Assessment of Knowledge, Attitudes, and Practices Towards Sexual and Reproductive Health Among Secondary School Students in Kicukiro District, Rwanda

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ABSTRACT

Sexual and reproductive health (SRH) is intricately connected to a variety of factors, including cultural norms, psychological influences, and individual experiences. This study explores the experiences of late adolescents regarding SRH, focusing on their knowledge, attitudes, and practices in Kicukiro District, Rwanda. Despite government efforts to educate youth on SRH, many secondary school students remain vulnerable to issues like unplanned pregnancies and sexually transmitted infections (STIs). To evaluate the knowledge, attitudes, and practices regarding sexual and reproductive health among secondary school students in Kicukiro District, Rwanda. The study targeted secondary school students from two schools: Groupe Scolaire Saint Vincent Pillotie Gikondo (urban) and EFOTEK (rural). Using Fisher's formula, a sample size of 423 respondents was determined through stratified random sampling. Data were collected via structured questionnaires and analyzed using SPSS and descriptive statistics, including frequency, percentages, means, and standard deviations. The findings revealed that 88% of students were aware of puberty and pregnancy processes, while 78.7% were knowledgeable about contraceptive methods, particularly condoms and oral contraceptives. Positive attitudes towards SRH were noted, with a mean score of 4.00 for pre-marital relationships, but significant misconceptions existed, such as 11% of respondents lacking knowledge on HIV protection. The overall mean for practices related to SRH was 3.98 for seeking medical check-ups, indicating a willingness to engage with health services. However, practices promoting healthy lifestyles received a lower mean of 3.25, suggesting areas needing improvement. The study highlights the need for enhanced sexual and reproductive health education among secondary school students in Kicukiro District. While students demonstrate good knowledge and positive attitudes toward SRH, targeted interventions are necessary to address misconceptions and promote healthier practices, particularly in areas related to lifestyle and open communication.

Keywords: Knowledge, attitudes, sexual & reproductive health, unplanned pregnancies, sexually transmitted infections

INTRODUCTION

Adolescence is a period of transition from childhood to adulthood, in which individuals face profound physio- logical and psychological changes and challenges. The period of adolescence can be frustrating; cognitive, physical and social development can be painful, traumatic, embarrassing, and unsatisfactory. Adolescence brings about a number of social, physical, and cognitive changes for young people, as well as SRH changes that have a direct impact on how they feel later in life. A large number of young adolescents can be reached by sexuality education programs established in schools. The introduction of sexuality education at this crucial juncture in life, when young people's attitudes and behaviors are developing, has both short-term advantages, such as preventing risky sexual behavior and teenage pregnancy, and long-term benefits that may ultimately promote their wellbeing throughout their lives (Woog and Kågesten, 2017).

The experiences of late adolescents (aged 18–19 years) vary greatly by gender, race, ethnicity, socio-economic status, and other factors that shape how they respond to their physical and emotional development and assumption of the roles of adulthood. People commonly develop a deeper sense of identity during late adolescence, such as a personal sense of gender and sexuality, establishing values about sexual behaviour, and developing romantic relationships. Embarking on sexually active relation-ships means the entrance to the world of 'adulthood' and potential parenthood. Lacking adequate knowledge and skills about developing safe sexual relationships can make adolescents vulnerable to a high risk of unintended pregnancy, unsafe abortion, and sexually transmitted infections (STIs), including HIV/AIDS (UNFPA, 2019).

Sexual and reproductive health are closely linked. Sexual health is complex and largely influenced by factors such as physical appearance, psychological factors, social factors, cultural norms and past experience. At the same time, the standard of health is crucial for the promotion of Sexual Reproductive Health and Rights (SRHR), including contraception, maternal and newborn health, and HIV/AIDS. The WHO provides guidance and structure to sexual health programming and research, thereby supporting achievement of sexual and reproductive health targets. This heightened awareness that adolescent sexual health plays a vital part in reproductive health and well-being in later life. The challenge remains in ensuring access to reproductive health care and education and addressing entrenched gender norms which continue to affect late adolescents as they manage the transition to adulthood. More importantly, accurate information can address gaps in knowledge, dispel misconceptions, build comprehensive understanding and foster empowering skills, positive attitudes and values, and healthy behaviours (Dombola GM, et al., 2019).

