

# Factors Influencing Contraceptive Decision Making and Use Among Young Adolescents in Urban Lilongwe, Malawi: A Qualitative Study

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## Research

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# Abstract

**Background:** The prevalence of teenage pregnancies in Malawi is 29% and about 25% of married and 30% of unmarried adolescents (15-19) use contraceptives. Data on contraceptive use has focused on older adolescents (15-19) leaving out the young adolescents (10-14). This study assessed factors that influence contraceptive decision-making and use among young adolescents aged 10-14 years.

**Methods:** This was a qualitative study which used Theory of Reasoned Action (TRA) model to understand the processes that influence contraceptive decision making among young adolescents (10-14) in urban Lilongwe. The study was conducted in 6 youth health friendly service centers and in 12 youth clubs. Two focus group discussions and 26 in-depth interviews were conducted among sexually-active in and out of school young adolescents and key informants. The results are organized into themes identified during analysis.

**Results:** Results showed that contraceptive decision making is influenced by social factors (individual, interpersonal, society) and adolescents' perceptions regarding hormonal contraceptives. There is also disconnect between Education and adolescent Sexual and Reproductive Health policies.

**Conclusion:** The findings suggest the need for empowering girls in decision making, addressing myths around contraceptives, and harmonization of Education and Sexual and Reproductive Health policies in the country.

## Plain English Summary

There is limited data on modern family planning method use of young adolescents aged 10–14 compared to older adolescents aged 15–19 years. The study assessed factors that influence modern family planning method decision-making and use among young adolescents aged 10–14 years.

Theory of Reasoned Action model was applied to understand the processes that influence modern family planning method decision-making and use among young adolescents. The study was conducted in 6 youth health friendly services clinics and 12 youth clubs. We conducted 2 focus group discussions and 26 in-depth interviews. The study involved sexually-active, in and out of school young adolescents and influential decision makers in reproductive health. The results are presented in a narrative format using themes identified during analysis.

The study discovered that modern family planning method decision-making is influenced by social factors; hormonal side effects of modern family planning methods and improper linkage between Sexual and Reproductive Health Right and Education policies.

The findings suggest the need to empower girls in decision making. Address myths surrounding modern family planning methods. Then harmonize Sexual and Reproductive Health Right and Education Policies in the country.

# Background

Globally, the population of adolescents is estimated at 1.2 billion and half are very young adolescents (1). Adolescents are categorized in two groups; young adolescents (10–14) and older adolescents (15–19) (2). In 2016, 545 million of very young adolescents were from developing countries with 63% from Asia, 26% from Africa, 10% from Latin America and the Caribbean (1). In Malawi, one of the developing countries in sub-Saharan Africa, 40% of the total population are adolescents aged below 15 years according to Malawi Demographic Health Survey 2015–2016.

Studies conducted in developing and developed countries indicate that most adolescents face sexual and reproductive health problems as a result of risky sexual behaviors such as unprotected sexual intercourse (3–5). Unprotected sex put them at higher risk of getting unintended pregnancies, and sexually transmitted infections including human immunodeficiency virus (HIV) (5). Global estimates show that at the age of 17, adolescent girls are 5 times more likely to conceive if they do not use contraceptives compared to those who use contraceptives at their first sexual intercourse (6). Babies born to adolescent mothers are likely to be premature and of low birth weight (7). In addition, births among adolescent girls are often accompanied by obstetric complications such as fistula, uterine rupture, postpartum hemorrhage and preeclampsia (1). These complications contribute to high maternal morbidity and mortality and negative social economic outcomes among adolescent girls (1, 8, 9).

In Malawi, the prevalence of teenage pregnancy is at 29% (10) which has led to increased school drop-out whereby 25% of girls do not finish primary school education (9). Teenage pregnancy also leads to early marriages, and perpetual poverty (11–13). In view of these problems, contraception among this age group is important. Contraceptives prevent unintended pregnancies (14). Evidence shows that contraceptive use has risen among women of child bearing age in many countries. However, there was only a modest rise of 4.9% between 2008 and 2015 in Africa (7). Unmet need for contraception among women who want to delay or avoid pregnancy exists. Availability of contraceptives, and poor quality of services offered to young adolescents and young women in and out of school poses a challenge to reducing unmet need for contraception in the region (7).

