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Knowledge and attitudes towards contraceptive use among female students in higher institutions of learning: A case study of kwame Nkrumah University in Kabwe district

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Abstract
Knowledge of contraceptive methods is an important precursor to their use. The ability to recognise a family planning method when it is described is a simple test of a respondent's knowledge but does not necessarily indicate the extent of this knowledge.
The main aim of this research was to investigate knowledge and attitudes towards contraceptive use among the female students at Kwame Nkrumah University in kabwe district. Studies in the field of knowledge and attitudes towards contraceptive use among undergraduate in Zambia, remains meager and quite limited. The study was based on the following specific objectives: to find out knowledge on contraceptives among female students, to determine the attitudes of female students toward contraceptives and establish sexual practices and the uses of contraceptive among female students.
This research was a case study and adopted a descriptive research design in which 100 respondents from the selected four year students using purposeful sampling. Data was collected by using self-administered questionnaires. The collected data was entered into a computer and analyzed using statistical package of social science version (SPSS) 20.0 as well as Microsoft excel.
The study result indicated that, knowledge of contraceptive among the female student was universal. The majority (73%) of the respondent had knowledge of oral pills while (12%) of the respondents had knowledge of condoms. Despite students' high awareness of the existence of contraceptive methods, positive attitude and continuous engagement in sexual activity, the rate of contraceptive use among students was found to be low. Only 36 (36%) of the sexually active respondents were using contraceptive and the common contraceptive methods used was (17%) condom followed by oral pills (6%) and injectable (6%).
The improvement of female students' knowledge about specific details of the method and timely utilization of contraception is still required in order to make it effective. Kwame Nkrumah university management should increase contraceptive access to the female students. Ministry of Higher Education to include information on contraception, and also lay strategies of presenting the information to the female students of teachers' colleges. In view of the fact that this study did not include male students, further studies are needed to find out the knowledge and attitudes towards contraceptive use among both male and female students in institution of higher learning.

Keywords: knowledge, attitudes, contraceptive use

1. Introduction

1.1 Background to the study

Zambia developed a national family planning policy in 1989 which was adopted as part of its Fourth National Development plan (FNDP) (Ministry of Health 2002: 15). This policy recognizes the effects of rapid population growth on Zambia's socio-economic development and the need to incorporate population concerns into the national development and planning process (PATH, 2005: 3).The main objective is to ensure that all couples and individuals have basic rights to decide freely and responsibly the number and spacing of their children and have the information, education and means to do so (Ministry of Health 2002: 15).

Family planning has continued to be a priority for the Government of the Republic of Zambia and is highlighted in the current Revised Sixth National Development Plan, 2013-2016 (MoFNP, 2014). It is also considered an essential component of the country's National Health Strategic Plan 2011-2015 (MoH, 2011). The specific objectives of the National Family Planning Guidelines and Protocols include initiating and sustaining measures to slow the nation's high population growth, enhance people's health and welfare, and prevent premature death and illness, especially among the high risk groups of mothers and children. The plan also supports measures to ensure that all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education, and means to do so (MoH, 2006). Despite the existence of well-functioning family planning centers country wide, Zambia has had rapid population growth. The Country's population has grown from 5.6million in 1980 to 13million as of 2010 Census of Population and Housing (CSO, 2011). Additionally, Zambia is experiencing the largest youth population ever its history, with over 80% of the population being below the age 35 years and the majority being rural based (MCDMCH, 2012) [19]. Among these are many adolescents who are vulnerable to unintended pregnancies and sexually transmitted infections due to lack of knowledge about sex, reproductive health and relationships and low literacy level (MCDMCH, 2012) [19] As a result, the

high levels of fertility have resulted into a young population, exerting enormous pressure on an already highly constrained government.

It should be noted that, Family planning is a key investment in reducing the broader costs of health care and reducing risks associated with pregnancy and childbirth (Singh and Darroch 2012). Accessing contraceptives can reduce maternal deaths by 40% (Ahmed *et al.* 2012; Cleland *et al.* 2012), infant mortality by 10%, and childhood mortality by 21% (Cleland *et al.* 2012). However, the study carried in Ethiopia shows that every dollar invested in family planning has shown two dollars of savings in other development areas (Cleland *et al.* 2006; Population Action International 2013). It is well known that reproductive choices made by young women and men have an enormous impact on their prospects for health, schooling, and employment, as well as their overall transition to adulthood (Hogan *et al.* 2010; World Bank 2007**,** 2010).

Table 1: Knowledge of contraceptive methods among currently married women and sexually active unmarried women age 15-49 in Zambia

Methods	All women %	Currently married women %	Sexually active unmarried women %
Any methods	98.8	99.7	99.5
Any modern method	98.8	99.4	99.5
Standard Days Method (SDM)	26.8	25.2	25.2
Any traditional method	75.4	86.4	72.9
Other	21.4	22.5	27.2

***Source*:** 2013/2014 ZDHS

Modern methods are more widely known than traditional methods; almost all women know of a modern method, while 75 percent know of a traditional method. Male condoms (97 percent), pill (96 percent), and injectable (95 percent) are the most commonly known modern methods among women, with a slightly smaller percentage mentioning female condoms (90 percent) and implants (87 percent). Among all men the most common methods of contraception known are the male condom (99 percent), pill (92 percent), Injectables (87 percent), and female condoms (86). Knowledge of the IUD, Standard Days Method, female and male sterilisation, Lactational Amenorrhoea Method (LAM), and emergency contraception are known by smaller percentages of women and men (2013/2014 ZDHS).

The extent of and patterns in knowledge of a modern method of family planning among currently married and sexually active unmarried women are similar except that the latter group of women are slightly more knowledgeable than currently married women about emergency contraception.

With respect to traditional methods, withdrawal and the rhythm method are known by 70 and 44 percent of all women, respectively, while comparable percentages for all men are 73 percent and 45 percent, respectively. Overall, women know eight contraceptive methods on average, while men know seven methods (Ibid). Knowledge of a method of contraceptive maybe influenced by a number of characteristics such as age, education or area of residence and other factors.

1.2. Statement of the problem

Even though worldwide the level of contraceptive use is considered low compared to contraceptive knowledge, certain cultures have recorded higher frequency of contraceptive use than others. The World Health Organisation in 2011 reported the general prevalence of contraceptive use to be higher in countries in Latin America, at an estimated 63%, than in countries in Africa at an estimated 20%, with the rate of nonuse highest in sub-Saharan African countries. In Zambia, the Knowledge of at least one contraceptive method is nearly universal among both married and sexually active women and men. However, the rate of contraceptive use among the Zambian population has been reported to be 49% among the married women and men while among the sexually active women is approximately 39%, (CSO, 2015: 113).

It is against this background, that I recognised the need to investigate knowledge and attitudes towards contraceptive use among undergraduate female students at Kwame Nkrumah University in Kabwe, in order to contribute to a greater understanding of the degree of the low uptake of contraceptives among sexually active female students aged 18-25 years.

1.3 Aim

To investigate on knowledge and attitudes towards contraceptive use among female students in higher learning institutions in Kabwe district, Central province of Zambia.

1.4 Research Objectives

1. To find out knowledge on contraceptives among female students.
2. To determine the attitudes of female students toward contraceptives.
3. To establish sexual practices and the uses of contraceptives among female students.

1.5 Research Questions

1. Do female students have knowledge on contraceptives?
2. How is the attitudes of female students towards the use of contraceptives?
3. How is the level of sexual practices among female student?

1.6 Hypotheses

a. H_0: There is no statistically significant relationship between knowledge and
Contraceptive use.
H_1: There is a statistically significant relationship between knowledge and
Contraceptive use

b. H_0: There is no statistically significant relationship between number of sexual partners and
Contraceptive use.
H_1: There is a statistically significant relationship

between numbers of sexual partners
And contraceptive use

c. H_0: There is no statistically significant relationship between frequency sexual intercourse and contraceptive use.
H_1: There is a statistically significant relationship between frequency sexual intercourse and contraceptive use.

1.7 Significance of the study

The results of the study will contribute to the body of knowledge in understanding the knowledge and attitude towards the use of contraceptives among female students of higher learning institutions in Zambia. Understanding the pattern and factors of contraceptive use among female students in Zambia is very important in relation to designing programs and policies to control population growth and maintain a low fertility rate. The study would be beneficial to other researchers and scholars who may find the study valuable to add to the existing body of knowledge. This would go a long way in forming the basis of their argument in the same research area.

