

# Survey of Young People's Sexual and Reproductive Health Knowledge in Northern Namibia

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## Abstract

During the first COVID-19 lockdown in Namibia (March-September 2020), there were an estimated 3,600 teenage pregnancies, an increase from the annual average of 1,400 (1). The regions of Kavango East and West were particularly impacted. In response to these figures, the Ombetja Yehinga Organisation (OYO), a youth-focused Namibian non-governmental organization, administered a survey to assess students' sexual and reproductive health knowledge. This survey will provide baseline information regarding the effectiveness of a school-based intervention to promote safe sexual behaviours using the "Teenage Pregnancy" info-magazine. Young people completed an in-person survey which included questions relating to demographic characteristics, True or False sexual and reproductive health statements, and knowledge of contraception and school policy. Questionnaires were administered in groups after school hours by trained facilitators, checked for completeness and confidentiality using a unique identification code, scanned and shared with the team at McGill University for data entry and analysis. A total of 13 schools and 794 students aged 13-25 years participated in the survey and were included in data analysis. Knowledge on access and the safe use of contraceptives was limited, suggesting that school-based interventions (such as the OYO program) may be necessary to disseminate this crucial information.

**Keywords:** adolescent health, sexual health, education

## Background

Teenage pregnancy and forced marriage are unfortunate circumstances experienced by many young people in sub-Saharan Africa. Namibia in particular reports high rates of teenage pregnancies, with an annual average of 1,400 (approximately 1 in 5 pregnancies in adolescent girls) (1). When considering the COVID-19 pandemic, this statistic has significantly increased, with an estimated 3,600 teenage pregnancies occurring during the first lockdown (March-September 2020) (1). Of Namibia's 14 regions, those of Kavango East and West were particularly impacted, reporting 520 and 522 teenage pregnancies respectively (1/4 of Namibia's national rate). This number is likely also higher, as over 7,400 learners in these regions combined dropped out of school during the closures and their pregnancy status is unknown (1). In response to these figures, the Ombetja Yehinga Organisation (OYO), a youth-focused Namibian non-governmental organization, administered a survey to assess what adolescent students at risk of teenage pregnancy knew about key sexual and reproductive health information.

### *Sexual and Reproductive Health Education*

In response to the high prevalence of HIV/AIDS, the

Namibian government implemented during the 1990s sexual and reproductive health education programs in schools across the country. The primary curriculum at the time taught students the ABC method: Abstinence, Be faithful, and use Condoms (2). However, this approach was largely seen as ineffective and produced few discernible results (3). As a result, this approach is now rarely taught in schools, though students' sexual and reproductive health knowledge often still reflects these outdated recommendations. Current school-based sex education consists of interventions and programs delivered at (or in association with) schools. These programs intend to promote youth's sexual health and relationships in a positive way and have included creating the position of life skills teachers who provide young people with information about sexual and reproductive health, pregnancy, and sexually transmitted infections (STI) (4). Programs particularly emphasize condom use among young people since this contraceptive is already widely known due to the ABC method and attempt to facilitate access to contraceptives such as distributing condoms in schools (5). Despite these efforts, program facilitators are often minimally trained in sexual and reproductive health and schools do not receive sufficient approval and support from students'

parents to otherwise increase the effectiveness of current programs (3). This contributes to students' lack of sexual and reproductive health knowledge and facilitates the spread of misinformation.

In order to assess and improve the sex education programs delivered in Namibia, researchers have evaluated perceptions and attitudes on sexual and reproductive health education. Findings from an earlier study indicate that while students are generally aware of community-based sex education programs and confirm they learn this subject at school within the life sciences curriculum, students are not educated on this topic until well past the start of puberty (3). Sex education in schools begins around the age of 14 and many adolescents are not exposed to accurate sexual and reproductive health knowledge prior to this. Students learn the basics of sexual and reproductive health and are encouraged to participate in community-based programs (e.g., *My Future is My Choice*) to further their knowledge of the topic (3). Sex education tends to be delivered by life skills teachers, who receive their training participating in several short courses. While the training appears to be effective, few teachers actually attend the courses and are thus often unable to answer students' questions during class (6). In addition, the content of sex education programs often suggests that young mothers are to blame for their circumstances. Healthcare workers have stated that sex education programs inadequately deal with teenage pregnancy, abortion, and rape, as well as marital sex, sex for economic reasons, and recreational sex (3).

