area. This study will fill this missing piece by offering new information on how understanding sexual and reproductive health affects the school performance of teenagers. This has illuminated on the need for a radical change and upgrade in adolescent sexual reproductive health education in our secondary schools.

# METHODOLOGY

In this chapter, we will explain the steps and methods we will use to conduct the study.

**Research Design**

The study used a type of research called Ex post-facto. This decision was made because the researcher wants to find out how understanding teenage sexual and reproductive health influences the school grades of students.

**Population of the Study:**

The study focused on all the boys and girls attending public high schools in Abak Local Government Area. There were 862 students in total.

**Sample and Sampling Techniques**

For the study, a total of 120 females and 120 males, totaling, 240 students were used as the sample size, and all from public high schools in Abak Local Government Area of Akwa Ibom State. To select these students, a simple random method was used, where names were drawn by chance.

**Instrument for Data Collection**

In order to conduct the study, a questionnaire called “The influence of knowledge of adolescent sexual reproductive health on academic achievement of students’ questionnaire (TIKASRHOAASQ)’’ was used. Participants were asked to show if they agreed or disagreed with the statements related to the research topics by ticking their answers. Their responses were measured using a four-point scale, which was:

SA - 4 - strongly agree

A - 3 - agree

SD - 2 - strongly disagree

D - 1 - disagree

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Once the questionnaires were finished, they were collected and organized for scoring.

**Validity of the Instrument**

Before using the instruments, the researcher's supervisor had to review and approve them first, before it was then further reviewed and approved by two specialists in testing from the National Open University in Uyo, Faculty of Education precisely.

**Reliability of the Instrument**

To verify the reliability of the tools, we used a "Test-Retest" method. We began by administering the test to 20 students from two schools outside the study area. After two weeks, we gave the same test to these same students once more. We compared the results from both tests to see how much they varied. The consistency was measured with a ratio of 0.74, which showed the reliability of the tools.

**Procedure for Data Collection**

The researcher asked two research assistants to help give the questionnaires to the students in their schools. The students answered the questions correctly, and after they finished, the questionnaires were retrieved from them, for sorting, coding and analysis.

**Method of Data Analysis**

The collected data was examined using simple statistical techniques. To answer the research questions, Pearson Product Moment Correlation (PPMC) was used. A dependent t-test was performed to check the null hypothesis. The test used a significance level of 0.05.

## RESULTS

The results of the research are discussed in relation to the questions and predictions posed.

**Answers to the Research Questions**

To answer the research questions, Pearson Product Moment Correlation (PPMC) was used to do the calculations.

**Research Question One**

How much does knowing about menstrual hygiene affect the academic performance students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise?

Table 1: Overview of Pearson Product Moment Correlation (PPMC) Test, showing how knowledge of menstrual hygiene is related to the school performance of female students.

| Variables | $\sum x \sum y$ | $\sum x^2 \sum y^2$ | $\sum xy$ | R |
|---|---|---|---|---|
| Knowledge of menstrual hygiene | 3014 | 43294 | 43352 | .607 |
| Academic achievement of female students | 3054 | 44122 | | |

Table 1 shows the results of the PPMC test. The R-value is .607, which means there is a strong relationship between knowledge of menstrual hygiene and the academic performance of female students. The answer to the first research question is that knowing about menstrual hygiene has a big impact on female students' academic performance.

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**Research Question 2**

How does knowing about Sexually Transmitted Infections (STIs) affect the academic performance of students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise?

Table 2: Overview of Pearson Product Moment Correlation (PPMC) Test, showing how knowledge of Sexually Transmitted Infections (STIs) relates to the school performance of female students.

| Variables | $\sum x \sum y$ | $\sum x^2 \sum y^2$ | $\sum xy$ | R |
|---|---|---|---|---|
| Knowledge of Sexually Transmitted Infections (STIs) | 3020 | 43374 | 43103 | .614 |
| Academic achievement of students. | 3054 | 44122 | | |

Table 2 shows the results of the PPMC test. The r-value is .614, which indicates a strong relationship between knowledge of Sexually Transmitted Infections (STIs) and the academic performance of students. So, the answer to the second research question is that knowing about Sexually Transmitted Infections (STIs) has a big impact on the academic performance of students.

**Research Question 3**

How does knowing about unwanted pregnancy affect the academic performance of students in in public secondary schools in Akwa Ibom State, Abak Local Government to be precise?

