COMPARISON OF FAMILY PLANNING PRACTICES AMONG FEMALE ADOLESCENTS WITH GENITAL TRACT INFECTIONS AND THOSE WITHOUT, ATTENDING A YOUTH FRIENDLY CENTRE AT MTWAPA, KENYA

DISSERTATION IN PARTIAL FULFILLMENT OF MASTER OF MEDICINE IN OBSTETRICS AND GYNECOLOGY AT THE UNIVERSITY OF NAIROBI.

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APPRECIATION

To my supervisors- Dr. Anne Kihara and Dr. Kinuthia John for their unfading support during the entire proposal and dissertation writing process.

STUDENTS DECLARATION

This dissertation is my original work and has not been presented for course work in this or any other institution of learning**.**

Dr. David Murunyu Murigi H58/68755/11.

Signature..... Date……..

SUPERVISOR'S APPROVAL.

This dissertation has been submitted for approval to the department of obstetrics and gynecology, University of Nairobi for consideration, with approval.

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Signature…….. Date……../……../……

ABBREVIATIONS AND ACRONYMS

ANC-	Antenatal care.
CPR-	Contraceptive prevalence rate.
DAR-	Daily activity register.
DRH-	Division of Reproductive Health.
ERC-	Ethics review committee.
FP -	Family planning
GBV –	Gender based violence.
GTIs-	Genital tract infections.
HFG-	HIV free generation.
KAIS-	Kenya Aids indicator survey
KDHS -	Kenya Demographic and Health Survey
KNBS-	Kenya national bureau of statistics.
KNH -	Kenyatta National Hospital
LMP-	Last menstrual period
MGD -	Millennium Development Goals
MMR -	Maternal Mortality Ratio
MOH -	Ministry Of Health
NASCOP-	National Aids and STI control programme.
PI-	Private Investigator
RVF-	Rectal vaginal fistula.
STD-	Sexually transmitted disease.
UN -	United Nations
UoN-	University of Nairobi.
VVF-	Vesicle vaginal fistula.
WHO-	World Health Organization.
YFC-	Youth friendly Centre.

DEFINITION OF TERMS/OPERATIONAL DEFINITIONS:

1. Genital tract infections (GTIs): As per this study shall refer to any genital tract signs and symptoms such as abnormal vaginal discharge, vulval itchiness, genital swellings/rash, ulceration and or positive HIV result.
2. Adolescents: Person aged 10 – 19 years.
3. Emancipated minor- Female under 18 years with responsibilities of an adult such as taking care of siblings or her own children, sexually active.
4. Study population- sexually active female adolescent (with and without GTIs) who met the inclusion criteria.

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ABSTRACT

INTRODUCTION.

Adolescents comprise about 20% of the world population with about 85% living in the developing world a significant number of whom are sexually active and have multiple sexual partners. In Kenya some have initiated intercourse by age 10 years placing them at high risk of genital tract infections including HIV, unwanted pregnancies and associated complications, genital tract malignancies among others. Information, education and counseling on family planning and more so dual protection is necessary in this age group to protect them against the above.

Objective: To compare the family planning practices among adolescents (with and without genital tract infections) attending a youth friendly center in Mtwapa Location- Kilifi County, Kenya.

Methods: This was a comparative cross sectional study on family planning practices among a total of 342 adolescents -171 with and 171 without genital tract infections(GTIs) attending a Youth friendly Centre at Mtwapa. Consecutive sampling after giving informed consent as done, data collected using structured questionnaire and entered into MS Office Excel databases using predefined questionnaire codes. Univariate and bivariate analysis of each variable was done according to the presence or/ absence of genital tract infections. Magnitude of association was reported using Odds Ratio, 95% confidence intervals and p values derived from chi square tests.

Results: Mean age of adolescents with GTIs was 17.6 years (SD 1.4) compared to 17.63 years (SD 1.5) among those without. Those with GTIs were less likely to have received formal sex education (OR = 0.27, 95% CI 0.14-0.55); more likely to have engaged in commercial sex (OR = 6.16, 95% CI 1.84-20.63); more likely to have involved in same sex acts (OR = 2.64, 1.23-5.66); used sexual performance enhancing drugs (OR = 8.51, 1.93-37.40) ; did not use condoms frequently (OR = 3.42, 1.57-7.43) and more likely to have their choice of Family planning influenced by friends (OR = 0.42;95%CI: 0.27-0.65,P<0.001) compared to those without GTIs.

Conclusions: Condoms use was less likely and friends influenced choice of family planning among adolescents with GTIs as compared to those without GTIs. In the study population, lack of and Inconsistencies of condom use, multiple sexual partners, early age at coitarche, use of sex performance enhancing drugs, same sex sexual acts, lack of formal sex education were associated with increased risk of GTIs.

Recommendation: Adolescent need to be informed, educated and counseled on safe sexual practices in schools, YFCs, religious institutions by teachers, peer counselors, religious leaders respectively.

Advocacy on reducing risky sexual behavior and appropriate family planning options to protect against GTIs amongst adolescents by national and county governments should be scaled up.

INTRODUCTION

BACKGROUND

Adolescents are people aged 10 to 19 years as defined by World health organization (WHO) and they make up about 20% of the world's population. Adolescent fertility is an important contributor to overall population growth and maternal mortality rate. Pregnancy and child birth together with their associated complications are the leading causes of mortality among women aged 15 to 19 years; this is as are result of inability to access good quality health care, including abortion services, antenatal care, family planning and skilled attendance during delivery. Adolescents aged 15 to 19 years have a two fold risk for maternal mortality as compared with those aged 20 to 24 years as per WHO estimates.[1]

Despite the fact that most Kenyan adolescents have received information on reproductive health, the quality is still low, very few(less than 8%) can correctly identify a fertile period in a woman's menstrual cycle. More than 50% of young people are sexually active having initiated intercourse by age of 14 years.[2] More than 15 Million girls and adolescent women aged 10-15 years become pregnant every year. Over half of adolescents in sub Saharan Africa have a child and 5 to 25% of girls globally drop out of school because they are pregnant, this increases their risk of living in poverty.[3,4]

Young people tend to shy away from visiting clinics due to a number of reasons such as: lack of privacy and confidentiality, inconvenient locations and working hours, limited contraceptive choices and supplies and perhaps most importantly negative or judgmental health care providers. As regards specific/targeted service provision in Kenya, young people adolescents inclusive are still a neglected and vulnerable group, despite their specific psychological and biological needs, high prevalence of sexual abuse and high risk of sexually transmitted infections (STIs), high transmission of HIV and pregnancy rates.[5]

Pregnancy related complications are the most common causes of death among15 to 19-year-old females. Obstructed labor is especially common among young physically immature women giving birth for the first time. It can lead to vesicle vaginal fistula (VVF) recto vaginal fistula (RVF), death of the mother and / baby, anemia and postpartum hemorrhage. Other complications include increased school dropout rates, stigma, and preeclampsia/ eclampsia. Family planning is an essential pillar in trying to reduce maternal and child mortality rates because it enables women to postpone, space or limit pregnancy. Kenya's population has risen rapidly over the past four years, with the proportion of youth also increasing.[6]

In 2009, 43% of Kenya s population was under age of 15 years- highest in Africa. Kenya s increase in youthful population has come about as a result of early age at marriage and at birth of first child, low contraceptive use, among other factors. Kenya has been working towards increasing the overall contraceptive prevalence rate (CPR) among adolescents aged 15-19 year by 2015.There has been a reduction in the proportion of teenagers who had begun childbearing (adolescent fertility), down to18 percent from the figure of 23 percent reported in the 2003 Kenya demographic and health survey (KDHS-2003), although wide regional disparities persisted. [7]

LITERATURE REVIEW

Family planning practices among adolescents.

