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Protection at First Sexual Intercourse among Adolescent Girls and Young Women in Kenya

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Abstract

Adolescent girls and young women (AGYW) are at high risk of HIV and other sexually transmitted infections (STIs), including at first sexual intercourse. Literature is scarce on factors influencing use of protective strategies at this critical time. We conducted 20 in-depth interviews and 5 focus group discussions with purposively sampled AGYW aged 16–20 years who reported first sex while enrolled in the larger cohort study and willing to participate. All AGYW were counselled on HIV prevention and had access to reproductive health information and services. Data collected were transcribed, translated and analysed thematically. We identified two approaches to first sex. One approach facilitated protection, and those AGYW reported intention and preparation to initiate sexual activity and ability to request a condom use, also male partner's willingness to use and provide condoms. Other AGYW experienced first sexual intercourse without agency [the feeling of control over actions and their consequences, (Moore, 2016)], and described lack of prior intentions and planning, discomfort with discussions about sex and condom use, and desire to experience sexual pleasure as reported by peers. No AGYW mentioned parents/adults as playing any role as facilitators of protection use at first sex highlighting the need for further research on the missing gap. The AGYW were trusting of verbal reports by male partners describing themselves as having never engaged in sex, HIV negative and free of STIs. We found that some AGYW were empowered to plan, discuss and request protection at first sex, and others

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did not take agency. First sex is a time of vulnerability where innovative strategies are needed to strengthen AGYW's agency, and, promote condom use and other HIV/STI prevention methods.

Keywords

Protection use; first sexual intercourse; HIV prevention; adolescent girls and young women; Kenya

Introduction

In sub-Saharan Africa, Human immunodeficiency virus (HIV) and sexually transmitted diseases (STIs) are major public health problems affecting youth (Ahmed et al., 2019; Celum et al., 2019; Osorio et al., 2015; United Nations Programme on HIV/AIDS [UNAIDS], 2019). Adolescent girls and young women (AGYW) aged 15 to 24 years are the most affected and are twice as likely to be infected with HIV compared to young men in that same age group (National AIDS Control Council [NACC], 2016; UNAIDS, 2018). In Kenya, approximately 1.6 million people are living with HIV, and more than half (51%) of all new HIV infections were among heterosexual AGYW (Ministry of Health [MOH]/ NACC, 2016; NACC, 2016; Ziraba et al., 2018; UNAIDS, 2019). This occur despite efforts in Kenya to reduce the risk of HIV infection among AGYW through the adoption and scale-up of HIV prevention methods and strategies including promotion and provision of HIV testing and counselling, condoms, pre-exposure prophylaxis (PrEP), HIV treatment and linkage to ART, voluntary medical male circumcision and health education. Further, youth-friendly sexual and reproductive health services, or 'safe spaces' have been created where AGYW can meet with mentors and peers for social support and links to services (Gourlay et al., 2019; UNAIDS, 2017; [MOH]/NACC, 2016; NACC, 2016).

Among AGYWs in Sub-Saharan Africa (SSA), first sexual intercourse can lead to negative health outcomes including sexually transmitted infections (STIs) and unintended pregnancies. This is because first sex may be associated with non-consensual sexual experiences, poor negotiation skills for protection use/safer sex, less condom use at first sex, higher levels of inflammatory cytokines in the female genital track and likely to happen under the influence of alcohol or drugs (Becker et al., 2018; Beltzer et al., 2011; Kalolo et al, 2019; Kim, 2015; Marston et al., 2013; Pettifor et al., 2018; Sandfort et al., 2018; Shrestha et al., 2016). Further AGYW are exposed to the risk of HIV infection soon after sexual initiation (NACC, 2016; Shafii et al., 2007; Shrestha et al., 2016). AGYWs engage in unprotected sexual intercourse for a variety of reasons, including low perception of risk of HIV infection, insufficient reproductive and sexual health information, negative attitude to condoms, , and unfavourable power disparities in relationships: all of these factors increase the risk of HIV infection (NACC, 2016; Shafii et al., 2007; Ssewanyana et al., 2018). It is therefore critical to address these challenges in order to reduce the burden of HIV infections among AGYW.

