Adolescents' Sexual and Reproductive Health Behavior Amidst the Covid-19 Pandemic in Lurambi Sub-County, Kakamega, Kenya: The Impact of Prior Knowledge

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Abstract: **The World Health Organization (WHO) defines adolescents as persons between the age of 10 and 19 years, a majority fitting the age-based definition of a "child" by the Convention on the Child's Rights. Adolescents go through significant physical, physiological, and psychosocial changes from childhood to adulthood during this period. There are indications that during the COVID-19 pandemic, adolescents experienced a myriad of challenges as reported by various forms of media. These challenges included teenage pregnancies/ motherhood and early marriages amongst girls, drug and substance abuse, and other social deviancies that came with devastating consequences, notably a surge in school dropout, which shuttered their dreams for a better future. During the outreach activities by the African Women in Science and Engineering (AWSE), MMUST chapter, a gap for research in the realm of Sexual and Reproductive Health of adolescents was established, necessitating this study. The objective guided the study: To establish the adolescents' prior Knowledge on Sexual and Reproductive Health (ASRH) and how this Knowledge shaped their behavior in the wake of the Covid-19 Pandemic. The study adopted a Mixed Methods Research (MMR) approach, drawing on the strengths of both quantitative and qualitative paradigms.**

A total of 340 adolescents formed the study sample, and the sampling techniques employed were multi-stage, purposive, stratified, and simple random sampling. The data collection tools included questionnaires, interviews schedules, and Focus Group Discussions (FGDs). Data was collected on the ASRH knowledge base and their behavior within the period of the Covid-19 Pandemic. This was done conscious of the various demographic parameters that are likely to influence adolescents' knowledge and behavior, such as parents' level of education and occupation; Faith of the family, and the gender of the adolescent, among others. Quantitative data were analyzed descriptively and inferentially using SPSS version 20. Qualitative data were analyzed thematically and used in triangulating quantitative findings. Results showed that 90% of adolescents had Knowledge of sexual and reproductive health, an indication that there was a10% knowledge gap. Significant differences were recorded across gender (Chi=4.715, p=0.030); age (Chi=8.775, p=0.012); religion (Chi=10.204, p=0.017) and education level (Chi=14.338, p=0.008), among others. Results further showed that Knowledge on ASRH had a positive impact on adolescents' behavior as a smaller proportion (34.3%) of those with the Knowledge engaged in sexual relationships, compared to 42.9% of those without the Knowledge. Whereas they had Knowledge of sexual and reproductive health, it was evident that this did not translate to better behavior as manifested in a surge in unsafe abortions, failure to embrace contraception, and inability to seek appropriate medical care. In this vain, the study recommends empowerment of youth through developing education programs that focus on the needs of adolescent sexual reproductive health and development and implementation of appropriate regulatory frameworks and policies to mitigate the risks and challenges adolescents encounter.

***Keywords*: Adolescent, Sexual & Reproductive Health Knowledge, Behavior, COVID-19 Pandemic**

I. INTRODUCTION

Covid-19 was referred to as "the uninvited guest that brought the world to a standstill," A virus of the group, **Severe acute respiratory syndrome Coronavirus** group (SARS-2), causing Pneumonia and general fatigue and killing its culprits in less than two weeks (Coronavirus disease, 2019). The disease was first reported in Kenya on 15th March 2020. The President, Uhuru Kenyatta, announced a raft of measures to prevent the further spread of the disease. These included the closure of all learning intuitions, travel restrictions, the constitution of the work from home policy for public servants and business people, and the banning of public gatherings, among others. (Jaguga & Kwobah, 2020) . Also, face masks, hand washing, and sanitization were encouraged as often as possible. Ultimately there was a general lockdown in the country, which restricted people and social interactions. This affected individuals and families in different ways, including adolescents. According to WHO (2006), adolescents as persons between the age of 10 and 19 years; a majority fit

the age-based definition of a "child" by the Convention on the Child's Rights. According to the Convention on the Rights of the Child, a child is a person under 18 years (Munro et al., 2011). Adolescents go through significant physical, physiological, and psychosocial changes during this period as they transition from childhood to adulthood. As of 2019 latest statistics from Global, Childhood Kenya had the third-highest teen pregnancy rates with 82 births per 1,000 births. According to the United Nations Population Fund Report, there was a surge in teenage pregnancies/ motherhood and early marriages amongst girls, drug and substance abuse, and other social deviancies (Bouma, 2016). This occasioned unprecedented school dropout, which shuttered dreams for a better future for hundreds of children.

During the outreach activities by the African Women in Science and Engineering (AWSE) Masinde Mauliro University chapter, a gap in research on the realm of Sexual and Reproductive Health of adolescents was established; hence the need for this study. The study aimed at establishing the adolescents' **prior Knowledge on Sexual and Reproductive Health (ASRH); and how this Knowledge shaped** their behavior in the wake of the Covid-19 Pandemic.

II. METHODOLOGY

The study adopted a Mixed Methods Research (MMR) approach, drawing on both quantitative and qualitative paradigms (Hedavat & Sinha, 1991). This MMR approach contributed to better results in terms of quality and scope in-depth and breadth analysis that would not be clear if only one approach was adopted. A sample of 340 adolescents was computed using the sample size formula for finite populations (Czyz et al., 2016). Other respondents who formed the category of critical informants and were either directly interviewed or part of the FGDs comprised the local administration, the medical staff in the health facilities, and the teachers in the education institutions sampled in the study.

