CONTRACEPTIVE KNOWLEDGE, ATTITUDE AND PRACTICE AMONG SECONDARY SCHOOL GIRLS IN MOROGORO MUNICIPALITY

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CONTRACEPTIVE KNOWLEDGE, ATTITUDE AND PRACTICE AMONG SECONDARY SCHOOL GIRLS IN MOROGORO MUNICIPALITY

By

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled ***Contraceptive Knowledge, Attitude and Practice Among Secondary School Girls in Morogoro Municipality,***in fulfillment of the requirements for the degree of Masters of Medicine (Obstetrics and Gynecology) of the Muhimbili University of Health and Allied Sciences.

………………………………………..

Prof. Hans N.Mgaya

(Supervisor)

……………………..

Date

DECLARATION
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I, **Dr. Elimwidimi Justin Swai**, declare that this **dissertation** is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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ABSTRACT

Background

Sexual activity is prevalent among unmarried adolescents and there is a significant rate of unwanted pregnancy and abortions leading to health consequences and poor educational attainment. Sexually active adolescents require special information, counseling and services on Reproductive health issues including family planning. There is a wide gap between contraceptive knowledge and use among adolescents.

Objective: To determine contraceptive knowledge, attitude and practice among secondary school girls and existing barriers to its utilization.

Methodology: It was a cross sectional descriptive study conducted in Morogoro municipality among secondary school girls aged 14 to 19years.

A total of 386 girl students from six non faith based schools were randomly selected to participate.

Data was collected by a self administered Swahili questionnaire then analyzed by SPSS version 18.Univariate analysis was conducted to determine knowledge, attitude and practiceof modern contraceptives. Chi-square test was conducted to determine the association between the proportions of social demographic characters, knowledge, attitude and contraceptive practice. The *p* value of less than 0.05 was considered statistically significant.

Results: Fifty eight percent (58%) of respondents had good knowledge on moderncontraceptive, 52% had positive attitude towards modern contraceptive and 44% were sexually active. Among the sexually active41% had previously used modern contraceptive. Fear of contraceptive side effect was the most common reason for not using modern contraceptive (57%).

Conclusion: This study has shown above average knowledge and positive attitude towards modern contraception among school girls;however contraceptive practice among sexually active group is still low as they face wide range of barriers. Parents should be encouraged to improve their communication with the adolescents about reproductive health issues.

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LIST OF ABBREVIATION

ARH	Adolescent Reproductive Health
BEST	Basic Education Statistics in Tanzania
DSM	Dar es Salaam
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
ICPD	International Conference on Population and Development
IUCD	Intra Uterine Contraceptive Device
MDGs	Millennium Development Goals
MOEVT	Ministry Of Education and Vocational Training
MUHAS	Muhimbili University of Health and Allied Sciences
NBS	National Bureau of Statistics
OCP	Oral Contraceptive Pills
PI	Principal Investigator
RA	Research Assistant
SA	South Africa
SPSS	Statistical Package for Social Sciences
SSA	Sub Saharan Africa
STI	Sexually Transmitted Infection
TDHS	Tanzania Demographic Health Survey
THMIS	Tanzania HIV/AIDS and Malaria Indicator Survey
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Adolescents: Young boys and girls who are aged between 10 to 19 years.[1]
For the purpose of this study adolescents will include school girls with age between 14 and 19 years.

Contraception: Refers to decision to prevent or delay pregnancy by a known method.

Family planning: A voluntary decision by individuals or couples to anticipate and attain their desired number of children and spacing and timing of their births. It is achieved through use of contraceptive methods.[2]

Contraceptive ever user: Those who agreed to have used any modern contraceptive method at least once in their sexual life.

Current contraceptive user: Those who agreed to have used modern contraceptive method in last sexual activity and in the past six months.

Inconsistent contraceptive use:Those who admitted to have irregular schedule of contraceptive use.

INTRODUCTION

Adolescence is regarded as a transitional period from childhood to adulthood involving multidimensional changes in biological, social and psychological including cognitive aspects.[3] It also has different definitions by other authorities. The World Health Organization(WHO) and the United Nations Population Fund(UNFPA) regard adolescents as persons aged between 10 and 19 years.Today adolescents are exposed to more risks; pressures going along with globalization have eroded the structures that previously protected young people. They tend to receive contradictory informationon many subjects including sexuality and are therefore at risk of early and unwanted pregnancy, abortion, Sexually Transmitted Infections(STIs) and HIV/AIDS. These outcomes are tragedies to adolescents, their families and the nation.[4]

Adolescents make up to 1.2 billion (18%) of the world population. The proportion of adolescents is higher in developing countries as compared to developed countries (23% Vs 12%).[5] In Tanzania youths aged 15 to 24 years are 19.1% of national population.[6]The high adolescent population has great impact on future population growth and economy nationally and globally. Programme of action adopted atInternational Conference on Population and Development(ICPD) in Cairo 1994 urged governments, Non Governmental Organizations (NGOs), international agencies, to recognize that adolescents require special information, counseling and services on family planning so as to maintain population size and minimize health risks to adolescents in developing countries.[7]

Contraceptionrefers to decision to prevent or delay pregnancy by a known method. Modern methods of contraception include barrier techniques{condoms and diaphragm), oral contraceptives, injectable contraceptives, Intrauterine Contraceptive Devices (IUCD), transdermal implants, patches,transvaginal contraceptive rings, emergency contraception and spermicidal agents. Traditional methods employ therhythm, Billings's method and coitus interruptus.[8]Timing of pregnancy has economic, social, health and educational benefits for the individual, the family and community at large. These include

reducing rates of abortions, making children wanted and cared for, improving maternal and child health and at times prevention of STIsincluding HIV/AIDS. It therefore prevents the complications due to STIs including chronic pelvic pain, ectopic pregnancy, cervical dysplasia and cervical cancer. Others include fewer symptoms of premenstrual syndrome and less menstrual bleeding. It also gives a woman time to participate in productive activities such as employment, business and agriculture. Contraception use by adolescents will contribute inpreventing school interruption or dropout hence better education attainment and future opportunities. Furthermore, contraception protects the environment by stabilizing population[8]

Sexuality

Adolescence is a period during which sexual activity is initiated in majority of the individuals across the worldas this is the age of biological and physical changes. The age at first sexual activity is almost the same across different geographical locations. It was reported to be 17years for males and 16 years for females in New Zealand,[9] 16.9 years for adolescents in Los Angeles, United States of America (USA),[10] 16 years in Colombia[11] and in Tanzania 17years.[12]

Adolescents have inconsistent and wrong information about sexual health. Moreover expressed norms often conflict with behavior, there are differences in sexual conduct in the ability to negotiate sexual activity and contraceptive use.[13] The sexual activity is prevalent among in and out of school adolescents, by age 18 years 40-80% of female adolescents had become sexually active, in 27 of 32 Sub Saharan Africa (SSA) countries, Bangladesh, India and Yemen.[2] Studies in some other countries also documented significant rate of sexual activity among adolescents. Among school adolescents 46% in Sweden,[14] 38.3% in Indonesia,[15] 17.5% in Ethiopia[16] and 50% in Morogoro Tanzania[17] were found to be sexually active. Sexual activity coupled with poor reproductive health information keep adolescents at increased risk of their sexual behavior resulting into STIs, HIV/AIDS, unwanted pregnancy and abortion as a result of poor practice of preventive measures.

Developed countries have low total fertility rate: 2.1 births per woman in the USA. In Tanzania according to Tanzania Demographic Health Survey(TDHS) 2010, the total fertility rate is 5.4 births per woman. In spite of the fertility rate difference mentioned above, the median age at first sexual intercourse is almost the same across the globe.The use of contraceptives among adolescents varies in different geographical locations. In Latin America, Europe and Asia 42% to 68% of adolescents in partnerships andmarriage use contraceptives. The rate of use in Africa is ranging from 3% to 49 %.[18]In Tanzania a2010 survey found the current contraceptive practice prevalence for all methods to be29% for all women. The use by sexually active female adolescents was 34.5% for allmethods of contraception.[12] The difference in fertility rate observed between developed and developing countries could be due to low contraceptive use and high adolescent pregnancy in developing countries.

Adolescence pregnancy and abortion

The high rate of sexual activity and low contraceptive use among adolescents documented above exposes them to early unwanted pregnancy and STIs including HIV. Pregnancy at early age alters the entire future life of a young woman as it has a negative impact on the level of educational attainment and problematic health consequences to the adolescent mother and her child. Adolescent pregnancy being unwanted in most of the time may result into unsafe abortion as termination is prohibited by the law in most of the developing countries. It is estimated that there are about 16million girls aged between 15-19years giving birth every year worldwide. The burden is high in developing countries where 95% of these pregnancies occur. Worldwide 20% of girls have given birthby age 18 while in developing countries the rate is about 33%.[2]In Tanzania 44% of women are either mothers or having their first pregnancy by age 19years.[12]The United Nations report of 2011 estimated that in SSA 119 girls per 1,000 aged between 15-19 years were pregnant. In Latin America the numbers were 73, while in England which has the highest level of teenage pregnancy in Europe, the numbers were 40.The adolescence pregnancy rate observed in Tanzania is higher than the world average necessitating a study of adolescence contraception information.