In Malawi 25% of married and 30% of unmarried sexually active female adolescents (15–19) use contraception (15) (MDHS). There is, however, very limited evidence on contraceptive use among sexually active adolescents aged 10–14 years given that Demographic surveys usually do not include those below 15 years of age. The data on sexually active adolescents is prone to recall bias that might not give the true reflection of the situation since questions are asked retrospectively to those 15 years or older. In addition, the data does not include behavioral questions that can be used to explore contraceptive decision making. As a result, there is limited understanding of contraceptive decision-making processes and use among sexually active adolescents below the age of 15 years that can inform interventions to improve reproductive health outcomes among this age group hence this study.

The conceptual model underpinning this study has been developed from the Theory of Reasoned Action (TRA). The TRA describes the correlation between attitudes and behaviors towards human action and the

study looked at the perception of adolescents towards contraceptive decision making that leads to behavior change. It posits that social factors and beliefs contribute to behavior change (16). The conceptual model incorporates determinants (values, social influence, and supportive environment) and demographic background variables (age, sex, access, availability) as well as sexual behavior (sexually active, previous relationships) (17, 18). Decision-making is defined as a process where a number of considerations are reviewed before reaching a conclusion (18). In the study context, it is important to understand the decision maker's goal or value, knowledge of contraceptives and preferences regarding whether to initiate contraception or not. The process has multiple influences on health behaviors and outcomes. The process operates at individual, interpersonal, organizational and societal levels and influenced by the environment (19).

## **Methods**

This was a cross-sectional study that used qualitative-based design (in-depth interviews and focus group discussions) and aimed to understand contraceptive decision making and use among young adolescents aged 10-14 years. The study involved sexually active, in and out of school unmarried adolescents and key informants who were involved in decision-making regarding reproductive health.

### **Study Setting**

The study was conducted in central region of Malawi, in urban Lilongwe. Reports indicate that urban Lilongwe is often neglected by most of non-governmental organizations in implementing reproductive health interventions(20). The population of young adolescent (10-14) in Lilongwe District was 197,305 in 2018 while contraceptive prevalence among youth (10-24) 33%(10). The study was conducted in 6 Youth Friendly Health Service (YFHS) centers and 12 Youth Clubs (YCs) available in urban Lilongwe.

### **Study Population**

The study targeted sexually active young adolescent aged 10-14. In addition, key informants such as District Youth Coordinators, Plan International Representatives, Community Leaders, Teachers, Religious Leaders and Influential Community Members were included in order to triangulate their perspectives with those of young adolescents. Table 1 below, describes the characteristics of the participants interviewed.

### **Sample size**

Data was drawn from 26 interviews whereby 8 were key informants and 18 adolescents within the study setting and 2 focus group discussions (FGDs). This included 8 out of school unmarried adolescents, and 10 in school unmarried adolescents from 6 YFHSs and 12 YCs. A simple random sampling was used to get 12 YCs from 36 YCs available in urban Lilongwe. The study involved sexually active, in and out of school unmarried adolescents and key informants who were involved in decision-making regarding reproductive health. And excluded adolescents who were not sexually active and informants who were

not involved in decision-making. We defined sexually active adolescent as a person who have had an intimate relationship with a person of opposite sex (1) for a period longer than two weeks.

## **Data Collection**

Data was collected through in-depth interviews and focus group discussions. In-depth interviews took about 30-35 minutes per participant while FGDs took an average of 1 hour 10 minutes. All interviews were audio recorded. A semi-structured guide was used to understand age at which young adolescents had first sexual relationship, contraceptives use/method and the processes of contraceptives decision-making. Some of the questions that were used included:

- a) Would adolescents like to be an advocate of modern family planning methods to sexual active young adolescents? What about yourself?
- b) Do adolescents discuss issues pertaining sexuality and contraceptive use with their parents/guardians? Why?
- c) What do adolescents consider important before using modern family planning methods?

