

Factors Influencing Use of Contraceptives among Sexually Active Adolescents in Nairobi County's Non-Formal Settlements: The Case of Adolescents in Majengo Sub County

**BY
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2015

DECLARATION

This research project report is my original work and has not been presented for any award in any other University

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DEDICATION

I dedicate this study to my daughters, Neema and Baraka; my niece Debbie who inspired this research.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ALI	Allan Guttmacher Institute
APHRC	African Population and Health Research Center
CPR	Contraceptive Prevalence Rate
FGM	Female Genital Mutilation
FHI	Family Health International
GOK	Government of Kenya
HIV	Human Immunodeficiency Virus
IDEA	Informing Decision-Makers to Act (IDEA)
IUDS	Intrauterine Devices
KDHS	Kenya Demographic and Health Survey
KHRC	Kenya Human Rights Commission
KNBS	Kenya National Bureau of Statistics
MOH	Ministry of Health
NCAPD	National Coordinating Agency for Population and Development
NCPD	National Council for Population and Development
PRB	Population Reference Bureau
PSRI	Population Studies and Research Institute
STI	Sexually Transmitted Infection
UN	United Nations
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

ABSTRACT

This research sought to investigate factors influencing use of contraceptives among sexually active adolescents in Nairobi County's non formal settlements: the case of Majengo Sub-county. The study sought to establish how: perception on use of contraceptives by adolescents, adolescent's sexual behavior, access to contraceptives and knowledge on contraceptives influence the use of contraceptives among sexually active adolescents in Nairobi County's non formal settlements. The research was carried out on sexually active adolescents who had resided in Majengo Sub County in Nairobi County for five years and more and were aged 12-19 at the time of the study. Geographically, the research was delimited to the area bordering Pumwani Hospital, Gikomba market, Majengo mosque, California estate and Moi air base. This research was guided by two theoretical frameworks: The Diffusion of Innovations Theory by Everett Rogers and The Reasoned Action Approach by Martin Fishbein and Icek Ajzen Martin. This was a descriptive survey design research that applied the mixed mode approach to data collection. The target population comprises 3000 adolescents and the sample size for the research was 353 which was calculated and obtained by use of Yamane formula. The participants in the study were selected by proportionate quota sampling and the data was collected at household level. The researcher therefore specified the minimum number of sample units in each quota to ensure equitable representation between males and females and moved from house to house to collect data. The data was collected by use of questionnaires. Pilot study was undertaken to ensure validity and reliability of the data collection tool was calculated by use of Sphearman-Brown Prophecy formula giving a reliability coefficient of 0.86. Some of ethical considerations made by the researcher included informed consent, confidentiality and respect. The returned questionnaires were sorted and data obtained organized by use of tallying method. A questionnaire return rate of 96% was achieved. Microsoft Excel was used to calculate the frequencies and the corresponding percentages; the coefficient of correlation (r) and the coefficient of determination (r^2) of the variables. Tables have been used to present the data where frequencies and the corresponding percentages have been shown. The findings show that 110 (32%) of the respondents had consistently used contraceptives in the past six months while the rest had used contraceptives at times, 168 (49%) or had not used any contraceptive in the same time period. Further, the variables under study were found to influence the use of contraceptives. The researcher recommends that more training be carried out to increase the levels of knowledge on contraceptives and contraceptive use amongst the adolescents and hence enhance the perception on teenage contraception, attributes of contraceptives that make them cumbersome to use need to be addressed, awareness campaigns be carried out in the general society to destigmatize the use of contraceptives by adolescents and affirmative action be decided upon to cushion adolescents on high cost of contraceptives.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The impact of unsafe sex continues to be felt in Kenya in spite of the various efforts by the Kenyan government and non-governmental organizations to promote abstinence amongst the young people in Kenya. Adolescents are exposed to sex at an early age. A research conducted by the African population and health research center showed that by the age of 16, 14% of adolescent girls in Kenyan slums had experienced sex (APHRC, 2002). The research showed that the median age at first sexual activity in the slums was 16.3%. Research has shown that 22% of adolescent boys and 10% of adolescent girls had had sex before their 15 birthday (GoK; IDEA; USAID; PRB and NCAFD, 2011). Over 60% of these did not use any contraceptive on their first encounter regardless of the fact that this intervention is available in hospitals, pharmacies and retail shops.

Unprotected sex exposes adolescents to negative sex outcomes like unintended pregnancies and Sexually Transmitted Infections (STIs) like HIV/AIDS. The KDHS 2008/9 showed that the prevalence of unintended pregnancy was 47% for girls of 15-19 years of age (KNBS, 2010). Adolescent pregnancies are associated with certain negativities. Firstly such adolescents are likely to drop out of school. Omondi and Onyango noted that 13,000 adolescents drop out of school yearly due to unintended pregnancies (Onyango & Omondi, 2008). Another consequence of unintended pregnancies is abortion. Majority of the adolescents cannot afford safe abortion services and therefore settle for unsafe abortion services which are unsafe and at times deadly. Half a million induced abortions occurred in Kenya in 2012 (APHRC, MOH, IPAS, Guttmacher Institute, 2013). Women aged 19 and below accounted for 17% of all the women seeking post

abortion care services. The same group accounted for 45% of severe abortion related complications admitted in Kenyan hospitals. Other negative consequences associated with unintended teenage pregnancies include malnutrition, maternal death (WHO, 2013), undesirable medical conditions like obstetric fistula (MOH KENYA; UNFPA, 2004), dropping out of school (Hofferth, Reid, & Mott, 2001); poor academic grades (Rauch-Elnekave, 1994); low self-esteem and symptoms of depression (Koniak-Griffin, Walker, & Traversay, 1996); increased dependency burden on the teenagers providers. Unwanted teenage pregnancies impact the child in the following ways: abandonment of the new born child, adoption, malnutrition and low birth weight. Further, STIs are a major global cause of acute illness, infertility, long-term disability and death with serious medical and psychological consequences of millions of men, women and infants (World Health Organisation, 2012)

Adolescents who are unmarried and not sexually active, or unmarried and sexually active, or married and wanting to postpone, space or limit pregnancy, or adolescents wanting to prevent STIs only are all at different stages of their reproductive lives and have different contraceptive needs (WHO, 2014). The extent to which these needs are effectively addressed influences the uptake of contraceptives by the adolescents

In view of the above vices, governments, government officials and public figures have cited the need to minimize and if possible bring to an end adolescent pregnancies and STD infection rates. On the world population day 2013 themed: “adolescent pregnancy-stop it” government officials emphasized the need to stop teenage conceptions (UNFPA Kenya Country Office, 2013)

Contraception promotes safe motherhood as a woman can decide when they want to begin having children, how far apart they want their children to be and when they want to stop having children. Further contraceptives like condoms are known to prevent the transmission of Sexually

Transmitted Infections like HIV. These advantages empower adolescents to live a healthy, safe and fulfilling life socially, economically, emotionally and psychologically.

Contraception choices are not just reproductive choices and rights, but also fundamental human rights that all governments are legally obligated to protect, respect, and fulfill. They include, but not limited to: the right to birth control; freedom from coerced sterilization, abortion, and contraception; the right to access good-quality reproductive healthcare; the right to receive education about sexually transmitted infections (STIs) and other aspects of sexuality. These rights are not only accorded to adults but to adolescents as well. Children's Rights Convention Article 6(1) State Parties recognize that every child has the inherent right to life. Hence children should not die for causes related to unsafe abortion or birth related complications due to motherhood at a young age. Further, Article 6(2) of the provisions of the convention states that State Parties shall ensure to the maximum extent possible the survival and development of the child. Pregnancies at an early age and STIs threaten the survival and the development of children not only due to the psychological and emotional burden but also due to the stigma associated with these scenarios.

Many factors have been known to influence the use of contraceptives. Individuals who are exposed to contraceptives messages tend to use contraceptives more than individuals who are not (Asiimwe, Ndugga, & Mushomi, 2013). The levels of education, marital status and wealth identified as influencers to use of contraceptives (UNFPA Kenya Country Office, 2013) in that women who are more educates, married and were wealthy, were likely to use contraceptives than their counterparts. This was attributed to the fact that such women are more aware, they feel the need and have the economic capacity to access and use contraceptives. In their study on contraceptive use in Nairobi city slums, Oketch et al found that partner's approval, quality of the

services, friendliness of the staff administering the services and the woman's knowledge about family planning services influenced the use of contraceptive (Oketch, Wawire, & Mburu, 2011). The WHO noted that Availability and accessibility of contraceptive services and the perceived level of control in acquisition and use of contraceptives influenced the use of contraceptives amongst the adolescents (WHO, 2013). The organization noted that adolescents that reported that contraceptives were available and were easily accessible tended to use contraceptives more regularly than those who reported otherwise. The contraception practice can therefore help avoid the undesired consequences of unprotected sex.

This research seeks to study the factors influencing use of contraceptives among sexually active adolescents in Nairobi County's non-formal settlements: the case of adolescents in Majengo Sub County

1.2 Statement of the Problem

The minimal use of contraceptives and contraceptive use continuously exposes adolescents to primary negative sex outcomes like pregnancies and STIs like HIV. In 2012, Adolescents aged 15-19 accounted for 13% of all the new HIV infections globally (United Nations Children's Fund, 2013). The 2008/09 Kenya Demographic and Health Survey (KDHS) showed that the prevalence of unintended pregnancy among girls aged 15-19 years is 47% in Nairobi County's slums. The study also showed that of all the women who sought post-abortion care, 17% of them were women below the age of 19 years. The same population accounted for about 45% of severe abortion-related admissions in Kenyan hospitals (APHRC, MOH, IPAS, Guttmacher Institute, 2013). An estimated 57% of abortions in Nairobi, capital city of Kenya, are among poor women (Kenya Human Rights Commission, Reproductive Health and Rights Alliance, 2010)

Research shows that people living in slums are at greater risk for early childbearing, and other adverse reproductive and sexual health outcomes than their non-slum counterparts (Zulu, Dadoo, & Ezeh, Sexual risk-taking in the slums of Nairobi, Kenya, 2002). Slum-based adolescents engage in sexual activity earlier than their counterparts in non-slum regions and are more likely to report transactional sex, unprotected sex, and multiple sexual partnerships (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013). By the age of 16, 40% of adolescents in slum regions have already had sex in comparison with 20% of their non-slum counterparts (African Population and Health Research Center, 2000). Only 29% of boys and 26% of girls between the ages of 12-22 years in Nairobi's slum settlements used condoms during their first sexual experience (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013). One study shows that 37% of girls aged 15-22 years in two Nairobi slums had experienced an unwanted pregnancy (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013).

This study assesses the factors influencing use of contraceptives among sexually active adolescents in Nairobi County's non-formal settlements: the case of adolescents in Majengo Sub County

1.3 Purpose of the Study

This study sought to assess the factors influencing use of contraceptives among sexually active adolescents in Nairobi County's non-formal settlements: the case of adolescents in Majengo Sub County

1.4 Research Objectives

This research seeks to achieve the following objectives:

1. To establish how perceptions influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County
2. To assess how sexual behaviors influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County
3. To determine how the access to contraceptives influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County
4. To assess how the levels of Knowledge on Contraception influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County

1.5 Research Questions

This study seeks to answer the following questions:

1. How do perceptions influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County?
2. How do sexual behaviors influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County?
3. How does the access to contraceptives influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County?
4. How does the level of knowledge about contraception influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County?

1.6 Significance of the Study

The World Health organization has identified adolescents as a group with the unmet need for family planning (WHO, 2014). People living in slums are at a greater risk for early child bearing

and other adverse sexual and reproductive health outcomes in comparison to their non-slum counterparts (Zulu, Dodoo, & Ezeh, Sexual Risk Taking in the Slums of Nairobi, 2002). The study showed that the outcomes of unsafe sex are more adverse for girls aged below 20 than their older counterparts. The risks associated with early pregnancies and sexual activity raise urgent need for appropriate interventions and programs to address adolescents' sexual choices and behaviors.