The sampling techniques employed were multi-stage, purposive, and simple random sampling. Data collection tools included questionnaires, interviews, and Focused Group Discussions (FGDs). The Socio-Demographic Information of Adolescents is laid out in Table 1 below:

Table 1: Socio-demographic of adolescents

Characteristic	Frequency (%)
Age-range (N=268)	
10-14	10(3.7)
15-19	236(88.1)
20-24	22(8.2)
Gender (N=277)	
Male	122(44)
Female	155(56)
Religion (N=278)	
Christian	255(91.7)
Muslim	18(6.5)
Hindu	3(1.1)
Other (Atheist & Pegan)	2(0.7)
Highest/current educational level (N=278)	
None	1(0.4)
Primary	6(2.2)
Secondary	250(89.9)
College/University	6(2.2)
Vocational /technical inst.	15(5.4)
Type of school (N=274)	
Public	246(89.8)
Private	28(10.2)
Parenting /living status (N=272)	
Living with one parent	66(24.3)
Living with both parent	155(57)
Living with guardian	46(16.9)
Living with friends/siblings	5(1.8)

Data were collected on the ASRH knowledge base and behavior from a cross-section of respondents in the shortest time available and within the Covid-19 Standard Operating Procedures (SOPs) as laid out by the Ministry of Health (MOH) 2020 (Meherali et al., 2021). This was done cognizant of the various demographic parameters that are likely to influence the Knowledge and behavior of adolescents, such as parents' level of education and occupation, Faith of the family and the gender, age range, parenting or guardianship, and the kinds of schools (private or public) the adolescents attended (Arnet, 2014).

Quantitative data were analyzed descriptively and inferentially using SPSS version 20. Qualitative data were analyzed thematically and triangulated quantitative findings in line with the aforesaid demographic constructs.

III. FINDINGS

3.1. Socio-Demographic Characteristics of Adolescents

The study's findings indicated that socio-demographic factors have a bearing on who the adolescents interact with and their source of information on ASRH. For example, socio-demographic characteristics of adolescents are influenced by the general socio-economic status of families, thereby impacting who the adolescents interact with.

Results in Table 1 show that two hundred and eighty (280) adolescents participated in the study, a response rate of 82%. The majority of the respondents, 236(88.1%), were aged between 15-19 years, while 155(56%) were female. The majority were Christians at 255(91.7%), Muslims at 6.5%, and others at 1.8%. Regarding education, the highest proportion of the adolescents, 250(89.9%), were in secondary school, 2.2% in primary (elementary), 2.2% in Universities/Colleges, and 5.4% in vocational/technical institutions. 246(89.8%) were in public schools among those in school. More than half of the adolescents, 155(57%), lived with both parents; and about 20% lived with guardians and friends. All these would impact the adolescents' knowledge of sexual and reproductive health.

3.2. Relationship between Socio-Demographic Characteristics and Knowledge of Adolescents on Sexual and Reproductive Health

Demographic factors play a pivotal role in determining people's level of knowledge and behavior. These include the way households are organized, the size of the family, and gender, among others. This study computed a correlation between adolescents having heard about various SRH concepts or terminologies visa vis their respective demographics. The findings are as detailed in Table 2 below. The SRH concepts considered were: if the adolescents had heard about menstruation, pubic hair, wet dreams, use of contraceptives, the prevalence of STIs, and if they had embraced safe abortion. The study also sought to understand their keenness to attend guidance and counseling sessions; and their understanding of developmental changes in their bodies at adolesce.

Table 2: Relationship between Socio-demographic Characteristics and Adolescents' Knowledge on Sexual and Reproductive Health

Characteristic	Heard of ASRH		Chi-square	p-value
	Yes	**No**		
Age-range				
10-14	6(66.7%)	3(33.3%)	8.775	0.012
15-19	216(93.1%)	16(6.9%)		
20-24	19(95%)	1(5.0%)		
Gender				
Male	105(88.2%)	14(11.8%)	4.715	0.030
Female	144(95.4%)	7(4.6%)		
Religion				
Christian	231(92.8%)	18(7.2%)	10.204	0.017
Muslim	17(94.4%)	1(5.6%)		
Hindu	1(50%)	1(50%)		
Other	1(50%)	1(50%)		
Education level				
None	0(0%)	1(100%)	14.338	0.008
Primary	6(100%)	0(0%)		
Secondary	224(92.2%)	19(7.8%)		
College/university	5(83.3%)	1(16.7%)		
Vocational/technical	15(100%)	0(0%)		
Type of school				
Public	220(91.7%)	20(8.3%)	2.522	0.243
Private	28(100%)	0(0%)		
Parenting/living status				
One parent	61(95.3%)	3(4.7%)	5.754	0.124
Both parents	134(88.7%)	17(11.3%)		
Guardian	45(97.8%)	1(2.2%)		
Friends/sibling	5(100%)	0(0.0%)		

3.2.1. Age Range

A significant relationship was observed between age range and Knowledge of sexual and reproductive health ($p<0.05$). The proportion of those who have heard about sexual and reproductive health increased with an increase in age range, with those at 20-24 years of age at 95% followed by 15-19 at 93.1%; then 10-14 at 33.3%.

Findings from key informants revealed that adolescents aged 10-15 years did not have much knowledge about SRH than those aged 16-25 years. Ages 10 to 15 did not have much Knowledge, but 16 - 25 knew a lot' (In-depth interview with the facility in charge, 2021)

3.2.2 Gender

The findings showed that 88.2% of males and 95.4% of females had heard about ASRH. For instance, adolescent girls aged 16 years and above had a lot of information about SRH. The uptake of family planning methods is high in this age group, especially with Depo-Provera, which they obtain over the counter. During an in-depth interview, one of the secondary school teachers and facility in charge, 2021, revealed that due to information overflow on SRH, many adolescents know how to avoid pregnancies and where and how to secure abortion. This has implications on their SRH based on the findings that girls over the age of 16 are more sexually active than boys. This could be attributed to social, cultural inclination where youth discussions about sexuality are considered taboo in the community. It was further observed that the existing national and international focus on the girl child in the society had impacted their Knowledge of SRH. For instance, organizations such as Kenya Aids NGOs Consortium (KANCO) have reported their attempt to educate the boys but did not succeed because adolescent boys never turn up to attend such meetings (Karp et al., 2021).

To test their Knowledge further, adolescents were asked to indicate the changes in their bodies as they transitioned from childhood to adolescence. The responses were considered per gender. The results are shown in Figures 1, 2, and 3 below.