1.8 Theoretical Framework

The study was based on the theory of reasoned action by Fishbein and Ajzen, 1975). The theory of reasoned action serves to understand an individual's voluntary behavior. The ideas found within the theory of reasoned action have to do with an individual's basic motivation to perform an action. According to the theory, intention to perform a certain behavior precedes the actual behavior. This intention is known as behavioral intention, and comes as a result of a belief that performing the behavior will lead to a specific outcome. The theory of reasoned action suggests that stronger intentions lead to increased effort to perform the behavior, which also increases the likelihood for the behavior to be performed (Godin, G kok, 1996).The theory has been widely used to model a variety of health-promoting behaviors and has proven useful in predicting intention to use and use of condoms. A comprehensive literature review showed that the Theory of reasoned action has been used to predict condom use behaviors among young Hispanics (Malcolm, Huang, Cordova, Freitas, Arzon, Jimenez, Pantin, & Prado, 2013), South African university students (Protogerou, Flisher, Wild & Aaro 2013), School and University students in the United Kingdom (Newby, Brown, French, & Wallace, 2013), Chinese female sex workers and injecting drug users (Jing, Lau, Xi, Chuliang, Jun, Hongyao, Renfan, Zhangquan, & Zhenglin, 2009), Portuguese and Spanish university students (Muñoz-Silva, Sánchez-García, Nunes, Martins,2007), young adults in rural Ethiopia (Molla Åstrøm & Berhane, 2007), Xhosa adolescents in South Africa (Jermmott, Heeren, Ngwane, Hewitt, Jemmott, Shell & O'Leary, 2007), and heterosexual men in a high-income country (Gredig, Nideroest, &Parpan-Blaser, 2006).

Therefore, the theory of reasoned action was used to explain the behaviors among the female students in relation to the knowledge and attitudes towards contraceptive use among female students at Kwame Nkrumah University.

2. Literature Review

2.1 Introducation

This chapter will discuss the momentous of literature acknowledged on the knowledge, attitude and use of contraceptives among female students at Kwame Nkrumah University. It is significant to do so because it puts this particular study in line with what has already been discussed about this topic.

2.2. Knowledge and attitudes towards contraceptive global perspective

The world has experienced a contraceptive revolution over the past 25 years, (Donaldson and Tsui, 1990). Contraceptive prevalence which is the percentage of women in the reproductive age group, married or living in union, that use some type of contraceptive has risen from less than 10 percent around 1990 to 55 percent from late 1980 to early 1990, (Bongaarts, 1990). Report by United Nations (2015) [41] states that in 2015, 64 per cent of married or in-union women of reproductive age worldwide were using some form of contraception. However, contraceptive use was much lower in the least developed countries (40 per cent) and was particularly low in Africa (33 per cent). Among the other major geographic areas, contraceptive use was much higher in 2015, ranging from 59 per cent in Oceania to 75 per cent in Northern America.

Within these major areas there are large differences by region. Prevalence in 2015 was several times as high in Northern Africa and Southern Africa (53 per cent and 64 per cent, respectively) as in Middle Africa (23 per cent) and Western Africa (17 per cent). Contraceptive use has been increasing recently in Eastern Africa and now stands at 40 per cent. At the other extreme, Eastern Asia had the highest prevalence (82 per cent) of all the world regions in 2015, due to the very high level of contraceptive use in China (84 per cent). In the other regions of Asia, the average prevalence was in a range between 57 per cent and 64 per cent. Regional contrasts are smaller in Latin America and the Caribbean, although the level of contraceptive use was lower in the Caribbean (62 per cent) than it was in Central America (71 percent) and South America (75 per cent). Within Europe, prevalence in 2015 was lowest in Southern Europe (65 per cent) and highest in Northern Europe (77 per cent). In Oceania, the level of contraceptive use in Australia and New Zealand was typical of levels in regions of Europe, whereas the level was much lower, 39 per cent, in Melanesia, Micronesia and Polynesia (UN, 2015) [41].

Within Asia, the highest levels of contraceptive use are found mainly in the Eastern and Southeastern regions, though other Asian regions also include some countries with high prevalence. In 10 countries, contraceptive prevalence in 2015 was 70 per cent or more, with an estimated high of 83 per cent in China. In all, 37 of the 48 countries or areas in Asia with sufficient data to enable estimates had contraceptive prevalence levels of 50 per cent or more in 2015. The lowest level of contraceptive prevalence in Asia was in Afghanistan and Timor-Leste at 29 per cent.

Contraceptive prevalence in 2015 was above 70 per cent in 13 countries of Europe as well as in Canada and the United States of America. However, three countries in Europe still have prevalence levels below 50 per cent (Bosnia and Herzegovina,

Montenegro and the Former Yugoslav Republic of Macedonia). Similarly, most countries in Latin America and the Caribbean have at least a moderate level of contraceptive use. Of the 39 countries or areas with available estimates in Latin America and the Caribbean, only Guyana and Haiti had prevalence levels below 50 per cent in 2015, and 16 countries had prevalence levels of 70 per cent or more (Nicaragua had the highest level at 80 per cent). The most populous countries in the region—Brazil, Colombia, Mexico and Peru—all had contraceptive prevalence levels of 70 per cent or more. Among 16 countries or areas in Oceania, Australia and New Zealand were on one end with contraceptive prevalence levels of 68 per cent and 71 per cent, respectively, and 11 countries were on the other end with prevalence levels of less than 50 per cent in 2015.

Sexual activity is common among youths aged 15-24 years in Latin. The young Adults Reproductive Health Survey on sexual prevalence and use of contraceptives conducted in Latin America and Caribbean Sea among 24 years of age revealed that contraceptives are not used by most couples the first time they have premarital sexual intercourse. The reasons cited most often by young women in the survey for not using contraception were lack of knowledge on contraception and not expecting to have sexual intercourse. Men are likely to give reasons such as lack of knowledge and that it is the responsibility of their partners to avoid pregnancy (Zeko *et al.*: 1999: 2). In Jamaica sexual activity among adolescents is very high. 40% of Jamaican women have been pregnant before the age of 20 (Eggleston *et al.*, 1999: 78, 80) [8].

Contraceptive use reduces the pregnancy rate, the number of unintended pregnancies and associated induced abortions and the proportion of high-risk pregnancies, therefore causing a reduction in maternal mortality and an improvement in maternal and child health. Studies have estimated that 30% to 40% of maternal deaths and 90% of induced abortion-related maternal deaths could be averted if all women who desired to use contraceptives had access to them. In addition, contraception makes significant contributions to reducing levels of infant, neonatal and under-five mortality (Ahmed *et al.* 2012), Singh *et al.* 2009).It is estimated that in developing countries as many as1.8 million child deaths could be averted if all pregnancies were spaced by at least three years (Rutstein 2008).Contraceptive methods offer varying levels of protection from pregnancy dependent on type and user efficacy. Modern medical contraceptive methods are most effective, with less than 1% of oral contraceptive, injection, implant and IUD users becoming pregnant within the first year of perfect use (although this rises to 5% for typical use of oral contraceptives) compared to 85% of non-users. Efficacy of barrier methods is lower with 3% of women relying on male condom use, 5% of female condom users and 6% of diaphragm users becoming pregnant within the first year of perfect use (14%, 21% and 20% respectively for typical use) (Kuban, Guillebaud *et al.* 2000).

Contraceptive pills are a key investment in reducing the broader costs of health care (Singh and Darroch 2012) and reducing risks associated with pregnancy and childbirth. Accessing family planning can reduce maternal deaths by 40% (Ahmed *et al.* 2012; Cleland *et al.* 2012), infant mortality by 10%, and childhood mortality by 21% (Cleland *et al.* 2012).The study carried in Ethiopia shows that every dollar invested in family planning has shown two dollars of savings in other development areas (Cleland *et al.* 2006; Population Action International 2013).

In the past few decades investments in family planning programs have raised the level of contraceptive use from 19% to 62% in the developing world and contributed to an estimated 75% decline in fertility (Greanga *et al.* 2011). However, despite the increase in supply of and demand for family planning services, gross inequities exist both between and within countries in the use of contraceptives, posing challenges to health policy and programming. Use of modern contraceptives in developing countries remains comparatively low, with West Africa having the lowest rates. In many countries the demand for contraceptives is still not being fulfilled (WHO, 2009)

Worldwide in 2010, 12% of women currently married or in union who do not want any more children or want to postpone their next pregnancies for at least two years are not using any form of contraception that is, they have an unmet need for family planning (Alkema *et al.* 2013). In developing countries an estimated 222 million women have an unmet need for modern contraception (Singh and Darroch 2012). The proportion of married women with unmet need for modern contraception is 18% in the developing world as a whole, but is much higher than average (30–37%) in Western Africa, Middle Africa, Eastern Africa and Western Asia, and is somewhat higher than average (22–24%) in South Asia and the Caribbean (Singh and Darroch 2012).

Young people's contraceptive use is affected by a number of factors at the individual, cultural and policy levels including desire to avoid pregnancy, knowledge of contraceptive methods, access to methods, socio-economic status and societal norms. Differences within and between countries in relation to availability of contraceptives include costs and access to contraceptive and other reproductive health services (Darroch, Frost *et al.* 2001). The reasons for not using contraception include concern about the possible side effects and belief that individuals are not at risk of getting pregnant (Krakowiak-Redd *et al.*, 2011) [16]. Statistics show that Sub Saharan Africa is most affected region in the world (Tsui, Mosley and Burke, 2010).

However, Darroch, Frost *et al.* (2001) articulate that, contraceptive use has an important role in reducing teenage pregnancy. In a comparison of France, Sweden, Canada, Great Britain and the USA, levels of sexual activity among young women were similar in each country. It was suggested that one of the reasons for the particularly high teenage pregnancy rate in the USA was less, or less effective, contraceptive use among young American women it has also been estimated that contraceptive use among US women aged 15-19 years prevented 1.65 million pregnancies during 1995 (Kahn, Brindis *et al.* 1999).