Despite the effectiveness of condoms in HIV/STI prevention, condom use among AGYW is typically inconsistent or absent, especially at first sexual intercourse (Shafii et al., 2007; Shrestha et al., 2016). Published studies focus on factors that influence condom use among

sexually active AGYW including inability to negotiate condom use, reduced sexual pleasure, reluctance from male partners to use condoms, peer influence, as well as lack of sexual intercourse planning and trust (Kalolo, & Kibusi, 2015; Mberu, 2008; Maseko et al., 2020; Ngure et al., 2012; Shrestha et al., 2016; Ziraba et al., 2018). Others document the age at sex initiation, influencers of sex initiation and experiences among AGYW in less developed countries (Kim, 2015; Martson, 2013; Stephenson et al., 2014), but relatively little is known about the factors that influence decision-making on use of a condom at the first sexual experience.

This study therefore sought to identify the factors that influence AGYWs decisions on use or non-use of protection against HIV, including condoms or any other HIV preventive methods, at first sexual intercourse. We examined these factors among AGYW who had reported initiation of first sex while enrolled in the larger cohort study, which has demonstrated high incidence of STIs.

Methods Study Population and Setting

From January, 2016 to September, 2017, we conducted a qualitative sub-study within a prospective observational cohort studying HSV-2 incidence. Four hundred HSV-2 negative and HIV negative adolescent girls and young women aged 16 to 20 years enrolled at Thika Partners Study Clinic, in a suburban town in Kenya. AGYW were recruited from colleges and households within the community through community mobilization strategies. The first steps involved community entry and approvals after consultations with the community advisory group (CAG) to whom the protocol was presented. AGYW aged 16–20 years were recruited from the colleges and households within the community through health talks in churches, schools, middle-level colleges and among households at the community level. This allowed the community outreach team to talk to parents and AGYW in the community with a focus on sexually transmitted diseases, specifically HSV-2 and reproductive health, in a culturally sensitive way.

At screening and enrollment, AGYW and their parents received education on reproductive health anatomy, menstrual cycle and HSV-2. A written consent was obtained from AGYW who were 18 years old and above, while those less than 18 years of age (minors) were asked to come to the Thika Partners Study Clinic with their guardians to provide written consent on their behalf; and written assent was obtained from minors. Cohort inclusion criteria for the larger cohort study (prospective observational cohort studying HSV-2 incidence) were that participants had never had sexual intercourse or were sexually inexperienced (only 1 partner). Participants were followed for 3 years, with quarterly visits assessing initiation of sexual activity by self-report and HSV-2 acquisition by laboratory testing. Over 3 years, 42% of cohort participants acquired an STI (Yuh et al., 2020). For this qualitative sub-study, we selected AGYW who reported sexual initiation within the first two years of study follow-up and who consented to be interviewed about their sexual experiences at first sexual intercourse.

Data Collection

We conducted in-depth interviews (IDIs) and focus group discussions (FGDs) among AGYW who reported first sexual intercourse using semi-structured interview guides developed collaboratively by the study team. To ensure homogeneity, the FGDs were of two types, composed of 5–8 AGYW aged 16–18 years and 19–20 years who had reported first sexual intercourse while enrolled in the study and willing to participate in the discussion. The interviews aimed at identifying study participants' experiences at first sexual intercourse as well as participants' opinion on general experiences at first sex among AGYW in the community, and included topics such as factors influencing first sexual intercourse, HIV and pregnancy risk consideration, use of condoms or contraceptives among other protection methods at first sexual intercourse, and sexual negotiation skills. In addition, more specific probes explored the issues around experiences at first sexual intercourse including questions around: (1) whether AGYW considered themselves at risk for HIV or pregnancy (2) methods used to reduce HIV or pregnancy risk (3) how decision to use or not use protection was/is arrived at, (4) who leads the discussion on protection use, (5) how easy it is for AGYW to discuss protection use with the partners, (6) ways in which AGYW influence use or non-use of protection, (7) age of sexual partners, and (8) who was responsible for providing methods.