Further findings indicate that due to the limited sexual and reproductive health information included in sex education programs, students are often encouraged to attend community-based programs at the local youth centre (3). Programs are often delivered by healthcare workers and go into further detail on menstruation, vulnerability to pregnancy, advantages and disadvantages of contraceptives and their correct use, and information on various STI. These programs explore sexual and reproductive health in more detail since school teachers may consider love, emotion, and masturbation to be uncomfortable topics that are beyond the scope of the syllabus (3). Unfortunately, most community-based programs require parental consent for children to participate, which many parents refuse to provide. In addition, resources and teaching materials that students can access independently are usually written in English; there is a lack of materials written in local languages and though the information provided is relevant, students may not understand the content appropriately (7). If sexual and reproductive health knowledge is not communicated directly to students, they are unlikely to ask adults their own questions and rely instead on friends' opinions and what they see in the media (8). In order to avoid the spread of misinformation, it is necessary for there to be effective sex education programs in schools.

### *Young People's Knowledge of Contraception*

In order to increase young people's access to contraceptives, it is important to not only facilitate physical access to contraception but also educate students on contraceptive options and address common misconceptions in order to encourage consistent use. While students learn about contraceptive use as part of their school's sex education program, they may be hesitant on which type of contraceptive to use or whether to use one at all. Cultural beliefs and gender norms may influence young people's perceptions of contraception, such as feeling peer pressure from friends that sexual experiences are more enjoyable without contraceptives or having difficulty negotiating contraceptive use with a partner (9). Students also lack comprehensive knowledge on the types of contraceptives available to them and tend to have better knowledge about short-term methods (e.g., condoms, emergency contraceptive pill) rather than long-term methods (e.g., intrauterine device, injections). While short-term methods are effective for protection from HIV, it is also important to increase awareness of more efficient, long-term contraception. In addition, potential side effects such as irregular menstruation and reduced fertility in girls who take oral contraceptive pills are reported by students as potential reasons for not using contraception. Nonetheless, most students have a positive attitude towards contraceptives and would consider using them in the future if they currently are not (10).

To facilitate young people's access to contraception, it is imperative to offer accessible options and create an engaging environment for students to discuss their thoughts on contraceptive use and address the hesitance they may feel. The current study assesses what in-school adolescents at risk of pregnancy in the Kavango regions of Namibia know about important sexual and reproductive health information.

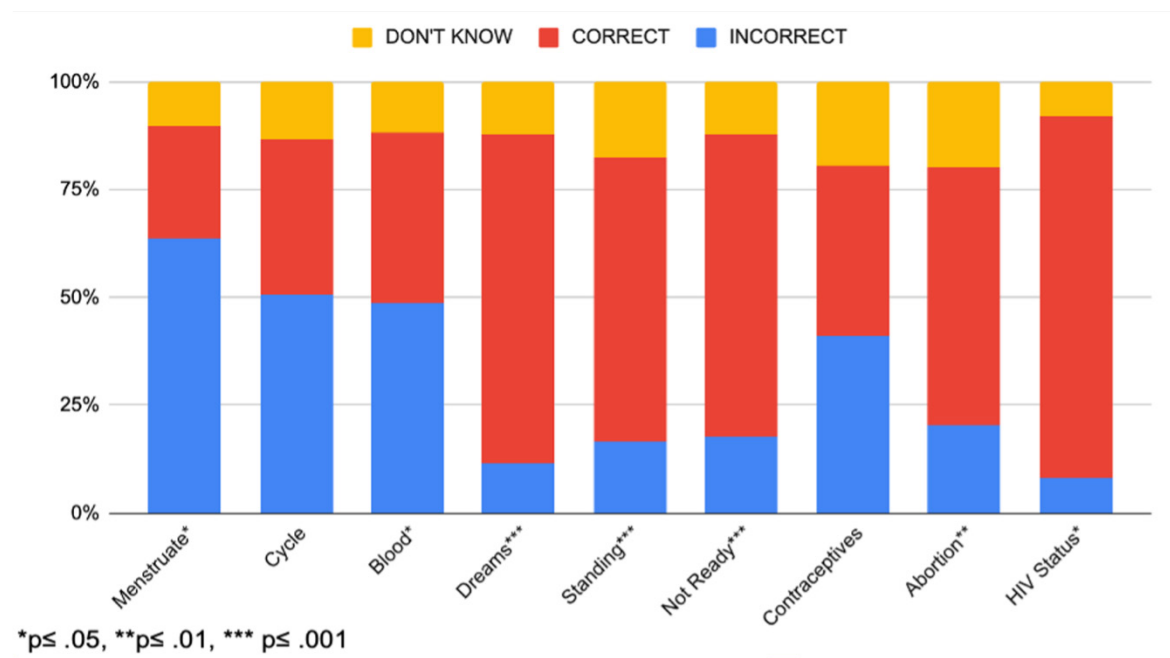
## **Methods**

### *Participants*

A total of 794 students aged 13-25 years (60% female, 40% male) from 13 schools in the Kavango East and West regions participated in a survey administered by OYO. The largest group of students were in grade 9 (about ⅓) and in grade 10 (about ¼). Participants were selected by School Administrators among those at higher risk of teenage pregnancy or forced marriage; 22% of participants reported having ever impregnated a girl or been pregnant.