The findings of this study are hoped to be useful to agencies that work with to reduce adolescents' pregnancy and STI infection rates; especially if such agencies work with adolescents in slums as the study focuses on slums. The findings will be useful to such agents in that it will provide information that might be used in designing programs, interventions and policies that promote and safeguard the reproductive health for the adolescents and increase the acceptance and use of contraceptives among sexually active adolescents. The findings might be used in designing appropriate messages with regard to adolescents' reproductive health and contraceptives and contraceptive use. In addition, the study findings will function to inform parents and guardians to teenagers that they will counsel them accordingly and from an informed point of view. Further the study will provide knowledge gaps that future researchers could research on and add new knowledge to concerned fields of study. In addition, governments and nongovernmental organizations can use the knowledge generated from this study to come up with viable future public awareness, trainings and campaigns

1.7 Basic Assumptions of the Study

Assumptions represent the desirable scenario anticipated by the researcher. The researcher assumed that there is at least one adolescent in every two homesteads aged 12-19 and that the participants would answer honestly. This was the case since anonymity and confidentiality was

preserved. The researcher issued unmarked questionnaires. Further, the participants were volunteers who could withdraw from the study at any time and with no ramifications. Time was a constraint, the researcher made use of research assistants to maximize on time. The researcher assumed that the assuring the respondents of confidentiality would facilitate the respondents' giving of truthful information.

1.8 Limitations of the Study

All research studies are faced with various challenges. One of such limitations is the strain of time. The researcher maximized on the time available by minimizing the data collection breaks. The researcher anticipated that the respondents might deliberately provide false data or even withhold information given the private nature of the information being sought for. The researcher assured the respondents the information they were providing would be treated with confidentiality. The researcher explained to the respondents that the questionnaires that were issued to them were unmarked and that the respondents were not required to provide any information that could be used to identify them like phone numbers, names or email addresses. Further, the researcher informed that the questionnaires would be completely destroyed after the information provided by the respondents was obtained. The topic under research sought private information that would make respondents shy away from responding. The researcher ensured that the language used in the questionnaires was kind and comfortable for the reader. For instance the introduction was worded to make the respondent at ease and create readiness to respond to the questions. Where personal and sensitive information, like the number of sexual partners or encounters a respondent had had in the past six months, the researcher provided multiple choice responses from which the respondent would choose. Such interventions made it possible that the respondents gave truthful responses

1.9 Delimitations of the Study

Delimitation of the study is the statement of the limits of the research project in terms of geographical boundaries and the characteristics of the respondents. This study included adolescents who are aged between 11-19 and are residents in the Majengo sub county. The geographical, the area under study was be the bordering Pumwani Hospital, Gikomba market, Majengo mosque, California estate and Moi air base. This area was selected by random sampling of the slum regions in Nairobi

1.10 Definitions of Significant Terms Used in the study

Access to contraceptives	Refers to the ease with which an adolescent is able to acquire contraceptives and contraceptive services
Adolescent	Anyone of ages 12-19
Contraceptive	Any drug or device used to prevent a pregnancy
Levels of knowledge on contraception	Is the amount of true information an adolescent has about the available methods of contraception, their proper use and the merits and de merits of such contraceptives
Non formal settlement	A settlement in an urban place characterized by poor living conditions
Perceptions	Refers to the outlook of adolescent contraception
Sexual Behavior	Refers to sexual activity profile of an adolescent in the past six months in terms of the number of sexual partners, frequency of sexual encounters and the plane of the sexual encounters
Sexually Active	For this study, an adolescent was be defined as sexually active if they have had at least three sexual encounters in the last three months
Sexually active adolescent	In this study it refers to an adolescent who has had at least one sexual encounter in the past six months
Use of Contraceptive	Refers to not only the utilization of a contraceptive but also the effective utilization of the contraceptive

1.11 Organization of the Study

This study is organized into five chapters. Chapter one is the introduction and provides the overview of the study and provides the following information: background to the study, statement of the study, the purpose of the study, research objectives, research questions, and significance of the study, assumptions of the study, limitations and delimitations of the study. It further defines the significant terms used in the study and discusses how the study is organized. Chapter two is the literature review and discusses the variables under study. It discusses the theoretical framework for the study, shows the Conceptual framework, explains the relationships of variables in the Conceptual Framework, shows the gaps in literature reviewed, and provides a summary of the chapter. Chapter three is the methodology and contains information about: the Research design, characteristics of Target population, Sample size and sampling procedures, Data collection instrument, Data collection procedures, Data analysis techniques, Ethical considerations, Operational definition of the variables. Chapter four is the data analysis, presentations and interpretation and chapter five was show the summary if the findings, discussions, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides insight to previous studies and documentations related to the topic under study. It discusses the factors that influence the use of contraceptives amongst the adolescents in Nairobi slum areas. In this study, the variables under study are: Perception of Contraception, Sexual Behaviors of the adolescents, Accessibility to Contraception and the Knowledge on Contraception by the adolescents. It provides the theoretical framework and the Conceptual framework of the study. It explains the relationships of variables in the conceptual framework, reveals the gaps in literature reviewed and provides a summary of Literature Review

2.2 Use of contraceptives amongst adolescents

Contraceptive refers to devices, drugs and agents to prevent conception or impregnation (pregnancy). Contraceptives help a woman plan if and when they want to have a baby. However condom helps protect sexual partners from STIs (sexually transmitted infections) as well as pregnancies. There are many different types of contraceptives available for adolescents: Hormonal methods like oral contraceptives, Depo Provera injections, and Norplant which use medications (hormones) to prevent ovulation; Barrier methods which work by preventing the sperm from getting to and fertilizing the egg like male condom and female condom, diaphragm, and cervical cap; spermicides which kill sperm on contact; Intrauterine devices (IUDs) which are normally inserted into the uterus to prevent the fertilized egg from implanting in the lining of the uterus (Valentine, Frank, & Friday, 2001). Although these choices are available, contraceptives use among adolescents is low (Center for Reproductive Rights; UNFPA, 2010). Several factors have been associated with the low use of contraceptives amongst the sexually active adolescents.

Factors like ability to get a contraception method, fear of stigma from fellow adolescents and the general society are some of the factors that discourage unmarried sexually active adolescents from using contraceptives (APHRC,MOH,IPAS, Guttmacher Institute, 2013). On the other hand fear of side effects, discussion and approval from sexual partner associated with contraceptives and contraceptive use are some of the known factors that prohibit married partners from using contraceptives (Center for Reproductive Rights; UNFPA, 2010). Further, the emphasis on abstinence by parents, guardian, teachers, religious leaders and other opinion shapers has functioned to demonize sex amongst the adolescents. The impression that sex before marriage is wrong has discouraged sexually active adolescents from seeking contraceptive products and services in spite of the fact that such adolescents need them (WHO, 2014). Furthermore, most of the opinion shapers have publicly denounced the contraceptives use amongst the adolescents further discouraging the use of contraceptives amongst the adolescents (African Population and Health Research Center, 2000).

In Kenya, the contraceptive prevalence rate (CPR) for modern contraceptives increases as age increases. The CPR amongst women aged 20-24 is 23.6% while women aged 15-19 registered a CPR of 4.9% (KNBS and ICF macro, 2010). The reproductive choices made by adolescent boys and girls have an enormous impact on their health, schooling and employment prospects, as well as their overall transition to adulthood. In particular, school and work opportunities significantly influence young women's and men's marriage timing, quality of parenthood and ability to contribute to their families and society. Young women's reproductive choices are especially important, as early childbearing can impair their health and limit their prospects for productive participation in society.

The use of contraceptives has been generally receiving cultural and informational setbacks as most African cultures value having many children in the homestead leading to. Further more people are not knowledgeable on the contraceptives: how they are used, how they work, their advantages and disadvantages (WHO, 2014). The use of contraceptives has been challenged by misconceptions about contraceptives. For instance contraceptives are seen as a product that should be used by not just adults, but married adults. Thus adolescents are not seen as a possible target for their use, ignoring the still large number of adolescents who not only conceive but also contract STIs. In the recent past there has been a debate as to whether primary school going children should be given condoms or not. Generally the society is not ready for teenage contraception yet the impact of non-use of contraceptives continue to be felt in the country

2.3 Perceptions and use of Contraceptives

Although the terms “attitudes” and “perceptions” have been used interchangeably, they are different. Perception is the way humans interpret the information they sense (Quick & Nelson, 1997). It is a belief or opinion held by many people based on how things look (Audi, 1999). It is the immediate or intuitive recognition or appreciation as moral. It is the mental impression, image or notion about something. Perceptions are usually influenced by the nature and the amount of information available to a person and the extent to which they are able to correctly interpret the information they have acquired (Kinaro, 2012). If a person possesses negative information about a given phenomenon, they are inclined to forming negative perception about it and the vice versa is true. A person may be in possession of the same information that other people have on a particular situation, person or group but still arrive at different conclusions due to individual differences in the capacity to interpret the information that they all have. On the other hand, an attitude is “a learned predisposition to respond in a consistently favorable or

unfavorable manner with respect to a given object, subject, situation, person, issue, idea, event or place” (Mark, Edward, & Herman, 1982). The attitude that people form is affected by the person’s beliefs about the attitude object and the amount and type of information the person has about the attitude object. Positive perception creates a positive attitude and negative perceptions create a negative attitude. Attitude is therefore one of the most fundamental determinants of peoples predisposition to respond. One of the objectives of this research was to study how perceptions influence the use of contraceptives by the adolescents in Nairobi’s slums.

Various studies have been carried out on perceptions and their influence the use of contraceptives amongst adolescents. Most studies agreed that perceptions influence the use of contraceptives although the magnitude of the influence varied. Indeed, societal perceptions of contraception have a great influence on adolescents, for example, the perception of some people that contraception should only be used by married couples who want to space out pregnancies. Others erroneously believe that exposure to contraceptive information encourages women to promiscuity, and social attitudes may condemn women for seeking such information or intervention before marriage (Alan Guttmacher Institute , 1998). Attitudes towards sexuality and contraception may hinder an adolescent’s understanding of, and ability to obtain access to, contraception. In many countries, the gender and marital status of individuals can influence whether they are able to utilize a reproductive health service, and the comprehensiveness of the services that they was receive. Cultural or social stigma may cause adolescents to feel embarrassed about being seen at a reproductive health service, and there may be social objections to the use of certain methods, such as condoms or the pill. In general, moralistic community attitudes are common obstacles to effective utilization of comprehensive reproductive health, including contraception in such communities; adolescents may face

disapproval if they seek contraceptives or become pregnant outside marriage (Bledsoe & Cohen, 1993). In the Kenyan context, an adolescent girl who gets pregnant is more accepted than a teenage girl who uses contraceptives. This is due to the negative perceptions surrounding the use of contraceptives by adolescents. Thus adolescents shy away from using contraceptive in fear of being discovered by their parents, peers or the society (Kinaro, 2012). Kinaro discovered that service providers that had negative perceptions on adolescent contraception discouraged contraceptive use through misinformation on the effects of contraceptives on adolescents' health" (Kinaro, 2012). Further, within stable relationships, the use of condoms tends to decline over time because they suggest a lack of trust (Chandra-Mouli & Braet, 2014). Although studies have shown that there exists negative perceptions on adolescent contraception, the nature and the extent of the relationship has not been discussed

2.4 Adolescent Sexual Behaviors and Use of Contraceptives

The researcher was interested in finding out how the sexual behavior of an adolescent influences their use of contraceptives. Different scholars have operationalised adolescent sexual behavior differently. Distinctions that have been used to define sexual behavior for adolescents include: their marital status, the nature of sexual activity (sporadic, planned or forced), frequency of the sexual activity, the number of sexual partners, the nature and the duration of relationship. This research used the number of sexual activity in the past six months, the number of sexual partners in the past six months and the nature of the sexual encounter as the measures for the sexual behavior of the respondents.

Although minimal research has been conducted to correlate adolescents' sexual behavior with contraceptive use, there exists substantial literature on contraceptives and contraceptive use. Studies have shown that sporadic sex leads to an inconsistent use of contraceptives, while

marriage is associated with consistent use of contraceptives (Moreau, Bouyer, Gilbert, & Bajos, 2006). Adolescents who frequently engage in sexual activities are likely to use contraceptives (Alan Guttmacher Institute , 1998). This is attributed to the fact that these adolescents perceive the risks associated with unprotected sex and thus feel the obligation to protect themselves. On the other hand, adolescents that are less sexually active are less aware of the risks involved as they perceive themselves as relatively safe or safe altogether. Adolescents in long term relationships are also likely to use contraceptives although use of contraceptives, like condoms, tends to diminish with the length of the relationship as condoms are seen a sign of distrust between the partners (Prata, Vahidnia, & Fraser, 2014). The more the adolescent stays in a relationship the safer they feel and thus might tend to avoid the use of contraceptive as they perceive it as a sign of distrust or non commitment to the relationship (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013).