Tools were pre-tested and refined. Data was collected by the Principal Investigator and a research assistant for 3 months from 1<sup>st</sup> November, 2018 to 30<sup>th</sup> January, 2019. Data collection was done from 6 YFHS clinics and 12 YCs. Key informants were interviewed individually at an agreed location upon booking an appointment with them.

## **Data Analysis**

Recorded interviews were transcribed verbatim. The transcripts were then translated from local language (Chichewa) into English by the data collector. The transcripts were read several times to get the in depth meaning of the text. Codes were then developed and used to code the text. In cases where the written transcripts were not clear, the researcher referred to the audio recorder for verification. Themes were developed as they emerged during analysis based on whether they reflected the factors that influenced contraceptive decision making and use. Results are organized around themes and presented in a narrative format. Information from adolescents and key informants triangulated as a means of validating key findings of the study.

# **Results**

## **Young adolescents' perceptions regarding contraceptives**

Adolescents' perceptions towards contraceptive methods varied. For instance, positive perceptions were noted regarding use of condoms especially from female adolescents. Condoms were mentioned as the only method that can help adolescents to prevent pregnancy and sexually transmitted infections before marriage and they should be easily accessible and distributed for free. However, in male FGD, some

participants expressed dislike for use of other contraceptive methods. The general opinion was that contraceptives do not protect against sexual transmitted infections (STIs) but rather encourage promiscuity.

### **Beliefs, side effects and aspirations**

Most of the adolescents believed that contraceptives are meant for older people and not young adolescents. This view towards contraceptive use was mostly reported by female adolescents. Side effects of family planning methods were identified as the main barrier to contraceptive use hence influencing their decision to use modern contraceptive methods. In a female FGD, participants mentioned side effects of contraceptives, injectable and implants lead to missing of menses and heavy bleeding respectively hence leading to failure to adopt them. However, they were eager to know how best to prevent unintended pregnancy while at school without using hormonal contraceptives.

*"... a lady should be menstruating monthly, that means she is healthy but these family planning methods I hear that you do not have your menses. And I think implants are bad because when you are young they affect your menses, sometimes you skip some months without period and sometimes you have menses the whole month."(Female FGD)*

There was a general agreement among participants that unlike condoms, other forms of contraceptives (family planning methods) are for married couples. They reported that they would not make a decision to use contraceptives, especially long-term reversible contraceptives (LARC) like implants, until marriage. Proof of fertility was mentioned as a reason for delaying contraceptive use until marriage.

*"...family planning methods are used by married couples and adolescents prevent pregnancy by use of condoms or else abstain from having sex. That is what we are taught in youth clubs and schools respectively". (Males adolescents in school)*

### **Fears and Concerns regarding contraceptive use**

Most of female adolescents expressed fears towards use of hormonal contraceptive methods. The most cited example was the fear that contraceptive use might cause cancer. These fears affect contraceptive decision making among adolescents. Furthermore, the word 'family planning' was viewed as a barrier to contraceptive use among unmarried adolescents. For adolescents, family planning means that contraceptives are intended for people who have families.

*"...These things are used by married people after a proper wedding. Adolescents like us in Schools we need to finish school first. Some of the pills we hear they cause cancer and You fail to conceive later in life." (Female FGD)*

### **Lack of information**

Participants in key informant interviews reported lack of information on contraceptive methods as a barrier to contraceptive use among adolescents. They stated that health providers do not give comprehensive reproductive health information to adolescents. For example, it was reported that they do not give information on how contraceptives work and their side effects, and on how adolescents should respond to their body demands as they develop from childhood to adulthood. Participants further indicated that adolescents need information to make an informed decision about their future. Furthermore, they reported that adolescents have no access to the right information to help clarify their fears and concerns which results into lack of motivation to use contraceptives.