CPR among adolescents aged 15-19 years in Kenya is 40.2%, only 3 out of 5 teenagers who engage in sexual intercourse use contraceptives. 18% of adolescents in Kenya aged 15-19 have started child bearing. Un met need for family planning in Kenya among women aged 15- 19 years is on average 23%.[8]Unmarried youth, adolescents inclusive have a twofold unmet need for family planning as compared married youth. Adolescents are more likely to seek information on family planning from their friends and their choices of family planning methods are commonly influenced by convenience.[9]Almost half (47%) of births among Kenyan adolescents aged 15-19 are unintended, wanted later or unwanted. [10]

Among adolescent girls who have ever had sex and intend to have children in future, more than half (64%) would like to wait for at least two or more years.[11] In a survey in Malawi, more than half(61% of males and 57% of females) aged 15-19 years sexually active at the time of the survey.[12] In Kenya, more than 50% of adolescents sampled were sexually active, with average age at coitarche being sometime between 13 and 14 years and 89% of the sexually active population had never used contraceptives.[13] Un intended pregnancies are one of the main contributory factors towards severity of unsafe abortions.[14]

In a study in Madagascar, very few(17%) of the sexually active adolescents used condoms.[15] Among senior high school girls in Ethiopia, it was noted out of a total of 991 students sampled, 30.7% had had sexual intercourse yet very few(6.3%) of these used contraceptives hence increased pregnancy rates(30.1%) .[16]The world allover is experiencing increasing cases of teenage births contributing to about 10 to 15% of total births globally. Incidence of abortions among adolescents is estimated to be up to 4.4 million per year globally and is relatively high in Kenya. Most cases of abortions among adolescents are unsafe because of being performed un safe environments and commonly by unskilled providers.[14,17]

STIs prevalence rates worldwide are highest among young people aged 15-24 years, two out of every 5 new HIV infections occur in young people aged 15-24.Much as young people adolescents inclusive represent only 25% of the sexually active population, they acquire nearly half of all new STD infections.[18] They are at increased risk for STD infections as compared to adults because of biological make up; more likely to involve themselves in risky sexual behaviors and in some cultures, young girls are forced to marry older men by their

parents. Other contributing factors to the higher prevalence of STDs among adolescents include: barriers to accessing quality STD prevention services such as inability to pay for such services, discomfort with facilities that were initially designed for adults.

Traditionally, intervention strategies have targeted individual level factors associated with STD risks; these do not address high level factors such as peer norms and media that may also influence behavior. Approximately a quarter of all people with HIV in the USA contracted it while still teenagers .[19] Today, four in 10 sexually active teen girls have had an STD that can cause infertility and even death. [20]

Among women and men aged 15-19 years in Kenya, it was found 6% and 2% respectively were living with HIV/AIDS.[7] Consistent contraception use especially condoms is still a challenge for most adolescents hence predisposing them to STDS/HIV. Condom use among sexually active adolescents tends to be high during at first sexual intercourse but drops with subsequent sexual encounters.[21] A significant number of adolescents tend to involve themselves in casual sexual behavior that is sexual intercourse without commitment or emotional involvement at times involving more than two parties at the same encounter. This is of particular concern given that half of 19millionnew sexually transmitted infections (STIs) diagnosed each year globally occur in young people between the ages of 15 to 24 years.[22]

Adolescents tend to involve themselves in risky sexual behavior at times due to influence of alcohol and other substances of abuse which is a common practice amongst this group of people especially during their first sexual encounter.[23] In a study on sexual practices among unmarried adolescents in Tanzania, 15% of adolescents reported having multiple sexual partners yet condoms was not high at 56% .Being Single and involvement in commercial sex work predisposes adolescents to increased risk for STDs. [24]

Media influence on adolescent sexuality.

A significant proportion of adolescents pay a lot of attention to the media and this can influence their behavior sexuality both positively and negatively. Adolescents also tend to rely on media as a source of information including that on reproductive health such as contraception. [25] They are more likely to engage in sexual activities to try and emulate what they learn through media as compared to adults.[26]

Adolescents who are exposed to more sexual content in the media, report greater intentions to engage in sexual intercourse and more sexual activity. Mass media plays a great role as far as adolescent's sexual socialization is concerned. [26]

Same sex relationships among adolescents

Adolescents are increasingly engaging in homosexual practices, this predisposes them to increased risks of acquiring STDs/HIV especially among females as no form of protection is used. In a study conducted in the United States in 2001, almost half of new cases of HIV among young people were as a result of homosexual practices. [27]

Poverty and its influence on adolescents sexual and family planning practices.

Poverty among young people adolescents inclusive lures most of them to engage in risky behavior such as prostitution, sexual relations with much older men. Also due to poverty and lack of proper awareness, numerous youth engaging in prostitution don't protect themselves against STD/HIV infections and some are lured not to use protection by their clients thus putting them at risk of infection and un wanted pregnancies, they are unable to insist on safe sex from their clients.[28] In Kenya, nearly 30% of children aged 12 to 18 years are engaged in child prostitution, the practice being most prevalent in the Coastal province, which is a hunting ground for pedophiles who come into the country as tourists. Much as sexual exploitation of children is a criminal offence under Kenya s laws and the children's act, parents and guardians especially in the coastal province commonly facilitate this unlawful act .[29]

Up to 30% of all 12 to 18 year olds living in the coastal areas of Mombasa, Malindi, Kilifi and Diani are involved in casual sex work; an estimated 10,000 to 15,000 girls in these areas are being sexually exploited annually by sex tourists. Children involved in prostitution are at times compelled to provide sexual favors to locals such as beach boys, bar waiters in exchange to gaining access to places frequented by tourists. These activities put adolescents at risk of acquiring STDs /HIV and unwanted pregnancies.[30]

STUDY SIGNIFICANCE.

Contraceptive prevalence rate (CPR) in Kenya among adolescents is still low i.e. 40.2%[5] compared to overall CPR of 58% and with a total fertility rate (overall) of 3.9%,[8] contributing to rapid population growth and also to unwanted pregnancies. Many adolescents are dropping out of school due to unwanted pregnancies and many others are contracting STDs/HIV increasing their risk for cancers. Adolescents with STDs imply that they are having unprotected sexual acts also putting them at risk of unwanted pregnancies ,increasing their vulnerability to seek unsafe abortions and predisposing them to complications like hemorrhage, sepsis and uterine perforations.[31] They are also at risk of transmitting infections such as HIV to their unborn babies. Dropping out of school due to unwanted pregnancies condemns them to poverty. Pregnancy and child birth among adolescents also puts them at increased risk of other obstetric complications. This study assessed family planning practices amongst adolescents with and without GTIs, with the view to identifying gaps and provides recommendations on their sexual health.