### *Measure & Procedure*

Ethics approval for analysis of data collected by OYO was granted by the Institutional Review Board of the McGill Faculty of Medicine and Health Sciences. No



**Figure 1.** Sexual and reproductive health knowledge of adolescent students (n = 794), and significant differences by sex (p < .05).

compensation was given to study participants other than the opportunity to take part in the free school-based OYO sex education program. Once informed consent was obtained from school principals (in loco parentis) and young people, five trained OYO facilitators distributed physical copies of a questionnaire at 13 different schools between May-September 2021. The survey included four items relating to demographic characteristics, True or False sexual and reproductive health statements, listing up to six contraceptives they were familiar with, and two closed-ended questions about school policies on student pregnancy. Facilitators assigned respondents a unique identification code to preserve confidentiality before sharing data with researchers for entry and analysis.

### Data Analysis

Descriptive statistics and Chi-square tests were calculated on sample characteristics, sexual and reproductive health knowledge responses, and contraceptives listed, assessing participants' baseline knowledge. Participants responded to nine health knowledge statements with whether they believed the statement was true, false or if they did not know the answer. The true and false responses were then translated to whether the answer was correct or incorrect. Significant differences in health knowledge by sex are denoted with p-values. Contraceptives listed were grouped into eleven main categories and percentage of mention among participants was calculated. All analyses were run on SPSS v.27 (IBM Corporation, 2020). Statistical significance was established at a level of 0.05. No imputation was used

since there was less than 3% missing data in any single sexual and reproductive health knowledge statement variable.

## Results

### Sexual and Reproductive Health Knowledge

Significant differences in knowledge were documented among participants in a range of health statements (Figure 1). The largest misunderstandings were recorded for statements concerning girls' experience with menstruation: Girls always start to menstruate when they are 13 years old (63% incorrect); All girls have a menstruation cycle of 28 days (49% incorrect); Menstruation blood is dirty blood (48% incorrect). Though misinformation did persist in other areas, participants were generally knowledgeable of the listed experiences: After puberty boys can have wet dreams; You cannot get pregnant if you have sex standing up; Having sex even though you are not ready will make your boyfriend/girlfriend love you more; If you are 14 or older you can access contraceptives on your own without your parents (True); Abortion is illegal in Namibia except under specific circumstances such as rape (True); If you are pregnant, you must know your HIV status to protect your child and access PMTCT (True). Some participants were aware of the Prevention of Mother to Child Transmission program (30%), though there were still participants who responded with another option (6%) or did not know the answer (11%). About half of the participants did not provide an answer (53%).

### Familiarity with Contraceptives

The frequency of contraceptives listed by participants was assessed to determine which method of contraception participants were most aware of. While several different types of contraceptives were listed, 31% of participants named no contraceptives at all. The following contraceptives were listed the most frequently, in order: male condom (58%); birth control pill (53%); injections (49%); female condom (38%); withdrawal (27%); intrauterine device (24%); rhythm method (22%); implants (18%); emergency contraceptive pill (17%); tubal ligation (14%); other (9%) (Figure 2).

### School Policies on Student Pregnancy

Participants were also assessed on their knowledge of the responsibilities of young parents experiencing pregnancy. Most participants were aware of the school policy regarding the boy who impregnates the girl, such that they may continue with school uninterrupted but are encouraged to seek counselling (67% correct, 19% incorrect, 14% no answer). Participants were more uncertain about the school policy surrounding the girl who is pregnant, such that they may continue at school for the first 8 months of the pregnancy and return 2 months after giving birth if someone can look after the child. About half of the participants were aware of this policy (49% correct), however, there were still about half of participants who were unaware of the current policy (34% incorrect, 17% no answer).

## Discussion

Students' knowledge on sexual and reproductive health was limited, particularly regarding girls' experience with menstruation. These findings are in line with previous research from sub-Saharan Africa that has observed that

knowledge of HIV is much higher across adolescents than knowledge of menstruation and other STI (11). Due to the higher impact of HIV on morbidity and its more prominent visibility in households and the community, adolescents tend to retain the most information in their life sciences curriculum about HIV. Early sex education programs were developed to prevent the rapid transmission of HIV and current programs still tend to focus disproportionately on HIV compared to other topics (2). Consequently, many adolescents lack comprehensive knowledge of sexual and reproductive health across its various dimensions.