*"... The problem is that family planning methods are different and there is need for detailed information before use. For example, when I went to University of North Carolina (UNC) Project and they were explaining about female cup condom that protect HIV. It was found that when they give them to adolescents, they tested HIV positive. Which means that adolescents did not skillfully use these methods because the instructions were not clear." (Female key informant)*

### **Social influences on contraceptive decision making**

The majority of participants in the male and female FGDs were of the view that the duration in a relationship was a key determinant on whether to use a contraceptive method or not. Adolescents in long term relationship were more likely to make a decision to use protection than their counterparts in short term relations. Apart from this, partner faithfulness was also cited as a barrier to decision making regarding contraception. In cases where a male adolescent discovers that a partner has multiple sexual partners, the decision to use a condom is inevitable.

*"... When you have been in a relationship for so long you would not let your partner drop school just because of a pregnancy. Therefore, you ensure to use a condom to prevent pregnancy. You care about each other more than in short term relationships." (Male adolescent in school)*

*".... In a relationship, one would suggest to use a contraceptive [method] to prevent pregnancy but that is determined by the availability of a method (condom) and how long they have been in a relationship. A girl is easily known that she has another boyfriend, and if you have such type of a girlfriend, having sex without a condom you can easily get syphilis." (Male adolescent in school)*

### **Peer Pressure**

Most of male participants showed positive attitudes towards use of contraceptives. However, there were concerns regarding friends` influence on decision making regarding contraception. In a male FGD, participants mentioned boys discussing contraceptive use experiences and helping each other to make a decision.

### **Influence of Power toward Contraceptive Use**

Participants further stated that boys dominate in making decisions around contraceptive use. Girls usually have no much say in the relationship when it comes to sex.

*"... when you are in relationship, boys usually dominate in decision making the same as in*

*Marriage. That is why girls believe that because of love, they cannot make a decision*

*Which will not impress a partner, you go by what he says otherwise he will dump you."*

*(Female adolescent out of school)*

### **Negative Attitudes by parents/guardians towards contraceptive use**

Participants in focus group discussions and key informants interview expressed similar views that parents perceive issues of sexuality and label contraceptives as bad things. And that they do not talk about advantages and disadvantages of contraceptives. Some participants reported that parents are afraid of discussing such issues with their children because of cultural/religious beliefs. Adolescents raised concerns regarding parents/guardians not being open enough to discuss issues of sexuality and contraceptives in detail. They reported that parents/guardians mainly emphasize abstinence. This makes adolescents lack informed decisions regarding contraceptives.

*"...Parents advise us not to impregnate a girl and not get pregnant without giving us options. When adolescents are with elder women or men they talk about abstinence as the only viable option for adolescents. Consequently, other contraceptive options are left out." (Male FGD).*

The other concern was the attitude of parents and their reaction towards adolescents. Adolescents reported that using a contraceptive method or being in possession of a method puts them at risk of being disowned by parents. However, adolescents reported that they expect much support from parents and regard them as mentors.

*"...you talk of parents, aaaah that is the worst. If a girl is found with a condom, they will disown her, boys are at least better." (Male adolescent in school)*

Most of the key informants supported the view that parents do not encourage young adolescents to use contraceptives. Participants further mentioned that parents` negligence contributes to increased cases of pregnancies and school drop-outs among sexually active adolescent girls, and increased risk of complications during pregnancy and delivery. Teenage pregnancy was viewed as a huge burden in the family.

*"... If a young adolescent gets pregnant, everything stops moving. Parents (female) cannot go to work because they will be busy taking care of the adolescent at the hospital since she is young. They will not have time to go to the farm if it is rainy season. As a result, they will have no food at home and there will be severe hunger". (Female key informant)*



## **Community members` perceptions regarding contraceptive use among young adolescents**

It was noted that communities do not create conducive environment regarding contraceptive use among young adolescents. Male participants were concerned of communities for not encouraging them to access contraceptives. Participants in both male and female FGDs reported that the society would not allow an adolescent to exercise his or her freedom and make an independent decision.