Young people have not been included in the family planning revolution in many developing countries. Few countries provide reproductive health and family planning services freely to the youths; many people view the provision of family planning services to youths as encouraging promiscuity. According to Enlikar, (2004) and Eggleston *et al.* (1999) [8], adolescents engage in premarital sex with insufficient

knowledge of reproduction and family planning and that only small proportions use contraceptives especially condoms. Eggleston *et al.* (1999) [8] were of the view that condom and pills were appropriate methods for young people and they discussed that these contraceptives were available from Doctors, Health Centres and Pharmacies.

Nordin and Tydén, (2001) survey performed in Sweden indicated that nearly half (45.4%) of the secondary school students had sexual intercourse and of those, 28.3% said that they themselves had used ECP. Four of five teenagers knew about ECP and where to obtain it if necessary. Many female students (67.3%) also knew that ECP prevented implantation. The main sources of information about ECP were youth clinics (n = 179) and friends (n = 159).Another study was conducted among 753 secondary school female students from the Douro Region (Northern Portugal) and the findings of the study indicate that there is low (10.5%) knowledge towards EC. The students' attitude is generally in favor of emergency contraception. Girls in the 12th grade are the students with the broadest effective knowledge (Castro and Rodrigues, 2009).

2.3 knowledge of contraceptives among youths in Africa

Studies have been conducted around the globe to evaluate the knowledge young people have about contraceptives. Generally, these studies reveal higher knowledge of contraceptive methods among young people in Europe compared to developing countries in Asia and Africa. This marked difference has over the years caused serious concerns which have led to the implementation of health programs to increase contraceptive knowledge and practice in developing countries, with different levels of success (Ijeoma, 2006; Duze and Mohammed, 2006; Sedgh *et al.*, 2006 [26]; Ryan, Franzetta and Manlove, 2007 [23]; Hindin and Fatusi, 2009; and Wu 2010; Olisemeka and Salim, 2011.

Duze and Mohammed (2006) argued that developing countries in Asia became relatively more aware of contraceptive methods than those in sub-Saharan Africa, largely because Asia has experienced significant socio-economic change earlier as well as because campaigns in the region involved local community leaders and other influential people. A 2009 study by Williamson, Buston and Sweeting shows that young women in developing countries have inadequate information about contraceptives and are not correctly informed about pregnancy risks; some thought they could not get pregnant at first sexual intercourse or when having sex in a standing position. Related studies have shown the level of awareness and knowledge of contraceptive methods to be closely associated with the individual's level of education, status and place of residence. This suggests that people with higher levels of education, or who are married or living in urban areas are more likely to have better knowledge of contraception than single, less educated people living in rural areas (Myer, Mlobeli, Cooper, Smith and Morroni, 2007 and Omo-Aghoja *et al.*, 2009; Esiet, Esiet, Philliber and Philliber, 2009).

Most countries in Africa are less developed and yet they have a record of high birth rates. Among the factors that have contributed to sustained high fertility in Africa are large percentages of the population living in rural areas, low levels of socio-economic development, high rates of infant and child mortality, and patterns of social organization deeply ingrained in cultural values that maintain the demand for large families. Moreover until recently, the majority of the African government expressed little support for "population control," as enunciated at the World Population Conference in Bucharest in 1974; their position then was that "development is the best contraceptive" (Donaldson and Tsui, 1990).

Studies in sub-Saharan Africa have revealed an increasing awareness of contraceptive methods among young people; although this awareness may not involve detailed understanding about the way contraceptives function. A 2006 study conducted by Oyedeji and Cassimjee among young students in a South African province showed that only 45% of males and 30% of females were aware of at least one contraceptive method available to men. However, they argued that students are ready to be responsible for contraceptive use if given sufficient and correct information about its existence and the way it functions. This finding was replicated in a study conducted among university students in Ghana, which revealed the male and female condoms as the only contraceptives known by 88.9% of the respondents, while 11.1% were aware of other modern methods such as the IUD, pills, Spermicides etc. (Appiah-Agyekum and Kayi 2013).

Within Africa, countries or areas with contraceptive prevalence of 50 per cent or more are mainly islands (Cabo Verde, Mauritius and Réunion), or located in the north of the continent along the Mediterranean coast (Algeria, Egypt, Morocco and Tunisia) and in Southern Africa (Botswana, Lesotho, Namibia, South Africa and Swaziland) Five countries in Eastern Africa (Kenya, Malawi, Rwanda, Zambia and Zimbabwe) also had contraceptive prevalence levels of 50 per cent or more in 2015. In contrast, 17 countries of Africa had contraceptive prevalence levels below 20 per cent. This group includes the populous country of Nigeria, where contraceptive use was at less than half the level in Ethiopia (16 percent and 36 per cent, respectively). Less than 10 per cent of married or in-union women of reproductive age were using contraception in Chad, Guinea and South Sudan in 2015 (United Nations, 2015) [41].

Knowledge of family planning is also a significant factor to explain contraceptive use. In Tanzania, women who were exposed to family planning messages were more likely to use contraception (Jato *et al.*, 1999) [12]. Tajure, 2010 conducted a cross-sectional descriptive study in Africa, the study was conducted in community High School in Jimma town, South West Ethiopia. This study concluded that though a significant number were practicing sex whereas the general awareness, detailed knowledge and practice of contraceptive among adolescent high school students are very low and recommended that adolescent reproductive health/family planning programs be initiated/ expanded in schools. Furthermore, ensuring on safer sex practices and access to adolescent friendly contraceptive information and services should be promoted.

A study conducted in Thulamela Municipality of Limpopo Province, South Africa, demonstrated that secondary school students were aware of different contraceptive methods that can prevent pregnancy. Only 17% of respondents were aware of emergency contraceptive, intrauterine device. The major source of information were parents and media. Pressure from

male partners, fear of parental reaction to the use of contraceptives, reluctance to use contraceptives, poor contraceptive education and lack of counseling were seen as the main causes of ineffective contraceptive use and non-utilization. The study concluded that, possible modalities of intervention deal by providing contraceptive counseling and care to empower these school girls to make informed choices on reproductive health (Ramathuba, Khoza and Netshikweta, 2012).

Another study conducted in Switzerland among high school girls (16-20 years) on the knowledge and use of emergency contraceptive showed that most of the sexually active girls, (89.3%) knew the existence of emergency contraceptive. Among those girls, 20% reported having used emergency contraceptive, and the majority of them used it only once (64.1%) or twice (18.5%). emergency contraceptive awareness was positively associated with the father's level of education (girls: odds ratio 5.18) and the scholastic curriculum of the respondent. EC use was higher among girls who lived in urban areas (odds ratio 1.91) and occasionally had unprotected intercourse. Another study concluded that emergency contraceptive awareness and use should be improved through better information and accessibility; especially among teenagers who place themselves in at-risk situations. EC awareness was also positively associated with the level of education of the girls. Ottesen, N *et al.*, 2002 as quoted by Mangesa (2014).

Choosing a contraceptive method, can only be based on an informed choice if a client was counseled privately and respectfully, in a non-judgmental manner, irrespective of the client's race, sex, religion, culture, disability or social status. The client should be helped to choose a method that best suits her personal circumstances, that is medically safe and takes into account the exposure to STI and HIV infections (DOH 2001:19).

Some women in the South Africa were found lacking information about the methods they were using for contraception, and the methods that were available to them. Lewis and Salo (1996:59-68) in their study in Cape Town, investigating contraception and women's rights, found that 67,0% contraceptive users knew about less than half of the methods available at their services; and 65,0% had no understanding of how these methods worked. Many women claimed that the clinic provided them with a contraceptive method without explaining how it worked, or what side-effects might occur. In the Limpopo Province of the RSA, Troskie and Raliphada-Mulaudzi (1999:41) studied rural women's reproductive rights. They reported that 83, 0% of the women were using contraceptives without any knowledge of the method's action. Only 16, 7% knew about the method's actions and possible side effects.

In Indonesia, which is said to have the largest contraceptive implants programme in the world, with an estimated 400 000 IUCD insertions per year, women reportedly participated in the programme out of the sense of duty. They did not know how the method worked. Women stated that each rod stood for one year (which was not true). They also knew that the rods could be removed after five years, but they did not know why (Hull 1998:178). Much as knowledge is an important component for effective contraceptive use, it is also important to acknowledge that other factors play a part. It is not always as simple as it sounds, and knowledge does not necessity imply equal usage.

In Thailand, when knowledge, attitudes and perceptions on contraceptives were studied (Morrison 2000:190-192), women demonstrated a high level of contraceptive knowledge. Out of a sample of 102 women who were interviewed, 86,0% knew about oral contraceptives, 86,0% about condoms, 88,0% about injectable but only 12,0% were using a modern contraceptive, irrespective of their stated wishes to delay or to stop future pregnancies.