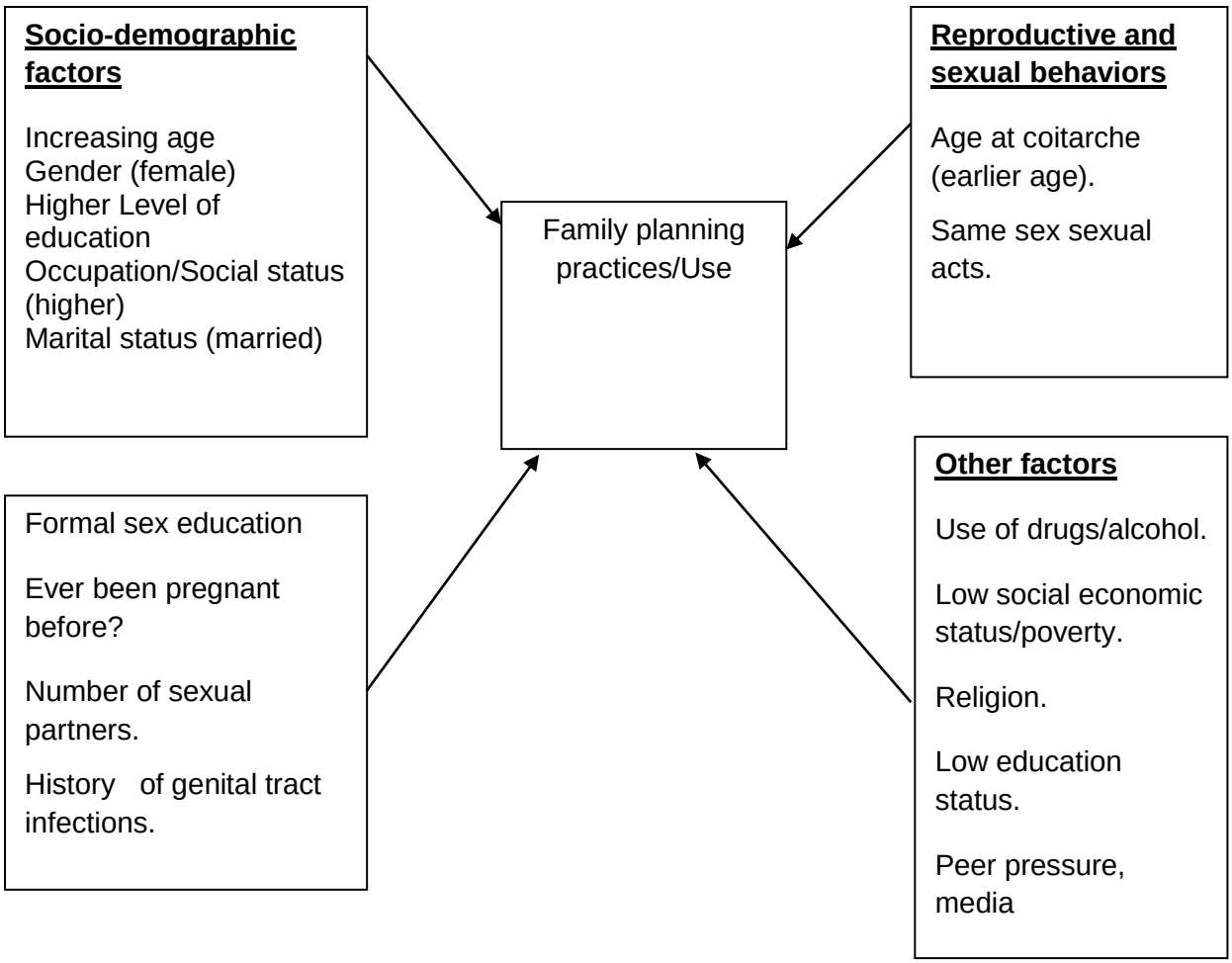
RATIONALE

World's population is youthful and composed of adolescent's majority of who are sexually active and tend to have multiple sexual partners, this has led to high rates of sexually transmitted infections (STDs) amongst this age group. In addition, they are at risk of unwanted pregnancies which could lead to transmission of GTIs to their babies. They are also likely to deliver at home with increased risk of obstetric and neonatal complications such as fistulas, postpartum hemorrhage, and birth asphyxia with associated cerebral palsy in the neonate or end up with maternal and neonatal mortality. Adolescents presenting with genital tract infections are unlikely to be using family planning or using them inconsistently particularly the barrier methods hence the genital tract infections. It's thus important to compare family planning practices among adolescents with and without genital tract infections, to inform practices and interventions for programs amongst this vulnerable population.

CONCEPTUAL FRAMEWORK

The conceptual framework identifies the socio-demographic factors, reproductive and sexual behaviors and other factors like use of drugs and exposure to formal sex education as the main factors affecting the choice of family planning method. This study investigated factors that affected family planning practices to find out which were the most important in the Kenyan context so as to come up with interventions that are suitable for this population.

Figure 1: Conceptual Framework



RESEARCH QUESTIONS.

What are the family planning practices among adolescents (with genital tract infections compared to those without) presenting at the Youth Friendly Center in Mtwapa Township?

STUDY OBJECTIVES

Broad Objective.

To compare family planning practices among female adolescents with genital tract infections and those without attending a Youth Friendly Centre at Mtwapa.

Specific Objectives.

Amongst adolescents presenting with genital tract infections and those without (study population):

i) To compare the social demographic and reproductive characteristics.
ii) To compare sexual practices in the study population
iii) To compare family planning practices in the study population.
iv) To compare factors associated with family planning practices in the study population

PROBLEM STATEMENT.

Prevalence of STDs/HIV and rates of unwanted pregnancies among adolescents are high. Two out of every five new HIV infections occur among young people. It was found that abortion was the highest researched topic on internet among adolescents in Kenya in 2013, this in its self-highlights a high unmet contraceptive need which stands at 23% in Kenya.[8] Rates of induced abortions in Kenya are high (464,690 In the year 2012 corresponding to an abortion rate of 30 abortions per 100 births).This predisposes women to post abortion complications majority of the affected women being in the age group 10-19years.[29] Contraceptive prevalence rate in Kenya is still low- at 40.2% among adolescents aged 15-19years.[8]

METHODOLOGY AND MATERIALS

STUDY DESIGN

This was a comparative cross- sectional study that used quantitative data collection methods. Family planning practices among adolescents with genital tract infections were assessed and compared with adolescents without these infections.

STUDY SITE

This study was conducted at Mtwapa Health Centre located within Mtwapa location, in Kikambala division, Bahari district located in Bahari constituency, Kilifi County. The Centre has a Youth friendly Centre within lt. Mtwapa is located at the border of Kilifi and Mombasa counties .It has four sub locations which are:Kanamai, Shimo la Tewa; Kipwa and Kidutani/Mawamba. Total population of Mtwapa is estimated at 70,587 people, 40% of which is comprised of adolescents and is also served by two government owned dispensaries that is Mtwapeni and Msumari dispensaries.

Mtwapa Health Centre has integrated services, “ONE STOP SHOP” that is Sexual and reproductive health services including HIV/STD screening and treatment, provision of family planning services minor surgical procedures, antenatal care, treatment of medical conditions such as malaria. The Centre also has a maternity ward with a capacity of 15 beds. The outpatient Centre opens Monday to Friday from 8am to 5pm and approximately 200-300 clients/ patients are seen daily. Cadres of staff include: 1medical officer, 3 clinical officers, 6 midwives, 3 nurses, 2 laboratory technicians, 2 pharmacy technicians and a number of support staff. The Centre has linkages with other facilities for example mothers due for caesarean section are referred or transported by ambulance to Kilifi district hospital after attending antenatal care at the center. Similarly referral for conditions such as gender based violence and abortion complications such as uterine perforations. CPR for Bahari district stands at 36% which is lower than the national figure of 58%, HIV prevalence rate is 3.2.[32]

Mtwapa is mainly a tourist town hence it has a lot of recreational facilities such as bars, restaurants, resorts and a lot of tourists. It is one of the sub locations in Kilifi county worst hit by the problem of young girls dropping out of school to engage in commercial sex and early marriage. This they do either voluntarily or after being dragged into it by poor parents/guardians.[28] Indigenous people are the Giriama but it also has other tribes from Kenya due to tourism which offers employment opportunities. Many young girls and boys in Mtwapa drop out of school to engage in activities such as prostitution bar tending, child labour which puts them at higher risk for unwanted pregnancies and STD/HIV. Cases of

early sexual debut, sex trading (prostitution), deviant sexual behavior, substance abuse, and gender based violence; child labour and human trafficking are common in this town.

STUDY POPULATION

The target population was female adolescents in the age bracket 10-19 years seeking services at the Youth friendly center at Mtwapa township- Mtwapa location in Kilifi County.

INCLUSION CRITERIA.

i. Females aged 10-19 years
ii. Sexually active.
iii. Willing to provide written consent.
iv. Those visiting Youth friendly centre.
v. Emancipated minor.
vi. Adolescents under 18 years accompanied by adults/guardians.

EXCLUSION CRITERIA

i. Adolescents in the target population but declined to be in the study.
ii. Adolescents not of sound mind.
iii. Adolescents working at the youth friendly center.
iv. Adolescents under 18years who were not emancipated and not accompanied by adults/guardians.

SAMPLE SIZE

Sample size n was estimated as:

$$n = \left(\frac{r+1}{r}\right)\frac{(\bar{p})(1-\bar{p})(Z_{\beta}+Z_{\alpha/2})^2}{(p_1-p_2)^2}$$

The above formula was used to calculate the minimum number of intervention subjects required to detect a true proportion difference with power (1- β) and two-sided type I error probability α (alpha).

Where;

n is the sample size for one group.

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Where;

n is the sample size for one group.

$\mathbf{Z_{\alpha/2}}$is the desired level of statistical significance (typically 1.96 for 95% confidence level)

$\mathbf{Z_{\beta}}$ is the desired power (typically .84 for 80% power)

r is the number of participants using family planning per participants not using family planning

$\mathbf{P_1}$ is the proportion of subjects with the event of interest in the group that is not using family planning which is equivalent to proportion of subjects with the event of interest in the general population.

$\mathbf{P_2}$ is the proportion of subjects with the event of interest in the group that is using family planning:

Where;

OR is the estimated odds ratio to be detected

$\bar{p}$ Is the average proportion of subjects with the event of interest estimated as?

Based on previous similar studies, this study will assume the following parameters:

Parameter	**Value**
$\mathbf{Z_{\alpha/2}}$	1.96
$\mathbf{Z_{\beta}}$	0.84
R	1
$\mathbf{P_1}$	0.59
$\mathbf{P_2}$	0.16
OR	3

Therefore:

Therefore, total sample size was 155+155=310. The study allowed 10% non-response. Hence adjusted sample size was 310+31=341.

However a total of 342 adolescents were enrolled that is 171 with genital tract infections and 171 without.

SAMPLE SELECTION.

Consecutive sampling of adolescents attending YFC every day of the study period was used. Enrolment was done at point of triage, that is as adolescents presented at the youth friendly centre, they were asked if they had symptoms of GTIs or not. Those who met the inclusion criteria were recruited into the respective groups after giving informed consent till the sample size was met. For those without GTIs, recruitment was also done at other points such as: at the youth Centre when they came to engage in games, after consulting with the doctor/clinical officer, MCH clinics. For those who expressed willingness to participate in the study were taken to a separate room where the study was explained to them further. Administration of the questionnaire was then done one participant at a time in privacy. For the case of adolescents who had clinic cards, these were labeled with a specific mark only known to the research team to avoid being enrolled again in case they returned on another occasion for services at the Centre during the study period.