In-depth interviews were aimed to understand personal experiences that would not be shared by participants in a more public context on decisions on protection use at first sexual intercourse, whereas FGDs provided the opportunity to gather group perspectives and to "share and compare" (Morgan et al., 2013; Krueger, 2014) peer impressions of influencers of protection use among AGYW at first sex. Specifically, the FGDs provided the opportunity to gather similarities and differences on participants' thoughts on influencers of protection at first sex by allowing them to add on, compliment or give different perspectives to what their peers reported; also provoked new opinions that might have been forgotten. To ensure a successful discussion, the moderator allowed the participants to suggest ground rules that would be observed during the discussion as a strategy for the participants to own and observe them. Further, the moderator always brought back the discussion in order and to the main topic when participants diverged or disagreed by appreciating their suggestions, reminding them the purpose of the discussion and them the ground rules as the discussion progressed.

Among the AGYW who reported first sexual intercourse, a total of 20 IDIs and 5 FGDs with 30 AGYW in total were conducted by experienced social scientists who underwent a 3 day protocol-specific training. The training included reviewing the study specific objectives, contact on qualitative research methods, reviewing the study guide IDI, FGD and informed consent, as well as how to create rapport and probe. All interviews were audio-recorded using digital voice recorders. Each IDI took an average of 35 minutes while FGDs lasted an average of 1 hour. All AGYW enrolled in the study were counselled appropriately and had access to free reproductive health information and services.

Data Analysis

Audio recordings were transcribed and translated as needed by the study team. The transcripts were reviewed by social scientists who read through the transcripts while listening to the audios to ensure consistency and clarity. Transcripts were then uploaded to an online data analysis program (www.dedoose.com). The research team identified thematic codes that guided the coding process through both deductive (based on items on the interview guide) and inductive approaches (read through all the translated transcripts for themes relevant to the research questions). Transcripts were independently coded with a developed codebook by two coders (EC & AD) from the research team, with discussions to resolve disagreements to reach consensus. After inter-coder agreement was reached, coding went on with regular checks to ensure continued inter-coder agreement. Output was produced for specific thematic codes; excerpts from interviews were used to further explain the study findings.

Ethical Considerations

Ethical clearance for the study was obtained from the Kenya Medical Research Institute's Scientific and Ethics Review Unit (SERU) as well as the University of Washington Institutional Review Board. All participants aged ≥18 years gave written informed consent to participate; participants aged <18 years gave assent and had parental written consent to participate. Interviews were conducted without parental presence.

Results

Participant Characteristics

Participants' mean age at enrollment was 19 years for IDIs and 18 years for FGDs and mean years of education was 12 for both IDI and FGDs. IDI participants reported the age of male sexual partners at first sexual intercourse was between 20–24 years while most FGD participants reported that AGYW of their age engage in first sex with male partners within their age group, between 20–25 years, and that the sexual male partners are usually slightly older. A few of the FGD participants reported that few AGYW initiate sex with male sexual partners who are much older.