In developing countries it is estimated that two and a half million unsafe abortions occur every year among girls 15-19 years.[2] This is due to high rate of unwanted pregnancy resulting from low contraceptive use. Unsafe abortions contribute substantially to long-lasting health complications and even maternal deaths. The actual information on number of adolescent or adult women undergoing abortion is much under reported or not available as it is prohibited by law. This could have shed light to authorities on adolescent sexual activities and poor or non contraceptive use, so as to put on measures to avert the problem. Studies conducted in some countries still documented a significant rate of pregnancy and abortion among adolescents. In South Africa (SA) it was found that among young women 19.2% had adolescent pregnancy and 6.7% had ever terminated a pregnancy.[19] In Thailand adolescent pregnancy contributed about 25.9% of all pregnancies, and 14.4% of abortion.[20]In Brazil likewise 29.6% had pregnancy before 20 years.[21] InNigeria 24.1% of adolescents had had undergone an induced abortion.[22] Likewise in a Dar es Salaam 54% of adolescents with incomplete abortion resulted from induced abortion.[23]

Tanzania has laid down a road map to achieve the health goals in the Reproductive and Child Health strategic plan 2008 to 2015 in response to Millennium Development Goal (MDG). One of the goals is to improve modern contraceptive prevalence among women aged 15 to 49 years from 20% to 60% by year 2015.[24]Good contraceptive coverage will reduce incidence of unplanned pregnancy hence reducing maternal and infant mortality inline with MDGs. The current trend of contraceptive use among women including adolescents is far away from the set goal for 2015. Despite inability to attain the goal an approach to determine knowledge attitude and practice and identifying the existing barriers to contraceptive practice is required. Furthermore there is a need to address them accordingly and improve the sexual health of adolescents and the community at large.

LITERATURE REVIEW

Contraceptive Practice and Knowledge

Contraception is an essential element of adolescent reproductive health (ARH) as it prevents early unwanted pregnancy and at times STIs. The decision on whether or not to use a contraceptive method is influenced by the knowledgean adolescent has on contraception[4]. Adolescents acquire contraceptive knowledge by ongoing friendly communication about reproductive health with their parents, school teachers, friends, media and relatives.The outcome of good knowledge was observed in a German studywhere the contraception communication is both at home and between partners making a responsible contraceptive behavior. It was reported that 92% of adolescents use contraception in their first sexual activity.[25]

Though practice is influenced by knowledge, differences have been observed in developing countries where there are discrepancies between knowledge and use of contraceptive method. A study in Ikenne district Nigeria among secondary school adolescents found that the knowledge on contraception was 22.1% for females while the proportion using contraceptive methods was 6.0%.[26]In Limpopo SA about 75% of school girls had some knowledge on different methods of contraception. Knowledge was 58% about condoms while injectables, pill and IUCD was 50%, 43% and 10% respectively. Few school girls knew about the diaphragm, spermicides and jellies/foam (<3%). Emergency contraception was known to 17% though they were unable to describe how it is taken. The contraceptive use in this study was reported to be 51%. The methods were 29% male condoms, 9% injectables, 3% pill and 1% female condom.[27]

In Kisumu, Kenya knowledge on contraception was 99% among females for at least one contraceptive method. Education institutions, media and peers were the main sources of knowledge where hospitals/dispensaries were the main sources identified. Youth ever used contraception was 52% and31.4% were current contraceptive users. Use of contraception in the first sexual activity was about 34.6% and commonly used method was male condom. The choice of method was based on its effectiveness in preventing pregnancy (43.4%) and STIs (37.7%), affordability (9.8%), ease of use (8.2%) and

availability (0.8%).[28]In Dar es Salaam contraceptive knowledge among secondary school students was 75% and the rate of use was 20% for girls. The condom was the commonest method used and the commonest source of contraception was pharmacy.[29]

This indicates that there may be a significant difference in level of knowledge among people of different geographical locations as observed in Ikenne and Kisumu. Despite good knowledge reported by the study findings the rate of contraceptive use among adolescents is very low. It therefore, suggests thatthere are existing obstacles to contraceptive use which need to be addressed so as to improve the contraceptive use by the adolescents and community at large.

Contraceptive Barriers

Communication about sexuality and contraception with adolescents is thought to encourage promiscuity by some societies therefore may endanger their reproductive health. However most of the adolescent’s sexual acts are unplanned or involve older partner or coerced therefore lack the ability to negotiate for contraceptive use. The wider gap between knowledge and practice found in the studies above among adolescents may be attributable to existing barriers and bad attitude towards contraception. The factors hindering frequent and consistent use of contraception among adolescents have been documented by various studies.

Study in Willemstad, Curacao southern Caribbean showed that 44% of women thought that use of Oral Contraceptive Pills (OCP) was harmful, and 22% thought that OCP use causes infertility.[30] This kind of attitude among older women may influence the adolescents’ attitude negatively towards contraception. It is therefore important to explore the adolescents’ attitude toward contraception.

The cultural norms and religious beliefs pose a barrier to the contraceptive use which need to be addressed so as to improve the contraceptive use in a community. In aNigerian studyamong school adolescent girls,religious (25.7%) and cultural (21.4%) beliefs were the most common reasons for non-use of Long-acting reversible contraception(LARC).[31]In Matemwe village in Zanzibarbarriers to modern

contraceptive use were;strong Muslim beliefs, male dominance over females (especially in polygamous relationships), and limited exposure to modern ideas via education and travel.[32]

In Port-Harcourt 25.3% of girl students believed contraceptives could be harmful to health.[33]This was similar to the study in Calabarwhich found that 74% of girls had a negative attitude towards contraception. The positive attitude was significantly associated with contraceptive use. The main source of contraception information was books and magazines contributing 37% and from friends was about 26%.[34]The negative attitude difference which is high in Calabar may be due to cultural and religious difference that influences the attitude on contraception.Not knowing where to obtain contraception is one of the obstacles to the contraceptive use as was observed in a multicountry survey in Africa.[35]

Contraceptive use is cornerstone to the national development as it stabilizes the population and allows families and individuals to have time for productivity and education attainment. Sexual activity is prevalent among adolescents and they experience untoward effects of sexual activity by getting early unwanted pregnancy which further debilitates their life when opting for unsafe abortion. Determining the contraceptive knowledge, attitude and practice and barriers for its utilization among adolescents in our society is essential so as to improve the contraceptive use which in turn will stabilize population, improve economic growth and keep girls in school.

PROBLEM STATEMENT

Adolescent pregnancy contributes twelve percent of total fertility rate in Tanzaniaaffecting girls' health, education, and future opportunities. Pregnancy is a common cause for school drop-out in which every year more than 6345 girls leave school due to pregnancy.[36] The high pregnancy rateindicates inadequate contraceptive practice, hence knowledge, attitude and existence of barriers need to be addressed.

Sixty percent of women have begun sex by age of 18yearsexposing them to higher risk of acquiring untoward effects of sexuality including unwanted early pregnancy, abortion and STIs.[12]This further emphasizes the need to address the contraceptive practice, knowledge and barriers so as to prevent the untoward effects of sexuality.

Adolescent pregnancy is a burden to the health system. Twenty five percent of all unsafe abortions in Africa involve the girls between 15-19years.[37]

If adolescent pregnancycontinues to delivery, it is usually associated with high perinatal mortality (56 per 1000)due to their pelvic immaturity and malnutrition as compared to other age groups.[12]School girls contributed about 54% of induced abortions in a hospital based study in Dar es salaam.[23]

Tanzania population policy promotes free access to reproductive health services including contraception to sexually active adolescents. Despite these steps only 34.5% of household adolescents use contraception.[12] There is no recent information on school girl's contraceptive use.

Most of the studies on contraception in Tanzania have dealt with married women or community surveys but very few have looked on secondary school girls. This study is expected to determine the knowledge, attitude, and existing barriers to contraceptive practiceamongsecondary school girls.

RATIONALE

Adolescents have faced untoward effects of sexuality including early pregnancy, abortion, STIs and early sexual debut due to poor information about sexual activity. The intervention program to deliver sexual information including reproductive health education in schools is expected to improve adolescent decision regarding sexuality.

The study was conducted in Morogoro municipality because it is located in theEastern zone, which was found to have high sexual activity rate among young people compared to the rest of the country by the recent demographic health survey. Almost half of secondary school girls in the municipality were found to be sexually active.[17]

The National target is to have contraceptive use rate of sixty percent by the year 2015 though it is unlikely to reach the target with the current trend.It is important to undertake this study so that the information obtained from it will help to identify gaps and existing barriers to contraceptive use among adolescents. This will guide policy makers to address these gaps with appropriate policy changes. The end effects of these changes will be to minimize the rate of adolescent pregnancy, unsafe abortion, STIs,maternal and infant mortalityas well as keep thegirls in school.

RESEACH QUESTION

What is the level of Knowledge, Attitude and Practice towards contraceptive use among secondary school girls?

What are the barriers to contraceptive practice among secondary school girls?

OBJECTIVES

Broad objectives

To assess contraceptive knowledge, attitude and practice among secondary school girls in Morogoro Municipality

Specific objectives

1. To determine level ofknowledge on modern contraception among secondary school girls.

2. To assess the proportion of secondary school girls who are using modern contraceptive methods.

3. To explore the attitude towards modern contraceptive use among secondary school girls.

4. To identify the barriers to the utilization of modern contraception among sexually active secondary school girls.

5. To determine the association between social demographic characteristics, knowledge, attitude and contraceptive use among secondary school girls.