*"... Most of condoms are found in private facilities and sometimes very far that make adolescents not to think of using a method. In addition to that, if the shop seller is a parent, you will not ask for a condom to avoid embracement. They will ask you a lot of questions that you will not have answers. For example, what is the use of the condoms you are buying? Things do not work for adolescents` favor." (Male adolescent out of school)*

## **Environmental factors and contraceptive decision making**

Lack of privacy and conducive environment was cited as a barrier for adolescents to access contraceptives. This was mentioned in most of the in-depth interviews. Adolescents indicated that contraceptive methods should be easily accessible and within reach, for example in private settings like toilets. The majority were concerned about the presence of parents and other community members in most health facilities and would prefer to access contraceptive methods in schools.

Most of the participants (key informants and adolescents) supported the idea of contraceptives being available in schools for easy access among adolescents, the majority of whom are in schools. This would allow them to prevent unintended pregnancies and undesirable reproductive health outcomes, and thus help them complete their studies. Apart from schools, it was also mentioned that health facilities should have special rooms to offer contraceptives to adolescents.

*"...there is need for family planning methods in schools especially in toilets so that these adolescents should have access to them without problems. In the health facilities, adolescents may face problems especially when they come across their parents/people from one village or location in the course of getting assisted" (female key informant).*

Lack of youth friendly services that do not incorporate extra curriculum activities was also highlighted. Most of the adolescents aged 10-14 raised concerned that these services are limited to older adolescents aged 15-19 and youth.

*"... Most of the times older adolescents do not welcome us in their clubs. It is better to have such clubs within school premises for easy access." (Male in school adolescent)*

## **Policies around contraceptive use in schools**

Participants reported the existence of policies that do not allow contraceptive methods to be distributed around the school premises, and one of them being the Education Policy. Most key informants described

Education and Sexual and Reproductive Health Right (SRHR) policies as contradicting each other, hence health providers are not free to offer contraceptives in schools. Participants reported that SRHR policy stipulates that adolescents be given information on sexual reproductive health, and family planning methods to prevent unwanted pregnancies. When the same adolescents are in school (Education Policy), things are different. No contraceptives are accessible to students within school premises. Schools and hospitals are both government institutions but policies guiding provision of services in the institutions contradict each other.

*".... school does not allow pupils to use contraceptives, it is obvious we cannot make a decision toward the same. The Government of Malawi does not encourage use of contraceptives in schools." (Female FGD)*

*"..... in schools especially boarding schools, the information is given, yes, and in the same boarding schools sexual relationships are there which means if the services are not given, students get pregnancies while in school campus. If in addition to information we could provide services, we could avoid teenage pregnancies" (Female key informant)*

### **Advocacy/awareness around contraceptive use**

Participants were asked if they would advocate for contraceptive use around school premises. The majority of those who participated in the in-depth interviews and FGDs supported advocacy for contraceptives in schools. They mentioned that this would enable adolescents to fully realize their rights to education and good health. Adolescents showed concerns about friends who were dismissed from school because they were caught with condoms. Key informants were in of the same view, mentioning that some non-governmental organizations are moving towards putting to an end to such kind of practice of punishing students.

*".... We get punished, even dismissed out of school if a teacher catches you with condoms, the whole school knows about the issue. As a result, you give-up on education." (Male in-school adolescent)*

*".... we are advocating right now. We have what we call School Health Days where we give out information. We do not take services because Education Policy does not allow us to take the services and yet adolescents want contraceptives". (Male key informant)*

## **Discussion**

Our study findings indicate that young adolescents have concerns that prevent them from making decision regarding whether or not to use contraceptives. Their perceptions towards contraceptives are influenced by side effects of hormonal contraceptives, cultural beliefs, and misconceptions about methods. Social and environmental factors, peer pressure, parents` attitude and community members shape adolescents` actions towards contraceptive use. As the theory of reasoned action suggests, adolescents will make a decision (motivated) towards contraceptive use only if other people encourage

them (subjective norms) and they have the willingness to use a method (positive attitude). However, the will to make a decision requires opportunities, resources and cooperation for successful execution.

Mardi et al (21) conducted a similar study in Iran and found that side effects of contraceptives such as missing of menses and the need to prove fertility were among the issues that demotivate young adolescents from using contraception. Some cultures in Malawi believe that a woman is called a woman when she sees her menses every month. When adolescents do not have menses as a result of using contraceptives as it is common with hormonal methods, this negatively influences their perceptions altogether. They would, therefore, first give birth before starting using hormonal methods or use condoms which are hormonal free and provide dual protection.