We found that condom use at first sexual intercourse was inconsistent in this cohort, with some using and some not using. Facilitators of condom use included fear of contracting HIV/STIs, awareness of HIV/STI risk and prevention, intention and preparation to initiate sexual activity and ability to discuss and request a condom use as well as HIV test prior to engaging in sexual intercourse. Male partner's willingness to provide and use a condom as well as test for HIV also facilitated a condom use. Family and adult mentors were not mentioned to have played a role in influencing protective sexual behaviours. AGYW who did not use a condom at first sex reported lack of prior intention and planning for sexual intercourse and discomfort with discussions about sex and a condom use. AGYW reported desire to experience sexual pleasure that peers reported to have experienced while they engaged in condomless sex, trusting of verbal reports by male partners describing themselves as having never engaged in sexual intercourse, HIV-negative and free of STIs

were reported as barriers to condom use. Few AGYW reported episodes of sexual coercion resulting in unprotected sex and reports from male partners and generally men in the community that condoms were not good for use with virgins and that young women cannot contract HIV on their first sexual intercourse. The findings are as summarized in the following themes:

Facilitators of Condom Use at First sexual intercourse

In response to a question asked about how the decision to use a condom at first sex was arrived at, most of the participants who reported using a condom at first sexual intercourse did so for fear of contracting HIV. They stated that they feared contracting HIV and other STIs by using a condom that were provided by their partners. Similar findings were reported by some FGD participants who said most AGYW use a condom at first sex for fear of HIV risk, but a few said AGYW use a condom at first sex not for fear of HIV but pregnancy.

> “We used condoms to prevent HIV because I do not live with him and maybe he could be infected.” IDI 1, 20 year old

> “I think they (AGYW) use condom because they fear the partner because they have not gone to VCT (volunteering counselling and testing) and he may be HIV positive.” FGD 02, 21 year old

A few participants stated that they used condoms based on information they had received about HIV/STI risk and prevention. They reported having received this information from study staff (health care providers), churches, schools, health talks and media.

> “We used protection that day because I didn’t know if he had STIs, yeah. I am the one who requested him because you know we had learnt here (Thika clinic) that for safe sex, you first go for testing and when you see your other friends tell them about safe sex, they first get tested to know their status before they engage in sex.” IDI 03, 21 year old

Our study also asked a question about who led the discussion on protection use, how easy or difficult it was for the AGYW to discuss protection use with their partners, and how AGYW influenced use or non-use of protection at first sex as well as who was responsible in providing methods. Findings from our study revealed that most participants who reported using a condom were able to request and influence a condom use, this occurred in advance by negotiating with their partners about safe sex prior to engaging in sex. Some stated that they were able to engage their partners to talk about a condom use because they felt that they were to be responsible in case of HIV infection. According to them, it was their responsibility to protect themselves. Only a few FGD participants were in support of this finding that some AGYW are able to negotiate and influence a condom use and safe sex prior to first sex.

> “I told him it is a must we use, you know he told me he feels free, he wanted us to do it like that (Condomless sex), but I told him let us use…” IDI 03, 21 year old

> “We used condoms. I told him if he doesn’t have protection, it is not going to happen.” IDI 09, 20 year old

> "You know we don't have the same level of courage, you might fear but I have the courage to tell him about that thing." FGD 1, 20 year old

In addition to negotiating for a condom use prior to sex, some negotiated for a HIV test. Some participants reported that they convinced their partners to go and test together to make sure that they were all HIV uninfected before engaging in unprotected sex.

> "When I knew we will meet with him like today, I told him, as partners, let's go and get tested, he didn't refuse. We went and got tested because it was free. We knew our status, we were both negative yeah." IDI 03, 21 year old

> "It was easy to tell him. We sat and I told him: Can we go for testing? And then he said: yes that is a good idea. I didn't have a difficult time to convince him because you get that some give hard time before you get to convince them." IDI 12, 22 year old

Most participants further stated that after engaging their male partners in discussions about the importance of using a condom, the partners were willing to use and provide a condom. Some male partners had suggested a condom use and/or HIV testing before the AGYW initiated the talk. In this case, male partners provided the condoms that were used during their first sexual intercourse. A few participants in the FGDs were in support of this finding.

> "He asked me if we could use (condom), and I told him that yes we have to use because, even if we know our status at times we cannot risk…he is the one who suggested, and then I told him it is the best option." IDI 12, 22 year old

> "There are some men who lead the discussion (protection use), they always have it in mind that they are at risk to contract HIV." FGD 01, 21 year old

A few reported that having a planned intention to engage in sex helped them prepare in advance prior to the act.