The principle that knowledge does not equal use is not unique to a particular group of individuals. Teenagers and adolescents in the South Africa were found in various studies to have knowledge of one or the other method to prevent pregnancy, but they did not use these methods. In a comparative study of pregnant urban and rural girls' knowledge on contraceptives, conducted in Mamelodi, Pretoria, almost all the pregnant teenage girls interviewed knew some contraceptive methods but they did not use these methods to avoid unwanted pregnancies (Setiloane 1990:44-48).

In 1972 a breakthrough in the use of combined hormonal oral contraceptives was achieved by a Canadian physician Albert Yuzpe and his colleagues. He found that the administration of 100 mcg of oestrogen with 1, 0 mg of progestin causes endometrial changes that are incompatible with implantation (Ellenton 1996:52).Since then this method has been widely used and these doses are to be taken in equally divided doses within 72 hours of unprotected sex. There is medical consensus that this method has no contraindications, and that there is no link between this method and fetal malformation. In the late 1970s the insertion of a copper releasing IUCD to induce unfavorable conditions for implantation was discovered. It is believed that the copper releasing IUCD appeared to be directly embryo toxic (Elberton 1996:54).

Quinn (1999,41-43) stated that, before emergency contraceptives can be administered, good history taking is of paramount importance, and should include the date of the last menstrual period, whether the last menstrual period was lighter, shorter or different, the usual duration of the individual's menstrual cycle, when unprotected sex took place in relation to the menstrual cycle, the number of hours since the first episode of unprotected sex, whether the client is using any antibiotics, tactful questioning to establish whether the episode of unprotected sex carried the risk of sexually transmitted infections. In Britain, Crosier (1996:87) conducted telephone interviews about emergency contraceptives. Women were asked to mention any emergency contraceptive method. Out of the 798 women who participated, only 9, 0% mentioned the name of a morning after pill; only 36, 0% could define it correctly; only 24, 0% could mention the correct time to use emergency contraceptives; and only 12, 0% reportedly used the emergency contraceptives in their life-time. This study revealed that younger women were more informed about emergency contraceptives than older women. The younger women mentioned leaflets, books, articles, television and radio as their sources of information.

A focus group interview was conducted with family planning providers in Vietnam, to learn about their knowledge and attitudes about emergency contraceptives. Although the

participants knew something about emergency contraceptives some of their information was incorrect. Surprisingly some participants believed in vaginal douching, doubling spermicidal jelly or using traditional remedies like drinking large quantities of coconut juice. Those who knew about oral contraceptives as emergency contraceptives, did not know which intervals between doses of the oral contraceptives to be adhered to for the desired results. Few knew about post coital insertion of a copper containing IUCD and its side effects. Most of the participants overestimated the incidence and the severity of the side-effects (Ngoc, Ellertson, Surasrang and Loc 1997:68-72).

In Brazil (Galvao, Diaz, Diaz, Osis, Clark and Ellertson 1999:171) a survey was conducted on a nationally representative sample of 579 obstetricians/gynecologists'. Although 98, 0% knew about emergency contraceptives, 14, 0% believed this method to be illegal (which was untrue), and 30, 0% believed that the method was an abortificient. Of the 6, 0% who reportedly prescribed this method, only 15, 0% could correctly list the name of the pill prescribed, the dosage and the timing of the first dose.

Facilitating access to emergency contraceptives could imply fewer unintended pregnancies. Instead of obtaining emergency contraceptives from clinics, doctors or pharmacies, they can be made available in other places such as shops. This was demonstrated by a study conducted in the United Kingdom (UK), where 553 women were given replaceable emergency contraceptive pills to take home and to use when necessary. In a control group 530 women were informed that they could obtain emergency contraceptive pills from doctors, when the need arose. The frequency of use of emergency contraceptives and the incidence of pregnancy were checked a year later. In the treatment group 47, 0% of the women used the method once, and 98, 0% used it correctly. In the control group 27, 0% of the women used the method once. Unintended pregnancies occurred in 18, 0% of the treatment group and 25, 0% in the control group (Glasier and Baird 1998:1-4). If emergency contraceptives could be well-known and utilized effectively, it could bring down the number of unwanted pregnancies and requests for TOPs.

In the Garankuwa area of the South Africa, Ehlers *et al.* (2000:47) found that 67, 56% of the adolescent mothers did not know about the availability of emergency contraceptives, only 37, 83% knew about its existence. Of the 37,83% only 13,5% knew that contraceptive pills could be used as emergency contraceptives and only one respondent could name such a product, indicating adolescent mothers' lack of knowledge about emergency contraceptives.

Peltzer (2001:53-57) investigated the knowledge and sexual practices, with reference to correct condom use, amongst the first year university students in the Limpopo Province of the RSA. More male students had more information about male condoms than female students. Although 57, 0% of the students knew about condoms before their first sexual encounter, only 20, 0% used condoms. A total of 56,0% were ignorant about the correct moment to put on a condom, 55,0% on when to take the condom off and 28,0% on whether a condom should be rolled up before being put onto the penis or not. As many as 92, 0% never used a condom, 34, 5% always used condoms, 19, 8% used condoms regularly and 8, 5% used condoms irregularly during the three months preceding their participation in this survey. When asked to mention methods that could prevent pregnancy, adolescent mothers, mentioned condoms as one means, even though they did not use it (Ehlers *et al.* 2000:47; Ehlers and Maja 2001:11).

In the Transkei region of the South Africa, 62, 1% of the sexually active boys reportedly used condoms (Buga *et al.* 1996:524). Differences were observed in condom usage in different racial groups in the Cape Peninsula of the RSA, when the risk behaviours of high school students were studied. Condoms were reportedly used in 22, 5% of the Afrikaans speaking boys; 57, 1% of boys who spoke both English and Afrikaans at home; 63, 0% of the English speaking boys and 23, 6% of the Xhosa speaking boys (Flisher, Ziervogel, Chalton, Leger and Robertson 1993: 495–497).

Attitudes and beliefs about condoms were investigated by Nichola (1998:892). In a total sample of 1986 first year black students, (59,0% were female and 44,0% male) in a South African university, 39,8% used condoms with every sexual encounter; 40,9% of the respondents provided condoms to their sex partners; 57,2% suggested condoms and 46,5% actually used condoms at their most recent sexual encounters.

In Zimbabwe multivariate logistic analysis regression models were used to evaluate condom usage in marital and non-marital relationships. The data showed that single sexually active males were more likely to use condoms than married sexually active males. Males with secondary and higher education were ten times more likely to use condoms than males without these educational qualifications (Adetunji 2000:196).

Almost the same characteristics in condom usage were obtained by Agha (1998:37) in Zimbabwe. Females were found to be more likely to use condoms if they were unmarried. Condom usage in men was associated with accessibility, having an education beyond secondary level and being younger than 30 years of age. Programmes which targeted men for condom use were reportedly more likely to be successful than those that aimed at developing women's skills in negotiating condom usage.

Furthermore, Klein *et al.* (1999:114) affirms that, a female condom is said to be the first officially recognised women controlled means of protection against STIs, HIV and pregnancy. This has provided an alternative to the previously male dominated situation. The population has been slow to experiment with female condoms. This could be attributed to several factors like the lack of familiarity with the female condom, the size of the device, the number of instructions on how to use the device and its cost. According to Foy *et al.* (2001:2), female condoms are not readily available in the RSA. This method is not available in the public sector, it is being piloted at selected sites, and is only readily available in the private sector. Most of the literature obtained about female condoms are based on studies done in the USA.

Soet, Dilorio and Dudley (1998:19) found that intrapersonal and interpersonal factors influenced the use of female condoms. In their study of 2 044 female university students in the USA, self-efficiency and self-evaluative outcomes were significant intrapersonal predictions of women's condom usage. Intrapersonal predictions did not play a major role in influencing condom usage. Interpersonal predictors, for

example anticipated negative reactions of the partner, played a most significant role in determining women's use of the female condom. Again in this study, women with high self-efficiency were found to be more likely to use a condom. These authors suggest that interventions that are aimed at promoting female condoms usage, should recognise that cognitive factors play an important role in influencing condom usage, like self-efficiency and beliefs about using a condom. Women's HIV status also influenced condom usage. More women who were HIV negative believed that condom usage could impact negatively on their relationships than women who were HIV positive.

A convenient sample of 1268 women was investigated for consistent condom usage in Philadelphia in the USA. Women who desired babies were less likely to be consistent condom users than those who did not desire babies. Women who reported partners' support for contraceptive use, showed higher levels of consistent condom use than women whose partners did not support the use of contraceptives (Klein *et al.* 1999:97-114).

2.4 Attitudes towards contraceptives use among students

Studies have shown that the attitude youths have about contraceptives is an important determinant of the use and non-use of contraceptives. Positive attitudes are associated with greater use of contraceptive while negative attitudes are associated with lesser contraceptive use (Salako *et al.*, 2006 [24]; Duze and Mohammed, 2006; Ryan *et al.*, 2007 [23]; Ugoji, 2008; Wu, 2010; Mnyanda, 2013). Furthermore, the attitudes youths have towards contraception are shaped differently among males and females. Ryan *et al.*, (2007) [23] suggest that an increase in contraceptive knowledge among boys helps them form positive attitudes towards contraceptives. Girls, on the other hand, form positive attitudes towards contraceptives by acquiring more knowledge on actual reproductive health and the ways in which their bodies function.