Table 3: Overview of Pearson Product Moment Correlation (PPMC) Test, showing how knowledge about unwanted pregnancy affects the school performance of female students

| Variables | $\sum x \sum y$ | $\sum x^2 \sum y^2$ | $\sum xy$ | R |
|---|---|---|---|---|
| Knowledge of unwanted pregnancy | 3044 | 43262 | 43435 | .613 |
| Academic achievement of female students | 3054 | 44122 | | |

Table 3 shows the results of the PPMC test. The R-value is .613, which means there is a strong relationship between knowledge of unwanted pregnancy and the academic performance of students. The answer to the third research question is that knowing about unwanted pregnancy has a big effect on the academic performance of students.

**Testing of Hypotheses**

**Hypothesis One**

Understanding menstrual hygiene does not have a big impact on how well students do in their studies at public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

Table 4: T-Test analysis of how knowledge about menstrual hygiene affects the school grades of female students

| Variables | N | X | T-Cal | T-Crit. |
|---|---|---|---|---|
| Knowledge of menstrual hygiene | 120 | 5.16 | | |
| Academic achievement of female students | 120 | 6.06 | 5.12 | 1.96 |

$P > 0.05$; df. = 118

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Table 4 indicates that the t-value we calculated is 5.12, which exceeds the critical t-value of 1.96. Therefore, we reject the first null hypothesis. This hypothesis said that understanding menstrual hygiene does not affect how well female students perform in school in public secondary schools in Akwa Ibom State, Abak Local Government to be precise. This decision is based on a 0.05 level of significance. The conclusion is that understanding menstrual hygiene has a strong effect on how well female students do in school.

**Hypothesis Two**

Understanding sexually transmitted infections (STIs) does not significantly impact the academic performance of students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise.

Table 5: T-Test analysis of influence of Knowledge of Sexually Transmitted Infections (STIs) on academic achievement of female students.

| Variables | N | X | T-Cal | T-Crit. |
|---|---|---|---|---|
| Knowledge of Sexually Transmitted Infections (STIs) | 120 | 5.14 | 5.15 | 1.96 |
| Academic achievement of female students | 120 | 6.06 | | |

P > 0.05; df = 118

Table 5 shows that the t-value we calculated is 5.15, which is above the critical t-value of 1.96. This leads us to reject the second null hypothesis. This hypothesis said that knowing about sexually transmitted infections (STIs) does not have a big impact on how well female students do in school in public secondary schools in Akwa Ibom State, Abak Local Government to be precise. This decision is based on a 0.05 level of significance. This means that if female students know about sexually transmitted diseases, it will have a big effect on how well they do in school.

**Hypothesis Three**

Knowing about unwanted pregnancy does not have a big effect on how well students do in their studies at public secondary schools in Abak Local Government, Akwa Ibom State.

Table 6: T-Test analysis of influence of Knowledge of unwanted pregnancy on academic achievement of female students

| Variables | N | | T-Cal | T-Crit. |
|---|---|---|---|---|
| Knowledge of unwanted pregnancy | 120 | 5.17 | 5.11 | 1.96 |
| Academic achievement of female students | 120 | 6.06 | | |

P > 0.05; df. = 118

Table 6 shows that the t-value we found is 5.11, which is higher than the critical t-value of 1.96. As a result, we reject the third null hypothesis. This hypothesis said that knowing about unwanted pregnancy does not significantly affect how well students do in school at public secondary schools in Akwa Ibom State, Abak Local Government to be precise. This conclusion is based on a 0.05 level of significance. This means that knowing about unwanted pregnancy has a big impact on how well female students do in school.

**Summary of the Findings**

After analyzing the data, we find the following results:

i. Knowledge of menstrual hygiene greatly influences academic achievement of female students.

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ii. Knowledge of Sexually Transmitted Infections (STIs) significantly influences academic achievement of students.
iii. Knowledge of unwanted pregnancy greatly influences academic achievement of students.

# DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## Discussion of the Findings

This chapter talks about the results of the study based on the data analysis. The first finding is that knowing about menstrual hygiene has a big effect on how well female students do in school. This means that when female students understand menstrual hygiene, it helps them do better in their studies compared to if they do not know about it. This finding finds support from a study on knowledge and menstrual hygiene practice among adolescent school girls in Southern Ethiopia by Belayneh (2019). The study says that menstruation is a normal part of being a female during their reproductive years. However, it is often surrounded by social taboos and beliefs about supernatural forces. Not knowing enough about menstruation can lead to unsafe hygiene practices. This can increase the risk of infections, cervical cancer, dropping out of school, poor school performance, and a lower quality of life. This matches an earlier study by Maurya and Kushwaha (2017). They found that UNICEF estimates show one in ten girls who menstruate misses school for four to five days each month or may even drop out completely. If a girl misses school for four days each month because of menstruation and hygiene issues, she will miss 13 days and 104 hours of school each term. About 23% of girls aged 12 to 18 drop out of school after they start menstruating. This is often because they don't have enough menstrual products like disposable sanitary pads and because their schools lack proper toilet facilities.

The second finding of the study, that Knowledge of Sexually Transmitted Infections (STIs) significantly influences academic achievement of female students. This finding is corroborated by a research study carried by Carlos (2014) on the effect of sexually transmitted infection on students' achievement scores in Kogi State and concluded that sexually transmitted infection can influence mental health and academic achievement of an adolescent. It further discovered That STIs negatively impact academic achievement and lead to gap in knowledge amongst the adolescent. The study found that sexually transmitted infections (STIs) are a major health issue for at-risk teenage girls. The problems caused by STIs can be serious and long-lasting. They can include getting more STIs, pelvic inflammatory disease (PID), ongoing pelvic pain, infertility, cancer, and infections that affect the whole body. Sexually transmitted infections (STIs) were also found to cause negative effects on mental and social health. These effects include feelings of depression, self-blame, and losing interest in activities. This gives rise to increase absenteeism from school due to ill health by the adolescents, school drop-outs and in some cases serious complications and death which in turn affect their academic achievement.

The third finding of the study is that Knowledge of unwanted pregnancy greatly influences academic achievement of female students. This finding connects to a study by TA & TB (2019). Their research found that pregnancy can be a serious problem that might harm a girl's future. They found out that, adolescents usually lack skills needed to handle their pregnancy and motherhood. As a result, a student's school performance before and after becoming pregnant shows a big difference. During pregnancy, they miss a lot of schoolwork, including lessons, homework, and tests. This is often due to missing school because of pregnancy-related problems and feeling very tired, especially near the time of childbirth. The study described a situation where a very smart student became pregnant. This negatively affected her performance and led to her failing at the end of the school year. This finding is supported by an earlier study by Stratford (2013). That study looked at how early pregnancy affects girls' school performance in public secondary schools in Bugesera District, Rwanda. The findings showed a strong link between early pregnancies in girls and their school performance. The study also highlighted that when teenagers start sexual activities early, especially with multiple partners or without protection, it leads to negative results. These include serious issues like maternal death from unwanted pregnancies.

## Implications of the Study

The study has these effects on male and female students in public secondary schools in Akwa Ibom State, Abak Local Government to be precise:

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1. Female students should be properly exposed to early menstrual hygiene education in schools and good sanitary facilities that are gender sensitive should be made available in all schools.

2. Male and female students should also be educated properly on the dangers of indiscriminate sexual intercourse as teenagers. They should be educated to know that sexually transmitted infection can influence their mental health and academic achievement in school.

3. Male and female students should also be exposed to dangers of unwanted pregnancy while in school because it will hamper their academic achievement and completion at school.

**Conclusion**

The study was carried out to examine the influence of Knowledge of Adolescents' Sexual Reproductive Health on academic achievement of female students in public secondary schools in Abak Local Government Area of Akwa Ibom State. To guide the study three variables were identified such as: Knowledge of menstrual hygiene, knowledge of Sexually Transmitted Infections (STIs) and knowledge of unwanted pregnancy. The findings of the study revealed that these variables significantly influence academic achievement of students in public secondary schools. In conclusion, knowing about sexual and reproductive health for adolescents affects how well students do in their studies at public secondary schools. Therefore, it is recommended that Counseling services should be provided on sex education for both boys and girls in the school system so as to curtail incidence of sexually transmitted infections and unwanted pregnancy.

**Recommendations**

It is recommended among other things that:

1. School administration and head teachers should make effective control and supervision about the students' behavior in school setting, as the high rate of maternal and neonatal morbidity and mortality associated with adolescent parenting makes reducing pregnancy in adolescents an urgent need.