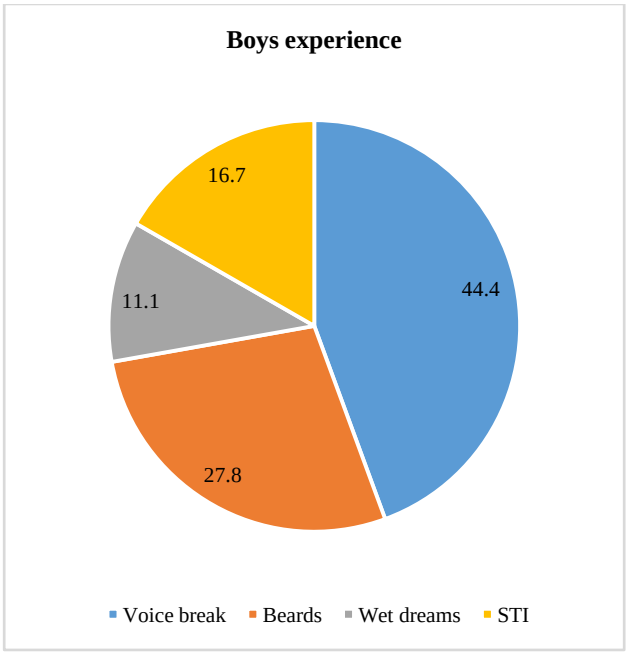

Figure 1: Developmental Characteristics among Boys

In Figure 1, results indicate that a higher proportion of boys, 44.4% experienced voice break, 27.8% experienced growth of beards, 16.7% experienced STIs, and 11.1% had experienced wet dreams.

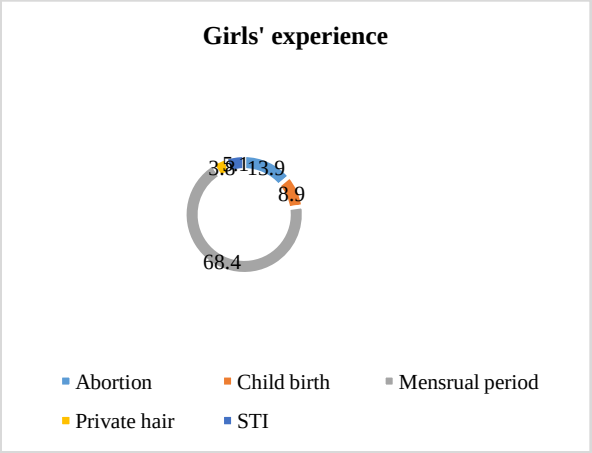

Figure 2: Developmental Characteristics among Girls

In Figure 2, results indicated predominant development characteristics related to SRH among girls' were: a majority making 68.4%, experienced menstrual period, 13.9% reported that they had carried out an abortion, 8.9% said that they had given birth, while 3.8% reported having experienced pubic hair. The changes from both genders are summarized in Figure 3.

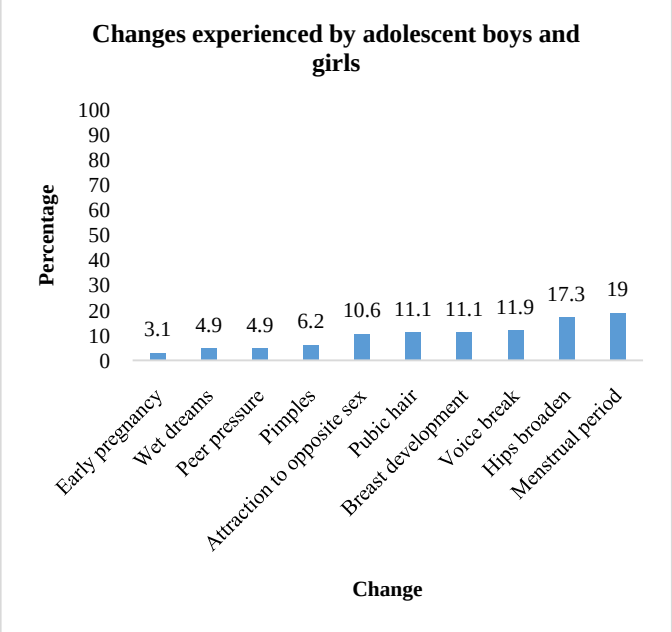

Figure 3. Changes Experienced During Development of the Adolescents

Generally, there was evidence that these adolescents are aware of what is happening in their bodies as they transit from childhood to adolescence. These are significant observations because both genders mentioned the developmental features that they experience.

Overall, 254 (90%) adolescents who participated in the study had Knowledge of adolescent sexual and reproductive health, indicating that 10% lacked the Knowledge. A significantly higher proportion of girls, 144(95.4%), had Knowledge of adolescent sexual and reproductive health compared to 105(88.2%) of the boys (Chi=4.715, p=0.030).

3.2.3. Faith

As far as Faith is concerned, a higher proportion of Muslims at 17 (94.4%), followed by Christians 231 (92.8%), and lastly by Hindu 1 (50%) had Knowledge of ASRH. A Key Informant observed that Muslim adolescents had sexual education during Madrassa. Other faiths seemed conservative in the approach on the subject of sexual behavior, as expressed by one of the clergies at the FGD in one of the vocational institutions when he said, "*Pastors and church leaders have concentrated on* preaching the Gospel at the expense of tackling real challenges facing the children," (In-depth Interview with members of the *clergy, 2021).*

3.2.4. Education Level of the Adolescents

The study indicated that 15(100%) of adolescents in vocational/technical institutions and 6(100%) of those at the primary level had Knowledge of sexual and reproductive health compared to those in secondary schools at 224(92.2%). This does not correlate with normal expectations, implying that there could be some form of dishonesty from the secondary school respondents. It is imperative to observe that the primary and vocational/technical institutions samples were too small to avail any statistically significant outcome. In addition, vocational and preparatory school-going adolescents are usually day scholars and therefore in constant interaction with their parents as opposed to those in secondary schools, mainly in boarding/residential schools.

3.2.5. Parental Characteristics

Parenting plays a very pivotal role in children's behavior. Regardless of whether or not adolescents were from single or both parent guardianship, this study considered both parents' educational level and employment status. A correlation was done to determine the relationship between these characteristics and the knowledge base of the adolescents. Parents are expected to spend most of their time with their children, so this interaction is expected to shape their overall knowledge and behavior. Parental characteristics were considered critical in the context of this study, and findings are as indicated in Table 3 below.