In disparity, a 2010 study by Wu among teenagers in China suggests that an increase in contraceptive and reproductive health knowledge does not necessarily translate into positive attitudes, as increase in knowledge could also lead to the formation of negative attitudes due to the awareness of contraceptive side effects. A similar study conducted by Minyanda in 2013 among youths in a South African province also reflects Wu's finding. In Mnyanda's study, youths who are knowledgeable about contraception consider it as bad because of their awareness of contraceptive side effects and their perception of the condom as reducing sexual pleasure. As such, they would rather go for an abortion which they feel is a better method of preventing the effects of unwanted pregnancy (Mnyanda, 2013).

These studies also reveal that students generally hold more positive attitudes towards condoms, reporting it as the most favorable method of contraception. This could be due to its dual function in terms of pregnancy prevention and protection form STIs, as well as its being less intrusive on the reproductive system of the individual compared to other modern contraceptive methods (Olley, 2008; Abiodun and Balogun, 2009; Monjok *et al.*, 2010). However, some students reported having negative attitude towards condoms, stating that condoms often fail by either breaking or slipping out as well as reducing sexual pleasure during sex; as such, they would prefer other methods such as injectables and implants because of their perceived long lasting effects and efficiency (Amos, 2007; Akani *et al.*, 2008; Cadmus and Owoaje, 2010).The attitudes of students towards contraceptives influences the individual's behavior as to whether or not he/she uses contraceptives (Duze and Muhammad, 2006; Abdulraheem and Fawole, 2009)

Teenage and adolescent boys might hold different ideas about condoms than older men, influencing their attitudes towards condom usage. In a study conducted among university students in the South Africa, condoms were perceived as being too expensive to buy, as making sex less pleasurable, and that too many condoms would be required for all the sexual encounters. These students stated that condoms made partners feel UN trusted. They maintained that real men do not use condoms, and condoms cause vaginal injuries (Nicholas 1998:893).

In Nigeria when teenagers were interviewed about contraceptive methods, some were reportedly afraid of condom usage, as it was regarded to be an unsafe method. Moreover, these teenagers believed condoms could break away and go to the stomach and cause difficulty in breathing (Amazigo, Silva, Kaufman and Obikeze 1997:28-33). In Jamaica, of the young adolescents who admitted to being sexually active, most used condoms, but some had to hide their condoms from their friends not to be regarded as "chickens" (Eggleston *et al.* 1999:82) [8].

In San Francisco in the USA, a convenient sample of 92 women were trained how to use female condoms. They were given female condoms to use over a period of three months. In depth interviews were conducted at the end of this period (Choi, Roberts, Gomez and Grinstead 1999:68). The women who developed positive attitudes towards female condoms reported that, it is less messy, it increases sexual pleasure, it was an empowering tool for women who were no longer expected to depend on men for protection against STI and HIV infection, It promoted communication amongst partners to revisit the issue of HIV/AIDS and protection.

Those who developed negative attitudes about female condoms reported the following perceptions, the shape and size of the device was unfeminine, the device was regarded as being too big, slimy and weird, the part of the device which was hanging outside the vagina caused embarrassment for these women. it diminished spontaneity of sex, it interfered with foreplay, for example if oral sex came to mind, this was prevented by the vaginal lubrication caused by the female condom, most women experienced difficulty with inserting the device, some women were uncomfortable with its insertion, especially those who had never previously felt the inside of the vagina, it was too bulky to carry around, insertions prior to sex diminished the mood.

In Washington DC in the USA, women who were crack users and those who injected drugs were introduced to female condoms, and taught how to negotiate condom use. Those who developed positive attitudes about the device perceived it as being, more reliable and contributing to sexual pleasure, advantageous since it could be inserted up to eight hours prior to sex, drug users who were also commercial sex workers could use it without the client being aware of its use, it did not

break or tear like male condoms, it felt smooth as if you were not using anything at all, the idea of trying something new was "kinky", partner helped with its insertion which increased the eroticism and sexual pleasure (Choi *et al.* 1999:66-68). Those whose male partners developed positive attitudes reported that their male partners found the female condoms, less constricting and more comfortable to the male partner, did not grab pubic hair like male condoms did, produced increased sexual pleasure with liberal lubrication, caused warming qualities of polystherane material which they liked (Choi *et al.* 1999:70). From these perceptions it is apparent that women viewed the device differently from men. Those women who perceived the device positively, could help overcome challenges experienced by women who disliked the device.

2.5 Knowledge and attitude towards Contraceptives use in Zambia

In Zambia the provision of contraceptives is chiefly by the government sponsored facilities. The distribution of sources of modern methods of contraceptive methods shows that majority of current users (about 68%) obtain there contraceptives from the public sector health facilities. On the other hand, there seems to have been a decline in the participation of the private medical sector in family planning services in the last 15 years from about 36% in 1992 to about 17% in 2007. Retail outlets account for about 10% of the users' source of contraception (CSO, 2009).

Furthermore, provision of family planning has continued to be a priority for the Government of the Republic of Zambia and is highlighted in the current Revised Sixth National Development Plan, 2013-2016 (MoFNP, 2014). It was considered as an essential component of the country's National Health Strategic Plan 2011-2015 (MoH, 2011). The objectives of the National Family Planning Guidelines and Protocols included initiating and sustaining measures to slow the nation's high population growth, enhance people's health and welfare, and prevent premature death and illness, especially among the high risk groups of mothers and children. The plan also supported measures to ensure that all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education, and means to do so (MoH, 2006).

Knowledge of contraceptive methods is an important precursor to their use. The ability to recognise a family planning method when it is described is a simple test of a respondent's knowledge but does not necessarily indicate the extent of this knowledge. According to the 2013/2014 Zambia Demographic and Health Survey (ZDHS), knowledge of any contraceptive method is almost universal in Zambia, with 97 percent of women and 99 percent of men knowing at least one method of contraception. Modern methods are more widely known than

Traditional methods; 97 percent of all women know of a modern method, compared with 68 percent with knowledge of traditional methods. The table below shows knowledge of contraceptive methods of all study respondents as captured in the 2013/2014 ZDHS.

Modern methods are more widely known than traditional methods; almost all women know of a modern method, while 75 percent know of a traditional method. Male condoms (97 percent), pill (96 percent), and injectables (95 percent) are the most commonly known modern methods among women, with a slightly smaller percentage mentioning female condoms (90 percent) and implants (87 percent). Among all men the most common methods of contraception known are the male condom (99 percent), pill (92 percent), injectables (87 percent), and female condoms (86). Knowledge of the IUD, Standard Days Method, female and male sterilisation, Lactational Amenorrhoea Method (LAM), and emergency contraception are known by smaller percentages of women and men. The extent of and patterns in knowledge of a modern method of family planning among currently married and sexually active unmarried women are similar except that the latter group of women are slightly more knowledgeable than currently married women about emergency contraception. With respect to traditional methods, withdrawal and the rhythm method are known by 70 and 44 percent of all women, respectively, while comparable percentages for all men are 73 percent and 45 percent, respectively. Overall, women know eight contraceptive methods on average, while men know seven method (ZDHS, 2015)

Zambia Demographic Health Survey shows that 49% percent of currently married women are using a method of family planning; 45 percent a modern method and 4 percent a traditional method. Use of any method is higher among women who are currently married (49 percent) than among sexually active unmarried women (39 percent). A similar pattern is seen in use of modern methods for currently married women (45 percent) and sexually active women (38 percent). Injectables are the most widely used modern method (19 percent) among currently married women, followed by the pill (12 percent), implants (6 percent), and the male condom (4 percent). Modern contraceptive use varies by age. Use of any modern method is lower among the youngest (36 percent) and oldest (28 percent) cohorts of women compared with those age 20-44.Use of any modern method is highest among those age 25-34 (49 percent) (ZDHS 2013-2014). However, the 2013/2014 Zambia Demographic and Health Survey also recorded that More women are able to decide if, when and how often to have children as contraceptive prevalence rate has increased by a remarkable 98% - from 23% in 2001/2002 to 45% in 2013-2014 (UNFPA 2014:6)

Choosing a contraceptive method, can only be based on an informed choice if a client was counseled privately and respectfully, in a non-judgmental manner, irrespective of the client's race, sex, religion, culture, disability or social status. The client should be helped to choose a method that best suits her personal circumstances, that is medically safe and takes into account the exposure to STI and HIV infections (DOH 2001:19).

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Furthermore, ZDHS 2013-2014 shows that the public sector remains the major source of contraceptive methods in Zambia, providing methods to 82 percent of current users. The share of the public sector as a source of modern methods has increased from 68 percent in 2007. Within the public sector, 69 percent of users obtain their method from government health centers/posts and 9 percent from hospitals, while mobile clinics, family planning clinics, and community based agents contribute to the remaining 3 percent. Nine percent of modern contraceptive users obtain their methods from the private medical sector, primarily from pharmacies (4 percent) and private hospitals or clinics (3 percent). It is worth noting that the percentage of users obtaining their methods from the private sector has decreased from 17 percent to 9 percent in the past six years.