Young age at first intercourse is associated with non use of contraceptives (Moreau, Bouyer, Gilbert, & Bajos, 2006). Hence younger adolescents are less likely to use contraceptives than older adolescents. This is mostly associated with limited education, skills, finances, and information.. Similarly whether the sexual behavior is consensual or coerced, along with the specifics of the behaviors (oral, anal or vaginal sex; frequency, and number of partners) was also influence the use of contraceptives. Older adolescents are more sexually experienced and are more likely to use contraceptives as opposed to young adolescents (Bledsoe & Cohen, 1993).

This research was be studying how sexual behaviors influence the use of contraceptives amongst the adolescents in non-formal settlements in Nairobi County

2.5 Accessibility to Contraception Services and use of contraceptives

Lack of accessibility of contraceptive services has created a scenario where at least one in four women seeking to avoid pregnancy is not using an effective contraceptive method (UNFPA; Center for Reproductive Rights, 2010). Lack of access to modern contraceptive services means that adolescents was be often unable to protect themselves from HIV and other Sexually Transmitted Infections (STIs) or/and to control their fertility and reproduction (Center for Reproductive Rights; UNFPA, 2010). Factors like the cost and availability of contraceptives and contraceptive services, previous experience with health workers, friendliness of SRH service providers and distance from the health care center are known to influence the uptake of contraceptives by adolescents.

Adolescents bear the burden of poor Sexual and Reproductive Health (SRH) due to socio-cultural, economic, and structural barriers that function to discourage adolescent's access to appropriate contraceptive services. The general perception of teenage contraception, especially if the teenager is not married, discourages adolescents' from seeking contraceptive services as well as using contraceptive options that are available. This is attributed to the fact that adolescents are fearful of how they was be perceived by the society one known to be using contraceptives. Further adolescents may be skeptical of the kind of reception they shall receive once they state that they are seeking contraceptive services yet they are unmarried. Although some contraceptive providers decline to offer contraceptive services to unmarried adolescents as they believe that it was encourage pre-marital sexual activity. However, research has shown that denial of contraceptive services to adolescents does not influence sexual behavior (Kirby, 2007)

Previous experiences with health-care providers or with the health-care delivery sites available to adolescent are likely to influence the use of contraceptive services when the need arises. Adolescent friendly contraception services positively influences the uptake of contraceptives by adolescents (WHO, 2014). In some cases a negative perception of health services needs to be overcome.

Adolescents in need of contraception may not be economically independent due to their educational status, employment skills, age or gender role. Some young women may be economically dependent on their partners or parents for money; if problems in the relationship occur or if the partner is economically insecure, this may limit her access to a service. Economic dependence and financial insecurity was impact on an adolescent's contraceptive use in different ways. It may for example be impossible for adolescents to meet the financial costs of transport to health-care services. In one study, it was found that contraceptive use decreased as the travel time to services increased (WHO and International Youth Foundation, 1993). Similarly, clinic fees and the cost of contraceptives themselves may not be affordable by adolescents, or they may have to take time off work or school to attend services.

2.6 Knowledge on Contraception and contraceptive use

Knowledge is power. The level, the amount and the quality of information available to adolescents on contraception are key determinants of the use and choice of contraceptives. Adolescents frequently lack essential information on the characteristics of contraceptive methods, and the information they do have is often incorrect (Mehta & Malhotra, 2000). Lack of access to information regarding contraceptives, predispose girls to teenage pregnancies (Were, 2007). Health care providers opposed to adolescent contraception provide limited, false information or no information to adolescents who seek contraceptive services or information in

order to promote adolescent abstinence (Kinaro, 2012). Research has shown that limiting teenagers' access to contraceptive services and information fail to reduce sexual activity and increase the risk of unintended pregnancy and Sexually Transmitted Diseases (Wind, 2005). Further there is a general lack of parental guidance on issues of sexuality and sex education which have been reinforced by cultural taboos that inhibit such discussions (Were, 2007). Thus generally, the moralistic nature and the cultural profile of African societies deny adolescents the opportunity to access the necessary information regarding sex, sexuality and contraception even though evidence shows that adolescents are sexually active. The myths around reproductive issues can have a large bearing on whether and how adolescents seek reproductive-health care (Valentine, Frank, & Friday, 2001). This research revealed that the myth that contraception was a cause of infertility motivated the seeking of abortion services rather than contraceptive services. Sometimes, information on contraception is not tailored to the needs or expectations of adolescents, and in some circumstances it may be intentionally denied (Kinaro, 2012). For majority of the adolescents, teachers are their biggest source of information about safe and responsible sex (Kinaro, 2012) and although some adolescents seek information from health providers who provide false information about the side effects of teenage contraceptives in order to discourage pre marital sex and adolescent contraception and encourage abstinence.

2.7 Theoretical Framework

Theoretical frameworks are specific theories about aspects of human existence and provide particular perspective through which to examine a topic. They are the structure that guides research by relying on a form a theory constructed by using an established coherent explanation of certain phenomena and relationships. It can thus be said that a theoretical framework is the foundation of any research process.

A theoretical framework is important to any research process. Firstly, a theoretical framework helps guide and focus a study as it determines what things will be measured. Such guidelines cushion the research process from any personal biases that the researcher might have thus enhancing the credibility of the research. They also determine what statistical relationships the researcher should look for hence directing the analysis of a topic. Thus a theoretical framework is considered to be the central piece of the research plan

This research is guided by two theories: the reasoned action approach by Martin Fishbein and Icek Ajzen; and the diffusion of innovations theory by Everett Rogers

The reasoned action approach (RAA) was documented by Martin Fishbein and Icek Ajzen in their book: *Predicting and changing behavior: The Reasoned Action Approach*. The reasoned action approach argues that behavior is determined by the intention and moderated by actual control. The intention is influenced by the attitude, perceived norm and perceived behavioral control which are in-turn influenced by behavioral beliefs, normative beliefs and control beliefs respectively (Fishbein & Ajzen, 2009). Intention (the likelihood to perform a behavior) is determined by attitude towards the behavior, perceived norm (social expectation to perform or not to perform the behavior), and the perceived behavioral control which is the degree of one's capability to perform the behavior as well as barriers to and facilitators of the behavioral performance. Attitude, perceived norm, and perceived behavioral control are all based on beliefs: behavioral beliefs, normative beliefs, and control beliefs respectively. Attitude is the result of the strength of behavioral beliefs reflecting positive and negative outcomes (and experiences) of the behavior. Perceived norm is the result of the strength of injunctive beliefs reflecting the expectations of influencers in the environment, each multiplied by the motivation to comply with these expectations, and of descriptive beliefs reflecting the behaviors of various relevant others,

each multiplied by the degree of identification with these influencers. Perceived behavioral control is the result of the strength of control beliefs reflecting perceived skills, barriers and facilitators, each multiplied by the degree of power of control over these factors.

The degree to which adolescents use contraceptive is thus determined by their intention to do so and is moderated by their having relevant skills and abilities to use the contraceptives as well as (socio-economic and cultural) barriers to and facilitators of behavioral performance. Their intention (likelihood) to use contraceptives is in-turn influenced by attitudes towards adolescent contraception, what the society expects from them (perceived norm) and the degree to which they believe in their ability and autonomy to make and execute such decisions (perceived behavioral control). These three influences of intention are in turn influenced by beliefs. The attitude to exercise contraception is influenced by behavioral beliefs. The degree to which one believes that a behavior can generate a positive or negative outcomes (and experiences) determines the strength and nature of the attitude we develop towards a behavior. The perceived norm refers to what we believe the society expects from us. Perceived norms are a result of sanctions and expectations placed/demanded of us by the society. The degree to which perceived norms are influential is determined by the strength of such sanctions and the behaviors of the influencers in the society multiplied by the degree to which these influencers actually influence us. This therefore means that the contraceptive use among adolescents is depended on the degree to which they feel permitted to or prohibited from use. Their uptake of contraceptives is also dependent on the degree to which they feel that they identify with those who permit or prohibit their use of contraceptives. If adolescents don't strongly identify with influencers who oppose the use of contraceptives, then they are likely to accept contraceptive use.

The second theory on which this research is founded is ‘the theory of diffusion of innovations’ by Everett Rogers. In his book ‘Diffusion of Innovation’ Rogers Everett noted that the innovation itself, individual adopters, communication channels, time, and social system are the five elements that influence the spread and the adoption of a new idea in a process that relies highly on human capital (Rogers, 2003).

On innovation itself, Rogers note that there are characteristics that influence the degree to which an innovation will be adopted. Such characteristics are: the relative advantage which is the degree to which an innovation is better than the existing similar or competing innovations; Complexity which is the degree to which an innovation is difficult to learn and to use; Compatibility which is the degree to which an innovation is easy to integrate or assimilate in one’s life; trialability which is the degree to which an individual can be able to easily experiment on an innovation; and observability which is the degree to which the advantages of the innovation can be observed. Rogers noted that innovations that: are better than the existing technology, simple, compatible, easy to experiment and observable are more susceptible to adoption

The second influencer on the adoption of technology is the individual adopters. Rogers noted that there are characteristics of the individual adopters that influence the rate at which an innovation will be adopted. Ability and motivation were known to have a large impact on a potential adopter's likelihood to adopt an innovation. Potential adopters who are motivated to adopt an innovation are likely to make the adjustments needed to adopt it. Innovations have symbolic value that encourage or discourage adoption. Motivation is impacted by the connotation that an innovation holds since innovations that have a positive connotation/significance are more likely to be adopted than those who carry negative connotation. Further, Rogers noted that potential

adopters who have power over their choices are more likely to adopt an innovation than a person who has less power over their choices.

The communication channel is the third influence of adoption of technology. For Rogers, communication is the process in which participants create and share information with one another in order to reach a common understanding while a channel is by means through which a message goes from the source to the receiver. Mass media (like Radio, Newspapers and Television) and interpersonal communication are the two channels of communication. Interpersonal channels consist of a two way communication between two or more individuals. Diffusion is a very social process that involves interpersonal communication relationships. Thus interpersonal channels are more powerful to create or change strong attitudes held by people.

Time is the fourth influencer of adoption of innovation. He noted that innovations are not instantaneously adopted. Some innovations will require time for them to be adopted yet some innovations will take longer time periods to be adopted than others.

A social system is the last influencing element. Rogers (Rogers, 2003) defined a social system as a set of interrelated units engaged in a joint problem solving to accomplish a common goal. He noted that non conservative social units tend to adopt faster than conservative social systems

2.8 Conceptual Framework

A conceptual framework is a diagrammatic expression of the relationships between the variables identified for study. Miles and Huberman (Miles & Huberman, 1994) defined a conceptual framework as a visual or written product that “explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them”

INDEPENDENT VARIABLES

**MODERATING
VARIABLE**

**DEPENDENT
VARIABLE**

Perception on adolescent contraception

- If peers can use contraceptives
- if the respondent can use contraceptives and why
- Myths on contraceptives that the respondents believe to be true

Sexual Behavior

- Number of sexual encounters in the past six months
- Number of sexual partners in the past six months
- Number of planned sexual encounters in the past six months

Access to contraceptives

- Are contraceptives affordable to the respondent
- Can the respondent acquire contraceptives if and when they want

Knowledge about contraceptives

- How many times they have attended courses or seminars on the use of contraceptives
- How much true information they have about the use of contraceptives

Culture

Use of Contraceptive

- The number of times an adolescent has used a contraceptive in the past six months

Figure 1 Conceptual Framework

2.9 Explanation of Relationships of Variables in the Conceptual Framework

Figure 1 shows the factors that influence the use of contraceptives by adolescents. These factors are: adolescent's perceptions on contraceptives; the adolescent's sexual behavior; the adolescent's access to contraceptives and their level of knowledge about contraceptives. These factors are moderated by culture

Adolescents who have a positive perception on contraceptives are more inclined to using contraceptive than those with a negative perception.

The sexual behavior of adolescents influences adolescent's use of contraceptives. Sexually active adolescents are more likely to use contraceptives than adolescents that are not sexually active. On the other hand, adolescents with inconsistent sexual partners are disposed to using contraceptives. However when a partner is consistent and the contraceptive used is a condom, the adolescents are apt to stop using the contraceptive as it is seen as an indication of distrust. Planned sex is associated with the use of contraceptive while unplanned sex is associated with non use. Further, adolescents that are not sexually active and have inconsistent partners are less like to use contraceptives.

Access to contraceptives was be determined by the cost of contraceptives, availability of contraceptives, fear of acquisition of contraceptives and the friendliness of the service provider. The use of contraceptives is tends to increase when the cost is affordable and contraceptives are readily available in stock. In addition, adolescents who don't shy away from acquiring contraceptives are more likely to use contraceptives. Further, the use of contraceptives is predisposed to increase where the service providers are friendly to the adolescents.

