# An analysis of sexual and reproductive health education and outcomes in Maunatlala, Botswana

by
Madison Paige Cowles

A THESIS

submitted to

Oregon State University

Honors College

in partial fulfillment of
the requirements for the
degree of

Honors Baccalaureate of Science in Nutrition
(Honors Scholar)

Presented March 10, 2021
Commencement June 2021

# AN ABSTRACT OF THE THESIS OF

Madison Paige Cowles for the degree of Honors Baccalaureate of Science in Nutrition presented on March 10, 2021. Title: An analysis of sexual and reproductive health education and outcomes in Maunatlala, Botswana
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Abstract approved: _____

Sunil Khanna

As part of the 2019 Botswana Global Health Internship Program, a qualitative study was conducted to identify the components key to the development of a comprehensive sexual and reproductive health education program to be implemented at the Junior Secondary School in Maunatlala, Botswana. The study was based on the principles of Community Based Participatory Research and in-depth interviews and focus group discussions were conducted with key stakeholders in the community over a three-week period. The purpose of this study was to develop a program able to provide youth in the community with information that is both scientifically accurate and culturally relevant in order to reduce adverse sexual and reproductive health trends and address the high prevalence of HIV/AIDS. Youth in the Maunatlala community are particularly vulnerable to adverse sexual and reproductive health outcomes, largely as a result of limited and misinformation on sexual and reproductive health topics. For that reason, recommendations were made to implement the developed sexual and reproductive health curriculum at the Mauntalala Junior Secondary School, recruit a full-time school-based nurse to directly support students, and establish youth-friendly services at the local clinic. These recommendations were submitted in a formal report to both the country's Ministry of Health and Wellness and Ministry of Youth Empowerment, Sport and Culture Development.

Key Words: Botswana, Maunatlala, Botswana Global Health Internship Program, Sexual and reproductive health, HIV/AIDS

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

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Madison Paige Cowles, Author

**Introduction:**

Adverse sexual and reproductive health outcomes are a prevalent problem on a global scale, with unintended pregnancies, sexually transmitted infections, maternal morbidity and mortality, and gender-based violence prominent issues in much of the world. With a population of 2.3 million, yet the fourth highest prevalence rate of HIV/AIDS globally, Botswana is no exception, and such issues are pervasive throughout the nation (UNAIDS, 2019).

Gaining independence in the year 1966, Botswana was one of the poorest countries in the world at the time. However, the country quickly achieved rapid economic growth largely attributable to the mining of diamonds and other mineral resources. Between 1970 and 2000, Botswana experienced economic growth of 7.5% annually (Togo & Wada, 2008) and has long been touted as one of the most stable democracies in Africa (Avert, 2020).

Despite such successes, Botswana has faced a number of large-scale health challenges and has been one of the most affected countries with respect to HIV/AIDS in the world. The first case of HIV was diagnosed in the country in 1985. By the year 2000, the number of individuals suffering from HIV/AIDS had increased exorbitantly, with a disease prevalence rate of 26.3% in the total population. Youth are one demographic that has been disproportionately affected by this health challenge, and it was estimated in 2000 that a fifteen-year-old had more than a 50% chance of suffering an AIDS related illness and dying (Avert, 2020).

In response to this high burden of disease, a number of programs were introduced by the country's government in an effort to combat the HIV crisis. The National AIDS Coordinating Agency was developed in 1999 as a way to facilitate and coordinate the national response to HIV/AIDS in the country. This initial response included free counseling and testing services at

government health facilities; however, these services were significantly underutilized due to both a lack of access and societal stigma. Additionally, in 1999, administration of azidothymidine (AZT) was implemented on a national level in order to prevent mother to child transmission of HIV. However, while this service was offered free to mothers during pregnancy and delivery, it was not available following delivery, which resulted in the sole focus of the program becoming child protection and many HIV-positive mothers not surviving (Ramogola-Masire et al., 2020).

In 2002, Botswana became the first country in the area to provide universal antiretroviral treatment to those living with HIV, implementing a national HIV/AIDS treatment program in which free antiretroviral therapy was provided to all qualifying citizens. This resulted in a dramatic change in the number of patients receiving such treatment, shifting from approximately only 3500 patients in 2002 to 201,822 patients by the end of 2012 (Farahani et al., 2013). Analyses of the program have shown both improved survival and quality of life for HIV-positive individuals receiving this care. However, high rates of attrition across the care continuum leave HIV as a leading health problem in Botswana (Farahani et al., 2016), with the prevalence remaining at 20.7% of the total population as of 2019 (UNAIDS, 2019).