METHODOLOGY

Study design

This wasdescriptive cross sectional study.

Study setting

The study was conducted in non faith based secondary schools in Morogoro municipality. Morogoro region is located on the eastern side of Tanzania mainland. It is bordered by seven regions. In the north Tanga and Manyara, eastern Coast and Lindi, Western Dodoma and Iringa and Southern is Ruvuma region. The region is made up of seven districts namely; Kilosa, Kilombero, Ulanga, Mvomero, Gairo, Morogoro rural and Morogoro Urban.

The region has a population of 2.2million. Morogoro Urban is the capital of Morogoro region with a population of 315,866.[38] It is a business center of the region and it is made up of twenty three wards. According to Morogoro municipal education administration, there are 47 secondary schools in the municipality of which twenty three are government owned and twenty four are privately owned schools.

Morogoro municipality was chosen becauseit had multicultural population that would represent most of the societies in Tanzania. The TDHS 2010 data shows that the eastern zone where Morogoro region is located had the highest percentage of young people aged 15-24 years who were sexually active.A previous study in Morogoro municipality likewise found half of secondary school girls to be sexually active.[17]

Study population

The target population in this study was secondary school girlswho had reached 14th to 19th birthday in ordinary and advanced level of secondary education. Majority of secondary school girls fall under this age category.

In Tanzania, primary school pupils are enrolled at the age of six to seven years with study duration of seven years. Secondary school education is for six years in which four years are for ordinary level and two years for advanced level. The majority of secondary school girls in Tanzania are therefore at the age between 14 and 19 years.[39]

Study sample size

The sample size was calculated from the formula

$$N = \frac{z^2 p\,(100-p)}{d^2}$$

N=desired sample size.

z=percentage of standard normal distribution corresponding to 95% of confidence interval which is 1.96.

d =marginal error (absolute precision of P which is 5%.

p= prevalence of adolescents using modern contraceptive method.

The TDHS 2010 revealed that the prevalence ofmodern contraceptive use by sexually active unmarried adolescents girls aged 15 to 19yearswas 34.5%.

The calculated sample size was therefore347 girls. Ten percent of non respondent was added so a sample of 382 girls was required.

Sampling technique

Girls from non faith basedsecondary schools in Morogoro municipality were chosen because some religions do not support modern contraceptives and its use is regarded as immoral, therefore they would not permit the study to be carried out in their schools.The secondary schools were obtained by random sampling technique. The schools in the municipality werecategorized into government and non government making two strata. Random sampling was used to select six secondary schools from each stratum. The number of schools from each stratum depended on proportionate number of students in each stratum.

Data obtained from the Morogoro municipal education officer showed that there were 23 government schools with a total of 8,365 female students. Private schools were 24; among these 4 were faith based schools with total of 739 girl students, 2 boys school and 1 school with no students enrolled. The private non faith based schools with population of interest were 17 with total of 3,226 girl students. The totalgirl students in the municipality were 12330. The targeted girls students were total number of girls (12,330) minus the excluded girls from faith based schools (739) = 11,591.

Sample of six schools was obtained proportionately depending on number of girls in each stratum.[40]

The formula,schools in each stratum

$$= \frac{6 \text{ x number of girlstudents in stratum}}{\text{Total targetedgirl students in Morogoro municipality}}$$

Government schools = $\frac{6\text{x } 8365}{11591}$ = 4 schools

Non government schools = $\frac{6 \text{ x } 3226}{11591}$ = 2 school

The names of each school in a single stratum were written in different small paper sheets thenmixed in a box.Thereafter another person was asked to pick one paper randomly. One piece of paper was randomly picked repeatedly according to the number of schools calculated in each stratum. The school whose name appeared on thepickedpapers was included in the study,these were; Kilakala, Morogoro, Mji Mpya, Mafiga, Educare and Forest hill secondary schools. All the selected schools accepted to participate in the study.

Eachselected school contributed at least 64 students to attain the required minimum sample size.

Students were informed of the study to be conducted in the school in morning parade on day of data collection. The teacher introduced the Principal Investigator(PI) and the Research Assistant(RA) when they arrived in class then PI/RA introduced the purpose of the study and how to participate. The attendance register was used to obtain the number of girl students present on the day of data collection for the whole school. Thereafter for every class, girls in each stream aged 14 to 19 years were gathered in the same classroom.

Sample from a respective class was obtained proportionately depending on the number of girls meeting the inclusion criteria that were present in each class on day of data collection. The formula to obtain students per class was;

$$\frac{64 \text{ x Total girls in respective class meeting inclusion criteria}}{\text{Total girls in respective school meeting inclusion criteria}}$$

Allgirls meeting the inclusion criteria in each class counted from one to the total number of those present. Each girl was asked to remember the mentioned number as each numberwas written on a small piece of paper sheet then mixed in a box. One piece of paper was randomly picked from the boxrepeatedly according to the calculated sample to represent a particular class.The numbers on the picked papers were read out and the girls who mentioned those numbers were included in the study.

Inclusion criteria

Adolescent secondary school girls aged 14 to 19 years from non faith based schools.

Exclusion criteria

Those who did not volunteer to participate.

Study duration

Data was collected for one month, September 2013

Training of research assistants

Training of RA was conducted by the PI for one day. Two female senior nurse midwives were selected as research assistants. They were trained on the purpose of the study and how to collect data using the questionnaire. They participated in pretesting of the questionnaire.

Pretesting questionnaire

Questionnaire was pretested in Kihonda secondary school which was not included in the study.Twenty girl students were recruited randomly for questionnaire testing. The noted queries during pretesting were used to adjust the questionnaire accordingly.

Data collection

Data was collected using a self administered structured questionnaire.Data from each school was collected on different days after obtaining the permission from the school

authority. Data was collected during free periods in morning hours to avoid interference with teaching timetable.

Prior to data collection the school administration introduced the PI and RA to the students and highlighted on the purpose of the study. The selected students were taken to a specific hall and teachers were not allowed into this hall. Students wereseated at a distance from one another so as to minimize sharing the answers and to maintain confidentiality among students; Two days were required for each school.The PI and RAexplained furtherthe purpose of the study and asked for consent and assents. All agreed and were required to sign theconsent and assent forms.They were requested to give true answers according to their experience. The RA and PI distributed the questionnaires to the participants and explained how to fill and incase of difficulties during filling they were allowed to ask for clarification from PI or RA. They used thirty to forty five minutes to complete the questionnaire.

Study tool

Data was collected by a self administered Swahili structured questionnaire which was adapted to the objectives of this study from the WHO questionnaire for young people in developing countries.[41]

The questionnaire was divided into five parts; 1.Social demographic characteristics 2.Knowledge on modern contraceptive3. Attitude towards modern contraceptive 4.History of Sexual intercourse and 5. Contraceptive use and barriers

Assessment of knowledge, attitude and practice

Contraceptive knowledge

Knowledge was assessed based on ever heard of modern contraceptives. Those who got correct answers in the list of contraceptive options scored positive (yes) and incorrect answers scored negative (no). The scoring given to Yes was 1 and for No was 0. The points for each respondent were calculated to obtain total score on knowledge and mean. Points ranged from 1 to 8. Those with score equal to or above 4 were regarded as having good knowledge, for those who scored less than 4 as having poor knowledge.[12]

Attitude on contraception

Attitude was assessed by using ten statements.The statementshad positive (agree), neutral (undecided) and negative (disagree) answers. The scoring was done with respect to respondents' responses as follows: Agree scored 3, Undecided scored 2 and Disagree scored 1. The negative statements were reversely scored. Points for each respondent were calculated to obtain total score on attitude and mean. Those with score equal to or above mean were regarded as having positive attitude, for less than mean as negative attitude towards contraception.[42]

Practice of contraception

Practice was assessed using twelve questions. Those who accepted to having ever used modern contraceptives in their life were regarded as modern contraceptive ever users.To assess for consistency of modern contraceptive use the recall period used in this study was six months. Those who reported to use modern contraceptive in every sexual encounter thatoccurred in last six months preceding the research were regarded as consistent users. Those who used it sometimes were regarded as inconsistent users. Obstacles to contraceptive use were also enquired upon.

Contraceptive use or non use was the main outcome variable in this study.

Data analysis

Thorough check was done to make sure that all the questionnaires were properly filled. Data collected was coded, entered into Epi info computer software for cleaning then transferred toStatistical Package for Social Science (SPSS) version 18computer software foranalysis.Univariate analysis was conducted to determine knowledge, attitude, use and barriers to the use of modern contraceptive methods. Chi-square test was performed for categorical data where p value of < 0.05 was considered statistically significant.

Questionnaires with significant missing information like age, sexual and contraceptive history were excluded from analysis**.**

Ethical consideration

Ethical clearance was sought from Muhimbili University of Health and Allied Sciences Research and Publication Committee. Permission to collect data was sought from the

Morogoro Municipal director, the Municipal Education Officer and the heads of the selected Schools.The purpose of the study was explained to the respective authority in Morogoro municipal and school teachers and they were provided with the questionnaire so as to know the kind of questions to be asked to the students.