Sexual Reproductive Health (SRH) issues comprise a third of health problems for women aged 15–44. SRH education equips people with knowledge of concepts around sexuality and reproduction, and the skills help to make informed decisions to prevent sexual and reproductive ill-health, including unplanned pregnancy and HIV/AIDS, and other sexually transmitted infections (STIs). The aim of this study was to explore the experiences of late adolescents relating to SRH, examining their attitudes toward sex and contraception, and to identify the gaps in knowledge affecting to decision-making around risk-taking behavior. It is clear that lacking puberty knowledge could result in the development of an unfavorable attitude toward pubertal changes as well as negative emotions like anxiety and low self-esteem that may lead them to reproductive transmitted infections (RTIs) including HIV/AIDS, unfavorable pregnancies, occasionally abortion, and tetanus. Improving adolescents' and young people's knowledge and practices related to sexual and reproductive health (SRH) is necessary to improve health outcomes (DHS, 2021).

Despite the efforts made by Government of Rwanda in teaching youngers about SRH, the students in secondary schools of Kicukiro District are still vulnerable to HIV infection, unplanned pregnancies, and others issues like dropping out of schools due to the lack of knowledge about intercourse relationships, lower sexual experimentation, uncomplete information approximately HIV/AIDS, lack knowledge and effective attitude on pregnancy information, and other related elements from impropriate attitudes in SRH. This district is ordered to be the 2nd class after Huye district in having high rate of undesirable pregnancies for children in secondary schools (Frank Asiimwe, 2020). The researcher was motivated to assess the SRH knowledge, attitudes, and practices relating to SRH among secondary school students in Rwanda. The study examined the knowledge, attitudes, and practices of secondary school students in Rwanda's Kicukiro District about sexual and reproductive health.

Objectives
General Objective: to evaluate the knowledge, attitudes, and practices towards sexual and reproductive health among secondary school students in Kicukiro District, Rwanda.
Specific Objectives:
1. To determine the level of knowledge on sexual and reproductive health among secondary school students in Kicukiro District, Rwanda
2. To identify the attitude on sexual and reproductive health among secondary school students Kicukiro District, Rwanda
3. To determine practices on sexual and reproductive health among secondary school students in Kicukiro District. Rwanda

Conceptual Framework
In order to solve the issue, the researcher determined the relationship between the independent variables of knowledge and attitude and the dependent variables of sexual and reproductive health practices.
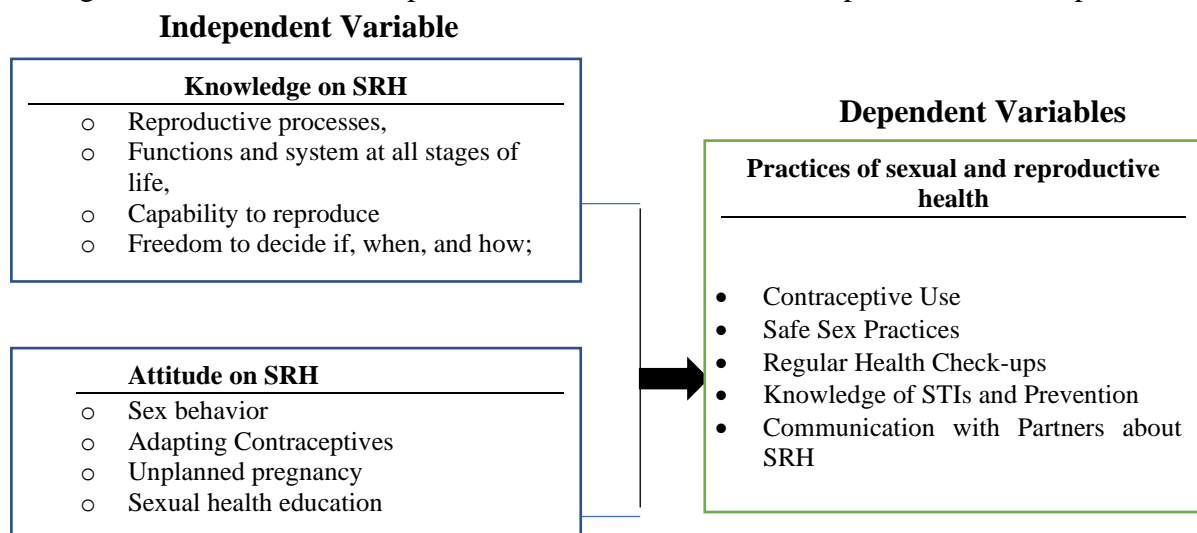
Figure 1: Conceptual framework
Source: researcher conceptualization (2024)