As previously mentioned, the youth of Botswana are disproportionately affected by sexual and reproductive health issues as compared to other populations. They face a number of unique challenges in maintaining proper sexual and reproductive health, largely stemming from lacking knowledge of such topics as a result of limited and misinformation in the community. While this leaves youth particularly vulnerable to unfavorable sexual and reproductive health outcomes, it also makes this population an optimal point for intervention.

Comprehensive sexual and reproductive health education is a mechanism by which such intervention may occur. This education aims to provide youth with sexual and reproductive health information that is both scientifically accurate and realistic, with goals of reducing their vulnerability to adverse outcomes while simultaneously empowering them in order to improve overall wellbeing and reverse negative health trends, specifically the HIV/AIDS epidemic.

## Methods:

Building upon the collaboratively developed needs assessment performed in 2017 by the Botswana Global Health Internship Program, the goal of this study was to identify the components key to development of a comprehensive sexual and reproductive health education program to be implemented at the Junior Secondary School in Maunatlala, Botswana. In order to achieve this, qualitative research was conducted based on the Sustainable Community Ownership, Partnership, and Empowerment (SCOPE) strategy, which is an extended form of Community-Based Participatory Research (CBPR). In such, community members are involved throughout the entirety of the research process. They both recognize the needs upon which they would like research focus to be directed within their community and maintain involvement throughout all decision-making. This builds a community partnership in which researchers and community members work collaboratively and learn from one another, empowering and improving capacity of those involved.

### Informed Consent:

In the initial stage of research, key community stakeholders were identified and recruited for participation in the project. These individuals were identified based on their ability and willingness to provide relevant and valuable insight to address the topics of interest while

representing a wide range of community perspectives and values. All study participants were required to be 18 years of age or older to be eligible.

Following participant identification and recruitment, researchers engaged with key community stakeholders for qualitative data collection by conducting both in-depth interviews and focus group discussions (FGD). Prior to any data collection, each participant was informed of the nature of the study and verbal consent was obtained. The in-depth interviews and focus group discussions consisted of researchers prompting participants with sets of open-ended questions, with various sets of questions used to best suit the study participant's role in the community. Conversations were allowed to flow freely and additional questions and topics were addressed on an ad hoc basis. Responses were recorded using both notetaking and audio recording. Data collection continued until researchers achieved concept saturation, the point at which new themes and patterns were no longer emerging.

Data Analysis:

After data had been collected, researchers proceeded with qualitative analysis of the information obtained. This began with the transcription of all audio files recorded throughout in-depth interviews and focus group discussions. The data was then cleaned, and irrelevant or unusable data was identified and subsequently removed. Completed transcriptions and supplemental field notes were then read through several times by members of the research team to facilitate more comprehensive understanding of and immersion into the data collected, as well as avoid confirmation bias and wrongful assumptions.

Clusters of data from each transcript were created and organized to group common emerging concepts. Preliminary codes were next established, with the initial codes used ‘a priori’ in nature, indicating that they were created based on the available literature and research objectives. Following the development of the preliminary codes, sub-codes were then established as further themes and concepts emerged. The coding of each transcript was reviewed and validated by at least one other researcher.

When coding was complete, both the preliminary codes and sub-codes were grouped into common categories. These categories served as the themes of the research, which represented the major perspectives of the community sample surveyed, as well as considerations for potential core elements of the sexual and reproductive health education program.

Being that the dissemination of research findings is a key component of the SCOPE strategy, details of the research process and preliminary findings, along with training information pertinent to the implementation of the program, were shared with a number of groups throughout Botswana. Such groups included community members throughout Maunatlala, as well as government entities such as the Ministry of Youth Empowerment, Sport and Culture Development and the Ministry of Health and Wellness. Feedback was sought from such groups and incorporated throughout final program development to consider insight from all stakeholders. Since then, findings have been disseminated to a number of other audiences, both academic and non-academic.

## **Results:**

Participant Characteristics:

There were thirty-five total individuals from the Maunatlala community that agreed to participate

in the project. Participants completed either an in-depth interview or took part in a focus group discussion. Those who participated in an in-depth interview included seven parents, six health professionals, four youth group members, and two government officials. Two focus group discussions were completed, with a separate group held for women and for men. All participants were eighteen years of age and older and members of the Maunatlala community. Although some of the patient-participants were individuals who stay in Palapye, they visit the Maunatlala clinic regularly to receive antiretroviral therapy as they have a medical history established with the clinic. Study participants were asked open-ended questions related to knowledge of sexual and reproductive health in children who are between the ages of ten and fifteen years.