This study involved taking private information and personal opinions of the participants which was considered sensitive. In order to ensure that respondents were able to give informed consent and assents, the PI or RAexplained the aim and implications of the study to the participants. All participants aged 18 years and above were asked for their written informed consents before participation. For those under 18 years, consent was sought from Guardian (School teachers) and they additionally gave their written assents before participation.

To ensure confidentiality; no name was required in the questionnaire and no participant was allowed to leave the room until all had finished. Once all hadfinished participants were asked to drop the questionnaire by themselves into a special box kept in the mid of class. The data gathered was handled confidentially and used for the purpose of the study only. Respondents were informed that they were free to withdraw at any stage in the study and it would not affect their studies.

After data collection those with health related questions were allowed to ask and clarification given.

RESULTS

Studentsmeeting the inclusion criteria in theselected schools on day of data collection were1,955. After random sampling, 386 girls agreed to participate in the study.Twelve questionnaires had significant missing information therefore excluded from data analysis.

TABLE 1; Social demographic characteristics of selected school girls(N= 374)

Variable	Frequency	Percent
Age (years)		
14 to 16	218	**58.3**
17 to 19	156	41.7
Education level		
O level	330	**88.2**
A level	44	11.9
School owner		
Government	257	**68.7**
Private	117	31.3
Type of school		
Day	283	**75.7**
Boarding	91	24.3
Religion		
Christians	234	**62.6**
Islam	136	36.4
Others[×]	4	1.1
Living arrangement		
Both parents	233	**62.3**
Single parent	78	20.9
Relatives	63	16.8
Discussion of reproductive health matters with father		
Often	8	2.1
Occasionally	65	17.4
Never	301	**80.5**
Discussion of reproductive health matters with mother		
Often	98	26.2
Occasionally	147	**39.3**
Never	129	34.5
Ever had sexual intercourse		
Yes	165	44.1
No	209	**55.9**

[×] Others – Hindu and Bahai

Majority of respondents were in age range 14-16 years (58.3%). Their mean age was 16.2(SD 1.5) years. Majority (88.2%) were in ordinary level of secondary education and less than half (44.1%)had already started sexualintercourse. Median age of coitarche was 16 years (13-19).

Knowledge on modern contraceptive methods

Among the study participants 370 (98.9%) had ever heard of modern contraception therefore used in analysis of knowledge, attitude and practice of modern contraceptives.Calculated meanscore was 4. Those with score equal to or above 4 were regarded as having good knowledge (58.4%).

TABLE 2; Participants knowledge on modern contraceptive methods (N=370)

Variable	Frequency	Percent
Known methods		
Pills	312	**84.3**
Injectable	257	69.5
Condom	250	67.6
IUCD	184	49.7
Female sterilization	170	45.9
Implants	160	43.2
Male sterilization	114	32.8
Jelly/foam	26	7.0
Source of information		
Books/Magazine	255	**68.9**
Mass media	226	61.1
School teacher	221	59.7
Health workers	192	51.9
Friends	138	37.3
Parents	125	33.8
Siblings	76	20.5
Source of contraceptive methods×		
Government health facility	247	**93.6**
Private health facility	193	73.1
Youth centers	48	18.2
Mother	37	14.0
Pharmacy	23	8.7

NB; Multiple response question.IUCD- Intrauterine Contraceptive Device.×106 participants excluded because they didn't know where to obtain modern contraceptives.

The most commonly mentioned methods were Pills (84.3%), Injectable (69.5%) and Condoms (67.6%) and the least known method was Jelly/foam (7.0%).Books/magazines (68.9%) were themost common sources of informationabout modern contraceptiveswhile

parents (33.8%) and siblings (20.5%) were the least common.The majority ofgirls knew that contraceptives could be obtained from government and privatehealth facilities.

TABLE 3; Pattern of modern contraceptive use among sexually active girls (N =165)

Variable	Frequency	Percent
Ever used contraceptive	67	40.6
Most commonly used contraceptive methods[×]		
Condom	63	94.0
Pill	3	4.5
Injectable	1	1.5
Contraceptive users in last six months	50	30.3
Frequency of contraceptive use in last six months		
Consistent users	21	12.7
Inconsistent users	29	17.6
Non users	115	69.7
Contraceptive users in last sexual encounter	57	34.5
Source of contraceptive method used last time[××]		
Pharmacy	26	45.6
Shop	12	21.1
Private health facility	8	14.0
Government health facility	7	12.3
Friend	4	7.0
Reasons for choosing last time used		
contraceptive[××]	27	47.4
Availability at a short distance	9	15.8
Require short time to obtain	9	15.8
Free service	7	12.3
Do not need prescription	5	8.8
Affordable price		

NB; Multiple response question,[×] = 98 participants excluded from this analysis as they were non contraceptive users, [××] =108 were excluded because they didn't usecontraceptive in last sexual encounter.

Less than half of the sexually active participants (40.6%) had ever used modern contraceptives.The frequency of use was not consistent throughout as only 12.7% were consistent users in the six months preceding this study. Condoms were the most commonly used method (94%).Most commonsource oflast time usedcontraceptiveswaspharmacy 45.6%. Nearly half(47.4%) of the contraceptive users

in the last sexual encounter chose the method because of its availability in short distance while only 9% chose it because of its affordable price.

TABLE 4;Participants attitude towards modern contraceptives (N = 370)

Variable	**Agree n (%)**	**Disagree n (%)**	**Undecided n (%)**
I have desire to know more about contraceptive	337 (**91.1**)	28 (7.6)	5 (1.4)
Girl can suggest condom use to partner	325 (87.8)	12 (3.2)	33 (8.9)
I approve contraceptive use by adolescents	211 (57.0)	118 (31.9)	41 (11.1)
I discuss contraceptives with friends	183 (49.5)	182 (49.2)	5 (1.4)
Contraceptives are safe	149 (40.3)	86 (23.2)	135 (36.5)
Contraceptive benefits outweigh their risks	106 (28.6)	101 (27.3)	163 (44.1)
Girl suggesting condom use to partner means she doesn't trust him[×]	57 (15.4)	261 (70.5)	52 (14.1)
It's embarrassing for someone like me to buy condom[×]	107 (28.9)	198 (53.5)	65 (17.6)
Condoms reduce sexual pleasure[×]	55 (14.9)	92 (24.9)	223 (60.3)
Condom can slip off and disappear in woman's body[×]	82 (22.2)	76 (**20.5**)	212 (57.3)

NB; multiple response question; [×]Reversely scored to calculate total attitude

Nearly all the participants 91% had desire to know more about modern contraceptives while (20.5%) of participants believed condom cannot slip and disappear in woman's body. Attitude score ranged from 10 to 30 points; Calculated mean score was 23. Those who scored 23 and above were regarded as having positive attitude towards modern contraception and these were 52.4%.

TABLE 5; Barriers to utilization of modern contraceptives among sexually active inconsistent users and non users(N = 144)

Variable	Frequency	Percentage
Fear of side effects	82	56.9
Lack of knowledge how to use	60	41.7
Negative health workers' attitude	32	22.2
Disapproval by partner	29	20.1
Shortage of money	23	16.0
Disapproval by parent	23	16.0
Do not know where to obtain contraceptive	18	12.5
Embarrassment to buy	17	11.8
Long waiting time at the health facility	13	9.0

NB; Multiple response question

Fear of side effects and lack of knowledge on how to use contraceptives were the most commonly mentioned reasons (56.9% and 41.7%) respectively for non use or inconsistent use of modern contraceptives among sexually active girls. The least mentioned reason was long waiting time at the health facility (9.0%).

TABLE 6; Association between social demographic characteristics and Knowledge(N = 370)

Variable	Knowledge		P value
	Poor N (%)	Good N (%)	
Age (years)			
14 to 16	106 (49.1)	110 (50.9)	0.001
17 to 19	48 (31.2)	106 (68.8)	
Education level			
O Level	143 (43.9)	183 (56.1)	0.02
A level	11 (25.0)	33 (75.0)	
School owner			
Government	102 (40.2)	152 (59.8)	0.40
Private	52 (44.8)	64 (55.2)	
Type of school			
Boarding	22 (24.4)	68 (75.6)	0.001
Day	132 (47.1)	148 (52.9)	
Religion*			
Christians	88 (37.9)	144 (62.1)	0.04
Islam	66 (49.3)	68 (50.7)	
Living arrangement			
Both parents	92 (39.8)	139 (60.2)	
Single parent	36 (46.8)	41 (3.2)	0.60
Relatives	26 (41.9)	36 (58.1)	
Discuss reproductive health matters with mother			
Often	42 (42.9)	56 (57.1)	0.51
Occasionally	56 (38.1)	91 (61.9)	
Never	56 (44.8)	69 (55.2)	
Sexually active			
Yes	64 (38.8)	101 (61.2)	0.32
No	90 (43.9)	115 (56.1)	

*4 were excluded as were from other religions.