Female sterilisations are performed mostly in government and private hospitals (63 and 20 percent, respectively), in mission hospitals or clinics (8 percent), and in government health centers or posts (4 percent, respectively). More than half of pill users obtain their supply from a government health centre or post (51 percent). Pill users who obtain their supply from a private medical source primarily go to pharmacies (13 percent). Nine in 10 women who use Injectables obtain them from the public sector, primarily health centers or posts (86 percent). Male condoms are obtained primarily from the public sector (62 percent) and mostly from a government health centre or post (50 percent). Shops are also an important source of male condoms (25 percent). Although these findings point to the continued reliance on government facilities as a major source of contraceptives, the role of the private sector and other sources cannot be ignored. Below is the table showing sources of information about contraceptives.

Study by kadantu M.(2007) in Siavonga District among the women aged 15-49 revealed that, out of the respondents who were using contraceptives,90% obtained contraceptives, from health facilities 64% from the Chemist, 24%from friends and 22% obtained their contraceptives from the retail shops.Results indicated that health facilities were the largest suppliers of contraceptives followed by the Chemists.

2.6 Attitude towards the use of contraceptives

Contraceptive attitudes play a large role in sexual intercourse behaviors that may result in unintended pregnancies or STDs. By understanding how female adolescents feel about contraceptive use, gaps in knowledge or trends in behavior may be utilized to address such issues. The Contraceptive Attitude Scale published by Kellie Dionne Bryant DNP, WHNP in the peer-reviewed journal, American Black Nursing Faculty (ABNF) was adapted to measure the positive or negative attitudes of participants regarding contraceptives (Heisler, 2012) [10].

The results of the study conducted in central Ethiopia on factors influencing the use of emergency contraceptive among female students showed that, lack of knowledge, fear of being seen by others, and inconvenient service delivery were pointed out as the main reasons for not using emergency contraceptives. Previous use of contraceptives and age of 20 years and above were significant predictors of use of emergency contraception, while poor knowledge of contraception was a significant predictor of non-use of contraception (Tilahuni, Assefa and Belachew, 2010).

Some people believe that teaching about contraception encourages sexual activity, concluding that if contraception was not available sexual activity would be prevented. However, research shows that the majority of teenagers are already sexually active for between six months and one year before attending a family planning (Greathead, 1998:223). According to (Panday, at al, 2009:87), family planning services are provided to young people with the purpose of making available reproductive health services, provide contraception including condoms and improving their knowledge and skills to use them.

Various studies conducted in Ghana shows that the awareness of young people about contraceptives and where to obtain them is high. Results from the 1998 GYRHS indicate that 76% of females aged 15–19 and 88% of males of that age were aware of at least one modern family planning method (Tweedie and Witte, 2000). Among 12–14- year-olds, 33% of females and 6% of males knew of at least one modern family planning method. The condom was the most reported method known (77% of males and 66% of females knew the method). In the 2008 GDHS, the proportion of both males and females aged 15–19 who knew at least one modern method was over 80%. However, adolescents‟ knowledge of some specific methods is superficial. For example, data from the 1998 GYRHS show that while 49% of females aged 12–24 and 25% of males that age know of the pill, 21% of females and 46% of males who know the method do not know that it has to be taken daily for it to be effective (Tweedie and Witte, 2000). Clinic-based services are, in general, accessible only to the motivated and informed teenagers. In rural areas the situation is exacerbated by the fact that the majorities have to travel long distances to clinics. Teenagers have indicated in various studies that they do not have easy access to the contraceptives clinics. Misunderstandings contribute to this in that teenagers believe that the clinics are only for married adults (Macleod, 1999:11). Newman and Newman, (2006:329) agree that some teenagers do not use contraceptives consistently, and in some cases, not correctly. There are some girls that fall pregnant simply because they do not want to use contraceptives. Those teenagers usually tends to hold fatalistic attitude: They are more likely to feel unable to control their own lives, have a low sense of personal competence, and take a passive, dependent approach to male-female relationships. They avoid contraceptive use because they are afraid that it will spoil the spontaneity of the relationship or because they think it would indicate that they expected to have intercourse (Conger

1991:260).

Herryman Moono (2011) discusses that, 2007 Zambia Demographic and Health Survey (ZDHS), knowledge of any contraceptive method is almost universal in Zambia, with 97 percent of women and 99 percent of men knowing at least one method of contraception. Modern methods are more widely known than traditional methods; 97 percent of all women know of a modern method, compared with 68 percent with knowledge of traditional methods.

Negative perceptions about contraceptives play a significant role in whether adolescents will use them. Such conceptions often arise from false belief about contraception such as a condom could slip off during intercourse and be left inside a women's vagina, condoms reduce sexual enjoyment, condoms are of a poor quality, and fear of the physical effects (weight gain or nausea) and fertility-related side effects of contraceptive use (Panday, at al, 2009:57)

Study about contraceptives use among rural men and women of kazungula (Rebecca Lemba, 2014) observed negative attitude among men and women towards contraceptive usage. It was viewed that contraceptives promote promiscuity. A study by Kigondu (1995) had similar findings. Contraceptives were associated with prostitution and adultery and most married men only accepted using contraceptives (condoms) outside marriage. The study revealed lack of in-depth knowledge on some methods as result of misconceptions of how some methods work and perceived side effects of methods such as pills, sterilization and condoms were commonly among the less educated study participants. The most common misconception noted in this study is that pills cause cancer and infertility. The belief that pills cause infertility is not peculiar to this study as other studies elsewhere have found similar views. For instance, a study on the factors influencing the uptake of contraceptive use in Malawi, found that women feared getting cancer as a result of the pill (Opportunities and Choices Programme, Fact sheet 14, 2003)

This misconception has been a finding of many studies for example (Benaya 2004). Others even believe that diseases such as cancer can be caused by the combined pill. It was believed that the use of contraceptives is meant for those that have had children before. It was therefore believed to be at owner's risk for a person to decide to use contraceptives before having children (Rebecca Lemba, 2014).

Study by (Henry Nsubuga, 2016) [11] on Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey reviews that knowledge of any contraceptives was almost universal (99.6 %) but only 22.1 % knew about female condoms. Perceived acceptability of contraceptive use at the university (93 %) or being beneficial to male partners too (97.8 %) were high. Nearly 70 % had ever engaged in sexual intercourse and 62.1 % reported sexual intercourse in the past 12 months. Overall, 46.6 % reported current contraceptive use, with male condoms (34.5 %) being the commonest methods. Factors associated with higher contraceptive use were being in year 2, consensual union or perception that contraceptives are for females only. However, being evangelical/SDA or perception that contraceptive use is wrong was associated with lower contraceptive use. Overall, 9 % reported ever being pregnant, 2 % were pregnant at the time of the survey and a third (33.8 %) knew of a pregnant friend. About 40 % of ever pregnant respondents reported ever trying to terminate the pregnancy.

Where ever services exist, women are constrained for using family planning methods by cultural mores or pressure to rebuild the nations. A study conducted by Pandey (2005) on awareness and knowledge regarding family planning methods in Naggar and Kulu Districts in Himachal Pradesh revealed that there is a close association between family planning knowledge, attitude and behavior. It also indicated that proper awareness of adequate means of family planning, it's effectiveness and adequate source of information exercised positive impact on developing favorable attitudes which motivate females to adopt family planning behavior. The study further revealed that the institution of marriage defines and circumscribes the life of a woman as a mother and a house maker; thus it is fairly common for both men and women to discuss family planning.

Lack of time, education and awareness are deep rooted constraints for women to perform their multidimensional role. In another study it was observed that 67.3%of women were in the age group of 18 to 25 years and had their first child at the same age (Kamla-Raj, 2005:24).A similar study conducted by Kaurand Pattanaik (1999: 249-250) indicated that literacy in general and female literacy in particular exerted a strong influence on contraceptive use. Higher literacy promoted declines in fertility and child mortality.

Awareness plays an important role in motivating females to have a favorable attitude towards family planning behavior. In the present study, majority of women knew about birth control measures and were using different types of contraceptive methods. The majority of respondents were aware about the mechanical method of family planning (loop and condom) followed by chemical methods. The reason might be that the respondents were influenced by the effect of mass media (Television and Radio). Awareness about the natural method was low due to lack of open discussions about family planning matters at home.

3. Methodology

3.1 Introducation

This chapter deals with the description of the methods that were used in this study. Mouton (2008) contends that, methodology concentrates on each step in the research process, including the development of the data gathering instrument(s) and actions to be taken. The dissertation is organized under the following sections, research design, research site, population, sample techniques, research instruments, data collection procedures and data analysis.

3.2 Research Design

The study adopt descriptive survey research design. Kombo and Tromp, (2013:71) pointed out that, "Descriptive survey is a method of collecting data by interviewing or administering questionnaire to a sample of individuals". This design suited this study because the researcher wanted to find the knowledge and attitude towards contraceptive use among the female students.

3.3 Location of the study area.
The study was carried out at Kwame Nkrumah University. Kwame Nkrumah University is located in Kabwe town, in the Central Province of Zambia, 139 kilometers north of the capital city Lusaka. The study site was chosen because it's within kabwe town which is served with reliable libraries, and communication facilities, at the same time it's easily accessible due to availability of transport. According to Berg (2011:29) the decision to use a particular site is tied closely to obtaining access to an appropriate population of potential subjects.