Sexual health is fundamental to the overall health and well-being of individuals, couples and families, and to the social and economic development of communities and countries. Sexual health, when viewed affirmatively, requires a positive and respectful approach to sexuality and sexual relationships, as well as

the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. The ability of men and women to achieve sexual health and well-being depends on their:

- access to comprehensive, good-quality information about sex and sexuality;
- knowledge about the risks they may face and their vulnerability to adverse consequences of unprotected sexual activity;
- ability to access sexual health care;
- living in an environment that affirms and promotes sexual health.

Sexual health-related issues are wide-ranging, and encompass sexual orientation and gender identity, sexual expression, relationships, and pleasure. They also include negative consequences or conditions such as:

- infections with human immunodeficiency virus (HIV), sexually transmitted infections (STIs) and reproductive tract infections (RTIs) and their adverse outcomes (such as cancer and infertility);
- unintended pregnancy and abortion;
- sexual dysfunction;
- sexual violence; and
- harmful practices (such as female genital mutilation, FGM).

MATERIALS AND METHODS

Cross-sectional studies, a type of observational research that looks at data on variables acquired at one particular time across a sample population or a pre-defined subset was used in this study. Other terms for this kind of research included cross-sectional analysis, transversal research, and prevalence studies. The study provided the quantitative descriptions of the frequencies, percentages, and information gathered about teenagers' knowledge, attitudes, and practices about sexual and reproductive health among secondary school students in the Kicukiro District of Rwanda. One of the neighborhoods in Kigali, Rwanda's capital city, is called Kicukiro. The Kicukiro Sector is home to the Kicukiro headquarters. This district encompasses a sizable chunk of the city, including the Gatenga, Gikondo, Kigarama, Niboye, Kagarama, Kicukiro, and Gahanga sectors. Due to the short duration of this study only respondents' perceptions knowledge about, attitudes toward, and practices related to sexual and reproductive health were assessed.

Target Population: was focusing on the secondary school students from semi-rural and semi-urban schools in the Kicukiro District, Rwanda. These schools were Groupe Scolaire Saint Vincent Pillotie Gikondo, as semi-urban school, and EFOTEK, as a semi-rural school. The total of 2,170 students were intended demographic for the two schools in the Kicukiro District.

Sample Size: was determined using Fisher's formula (Hassan, 1991). $n= (\llbracket(Z1-\alpha/2)^2*p(1-p))/d^2$ where; for a survey to be statistically significant, a sample size of n was required. $Z1-/2 =$ was the average normal variety, bringing 1.96 at 5% type 1 error (p0.05). At secondary schools, initiatives are being made to teach pupils about sexual and reproductive health, and it is anticipated that 50% of students know this information. $n= (1.96*0.5(1-0.5))/0.052 =384$ respondents, where p=probability of failure in one trial equals 0.5, and the researcher decided whether to utilize d=absolute error or precision, which was 5% or 0.05 q=1. The actual sample size was 423 respondents if the 10% error was added to the 384 respondents in the computed sample size. The study used stratified random sampling techniques that divided a population (students) into smaller sub-groups known as strata. From the students of Groupe Scolaire Saint

Vincent Pillotie Gikondo and EFOTEK in the Kicukiro District, 423 respondents were chosen using stratified, and simple random sampling approaches.

Data Collection Methods: Questionnaire was preferred in primary data because the respondents were free to give answers to the questions. Also, it was encouraging respondents to give open and straight to sensitive questions thus helping the researcher to acquire important information. The questionnaires were in English. The use of questionnaire involved a list of written questions given to certain category of respondents from the students in the selected schools. The questionnaire was constituted by open and close end questions on the list of questions addressed to the respondents.