Knowledge about contraception relate significantly to the higher age of participants, their higher education level, Christian religion and being in boarding school.P value < 0.05

TABLE 7; Association between social demographic characteristics, knowledge, attitude and contraceptive practice(N =370)

Variable	Practice		P value
	Non user N (%)	User N (%)	
Age (years)			
14 to 16	193 (89.4)	23 (10.6)	**0.001**
17 to 19	110 (71.4)	44 (28.6)	
Education level			
O Level	269 (82.5)	57 (17.5)	0.40
A level	34 (77.3)	10 (22.7)	
School owner			
Government	211 (83.1)	43 (16.9)	0.38
Private	92 (79.3)	24 (20.7)	
Type of school			
Boarding	72 (80.0)	18 (20.0)	0.59
Day	231 (82.5)	49 (17.5)	
Religion*			
Christians	191 (82.3)	41 (17.7)	0.81
Islam	109 (81.3)	25 (18.7)	
Living arrangement			
Both parents	196 (84.8)	35 (15.2)	
Single parent	60 (77.9)	17 (22.1)	0.16
Relatives	47 (75.8)	15 (24.2)	
Discuss reproductive health matters with mother			
Often	75 (76.5)	23 (23.5)	0.24
Occasionally	125 (85.0)	22 (15.0)	
Never	103 (82.4)	22 (17.6)	
Knowledge level			
Poor	129 (83.8)	25 (16.2)	0.43
Good	174 (80.6)	42 (19.4)	
Attitude level			
Negative	151 (85.8)	25 (14.2)	0.06
Positive	152 (78.4)	42 (21.6)	

*4 were excluded as were from other religions

Use of modern contraceptive methods relate significantly to the higher age of participants. P value <0.05

DISCUSSION

This study reviewed the knowledge, attitude and practice of modern contraceptives among secondary school girls including the existing barriers to their utilization.

Knowledge on modern contraception

In this study knowledge was found to be good in more than half of the respondents (58.4%).The finding that only slightly more than 50% of respondents had good knowledge was lower than the 75% reported in other studies done in Limpopo SA[27] and Dar es salaam Tanzania.[29]These studies, however, had smaller sample size with wide confidence margins that could have included our estimate. The two studies were also conducted in bigger cities than our study. It is known that contraceptive knowledge tends to be poorer in smaller towns and rural areas. Our findings support this perception and the need to increase information transmission to smaller towns and rural areas**.**

In this studymost commonly known methods were Pills (84%), Injectable (70%) and Condoms (68%). Jelly/foam was least known. This was higher than in the Limpopo study probablyindicating improved recognition of contraceptive methods among adolescents as days pass by.

Books/magazine, mass media and school teacher were the most common sources of information aboutmodern contraceptives in this study(69%, 61% and 60%) respectively. This was different from the findings of the study in SA whereparents (45%) teachers (25.1%) and media (17.8%) were the commonest sources of information.[43]The differences could be due to different study settings where the Tanzanian study was conducted in urban setting, Morogoro municipality, while the SA study was conducted in rural setting in Tswaing subdistrict north west province. The findings call for more implementation of sexual and reproductive health education programme in schools so that more adolescents may get clear information about contraception from their teachers.In this study government and private health facilities were the commonly known sources of contraceptive methods 94% and 73% respectively similar to a study in Kenya.[28] This is commendable and needs to be encouraged because in these health facilities they will not only get contraceptives but also education and counseling.

Parents ranked lowest among the sources of information about contraception (34%) in this study as it was in a Ghanaian study.[44]Communication about reproductive health matters between parents and adolescents in this study was very poor. Very few (2% and 26%) hadoften discussion with father and mother respectively. This is understandable because in African settings sex related matters are taboo subjects especially with parents. However, due to the high rate of unprotected sex among adolescents these days, parents should take a role in sex and reproductive health education at home; the influence of family could help improve adolescents' sexual behavior. Good communication at home about sex matters in a Germany study led to 92% contraceptive use among adolescents.[25]

Knowledge of contraception in this study was significantly associated with the higher age group, higher education level and those in boarding school (P value was < 0.05). But there was no statistically significant relationship with the school owner being government or privateneither with the living arrangement (P value was >0.05). The difference in this finding could be due to higher exposure to contraceptive information for those 17years and above and A levels than their younger counterparts. In boarding schools, perhaps, girls have more opportunity to discuss among themselves hence improving their knowledge. This finding emphasizesthe need to initiate sex and reproductive health education from the lower class levels so that a wide range of adolescents could be captured as many of them are already sexually active anyway.

Modern contraceptive use and barriers

The prevalence of sexual intercourse reported in this study was 44% among study participants. This was similar to a Swedish study.[14] The mean age of coitarche was 15.6 SD 1.43 years in this study similar to 16years in a New Zealand study.[9]

The contraceptive ever use in this study was found to be 41% among sexually active respondents. This was higher compared to 20% of girls in theDSM study[29] and 34.5% of unmarried adolescent girls national level.[12] It was also slightly lower compared to52% and 51% in the studiesconducted in Kenya and South Africa respectively among school

girls.[27, 28] The observed differences between this study and the Dar es salaamstudy and TDHSmay be due to increased access to health information through mass media, advertisement of condoms and other contraceptive methods in recent years.

In this study the most commonly used method wascondoms (94%) which was higherthan the commonly used method in other studies. In SA and Ghana studies,condom use was(29% and 57.6%) respectively.[27, 44]Condom is the best contraceptive method to adolescents due to its dual protection against pregnancy and STIs. Adolescents have temporary sexual relationships and at times multiple partners putting them at high risk of pregnancy and STIs.

In this study those who used contraceptives within six months preceding the study were regarded as current contraceptive users. They were about one third of the sexually active participantssimilar to a study in Kisumu Kenya.[28]The trend of contraceptive use in sexual encounters which occurred in last six months was(12.7%) consistent users and (17.6%) inconsistent users. Only 19% of those with good knowledge were found to use contraceptives in this study which correlates with 18% finding of a study in Ghana.[44] This indicates existence of obstacles to contraceptive use despite good knowledge. The most common reasons stated in this study for the inconsistent or non use of modern contraceptives were fear of side effects 57% and not knowing how to use 42%. A quarter of the girls in a port-Harcourt study believed contraceptives could be harmful to health.[33]This calls for more efforts to address the contraceptives side effects andcounseling on proper use.

For those who used a modern contraceptive in the last sexual encounter nearly half obtained it from a pharmacy and only 12% got it from a government health facility. This is contrary to information provided in table 2 that 94% mentioned government health facility as their known source of contraceptive. It therefore indicates disconnect between messaging and the actual use. The disconnect may be due to more distribution and easy access to pharmacy than government health facilities.

There was statistically significant relationship of contraceptive use and age of respondents p value was <0.001. Though the rate of use was low across all age groups there was slightly higher rate of use among those aged 17 to 19 years which was 29%. There was no statistically significant relationship of contraceptive use with the knowledge, attitude, religion and education level of the participants as the P value was > 0.05.

Attitude on modern contraception

The study found overall attitude towards modern contraception to be 52.4% positive.

About 91% of respondents had desire to know more about modern contraceptives.Contraceptive use was regarded safe by 40% of the respondents and only about one third (29%) of participants believed contraceptive benefits outweigh its risks.In an Indian study[45] desire to know more about modern contraception was 65.4% and in Nigeria[46] only 15% of respondents believed contraceptive use was safe. The observed differences could be due to sample differences;for example the study in Nigeria involved wider age range, from 12 to24 years.

The findings show the need to strengthen the proper channels for delivering sexual and reproductive health information to adolescents. These channels may include adolescent friendly reproductive health services in all health facilities, widening school education about sexual and reproductive issues and encouraging communication about sex and reproductive health matters between parents and adolescents.

LIMITATIONS

Self administered questionnaire may lack capacity to detect all misunderstanding. Its administration to sensitive issues like this is prone to recall biases or confidentiality concerns resulting from stigmatization of a reported behaviour. To minimize this effect, full confidentiality was ensured to participants. PI and RA were present in the data collection room to respond to raised questions.

The findings of this study cannot be generalized in general population as it was conducted in urban setting involving only school adolescent girls.

CONCLUSION

This study has showed above average level of knowledge and positive attitude toward modern contraception among school girls. However, contraceptive practice among this study group was still low as they face wide range of barriers.

RECOMMENDATIONS

Improving public awareness (with emphasis on teachers, family members and service providers) and create supportive environment for adolescent reproductive health.

Parents should break the silence and be open about reproductive health issues to support adolescent reproductive health education rather than pretending that adolescents practice abstinence, while in fact they practice unsafe sex.

Education efforts to prevent unwanted pregnancy and STI should start at lower grades before students become sexually active.

Further study looking the parent’s attitude towards adolescent contraceptive use may narrow the observed gap.

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CONSENT FORM

ASSESSMENT OF CONTRACEPTIVE KNOWLEDGE, ATTITUDE AND PRACTICE AMONG SECONDARY SCHOOL GIRLS IN MOROGORO MUNICIPALITY

Introduction

My name is Dr Elimwidimi Swai. I am a researcher from Muhimbili University of Health and Allied Sciences. I am conducting a study on contraceptive Knowledge,Attitude and Practice among secondary school girls.The aim of the study isto generate information necessary for the planning of appropriate strategies (interventions) to prevent adolescent pregnancy and abortion so as to ensure girls attain education to their full potential in Morogoro and national wide.

How to participate in this study.

You are asked to participate in this study because you are among adolescent secondary school girls. If you are willing to participate in this study, you will be interviewed for about 30 minutes. The interview will be conducted only once. I do not expect to cause you any discomfort.

Confidentiality

Everything will remain confidential and will be used only for research purposes. The research team will compile a report that will contain information about all selectedsecondary school girls like yours, without mentioning names.