DATA COLLECTION TOOLS AND DATA COLLECTION PROCEDURE.

The primary data collection tool was in form of a structured questionnaire administered to the target group by the principal investigator (PI) and research assistants. The questionnaire was stratified to include details such as socio demographic data, sexual and reproductive characteristics, socio behavioral characteristics, family planning practices. Translation to Swahili to adolescents who did not understand English was done by the PI and research assistants.

ERRORS AND BIAS MINIMIZATION.

Research assistants were trained on how to fill and complete the structured questionnaires on quantitative data collection. Quality assurance by pre-testing the questionnaire (5% of the sample size) was conducted at a Youth Friendly clinic at Mombasa (Family Health Options Youth Centre) by the Principal Investigator.

DATA PROCESSING AND ANALYSIS.

Data was entered into MS Office Excel databases using predefined questionnaire codes and handed over to the Statistician. Data was then transferred to STATA version 11.2 where it was cleaned prior to analysis. During data cleaning, each continuous variable was inspected for outliers, range and inadmissible values. Categorical variables were tabulated to check for invalid entries. All variables were also checked for missing values. These data entry errors were corrected by referring to the source questionnaires.

Data analysis was conducted by summarizing variables using univariate methods, followed by bivariate analysis of each variable according to the presence or absence of genital tract infections. Univariate statistics used included calculating means and SD for continuous data for example age at coitarche. Frequency distribution were applied in the descriptive univariate analysis of categorical variables by calculating percentage of adolescents in each level of binary factors such as ever been pregnant (yes/ no), family planning use (yes/ no) and also factors with more than two levels such as number of children (none, single child, 2 or more children). Cases were defined as adolescents with genital tract infections. . The magnitude of association was reported using Odds Ratio and 95% confidence intervals and p values.

ETHICAL CONSIDERATIONS

The study proposal was presented in the Department of Obstetrics and Gynecology- UON and authorization to conduct the study was sought from KNH/UON- ERC, Kilifi county health committee and the administration head at Mtwapa youth Friendly Centre at Mtwapa (authorization/approval letters attached as appendix number six).Study was not meant to affect negatively the study participants and they were required to provide informed consent (after reading or having the consent form read to them in a language they understood) prior to participation. The emancipated minor was allowed to participate after giving informed consent, were as minors not emancipated were only enrolled after their guardians had consented on their behalf only after they had accented to participate. Participants were free to with draw from the study at any point if they deemed so. Non- consenting adolescents were provided with standard treatment and care. No financial incentives or material inducement was given. Confidentiality of participants was upheld with no identifiers used in the study.

STUDY LIMITATIONS

i) Obtaining consent from some adolescents was not possible because some were below 18years and were not accompanied by parents or guardians.
ii) Some adolescents were not free discussing their sexuality.
iii) Study was done during period when schools were in session and during working/clinic hours, this left out adolescents who were attending school or shied off being seen at the health center during class hours.
iv) Diagnosis of GTIs was based on symptoms; this may have led to some adolescents being wrongly categorized as having or not having GTIs.

How study limitations were mitigated:

i) Emancipated minors were eligible to give consent,[29] Guardians//parents consented on behalf of the other adolescents who were not eligible to give consent after they had given accent. Those not accompanied by parents/guardians and not eligible to give consent were excluded from the study.
ii) Recruitment and administration of questionnaire was done in a private room where participants were guaranteed privacy and confidentiality.

RESULTS

Study was conducted during period of March 2015, a total of 342 adolescents attending the youth friendly center in Mtwapa were recruited in the study. Of these, 171 had symptoms of genital tract infections (GTIs) and the remaining 171 did not.

The mean age of adolescents with genital tract infections was 17.6 years (SD 1.4) compared to a mean age of 17.63 years (SD 1.5) among adolescents with no symptoms of genital tract infections.

Socio demographic characteristics of study population:

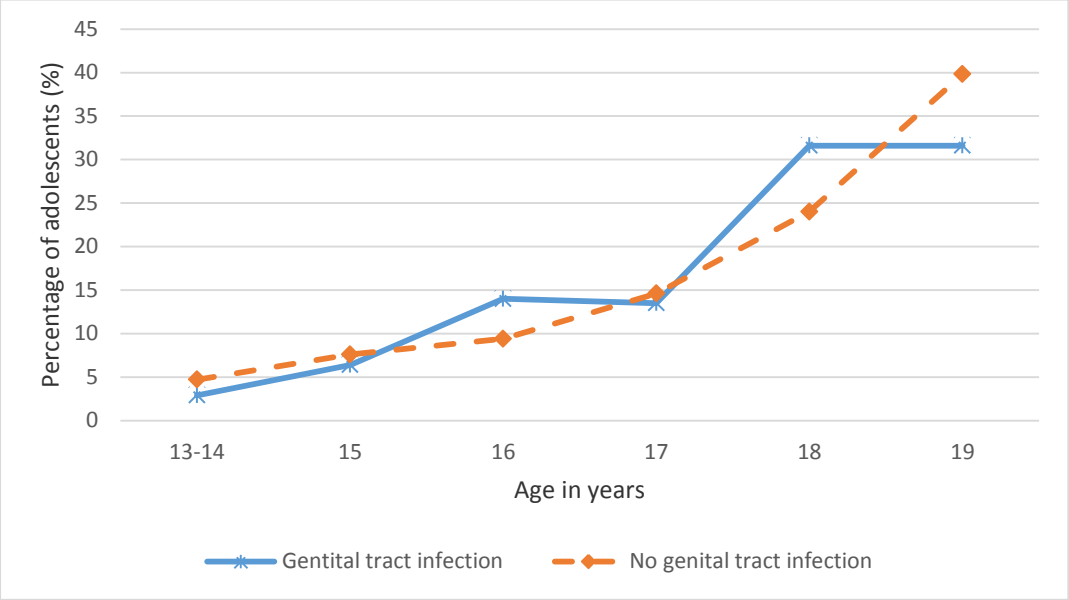
Table 1: Socio demographic characteristics of adolescents with (n = 171) and without (n = 171) symptoms of genital tract infection presenting at a youth friendly Centre in Mtwapa**.**

	Genital tract infection	
	N=171 Yes (%)	**N=171 No (%)**
Religion		
Christian	87(50.9)	111(64.9)
Muslim	84(49.1)	60(35.1)
Education		
Primary	115(67.3)	133(77.8)
Secondary	49(28.7)	36(21.1)
College/University	7(4.1)	2(1.2)
Formal Sex Education		
Yes	**100(58.5)**	**136(79.5)**
No	71(41.5)	35(20.4)
Occupation		
Waitress	**73(42.7)**	**25(14.6)**
House help	14(8.2)	19(11.1)
Not employed	71(41.5)	97(56.7)
Other	13(7.6)	0(0.0)
Marital status		
Single	93(54.4)	67(39.2)
Married	**46(26.9)**	**83(48.5)**
Separated	32(18.7)	21(12.3)

Participants in both groups frequently reported that they were Christians (50.9% compared to 64.9% among those with and without GTIs respectively). 133 (77.8%) of the adolescents without GTIs had primary level education compared to 115 (67.3%) among adolescents with GTIs. Those with GTIs were more likely not to have received formal sex education

Unemployment among adolescents participating in the study was 41.5% and 56.7% among those with and without GTIs respectively. Most of the employed adolescents reported to be working as waitresses, that is 73 (42.7%) and 25 (14.6%) of those with and without GTIs respectively. 93 (54.4%) of adolescent with genital tract infections were single as compared to 67 (39.2%) of those without GTIs. while 48.5% of those without infection were married.