Data Processing and Analysis methods: before start any analysis of data collected, the researcher first made the editing of data, the coding the data and made the tabulation of data. Statistical Package for Social Sciences (SPSS) version 23.0, and excel were used by researcher in processing and analyzing data to inform the presentation of findings, analysis and interpretation. The presentation focused on the research questions, the kind of statistical treatment depends upon the nature of the problem, especially the specific and the nature of data gathered. The data collected, were analyzed with respect to the study objectives by using descriptive statistical methods in data analysis to describe frequency, percentages, mean and standard deviation for data gathered on the knowledge, attitudes, and practices of sexual and reproductive health in secondary school students in Kicukiro District.

Correlation coefficient method was used to measure the extent to which, as one variable increases, the other variable tends to increase, without requiring that increase to be represented by a linear relationship. In general, $r > 0$ indicates positive relationship, $r < 0$ indicates negative relationship while $r = 0$ indicates no relationship (or that the variables are independent and not related). Here, $r = +1.0$ describes a perfect positive correlation and $r = -1.0$ describes a perfect negative correlation. Closer the coefficients are to $+1.0$ and -1.0, greater is the strength of the relationship between the variables.

Multiple linear Regression analysis models will be adopted to show relationships using equation econometric models as formulated: $y=f(x)$; $Y= \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \varepsilon$, where; X is independent Variable which is SRH Knowledge and attitudes while Y is dependent variable which is practices about sexual and reproductive health among secondary school students;

x1: SRH Knowledge

x2: SRH attitudes

β_0: is the y-intercept

β1-β2: are the slopes of the line

ε: is an error term

RESULTS

The results of the study present a detailed profile of respondents from Groupe Scolaire Saint Vincent Pillote Gikondo and EFOTEK, highlighting their socio-demographic characteristics such as age, gender, marital status, and religious affiliation. The majority of respondents are young students, predominantly female, and single, reflecting the typical demographic of secondary school populations. Their diverse religious backgrounds offer insight into the variety of perspectives that may influence attitudes toward sexual and reproductive health (SRH). The findings reveal that secondary school students in Kicukiro District generally possess a good level of knowledge about sexual and reproductive health topics, including puberty, the reproductive system, and methods of contraception. However, there are still areas where gaps in knowledge persist, particularly concerning specific contraceptive methods and health

services. In terms of attitudes, students demonstrate openness to discussions about SRH, such as carrying or using contraceptives, though varying degrees of comfort and willingness to engage in these conversations suggest that further education and awareness may be necessary. The data provides a comprehensive view of the students' knowledge and perceptions, which will be valuable for shaping future health education programs in schools.

Table 1: Socio-Demographic Characteristics of Respondents

Profile of respondents	Data	Frequencies	Percentages
Age	15years	85	20.4
	16years	133	31.9
	17years	78	18.7
	18years and above	121	29.0
	Total	**417**	**100.0**
Gender	Male	87	20.9
	Female	329	78.9
	N/I	1	0.2
	Total	**417**	**100.0**
	Single	384	92.1
Marital status	Married	19	4.6
	Live with a partner	14	3.4
	Total	**417**	**100.0**
Religious	Catholic	135	32.4
	Protestant	121	29.0
	Adventist	70	16.8
	Islam	91	21.8
	Total	**417**	**100.0**

Source: *Primary data (2024)*

The respondents are primarily between the ages of 15 to 18 years old, with the majority falling into the 16-year-old category (31.9%). The sample is predominantly female (78.9%), indicating a higher participation rate among girls compared to boys (20.9%). The vast majority of respondents are single (92.1%), which is expected among secondary school students. The respondents represent a diverse range of religious affiliations, with Catholic (32.4%) and Protestant (29.0%) being the most prevalent, followed by Islam (21.8%) and Adventist (16.8%).

1. The level of knowledge on sexual and reproductive health among students in secondary schools;
The findings suggest that secondary school students in Kicukiro District, Rwanda, generally perceive themselves to have moderate to high levels of knowledge regarding various aspects of sexual and reproductive health.