SRH-Related Themes:

Analysis of coded transcripts revealed four major themes. These themes included:

1. Sexual and reproductive health knowledge
2. Puberty and anatomical/physiological knowledge
3. Social issues
4. Gender-based violence

Each of these themes, as well as the sub-themes that emerged, will be detailed below.

Theme 1: Sexual and reproductive health knowledge

*1.1 Sexual and reproductive health risks: STIs and HIV/AIDS*

Most individuals interviewed explained that education on STIs is critical to include in a sexual and reproductive health education program. STIs are a pervasive issue throughout Botswana, with the country having the fourth highest prevalence rate of HIV/AIDS in the world. A father in the community described this issue by explaining that “most of the people are worried because

families are finished because of HIV and other STIs." In addition, another parent explained inclusion of this topic as "very important because these days we are experiencing a very big problem when it comes to STDs in this area here. So many patients of STDs." While there are condoms that are available for free at the local clinic, many people are hesitant to utilize this resource as it lacks privacy, with the condoms located in the center of the waiting room, which is an open area filled with a number of community members who are familiar with one another. One youth group representative described this issue by articulating that "if you go to clinic now you will find a box there of condoms and you will find out the youth are ashamed to take condoms in front of elders sitting there." Another community member suggested that even when other forms of birth control and family planning are being utilized, youth still must be educated on the importance of using condoms for the prevention of STIs, including HIV/AIDS. This individual described the situation by explaining that "they are using implant and pills, and when they are using those things they forget about HIV/AIDS they don't take care of themselves and do not use condoms." In order to combat such issues, one healthcare worker suggested that "we need a youth friendly clinic or youth friendly services at the clinic that are just for youth. This will promote privacy." This idea was echoed by a number of other individuals in the community, including youth leaders.

*2.1 Sexual and reproductive health risks: Teenage Pregnancy*

There were sixteen cases of teenage pregnancy in Maunatlala between 2017 and 2018. Study participants described teenage pregnancy as a major concern. A healthcare worker stated that "I believe that the topic of teenage pregnancy is the most important topic as it is on the rise in the community." It was articulated by one mother in the community that such cases of teenage pregnancy may be attributable to lacking knowledge on the subject secondary to cultural norms,

explaining that “nowadays in our country we find that a young girl having a child, having a child at the age of 15 is a problem because, it’s because of lack of knowledge because currently in our culture you can’t say anything about sex with a young child as a parent.” One negative outcome associated with teenage pregnancy has been the high dropout rate among teenagers. There was a consensus amongst study participants that the majority of youth in the community become sexually active between the ages of thirteen and sixteen. However, it was suggested by a healthcare worker that some youth may become sexually active as early as ten years old. In addition, one healthcare worker expressed concern for the physiological dangers of pregnancy at a young age, articulating that “when they get pregnant while they are still young, the body will not be ready to carry that baby even when they deliver it will be tough for them to deliver, sometimes a mother can die when she delivers or the infant will die, because that path will not be big enough to take out the baby.” It was determined that trends of engaging in sexual activity at an early age combined with lacking knowledge of safe sexual health practices contribute to the undesirable rate of teenage pregnancy within the Maunatlala community.

*1.3 Sexual and reproductive health risks: Use of Contraceptives*

Stakeholders reported the use of a number of different contraceptives within the community. One healthcare worker described that when providing contraceptive options to an individual “I will tell them about the condom use and other contraceptives like the pills, IUCD, we have the implant, we have the injection which is Depo-Provera in Botswana.” Many female participants suggested that they have used Implanon (a long-acting, reversible, hormonal contraceptive), which is a thin rod inserted under the skin of the upper arm. However, many study participants were not informed as to how this contraceptive works. One older woman in the community