Evidence of lack of parental support on adolescents` contraceptive use has been noted, the study also showed that young adolescents consider parents as mentors. They would prefer to get information from parents who use local languages compared to use of medical words or professional terminologies. For example, words that looked difficult to them were family planning methods and contraceptives. These words meant that contraceptives are for only for married couples. There are studies that show that adolescents are usually more concerned about pregnancy than HIV infection and using terms such as pregnancy prevention could change their perception regarding contraception (3, 19, 23). These have implications on the delivery of sexual and reproductive health (SRH) information to adolescents (22). Consequently, advocating for use of adolescent-friendly terms in disseminating messages for preventing unwanted pregnancies and /or contraceptive use among adolescents.

This study discovered that some students lose their places at school or get heavy punishment if they are caught with contraceptives. In addition, parents disown their children for being in possession of condoms. These actions from teachers and parents increase the risk of getting early and unwanted pregnancies among young adolescent girls. In contrast, a systematic review conducted in 2017 in America on the effects of school-based condom availability program (CAPs) showed increased usage of condoms, prevention of sexually transmitted infections, and reduction in unwanted pregnancies among adolescents when condoms are within school premises(25). In that study, school authorities (including teachers) permitted adolescents to possess and use condoms as part of comprehensive school health program (CSHP) (25). However, there is limited evidence of such interventions in Africa where cultural values shape decision making regarding contraceptive use, including condoms (24). Considering that some adolescents in and out of school engage in sexual relationships, study conducted in 2014 by Colleen and colleagues also mentioned that contraceptives should be among first-line options for adolescents to prevent unwanted pregnancies(24). In order to address some of the challenges, Malawi should adopt the concept of health promotion in schools (HPS) that was initiated by the World Health Organization (WHO) in 1980s.

Brady in 2011 found that young adolescents aged 10–14 years are among the ignored populations because most policies and programs target other age groups (26). The findings of this present study also highlighted the same challenges. There is no policy that fully discuss issues of contraception and making

decision for 10–14 aged adolescents and been available in schools where they are mainly present. In our context, the Education policy is not consistent with the Sexual Health and Reproductive Right policy, which stipulates that young adolescents should access contraceptives within school premises. This is a missed opportunity because most young adolescents are in schools. It further poses challenges for programs that aim to implement interventions and scale up contraceptive use among sexually active in-school adolescents in the country (26)(12). The current health facility set-up seem to favor under five children, older adolescents and adults. Similarly, studies have revealed that sexually active young adolescents prefer special services offered to them as a motivation towards contraceptive decision making and use. School premises was the preferred option mentioned by participants in this study (26) (27).

Further findings indicated that male adolescents dominate in making decisions on contraceptive use, which is consistent with findings from Uganda (25). If adolescents are to be champions of contraceptive use, male adolescents should be at the center of programs to improve uptake. The findings show that male adolescents have a final say on whether to use a method or not while female adolescents accept those decisions due to fear of losing the relationship (28–30). Therefore, programs enforcing contraceptive use should emphasize on empowering female adolescents in decision-making(30). In 2011, from a brief report from DHS of 41 countries indicated on empowering girls in decision making (26).

Other factors identified in this study that influence adolescents' decision regarding contraceptive use include environmental and personal values, which is consistent with findings from existing studies (31, 32). As the study conceptual model suggests, social networks have an influence on contraceptive decision making (male partners, parents, peers and teachers), as well as environmental and policy. In addition, a meta-ethnographic study that used existing data from different researchers found that decision making regarding contraceptive use among adolescents is influenced by self, partner and family (19). Strategies that address and incorporate these determinants with strong policy backing could contribute to increased uptake of contraceptives among adolescents and thus prevent undesirable reproductive health outcomes among this segment of the population. In addition, empowering girls in contraceptive decision making and sensitizing boys on responsible sexual behavior and respect the rights of a girl child. Given the selective nature of participants in this study, future research should consider exploring the views of young adolescents from different cultural backgrounds in the count.