Table 2: The knowledge of students on SRH among secondary school students in Kicukiro District, Rwanda;

The knowledge of students	Yes		No	
Whether students know about:	**fi**	**%**	**fi**	**%**
Puberty (how the male and female body changes during adolescence);	367	88	50	12
The reproductive system (where ova and sperm are formed and how pregnancy occurs);	368	88.2	49	11.8
How to protect yourself to prevent HIV;	372	89.2	45	10.8
How to protect yourself to prevent pregnancy;	371	89	46	11
How to use a condom;	371	89	46	11
Where to get condoms or other contraceptive methods;	371	89.0	46	11
Access to health-care services;	367	88	50	12
Whether student has knowledge about the contraceptive's methods:	**fi**	**%**	**fi**	**%**
Oral contraceptives	351	84.2	66	15.8
Hormonal contraceptive injections	356	85.4	61	14.6
Condoms	328	78.7	89	21.3
Pills	337	80.8	80	19.2
Rhythm/periodic abstinence	336	80.6	81	19.4

Source: *Primary data (2024)*

Table 3: Perceptions of respondents on their level of knowledge of students in secondary schools about sexual and reproductive health;

Statements	Very Low		Low		Moderate		High		Very High		Mean (x)	Std. Dev.
	fi	**%**	**fi**	**%**	**fi**	**%**	**fi**	**%**	**fi**	**%**		
Awareness of different contraceptives and their usage;	3	.7	4	1.0	88	21.1	221	53.0	101	24.2	3.9904	.74673
Understanding of sexually transmitted infections (STIs) and ways to prevent them;	13	3.1	19	4.6	97	23.3	130	31.2	158	37.9	3.9616	1.03704
Knowledge of consent, boundaries, and healthy relationships;	19	4.6	30	7.2	98	23.5	120	28.8	150	36.0	3.8441	1.12753
Familiarity with reproductive rights and responsibilities.	21	5.0	24	5.8	145	34.8	62	14.9	165	39.6	3.7818	1.17582

Awareness of gender equality and its impact on sexual health;	31	7.4	24	5.8	112	26.9	89	21.3	161	38.6	3.7794	1.22837
Understanding of the importance of seeking medical help for sexual health issues;	28	6.7	20	4.8	125	30.0	84	20.1	160	38.4	3.7866	1.19896
Recognition of the social and cultural factors influencing sexual and reproductive health decisions;	11	2.6	20	4.8	122	29.3	96	23.0	168	40.3	3.9353	1.05981
Understanding of the consequences of early pregnancy and ways to prevent it;	17	4.1	29	7.0	115	27.6	83	19.9	173	41.5	3.8777	1.15063
Understanding contraceptive methods are effective to prevent pregnancy;	26	6.2	20	4.8	111	26.6	71	17.0	189	45.3	3.9041	1.21109
A condom can only be used once;	39	9.4	21	5.0	104	24.9	92	22.1	161	38.6	3.7554	1.27386
Sex without contraceptives can cause HIV AIDS;	5	1.2	9	2.2	253	60.7	62	14.9	88	21.1	3.5252	.88793
You can get pregnant the first time you have sex;	**34**	**8.2**	**21**	**5.0**	**97**	**23.3**	**102**	**24.5**	**163**	**39.1**	**3.8129**	**1.23589**

Source: Primary data (2024)

The statistical findings from Table 2 highlight that most secondary school students in Kicukiro District, Rwanda, demonstrate good knowledge of sexual and reproductive health (SRH). About 88% of students are aware of puberty and body changes, and 88.2% understand pregnancy processes, but there is still a 12% gap in these areas. Approximately 89% know how to protect themselves from HIV and pregnancy, yet 11% lack this knowledge. Awareness of contraceptive methods is also high, ranging from 78.7% for condoms to 85.4% for oral contraceptives.

In Table 3, students' perceptions of their SRH knowledge are generally positive, with most respondents rating their knowledge as moderate to very high. For example, 53% to 24.2% rate their awareness of contraceptive usage as high to very high (mean = 3.99). There is a strong perception of knowledge about sexually transmitted infections (STIs), reproductive rights, and consent, with mean values ranging from 3.78 to 3.96. However, there is some variability in responses, with misconceptions like the belief that condoms can only be used once (mean = 3.75, SD = 1.27). Most students perceive a high understanding of SRH but still require further education on specific areas, such as contraceptive effectiveness and early pregnancy prevention.

2. Attitudes on about SRH of Students in secondary schools in Kicukiro District

The findings on attitudes on SRH for Students in secondary schools in Kicukiro District suggests that there is a study or survey related to sexual and reproductive health (SRH) attitudes among students in secondary schools in Kicukiro District.