Table 3: Correlation between Parental Characteristics and Knowledge about Sexual and Reproductive Health

Characteristic	Heard of ASRH		Chi-square	p-value
	Yes	**No**		
Fathers highest level of education None Primary Secondary College/tertiary	17(7.5%) 48(21.1%) 64(28.2%) 98(43.2%)	2(9.6%) 4(19%) 5(23.8%) 10(47.6%)	0.364	0.948
Mothers highest level of education None	17(7.2%) 50(21.3%)	2(9.5%) 4(19%)	0.362	0.948

Primary Secondary College/tertiary	80(34%) 88(37.4%)	8(38.2%) 7(33.3%)		
Mothers Occupation Employed Self employed Unemployed Other	54(23.8%) 126(55.5%) 45(19.8%) 2(0.9%)	4(20%) 12(60%) 4(20%) 0(0%)	0.355	0.949
Fathers occupation Employed Self-employed Unemployed Other	77(35.8%) 80(37.2%) 51(23.7%) 7(3.3%)	12(60%) 7(35%) 1(5%) 0(0%)	6.400	0.094
Guardian occupation Employed Self-employed Unemployed Other	14(35.8%) 12(30.8%) 12(30.8%) 1(2.6%)	0(0%) 0(0%) 1(100%) 0(0%)	2.130	0.546

From Table 4, it is evident that the proportion of adolescents with Knowledge (of having heard adolescent sexual and reproductive health) increased with an increase in the parental level of education. Further, a higher proportion of adolescents whose parents were self-employed had Knowledge of adolescent sexual and reproductive health (55.5% and 37.2% for mother and father, respectively). However, for those living with guardians, the highest proportion with knowledge was employed (35.9%). However, these differences in proportions were not statistically significant (all p>0.05).

Focus Group Discussions (FGDs) with parents revealed that many of them were increasingly engaging their children on SRH issues. For example, a Key informant said in the local Kiswahili language, "*Kijana wa siku hizi si kama Zamani. Anataka kuongelezwa. …" This is translated to mean that "Today's adolescent is different from the olden days); He needs to be talked to." So you need to talk to him/her especially on sexual matters, lovingly. When you differ, it is the parent to calm them down, not lose them. You know, nowadays they even commit suicide. As a parent, you have to be a friend to your child and that way you can talk on any topic with them. You can understand your child, and your child will not hide anything from you. There is a lot to gain in making your child a friend"* (FGD with parents, 2021).

During the FGDs, parents emphasized the gains that can be made when they become friends with their adolescent children. This is in line with the findings of a study by Deepanjali et al (2020) on sexual and SRH Knowledge among school-going adolescents in India, which recommended that parents engage more with their adolescent children.

3.3 Summary of Knowledge Base of the Adolescents

A summary of the knowledge base of the adolescents on various aspects of ASRH was computed, and findings are as detailed in Figure 4.

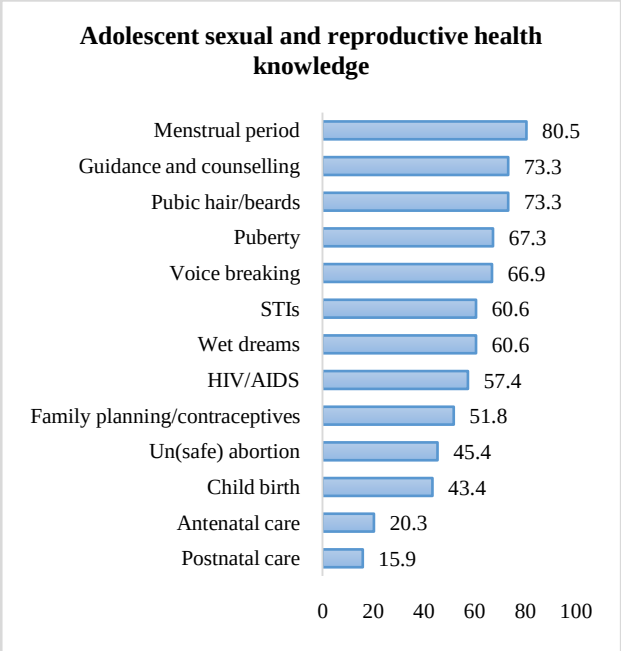

Figure 4: Summary of Knowledge Base

Results in Figure 4 indicate that a significant number of respondents know SRH. The concepts well known by the respondents included menstruation (80.5%), guidance and counseling (73.3%), development of pubic hair (73.3%), and puberty (67.3%), among others. It is worth noting that among those who reported having heard about sexual and reproductive health, more than three-quarters 202(80.5%) said to have heard of a menstrual period. This means that even boys are aware, which is not a phenomenon for women alone. Therefore, it can be deduced that as girls mature to women, parents and other stakeholders promptly take their place as educators on ASRH. Overall, Knowledge is an indicator of a step in the right direction because it is envisaged that when adolescents are empowered, they shape their sexual and reproductive health behavior.

IV. RELATIONSHIP BETWEEN ADOLESCENT KNOWLEDGE BASE AND SEXUAL BEHAVIOR

Having established the sexual and reproductive knowledge base, the study needed to correlate this adolescent knowledge base and sexual behavior. Among aspects considered regarding their sexual behavior were: Whether they were in a sexual relationship and whether or not they engaged in sexual intercourse before and during the covid-19 pandemic.

4.1. Sexual Relationship.

The status regarding their current sexual relationship is indicated in Figure 5.