The fourth factor that influences the use of contraceptives is the adolescents' knowledge about contraceptive use. Adolescents that are knowledgeable about contraception are likely to use contraceptives that those who are not knowledgeable.

2.10 Gaps in Literature Reviewed

Efforts and resources to promote adolescent's (Sexual and Reproductive Health) SRH including the prevention of adolescent pregnancy have typically focused on girls of ages 15 to 19. Yet, the adolescents with the greatest vulnerabilities, of STD infections and who face the greatest risk of complications and death from pregnancy and child-birth are 14 or younger.

Previous research has shown that perceptions influence contraceptive uptake by adolescents. Majority of the research has dwelt on the perceptions that contraceptive use causes infertility and promiscuity on users. This research seeks to bring out other existing perceptions about adolescent contraception and assess the extent to which those perceptions influence the uptake of contraceptives amongst adolescent.

Although substantial research has been carried out on the subject of adolescent contraception as well as adolescent sexual behavior, there has been minimum effort to correlate adolescents' sexual behavior with contraceptive use. Majority of the research focuses on the marital status of the adolescent and the frequency of the sexual activity.

Substantial research has documented on adolescent knowledge on contraception. Much research has operationalized "adolescent knowledge on contraception" as: what methods of contraception are known by adolescents. This research operationalizes the variable more comprehensively by adding indicators like: knowledge of effective/proper use, advantages and disadvantages/side effects of any three methods of contraception.

2.11 Summary of Literature Review

This chapter has presented the discussion selected literature that had documented the factors that influence the use of contraceptives amongst the adolescents which include: perception of contraception, sexual behaviors of the adolescents, accessibility to contraception and the knowledge on contraception by the adolescents. It has shown the discussion on the theoretical framework that underpins the research and the Conceptual framework that guides the study. It has explained the relationships of variables in the conceptual framework, and revealed the gaps in literature reviewed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter shows the discussion on the methodology that was applied in the research process. It covers the research methodology and shows the techniques and procedures that were utilized to obtain the data. The chapter is presented under the following sub headings: research design, target population, sample size and sampling procedures, validity and reliability of the data collection instrument, Data collection procedures Data analysis techniques, Ethical considerations and operational definition of the variables.

3.2 Research Design

This research was a descriptive survey design which applies the mixed mode approach to data collection. Descriptive surveys not only help the researcher to describe the characteristics of a population, but also help them to understand, describe and explore the social life of the sample through questioning, either through interviews or use of questionnaires (Mukwanjeru, 2011) (Orondo & Tromp, 2005). These characteristics made the said design to be the most appropriate for this study as it was help acquire information about the naturally occurring behavior, attitudes and other characteristics of the group under study.

3.3 Target Population

A **population** is a complete set of items that share at least one property in common that is the subject of a statistical analysis (Glossary of statistical terms, 2014). Target population is the entire groups of individuals or objects that the researcher is interested in generalizing conclusions (Best & Kahn, 1989). The target population is “the entire aggregation of respondents that meet the designated set of criteria” (Burns & Grove, 2001).

This research targeted all the sexually active adolescents aged 12-19 and had resided in Majengo non-formal settlement for more than five years whether such adolescents. Such adolescents participated in the study whether they were schooling or not or whether they were married or not. the researcher was interested the respondents who had resided in the area for more than five years as it is believed that immigrants would have taken up the characteristics of the residence within five years. Although there is no an agreed time for a new member to become acculturated, Rudman (Rudmin, 2003) agrees that a new migrant will have considerably adopted to the characteristics of the new population in five years where there are no conflicts between the new member and the populations. The African Population and Health Research Center, 2000) placed their number at 2500 (African Population and Health Research Center, 2000)

3.4 Sample Size and Sampling Procedures

Since the researcher was carrying out a survey, the entire population was not studied. A proportion of the population was studied. A proportion of the population is referred to as a sample. A sample is usually obtained though a sampling procedure. For research findings to be reliable and valid, the researcher needs should ensure that the sample is representative of the population. The researcher applied credible techniques to come up with a sufficient sample size that could generate credible data.

3.4.1 Sample Size

A sample size is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985). A sample size should be adequate the population so that the findings can be generalized to the population.

Taking note of the law of large numbers, which states that the larger the sample size, the better the estimates and hence the more they are representative and reliable, the researcher observes

that the population under study is moderately homogenous and that the number of sample would not compromise the quality of the findings.

Yamane provides a formula for determining the sample size (Yamene, 1967). This formula was used to determine the sample size.

$$n = \frac{N}{1 + Ne^2}$$

Where:

n = sample size required

N = number of people in the population \equiv 3000

e = error limit \equiv 0.05

The formula determined a sample size of 353

$$n = \frac{3000}{1 + 3000 \times 0.05^2} = 352.9$$

n=353

3.4.2 Sampling Procedure

Sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected (Gay, 1987). It is important that the sample be representative of the population so that the findings can be reliably generalized on the population. Sampling saves time, money and labor. The proportionate quota sampling procedure was used to obtain the sample. Proportionate quota sampling seeks a proportionate number of units to sample from a set of target quotas such that the sample size from each group is equitably represented (Berge, 2009). There were two quotas involved in the study. One quota comprised the boys and the other the girls. The Kenya Population Census of 2009 showed that the general population ratio of men to women is 50:50 (Limo & Wekesa,

2010) concurring with the world fact book findings of 2014 (Central Intelligence Agency, 2014). Thus the researcher sought a 50:50 representation from both quotas.

The data for the research was collected at house hold level. The complete listing of household survey area was not available. The researcher identified smaller sub areas within the survey area for which population data are available. The researcher thus utilized the existing communities as the research strata. To determine the number of households to be surveyed from each sub area (strata), stratified systematic sampling method was used. The number of households in each community area was obtained from the community leaders for each community area. Once the number of households to be surveyed from each community area was determined by use of stratified systematic sampling, a plan for selecting households in each community area was determined. To get a sampling interval the researcher divided the total number of households by the sample size.

$$\text{Sampling Interval} = \frac{\text{Total number of households}}{\text{Sample size}}$$

$$n \text{ th item} = \frac{6000}{353} = 16.9^{\text{Th}} \text{ item}$$

A sample interval of 17 was used in data collection. One adolescent in every 17th household was selected to participate in the study.

To reduce bias of household selection, the first house to be visited was determined by a random method. Thus the researcher randomly assigned the interviewees two random numbers, 1-10 (one for household to interview the males and the other for females) by use of the ballot method. The researcher was required to select the first house on the basis of counting that number from the

closest house to the drop-off point. The sampling interval (17th household) was the used to select subsequent households

Effort was made to include all households selected. If a house was unoccupied at the time of visit, it was revisited later. If the adolescent in the house declined to participate or if they were unavailable after multiple attempts, then the interviewee was required to visit the next nearest home

3.5 Data Collection Instrument

Questionnaires were used to collect data with the researcher providing guidance where necessary. A questionnaire is a research instrument that consists of a series of questions that a researcher uses to collect data about a given topic from identified respondents for statistical analysis (Berge, 2009). Questionnaires were the preferred data collection instrument since they provide a sense of anonymity and can provide privacy hence the respondents are more likely to provide honest answers. Secondly, Questionnaires are less expensive in terms of money and consume less time than conducting interviews since conducting personal interviews would require training and hiring of interviewers (Hilla & Christa, 1996). Mugenda and Mugenda (Mugenda & Mugenda, 1999) emphasized the use of questionnaires for survey designs as they condenses all information and make it free from distortion at the time of analysis.

In order to ensure that the respondents provided suitable and valid answers, the researcher observed some principles of questionnaire construction. Firstly, the researcher took note of the personal nature of the study and thus ensured that multiple choice answers were provided for the questions that could make the respondents shy away from answering. Secondly the researcher ensured that the questions were precise, brief and simple to understand. The researcher also ensured that the questions were free from grammar, spelling and punctuation errors.

Furthermore, the researcher ensured that the questions were not biased or leading the respondents to particular answers.

The researcher used open and closed ended questions focusing on the four objectives under study. Closed ended questions were useful in helping the respondents provide information that they would have difficulties in providing like the number of sexual partners in the past six months. They were also useful in helping the respondents provide specific answers as opposed to writing essays that could not either generate meaningful responses or provide an answer that is not very different from the multiple choice one. Closed ended questions generally made the work of filling in the questionnaire easier for the respondents. On the other hand, open ended questions gave the researcher the space to obtain information that would not provide better responses if choices were provided like the question on the contraceptives known to the respondent.

The questionnaires were administered by paper and pencil mode of administration where the questions are presented on paper and the respondent is required to use a pencil or a pen to fill it in. The filled in questionnaire was collected immediately after the respondent filled it in (where the researcher waited for the respondent to finish filling in) or was collected at a later date (where the respondent preferred to fill in the questionnaire later). To ascertain and assess the quality of the questionnaire, the constructed questionnaire was pilot tested to ensure its validity and reliability.

3.5.1 Pilot Testing of the Instrument

A pilot test is a small scale preliminary study conducted in order to evaluate the feasibility, time, cost and statistical variability in an attempt to predict an appropriate sample size and improve upon the study design prior to performance of a full scale research project (Hulley, Cummings, & Browner, 2007). A pilot test is important as it enhances the validity and reliability of the

research instrument. A pilot test helped the researcher to ensure that the questions were clear, appropriate, necessary and sufficient to generate meaningful information (Suskie, 1996). The researcher thus pilot tested the data collection instrument which is the questionnaire. The questionnaires were administered in the same way the research was conducted. For a pilot study to give adequate feedback, it should be carried out on at least 10% of the sample size (Lackey & Wingate, 1998). The researcher therefore issued the questionnaire to 35 adolescents aged 12-19 who were from the Majengo Sub County. This pilot test group was appropriate since they possessed similar characteristics as the target population. The adolescents that participated in the pilot study did not participate in the final study. The pilot test group filled and returned the questionnaires. The pilot testing group was asked give feedback on the challenges they faced when filling in the questionnaire like ambiguous and difficult questions. The feedback was used to modify the questionnaires. The researcher also sought to assess the time each respondent took to fill in a questionnaire. Generally, a respondent took 10-15 minutes to complete filling a questionnaire. This duration was acceptable given the timeframe that the researcher had to collect data.

3.5.2 Validity of the Instrument

Questionnaires as an instrument of data collection should collect enough relevant information that shall help the researcher to answer their research questions. When properly constructed, questionnaire are fundamental instruments by which statements can be made about specific groups, sections if the population or entire population (Berge, 2009). Validity testing is the measure that helps a researcher to collect adequate, unbiased, sound, suitable, meaningful and relevant content that shall help them to answer the research questions and hence achieve their research objectives (Mukwanjeru, 2011). Validity refers to whether an instrument actually

measures what it is supposed to measure (Hilla & Christa, 1996), given the context in which it is applied. When invalid instruments are used to collect data, the inferences that the researcher comes up with will be less meaningful, useful and appropriate. Validity gives strength to prepositions, conclusions and inferences that the researcher will finally come up with. To ensure this end, the researcher issued supervisor, lecturers and colleagues who helped assess if the questions were: clear, appropriate to the topic, appropriate for the respondents, properly ordered and if the questionnaire was comprehensive enough to collect all the information required addressing the objectives and the purpose of the study.

3.5.3 Reliability of the Instrument

Reliability refers to the degree to which the instrument can be depended upon to yield consistent results (Hilla & Christa, 1996). It is the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. A measure is considered reliable if a person scores the same if the same test is administered more than once. It is worth noting that reliability is only estimated and not measured (Mustonen & Vehkalahti, 1997). Reliability indicates the accuracy or the precision of the measuring instrument. For the reliability of the questionnaire individuals with knowledge on research were asked to review and verify the interpretations of the questions in the questionnaire. The researcher rephrased the questions accordingly to reflect clarity. Further a pilot study (pretesting) was undertaken on a population with similar characteristics and similarly the questions were re-worded to reflect clarity. The researcher assessed the reliability of the responses by use of the split half method. The responses were coded. The average for each question was obtained. The responses were divided using odd numbers for one set and even numbers for the other set. The reliability coefficient was then calculated using the Sphearman-Brown Prophecy.

$$\text{Reliability of the overall test} = \frac{2 \times \text{reliability for } \frac{1}{2} \text{ tests}}{1 + \text{reliability for } \frac{1}{2} \text{ tests}}$$

The coefficient of reliability was calculated to be 0.86. This is an acceptable level of correlation according to Dowdy and Wearden (Dowdy & Wearden, 1983)

3.6 Data Collection Procedures

Before carrying out the research, the researcher developed a research proposal that functioned as a blueprint through which data was collected. The proposal was evaluated by supervisor and other lecturers to ensure that it provided proper guidelines for data collection and analysis. After the document was approved, the researcher obtained an introduction letter from the University of Nairobi. The letter was used to acquire cooperation from government officials, communities and respondents where necessary. The researcher trained four research assistants to assist the data collection. A pilot study was carried out to assess and ascertain the reliability of the research instrument. The necessary changes were made according to the identified strains. The data was collected at the household level where the researcher and the research assistants moved from house to house to collect the required data by use of questionnaires. The respondents were free to either fill in the questionnaire as the researcher waited or they could fill it at a later time and the researcher would come to collect the filled in questionnaire at an agreed date and time. This was a strategy to not only increase the questionnaire return rate but also to facilitate the respondents give truthful and well thought answers.