3.4 Target Population
The target population according to Cooper & Schindler, (2014) includes those people, events, or records that contain the desired information and can answer the measurement questions. Therefore, the target population in this study included 550 fourth year female students aged 18-25 at Kwame Nkrumah University in kabwe district.

3.5 Sample size
Orodho and Kombo in Kombo and Tromp (2014: 77), contend that, a sample is a small portion of a target population. It is against this background that sample size in this study was 100 female students aged 18-25 at Kwame Nkrumah University in Kabwe Urban District.

3.6 Sampling Technique
For the purpose of this research, purposive and random sampling were used to construct the study sample. Purposive sampling was employed to select fourth year female students. In support to the choice of this technique, Kombo and Tromp (2006:82) asserts that, "in this sample method the researcher purposively targets a group of people believed to be reliable for the study". A total of 100 respondents were drawn among the fourth year students using systematic probability random sampling. This was achieved by randomly selecting every sixth name in the list of students from list of student to ensure that elements were not arranged in a particular order that might produce a selection of elements with common characteristics.

3.7 Instrument for data collection
The semi-structured questionnaires were designed to examine issues related to knowledge and attitude towards contraceptive use at Kwame Nkrumah University. The instruments were designed in an effort to collect both quantitative and qualitative data from the participants in this study. The first section of the questionnaire sought to elicit socio-demographic information from respondents. The second section covered students' knowledge about contraceptives and the sources through which they had acquired this knowledge, whereas the third section addressed students' sexual behaviours and contraceptive use. The semi-structured questionnaires were pretested before they were administered to the respondents.

3.8 Data Analysis
The research findings required both qualitative and quantitative analysis. Quantitative analysis entails analyzing numbers about a situation by choosing specific aspects of that situation**.** Descriptive statistics was used to analyze the quantitative data obtained. The statistics were used to include frequency counts, means and percentages. The Statistical Package for Social Sciences (SPSS version 20.0 software) Computer program for analysis and Microsoft excel was used to analyse quantitative data from the questionnaires. The results of data analysis are presented using frequency distribution tables, bar graphs and pie charts.

3.9 Ethical Consideration
Ethical clearance for the study was obtained from the Information and Communication University Ethics Committee. Further, Permission to conduct the study at Kwame Nkrumah University was sought from Provincial Education Officer for Central Province as well as District Education Board Secretary and Kwame Nkrumah University management. The purpose of study was explained to participants' and informed written consents was sought from each student. Confidentiality was maintained by not disclosing the identity of the respondents. Participation was voluntary and the respondents were informed that they could withdraw from the study at any stage, if they so desired without any penalty

3.10 Limitation of study
The research was conducted at Kwame Nkrumah University in kabwe urban district only due to limited time and funds, this may prove to be a major challenge. The study population consisted of female students at one university, and it might not be advisable to generalize our results with regard to other universities due to geographical locational factors. Although the survey was anonymous, there might be information bias because some students might have been reluctant to report sensitive information regarding contraceptive. It also took time for the provincial education officer to give me permission to carry out the research, this was due to her busy schedule. Furthermore, data was collected during the time when the students were busy writing their examination. And in some ways this was not a good time to collect data. However, with the help of the dean of students at the institution questionnaires were retrieved successfully.

4. Data Presentation
4.1 Introduction
This chapter presents the findings of the study which was aimed at investigating knowledge and attitudes towards contraceptives use among female students in higher learning institution. The findings are presented according to the objectives:

4.2 Demographic characteristics of the respondents
The age range of the 100 respondents in the survey was 18-25years.The mean age 21.5 and standard deviation.875.
Table 4.1 below shows the data on age, marital status and residence. The majority 41 (41%) of the respondents were between the age of 22 - 25 years, 32% (32) were between the age of 20-22 years, 18% were above the age of 25 years and lowest age range was 9% (9) which was between 18-22 years,81% are single, 13% are married and only 1% of the informant is a widow.42% of the respondents have their

permanent residence in the university hostel while 53% reside off campus.

4.2.1 Knowledge of contraceptive methods

Respondents were asked if they have heard of any method of family planning. All the respondents indicated "yes" (100%) and the known methods of contraceptives among the female students at Kwame Nkrumah university are Condom 12 (12%), oral pills 72 (72%), injectable 11 (11%) and Abstinence 4 (4%).

4.2.2. Cross-tabulation relationship between Age and methods of contraceptive s known

18-20 have heard about condoms 1, oral pills, 5 (5%) in jectables, 2 (2%) the lowest method of contraceptives heard of is abstinence 1 (1 %), while 22-25 of the age group has recorded highest number of oral pill which is 31 (31%).

4.2.3 Contraceptive source of information

Students were asked about contraceptive source of information. Out of the 100 respondents, 41 (41%) said radio, 13 said television, internet 21 (21%), friends 10(10%) and the lowest was books which recorded 7 (7%) while hospital/ health recorded 8 (8%).

4.2.4 Respondents knowledge about contraceptives

The respondents were asked if they are knowledgeable about contraceptives.30 (30%) were Knowledgeable, 44% were fairly knowledgeable, 5 (5%) were not knowledgeable, 3(3%) were not at all knowledgeable, and those not sure were 18 (18%). Respondents were asked concerning how contraceptives work, 94 (94%) of the respondents indicate that it prevents pregnancy, 2 (2%) prevents STI's, and 3 (3%) prevents IHV/AIDS and STI'S. When the respondent were asked about where they go for advice concerning contraceptives,43 (43%) indicated that they get advice from friends, those who get the advice from partners were 19 (19%), mother and doctor indicated 9 (9%),private and sisters shows 6 (6%) University health workers 4 (4%) while 2 respondents get the advice from their fathers. When respondents were asked on how many times would one use a condom? The majority (69%) of the respondents indicated once, 16% of the respondents did not know, more than 7%) indicated more than once and 8% was accounted as missing.

Additionally, when respondents were asked if contraceptives can protect a women from sexual transmitted diseases. Majority 64 (64%) of the respondents indicated no, 13% indicated yes, 21% did not know and missing system was 2%.

4.2.5 Availability of contraceptives to students

Respondents were asked about the availability of contraceptives within the institution. 51% of the respondents did not know whether contraceptives were available within institution or not, while 45% of the respondents knew that contraceptives were available in the institution.

4.2.6 Willingness of respondents to learn more about contraceptives

The respondents were asked if they wanted to know more about contraceptives. 87 (87%) of the respondents indicated "yes" while 7 (7%) indicated "no".

4.3.1 Use of contraceptives or abortion

Respondents were asked if they would use contraceptives or to conduct abortion. Most of the respondents (79%) would like to use contraceptives than abortion while 16% would go for abortion and 5% of the respondents were silent about the matter.

Respondents were asked if they would encourage someone to use contraceptives 62 (62%) indicated yes while 37 (37%) indicated no and 1 (1%) was a missing system. Respondents were asked if they would use contraceptive methods of family planning in future. 73 (73%) of the respondents are unlikely to use contraceptives while 26 (26%) are very likely to use and (1%) is a missing system.

4.3.3 Statements concerning the attitudes of respondents on the use of contraceptives

Respondents were asked a number of statements concerning the attitudes towards contraceptives. 82% of the respondents indicated that contraceptives use reduces sex drive while 7% indicated that it does not reduce sexual drive,79% of the respondents said contraceptive use is more desirable than abortion while 16% stated that contraceptive use is more desirable than abortion. When respondents were asked about permission from the parents to use contraceptives, the majority (60%) of the respondents said yes while 37% indicated no. It also emerged that 78% of respondents said that students who use contraceptives become promiscuous while 12% indicated no.89 % of the respondents said they felt embarrassed to discuss contraceptives with the friends while 5% indicated that they did not.

4.4.1 Sexual Practice

Respondents were asked if they have been in sexual relationships before. Out of the 100 respondents 22 (22%) have not been in relationships while 76 (76%) of the respondents have been in sexual relationships before, and missing system was 2(2%).The respondents were asked questions on the number of partners they have had in their life time.38 (38%) had one partner, 19 (19%) two partners, 21 (21%) non,13 (13%) had more than one partner and 6(6%) had three partners. Furthermore, the data reviewed that 43 (43%) had their sexual encounter between the age of 20-22, 17 (17%) had their sexual encounter between the age of 18-20 years and 13 (13%) of the respondents had their sexual encounter between the age of 22-25 years. Respondents were also asked question on sexual experiences in the past six months. 23% have had sexual intercourse for a few times, 10% more than once a week, 7% approximately once per week, 7% once, 4% several times a month and not sexually active in the past six months was 28%.However, 20% of the respondents were missing system.

4.5.1 Trend in Current use of contraceptives

Respondents were asked if they are using contraceptives. Out of100 respondents, 36 (36%) indicated yes, 58 (58%) said no and 6 (6%) of respondents could not say anything.