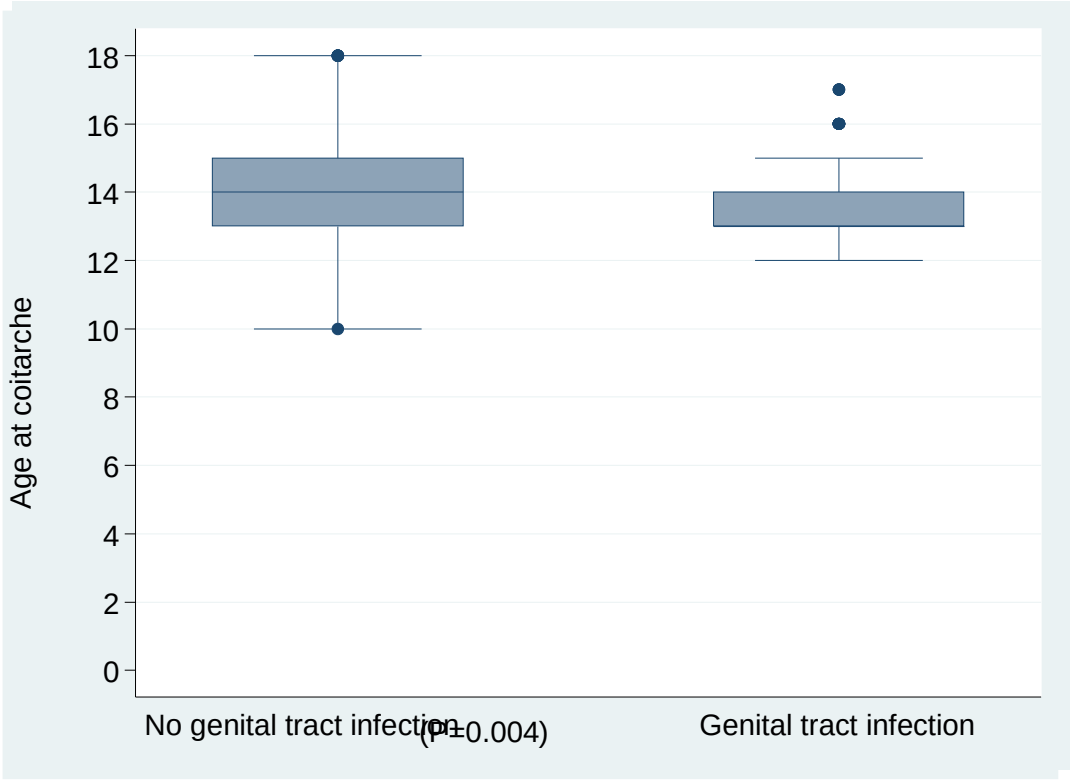
Figure 2: Age distribution among adolescents with and without GTIs presenting at a youth friendly Centre in Mtwapa.



The above figure presents the age distribution in the two groups shows that the modal age among adolescents with genital tract infections (GTIs) was 18 years (31.6%) and the modal age in the group with no GTIs was 19 years (39.8%).

Age at coitarche in the study population.

Figure 3: Median age (IQR) at coitarche among adolescents with genital tract infections and those without genital tract infections attending a youth friendly center in Mtwapa.



Adolescents with genital tract infections were significantly younger at coitarche (p = 0.004) as compared to those without. Median age (IQR) for adolescents with GTIs was 13 years (13-14) compared to a median age of 14 years (13-15) among adolescents with no GTIs.

Reproductive characteristics in study population.

Table 2: Reproductive characteristics among female adolescents with and without GTIs attending a youth friendly Centre in Mtwapa.

	Genital tract infection			
	Yes (%)	**No (%)**	**OR(95% CI)**	**P value**
Ever been pregnant				
Yes	153(89.5)	160(93.6)	1.0	
No	18(10.5)	11(6.4)	1.71(0.78-3.74)	0.178
Outcome of previous pregnancies				
Term deliveries in all pregnancies	101(59.1)	117(68.4)	1.0	
Induced abortion in at least 1 pregnancy	50(29.2)	29(17.0)	2.00(1.18-3.39)	**0.01**
Not applicable	17(9.9)	11(6.4)	1.79(0.80-4.00)	0.156
Number of children				
None	70(40.9)	55(32.2)	1.0	
1 child	88(51.5)	102(59.6)	0.68(0.43-1.07)	0.093
2 or 3 children	13(7.6)	14(8.2)	0.73(0.32-1.68)	0.458
Children living with				
Self	77(45.0)	102(59.6)	1.0	
Mother/ Sister/ grandmother	26(15.2)	15(8.8)	2.30(1.14-4.63)	**0.02**

Induced abortions were two-fold more prevalent among adolescents with GTIs as compare to those without. (OR = 2.0, 95% CI 1.18-3.39, p=0.01). Similarly those with GTIs where two-fold more unlikely to be living with their children as compared to those who lived in the same household with their children (OR = 2.30, 95% CI 1.14-4.63,p=0.02). There was no significant difference in pregnancy rates among the two groups (p = 0.178) or number of children from previous pregnancies (p > 0.05).

Table 3: Sexual practices among adolescents with and without GTIs attending a youth Friendly Center in Mtwapa.

	Genital tract infection			
	Yes (%)	**No (%)**	**OR(95% CI)**	**P value**
Number of sexual partners				
Only one	82(48.0)	124(72.5)	1.0	
Multiple	89(52.0)	47(27.5)	2.86(1.83-4.49)	**<0.001**
Ever used condoms				
Yes	111(64.9)	150(87-7)	1.0	
No	60(35.1)	21(12.31)	0.26(0.15-0.45)	**<0.001**
Frequency of condom use				
Always	23(13.5)	79(46.2)	1.0	
Sometimes	68(39.8)	58(33.9)	4.03(2.25-7.20)	<**0.001**
Only when I remember	0(0.0)	4(2.3)	NA	NA
When partner insists	80(46.8)	30(17.5)	9.16(4.90-17.13)	**<0.001**
Engage in commercial sex				
Yes	53(31.0)	34(19.9)	1.0	
No	118(69.0)	137(80.1)	0.55(0.34-0.91)	0.019
Use of drugs to enhance sexual performance				
Yes	45(26.3)	14(8.2)	1.0	
No	126(73.7)	157(91.8)	0.25(0.13-0.48)	**<0.001**
Involvement in same sex acts				
Yes	76(44.4)	25(14.6)	1.0	
No	95(55.6)	146(85.3)	0.22(0.13-0.36)	<**0.001**
Experience sexual violence				
Yes	52(30.4)	42(24.6)	1.0	
No	119(69.6)	121(70.8)	0.79(0.49-1.28)	0.346

Multiple sexual partners were approximately three times more prevalent among those with GTIs (OR = 2.86; 1.83-4.49, p<0.001) as compared to those without. Condom use was significantly less in those with GTIs as compared to those without (p < 0.001)OR = 0.26, 95% CI 0.15-0.45), Inconsistent condom use was significantly higher in those with GTIs as compared to those without (OR = 4.03; 2.25-7.20) to nine-fold (OR = 9.16; 4.90-17.13).The same applied to participation in same sex sexual activities (OR = 0.22;95%CI 0.13-0.36,P<0.001),practicing commercial sex (OR = 0.55;95%CI 0.34-0.91,P=0.019) and use of sex performance enhancing drugs (OR = 0.25;95%CI 0.13-0.48, P<0.001).The prevalence of self-reported nonconsensual sexual was 30.4% (52) among adolescent with genital tract infection and 24.6% (42) in those without. But with no significant difference between the two groups (OR = 0.97; 95% CI: 0.49-1.28, P=0.346).

Figure 4: Perpetrators of nonconsensual sex among adolescents with and without GTIs presenting at a youth friendly center in Mtwapa.

Figure 4 shows that boyfriends / husbands had an equal likelihood (48.1%) of perpetrating non consensual sex as compared to sexual clients among adolescents with and without GTIs. However among adolescents with no GTIs, boyfriends/ husbands were more likely to perpetrate nonconsensual sex compared to sexual clients (57.1% versus 33.3%).

Table 4: Utilization of STD treatment and HIV screening services by adolescents with genital tract infections and those without presenting in a Youth Friendly Centre in Mtwapa**.**