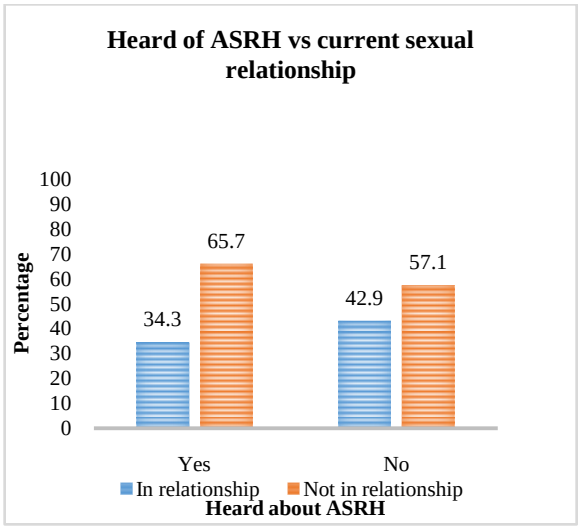

Figure 5:

In Figure 5, results indicated that 86 (34.3%) of adolescents who had heard about ASRH and 9(42.9%) who had never heard about ASRH were in a boy/girl relationship. However, the difference was not statistically significant (chi=0.630, p=0.427). Nonetheless, the Knowledge seems to have positively impacted their relationships because those with Knowledge indulged less in the relationships with the opposite sex. On the contrary, one would expect them to know that such relationships may be detrimental to their welfare. In spite of their Knowledge about SRH, they still indulged in such relationships. This implies that other factors could be at play. These may include peer influence, watching pornographic content on the internet, lockdowns commonly used to contain the Covid-19 Pandemic and confine youths of the opposite sex in one locality, absence of a parental guide, and abdication of what was once communal parenting in modern society. According to them, they may also be using the Knowledge to indulge in "Safe Sex." For the 42.9% with no knowledge and involvement in relationships, this may be attributed to socio-cultural influence and religious inclinations expressed at the FGDs and by KII.

One of the in-depth interviews and FGD revealed that Knowledge of ASRH influenced adolescents' sexual behavior both negatively and positively. From a positive perspective, the study indicated that SRH knowledge helped adolescents protect themselves and understand their body changes. The negative aspect of the SRH knowledge indicated that adolescents are not afraid of exploring sexual matters, engaging in sex, and do not care about the consequences.

As a result, adolescents knew about SRH and were more aware of their body changes. Also, adolescents know where to go for condoms and abortion in pregnancy. In contrast, adolescents know where to run to when in trouble it is also clear that they expose their sexual reproductive health to high risk (Guidance and Counseling teacher, 2021).

4.2. Indulgence in Sexual Intercourse before and during the covid-19 pandemic.

This was the second perspective put before the adolescents to determine if their SRH knowledge had a bearing on their behavior. One of the most common activities adolescents indulges in as they explore their sexual environment is sexual intercourse. This perspective aimed to determine the extent to which adolescents indulged in sexual intercourse.

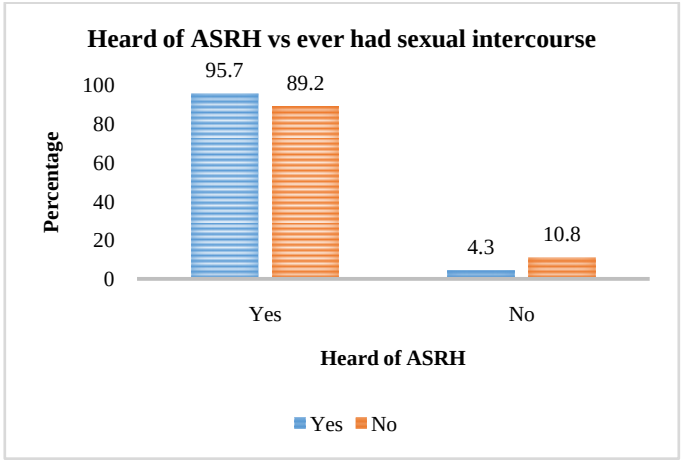

Figure 6. Percentages of Adolescents who heard of ASRH VS those who heard about Sexual Intercourse

Results showed that 95.7% of the adolescents who have heard about ASRH had indulged in sexual intercourse compared to 89.2% of those who have not heard about ASRH. The difference in proportion was not statistically significant though (chi=2.569, p=0.109), indicating that the ASRH knowledge base is expected to influence adolescents' sexual behavior; it does not solely contribute to this. The SRH knowledge seems to be used by the adolescents negatively, as expressed in this study. Thus, other factors seem to attract these adolescents to irresponsible sexual behavior despite their knowledge and the consequences that may accrue. Literature indicates that peer pressure, social media, and the internet have heavily influenced adolescents. The confinement during the Covid-19 Pandemic just exacerbated the situation as most of the sexual indulgence was out of coercion, rape, and incest, among others as reported in the media and corroborated by a KI interviewee when he said, "Another factor that caused adolescents to indulge in negative sexual behavior was lack of parental support. Some parents especially in single-parent families, the mother provided a poor role model".

A facility in charge confirmed this during an *in*-depth interview when he said, "*In single-parent families, the daughter does what she sees the mother do"...*

In this study, there was agreement among the discussants that adolescents were quite knowledgeable on ASRH issues. Nonetheless, most of ASRH knowledge was from the teachers. This presents another gap in terms of sources of Knowledge.

V. ADOLESCENTS' SEXUAL BEHAVIOUR AMIDST THE COVID-19 PANDEMIC.

To establish the sexual behavior of the adolescents during the pandemic, several questions were put to them, as detailed in this section. Adolescents were asked to indicate if they were in a sexual relationship, whether they had sexual intercourse during the pandemic and with whom, and who their current sexual partners were**.** This is because such relationships have a bearing on certain sexual behavior. The responses were as indicated in Figure 7.

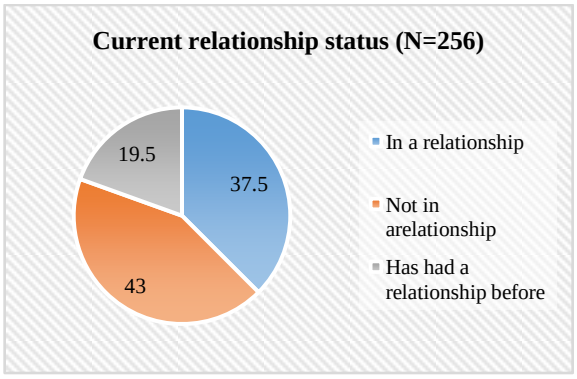

Figure 7: Current Status on Relationships amidst the Covid-19 Pandemic.

66 (37.5%) of the adolescents reported to be in a relationship; 19.5% had had a relationship in the past, and 43% were not in any relationship amidst the covid-19 pandemic. Details of their sexual partners were also captured and are presented in Figure 8.