3.7 Data Analysis Techniques

Data analysis is the science of examining raw data with the aim of drawing conclusions about that information (Dowdy & Wearden, 1983). It involves examining data in a way to discover and reveal the relationships, patterns, trends that can be found in it. Data analysis is not only about subjecting it to statistical operations that can tell you of what kinds of relationships seems to exist among variables but also what level you can trust the answers you are getting. Data analysis helps the researcher to discover useful information contained in that data.

Data analysis is an essential component in ensuring data integrity. Improper statistical analyses not only mislead the readers but might also negatively influence the perception of research by the public (Shepard, 2002). Accuracy and appropriate analysis of data is thus vital.

The researcher anticipated that the data collected shall be both qualitative and quantitative. Being different, these kinds of data were analyzed differently. Qualitative data is data collected in form of descriptions, opinions. Such data is expressed in words. Questions like if the respondent thinks that their peers should use contraceptives are considered to be qualitative in nature as the responses are worded and not of numerical nature. Qualitative data obtained was coded to enable quantitative analysis. On the other hand, quantitative data refer to the information that is collected as numbers and can be displayed and analyzed mathematically. For instance the question on the number of times the respondent has had sexual encounters for the past six months is a quantitative as it generates data that is numeric.

The raw data was organized by use of manual tallying and tables. The frequencies were obtained and percentages calculated. The organized data revealed the mode of the responses obtained. Correlations between variables were also calculated. Further, the level of significance of the obtained correlations was also calculated. All calculations were done by use of Microsoft Excel.

3.8 Ethical Consideration

Ethics are defined as norms for conduct that distinguish between acceptable and unacceptable behavior. Ethical considerations are important in research. Firstly, they help to promote the aims of research. For instance prohibitions against misrepresenting, falsifications and fabrication of research data promote truthfulness and avoidance of error. Research is a collaborative activity that involves many players like the researcher, the respondents, institutions and communities. Ethical practices like honesty, respect help to promote collaboration amongst these players in research. Ethical considerations therefore function to ensure quality research is carried out and that the findings are valid and reliable for informing and decision making

In addition to the mentioned ethical considerations, the researcher took into account the following ethical issues concerning the study. The researcher obtained an informed consent from the respondents. This was done by explaining to the respondents the purpose of the study, the data collection method and the participation needed from the respondents. The questionnaire explicitly informed the respondents that participation in the study is voluntary and that they had the right to withdraw from the study, at any time, without penalty (Burns & Grove, 2001). The respondents were informed that they would not receive any remuneration for participating in the study. The researcher also ensured the confidentiality of the participants. Hence no respondent was linked to any particular answered or completed questionnaire. The respondents were assured that the information they provided would be used for this research only and would be made available to them if they requested it. Further, no person was identified in the research report. The researcher provided the respondents with contact information in case they needed to request for a copy of the findings.

3.9 Operational definition of the variables

Operationalisation of variables is the process of strictly defining variables into measurable factors. Variables are defined to facilitate accurate replication of the research process. Operationalizing of variables make it easy for such variables to be studied, analyzed and conclusions made. Table 3.1 shows how the researcher operationalised the variables.

Table 3.1 Operationalization of Variables

VARIABLE	INDICATORS	LEVEL OF MEASUREMENT	STATISTICAL MEASURE
DEPENDENT VARIABLE			
Use of contraceptives	Number of times used per year	Interval	Mean, median mode, correlation
INDEPENDENT VARIABLES			
Perception of Contraceptives	Opinion on whether peers can use contraceptives	Ordinal	Median, mode, rank order correlation
	Opinion on whether the respondent can use contraceptives		
	Assessment on myths about contraceptives that the respondents believe to be true		

INDEPENDENT VARIABLES			
VARIABLE	INDICATORS	LEVEL OF MEASUREMENT	STATISTICAL MEASURE
Sexual Behavior	Number of sexual partners for the past six months	Interval	mode, correlation
	Frequency of sexual encounters in the past six months	Ordinal	mode, correlation
	Type of sexual encounter (planned or random)	Nominal	Mode, correlation
Access to Contraceptives	Affordability of contraceptives Availability of contraceptives in nearby health facilities Friendliness of the care provider	Ordinal	correlation, mode
	Fear of acquisition	Nominal	Mode
Knowledge about Contraceptives	How many times they have attended courses or seminars on the use of contraceptives	Interval	Mode, Correlation
	How much true information they have about the use of contraceptives		

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings obtained from adolescents in Majengo Sub County where the study was carried out. The data collection process generated information that effectively answered the research questions. The study focused assessing how perceptions, sexual behavior, access and knowledge about contraceptives influence the contraceptives and contraceptive use. The data is presented in order of the research questions. This chapter shows the analyses and interpretation of the findings of the research project and is presented in order of the research questions. The chapter is organized under the following sub headings: the questionnaire return rate, demographic characteristics of the respondents, perception and use of contraceptives, sexual behaviors and use of contraceptives, access to contraceptives and use of contraceptives, knowledge and use of contraceptive and chapter summary.

4.2 Questionnaire return rate

The mode of data collection was use of questionnaire. Questionnaire return rate refers to the proportion of the returned questionnaires in relation to issued or distributed questionnaires. It is usually obtained by dividing the issued questionnaires with the sample size and is usually expressed in the form of a percentage (Berge, 2009). A low response rate introduces a non response error which is defined as a sampling bias that occurs if the responses of the respondents differ from the potential answers those who did not respond (Berge, 2009). Hence the higher the response rates the lower the chances of non-response bias occurring. Although various studies have suggested that lower response rates do not necessarily reduce representativeness of the sample, a response rate of over 80% is usually preferred (Dowdy & Wearden, 1983).

Table 4.1 shows data on the number of questionnaires: distributed, returned, that were valid and unreturned

Table 4.1 Questionnaire Return Rate

	Number of Questionnaires	
	Frequencies	Percentage
Questionnaires Distributed	400	100%
Questionnaires Returned	384	96%
Valid Response	346	86.5%
Questionnaires Unreturned	16	4%

The researcher issued 400 (100%) questionnaires where 384 (96%) were returned and 16 (4%) of questionnaires were unreturned. The questionnaires were sorted. The questionnaires that were not filled completely were discarded leaving the researcher with 346 (86.4%) of valid questionnaires. The researcher adopted some strategies to increase the response rate. This included ensuring that the questionnaires were clearly designed and simply worded to ease the filling process for the respondents. The researcher was also available to address queries that were raised by the respondents and to collect the filled questionnaires. Research activity was carried out in the evening and on weekends to improve on the response rate. The researcher also issued more questionnaires than the required sample size to cushion the research process from non response error. The researcher and the research assistants were keen to ensure follow up on the respondents and to ensure that issued questionnaires were collected. In cases where the respondents could fill the questionnaire immediately, the researcher and the research assistants collected the questionnaires immediately.

4.3 Demographic Characteristics of the respondents

Demographic characteristics refer to characteristics of a sample and its important in determining of the sample is representative of the population (Berge, 2009).

The study targeted the adolescents of ages 12-19 in Nairobi County's slums: the case of Majengo non-formal settlements. The respondents were required to have been in residents in the area for at least 5 years consecutively. The respondents were required to state the duration they had lived in the residence. Data on demographics was important as it was useful in determining if the respondents are within the researchers sampling frame. They would also help in the analysis of the findings. The researcher was interested in the age and gender of the respondents. Age would determine if the respondent is an adolescent while gender would help to ensure 50-50 representation of both genders to meet the researcher's sampling criteria.

4.3.1 Distribution of the respondents by gender and age

The respondents in this study were boys and girls aged 12-19. Their representation was as shown in Table 4.2

Table 4.2 Gender and Age of the Respondents

Age Groups	Males		Females		Total	
	F	P (%)	F	P (%)	F	P (%)
12-13	33	10%	38	11%	71	21%
14-15	38	11%	33	10%	71	21%
16-17	42	12%	46	13%	88	25%
18-19	52	15%	64	18%	116	34%
Total	165	48%	181	52%	346	100%

F – Frequency P (%) – Percentage

Majority of the respondents were aged 16-19 at 197 (59%) while the rest of the participants were aged 12-15 at 149 (41.62). This could be attributed to the fact that younger adolescents were more reserved to participating in the study as opposed to older adolescents. However, this distribution poses a desirable scenario as all the age groups that the researcher sought to interview were represented in the research.

4.4 Use of contraceptives amongst the respondents

The researcher was interested in finding out how the participants had used contraceptives in the past six months. The responses obtained on the use of contraceptives are as shown in Table 4.3

Table 4.3 Use of Contraceptives amongst the respondents

Use of Contraceptives	Frequency	Percentage
Consistently Uses Contraceptives	110	32%
Sometimes Uses Contraceptives	168	49%
Never Uses Contraceptives	68	20%
Total	346	100%

Table 4.3 shows the use of contraceptives amongst the respondents. The use of contraceptives amongst the respondents was generally low in that 110 (32%) of the respondents consistently used contraceptives, 168 (49%) of the respondents used contraceptives sometimes while 68 (20%) had never used contraceptives in the past six months. The data presented shows that 236 (69%) of the sexually active adolescents were exposed to negative outcomes of unprotected sex like unwanted or unplanned pregnancies or STIS or both in that these adolescents did not consistently use contraceptives or did not use contraceptives at all in the previous six months. The low rates of contraceptive could be attributed to various known characteristics of the

adolescent stage. Firstly, it could be attributed to the unplanned nature of sexual activity for majority of the adolescents given the impulsive nature of the adolescence period. Secondly, it could also be attributed to the non information about contraceptives and contraceptive use amongst the adolescents. Thirdly, the inconsistent contraceptive use among the adolescents could be as a result of negative perception about contraceptives by the adolescents or inability to access contraceptives due to shyness to acquire the contraception services or products. Fourthly such a scenario could be attributed to apathy to use contraceptive or partner not willing to use contraceptives. These reasons could be applied to the 68 (20%) adolescents who reported that they had not used contraceptives for the past six months.

The third category in the use of contraceptives was for the group that consistently used contraceptives. This group consisted of 110 (32%) of the sample size. This outcome could have been influenced by various factors. Firstly, it could be that the respondents in this group exhibited characteristics that are opposite of the previous two groups in that; they were knowledgeable about contraceptives and contraceptive use, they were willing to use contraceptives, their partner supported their use of contraceptives and that they were knowledgeable on contraceptives and contraceptive use. It could also mean that the adolescents had planned sexual encounters. In instances where the adolescents in this group had an unplanned sexual encounter, it could mean that they arranged for contraceptive just before (like a condom) or after the sexual activity (like an emergency contraception pill-P2). Further consistent contraceptive use could imply that the adolescent is on regular contraceptive method like the everyday pill, injectables or implants.