Risks

I do not expect that any harm will happen to you as a result of participating in this study.

Right to participate in the study

Taking part in this study is completely of your choice. You have the right to participate or decide otherwise without giving any reason for your decision. Once you have decided to participate you are also free to terminate your participation at any time.

Benefits

If you agree to participate in this study you will help us to know the current Knowledge, Attitude and Practice on contraception and enable the local authorities and the country at large to establish proper intervention plans.

Who to contact

If you have any questions about this study you are free to contact, the principal investigator, Dr. Elimwidimi Swai (0713659769).

If you have any questions/concerns about your rights as a participant you may contact Prof. Mainen Moshi, Chairman of MUHAS Research and Publications Committee. P.O.BOX 65001 Dar es Salaam. Tel2150302-6

If you agree to participate, please sign this consent form.

Ihave read and understood the contents of this consent form and my questions have been sufficiently answered. I therefore consentparticipation this study.

Signature of the interviewee ……………………………...... Date ……………………

Signature of the interviewer ……………....………………. Date ……………………

QUESTIONNAIRE

Part one:Socio-demographic information

1. What is your age?.............years.

2. Which grade are you?
   a) Form one
   b) Form two
   c) Form three
   d) Form four
   e) Form five
   f) Form six
3. Your school is owned by?
   a) Government b) Private

4. What is the type of your school?
   a) Boarding b) Day

5. What is your religion?
   a) Catholic
   b) Other Christian denomination
   c) Muslim
   d) Others specify………..
6. How often do you attend religious services?
   a) Every day
   b) At least once a week
   c) At least once a month
   d) At least once a year
   e) Never
7. With whom do you live?
   a) Myparents
   b) My mother only
   c) My father only
   d) Relatives
   e) Friends
   f) Alone
   g) Others specify…………..
8. What is the level of your father's education?
   a) Illiterate
   b) Reads and writes
   c) Completed primary
   d) Completed secondary
   e) College/university
   f) Do not know

9. Do you find it difficult or easy to talk with your father about things that are important to you?
a) Very easy
b) Easy
c) Average
d) Difficult
e) Very difficult
f) Do not see him

10. Have you ever discussed reproductive health matters with your father?
a) Often b) Occasionally c) Never

11. What is the level of your mother's education?
a) Illiterate
b) Reads and writes
c) Completed primary
d) Completed secondary
e) College/university education
f) Do not know

12. Do you find it difficult or easy to talk with your mother about things that are important to you?
a) Very easy
b) Easy
c) Difficult
d) Very difficult
e) Do not see her

13. Have you ever discussed reproductive health matters with your mother?
a) Often b) Occasionally c) Never

14. Have you ever discussed reproductive health matters with (relative, friends and others)?
a) Often b) Occasionally c) Never

15. What is your parents' job status?
a) Both my parents work
b) My father only works
c) My mother only works
d) Both parents do not work

16. How do you perceive the economic status of your family?
a) Poor b) Medium c) Rich

17. Do you have pocket money?
a) Yes b) No

18. Do you work for pay and have income of your own?
    a) Yes b) No

Part two. Knowledge of contraceptives

19. Have you ever heard of modern contraception?
    a) Yes b) No If answer is no only answer question 31 to 40.

20. Which of the following have you heard to be contraceptive methods?
    i) Pill a) Yes b) No
    ii) Injectable a) Yes b) No
    iii) Condom a) Yes b) No
    iv) Jell/foam a) Yes b) No
    v) IUD a) Yes b) No
    vi) Norplant a) Yes b) No
    vii) Female sterilization a) Yes b) No
    viii) Male sterilization a) Yes b) No
    ix) Others specify……………………..
21. From whom or from where did you get information about contraception?
    a) School teacher a) Yes b) No
    b) Mother a) Yes b) No
    c) Father a) Yes b) No
    d) Sister a) Yes b) No
    e) Brother a) Yes b) No
    f) Friends a) Yes b) No
    g) Health professionals a) Yes b) No
    h) Mass media a) Yes b) No
    i) Books/magazines a) Yes b) No
    j) Others specify …………..
22. Whom or from where do you prefer to have information about contraception?
    a) School teacher a) Yes b) No
    b) Mother a) Yes b) No
    c) Father a) Yes b) No
    d) Sister a) Yes b) No
    e) Brother a) Yes b) No
    f) Friends a) Yes b) No
    g) Health professionals a) Yes b) No
    h) Mass media a) Yes b) No
    i) Books/magazines a) Yes b) No
    j) Others specify………

23. Do you know where to get contraceptive methods if you want them?
    a) Yes b) No (If no go to question 25)

24. Tick the source of contraceptives you know
More than one answer is possible
    a) Government health facility a) Yes b) No

b) Private health facility a) Yes b) No
c) Mother a) Yes b) No
d) Pharmacy a) Yes b) No
e) Youth centers a) Yes b) No
f) NGO clinic a) Yes b) No
g) Others specify………….

Part three. Attitude toward Contraceptive Methods

25. Use of modern contraceptive methods is safe
a) Agree b) Disagree c) Undecided

26. Benefits of contraceptives use outweigh the negative effects
a) Agree b) Disagree c) Undecided

27. I desire to know more about modern contraceptive methods
a) Agree b) Disagree c) Undecided

28. I discuss modern contraception with friends.
a) Agree b) Disagree c) Undecided

29. I approve use of modern contraceptive methods by adolescents
a) Agree b) Disagree c) Undecided

30. Who do you think should take responsibility to practice modern contraception?
a) Male partner
b) Female partner
c) Both partners

What Opinions do you have about condoms? Circle whether agree, disagree or undecided	**Agree**	**Disagree**	**Undecided**
1 A girl can suggest to her boyfriend that he uses a condom	Agree	Disagree	Undecided
2 It would be too embarrassing for someone like me to buy or obtain condoms	Agree	Disagree	Undecided
3 If a girl suggested using condoms to her partner, it would mean that she didn't trust him	Agree	Disagree	Undecided
4 Condoms reduce sexual pleasure	Agree	Disagree	Undecided
5 Condoms can slip off the man and disappear inside the woman's body	Agree	Disagree	Undecided

Part four. Sexual History

31. Have you ever had sexualintercourse?
    a) Yes b) No (If no go to question 34)
32. How old were you the first time you had sexual intercourse?...................years
33. What would you comment about your first sex was it
    a) Planned b) Unexpected c) Forced
34. Do you have a sexual partner currently?
    a) Yes b) No (If no go to question 37)
35. If yes how old is he?................years
36. What is the occupation of your partner?
    a) Primary/ secondary school student
    b) University student
    c) Working
    d) Other specify…………………..

37. How many sexual partners have you ever had?
    a) One
    b) Two
    c) Three to five
    d) Six to ten
    e) Other specify…………
38. Have you ever been pregnant?
    a) Yes b) No (If no go to question 41)
39. If yes how many times? ………….
40. What was the outcome of the last pregnancy?
    a) Currently pregnant
    b) Delivered
    c) Abortion; i) Induced ii) Spontaneous

Part five. Contraceptive Use and barriers

41. Have you ever used contraceptive method?
    a) Yes b) No (If no go to question 52 also do not answer question55)
42. Did you and your partner discuss about contraceptive methods the first time you had sex?
    a) Yes b) No
43. Did you and your partner use a contraceptive method the first time you had sex?
    a) Yes b) No

44 What method did you and your partner used the first time you had sex?
- a) Condom b) Pills c) Injectalbles
- d) Others……….……………………………………………………………

45. Apart from the first time you had sex, how often did you or your partner use contraceptive?
    a) Always b) Sometimes c) Never
46. What method did you and your partner mostly use?
    a) Condom b) Pill c) Injectables
    d) Others specify …………………………………………………………

47. Did you and your partner use a contraceptive method the last time you had sex?
    a) Yes   b) No   (If no go to question51)
48. What was the method used?
    a) Pill
    b) Injectable
    c) Condom
    d) IUD
    e) Spermicidal
    f) Others specify…………………………………
49. Where did you and your partner get the contraceptive method used last time?
    a) Government health facility
    b) Private health facility
    c) Pharmacy
    d) Friend
    e) Shop
    f) Other specify………………………
50. What was the most important reason why you got the contraceptive method you used from the above place?
More than one answer is possible
    a) Does not need prescription
    b) Short waiting time
    c) Availability in short distance
    d) Affordable price
    e) Free service
    f) Others specify…………………………..
51. Frequency of modern contraceptive use in the last six months
    a) Always used   b) Sometimes   c) Never.{If answer is (A) do not attempt question 55}
52. Do you plan to use contraceptive methods in the future?
    a) Yes   b) No

53. If you were given a choice what modern contraceptive methods would you and your partner like to use?
    a) Condoms
    b) Pills
    c) Injectable
    d) IUD
    e) Spermicidal
    f) None
    g) Others specify…………….
54. Why did you choose the method you chose?
    a) Easy to get
    b) Cheap
    c) Effective
    d) Few side effects
    e) Others specify…………………….

Barriers

55. Tick all the problems that you faced when you needed to use contraceptive methods {For current and ever users only.

a) Shortage of money
b) Lack of knowledge how to use properly
c) Long waiting time at health facility
d) Do not know where to get contraceptives
e) Bad health worker's attitude
f) Embarrassment to buy
g) Fear of side effects
h) Disapproval by partner
i) Disapproval by parent
j) Others specify ………………………..