## **Strengthens And Limitations Of The Study**

Our study interviewed only those who attended youth friendly health services on a day of data collection. This meant that the views of adolescents who had little access to YCs and YFHSs were not considered that could affect the outcome of the study. The snapshot of data collection would not analyze perception towards contraceptives over a long period of time. Lastly, some of the adolescents were not able to open up because of shyness which made it very difficult for them to express themselves, hence hiding some of the information which could have been helpful.

## Conclusion

Empowering female adolescents on contraceptive decision-making would reduce the dominance that male have over female. Interventions to scale up contraceptives should cut across male and female adolescents since both are involved in decision making regarding whether to use a method or not. Given the apparent policy contradictions regarding adolescent SRH, Malawi needs to harmonize Education and SRHR policies and to develop indicators for change to guide implementation of programs to improve health outcomes among this segment of the population.

## Abbreviations

COMREC

College of Medicine Research Ethics Committee; DHIS:District Health Information System; DHS:Demographic Health Survey; DR:Doctor; FGD:Focus Group Discussion; HIV; Human Immunodeficiency Virus; LMIC:Low and Middle Income Countries; MDHS:Malawi Demographic Health Survey; MGHI:Master of Science in Global Health Implementation; MSCE:Malawi School Certificate of Education; STI:Sexual Transmitted Infections; T/A:Traditional Authority; TRA:Theory of Reasoned Action; UNC:University of North Carolina; WHO:World Health Organization; YC; Youth Club; YFHS; Youth Friendly Health Service; AGYW; Adolescents Girls and Young Women.

## Declarations

I hereby declare that this is my original work and appropriate references and citations have been included to acknowledge people`s contributions, and that it has not been presented for any degree at the University of Malawi or any other university. I therefore, take full responsibility of any errors found in this thesis.

## Ethical approval

The study was approved by College of Medicine Research Ethics Committee (COMREC) reference number P.09/18/2474 and got permission from Director of Health Services, Lilongwe, District Council, Traditional Authorities and Community Leaders. Written informed consent was obtained from all key informants. Written assents were obtained from sexually active young adolescents after obtaining written parental/guardian permission. Based on section 4.1 of the National Framework Guidelines for Research in the Social Sciences and Humanities in Malawi (33) that permit minors to get treatment for sexual transmitted infection (STI) and contraceptives in the absence of their parents/guardians the researcher was able to convince parents/guardians to allow sexually active adolescents to be left alone in order to maintain privacy and confidentiality. Participants were allowed to withdraw from the study at any point if they felt uncomfortable. Codes were used instead of names for confidentiality. Interviews were conducted in private rooms/classrooms were participants felt that no-one would hear the discussion.

## Consent for publication

Not applicable.

### **Available of data and material**

Datasets and materials are available and can be provided upon request.

### **Competing interest**

The author has no competing interest.

### **Funding**

The researcher had no sponsor.

### **Author's contribution**

The study was conducted by GD as part of fulfilment of Master of Science in Global Health Implementation and supervised by EC and WC. GD conceptualised the study, drafted the protocol for ethical approval and conducted field work activities for data collection. EC and WCM contributed to the study by reviewing the draft protocol, study tools and provided guidance on conducting fieldwork. All authors read and approved the manuscript.

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GD is a student at University of Malawi, College of Medicine pursuing Master of Science in Global Health Implementation and a vice President of the class of 2017-2018 cohort. GD holds Bachelor Degree in Community Health from Kenya Methodist University and is a nurse/midwife by profession. GD currently works with International Centers for HIV and AIDS Programs (ICAP) Malawi as a Zonal Coordinator for Malawi Population-based HIV Impact Assessment Project. EC is a primary supervisor of the study and holds PhD in Sociology and a Lecturer at College of Medicine. WC is a secondary supervisor of the study and holds Master Degree in Public Health (MPH) and is a Researcher at Center for Reproductive Health, College of Medicine.

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## Tables

Due to technical limitations, table 1 is only available as a download in the Supplemental Files section.

## Supplementary Files

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