Table 4: Perceptions of respondents on the Attitudes of Students in secondary schools in Kicukiro District about SRH;

Attitudes on SRH for Students in secondary schools;	Very Low		Low		Moderate		High		Very High		Mean (x)	Std. Dev.
	fi	%	fi	%	fi	%	fi	%	fi	%		
I could carry a condom with me in case I needed one;	36	8.6	36	8.6	112	26.9	82	19.7	151	36.2	3.6619	1.28164
It's good to talk about using condoms with any sexual partner	49	11.8	62	14.9	102	24.5	65	15.6	139	33.3	3.4388	1.38562
I could talk about contraceptives with a potential partner	51	12.2	40	9.6	119	28.5	59	14.1	148	35.5	3.5108	1.37474
I could convince my partner to use preservative materials for preventing HIV or unplanned pregnancy	47	11.3	42	10.1	109	26.1	72	17.3	147	35.3	3.5516	1.35443
I could say no to sex if my partner refused to use a contraceptive	32	7.7	43	10.3	111	26.6	70	16.8	161	38.6	3.6835	1.28809
I could pull out every time I have sex with my partner	20	4.8	19	4.6	118	28.3	86	20.6	174	41.7	3.8993	1.14330
I could use Rhythm/periodic abstinence with my partner	27	6.5	30	7.2	102	24.5	72	17.3	186	44.6	3.8633	1.24345

Me or my partner could dispose of a condom in the trash after having intercourse	56	13.4	24	5.8	109	26.1	68	16.3	160	38.4	3.6043	1.38996
I or my partner hold emergency contraception before or after sex	79	18.9	33	7.9	100	24.0	63	15.1	142	34.1	3.3741	1.48845
I believe it is ok to have a boyfriend or girlfriend before marriage	102	24.5	59	14.1	93	22.3	50	12.0	113	27.1	3.0312	1.52589
I believe there is nothing wrong with having sex with my partner if they love or care about each other	13	3.1	13	3.1	112	26.9	101	24.2	178	42.7	4.0024	1.05041
I believe it is ok for boys and girls to have sex if they use contraceptive methods to prevent pregnancy	20	4.8	32	7.7	109	26.1	83	19.9	173	41.5	3.8561	1.18217
I believe that it is the girl's responsibility to make sure to use contraception regularly	60	14.4	45	10.8	98	23.5	65	15.6	149	35.7	3.47482	1.431098
I believe you must be in love with someone before having sex	38	9.1	28	6.7	118	28.3	59	14.1	174	41.7	3.7266	1.31086
I believe abortion is ok when there is an unplanned pregnancy	62	14.9	33	7.9	105	25.2	62	14.9	155	37.2	3.5156	1.43124

Source: primary data (2024)

The statistical findings from Table 4 reveal generally positive attitudes among secondary school students in Kicukiro District, Rwanda, towards various aspects of sexual and reproductive health (SRH), with a majority rating their attitudes as moderate to very high across most topics. Attitudes towards carrying

condoms (mean = 3.6619), discussing condom use (mean = 3.4388), and contraceptive use responsibility (mean = 3.47482) reflect positive inclinations, though variability in responses, indicated by relatively high standard deviations, suggests differing perceptions. Notably, attitudes toward pre-marital relationships and sex (mean = 4.0024) were the most positive, with minimal variability. However, areas such as emergency contraception (mean = 3.3741) and condom disposal (mean = 3.6043) show moderate positive attitudes but greater variability, highlighting opportunities for improvement in SRH education to address misconceptions and promote responsible sexual behavior.

3. The Practices of SRH among Secondary School Students in Kicukiro District

Sexual and reproductive health (SRH) is a vital aspect of the well-being and development of young people, especially secondary school students who are in the midst of their formative years. Understanding the practices and behaviors related to SRH among this demographic is essential for promoting their health, well-informed decision-making, and the prevention of sexually transmitted infections and unintended pregnancies.