expressed the belief that this form of birth control injects male hormones into the body to make an individual more like a man. Similar fears and perceptions were expressed by several participants in regard to a wide range of birth control options, with misconceptions and lacking knowledge on how common birth control methods work emerging as a common theme throughout the duration of the study. It is such misconceptions that are believed to lead to both low uptake of contraceptives and fear of their side effects. One healthcare worker in the community spoke to the issue by explaining that "some they take and some they are saying (men) their partners. males… they say that they are killing us. Because they are taking tablets… my kidneys will be destroyed. They don't allow their partners to take them. Even them… the women they have a belief that there are side effects. If they have seen somebody or if they had heard somebody saying that "I was using depo Provera the injection… I took it for a long time. I did not get my periods for a long time. Either it took time, or it can come and go in two weeks. Periods are mostly on and off and sometimes there are just some drops." So, they don't take it because they believe that even they can have this problem. Some they take and some they won't take. They won't use them." Based on these findings, improving knowledge of contraceptive options and how they work would increase their uptake and thereby positively impact sexual and reproductive health within the community.

*1.4 Inability to Freely Discuss Sexual and Reproductive Health Topics*

Cultural taboos related to the discussion of sexual and reproductive health topics was another theme that consistently emerged throughout the study. It was reported by a number of participants that parents often do not speak with their children about sexual and reproductive health. One mother in the community emphasized that "usually here the parents don't talk about these things with their children. They directly say that I don't want to talk about these things to

my children." However, it was also articulated by a number of participants that it is important for parents to be involved in the process of teaching their children about sexual and reproductive health. It was explained by one male community member that "in our culture, children are afraid to ask such questions to their parents. But it's better that the parents call their children and teach them about such things. But right parents don't talk to their children about these topics." In addition, a mother from the women's focus group described, "in our culture you just, you just see yourself growing breasts and menstruating. No one will tell you that this ... something like this is going to happen. Most of them were crying, they thought they were sick because no one told them to expect that."

In contrast, it was consistently suggested by healthcare workers that they are comfortable discussing sexual and reproductive health topics with youth. One healthcare worker expressed that "I love these topics and I love talking about this information to the youth and I discovered that they relate well to me." Despite this, it became clear that cultural taboos still exert impacts on this group, with another healthcare worker expressing that "we cannot talk about it to our family, but we can talk about it only at the clinic as a health worker."

It became clear throughout the study that there is a balance to be achieved between the importance of teaching children about sexual and reproductive health topics and cultural pressures to behave in an appropriate and accepted manner. This was expressed by a father in the men's focus group when he explained that "the children are going to do what you are doing. They learn from their parents. Most important part is our culture. So, in our culture, there are things that are not good. So, we must teach our children about what is good and what is not

good." Another parent expressed similar ideas, stating that "what is important nowadays, parents must teach their children at home, because in Botswana, our culture, you can't talk with the child something like sex. But these days every parent must teach his kids about sex."

Such perceptions highlight the importance of communication between parents and children when it comes to sexual and reproductive health. This is especially the case as failure to do so may lead to the spread of HIV. It was explained by one father that "[Some children] they are born from HIV/AIDS. So, when they are having sex without knowing they will affect others. Others they will be infected because they don't know, they don't have knowledge, they are not taught about these things." This emphasizes that many children may not be fully informed about sexual risks and may engage in sexual activity without fully knowing that they are doing. This is further exacerbated by the fact that some children in the country are born with HIV due to the high prevalence rate in Botswana, and thus may spread it unknowingly if they are not adequately educated about sexual health and HIV.

Theme 2: Puberty and anatomical/physiological knowledge

*2.1 General Knowledge About Reproductive System, Puberty, and Pregnancy*

Multiple participants in the study communicated that youth lack knowledge about puberty. It was reported by a number of participants that during puberty there are many youth who are unaware of what is happening to their bodies and become fearful as they think that something is wrong with them, especially young girls when they begin menstruating. One healthcare worker described this situation by commenting that "children in the village are not taught about puberty. When they attain puberty, they feel that there is something wrong happening with their body. They fail, and they lose confidence. There is a lot of stigma around menstrual hygiene in the

Maunatlala community." This unpreparedness and unawareness of what is happening to their bodies is largely the result of these youth lacking basic knowledge concerning reproductive systems, puberty, and pregnancy.

In addition to lacking knowledge about puberty, there was an agreement amongst community stakeholders that children should be taught about puberty at an earlier age. One parent explained that "according to our culture it used to be a hidden thing for a child to know all these things, so we talk about teenage puberty whenever culture-wise it used to be like you have to grow first to a certain age to know all these things, now things have changed and we need to know things as early as possible." This idea was supported by several other parents in the community, who stated that children should be taught about puberty and other sexual and reproductive health topics at as early of an age as possible, even as soon as five to six years of age.