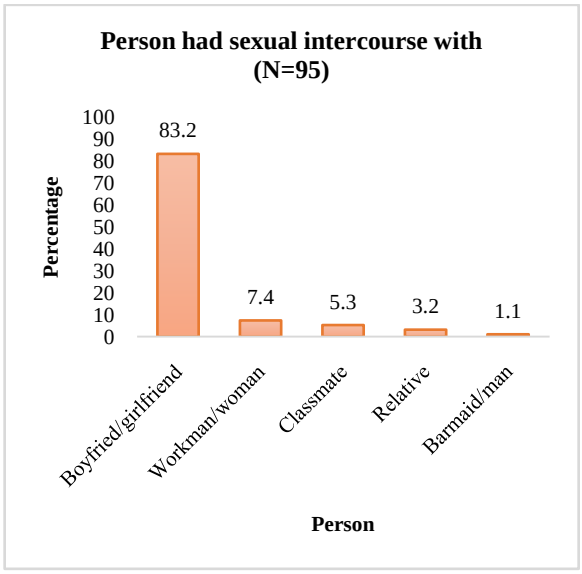

Figure 8; Sexual Partner during the Pandemic.

The study revealed that of the adolescents who were in a relationship, 83.2% reported having had sex with a boyfriend or a girlfriend; 7.4% with a workman/woman; 5.3% with a classmate; 3.2% with a relative and 1.1% with a barman/woman during the covid-19 pandemic.

In-depth interviews with health workers revealed that adolescent girls were having sex with multiple partners for various reasons.

One of the Key informants said:

"I have served adolescent girls who have multiple partners and gave various reasons. For example, looking for finances, since parents are not meeting their needs like provision of sanitary towels, to get money and buy their favorite body oil/lotion and in some homesteads, girls are the main providers to the parents and are forced by circumstances to obtain finances in exchange for sex. This trend worsened during the pandemic" (in-depth interview with the health care provider, 2021).

Another Key Informant, a parent, reported that "*Adolescents may not be knowing much about their sexuality after all. They would do everything right if they knew, but they do not. Many are getting pregnant every day. Others seek abortion services in dark places and end up dying. Knowledge helps one make an informed choice, but these adolescents are not* (Geerts, 2021). This calls for further research on adolescents' Knowledge and sexual behavior as the study could not conclusively link adolescents' SRH knowledge to their sexual behavior.

It is disheartening that adolescents are engaging in sex to obtain basic needs such as food and sanitary towels. The loss of livelihoods during the COVID- 19 pandemic left many families struggling to get even the basic needs (Jaguga & Kwobah, 2020). This increased and continues to increase the vulnerability of adolescents to sexual abuse and other evils.

The median age (in years) at first sexual intercourse was 16 (14.17%), the majority reporting that the sexual act was agreed/consensual, while 8(8.6%) reported forced sex/rape. With non-consensual sex being at about 9% of the respondents, this is unfortunate as this has implications for HIV and STI prevalence among these youth. According to a study by UNESCO, globally, about one in three women (1:3) have experienced sexual violence in their lifetime. In a study in the UK on an online campaign against rape, more than 15,000 disturbing accounts of sexual assault and harassment were shared by both boys and girls. This study is striking how many sexual molestations took place in learning institutions? These testimonies were so disturbing that one researcher referred to one of the schools as a '*hotbed of sexual violence.* What was obvious was the magnitude of the confusion surrounding the issue of consent, a fundamental principle of gender equality and healthy relationships. However, it was questionable why adolescents are not sure about what a consensual relationship is and why they do not know when certain actions are inappropriate. While this deserves further investigation, it could also indicate some knowledge gap in terms of ways of reducing/avoiding sexual abuse. The solution is a comprehensive sexual education from an early age. The

challenge is for all stakeholders (parents, teachers, religious organizations, and the state) to act accordingly.

The fact that most adolescents have non-consensual rights is a pointer to severe societal failures. The tender age at which adolescents first indulge in sex and the fact that this is non-consensual indicate the SRH knowledge gap that needs to be filled. In the Kenyan education system, children (16 years) are usually informed one or two. However, in rural areas, many adolescents at age 16 are likely to be still in primary school. Indulging in sex at this age can lead to the end of education due to STIs and early pregnancy for the girls. The Ministry of education directive that girls who give birth be allowed back in school is desirous much as parents, especially mothers, have responded by helping their daughters to procure abortion secretly, and their mothers say*: "I neither have money nor time to take care of a baby" (KI, secondary school counselor)*.

Among those adolescents that have ever had sexual intercourse, only 60(63.8%) reported having used protection gadgets, and 60(65.9%) to have had it during the COVID-19 period, whereas 2(3.3%) had it with a teacher while 1(1.7%) with a pastor/church leader. Note that teachers and pastors or church leaders are the people who are trusted with the youth in our society, yet they turn to be predators. Incest was reported between siblings during this period due to parental ignorance that putting boys and girls in one locality with no guidance would be detrimental.

It is becoming a practice in Kenya and worldwide for adolescents to engage in sexual activities despite the negative consequences involved. For example, In the US, National Youth Risk Behaviour Survey carried out in 2019 revealed that 38% of adolescents in high school were already engaging in sexual intercourse, 9% had four or more sexual partners, and 7% had been physically forced to have sexual intercourse when they did not want it during the three months of the study (Karp et al., 2021).

In sub-Saharan Africa, a study by Doyle et al (2012) reported that up to 25% of the 15-19-year-old boys and girls were already engaging in sex before age 15. In most countries, ≥5% of girls reported marriage before age 15, and >20% had commenced childbearing. The study further revealed that early sexual debut and childbearing were more common among the least educated and rural girls. Multiple sexual partnerships were more common among boys than among girls. In addition, those higher educations were more likely to report various partnerships (ibid, 2012).