Table 5: The Practices of SRH among Secondary School Students in Kicukiro District

Practices of SRH among Secondary School Students	Very Low		Low		Moderate		High		Very High		Mean (x)	Std. Dev.
	fi	%	fi	%	fi	%	fi	%	fi	%		
I utilize contraceptives to prevent unintended pregnancies	62	14.9	30	7.2	102	24.5	76	18.2	147	35.3	3.5180	1.41261
I engage in open discussions about sexual health with peers and trusted adults	69	16.5	45	10.8	99	23.7	62	14.9	142	34.1	3.3909	1.46044
I seek regular medical check-ups and screenings for sexually transmitted infections (STIs)	15	3.6	15	3.6	126	30.2	69	16.5	192	46.0	3.9784	1.11027
I respect personal boundaries and practicing consent in relationships	31	7.4	21	5.0	113	27.1	84	20.1	168	40.3	3.808	1.2293
I empower oneself with comprehensive sexual education	17	4.1	18	4.3	111	26.6	91	21.8	180	43.2	3.9568	1.11289
I advocate for access to sexual and	28	6.7	20	4.8	111	26.6	78	18.7	180	43.2	3.8681	1.21662

reproductive health services;											
I support peers in accessing reproductive health information and resources;	27	6.5	21	5.0	117	28.1	75	18.0	177	42.4	3.8489	1.21240
I delay sexual debut to focus on education and personal development;	31	7.4	26	6.2	113	27.1	68	16.3	179	42.9	3.8106	1.25961
I encourage gender equality and mutual respect in relationships;	57	13.7	51	12.2	105	25.2	53	12.7	151	36.2	3.4556	1.42895
I promote healthy lifestyles and behaviors to maintain sexual and reproductive well-being;	84	20.1	45	10.8	106	25.4	45	10.8	137	32.9	3.2542	1.50883
I have used a contraceptive method;	75	18.0	42	10.1	116	27.8	48	11.5	136	32.6	3.3070	1.46654
I access sexual and reproductive health information	23	5.5	21	5.0	146	35.0	98	23.5	129	30.9	3.6930	1.12522
I practice the prevention of sexually transmitted illnesses;	15	3.6	24	5.8	144	34.5	106	25.4	128	30.7	3.7386	1.06801
I have ever received SRH services from health facilities (contraceptive methods, VCT, health education)	49	11.8	51	12.2	119	28.5	54	12.9	144	34.5	3.4628	1.37603

Source: primary data (2024)

The statistical findings from Table 5 reveal a range of sexual and reproductive health (SRH) practices among secondary school students in Kicukiro District, Rwanda. Positive practices were observed in areas such as seeking regular medical check-ups for STIs (mean = 3.9784), respecting personal boundaries and practicing consent (mean = 3.808), and supporting peers in accessing SRH information (mean = 3.8489),

all with moderate variability. However, practices like promoting healthy lifestyles (mean = 3.2542) and discussing sexual health openly (mean = 3.3909) indicated room for improvement due to higher variability and lower means. Overall, the findings suggest that while students engage positively in many SRH practices, there are areas where targeted interventions could enhance their SRH behavior, particularly in promoting healthy lifestyles and fostering open communication. Addressing barriers to SRH services and empowering students with comprehensive education are essential steps to improving these outcomes.

Findings for Inferential Statistics Analysis

Table 6: Correlations Coefficient Matrix Analysis Results

		SRH Knowledge	SRH Attitudes	Knowledge & Attitudes on SRH	Practices towards Sexual and Reproductive Health
SRH Knowledge	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	417			
SRH Attitudes	Pearson Correlation	.497**	1		
	Sig. (2-tailed)	.000			
	N	417	417		
Knowledge & Attitudes on SRH	Pearson Correlation	.864**	.866**	1	
	Sig. (2-tailed)	.000	.000		
	N	417	417	417	
Practices towards Sexual and Reproductive Health	Pearson Correlation	.547**	.581**	.652**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	417	417	417	417
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 7: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.652[a]	.426	.423	7.02351	.777
a. Predictors: (Constant), Attitudes, Knowledge					
b. Dependent Variable: Practices towards Sexual and Reproductive Health					

Table 8: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15140.009	2	7570.005	153.457	.000^b
	Residual	20422.501	414	49.330		
	Total	35562.510	416			
a. Dependent Variable: Practices towards Sexual and Reproductive Health						
b. Predictors: (Constant), Attitudes, Knowledge						

Table 9: Regression Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.733	2.333		3.744	.000
	Knowledge	.315	.039	.343	7.990	.000
	Attitudes	.374	.039	.410	9.561	.000
a. Dependent Variable: Practices towards Sexual and Reproductive Health						

The findings from the inferential statistics analysis indicate a significant relationship between sexual and reproductive health (SRH) knowledge, attitudes, and practices among secondary school students in Kicukiro District, Rwanda.