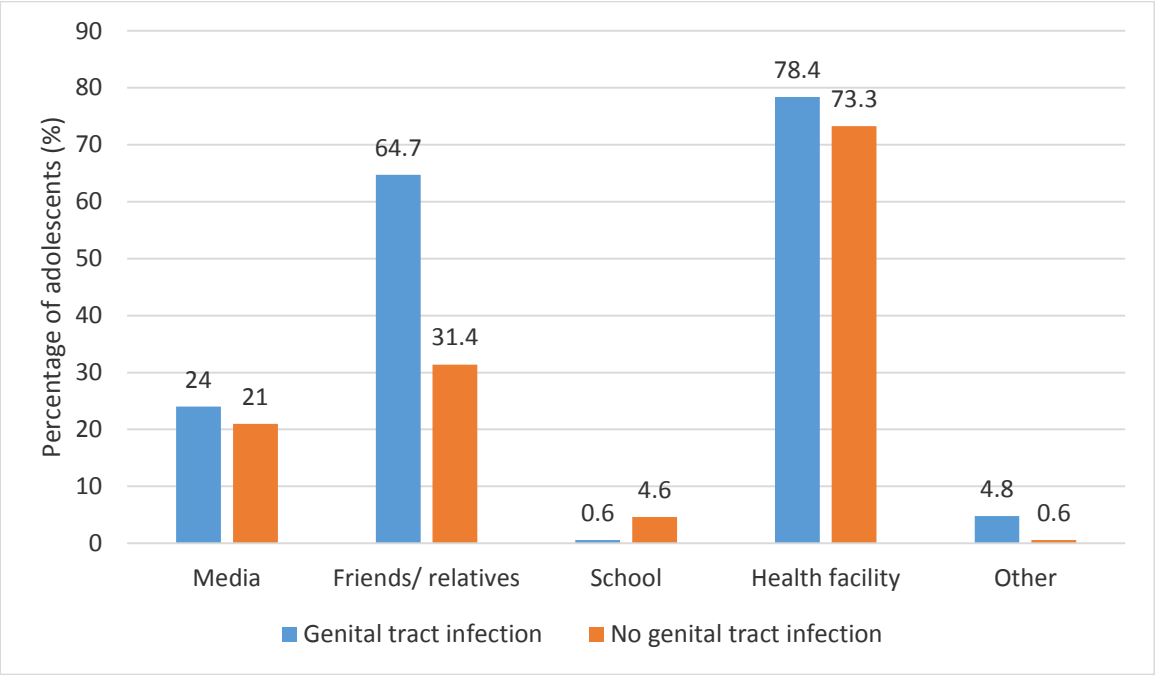
	Genital tract infection			
	Yes (%)	**No (%)**	**OR(95% CI)**	**P value**
Previously suffered STD				
Yes	58(33.9)	36(21.1)	1.0	
No	113(66.1)	135(78.9)	0.52(0.32-0.84)	**0.008**
Sought STD treatment				
Yes	58(33.9)	36(21.1)	1.0	
No	1(0.6)	2(1.2)	0.38(0.03-4.32)	0.435
HIV screening				
Yes	155(90.6)	160(93.6)	1.0	
No	16(9.4)	11(6.4)	1.50(0.68-3.34)	0.319
HIV results				
Positive	23(13.5)	14(8.2)	1.0	
Negative	132(77.2)	146(85.4)	0.55(0.27-1.11)	0.097

Previous history of STDs was more prevalent among adolescents with GTIs as compared to those without (OR = 0.52; 95%CI 0.32-0.84, P-0.008).All adolescents reporting previous STD had sought treatment. HIV screening rates were high and similar in both groups of adolescents with (90.6%) and without (93.6%) genital tract infection at the youth friendly center (OR = 1.5; 95%CI: 0.68-3.34P=0.319).

Family planning

All adolescents' with GTIs (100%) and majority of those without (98.9%) genital tract infections had heard of family planning.

Figure 5: Sources of information on family planning methods among adolescents with and without GTIs attending a Youth Friendly Centre in Mtwapa.



From the above figure, the most common source of information was the health facility (78.4% and 78.3%) amongst those with and without GTIs respectively) followed by friends / relatives (64.7% and 31.4%) respectively.

Table 4: Current family planning methods and factors influencing choice of method used by adolescents with and without genital tract infections attending a youth friendly Centre in Mtwapa.

		Genital tract infection			
		Yes (%)	**No (%)**	**OR(95% CI)**	**P value**
Condom					
Yes		71(41.5)	120(70.2)	1.0	
No		100(58.5)	51(29.8)	3.31(2.12-5.18)	**<0.001**
Implant					
No		119(69.6)	140(81.9)	1.0	
Yes		52(30.4)	31(18.1)	1.97(1.19-3.28)	0.009
IUCD					
No		160(93.6)	170(99.4)	1.0	
Yes		11(6.4)	1(0.6)	11.69(1.49-91.56)	0.019
Depo-Provera					
No		114(66.7)	127(74.3)	1.0	
Yes		57(33.3)	44(25.7)	1.44(0.90-2.30)	0.124
Emergency pill					
No		85(49.7)	101(59.1)	1.0	
Yes		86(50.3)	70(40.9)	1.46(0.95-2.24)	0.083
Comparison of factors influencing choice of family planning method					
Friend	No	56(32.7)	92(53.8)	1.0	
	Yes	115(67.3)	79(46.2)	0.42(0.27-0.65)	**<0.001**
Relative	No	147(86.0)	153(89.5)	1.0	
	Yes	24(14.0)	18(10.5)	1.39(0.72-2.66)	0.324
Media	No	167(97.7)	168(98.2)	1	
	Yes	4(2.3)	3(1.8)	1.34(0.30-6.09)	0.703
Convenience	No	96(56.1)	138(80.7)	1.0	
	Yes	75(43.9)	33(19.3)	3.27(2.01-5.31)	**<0.001**
Other	No	79(46.2)	141(82.5)	1.0	
	Yes	92(53.8)	30(17.5)	5.47(3.33-8.99)	**<0.001**

Condoms use was approximately three fold less likely among adolescents with GTIs (OR = 3.31; 95% CI 2.12-5.18, P<0.001) as compared to those without GTIs. Friends were noted to be the most likely influence for choice of family planning method among adolescents with GTIs as compared to those without (OR = 0.42;95%CI: 0.27-0.65,P<0.001).

DISCUSSION

Lack of formal sexual education was found to be more among adolescents with GTIs 71(41.5%) as compared to those without GTIs 35(20.4%).These findings are comparable to those by Pamela K. holer et al -2008, on a study on abstinence only and comprehensive sex education and the initiation of sexual activity and teenage pregnancy who noted formal sex education was associated with reduced risk of STDs and teenage pregnancy.[33]

Age at coiterche was low in both groups though significantly lower in the group with GTIs (13years) compared to those who did not have GTIs(14 years), these findings were comparable to findings by Mutungi AK et al- in a study on abortions among adolescents in Kenya- 1999, found average age of coitarche to be 14years.[34]Likely explanation for early age at coitarche is that today adolescents are exposed to a lot of information on sexuality through avenues such as media, internet, mobile phone applications and others compared to say a decade ago. Also with improved nutrition, adolescents are getting to menarche a bit earlier compared to before. This coupled with peer pressure and poverty tends to increase likely hood of early sexual debut among adolescents. Early age at coiterche exposes one to risks such as GTIs due to immature genital mucosa, cervical cancer later in life, unwanted pregnancies and their associated risks.

Working as a waitress was associated with increased risk of GTIs, 73 (42.7%) compared to 25(14.6%) of adolescents worked as waitresses among those with and without GTIs respectively. Being a waitress especially in bars exposes one to a type of clientele who most of the times are intoxicated and commonly solicit for sex from waitresses in exchange for money; this puts such adolescents at risk of GTIs.

Marriage was associated with reduced risk for GTIs: 46 (26.9%) compared to 83(48.5%) among those with and without GTIs respectively were married. Marriage is associated with reduced risk for GTIs as it reduces number of life time sexual partners.

Having ever been pregnant was a common occurrence among both groups of adolescents; 153(89.5%) and 160(93.6%) among those with and without GTIs respectively though with no statistical difference between the two groups. These findings were much higher than the national figures of 18%as per KDHS 2014.Reason for the difference is my study looked at adolescents aged 10 to 19 whereas KDHS figure was among adolescents aged 15 - 19, also since my study was done when schools were in session, most of the participants were

adolescents not in school who are more likely to be married or dropped out school due to pregnancy. High pregnancy rates may imply unmet need for family planning.

Induced abortion was associated with increased risk for GTIs: 50(29.2%) and 29(17%) among those with and without GTIs. This is comparable to national figures of 30% in the general population. Abortion especially among adolescents is done under secrecy most times by unqualified personnel hence high likely hood of GTIs. This could lead to fertility problems later in life among this group of people.

Multiple sex partners were associated with increased likely hood for GTIs: 89(52%) and 47 (27.5%) among those with and without GTIs respectively. Multiple sexual partners expose one to various GTIs.

Performance enhancing drugs were associated with increased risk for GTIs: 45 (26.3%) and 14 (8.2%) among adolescents with and without GTIs, these findings are comparable to those by Ochieng Jackline- in a study of risky sexual behavior among adolescents in Nairobi- in which she noted 46% of adolescents reported having had their first sexual encounter while under influence of alcohol or other illicit drugs.[23] Performance enhancing drugs in addition to their intended use may impair judgment and lead to one engaging in risky sexual behavior such as unprotected sex, anal sex, hence increasing risk for GTIs among adolescents.

Same sex acts were associated with increased risks for GTIs: 76(44.4%) and 25(14.6%) among adolescents with and without GTIs respectively. These findings were similar to those by Kazura et al in a study on risky sexual practices among unmarried adolescents in Tazania-2008 in which 41% of respondents reported involvement in same sex acts and gave a history of STDs.[24] Same sex sexual acts especially among females do not involve any form of protection, this increases risk for GTIs transmission among those involved.