4.5 Perception and the Use of Contraceptives

The researcher was interested in finding out how perceptions influenced the choice on whether an adolescent would use a contraceptive or not. The respondents were presented with various statements and were required to tick as applicable to them. The responses were assessed and a respondent was categorized as having a negative or positive perception on contraceptive and contraceptive use according to pre determined criteria. Table 4.4 shows the data on perception and contraceptive use

Table 4.4 Perception and Use of Contraceptive

	Positive Perception		Negative Perception		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently uses contraceptives	72	21%	38	11%	110	32%
Sometimes uses contraceptives	98	28%	70	20%	168	49%
Never used a contraceptive	12	3%	56	16%	68	20%
Total	182	53%	164	47%	346	100%

Table 4.4 shows the use of contraceptives in relation to perception. Majority of the respondents, 182 (53%), had a positive perception on contraceptives and contraceptive use as opposed to 164 (47%) who had a negative perception towards contraceptives and contraceptive use. 38 (11%) of the respondents had negative perception on contraceptives and contraceptive use although they consistently used contraceptives. The interpretation could be that there are compelling factors that cause such respondents to consistently use contraceptives. Such factors could be the need to control births or avoid contracting STIs or that the sexual partner(s) insist on using contraceptives. On the other hand, 72 (21%) had a positive perception on contraceptives and

contraceptive use and consistently used contraceptives implying that the positive perception could have contributed to such an outcome. Of the group that sometimes used contraceptives, 98 (28%) had a positive attitude implying that other factors other than perception caused the inconsistent use of contraceptives. On the other hand 70 (20%) had a negative attitude towards contraceptives and contraceptive use and used contraceptives sometimes. Negative perception on contraceptives could have contributed to inconsistent use of contraceptives amongst other factors. Further, 56 (16%) of the respondents had a negative perception on contraceptives and contraceptive use and had not used any contraceptives for the previous six months. Negative perception on contraceptives and contraceptive use could have contributed to their non use of contraceptives although other factors could have caused such an outcome. 12 (3%) of the respondents had a positive perception on contraceptives and had not used contraceptives for the past. This could be mean that the respondents' non use of contraceptives is due to other factors other than perception.

This variable presented a correlation co-efficient (r) of 0.3 showing there is a relatively positive relation between use of contraceptives and perception. This implies that an adolescent with a positive perception on contraception is more likely to use contraceptives than one with negative perception. Since the relationship between contraceptive use and perception is not so strong, it can mean that an adolescent with positive perception on contraceptives and contraceptive use will not use contraceptive while on the other hand, an adolescent with negative perception on contraceptives and contraceptive use can also use contraceptives. Perceptions influenced use of contraceptives in that those adolescents that had a positive perception towards contraceptives and contraceptive use tended to use contraceptives more than the adolescents that had a negative perception towards contraceptives and contraceptive use. There was a general view that

contraceptives were more appropriate if they were used by married adolescents than unmarried adolescents.

People's decisions tend to be influenced by their perceptions whether such perceptions are true or not (Kane & Wellings, 1999). This explains why those adolescents that have positive perceptions on contraceptives and contraceptive use tend to use contraceptives more and regularly than the adolescents that have a negative perception

The data further presented a correlation determination (r^2) of 0.09 meaning that perception influenced the use of contraceptives by 9%. Hence perceptions did not significantly influence the use of contraceptives.

4.6 Sexual Behaviors and the Use of Contraceptives

The researcher was interested in finding out how an adolescent's sexual behaviors influenced their use of contraceptives. The researcher used the frequency of sexual encounters in the past six months, the number of sexual partners in the in the past six months and the nature of the first sexual encounter as indicators for sexual behavior. This section thus shows the presentation, analysis and interpretation on data on the sexual behaviors of the respondents. The data is presented under the following sub headings: frequency of sexual encounters in the past six months, number of sexual partners in the in the past six months and the nature of the first sexual encounter.

4.6.1 Sexual activity and use of contraceptives

The respondents were asked to rate their sexual activity in the last six months. The responses were categorized into less than five sexual encounters and five or more sexual encounters. The responses obtained are presented in Table 4.5

Table 4.5 Sexual Activity in the Past Six Months and use of contraceptives

	Less Than 5 Times		5 or More Times		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	68	20%	42	12%	110	32%
Sometimes Use Contraceptives	98	28%	70	20%	168	49%
Never Uses Contraceptives	43	12%	25	7%	68	20%
Total	209	60%	137	40%	346	100%

F- Frequency P- Percentage

Table 4.5 shows the responses on the respondents' sexual activity in the past six months. On the basis of the number of sexual encounters in the past six months, majority of the adolescents had had less than five sexual encounters at 209 (60%) while 137 (40%) had five sexual encounters or more. The latter category could have comprised of married adolescents or unmarried adolescents who have consistent sexual partners or are more sexually active. The former group could have comprised of unmarried adolescents with one or more sexual partners or married adolescents who for some reason are not very sexually active.

Majority of the respondents were in the category that had sometimes used contraceptives at 168 (49%). Whereby majority of the adolescents had had less than five sexual encounters in the past six months at 98 (28%) while 70 (20%) of the adolescents had had less than five sexual encounters in the past six months.

A second majority of the sexually active adolescents said that they consistently use contraceptives at 110 (32%). Of the adolescents who had reported consistent use of contraceptives, 58 (17%) had more than five sexual encounters in the past six months while 52 (15%) had less than five sexual encounters.

The least number of the sexually active adolescents said that they had not used contraceptives in the past six months at 68 (20%). In this category, 43 (12%) of the respondents had had less than five sexual encounters while 25 (7%) had not used contraceptives for the past six months and had had five or more sexual encounters. This could imply that these adolescents used natural methods of contraception. It could also mean that these adolescent were only interested in birth control or were less interested in the use of contraceptives.

The data presents a correlation coefficient (r) of 0.99 showing a very strong positive correlation between the use of contraceptives and the number of sexual encounters an adolescent has meaning that the more an adolescent has sex the more they are likely to use contraceptives. The number of sexual encounters could mean that the adolescent is very sexually active. More exposure to sex implies more risks associated with sexual activity like pregnancy or STIs or birth. Thus the adolescents could have a felt need for use of contraceptives and hence the increased use of contraceptives as compared to the adolescents with less sexual encounters. Adolescents that are not so sexually active are less likely to perceive the need to use contraceptives as they don't consider themselves not so exposed to the dangers associated with unprotected sex.

The data also presented a correlation of determination (r^2) of 0.98 meaning that the number of sexual encounters influenced the use of contraceptives by 98%. This could be attributed to the fact that the perceived need for contraceptives rises with the number of sexual encounters. Hence the adolescents feel the risk exposure to negative unprotected sex outcomes depending on the number of exposures.

4.6.2 Number of sexual partners in the past six months and use of contraceptives

The researcher sought information on the number of sexual partners that a respondent had had in the past six months as an indicator of sexual behavior. The respondents were asked to state the number of sexual partners they had had in the past six months. The responses were as shown in Table 4.6

Table 4.6 Number of Sexual Partners in the Past Six Months and use of contraceptives

	Less Than 5 Partners		More Than 5 Partners		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	88	25%	22	6%	110	32%
Sometimes Use Contraceptives	128	37%	40	12%	168	49%
Never Uses Contraceptives	59	17%	9	3%	68	20%
Total	275	79%	71	21%	346	100%

F - Frequency P - Percentage

Table 4.6 presents data on contraceptives use in relation to the number of sexual partners the adolescents had had in the past six months. On the basis of the number of sexual partners in the past six months, majority of the adolescents had less than five sexual partners at 275 (79%) while 71 (21%) adolescents had been sexually involved with more than five sexual partners. The relatively large number of adolescents with more than five sexual partners in the past six months could be attributed to teenage prostitution in the area (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013). Further, adolescent stage is associated with self discovery and instability (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013). This could mean the unstable nature of the adolescent relationships could be causing adolescents to have multiple sexual relations that are not necessarily of commercial nature

Of the adolescents who had not used any contraceptive for the past six months, 59 (17%) had less than five sexual partners in the past six months, while 9 (3%) had more than five sexual partners. Of the adolescents that had used contraceptives consistently for the past six months, 88 (25%) of the adolescents had less than five sexual partners while 22 (6%) had more than five sexual partners. This category could be composed of married adolescents or unmarried with high levels of awareness on contraceptives and contraceptive use. Majority of the respondents fell in the category that had less than five sexual partners and used contraceptives sometimes over the past six months at 128 (37%). This is typical of adolescents: fewer sexual partners and minimal contraceptive use. It could be attributed to the unstable or the random nature of the adolescent stage. The data presents a correlation coefficient (r) of 0.99 implying that there is a strong positive correlation between the number of sexual partners and use of contraceptives. This is an almost perfect positive correlation. The correlation means that the more sexual partners an adolescent has the more likely they are to use contraceptives. This could be because the adolescents understand the risks associated with multiple sexual partners like pregnancies and STIs and thus take protective measures.

Further the data presented a correlation determination (r^2) of 0.98 meaning that the number of sexual partners influenced the use of contraceptives by 98%.

4.6.3 Nature of the Sexual Encounter and use of contraceptives

The researcher sought information on the nature of sexual encounters the respondents had had as an indicator for sexual behavior. The respondents were required to state the nature of their sexual encounters in the past six months. The responses were as shown in Table 4.7

Table 4.7 Nature of the Sexual Encounter in the Past Six Months and use of contraceptives

	Mostly Planned		Mostly Un Planned		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	73	21%	37	11%	110	32%
Sometimes Use Contraceptives	78	23%	90	26%	168	49%
Never Uses Contraceptives	12	3%	56	16%	68	20%
Total	163	47%	183	53%	346	100%

F= Frequency P= Percentage

Table 4.7 shows the nature of sexual encounters for the respondents. The variable was assessed on the bases of mostly planned and mostly unplanned. More adolescents, had mostly unplanned sex 183 (53%) in comparison to 163 (47%) had mostly planned sex. Such a scenario could be attributed to the turmoil nature of the adolescent stage where decisions are more impulsive than rational (Mark, Edward, & Herman, 1982). Majority of the adolescents, were in the category that had mostly unplanned sexual encounters and were not using contraceptives consistently at 90 (26%). The second majority group consisted of the adolescents who had planned sex and used contraceptives at times which accounted for 78 (23%) adolescents. The third largest group consisted of the adolescents that consistently used contraceptives and had planned sexual encounters at 73 (21%) while the least group was that of the adolescents that had not used any contraceptives in the past six months but had planned sexual encounters. This could mean that the adolescents had alternative contraceptives methods other than the modern ones.

In the unplanned sexual encounters division, only 37 (20%) of the adolescents had consistently used contraceptives while the rest 146 (80%) had either not used contraceptives at all or used contraceptives at times. Unplanned sexual encounters could have contributed to inconsistent use of contraceptives amongst the adolescents given the random nature of the adolescent stage.

This variable presented a correlation coefficient of 0.23 implying that there is a weak positive relationship between the use of contraceptives and planned sex. Such a scenario would have been triggered by minimal knowledge on contraceptives amongst the adolescents. Unplanned sex is usually unintentional hence there is no intention to use contraceptives. People who perceive that they have control over behavior; they are likely to exercise that behavior. Further, it could be influenced by cost of contraceptives where the adolescents could afford to purchase.

This variable gave a correlation of determination (r^2) of 0.05 meaning that the nature of sexual encounters relates the use of contraceptives by 5% percentage.

4.7 Access to Contraceptives and use of contraceptives

The researcher studied how access to contraceptive influences the use of contraceptives amongst the adolescents under study. Access to contraceptives was assessed on the basis of cost of contraceptives and ease of obtaining contraceptives. The respondents were presented with a set of statements which they were required to tick if they perceived them to be true.

This section thus presents data on adolescents' ability to access contraceptives. The data obtained is presented under the following headings: The cost of contraceptive and ease of obtaining contraceptives.

4.7.1 The cost of contraceptives and the use of contraceptives

To assess the extent to which the adolescents felt that contraceptives were accessible; the respondents were asked if they thought that contraceptives were costly. The responses obtained were as shown in Table 4.8

Table 4.8 Cost of Contraceptives and use of contraceptives

	Not Costly		Costly		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	93	27%	17	5%	110	32%
Sometimes Uses Contraceptives	116	34%	52	15%	168	49%
Never Uses Contraceptives	10	3%	58	17%	68	20%
Total	219	63%	127	37%	346	100%

F – Frequency P-Percentage

Table 4.8 shows the responses on whether the adolescents felt that contraceptives were expensive or not. On the basis of cost, majority of the adolescents, 219 (63%), felt that contraceptives were not costly while 127 (37%) of the respondent felt that the contraceptives were costly. Although 219 (63%) said that contraceptives were not costly, only 93 (42%) of the adolescents in this division consistently used contraceptives. Thus it could be said that the affordable trait of the contraceptives could have encouraged the respondents to consistently use contraceptives. The remaining 126 (58%) used contraceptives at times or never used contraceptives at all for the previous six months. This shows that there are other factors that influenced the use of contraceptives to the respondents in this category other than cost. On the other hand, although 127 (37%) of the respondents said they contraceptives were costly, 17 (13%) of the respondents in this category reported consistent use of contraceptives while the remaining 110 (87%) either used contraceptives at times or never used contraceptives at all for the past six months implying that cost could have significantly influenced the use of contraceptives for the respondents in this division. This implies that the former group had other factors that caused them to use contraceptives consistently and that high cost could not deter them from using contraceptives. It could be that such respondents appreciated the importance of modern contraceptive to them.