Another common theme that emerged is that there are currently many obstacles to freely discussing and maintaining menstrual hygiene. Menstruation is still considered to be a very taboo subject in the Maunatlala community, leading to limited discussion and education on the topic and thereby further perpetuating stigma. This lack of knowledge, in addition to the lack of sanitary products available to teenage girls, results in many of them dropping out of school at the point at which they reach puberty. This thereby creates a cycle that further decreases the level of sexual and reproductive health knowledge amongst this demographic.

The need for education on pregnancy was another important theme that emerged. Misconceptions about pregnancy are prevalent throughout the community and were addressed by a number of stakeholders. Teachers at the Junior Secondary School shared several common misconceptions, which included beliefs that "having sex once cannot make someone pregnant,"

as well as that “pregnancy cannot occur before a girl starts menstruating.” It is due to such misconceptions that stakeholder groups suggested that comprehensive sexual and reproductive health education include information pertaining to topics such as pregnancy, child development, childbearing, menstruation, and family planning methods.

Finally, the need to promote antenatal care was identified as an important topic to be addressed. It was iterated by several healthcare workers that it is common that the first time that clinical staff see a woman during her pregnancy is shortly before she is about to give birth or during the time at which the birthing process has already begun. Although the use of antenatal care has been promoted by the clinic in the last year and utilization of this resource has improved, community stakeholders have identified the ongoing need for education on the importance of such care in order to continue and build on this positive trend. Antenatal care has been encouraged by the clinic due to its limited space for deliveries, along with the benefit of determining potential complications associated with a pregnancy prior to delivery, allowing the woman to be transported to the hospital and receive care to address difficulties as needed. The importance of this care for teenage pregnancies in particular was mentioned by one healthcare worker, who explained that “even when a teenager is having a baby, we encourage them to deliver the baby at the hospital and not at the clinic. We are trying to avoid what can happen because they are still young.”

Theme 3: Social issues

*3.1 Alcohol and Drug Abuse*

The use and abuse of alcohol and other substances by youth in the community was identified as a

major issue. There are a number of reasons that youth in the community begin to drink, including peer pressure, unemployment, or because of "sugar moms" and "sugar dads."

It was shared by participants in the men's focus group discussion that it is the responsibility of the woman to ensure that men are using condoms before sexual intercourse. This is because they believe that men are unable to make correct decisions when they are drunk, which can promote the spread of STIs and HIV/AIDS, among other adverse health events. One man explained that "most of them they are getting these diseases HIV/AIDS and STIs at the bars when they are drunk, they have alcohol and then they are drunk. If you take her around the corner and take (have sex) different men without a condom, is where they get HIV/AIDS," highlighting observations that alcohol use and abuse in the community leads to risky sexual behavior and negative health outcomes.

As for the female condom, there was determined to be significantly less awareness about this contraceptive method as compared to others. It was stated by one male community member that "another thing is the woman condom. I think they waste money in our country because the women don't use it. So, this one is a waste of money," demonstrating that most women in the Maunatlala community do not elect to use the female condom. Contraceptives such as Depo Provera injections, the implant, the IUCD, and birth control pills were described by a number of community members as more popular for women. However, it was articulated by one father that it is important that females be taught that such methods will not prevent them from contracting HIV/AIDS and other STIs.

It is important to recognize that alcohol abuse is closely associated with gender-based violence in the Maunatlala community. Several participants reported that alcohol abuse by men leads to

domestic violence toward spouses and children, especially as it is common for men not to fulfill their family responsibilities and instead take their money to the bars to use alcohol. A participant in the women's focus group discussion described the issue, saying that "so many women, suffering in their marriages. You will find that a woman is married, but her husband is not taking care of their family, even if he is working. He's working, *unclear*, taking money to the bar, and after the bar he is coming home to beat the wife and children in the house."

*3.2 Lack of Parental Involvement*

As a result of previously mentioned cultural norms, parents in the Maunatlala community are not significantly involved in discussing sexual and reproductive health issues, including teenage pregnancy, STIs, and HIV/AIDS, with their children. Mothers are primarily responsible for educating their daughters on sexual and reproductive health topics and preparing them for puberty. However, it was described by one female community member that during such discussions, mothers prefer to tell their daughters that once they reach puberty they should stay inside and otherwise avoid boys. She explained that "they will just tell you if you see a boy you run, they wouldn't even tell you that if you sleep or if you have sexual intercourse, they will just say that if you see a boy you run." Fathers were reported to have little to no involvement in these conversations.