Table 6 (Correlation Coefficient Matrix) shows that SRH knowledge is positively correlated with SRH attitudes (r = .497), and both knowledge and attitudes are strongly correlated with SRH practices (r = .547 for knowledge, r = .581 for attitudes). The strongest correlation is observed between combined knowledge and attitudes and practices towards SRH (r = .652), all significant at the 0.01 level.

Table 7 (Model Summary) highlights that knowledge and attitudes explain 42.6% of the variance in SRH practices (R^2 = .426), with a Durbin-Watson value of .777, indicating minimal autocorrelation in the residuals.

Table 8 (ANOVA) demonstrates that the regression model significantly predicts SRH practices, with a high F-value (153.457) and a significance level of p < .001.

Table 9 (Regression Coefficients) reveals that both SRH knowledge (β = .343, p < .001) and attitudes (β = .410, p < .001) are significant predictors of SRH practices, with attitudes having a slightly stronger influence than knowledge.

DISCUSSIONS
Conclusion:
The findings of this study indicate a generally high level of awareness and knowledge about sexual and reproductive health (SRH) among secondary school students in Kicukiro District, Rwanda. The research highlights a moderate positive correlation between SRH knowledge and attitudes, suggesting that students with higher levels of knowledge tend to exhibit more favorable attitudes towards SRH. Furthermore, a strong positive correlation exists between SRH knowledge and practices, emphasizing that those with a comprehensive understanding of SRH issues are more likely to engage in healthy behaviors. The study also reveals a moderate to strong positive correlation between attitudes and practices, indicating that

fostering positive attitudes is crucial for promoting healthy behaviors among students. Overall, addressing both knowledge and attitudes is essential in comprehensive SRH education programs to effectively encourage positive behaviors related to sexual and reproductive health.

Recommendations:

Based on the findings presented in the conclusion, the following recommendations can be made to promote sexual and reproductive health (SRH) among secondary school students in Kicukiro District, Rwanda:

- **Comprehensive SRH Education Programs:** Develop and implement comprehensive SRH education programs that cover a wide range of topics, including contraception, sexually transmitted infections (STIs), consent, healthy relationships, and reproductive rights. These programs should focus on providing accurate information, fostering positive attitudes, and promoting healthy behaviors.

- **Integration of Knowledge and Attitudes:** Ensure that SRH education programs not only focus on imparting knowledge but also emphasize the importance of fostering positive attitudes towards SRH-related issues. Integrate activities and discussions that encourage students to reflect on their attitudes and values regarding sexual and reproductive health.

- **Youth-Friendly SRH Services:** Establish youth-friendly SRH services within schools and communities to provide students with access to confidential and nonjudgmental information, counseling, and healthcare services. These services should be tailored to meet the unique needs and preferences of adolescents and should address barriers to accessing SRH care.

- **Peer Education and Support:** Implement peer education programs where trained peer educators can disseminate SRH information, facilitate discussions, and provide support to their peers. Peer education has been shown to be effective in promoting positive SRH behaviors and attitudes among young people.

- **Parental and Community Involvement:** Engage parents, caregivers, and community members in SRH education efforts to create a supportive environment for adolescents. Provide parents with resources and tools to facilitate open and supportive communication with their children about SRH-related topics.

- **Addressing Misconceptions and Stigma:** Address misconceptions and stigma surrounding SRH issues through targeted awareness campaigns and educational initiatives. Challenge myths and stereotypes about contraception, STIs, and reproductive rights to promote accurate understanding and reduce stigma.

- **Policy and Advocacy:** Advocate for policies and programs that support comprehensive SRH education and access to SRH services for adolescents. Work with policymakers, educators, healthcare providers, and community leaders to prioritize adolescent SRH and ensure that their needs are adequately addressed.

By implementing these recommendations, stakeholders can work together to create an enabling environment for adolescents to access accurate information, develop positive attitudes, and adopt healthy behaviors related to sexual and reproductive health. These efforts are essential for promoting the well-being and empowerment of young people in Kicukiro District, Rwanda, and beyond.

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