Such respondents could be those that are married or unmarried but with high levels of awareness on the importance of contraceptives. Cost could have negatively influenced the use of contraceptives for the latter group although not necessarily the only factor.

On the basis of specific divisions, most of the respondents were in the group that felt that contraceptives were not costly and used contraceptives at times at 116 (34%). The second majority group was that of the adolescents that felt that contraceptives were not costly and they used contraceptives sometimes at 93 (27%). The least group was that of the adolescents that felt that contraceptives were not costly and had not used any contraceptives for the past six months accounting for 10 (3%) of the respondents followed by the respondents that felt that contraceptives were costly and they used contraceptives consistently accounting for 17 (5%) of the respondents. The adolescents that felt that contraceptives were expensive were less likely to use them.

The data presents a moderately negative correlation coefficient (r) of 0.44 meaning that when cost reduced the contraceptives and contraceptive use increased though not significantly. Affordability increases the use of any technology (Rogers, 2003). Further most adolescents in the research are not financially capable and hence are price sensitive. The data also presented a correlation of determination (r^2) of 0.19 showing that cost influences the use of contraceptives by 19% while the remaining 81% remains unexplained.

4.7.2 Ease of obtaining contraceptives and use of contraceptives

The respondents were presented with statements to access the ease with which they would access and obtain contraceptives. The responses were ranked and categorized as either easily obtainable or not easily obtainable according to a pre set determination criteria. The responses were as shown in Table 4.9

Table 4.9 Ease of obtaining Contraceptives and use of contraceptives

	Easy		Not Easy		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	84	24%	26	8%	110	32%
Sometimes Uses Contraceptives	94	27%	74	21%	168	49%
Never Uses Contraceptives	22	6%	46	13%	68	20%
Total	200	58%	146	42%	346	100%

F=Frequency P=Percentage

Table 4.9 shows the responses on whether the respondents felt that contraceptives were easily obtainable or not. More adolescents felt that contraceptives were easy to obtain 200 (54%), as opposed to 146 (42%) said that they could not easily obtain contraceptives. The largest group consisted of those adolescents that could easily obtain contraceptives but did not consistently use contraceptives at 94 (27%) followed by the group that could easily obtain contraceptives and used contraceptives consistently at 84 (22%). The least group consisted of the adolescents that could easily obtain contraceptives but had not used any contraceptives for the past six months at 22 (6%) followed the adolescents that could not easily obtain contraceptives but used contraceptives consistently at 26 (8%).

On the category of adolescents that could easily obtain contraceptives, 84 (42%) of the adolescents used contraceptives consistently while 116 (58%) either used contraceptives at times or did not use contraceptives at all for the past six months. Although the adolescents in this category said that they could easily obtain contraceptives, majority of them did not use contraceptives consistently. This shows that there other factors that contributed to their inconsistent use of contraceptives other than ease of obtaining contraceptives. On the former group, it could be said that ease of access of contraceptives could have been a motivational factor

to their consistent use of contraceptives amongst other factors. When services are easily accessible people tend to use them more than when there are challenges in access

In the category of the adolescents that could not easily obtain contraceptives, 22 (18%) of the adolescents used contraceptives consistently while 120 (82%) either used contraceptives at times or did not use contraceptives at all for the past six months. It could be said of the former category that challenges in access to contraceptives could not deter the group from using contraceptives. The motivation for use of contraceptives exceeded the challenge of access. This could mean that they obtained large stocks of contraceptives like condoms and everyday pill or that they used long-term methods of contraceptives like implants. It could also mean that the adolescents felt that they were experiencing challenges to obtain contraceptives but anyway they made an effort to access contraceptives and contraceptive services. Such adolescents appreciate their need for contraceptives and hence put effort to obtain contraceptives. On the other hand, probably the challenge to access contraceptives deterred the former group from consistent use and if these challenges were addressed, probably the number would reduce

The data obtained gave a positive correlation coefficient of 0.22 showing a weak correlation between the use of contraceptives and ease of obtaining contraceptives. This means that although the ease obtaining contraceptives influenced the use of contraceptives, the influence wasn't much. The adolescents that said that the contraceptives were not easily obtainable tend not to use contraceptives in comparison to those who said that contraceptives were easily obtaining contraceptives. Although contraceptives were accessible to majority of the respondents they used contraceptives less showing that there were other factors other than access that determined the use of contraceptives amongst the adolescents. The data further presented a correlation of

determination of 0.05 meaning that access influenced the used use of contraceptives by 5% while the remaining unknown factors accounted for the remaining 95%

4.8 Knowledge about Contraceptives and use of contraceptives

The researcher assessed how much the respondents knew about contraceptives. The respondents were presented with various questions assessing their knowledge on contraceptives and were categorized as knowledgeable or not knowledgeable according to predetermined criteria. The data obtained is presented in Table 4.10

Table 4.10 Knowledge about contraceptives and use of contraceptives

	Knowledgeable		Not Knowledgeable		Total	
	F	P (%)	F	P (%)	F	P (%)
Consistently Uses Contraceptives	67	19%	43	12%	110	32%
Sometimes Uses Contraceptives	68	20%	100	29%	168	49%
Never Uses Contraceptives	20	6%	48	14%	68	20%
Total	155	45%	191	55%	346	100%

F= Frequency P=Percentage

Table 4.10 shows the data obtained on knowledge about contraceptives and contraceptive use and the actual use of contraceptives. Majority of the respondents, 191 (55%) were not knowledgeable about contraceptives in comparison to 155 (45%) who were knowledgeable. In the specific categories, the largest group consisted of the adolescents that were not knowledgeable about contraceptives and used contraceptives at times at 100 (29%) followed by those who were knowledgeable and used contraceptives at times at 68 (20%). The least group was that of the adolescents that was knowledgeable about contraceptives and had not used any contraceptives for the past six months at 20 (6%). The second least group was that of the

adolescents who were not knowledgeable about contraceptives but used contraceptives consistently 43 (12%).

The data presents a correlation coefficient (r) of 0.5 showing that there is a strong positive relationship between use of contraceptives and the level of knowledge. Adolescents that were knowledgeable about contraceptives and contraceptives used contraceptives more than the adolescents that were less knowledgeable. Knowledgeable tends to mitigate negative perceptions that hinder the use of contraceptives. Knowledgeable adolescents have factual information on contraceptives and contraceptive use such that myths and misconceptions that would hinder use are eliminated. Knowledge also equips the adolescent with information on how to use contraceptives. When a technology is not complex to use, it tends to be adopted as opposed to technology that is complex to use (Rogers, 2003).

The data presented a correlation of determination (r^2) of 0.25 showing that knowledge on contraceptives and contraceptive use accounted for 25% of the variation in use of contraceptives. Hence knowledge on contraceptives and contraceptive use has explained 25% of the variation in use of contraceptives and the remaining 75% remains unexplained

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter presents the research findings and discussions on the findings. It also presents the researchers conclusions on the research based on the findings and presents recommendations for the research problem and provides areas of future research. The chapter has been presented in order of the research questions

5.2 Summary of the findings

This section summarizes the research findings. The summary has been presented in order of the research questions.

5.2.1 Use of contraceptives amongst the participants

The use of contraceptives is relatively low considering that only 110 (32%) of the participants consistently used contraceptives for the past six months. 168 (49%) of the participants had used contraceptives in the past six months though not regularly while 68 (20%) of the participants did not use any contraceptives in the past six months. The data shows that only 110 (32%) of the respondents were protected from negative outcomes of unprotected sex like unintended pregnancies and STIs or both while the remaining 236 (69%) were predisposed to the said vices.

5.2.2 Perception influence use of contraceptives

Majority of the participants had a positive perception on contraceptives and contraceptive use accounting for 182 (53%) while 164 (47%) had a negative perception on contraceptives and contraceptive use. In the division of the respondents that had a positive perception on

contraceptives and contraceptive use: 72 (21%) used contraceptives consistently; 98 (28%) used contraceptives at times while 12 (3%) did not use any contraceptives for the past six months. On the division of the respondents with negative perception: 38 (11%) of the respondents used contraceptives consistently; 70 (20%) used contraceptives at times while 56 (16%) did not use any contraceptives for the past six months. The data presented a correlation coefficient (r) of 0.23 and a coefficient of determination of 0.05. This shows that perception and use of contraceptives are positively related; hence perception positively influences the use of contraceptives by 23%. The strength of this relationship is at 5% hence not a strong relationship (Sarantakos, 2005).

Technology is more likely to be adopted by people who have a positive perception towards it than people who have a negative perception (Rogers, 2003). Perception is one of the factors influencing contraceptives and contraceptive use.

5.2.3 Sexual behaviors and use of contraceptives

Sexual behaviors were found to influence the use of contraceptives. The number of sexual encounters, the number of sexual partners and the nature of sexual encounters were used to assess the sexual behaviors of the respondents.

On sexual activity in the past six months, majority of the adolescents had less than five sexual encounters at 209 (60%) in comparison to 137 (40%) who had more than five sexual encounters. This variable presented a correlation coefficient of 0.99 and a coefficient of determination of 0.99. Thus there was a very strong relationship between the number of sexual encounters and the use of contraceptives. When the person perceives that they are at a high degree of risk, the person is likely take precaution as their perceived need is high

On the number of sexual partners in the past six months, majority of the adolescents had had less than five sexual partners at 275 (79%) while 71 (21%) of the participants had more than five sexual partners. This indicator gave a correlation coefficient (r) of 1 showing that there is a perfect positive correlation between the use of contraceptives and the number of sexual partners. It also gave a correlation of determination (r^2) of 1 (100%) showing that the strength of the relationship was strong. The number of sexual partners increased the perceived risk and hence the perceived need for contraceptives. Hence the reason for such a strong correlation

On the nature of sexual encounters, majority of the respondents had mostly unplanned sex at 183 (53%) while 163 (47%) had mostly planned sexual encounters. This indicator gave a correlation coefficient (r) 0.23 showing that there is a weak positive correlation between use of contraceptives and the nature of sexual encounter. Hence when sexual encounter was not planned, contraceptive use was low. The coefficient of determination (r^2) was 0.05 hence the nature of sexual encounters influences the use of contraceptives to the extent of 5%.

5.2.4 Access to contraceptives and use of contraceptives

The third independent variable under study was on the accessibility of the contraceptives. To assess accessibility, the researcher studied the cost of contraceptives and the ease of obtaining contraceptives by the respondents. The respondents were asked if they felt that the cost of contraceptives was high and if they felt that contraceptives were not easy to access.

On whether contraceptives were costly, majority of the respondents said that contraceptives were not costly at 219 (63%) while 127 (37%) said that contraceptives were costly. The largest category comprised of the respondents that said that contraceptives were not costly and used contraceptives at times in the past six months followed by the category that said that contraceptives were not costly and they consistently used contraceptives for the past six months

at 93 (27%). The least category comprised of the respondents that gave the response that contraceptives were not costly and that they had not used contraceptives at all for the past six months at 10 (3%) followed by those that gave the response that contraceptives were costly and that they used contraceptives consistently in the past six months at 17 (5%). This indicator gave a correlation coefficient (r) of -0.4 showing that there is a moderately strong relationship between cost and use of contraceptives. When the cost of contraceptives went up, the use of contraceptives went down. Less costly technology tends to be adopted more than more costly technology. The coefficient of determination (r^2) of 0.19 showing that cost influenced the use of contraceptives by 19.1%

On whether contraceptives were easy to obtain, majority of the respondents gave the response that contraceptives were easy to obtain at 200 (54%) as opposed to the 146 (42%) of the respondents that gave the response that contraceptives were not easy to obtain. Majority of the respondents fell in the category that gave the response that contraceptives are easy to obtain and had used contraceptives at times in the past six months at 94 (27%) while the least group fell in the category of the response that gave the response that contraceptives are easy to obtain and had not used any contraceptives in the past six months at 22 (6%). This indicator gave a correlation coefficient (r) of 0.2 which is a weak positive correlation (Dowdy & Wearden, 1983). This shows that ease of obtaining contraceptives correlates with use of contraceptives by 20%. When contraceptives are easy to obtained, the use of contraceptives also increases. The indicator gave a correlation of determination (r^2) of 0.05 meaning that the ease of obtaining contraceptives influenced the use of contraceptives by 5%. Thus the strength of the relationship is not so much.