Throughout the focus group discussions conducted, participants were strong supporters of both mothers and fathers being involved in discussion of sexual and reproductive health issues with their children. There was an agreement that there is a need for fathers to take charge and talk to their children about such topics. In addition, participants advocated for the education and training of fathers in the physical development of their daughters so that they will feel more comfortable

speaking with them about this. One woman articulated this idea, saying that “fathers should be involved. They should I think find time. The father should be taught about the development that their daughters go through and they should know that this is not for the women only. They should find time to talk to their daughters. They should talk freely so that their daughters also feel free to share their problem with their fathers.”

There are many cases in which grandparents are involved in the raising of children in the community. However, problems similar to those identified with parental communication were addressed. One mother who spoke to this issue expressed that “if they go to their grandmother, they will not say anything to the children. They will just say that it is late, come and sleep. They don’t know for what.” It was expressed by a number of participants that just like parents, grandparents are shy about such topics and hesitate to discuss these matters with their grandchildren, as they do not feel comfortable speaking freely about issues such as puberty, STIs and HIV/AIDS, and teenage pregnancy.

Theme 4: Gender-based violence

Gender-based violence was another common theme to emerge throughout the duration of the study. The suffering of women in the community in their marriages was brought up by several of the women who took part in the women’s focus group discussion. It was determined that many of the women who experience gender-based violence carry a responsibility for providing financial resources to help support the household, with the men spending much of their income on alcohol and other substances. This often creates a situation in which the men in the household are abusing alcohol and other substances and serves as a major cause of the abuse towards women in the community. One woman in the study explained the circumstances for women by

stating that “a woman might be suffering, but she may not be free to tell others that she has so and so problems. She is afraid to tell. If that man hears that she said this, he’s going to kill her. It’s better for the woman to hide it.” For such reasons, it was advocated by the majority of participants in the study that strategies to both prevent and address gender-based violence in the community be developed as part of the proposed comprehensive sexual and reproductive health education program.

**Recommendations:**

Based on the findings of the study, several recommendations were made and presented to the Maunatlala community and both the Botswana Ministry of Health and Wellness and Ministry of Youth Empowerment, Sport and Culture Development.

The first recommendation made is that the comprehensive sexual and reproductive health education curriculum developed be implemented at the Maunatlala Junior Secondary School. This will be done in an effort to facilitate improved student understanding of sexual and reproductive health topics. Such education would benefit students by enhancing understanding of the human body and development, sexual and reproductive rights, availability and access to health services, and social norms pertaining to gender and relational communication. Goals of the program include promoting the formation of positive interpersonal relationships and preventing negative sexual and reproductive health outcomes such as STI transmission and teenage pregnancy. It is important to acknowledge that while there is a sexual and reproductive health education program currently being utilized at the Maunatlala Junior Secondary School that provides students with valuable information on a number of sexual and reproductive health topics, observations have made it clear that knowledge gaps and misconceptions concerning such

topics persist. It is due to this that the implementation of a more comprehensive curriculum is recommended, as it is expected to benefit the overall health and wellness of not only the secondary school students but the community at large.

This comprehensive curriculum will be comprised of three sections, with each promoting a different educational focus.

**Section I: Who am I?**

Section I will address topics such as personal, family, and community values, communication, adolescent development, sexuality, reproductive anatomy and physiology, and harmful traditional practices.

**Section II: Where am I going?**

Section II will address topics such as gender roles, gender equity, forming healthy relationships, and identifying and responding to both positive and negative peer pressure.

**Section III: How am I going to get there?**

Section III will address topics such as teenage pregnancy, sexually transmitted infections, HIV/AIDS, alcohol and substance abuse, family planning, and sexual and reproductive rights.

The SCOPE strategy will be utilized to identify and train student leaders to aid in implementation of the comprehensive sexual and reproductive health education program. The goal of doing so is that these student leaders will serve as both educators and role models for their peers, allowing them to act locally to achieve both successful and effective program implementation and shift normative views related to sexual and reproductive health that are currently pervasive within the community. In addition to these student leaders, a modified version of the curriculum will be used to educate parents on how best to communicate with youth

in their families about sexual and reproductive health issues. To accomplish this, parent leaders will be identified and trained in a manner similar to the peer leaders to allow them to spread educational information amongst parents in the community. Parent leaders will initially be recruited from those of students at the Maunatlala Junior Secondary School. These positions will subsequently be made available to other key stakeholders within the community.