While AGYW reported that peers and partners helped them to engage in protective behaviors, parents, relatives, siblings, and other adult mentors were not mentioned as facilitators or advocates for protection.

Barriers to Condom Use at First Sexual Intercourse

In response to the question asked about how the decision not to use protection/ a condom at first sex was arrived at, a few AGYW who did not use condoms at first sexual intercourse reported that they did not have prior intention and planning for sexual intercourse. Participants reported that when they met their partners in private places (homes/houses), they ended up engaging in unprotected sex without having contemplated about it before hand. This was supported by findings from the FGDs where most participants reported that most AGYW do not use protection at the first sexual intercourse since it is rarely planned for.

> "As we said earlier most girls don't know they are going to break their virginity so you meet with your partner and this time round he tells you let us go so that you can see my house so when you get there one thing leads to the other, so there is no

time to talk about if you are using condom or not, so you get that you did it without you knowing." FGD 02, 22 year old

"Because you have not planned in the first time to have sex so you get yourself engaging in sex." FGD 05, 18 year old

In response to the question asked about how easy or difficult it was for the AGYW to discuss protection use with their partners, discomfort around discussions with partners about sex and a condom use also came out as a reason to why some AGYW did not use a condom at first sexual intercourse. Lack of communication about condom use between sexual partners was a key challenge. Some AGYWs were shy to discuss condom use with their partners and feared that such discussions could lead to mistrust in their relationships. Most of the participants in the FGDs were in consensus with this finding since they stated that many AGYW develop fear of mistrust in the relationship and are shy as well as naïve to hold discussions on a condom use or HIV testing at their first sexual intercourse.

"Ok, I am still against that they talk about it, because they are shy….ok if it is the first time for the lady, stating the use of condom is hard because they are shy, maybe if you are having sex the 9th or 10th time you will sit and talk on what you want to use because you are not shy to anything but in the first time you are shy because you have not experienced, you don't know how it is done so I think they don't talk about it." FGD 02, 22 year old

"As for me, if you tell the man to use a condom, he sees that you do not trust him……You will make the man to wonder why you insist on using protection and he might fear." FGD 01, 21 year old

When asked the question about how AGYW themselves influenced use or non-use of protection at first sex, findings revealed that peer influence played an important role in decision making among AGYWs on condom use. Although only a few participants in the IDIs reported that they had been told by peers and partners that they would experience greater pleasure if they engaged in sex without a condom, most of the participants in the FGDs reported that peer influence greatly influenced AGYW's decision on a condom use at first sexual intercourse.

"It is not sweet in the first time with condom because you want to feel what your friends tell you so you want to experience the sweetness too." FGD 05, 17 year old

Some reported that they were convinced not to use a condom by their partners who claimed that they had not had sexual intercourse before, did not have any other partners, and that they were HIV-negative and therefore were safe for unprotected sex. These statements were not backed up by any documentation. This was supported by reports from most of the participants in the FGDs that AGYW are convinced by their partners to engage in unprotected sex.

"He said that we should not use condom because he has been faithful and he had gone for a test and was told he is not sick, the same for me." IDI 08, 19 year old

"He had told me he had never had sex and again we trusted each other." IDI 08, 19 year old

Some AGYW in the FGD and a few IDIs participants reported episodes of sexual coercion resulting in unprotected sex.

> "She told me that she told the man to use condom but he refused, so he closed her in the room and told her that she will not leave until the day she accepts to do it without a condom. The girl had to, so if you are told it is a must you have to." FGD 01, 20 year old

Myths on Condom Use at First Sexual Intercourse

In addition, some AGYW reported to have initiated sex without using condom because their sexual partners had told them that condoms were not good for use with virgins, since they could burst, and that they would feel a lot of pain during sex. Similar findings were reported by most of the FGDs participants who claimed that most men in the community refuse to use condom on virgins by convincing them why it is not good on virgins.