5.2.5 Knowledge about contraceptives and use of Contraceptives

The fourth variable under study was the levels of knowledge amongst the respondents. More respondents were not knowledgeable about contraceptives and contraceptive use at 191 (55%) in comparison to 155 (45%) of the respondents that were knowledgeable. The majority group comprised of the respondents that were not knowledgeable about contraceptives and did not use contraceptives consistently at 100 (29%). Of the respondents that used contraceptives consistently, 67 (19%) were knowledgeable while 43 (12%) were not knowledgeable. In the category of those who never used contraceptives, 20 (6%) were knowledgeable on contraceptives and contraceptive use while 48 (14%) were not knowledgeable. 68 (20%) of the respondents were knowledgeable about contraceptives and used them sometimes while 100 (29%) were not knowledgeable about contraceptives and used them sometimes. This variable gave a correlation coefficient (r) 0.45 showing that there is a positive correlation between knowledge and use of contraceptives; and that knowledge and use of contraceptives correlate with each other by 45% which is a relatively strong correlation. This therefore means that contraceptives use tends to increase as the level of knowledge increases. The indicator also gave a correlation of determination (r^2) 0.2 meaning that knowledge determined the use of contraceptives by 20%. Hence the level of determination is not so high. Knowledge gives the holder facts hence influencing perception. People who are knowledgeable about a technology are likely to embrace it as they understand its use

5.3 Discussions of the findings

This section shows the discussion of the research findings and shows how the findings relate to other findings. The discussion has been provided in order of the research questions.

5.3.1 Use of contraceptives amongst the participants

The use of contraceptives among the respondents was generally low, in that 110 (31%) of the respondents consistently used contraceptives while the remaining 236 (69%) either used contraceptives at times, 168 (49%), or did not use any contraceptives, 68 (20%), over the past six months. These findings concur with a study that was carried out by Family Health International (Family Health International, 2011) that showed that majority of the adolescents in Kenya did not use contraceptives. These findings further concur with the findings of Allan Guttmacher Institute (Alan Guttmacher Institute , 1998) that showed that generally contraceptive uptake of adolescents in sub Saharan Africa was low.

5.3.2 Perception and use of contraceptives

This research showed that perceptions highly influence the use of contraceptives and registered a correlation coefficient (r^2) of 0.2. These findings concur with the findings of (APHRC,MOH,IPAS, Guttmacher Institute, 2013) that showed that perception highly influences choices on contraceptives and contraceptive use. This study showed that 136 (39%) consistently used contraceptives. This outcome concurs with the study (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013) that showed that less than 40% of the sexually active adolescents in slums used contraceptives. The findings of this research that majority of the adolescents had a positive perception on contraceptives and contraceptive use, further concur with the findings of the said study.

5.3.3 Sexual behaviors and use of contraceptives

Sexual activity, number of sexual partners and the nature of sexual encounters were used to study the sexual behavior of the respondents. Sexual activity showed a 0.99 correlation coefficient (r)

and a correlation of determination (r^2) of 0.99. This shows that a sexual behavior highly correlates with use of contraceptives by 99% and the strength of the relationship is as strong as 99%. These findings concur with the findings of ALI (Alan Guttmacher Institute , 1998) ; APHRC et al (APHRC,MOH,IPAS, Guttmacher Institute, 2013) and Beguy et al (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013) that showed a strong correlation exist between sexual behavior and use of contraceptives. Secondly, indicator on the number of sexual partners showed a strong correlation between itself and use of contraceptives with a correlation coefficient (r) of 0.99 and a correlation of determination (r^2) of 0.99 showing that the number of sexual partners strongly influences the use of contraceptives by 99%. These findings concur with the findings of ALI ((APHRC,MOH,IPAS, Guttmacher Institute, 2013) that showed a strong relationship between the use of contraceptives and the number of sexual partners. SHowever Beguy et al (Beguy, Mumah, Wawire, Gottschalk, & Kabiru, 2013) and (Center for Reproductive Rights; UNFPA, 2010) found a not so strong relationship between sexual behavior and the use of contraceptives. Thirdly, the nature of sexual encounter was found to influence the use of contraceptives. This indicator gave a correlation coefficient (r^2) of 0.23 a correlation of determination (r^2) of 0.05. This shows that although nature of sexual encounter positively correlates with use of contraceptives, the relationship is not so strong at 5%. These findings concur with the findings of WHO (World Health Organisation, 2012) that there is a relationship between sexual behavior and use of contraceptives.

5.3.4 Access to contraceptives and use of contraceptives

Cost of contraceptives and ease of accessing contraceptives were used as the measures for access to contraceptives for the adolescents. This study found that the respondents could afford and easily access contraceptives agreeing with APHRC (African Population and Health Research

Center, 2000) findings. Although studies by AGI (Alan Guttmacher Institute , 1998) had shown that adolescents feared acquiring contraceptives, this is refuted in this study. Community workers were the preferred source of contraceptives by adolescents concurring with the studies by WHO (WHO, 2014)

5.3.5 Knowledge on Contraception and use of contraceptives

This research found that most of the adolescents were not knowledgeable on contraceptives and contraceptive use at 191 (55%). This shows low levels of knowledge about contraceptives amongst the adolescents as cited by APHRC (African Population and Health Research Center, 2000). Further the variable gave a correlation coefficient (r^2) of 0.45 and a correlation of determination (r^2) of 0.2 showing that knowledge and use of contraceptives positively relates to each other to the extent of 45% and the strength of the relationship is 20%. Hence there is a moderately strong correlation and a low degree of determination. This findings concur with the Were (Were, 2007) and APHRC (APHRC, 2002) that knowledge influences the use of contraceptives.

5.4 Conclusions of the study

The use of contraceptives is generally low amongst the sexually active adolescents in that 110 (32%) of the respondents had consistently used contraceptives in the past six months with the remaining 236 (68%) of the respondents either using contraceptives at times or not using any contraceptives in the past six months. This implies that the latter group was pre disposed to negative sexual outcomes like unwanted pregnancies and STIs.

The findings showed that perception positively influences the use of contraceptives though the influence was not very strong at 5%. On sexual behaviors, sexual activity and the number of sexual encounters strongly influenced the use of contraceptives accounting for 99% of the

influence. On the other hand, the nature of sexual encounters positively influenced the use of contraceptives though the influence was weak. The third variable under study was access to contraceptives whose indicators were cost of contraceptives and ease of access of contraceptives. Cost was found to negatively correlate with use of contraceptives where the use of contraceptives declined with increase in the cost of contraceptives although majority of the respondents gave the response that they could afford contraceptives at 219 (63%). On the other hand, ease of obtaining contraceptives was seen to positively influence the use of contraceptives though such influence was not so strong at 5%. The fourth variable under study was knowledge on contraceptives and contraceptive use. Majority of the respondents were not knowledgeable about contraceptives and contraceptive use at 191 (55%). Knowledge on contraceptives and contraceptive use positively influenced the use of contraceptives by 20%.

5.5 Recommendations of the study

Relevant stakeholders need to invest in training/teaching adolescents on contraceptives and contraceptive use. Increasing knowledge on contraceptives and contraceptive use amongst the adolescents might help eliminate the negative perception on contraceptives and contraceptive use thus increase the use of contraceptives amongst the adolescents thereby minimizing negative outcomes associated with unprotected sex. Further, a personalized approach in the training should be adopted so as to enhance the effectiveness of the training process.

Further such trainings in addition to awareness creation campaign should be extended to the general society as a significant number of adolescents attributed their desire not use contraceptives as being triggered by fear of negative societal perception (stigma). Such trainings might change perceptions and other socio-cultural barriers that discourage contraceptive use amongst adolescents and stigmatize adolescents that use contraceptives.

There is need to address the attributes of contraceptives that make them cumbersome for adolescents to use. Although majority of the respondents said that contraceptives were affordable, a significant number of the respondents were for the opposite opinion. Stakeholders therefore need to address the cost quality of contraceptives or come up with affirmative action to cushion adolescents from the high cost of contraceptives.

Further, majority of the respondents gave the response that they could easily obtain contraceptives a significant number were for the contrary opinion. This therefore raises the need for the stakeholders to address issues that challenge adolescents in obtaining contraceptives.

5.6 Suggested area for further research

Noting that majority of the adolescents did not consistently or regularly use contraceptives, there is need to study in detail the factors that lead to such scenario. This would help stakeholders know how to improve on consistency. A significant number of respondents attributed their non use of contraceptives to contraceptives cumbersome to use. Studies need to be conducted to find out the attributes of contraceptives that make them cumbersome to use. Thirdly, studies could be conducted to uncover the challenges that are faced by adolescents in their attempt to access contraceptives. Fourthly, 71 (21%) of the respondents gave the response that they had had more than five sexual partners in the past six months. Studies could be carried out to discover the factors influencing such a scenario. Furthermore majority of the respondents had unplanned sexual activity at 183 (53%). Studies could be carried out to uncover the factors influencing unplanned sex amongst the adolescents as this indicator strongly influenced the use of contraceptives amongst the adolescents.

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APPENDICES

Appendix 1 Letter of Transmittal

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4TH NOVEMBER 2014

UNIVERSITY OF NAIROBI,
DEPARTMENT OF EXTRA MURAL STUDIES,
P.O. BOX 3246-00200
NAIROBI

Dear Sir/Madam,

RE: AUTHORIZATION TO CONDUCT RESEARCH

I am pursuing a master of art degree in Project Planning and Management at the University of Nairobi. I am writing to obtain the University's authorization to conduct research as part of the requirements to graduate with the said degree. The research seeks to study the factors that influence the use of contraceptives in Nairobi County's slums the case of Majengo Sub County. A copy of the research report was be retained at the University's library for future reference

Thank you for your positive consideration

Yours Faithfully

Lucy Ndinda Muneene

Appendix 2 Questionnaire

The research seeks to study the factors that influence the use of contraceptives in Nairobi County's slums: the case of Majengo Sub County. The information you shall provide shall be used for academic purpose and shall be treated with utmost confidentiality. You are therefore requested not to provide any information that might identify you like your name, nickname, mobile number or email addresses. Should you be interested in the findings of this research, you can place your request on the addresses provided. A copy of the research report will be retained at the University of Nairobi's library for future reference. You are under no obligation to participate in this research and thus no rewards will be accorded to you as a result of your participation in this research. Further should you feel uncomfortable to proceed with the research, you can discontinue and no ramifications shall befall you

Thank you in advance for your cooperation

Yours thankfully

Lucy Ndinda

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1. What is your age bracket?

- 12-13
- 14-15
- 16-17
- 18-19

2. What is your gender?

- Male
- Female

3. For how long have you resided in Majengo Sub County?

- Less than five years
- More than five years

4. What is your understanding of the word "contraceptive"?

5. What contraceptives are known to you? (*Write them on the space below*)

6. Which of these statements describes best your use of contraceptives in the past six months?
- I used a contraceptive every time I had sex
 - I sometimes used contraceptives
 - I never used contraceptives
7. Which of these statements do you think are true about contraceptives? (You are allowed to tick more than one)
- Contraceptives are for married people only
 - I am too young to use contraceptives
 - Un married people who use contraceptives are promiscuous/sexually loose
 - Young people who are sexually active should use contraceptives
 - Use of contraceptives can make one to become sexually loose
 - People should use contraceptives only if they regularly have sex
8. Do you think people your age should use contraceptives?
- Yes; if they are married
 - Yes; if they are sexually active
 - No
9. How would you rate your sexual activity in the past six months
- No sexual activity in the past six months
 - Less than five sexual encounters
 - Five or more sexual encounters
10. How many sexual partners have you had in the past six months
- Less than five sexual partners in the past six months
 - Five and more sexual partners in the past six months
11. How would you define the nature of your sexual partners in the past six months
- I usually have planned sexual encounters
 - I sometimes have unplanned sexual encounters
12. Do you find contraceptives expensive to buy?
- YES
 - NO

13. Do you shy away from buying contraceptives or obtaining contraceptives services

- YES
- NO

14. If you don't use contraceptives regularly, what is your reason?

- Contraceptives are used by older people
- Contraceptives are for married people
- Contraceptives are expensive
- I fear the side effects of using contraceptives
- I feel embarrassed to use
- I feel embarrassed to purchase
- Health care providers cannot allow me
- Other reason _____

15. Do you find it difficult to acquire contraceptives?

- Yes
- No
- I never attempted to acquire contraceptives

16. Which of these statements describes you

- I am knowledgeable about contraceptives and can effectively train others and properly respond to their questions
- I am knowledgeable about contraceptives but I don't think I'm knowledgeable enough to train others and respond to their questions
- I am not knowledgeable about contraceptives and would like to know more about them
- I am not knowledgeable about contraceptives and I don't think it's the right time for me to know about them

17. Have you ever been formally trained on contraceptives and contraceptive use?

- YES
- NO

Thank You