56 Tick all reasons why you are not using modern contraceptive methods? {For ever non users only.

a) Lack of knowledge on how to use
b) Fear of side effects
c) Religious disapproval
d) Partner disapproval
e) Embarrassment to buy
f) Do not know where to get them
g) Shortage of money
h) Do not approve contraceptive use by adolescents
i) Fear of being seen by someone who knows me
j) Fear of bad health worker's attitude
k) Preferred method not available
l) Do not have sexual partner
m) I have not yet started sexual intercourse
n) Others specify …………………………

FOMU YA RIDHAA YA KUSHIRIKI KATIKA UTAFITI

Utafiti wa Ufahamu, mtazamo na matumizi ya uzazi wa mpango kwa wanafunzi wa kike wa shule za sekondari katika manispaa ya Morogoro**.**

Utangulizi

Jina langu ni Dk.Elimwidimi Swai mtafiti kutoka chuo cha mafunzo ya afya cha Muhimbili. Ninafanya utafitijuu ya uelewa, mtazamo namatumizi ya njia za uzazi wa mpango wa kisasa kwa wanafunzi wa kike wa shule za sekondari katika manispaa ya Morogoro. Utafiti huu utatusaidia kupata taarifa zitakazosaidia kupanga mikakati ya utekelezaji wa mipango ya kuzuia mimba za ujanani, utoaji mimba na kuwezesha wanafunzi wa kike kuendelea na masomo kama inavyotakiwa kwa hapa Morogoro na hata katika nchi kwa ujumla.

Jinsi ya kushiriki

Unaombwa kushiriki katika utafiti huu kwa sababu wewe ni mmoja kati ya wanafunzi vijana wa kike katika shule za sekondari. Ukikubali kushiriki, utahojiwa kwa kama nusu saa hivi mara moja tu.

Usiri

Kila kitu kitabakia kuwa siri na kitatumika kwa ajili ya utafiti tu. Timu inayohusika na utafiti itatumia majibu yote kuandaa ripoti itakayokuwa na habari za wanafunzi wengine washiriki bila kuandika jina mahali popote.

Madhara

Sitegemei kutakuwa na kitu chochote kibaya kitakachotokea kwako kwa kushiriki katika utafiti huu.

Haki ya kushiriki

Ushiriki wako katika utafiti huu si lazima. Una uwezo wa kukubali au kukataa bila kutoa sababu zozote za kufanya hivyo. Na ukikubali, unaweza kubadili uamuzi wako wakati wowote

Faida za kushiriki

Ukikubali kushiriki, utatusaidia kujua vizuri kwa sasa kuhusu uelewa, mtizamo na matumizi ya uzazi wa mpango unaoshauriwa na wataalamu wa afya na kuzisaidia mamlaka zinzohusika kwa hapa Morogoro na taifa kwa ujumla katika kupanga mikakati

ya kuzuia mimba za ujanani, utoaji mimba na kusaidia wanafunzi wa kike kuhitimu masomo yao kama inavyotakiwa.

Mawasiliano

Ukiwa na maswali yoyote kuhusu utafiti huu, uwe huru kuwasiliana na mtafiti mkuu, Dk Elimwidimi Swai (0713659769).

Kama utakuwa na maswali kuhusu haki zako kama mshiriki, unaweza kumpigia Prof Mainen Moshi,Mwenyekiti wa kamati ya utafiti Chuo cha Afya Muhimbili kwa Simu namba 2150302-6

Kama umekubali kuhojiwa, tafadhali saini hapa:

Mimi, nimesoma na kuelewa kilichoelezwa kwenye fomu hii na maswali yangu yamejibiwa kiufasaha. Hivyo ninakubali kuhojiwa kwa ajili ya utafiti huu.

Sahihi ya mhojiwa ……………………………………….. Tarehe ……………………..

Sahihi ya mhoji…………………………………………… Tarehe………………………

DODOSO

Kwa ajili ya utafiti wa ufahamu, mtizamo, matumizi na vikwazo vya utumiaji wa uzazi wa mpango wa kisasa kwa wanafunzi wa kike wa shule za sekondari katika manispaa ya Morogoro.

Takwimu Jamii.
1 Una umri gani?........miaka

2 Je unasoma kidato cha ngapi?
a) Kidato cha kwanza
b) Kidato cha pili
c) Kidato cha tatu
d) Kidato cha nne
e) Kidato cha tano
f) Kidato cha sita

3 Je Shule yako inamilikiwa na?
a) Serikali b) Binafsi

4 Je ni shule ya aina ipi?
a) Kulala b) Kutwa

5 Dini yako?
a) Mkatoliki
b) Madhehebu mengine ya kikristo
c) Muislam
d) Nyingine Taja……….

6 Je mahudhurio yako katika huduma za kiroho yakoje?
a) Kila siku
b) Angalau mara moja kwa wiki
c) Mara moja kwa mwezi
d) Mara moja kwa mwaka
e) Sihudhurii kabisa

7 Huwa nyumbani unaishi na nani?
a) Baba na Mama
b) Mama
c) Baba
d) Ndugu
e) Rafiki
f) Peke yangu
g) Wengine taja……….

8 Kiwango cha elimu ya baba yako
a) Hana elimu

b) Anajua kusoma na kuandika
c) Elimu ya msingi
d) Elimu ya sekondari
e) Elimu ya chuo
f) Sijui

9 Je kuna urahisi kuzungumza na baba yako kuhusu jambo lako la msingi?
a) Rahisi sana
b) Rahisi
c) Vigumu
d) Vigumu sana
e) Haonekani

10 Je mara ngapi huwa unazungumzia maswala ya afya ya uzazina baba yako?
a) Mara nyingi b) Mara chache c) Hata mara moja

11 Kiwango cha elimu ya mama yako
a) Hana elimu
b) Anajua kusoma na kuandika
c) Elimu ya msingi
d) Elimu ya sekondari
e) Elimu ya chuo
f) Sijui

12 Je kuna urahisi kuzungumza na mama yako kuhusu jambo lako la msingi?
a) Rahisi sana
b) Rahisi
c) Vigumu
d) Vigumu sana
e) Haonekani

13 Je mara ngapi huwa unazungumzia maswala ya afya ya uzazina mama yako?
a) Mara nyingi b) Mara chache c) Hata mara moja

14 Je mara ngapi huwa unazungumzia maswala ya afya ya uzazina (ndugu, marafiki na wengine) unaoishi nao?
a) Mara nyingi b) Mara chache c) Hata mara moja

15 Hali ya kazi ya wazazi wako
a) Wazazi wote wafanyakazi
b) Baba peke yake ndo mfanyakazi
c) Mama peke yake ndo mfanyakazi
d) Wazazi wote sio wafanyakazi

16. Una mtazamo gani kuhusiana na uwezo wa kiuchumi wa familia yenu?
a) Mdogo b) Wastani c) Tajiri

17. Unapewa hela za kujikimu?
   a) Ndiyo b) Hapana

18. Je huwa unafanyakazi za malipo na kupata kipato chako?
   a) Ndiyo b) Hapana

Ufahamu kuhusu uzazi wa mpango

19 Je umewahi kusikia kuhusu uzazi wa mpango wa kisasa?
   a) Ndiyo b) Hapana. Kama jibu ni hapana jibu swali la 31 hadi40 tu.

20 Je ni zipi kati ya zifuatazo umewahi kusikia kuwa ni njia za uzazi wa mpango za kisasa? (Jibu zaidi ya moja inawezekana)

a)	Vidonge vya majira	a) Ndiyo	b) Hapana
b)	Sindano	a) Ndiyo	b) Hapana
c)	Kondomu	a) Ndiyo	b) Hapana
d)	Dawa ya povu kuweka ukeni	a) Ndiyo	b) Hapana
e)	Kitanzi	a) Ndiyo	b) Hapana
f)	Kipandikizi	a) Ndiyo	b) Hapana
g)	Kufunga uzazi mwanamke	a) Ndiyo	b) Hapana
h)	Kufunga uzazi wa mwanaume	a) Ndiyo	b) Hapana
i)	Nyinginezo taja…………..		

21 Je chanzo chako cha habari kuhusu uzazi wa mpango ni? (Jibu zaidi ya moja inawezekana)

a)	Mwalimu shuleni	a) Ndiyo	b) Hapana
b)	Mama	a) Ndiyo	b) Hapana
c)	Baba	a) Ndiyo	b) Hapana
d)	Kaka	a) Ndiyo	b) Hapana
e)	Dada	a) Ndiyo	b) Hapana
f)	Marafiki	a) Ndiyo	b) Hapana
g)	Watumishi wa afya	a) Ndiyo	b) Hapana
h)	Vyombo vya habari	a) Ndiyo	b) Hapana
i)	Vitabu na majarida	a) Ndiyo	b) Hapana
j)	Nyinginezo taja…………..		

22 Je ni wapi ungependa upate taarifa za uzazi wa mpango?

a)	Mwalimu shuleni	a) Ndiyo	b) Hapana
b)	Mama	a) Ndiyo	b) Hapana
c)	Baba	a) Ndiyo	b) Hapana
d)	Kaka	a) Ndiyo	b) Hapana
e)	Dada	a) Ndiyo	b) Hapana
f)	Marafiki	a) Ndiyo	b) Hapana
g)	Watumishi wa afya	a) Ndiyo	b) Hapana
h)	Vyombo vya habari	a) Ndiyo	b) Hapana
i)	Vitabu/majarida	a) Ndiyo	b) Hapana
j)	Nyinginezo taja…………..		