Most adolescents with GTIs (98.9%) and all without GTIs had heard about family planning with principle source being health facility; however those with genital tract infections were more likely to report that they obtained FP information from relatives and less likely to obtain information from school compared to those without infections. This is comparable to findings by Bezerra N et al, 2011- in a study on information on contraception and sexuality among adolescents in Brazil- noted that 89% had information on contraception prior to pregnancy, 66.3 % of these reported friends as their source of information.[9] On the other hand, Obare Francis et al in a study on trends and determinants of contraceptive use among adolescents' 15-19years in Kenya found media at 82% to be the commonest source of FP information

among college adolescents.[11] Likely explanation for the difference is that in my study majority of the respondents were of primary education level, hence limited in reading ability thus majority easily consulted their friends for such information. Implication of such findings is that adolescents tend to rely more on peers for information on sexuality and family planning, Hence there is great need for targeted formal sex education and strategies for disseminating reproductive health information to this group of people so that they in turn pass correct information to their peers when consulted..

Not using condoms was frequently associated with GTIs: 60 (35.1%) and 21 (12.31%) among adolescents with and without GTIs. Also infrequent use of condoms was frequently associated with GTIs: 88(79.2%) and 71(47.3%) among adolescents with and without GTIs respectively. These findings are comparable to those by Cherutich Peter et al on condom use among sexually active female adolescents at risk of HIV 1 infection in Kenya who noted condom use to be at 21.4% and 7.3% of adolescents to be HIV infected.[35]

We also found adolescents presenting with GTIs were more likely to have their choice of FP method influenced by convenience (such as long acting method, less need for refills) and other considerations such as sexual partner method preference, life style such as commercial sex work, as compared to those without GTIs. These findings are comparable to those by Blanc AK et al -sexual behavior and Contraceptive Knowledge and Use among Adolescents in Developing Countries-1998, reported that adolescents tend to choose FP method that acts for long period so as to prevent pregnancy, limit visits to health facility and were scared to discuss use of condoms with partner prior to sex in fear of reaction from sexual partner.[36] Implication of these findings is that among adolescents choice of family planning is commonly influenced by sexual partner exposing them to risk of GTIs and unwanted pregnancies in situations especially when partner does not use condoms or uses them erratically. Female adolescents lack bargaining power when it comes to sex especially when it involves an older sexual partner as usually is the case

Conclusions:

Condoms use was less likely and friends influenced choice of family planning among adolescents with GTIs as compared to those without GTIs. In the study population, in lack of and Inconsistencies of condom use, multiple sexual partners, early age at coitarche, use of sex performance enhancing drugs, same sex sexual acts, lack of formal sex education were associated with increased risk of GTIs.

Recommendations:

Adolescent need to be informed, educated and counseled on safe sexual practices in schools, YFCs, religious institutions by teachers, peer counselors, religious leaders respectively.

Advocacy on reducing risky sexual behavior and appropriate family planning options to protect against GTIs amongst adolescents by national and county governments should be scaled up.

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APPENDIX 1: RESEARCH TIME LINE AND BUDGET

Table 5: Time-Line Period

Activity	NOV 13	DEC 13	JAN 14	FEB 14	MAR 14	APR 14	OCT 14	JAN 15	MAR 15	APR 15	NOV 15
Proposal Development	*	*	*	*	*	*					
Proposal Defense							*				
Submission to ERB							*	*			
Data Collection.									*		
Data analysis Report writing										*	
Submission of final report/oral defense.											*

APPENDIX 2: BUDGET

Table 6: Budget

Budget item	Unit Price	Quantity	Total (KSH)
Questionnaires			
Photocopy.	3	1,000	3,000
Printing.	10	10	100
Pretest			
Per diem	2,000	1	2,000
Bus fare	200	200	200
Data Collection.			
Per diem	1,000	30 days	30,000
Bus fare.	2,500	4	10,000
Transport.			
Taxi hire			
Hotel room full board.	2,500	30	75,000
Data analysis/Report writing.	15,000		15,000
Communication.			
Airtime-Safaricom.	200/day	30	600
Contingency 10%			13,830
GRAND TOTAL:			**152,130**

APPENDIX 3: INFORMED CONSENT

Study participation consent form.

Family planning practices among adolescents attending a youth friendly Centre at Mtwapa.

Investigator

1. Dr. David Murunyu Murigi, MBChB, MMED student in obstetrics and gynecology- University of Nairobi.

Supervisors:

1. Dr.Ann B. Kihara (MBChB, MMED Obs/GynUoN) Senior Lecturer Dept of Obs/Gyn – UoN.
2. Dr.John Kinuthia - (MBChB, MMED Obs/GynUoN), MPH, Head Research and Programs – KNH.)\Honorary lecturer, Department of Obstetrics &Gynecology, UoN.

Emergency telephone number:

Dr. David Murigi, MMED student, Department of Obstetrics and Gynecology, University of Nairobi, Mobile-0724704105.

Investigators' statement

I am asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study. Please read this form carefully. You may ask questions about what we will ask you to do, risks, benefits and your rights as a volunteer, or anything about the research or in this form that is not clear. When all your questions have been answered, you can decide if you want to be in this study or not. This process is called “informed consent”.

Purpose and benefits.

The aim of the study is to determine family planning practices among adolescents with STDs presenting at a youth friendly Centre .This will help understand what adolescents who already have STDs are doing in terms of contraception and what factors influence their family planning practices. Through this study, I will be able to discover whether adolescents

with STDs are doing anything to prevent against unwanted pregnancies, reinfection with STDs etc.

This study will benefit society in that information obtained shall be used by various stake holders especially those dealing with sexual and reproductive health to address family planning issues, devise intervention programs and policies aimed at increasing contraceptive usage, reduction of unwanted pregnancies, mother to child transmission of STDs among adolescents.

Diagnosis of genital tract infections shall be by Syndromic approach however those confirmed to have STDs via laboratory testing at the youth friendly Centre or elsewhere shall also be enrolled in the study.

Therefore this study shall not subject any participant(s) to any laboratory tests neither shall any samples/specimen be collected from them.

Procedure:

This is what will happen once you choose to participate in the study, I or one of my research assistants help you fill a questionnaire. The questionnaire will be asking about your details e.g. age, gender, occupation, education level, marital status etc. It will also seek to know your family planning practices and history of STDs etc. Some of the questions may appear embarrassing but I request you to be honest with your answers.

Answering the questionnaire will take you 10-15 minutes; I or any of my research assistants will be there to guide/help you.

Other information.

I will keep all the information you provide with at most confidentiality, only I and/ my assistants will access this information; you will be identified by a number and not your name. You shall not be required to write your name anywhere on the questionnaire that you shall fill. Your name will not be used in any published reports about this study.

Although we will make every effort to keep your information confidential, no system for protecting your confidentiality can be completely secure. It is still possible that someone could find out you were in this study and could find out information about you.

You may withdraw from the study; refuse to answer any of the questions asked at any time without loss of benefit or penalty. You are free to refuse to participate in the study, if you decide not to participate in the study you will receive similar care to that provided to the study participants.

Study participation consent form

Signature of investigator _____Date_____

Name of Investigator_____

Subject's statement:

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later on about the research I can ask the investigator directly or through his contact listed above. If I have questions about my rights as a research subject, I can call the University of Nairobi Ethics and research Committee at 2726300. I will receive a copy of this consent form.

Signature of subject _____Date _____

Or

Left thumb print of subject _____Date_____

Name of Subject_____

Name of Witness_____ Signature of

witness_____

University of Nairobi Ethics and Research Committee

Hospital Road along Ngong road

P.O. Box 20723

Nairobi

Telephone 2726300

Chairperson: Professor K. M. Bhatt

Copies to: 1. Subject

2. Investigator's file

APPENDIX 4: SWAHILI CONSENT FORM (TRANSLATED)

Ridhaa

Fomu ya ushiriki utafiti ridhaa

Mazoea ya uzazi wampango miongoni mwa vijana katika kituo cha vijana ya kirafiki katika Mtwapa.

Mpelelezi

1. Dk. David Murunyu Murigi, MBChB, MMED mwana funzi katika masuala ya uzazi na magonjwa ya wanawake- Chuo Kikuu cha Nairobi.

Wasimamizi.

1. Dk. Anne B. Kihara (MBChB, MMED Mashirika ya Umma / GynUoN) Mhadhiri Mwandamizi Wizara ya Mashirika ya Umma.
2. Dr. John Kinuthia -. (MBChB, MMED MashirikayaUmma / GynUoN), MPH, Mkuu utafiti na Mipango -. KNH) \ Honorary mhadhiri, Idara ya uzazi na magonjwa ya wanawake, UON

Dharura namba yasimu

1. Dk. David Murunyu Murigi, MBChB, MMED mwanafunzi katika masuala ya uzazi na magonjwa ya wanawake-Chuo Kikuu cha Nairobi. Simu zamkononi 0724704105

Taarifa wakaguzi

Nina kuuliza kuwa katika utafiti. Madhumuni ya fomu hii ya idhini ni kutoa Habari unahitaji ku kusaidia kuamua kama kuwa katika utafiti. Tafadhali kusoma Hii fomu. Unaweza kuuliza maswali kuhusu sisi kuuliza nini cha kufanya, hatari, Faida na haki yako kama kujitolea, au chochote kuhusu utafiti au katika fomuhii kwamba ni Siwazi. Wakati maswali yako yote wamekuwa akajibu, unaweza kuamua kama unataka kuwa katika utafiti huu au la. Utaratibu huu unaitwa 'ridhaa'.