> "First I did not think about HIV, I was thinking about pregnancy. So he said that it is not good for virgins so he said that we will use the pills." IDI 17, 22 year old

> "No because I was told by my boyfriend that if I use condom, it will hurt me so he said naked sex is what will not hurt me." FGD 5

Some participants in the FGDs further reported that generally men in their communities say that young women cannot contract HIV on their first sexual intercourse and that condoms were not good for virgins. This influenced them not to use a condom on their first sexual intercourse.

> "There is the belief in the community that there is no way that you can have sex and get HIV on the first time, men are the ones who say that…"FGD 04, 22 year old

> "Because the boy can tell you that you will not get HIV in the first time…"FGD 03, 18 year old

> "Yes, boys say that if you use a condom on a virgin it will burst so they will explain to you to the extent that you accept." FGD 03, 21 year old

Participants from both IDIs and FGDs reported similar findings on facilitators and barriers to condom use and protective behaviors. It is worth noting that findings from FGDs showed pessimism about the role of the AGYW in influencing protection use at sexual debut while the IDIs showed more agency.

Discussion

Our findings from a unique group of AGYW interviewed shortly after first sexual intercourse revealed two paths at first sexual intercourse: that some participants took action to protect themselves with either condoms, HIV testing or both at the time of first sexual intercourse, and some did not take agency and did not take any protective measures, despite having access to extensive reproductive health information, education and free services in a youth-friendly environment. Although some AGYW identified HIV testing as self-protective, in this age group and with the high prevalence of STIs seen, one-time testing does not provide lasting protection when monogamy cannot be assured.

In identifying facilitators to protective behaviors, we identified some AGYW who appeared to feel confident and empowered at the time of first sexual intercourse, reporting ability to request and influence condom use and HIV testing with their partners. We also identified some AGYWs who seemed to be in healthy and respectful relationships, and were able to talk, plan and agree on a condom use and/or HIV test prior to first sexual intercourse. All of these confident AGYW reported benefiting from counselling and information about reproductive health. AGYW in this study revealed that they had been counselled by the study staff (health providers) and empowered with knowledge on reproductive health information and services including, but not limited to, the risks of HIV/STI infection and available prevention measures. Participants stated that they had also received information from schools, church, media and health talks that added to their pool of knowledge about sexual health. Other studies confirm that knowledge about prevention promotes safer sexual activity (MOH/NACC, 2016), and that availability of counselling and knowledge is crucial in influencing and promoting safe sexual behaviours among AGYW (Kalolo & Kibusi, 2015; Li et al., 2019; Shafii et al., 2007; Tenkorang et al., 2009).

When identifying barriers to condom use and protective behaviors at first sexual intercourse, we identified AGYW who reported being unprepared for first sexual intercourse, who had no plan or intention to engage in intercourse, or who reported being coerced into both the act of sex as well as not using condoms for HIV or pregnancy protection. These AGYW reported lack of agency at the time of first sexual intercourse, with male partners determining both when sex happened and what degree of protection occurred. Some AGYW viewed the male partner's insistence as a being part of the "romantic" process, while others reported being coerced or raped. These AGYW were not making decisions about their first sexual intercourse, and were therefore unable to influence the circumstances. Other studies have also reported that AGYW may have their first sex in circumstances outside their control or consent (Becker et al., 2018; Mberu, 2008; Tenkorang et al., 2009). We viewed two scenarios: one group of AGYW reported an absence of planning, which resulted in lack of agency during a desired first sexual intercourse, resulting often in lack of protection against STI (Luke, 2003). This behaviour could be amenable to addressing with additional awareness, education and counselling as described by other AGYW in our study who expressed empowerment about their first sexual intercourse. Other AGYW reported being coerced or tricked at first intercourse and it is unlikely that additional education and counselling could have changed the circumstances around their first sexual intercourse.