23 Je unajua pa kupata njia ya uzazi wa mpango ukiitaji?
   a) Ndiyo b) Hapana. Kama jibu ni hapana nenda swali la 25.

24 Je huduma za uzazi wa mpango zinapatikana wapi? (Jibu zaidi ya moja inawezekana)

a)	Vituo vya huduma za afya vya serikali	a) Ndiyo	b) Hapana

b) Vituo vya huduma za afya vya binafsi a) Ndiyo b) Hapana
c) Kutoka kwa mama a) Ndiyo b) Hapana
d) Duka la dawa a) Ndiyo b) Hapana
e) Vituo vya vijana a) Ndiyo b) Hapana
f) Mashirika yasiyo ya kiserikali a) Ndiyo b) Hapana
g) Nyinginezo taja……

Mtazamo kuhusu uzazi wa mpango

25 Unafikiri utumiaji wa uzazi wa mpango wa kisasa ni salama
a) Nakubali b) Sikubali c) Siwezi kubali/kukataa

26 Faida za utumiaji wa uzazi wa mpango wa kisasa ni bora kuliko madhara yake
a) Nakubali b) Sikubali c) Siwezi kubali/kukataa

27 Ungependa kujua zaidi kuhusu uzazi wa mpango wa kisasa
a) Nakubali b) Sikubali c) Siwezi kubali/kukataa

28 Huwa unazungumzia uzazi wa mpango na rafiki zako
a) Nakubali b) Sikubali c) Siwezi kubali/kukataa

29 Unakubali kuwa vijana watumie uzazi wa mpango
a) Nakubali b) Sikubali c) Siwezi kubali/kukataa

30 Je unadhani nani achukue jukumu la kutumia uzazi wa mpango?
a) Mpenzi wa kiume
b) Mpenzi wa kike
c) Wapenzi wote wawili.

Je una mtizamo gani kuhusu kondomu?Chagua kama unakubali, hujui au hukubali	Nakubali Sikubali Siwezi kubali/kukataa
1 Msichana anaweza kumshawishi mpenzi wake kutumia kondomu	Nakubali Sikubali Siwezi kubali/kukataa
2 Itakuwa jambo la kufedhehesha kwa mtu kama mimi kununua kondomu	Nakubali Sikubali Siwezi kubali/kukataa
3 Kama msichana atamshawishi mpenzi wake kutumia kondomu itamaanisha kuwa hamwamini	Nakubali Sikubali Siwezi kubali/kukataa
4 Kondomu zinapunguza utamu wa ngono	Nakubali Sikubali Siwezi kubali/kukataa
5 Kondomu inaweza kuchomoka na kupotelea ndani ya mwili wa mwanamke	Nakubali Sikubali Siwezi kubali/kukataa

Historia yako ya kujamiiana

31 Je ulishawahi kufanya ngono?

a) Ndiyo b) Hapana (kama jibu ni hapana nenda swali la 34.)

32 Je ulikuwa na miaka mingapi ulipofanya ngono kwa mara ya kwanza?.Miaka…………

33 Je unazungumziaje tendo lako la ngono la mara ya kwanza? Je

a) Ulipanga b) hukutarajia c) Ulilazimishwa

34 Jekwa sasa una mpenzi?

a) Ndiyo b) Hapana (kama hapana nenda swali la 37)

35 Kama ndiyo je ana umri gani?. Miaka…………..

36 Je anafanyakazi gani?

a) Mwanafunzi wa shule ya msingi au sekondari
b) Mwanafunzi wa chuo kikuu
c) Ameajiriwa
d) Nyinginezo taja………………………………………..

37 Je katika maisha yako umewahi kuwa na wapenzi wangapi?

a) Mmoja
b) Wawili
c) Watatu mpaka watano
d) Sita mpaka kumi
e) Hata mmoja
f) Nyinginezo taja…………………..

38 Je uliwahi kupata ujauzito?

a) Ndiyo b) Hapana (kama hapana nenda swali la 41)

39 Kama ndiyo mara ngapi?................

40 Je nini ilikuwa hatima ya ujauzito wako wa mwisho?

a) Mjamzito sasahivi
b) Nilijifungua
c) Ujauzito ulitoka; i) nilitoa ii) ulitoka wenyewe

Matumizi na vikwazo vya uzazi wa mpango

41 Je uliwahi kutumia njia ya uzazi wa mpango?

a) Ndiyo b) Hapana (Kama jibu ni hapana nenda swali la 52 na usijibu swali la 55)

42 Je mara ya kwanza kufanya ngono mlizungumzia uzazi wa mpango na mpenzi wako?

a) Ndiyo b) Hapana

43 Je wewe au mpenzi wako mlitumia njia ya uzazi wa mpango mara ya kwanza kufanya ngono?

a) Ndiyo b) Hapana

44 Je ni njia gani ya uzazi wa mpango mlitumia wewe na mpenzi wako mara ya kwanza kufanya ngono?

a) Kondomu b) Vidonge vya majira c) Sindano
d) Nyinginezo taja………………………

45 Tofauti na mara ya kwanza ulipofanya ngono, je ni kwa kiasi gani umekuwa ukitumia njia ya uzazi wa mpango?
a) Wakati wote b) Mara chache c) Situmii kabisa

46 Je huwa ni njia gani ya uzazi wa mpango wewe na mpenzi wako mnatumia zaidi?
a) Kondomu b) Vidonge vya uzazi wa mpango c) Sindano
e) Nyinginezo taja…………………………………..

47 Je wewe na mpenzi wako mlitumia njia ya uzazi wa mpango mara ya mwisho mlipofanya ngono?
a) Ndiyo b) Hapana Kama jibu ni hapana nenda swali la 51.

48 Je ni njia gani mlitumia?
a) Vidonge vya uzazi wa mpango b) Sindano c) Kondomu d) Kitanzi
e) Dawa ya kuua mbegu za kiume f)Nyinginezo taja……………..

49 Je wewe na mpenzi wako mlipata wapi njia ya uzazi wa mpango mliotumia mara ya mwisho?
a) Kituo cha tiba cha serikali
b) Kituo cha tiba cha binafsi
c) Duka la dawa
d) Rafiki
e) Dukani
f) Nyinginezo taja……………………………………

50 Je kwanini uliamua kuchagua njia ya uzazi wa mpango uliochagua hapo juu?
a) Haiitaji kuandikiwa na daktari
b) Muda mfupi wa kusubiria
c) Inapatikana maeneo ya karibu
d) Bei rahisi
e) Ni huduma ya bure
f) Nyinginezo taja………………………………………..

51 Je kwa kipindi cha miezi sita iliyopita matumizi yako ya uzazi wa mpango yalikuwaje?
a) Nilitumia wakati wote Kama jibu ni (a) usijibu swali la 55
b) Nilitumia mara chache
c) Sikutumia kabisa

52 Je una mpango wa kutumia njia ya uzazi wa mpango siku zijazo?
a) Ndiyo b) Hapana

53 Je ukiambiwa uchague ni njia gani ya uzazi wa mpango ya kisasa wewe na mpenzi wako ungependelea kutumia?
a) Kondomu b) Vidonge vya uzazi wa mpango c) Sindano d) Kitanzi
f) Dawa ya kuuma mbegu za kiume
g) Hamna hata moja
h) Nyinginezo taja……………………………………………….

54 Kwa nini umechagua njia uliyotaja hapo juu?

a) Inapatikana kirahisi
b) Bei rahisi
c) Ina ubora wa kiwango cha juu
d) Ina madhara kidogo
e) Nyingine Taja…………………………………………………………..

Vikwazo

55 Chagua matatizo unayokumbana nayo unapoitaji kutumia uzazi wa mpango
Lijibiwe na waliowai kutumia uzazi wa mpango wa kisasa tu. (Jibu zaidi ya moja inawezekana)

a) Uhaba wa fedha
b) Kutokuwa na uelewa jinsi ya kutumia
c) Muda mrefu wa kusubiria katika kituo cha tiba
d) Sijui pa kupata njia ya uzazi wa mpango
e) Kuchukuliwa vibaya na wahudumu wa afya
f) Kujiskia vibaya kununua
g) Kuogopa madhara
h) Mpenzi wako hakubali
i) Wazazi hawaruhusu
j) Nyinginezo taja……………………………..

56 Je ni kwanini hutumii njia za uzazi wa mpango?
Lijibiwe na ambao hawajawai kutumia uzazi wa mpango wa kisasa tu.
(jibu zaidi ya moja inawezekana)

a) Kutokuwa na uelewa jinsi ya kutumia
b) Kuogopa madhara
c) Dini hairuhusu
d) Mpenzi hakubali
e) Kujiskia vibaya kununua
f) Sijui pa kupata
g) Uhaba wa fedha
h) Sikubali vijana watumie uzazi wa mpango
i) Naogopa kuonwa na mtu anayenifahamu
j) Naogopa hulka mbaya ya watumishi wa afya
k) Njia unayopendelea haipatikani
l) Sina mpenzi
m) Sijaanza kufanya ngono
n) Nyinginezo taja…………………………………………………………..