2. Government should provide good sanitary facilities like gender-friendly toilets, urinary that would ensure retention and completion rates among female students in schools.

3. Counseling services should be provided on sex education for both boys and girls in the school system so as to curtail incidence of sexually transmitted infections and unwanted pregnancy.

4. Establishment of School Health Clubs: Evidence from 2025 suggests that formal Adolescent Sexual and Reproductive Health (ASRH) clubs in secondary schools effectively sustain knowledge gains and provide a "safe space" for students to discuss sensitive topics.

5. Teacher Capacity Building: Regularly train teachers, particularly biology and guidance counselors, to deliver Comprehensive Sexuality Education (CSE) in a culturally sensitive manner that aligns with local beliefs to ensure wider community acceptance.

6. Engaging Parent-Child Communication: Implement programs that encourage parents to discuss reproductive health at home. Studies in 2025 show that students who discuss these matters with parents are less likely to experience early sexual debut.

Community and Institutional Collaboration

7. Multisectoral Approach: Create "horizontal collaborations" between the Ministries of Education and Health. This ensures that schools are not just providing information but are also linked to adolescent-friendly clinics for actual health services.

8. Curriculum Integration: Advocate for the formal integration of ASRH topics into the standard school curriculum rather than treating it as an extracurricular or "counseling-only" subject.

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Stakeholder Buy-in:

9. Involve religious and traditional leaders in the development of sex education content to reduce the social stigma often associated with these topics in Nigeria.

**Contribution to Knowledge**

The review of existing research reveals that there aren't many studies on this subject in public high schools within the Abak Local Government Area of Akwa Ibom State. This research aims to address this lack of information by showing how understanding sexual and reproductive health influences the school performance of female students in these schools. This will add valuable information to what we know.

**Suggestions for Further Study**

The following topic is recommended for future research:

1. How guidance and counseling services affect the academic performance of students in public secondary schools in Abak Local Government Area, Akwa Ibom State.

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# APPENDIX

**Instrument For Data Collection**

**The Influence Of Knowledge Of Adolescent Sexual Reproductive Health And Academic Achievement Of Female Students Of Public Secondary Schools Questionnaire. (Tikasrhoaafsq )**

Instruction: Please tick (√) to indicate your level of agreement or disagreement in each of the following statements.

| S/N | **Knowledge of menstrual hygiene** | Strongly agree | Agree | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| 1. | I know that during adolescence, occurrence of menstruation is the natural event which is a physiological and psychological milestone in women's reproductive life. | | | | |
| 2. | I started menstruating without having any idea of what is happening to me or why . | | | | |
| 3. | I have limited knowledge of menstruation because of the taboo for discussing the issue in my family/school | | | | |
| 4. | I lack access to a safe, clean, and private space to manage my monthly menses with dignity. | | | | |
| 5. | I sometime use toilet roll or a piece of cloth to take care of my menses when I don't have money to buy sanitary pad. | | | | |
| | **Knowledge of sexually transmitted infections** | | | | |
| 6. | I know that sexually transmitted infections (STIs) are infections that are transmitted from one person to another through sexual contact. | | | | |
| 7. | I do not have comprehensive accurate knowledge about STIs because my parents and teachers have not taught me. | | | | |
| 8. | I know that sexually transmitted infections can have serious consequences on reproductive health and can lead to school dropout. | | | | |
| 9. | I know that, sexually transmitted infections (STI) consist of more than 30 viral, bacterial, and parasitic infections. | | | | |
| 10. | I get most information on sexually transmitted infections from my friends and colleagues. | | | | |
| | **Knowledge of unwanted pregnancy** | | | | |
| 11. | I understand that an unwanted pregnancy is pregnancy that is not desired by one or both biological parents. | | | | |
| 12. | I know that, pregnancy in adolescents is associated with medical problems and school dropout. | | | | |

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| | | | | | |
|---|---|---|---|---|---|
| 13. | I belief that, adolescents who are not interested in school or in future careers often have unwanted pregnancy. | | | | |
| 14. | I think that early sexual initiation increases adolescents' risk of unwanted pregnancy. | | | | |
| 15. | I support that, unwanted pregnancies in adolescents is due to a lack of knowledge on adolescent reproductive health. | | | | |