Another common challenge to protected intercourse was participants' discomfort discussing sex and condom use with partners. Participants noted that they avoided discussing sex and protection use due to concern that partners might take offense at such discussions. Gendered power differences in relationships may be a more powerful barrier to AGYW's ability to communicate with their partners on protection use and sex (Harrison et al., 2012; Pulerwitz et al., 2018, 2002; Sieving et al., 2006; Ziraba et al., 2018). Inability to negotiate condom use has been associated with fear of being accused of unfaithfulness, fear of being accused of lack of trust, fear of losing their partners and shame in discussing sex (Shafii et al. 20017; Ssewanyana et al. 2018; Ziraba et al, 2018). These perceptions about condoms can discourage AGYW from discussions about protection use, since women who discuss condom use may be considered promiscuous (Pulerwitz et al., 2018; Ssewanyana et al.

2018), and numerous myths exist about whether condoms should be used “the first time”. We did identify, however, that some felt that they would engage in those discussions in the future, after becoming more experienced and comfortable with sexual activity. Future research could attempt to reduce this gap and help AGYW develop the confidence to discuss their desires and needs either at or closer to the time of first sexual intercourse. Peer network and social groups play a role in influencing decision-making on sexual behaviours among AGYW (Landor et al., 2011; Pettifor et al., 2018; Simons et al., 2011; Stephenson et al., 2014; Tenkorang et al., 2009), and our study confirms that AGYWs’ decision not to use a condom at first sexual intercourse was also influenced by their friends. AGYWs reported that they did not use a condom at sexual initiation because their friends had not used and had told them that a condom is not good since they could feel pain and not enjoy sexual pleasure (Landor et al., 2011).

We also noted the complete lack of any mention of parents, mentors or trusted adults as sources of support or information about protective behaviors. This reveals a gap in the support structure for AGYW and reveals that adults are not part of this process. It also highlights a loss of previously protective cultural practices in Kenya whereby older female relatives played a role in mentoring young women at the time of sexual initiation (Kamangu et al., 2017).

We also found that prior HIV testing with a partner and knowing a partner’s status gave some AGYW confidence that unprotected sex would be safe. However, some engaged in condomless sex after undergoing HIV testing, without taking into consideration their ongoing risk of acquiring HIV and/or other STIs.

Recent literature has questioned whether it is appropriate to frame research around adolescent first sexual intercourse in terms of reasoned choices and actions, since many AGYW are in positions of overlapping vulnerability, and first sexual intercourse is often not a “choice” that AGYW make of their own free will. A recently published cross-sectional survey of women engaging in transactional sex in Mombasa, Kenya, noted that many women reported that their own first intercourse was associated with coercion (41%), rape (11%) and gifts or money (43%) (Becker et al., 2018). A DHS survey in Kenya in 2008 reported that 13.2% of AGYW reported rape as a first sexual experience (Kenya Demographic Health Survey [KDHS], 2010). AGYW interviewed in our cohort did describe episodes of forced intercourse, but these were few. Our participants were mostly still engaged in formal education, and most had parental permission to participate in the study, and were living at home or in a supported environment. Our research participants may represent a less economically vulnerable group of AGYW than reported in the cohort of women from Mombasa. We are sensitive to concerns about inappropriately ascribing all responsibility for sexual decision-making to young and inexperienced girls. However, acknowledging the high prevalence of rape and coercion makes it critical to use nuanced interviews to illuminate the active and inactive decision-making successes and failures during first sexual intercourse. We have tried to use adolescents’ own words to describe first sexual intercourse to reflect on how decisions were made or not made. By highlighting differences between those who described healthier behaviors at first sexual intercourse and those with unprotected encounters, we hope to find strategies to promote safer experiences for all youth.