5.1. Reasons for Indulging in Sex during the Covid-19 Pandemic.

This was done to establish if their SRH knowledge informed adolescents' indulgence in sexual activities. When asked to give reasons for increased sexual activities during the covid-19 pandemic, the adolescents had varied responses, as represented in Figure 9

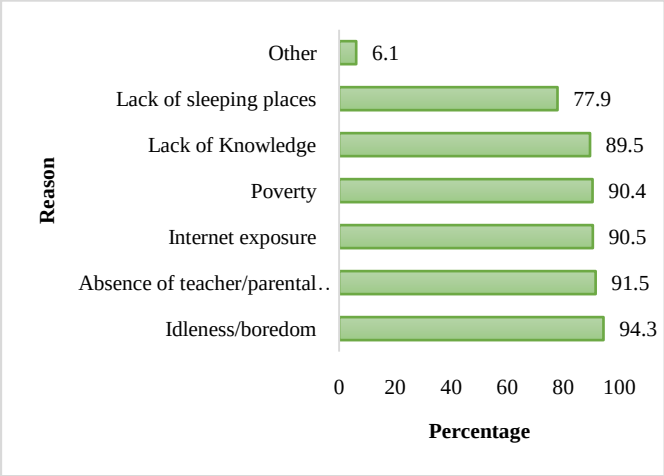

Figure 9: Reason for Increased Sexual Activities during the Covid-19 Pandemic.

Findings revealed various reasons for the increase in sexual relationships among the youth during the COVD-19 pandemic. One hundred forty-four adolescents, making 94.1%, reported that some of the major causes of increased sexual relationships among the youth were idleness and boredom due to the closure of schools. These were followed by the absence of parental/teacher guidance by 139 adolescents making 91.4%. In comparison, 60 adolescents making 77.9%, reported was lack of sleeping place as the least cause for the sexual relationship among adolescents. Also, Key Informants reported cases of sexual assault and rapped carried out on adolescents. From these findings, it is critical that stakeholders, including parents, teachers, and community leaders at all levels, be cognizant of the implications of idleness among the youth and put in place strategies for the safety of the adolescents (Addae, 2020). Besides, there is the need that the child should always be engaged meaningfully and endowed with requisite Knowledge, skills, and attitudes that enable them to make informed decisions.

Findings from FGDs and in-depth Interviews with Key informants revealed that the prolonged lockdown of the country during the COVID-19 pandemic had its challenges on families. Children experienced a lot of freedom from school, yet most parents and guardians had to be away working to provide for families. Lack of supervision supplied adolescents with enough time to do unprecedented explorations about their lives. Cases of teens engaging in risky behaviors such as sexual activities, drug and alcohol abuse, truancy, and lawlessness were also rising.

One of the girls during FGD said:

"Due to idleness after school closure, girls would walk on the roads putting on tight and exposing attire, which made them centers of attraction for cheap sex. Some boys spend quality time watching pornographic videos that aroused them and developed an urge to seek girls to satisfy their sexual desires" (FGD with the primary school-going adolescents, 2021).

There was a condemnation of the styles of parenting used today as they greatly contributed to adolescents' sexual misbehavior. The modern parent was oblivious to the dangers of facing an idle adolescent, left with no obligation to do any productive work the whole day. Parents resorted to employing workers for their daily chores, leaving their children nothing to do. However, adolescents will always find something to occupy themselves. Unfortunately, most of these engagements are pleasurable sexual activities. One of the interviewees reported how parents abdicate their role of guiding adolescents when he said:

"Parents are ignorant and over-protective of their children in terms of involvement in basic social roles. Instead, they are fond of laborers doing their house chores and leaving children with nothing to do. Nowadays, our children are idle and find something to do - your guess is as good as mine what they are likely to get involved with. Then parents start complaining how unmanageable their children have become" (in-depth interview with the chief, 2021)

These findings are congruent with Laura et al (2020) in their study on why adolescents and young adults have sex. . Laura et al (2020) concluded that adolescents engage in sexual activities for pleasure and evade boredom. Therefore, it is imperative to train young people to productively use their time to avoid engaging in activities detrimental to their growth, health, and development. This does not mean that sexual activities are immoral but are ideal when the adolescents are psychologically and emotionally mature for responsibilities that come with such engagements. Therefore, this should inform the kind of interventions and mitigations to be put in place. Strategies against sexuality such as abstinence have failed mainly because adolescents no longer consider this plausible.

At one of the FGD discussion sessions with parents, some opined that the adolescents were not appreciative of the current struggles parents go throw to bring them up. The financial constraints and the demands of modern life have denied parents the precious time they would like to spend with their adolescent children, but the latter are not conscious of the same. One of the parents interviewed said:

"Adolescents are so stubborn; parents have had a hard time in dealing with them more so during the pandemic. Sometimes parents lose total control of the adolescents. Parents cannot fully attend to the needs of the adolescents, more so during the pandemic. Some of these adolescents cannot understand what a parent can lack. Others are forced to engage in pre-marital sex in exchange with money for sanitary pads" (FGD with Parents, 2021).

In another instance, a vocational trainer said, "Expectation of some parents led adolescents astray. In two instances, single fathers gave away their daughters to work as housemaids while the salaries were given to their fathers" (Ngwacho, 2020).

VI. SUMMARY

The study established that adolescents' had a good amount of knowledge about sexual and reproductive health. As other Key informants and the adolescents observed, SRH knowledge was accessed at school from their teachers and peers. This had occasioned many challenges to the adolescents as this Knowledge was often not put to good use. For instance, the teachers reported that adolescents' knowledge of avoiding pregnancies resulted in excessive contraceptives while still very young. Teachers added that this has implications on adolescents' future reproductive health. When compared on a gender basis, the girls manifested more SRH knowledge than boys. As a result, they quickly sought medical help when they detected infections. Also, during FGDs, girls demonstrated more Knowledge of SRH. For instance, during FGDs, several girls reiterated that "*Only a fool can get pregnant."* Also, in-depth interviews with health workers revealed that girls were more knowledgeable about SRH matters than boys. In addition, more girls than boys admitted to having multiple partners and initiating love relationships with boys. On the other hand, the boys' limited Knowledge of SRH resulted in suffering from Sexually Transmitted Diseases (STDs) in silence, leading to dropping out of school.