The second recommendation made is that a full-time school-based nurse be recruited. This individual would directly support students regarding sexual and reproductive health issues and be available to them at all times. There is currently a nurse from the Maunatlala clinic that works with students at the Junior Secondary School, however, they have little time to spend there as a result of their other responsibilities at the clinic. It is thus recommended that a full-time school-based nurse be hired as the current part-time situation is not adequately able to meet the health care needs of students at the school. Doing so would aid in reducing negative sexual and reproductive health outcomes, as the nurse would be able to identify student needs in a proactive manner and address such needs with timely, accurate, and youth-friendly information and care.

The third and final recommendation made is that youth-friendly services be established at the Maunatlala clinic. These services would allow youth in the community to access sexual and reproductive health education and resources in an appropriate and private setting, as well as permit the needs of youth, including physical, psychological, emotional, and developmental, to be addressed and met in a comfortable space. In addition, such services would make it possible for youth in the community to seek both education and treatment in a confidential environment where they feel safe enough to ask questions and acquire help, with such an environment free from interactions that may carry judgement or further perpetuate harmful stigmas. This

recommendation is made based on the direct link between the availability and access to health services and the reduction in negative sexual and reproductive health outcomes.

**Limitations:**

There were several potential limitations encountered throughout the conducting of this research. Firstly, language barriers posed difficulties in the presentation and understanding of interview questions for some participants. Although the national language of Botswana is English, many locals communicate largely in Setswana. For this reason, some stakeholders experienced challenges in comprehending the questions posed and subsequently responding. In addition, it was necessary to utilize a translator at times, which may have resulted in the nature of some of the interview questions being somewhat altered in the process. An important consideration for future work is that interview questions should be developed in a manner that they align with the literacy and vocabulary of the population of interest and are consistent with the community's culture.

An additional limitation is that despite the study aiming to assess the sexual and reproductive health of children ages ten to fifteen years, interviews were not conducted within this population and were instead held with adult stakeholders. This occurred as prior approval to conduct research on individuals under the age of eighteen was not obtained from the Institutional Review Board (IRB). Future work on this topic would benefit from the acquisition of this approval and yield better understanding of the target age group's perceptions of sexual and reproductive health education in the community.

A third limitation is that our study experienced significant time constraints. Due to the data collection period being only three weeks in length, the time available to conduct focus group

discussions was somewhat limited. Had the data collection period been longer, it is likely that a greater number of such discussions would have been held and supplemental data concerning group perspectives would have been obtained. Additionally, the time period during which data collection was held fell during the time in which local schools were on vacation, which meant that teachers had limited availability to meet for in-depth interviews and instead participated in the study through a written format using a questionnaire.

Finally, due to the sensitivity of sexual and reproductive health topics, the responses of study participants may have been impacted to an extent. Some sexual and reproductive health topics were difficult for individuals to discuss and some participants seemed hesitant to speak freely on certain issues. Continuing to prioritize building relationships with the Maunatlala community as this work progresses is essential to fostering more comfortable conversations on the topics of interest in future work.

**Conclusion:**

The comprehensive sexual and reproductive health education program proposed by Oregon State University students as part of the Botswana Global Health Internship Program attempts to both understand and address sexual and reproductive health education and outcomes in the community of Maunatlala. Development of the program involved integration of perceptions of key community stakeholders and consideration of social and cultural norms, with aims of reducing risk of HIV/AIDS and STIs, teenage pregnancy, and other adverse sexual and reproductive health outcomes, as well as increasing knowledge of sexual and reproductive health topics amongst members of the community.

Several recommendations were made to facilitate achievement of such goals. First, it was recommended that the comprehensive sexual and reproductive health education curriculum be implemented as a pilot program at the Maunatlala Junior Secondary School, with both student leaders and parent leaders trained to help disseminate information pertinent to sexual and reproductive health topics at the local level. Next, it was recommended that a full-time school-based nurse be hired in order to directly support students at all times, addressing needs in a proactive manner with appropriate information and care. Finally, it was recommended that youth-friendly services be established at the local clinic to allow youth to access sexual and reproductive health education and resources in a confidential and comfortable space. Future work will involve implementation of the developed pilot program at the Maunatlala Junior Secondary School, with evaluation of effectiveness occurring in subsequent years to assess potential for expansion of the program to the national level.

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