Limitations include that our study included only AGYW who self-reported first sexual intercourse, and we relied on self-reported behaviors. Some girls, despite consenting freely to participate, were embarrassed or shy to discuss these topics openly, and that may have influenced our ability to hear the full range of ideas around first sexual intercourse. There may have been reporting bias to report safer behaviours that had been encouraged in counselling at the clinic, and there may have been underreporting of sexual coercion. Our population were all housed and many had parental consent to participate in the study, making our findings less representative of youth in more vulnerable socio-economic circumstances. Pre-exposure prophylaxis was not available to Kenyan youth at the time of data collection, limiting our ability to discuss perceptions of PrEP use at first sexual intercourse. Finally, our study did not include the partners of the AGYW who participated in the study as they might have given more insights to the findings.

Conclusion

First sexual intercourse remains a time of great vulnerability for AGYW to acquire an STI or HIV, but tools exist for self-protection including use of condoms, regular HIV couple testing, and pre-exposure prophylaxis. Our study demonstrated that AGYW's decision to use or not use protection at first sexual intercourse was influenced by factors including perceived HIV risk, power to negotiate for safe sex, peer influence, discomfort in talking about sex and protection use as well as partner's influence. AGYW in our study who reported couple testing and using a condom at first sex reported being empowered by reproductive health knowledge and risk reduction counselling, and that this knowledge helped them plan for a safe event and resist pressure to have unprotected sex. AGYW participating in this study had access to counselling and full-service reproductive health care delivered in a youth-friendly environment, which most AGYW in sub-Saharan Africa lack.

We conclude that extending access to accurate information about HIV transmission and protection, and having easy access to counselling services including condom negotiation skills among other preventive methods, and reproductive health services, could result in safer first sexual intercourse behaviors. Further, designing interventions that address the AGYW specific needs and vulnerabilities to HIV/STI in a gender sensitive way, considering the differences in culture, geography and age groups, is necessary in improving protective sexual behaviors. Strategies including having a variety of female controlled prevention methods and awareness creation of their availability, integrating HIV/STI prevention services with reproductive or general health services to improve access among AGYW, and providing sources of income for AGYW would reduce risky sexual behaviors hence reducing the risk of HIV infection among AGYW.

Interventions that aim to engage/involve men/young men (male partners) in programs and research through gender-transformative way is crucial to address causes of gender-based health inequalities and change the attitudes of young men in terms of gender inequalities. This is especially by adopting specific approaches that challenge and redress harmful and unequal gender norms, roles, relations, and gendered power differences that privilege men over women; which define relationship power in decision making on reproductive health and protection use involving condoms among others. Additionally, involvement of men in

interpreting and understanding masculinity and to express it in a socially acceptable way and education on HIV/STIs risk and prevention might be effective in modifying equitable attitudes and promoting safe sexual practices as well as reducing the risk of HIV/STI infection. Additionally, interventions including selecting young people that AGYW and men/ young men (male partners) identify with and train them as peer mentors/champions to reach AGYW as well as the men/ young men (male partners) with information on sexual and reproductive health and rights and link them to services would be helpful in promoting safe sexual behaviors and reduce both men/young men and AGYW vulnerability to HIV and/or STIs. Further, identifying strategies to improve parental skills and support, as well as involvement of adult mentors and trusted adults among other stakeholders in the support structure, especially before onset of sexual activity would be fundamental in supporting AGYW transit through adolescence to adulthood.

Helping more AGYW acquire knowledge about protection and the confidence to ensure its use should be a priority for targeted policy and HIV prevention programming among young women. Fostering agency and confidence among AGYW in their relationships with male partners also appears to be a critical area that helped many of the young women engage in protective behaviours; techniques for fostering this are less well known, but are urgently needed. Interventions to promote mutual consent and reduce coercion and sexual violence should also be part of any comprehensive effort to promote safer adolescent sexual behaviors. Finally, an improved spectrum of protection methods against HIV and STI that suit the specific and unique needs of AGYW and their partners would provide more options for those who are unwilling to use condoms.

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