Madhumuni nafaida.

Lengo la utafiti ni kuamua mazoea ya uzazi wampango miongoni mwavijana nakuwasilisha katika kituo cha vijana kirafiki. Hii ita Saidia kuelewa nini vijana ambao
Tayari wana magonjwa yazinaa nikufanya katika suala la uzazi wampango na yale mambo ya ushawishi uzazi wampango wao.Utafiti huu , nitakuwa na uwezo wakugundua kama vijana na magonjwa ya zinaa ni kufanya kitu chochote kuzuia dhidi ya mimba zisizotakiwa, maambukiz mapya kwa magonjwa yazinaa.

Utafiti huu manua yajamii kwa kuwa taarifa zilizopatika na zitatumika na wadau mbalimbali hasa wale kushughulika na afya yauzazi kwa kushughulikia masuala ya uzazi wampango, kuandaa mipango kuingilia kati na sera kwa lengo la kuongeza matumizi ya uzazi wampango, kupunguza mimba zisizo hitajika, mama kwenda kwa motto magonjwa yazinaa miongoni mwa vijana.

Utambuzi wa magonjwa ya zinaa yatakuwa kwanjia ya dalili hata hivyo wale alithibitisha kuwa na magonjwa ya zinaa kupitia upimaji wa maabara katika kituo rafiki kwa vijana au mahali pengine atakuwa pia kuandikishwa katika utafiti Kwa hiyo somo hii itakuwa si chini mshiriki yeyote . vipimo yoyote maabara wala sampuli yoyote kukusanywa kutoka kwao.

Utaratibu.

Hii ni nini kutokea mara moja kuchagua kushiriki katika utafiti, mimi au moja wa wasaidizi wangu utafiti na suala kwa maswali ya kujaza. Dodoso itakuwa kuuliza kuhusu maelezo yako kwa mfano umri, jinsia, kazi, kiwango cha elimu, hali yandoa Itakuwa pia kutafuta kujua uzazi wampango mazoea ya kona historia ya magonjwa ya zinaa nkbaadhi ya maswali inaweza kuonekana aibu lakini mimi na omba wewe kuwa mwaaminifu na majibu yako.
Kujibu maswali itachukua wewe muda wa dakika 10-15, mimi mwenyewe au yoyote ya watafiti wasaidizi wangu atakuwa na kuongoza / msaada wewe.

Taarifa nyingine.
Nita endelea habari zote kutoa kwa saa zaidi yasiri, tu mimi au wasaidizi wangu kupata habari hii.Utakuwa kutambuliwa na idadi na si jina lako Wala inatakiwa kuandika jina lako mahali popote kwenye dodoso kwamba nyinyi ku jaza.

Jina lako si kutumika katika ripoti iliyo chapishwa yoyote kuhusu utafiti huu.

Ingawa sisi kufanya kila juhudi kwa kuweka habari zako zasiri, hakuna mfumo waku linda usiri yako ,ina weza kuwa salama kabisa.Bado nirahisi kwamba mtu anaweza kujua ulikuwa katika utafiti huu na inaweza kujua taarifa ku husu wewe.

Una weza kuondoa kutoka kwa funzo, ku kata kujibu yoyote ya maswali ya kuulizwa wakati wowote bila ya kupoteza faida au adhabu. Wewe ni huru kukata kushiriki katika utafiti, kama wewe kuamua sikushiriki katika utafiti utakuwa kupata huduma sawa na zina zotolewa na washiriki wa utafiti.

Fomu ya ushiriki utafiti ridhaa.

Sahihi ya uchunguzi _____ Tarehe_____
Jina la Mpelelezi_____

Taarifasomo.

Utafiti huu ime kuwaalielezea kwangu. Mimi kuji tolea kushiri kikatik autafiti huu. Mimi nilikuwa na nafasi ya kuuliza maswali. Kama mimi na maswali baada yyake juu uhusu utafiti na weza kuomba uchunguzi wa moja kwa moja au kwa njia ya kuwasiliana wake waliotajwa hapo juu.
Kama nina maswali kuhusu haki zangu kama somo utafiti, na weza ku waita Chuo Kikuu cha Nairobi Maadili na Kamati ya utafiti katika 2,726,300. Mimi kupokea nakala ya fomu hii yaidhini.

Sahihi ya somo _____ Tarehe _____
au
Kushoto thumbprint wa somo _____ Tarehe_____

Jina la Somo_____
Sahihi ya ushahidi (Kama thumbprint kutumika) _____
Jina la somo
Na Kamati ya Utafiti

Hospitali Road, Ngong road Witness_____

APPENDIX 5: DATA COLLECTION TOOLS.

Questionnaire

Date…….

Study number----------

A. Demographic data.

1. Age: ---------- (Years)
2. Religion……..
3. Education status
   a) Primary
   b) Secondary
   c) College/University
4. If not in school, what is your current Occupation:
   a) Waiter/Waitress.
   b) House help.
   c) Not employed.
   d) Others (specify…….)
5. Marital status:
   a) Single.
   b) Married.
   c) Separated.

B. Reproductive and sexual behavior characteristics

Reproductive Characteristics

6. At what age did you start getting your menstrual period? ----------
7. When was your last normal menstrual period? ----------
8. Have you ever been pregnant?
   a) Yes
   b) No
9. If yes, what was the outcome of the pregnancy?
   a) Carried to term and gave birth.
   b) Had an induced abortion.
   c) Had a miscarriage.

10. How many children do you have?
11. Who lives with the baby/children?

Sexual practices/characteristics

12. Age of Coitarche……..
13. Have you ever used condoms?
    a) Yes
    b) No
14. If yes, how often?
    a) Always.
    b) Some times.
    c) Only when I remember.
    d) When my partner insists.

15. Have you ever received formal sex education?
    a) Yes
    b) No
16. If yes, in which class were you provided sex education? ------
17. How many sexual partners do you have at a time?
    a) Only one
    b) Multiple
18. Do you ever have sex in exchange for money (commercial sex work)?
    a) Yes
    b) No
19. Have you ever used drugs to energize your sex habits?
    a) Yes
    b) No
20. Have you ever-experienced sexual violence.
    a) Yes
    b) No
21. If yes, from whom?
    a) Sexual client.
    b) Boyfriend/husband.
    c) Relative
    d) Others specify……...

22. Have you ever been involved in same sex sexual acts?
    a) Yes.
    b) No.
23. Have you ever suffered from Sexually transmitted diseases prior to this?
    a) Yes.
    b) No.
24. If yes which one?
    a) HIV
    b) Gonorrhea.
    c) Syphilis.
    d) Trichomonas vaginalis.
    e) Others (specify).
25. If yes in 25 above, did you seek treatment?
    a) Yes.
    b) No.
26. Have you ever been screened for HIV?
    a) Yes.
    b) No.
27. If yes to 26 above, what was the result?
    a) Positive.
    b) Negative.
28. Currently are you having any symptoms of genital tract infection such as low abdominal pains, abnormal vaginal discharge, genital rash or ulcer?
    a) Yes.
    b) No.

C. Family planning practices/knowledge

29. Have you ever heard about family planning?
    a) Yes
    b) No
30. If yes, state source
    a) Media.
    b) Friends/family.
    c) School.
    d) Health facility.
    e) Others (specify) ----------.

31. Have you ever heard about use of condoms in addition to another family planning method such as pills at the same time?
    a) Yes.
    b) No.

32. Do you use family planning?
    a) Yes.
    b) No.
33. If yes, kindly list the method(s)…….
34. What influenced your choice of family planning method(s)?
    a) Friends.
    b) Relatives
    c) Media.
    d) Convenience
    e) Others (specify)……..
35. Do you ever use condoms in addition to another family planning method e.g. pills at the same time?
    a) Yes.
    b) No.
36. If yes, how often?
    a) Always (consistently).
    b) Once in a while.
    c) Only if my partner insists.
    d) When I remember to use.
37. Have you ever used emergency pills?
    a) Yes.
    b) No.
38. If yes, how often do you use it?

APPENDIX 6: APPROVAL LETTERS.

Please find attached.

THE END.