Further interactions with adolescents in one of the Polytechnics revealed that during COVID-19 Pandemic, girls and boys paired up every evening to have sex in what they referred to as *accessible green lodges*, ordinarily referring to the sugarcane, maize, and forested plantations. Adolescents further revealed that some girls had multiple partners to get finances since their parents could no longer afford to provide them with basic needs like body lotion, entertainment, and sanitary pads. In other households, the girls became the sole providers to the parents by obtaining finances through an exchange of sex. This further demonstrates the inability of the adolescents to utilize their Knowledge about SRH properly.

The aforesaid is congruent with a World Health Organization (WHO) study on adolescents' knowledge of SRH (WHO report, 2015). In this study, the WHO established adolescents' Knowledge on accuracy and inaccuracy of' beliefs about pregnancy, STIs including HIV and AIDs; use of condoms and other contraceptives; their awareness on where to obtain condoms; HIV testing and counseling; and their sources of information. The WHO also established an alarming lack of Knowledge among adolescents about whether a girl can become pregnant the first time they have sexual intercourse; how to use condoms correctly; and Knowledge of STIs rather than HIV. Relatedly, Varga (2003) observed that despite being quite knowledgeable about SRH, the adolescents are not comprehensively informed on how to handle the practical aspects of the SRH knowledge. This was demonstrated by the adolescents' lack of Knowledge about safe and unsafe days and the correct use of condoms. The reasons for increased sexuality amongst them are varied, as considered in various sections of this study. Some parents believe that adolescents

portray a know-it-all attitude, yet they do not know much in the actual sense.

Overall, this study acknowledged that adolescents have Knowledge of ASRH issues, mainly from schools, among the teachers and peers. Despite adolescents being knowledgeable about SRH, the study found that they were naïve and limited in how they drew on this Knowledge to transform their sexual behavior. The Knowledge was not put to good use. This was because there was a surge in pregnancies, infections with STIs, unsafe abortions, among others, during the COVID-19 pandemic. The study further established that the adolescents' confinement at home during the COVID-19 pandemic brought about anxiety and restlessness. The adolescents were on their cell phones and other social gadgets whose usage was detrimental to their minds as they exposed them to uncontrolled experimentations (Brown et al., 1999). Some key informants observed that there was nobody to attend to the children, as most parents did not have time for their children during the pandemic. This led to a rise in indiscipline (immorality) among adolescents due to lack of supervision. There were rampant and aimless movements without a parental guide.

According to Kiptoo-Tarus, (2020), risky sexual behavior is influenced by a challenge in Knowledge, usually through the delivery of inadequate SRH educational resources to young people. This generates a negative attitude and poor perception about birth control measures and sexual and reproductive health issues. There is evidence that a high level of ignorance surrounds the presence of STI diseases manifested by a high level of secrecy, silence, denial, and fear of stigmatization. A fertile ground for inadequate understanding and piecemeal response to manage sexually transmitted diseases.

It is important to note that even before the Covid-19 Pandemic, teenage pregnancies and sexual violence had been on the rise. The pandemic only exacerbated it. The Kenya Health Information Systems data show that health facilities recorded increased cases of teenage pregnancy by the end of 2020. Nairobi led with 11,795 points, followed by Kakamega with 6,686 cases and Homa Bay with 5 961 cases. The media highlighted heartbreaking stories of adolescent girls and young women who became teenage mothers, some as young as 12. On 31st March 2020, the National Council for the population and Development launched the National Campaign to rally communities to end teenage pregnancy. According to Kenya's Ministry of Gender, the National Crime and Research Center study linked to drug and substances abuse, poverty, and cultural beliefs and practices to increased gender-based violence cases. For instance, males are taught early that they have entitlements over female bodies. Traditionally, women's bodies are always perceived as available for males, and females have no right to refuse sexual advancements or deny a partner sex. As a result, from a traditional perspective, women are viewed as sexual objects. Internalized gender roles and stereotypes create gender power imbalances and propagate inequalities and Gender-Based Violence (GBV).

The socialization of men and boys plays a key role in developing self-concept, how they interact with girls and young women, and how they handle situations. Society perceives boys as strong providers, heroes, decision-makers, and more sexual energy. This promotes the ideology of superiority and violent, toxic behavior. The way out is to learn and re-learn good behavior; unlearn poisonous behavior patterns that propagate injustice and cause oppression and sexism driven by patriarchal sentiments.

VII. CONCLUSION

The study revealed that adolescents have Knowledge of SRH, though not at the same level depending on various demographic and social-economic backgrounds, such as parents' level of education, kind of school the student attended, whether private or public, nature of parenting, religion/Faith, and gender.

The study further revealed that adolescents' primary source of Knowledge on SRH is the school through their teachers and peers. However, this Knowledge does not translate to desired sexual behavior as evidenced by the adversarial impact sexuality had on the adolescent.

As a result of prolonged lockdown, adolescents remained long home in villages. They were exposed to risky environments that made them vulnerable to sexual assault and harassment to the extent that some were forced to engage in detrimental sexual activities.

There is a considerable gap in terms of Knowledge that needs bridging. This gap manifested in adolescents' risky behavior, such as indulging in unsafe abortions and sex, failing to embrace contraception, and inability to seek appropriate medical care.

VIII. RECOMMENDATION

From the findings, it is evident that adolescents are sexually active. Every young person grapples with physical, emotional, and social decisions associated with sexual and reproductive health at one point in their life. The secrecy and shame that discourages open and honest conversations about sex does not promote abstinence among adolescents but forces them to seek guidance from unverified and untrustworthy sources.

Since this study established that adolescents' Knowledge is sourced from teachers and peers in schools they attend, structured strategies must be developed in the school setting for disseminating credible and wholesome Knowledge. Consequently, the Kenyan education system should provide comprehensive sexual and reproductive health knowledge to youth. Further, other key stakeholders comprising the family, the community, and spiritual leaders should be brought on board to disseminate SRH knowledge. Adolescents are likely

to take these stakeholders more seriously and learn from them. Only then shall the adolescents make informed decisions.

In addition, this study established a significant gap in the utilization of SRH knowledge. It, therefore, recommended university-community-led interventions on the use of SRH knowledge to achieve desirable sexual behavior among adolescents. Establishing a youth empowerment center in the University would go a long way in realizing a sustainable solution. This center shall empower youth through various educational programs, enhance craft skills, and upgrade.

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