In the current study, about half of the participants answered incorrectly to each of the three knowledge statements concerning menstruation. While participants' knowledge of puberty and STI were higher, significant misconceptions persist in other areas. For example, nearly one-fifth agreed with the knowledge statement that you cannot get pregnant if you have sex standing up, while a similar proportion responded that they did not know the answer. In addition, based on those who responded incorrectly or selected that they did not know the answer, over half of participants appeared to be misinformed or unaware that from 14 years old, youth in Namibia can access contraceptives without parental permission. These findings offer important implications for the high rates of teenage pregnancies occurring in Namibia; youth may not use contraception during certain sexual experiences, or they may be unaware that they can procure contraception due to a lack of accessible options. Previous research has similarly found that adolescents may have good knowledge of contraception but poor knowledge of the likelihood of pregnancy from sexual intercourse (12). In line with the current study, many participants reported familiarity with multiple methods of contraception (the most cited being male condoms, birth control pills, and injections), yet nearly one-third of participants did not name any contraceptives.

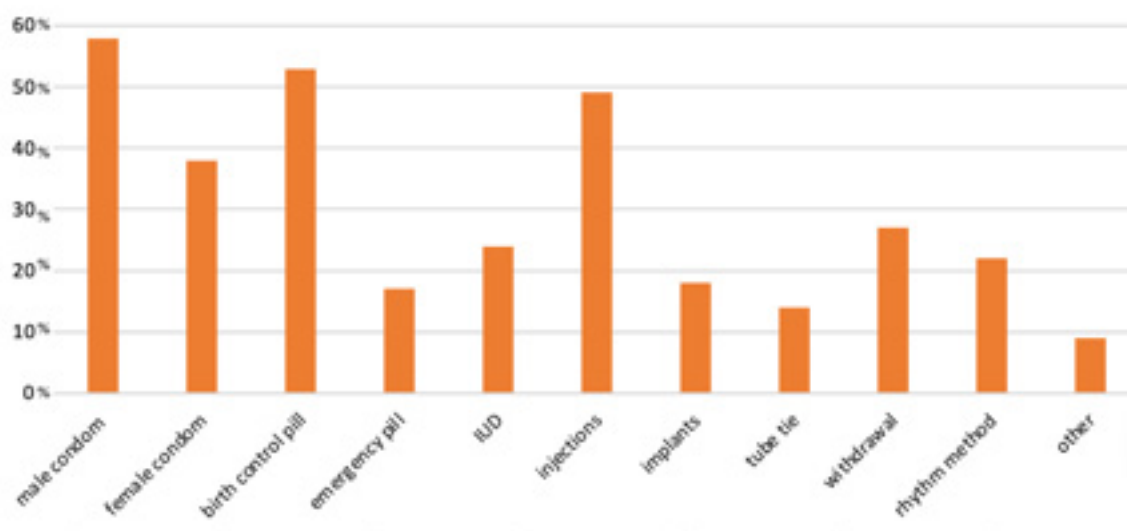


Figure 2. Percentage of contraceptives listed by survey respondents (n = 794)



Based on the information provided in the pre-intervention survey, misinformation about sexual and reproductive health knowledge among youth in Northern Namibia persists.

Recent research on sub-Saharan Africa has observed that adolescents receive most of their information about contraceptives from the media or peers, allowing persistent myths regarding the effectiveness and side effects of contraception to impede access and demand (4). Students' knowledge on sexual and reproductive health and access to contraceptives in the current study was limited, suggesting that programs like the educational magazine and intervention administered by OYO after the baseline survey may be necessary to disseminate this crucial information. Ideally, health services should be offered in schools and adolescent empowerment programs can be established to facilitate open communication (12). Encouraging comprehensive sexual and reproductive health resources within schools is especially important, as level of education is positively associated with higher contraceptive use among young people and partially informs the effectiveness of school-based interventions (4). Since providing more thorough and accurate services is often not permitted in schools due to a lack of parental support, when this occurs, sexual and reproductive health services in the community must be youth-friendly, accessible, and affordable (5). Encouraging condom use is particularly important as it is the only contraceptive that prevents both pregnancy and HIV. Additionally, interventions that involve condom distribution appear to be effective in increasing students' self-reported condom use (13).

The sex education curriculum implemented in schools tends to emphasize medical facts and potential negative consequences of sexual experiences, instead of discussing its many nuances. When teachers use this method, young people are dissuaded from learning more, and as a result, their questions and concerns surrounding contraception are rarely addressed (10). By tailoring sex education programs to young people's needs and addressing the challenges they face in accessing sexual and reproductive health services, misconceptions can be addressed by teachers early on (9). Building on the findings presented in the current study, future research will assess the effectiveness of the school-based OYO intervention in promoting knowledge of safe sexual behaviours.

## Conclusion

The current study provides important insight into the present state of sexual and reproductive health knowledge among adolescent students in Northern Namibia and offers possible ways to improve student outcomes. In order to reduce high rates of teenage pregnancy, particularly among at-risk populations in the regions of Kavango East and West, effective and engaging programs are needed to communicate

important health knowledge from a young age. The baseline sexual and reproductive health knowledge assessed, and the subsequent evaluation of intervention effectiveness will contribute to implementing sex education programs in schools across the region.

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