4.5.3 Relationship of those who use contraceptives and what type of contraceptive methods.

Respondents currently using contraceptives were asked to

mention the type of contraceptives method they are using.17% are using condoms, oral pills 9%, in jectables 6%, withdrawal 1% abstinence 2% and those using temperature method 1%.

4.5.4 Contraceptive source and nature of services

The respondents were asked questions about where they obtain contraceptives. Respondents who obtain contraceptives from public places were 25 (25%), pharmacy 3 (3%), friends 18(18%), local clinic outside the university 7 (7%), private doctors 2 (2%) and others 1 (1%). At the same time respondents were asked about the nature of the services. Out of 100 respondents 25 (25%) said that the services were friendly, those who said that it was helpful were 18 (18%), well-informed were 10 (10%).However, 38% missing system

4.5.5 Improving students knowledge about contraceptives

Respondents' opinion were asked with regards to improving contraceptive availability to students at Kwame Nkrumah University. The majority of respondents 82 (82%) felt that contraceptives should be made more readily available for students, while 13 (13%) would rather not support the idea of improving contraceptive availability to students and 5 (5%) were not sure.

4.5.7. Testing Hypothesis

a) H_0: There is no statistically significant relationship between knowledge and
Contraceptive use.
H_1: There is a statistically significant relationship between knowledge and contraceptive use
Chi-square (X^2) statistic was applied to test the null hypothesis which stated that "There is no statistically significant relationship between knowledge and contraceptive use." The SPSS output gave the calculated chi-square (X^2) value of the 28.786 at 8 degree of freedom and p value of 0. 082 at 95% level of significance. Because 0.000 is less than 0.05 the researcher rejected the null hypothesis in favor of alternative hypothesis. There researcher concluded that there is high positive statistically significant relationship between knowledge of contraceptives and contraceptive use among the female students at Kwame Nkrumah university.

Table 2: Relationship between knowledge and contraceptives use

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	28.786[a]	8	.000
Likelihood Ratio	14.007	8	.082
Linear-by-Linear Association	4.203	1	.040
N of Valid Cases	94		

***Source*:** Spss output, 2017

b) H_0: There is no statistically significant relationship between number of partners sexual partners and contraceptive use.
H_1: There is a statistically significant relationship between number of partners sexual partners and contraceptive use.
Chi-square test (X^2) was applied to test the relationship between number of partners sexual partners and contraceptive use. To achieve this the null hypothesis was tested. The SPSS output showed a chi-square (X^2) calculated value of 14.800 with 8 degrees of freedom and p value of 0. 040 at 95% level of significance. Because 0.063 was greater than 0.05, the researcher accepted the null hypothesis and failed to accept alternative hypothesis. The researcher concluded that there was no statistically significant association between the number of sexual partners and contraceptive use among the female students at Kwame Nkrumah University.

Table 3: Relationship between number of partners and contraceptive use

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	14.800[a]	8	.063
Likelihood Ratio	16.155	8	.040
Linear-by-Linear Association	1.004	1	.316
N of Valid Cases	93		

***Source*:** Spss output, 2017

c) H_0: There is no statistically significant relationship between frequency of sexual relationship and contraceptive use.
H_1: There is a statistically significant relationship between frequency of sexual relationship and contraceptive use.
Based on the data collected, the researcher tested the assumption that there was no statistically significant relationship between that, "there is no statistically significant relationship between frequency of sexual relationship and contraceptive use. Chi – Square was then used to test for the null hypothesis. The SPSS output gave the calculated chi-square (X^2) value of the 28.834 at 12 degree of freedom and P value of 0.004 at 95% level of significance. Because 0.004 is less than 0.05 the researcher rejected null hypothesis in favour of the alternative hypothesis. It was concluded that there was a positive and statistically significant association between frequency of sexual intercourse and contraceptive use.

Table 4: Relationship between frequency sexual partner and contraceptive use

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	28.834[a]	12	.004
Likelihood Ratio	28.794	12	.004
Linear-by-Linear Association	8.292	1	.004
N of Valid Cases	78		

***Source*:** Spss output, 2017

5. Discussion of the finding

5.1 Introduction

This chapter discusses the findings which were presented in chapter four. The aim of this study was to assess knowledge and attitudes towards contraceptive use among the female students in higher institutions of learning. The discussion is steered by the research objectives as follows: to find out the knowledge on contraceptives among female students, to determine the attitudes of female students toward contraceptive use and to establish sexual practices and the uses of contraceptive among female students.

5.2 Demographic characteristic of the respondents

The sample of the study was 100 fourth year female students aged 18-25 years at Kwame Nkrumah University. The majority of the respondents were between the age of 22 - 25 years, 41 (41%). 32% (32) were between the age of 20-22 years, 18% were above the age of 25 years and lowest age range was 9% (9) which was between 18-22 years. It was also learnt that, 81% of the respondents were single.

5.3 Contraceptive knowledge awareness among female students

In order to assess the knowledge of female students on contraceptives, students were asked a number of question concerning knowledge and use of contraceptives as follows: have you heard of contraceptive method of family planning? Which method of contraceptive have you heard of? What is the sources of information through which you acquire knowledge about contraceptives? In your views, how knowledgeable are students about contraceptives at Kwame Nkrumah University? Whom do you go to for advice and/or to discuss issues about contraceptives? How available are contraceptives methods to students?

The findings of the study revealed that all the respondents (100%) have heard about contraceptives. These results have also been confirmed by CSO (2015:88) which indicated that knowledge of any contraceptive method is almost universal in Zambia, with 97 percent of women and 99 percent of men knowing at least one method of contraception. Study conducted by Choongo (2007:64) on acceptance and family planning practices among women in siavonga district, also revealed that, almost all the respondents (90%) had heard about contraceptives. Only 10% of the respondents had never heard about contraceptives. In a well presented manner, the finding of this study confirmed other studies such as Nsubuga *et al.* (2016) [11], Abiodun and Balogun (2009), Adeyinka *et al.,* (2009); Omo-Aghoja *et al.,* (2009); Adeokun *et al.,* (2009); Tayo *et al.,* (2011) which indicated high levels of awareness on methods of contraceptives among university students in African countries.

Many studies have been conducted all over the world to study the knowledge, attitude and practice of contraception in adolescent and young adults. A study conducted among 991 senior students (15–17 years) in North Gondar in 1995 by Fantahun MI *et al.* showed the level of knowledge of contraception to be 75%. Another study conducted in Nigeria by Araoye *et al.* (1998) in randomly selected 971 males and females aged 18–24 years in a Nigerian tertiary institution showed that 97.7% of males and 98.4% females respectively knew at least one method of contraception.

The knowledge of female learners towards contraceptives depends much on where they received or they are receiving information. Given that knowledge is rooted in specific social perspective, students have varying levels of contraceptive knowledge which could be determined by the validity of the source through which they acquire such knowledge**.** Many studies such as studies done in some African countries like Cameroon showed that 69.9% of respondents mentioned friend and family as the source of information on contraception, Health personnel 19.9%.

In this study, the findings revealed that 41% of respondents heard from the radio, 21 % got the information from the internet, 13% heard from the television, 10% heard from friends, 8% of the respondents heard from the hospital /health workers and 7% of the respondents got the information from the books. Although this study confirms the studies by Okunlola *et al.,* (2006); Adeokun *et al.,* (2009) and Tayo *et al.,* (2011) in other parts of Nigeria which suggests the media as the major source of contraceptive information for Nigerian youths.

The study is contrary to the study conducted by Chongo K (2007) in Siavonga district of Zambia which indicated that most of the respondents (52%) had heard about contraceptives from a health worker,22% had heard from friends, 8% had heard from relatives. 10% of the respondents had never heard of contraceptives. Studies conducted from Botswana which indicated that the most common source of information was friends and HIV programmes (Francoeur and Noonan 2004). This is also in contrast to a study done in Nigeria whereby 51.2% indicated hospital or clinics (Oyedokun 2007).

Media can help to disseminate information about contraceptives. This was demonstrated in Tanzania. A sample of 4 225 women participated in a study on the impact of mass media on a family planning campaign and on contraceptive behavior. The more the types of media the woman had been exposed to, the more likely she was to use contraceptives. Even women, who could remember one type of media message, were found to be twice more likely to be users of contraceptives than women who could not remember any media message on contraceptive. Women who could remember media messages were also more likely to have discussed contraceptive use with their partners than their counterparts (Jato, Simbakalia, Tarasevich, Awasum, Kihinga and Ngirwamungu 1999:60-67) [12].

It is quite true to mention that communication between parents and their children, health workers and students on issues of reproductive health including contraceptives should be improved has revealed from this research respectively. Community expectations demands that parents by virtue of their experience in life and health workers because of their training should provide adequate and efficient information to students; however, these sets of individuals have failed in their duty to do so, either due to religious or traditional beliefs or other personal reasons. Although studies by Berber, (1997) and Upchurch, Aneshensel, Sucoff, and Levy-storms, (1999) reveals that intimate and open relationships between parents and their children, with increasing support and moderate restrictions, often leads to safe sexual practices. The level of openness in parent-child relationships regarding issues of contraception in my study findings was low, as not many students feel free to discuss or seek for advice about contraception with their parents. It emerged that, 43 (43%) indicated that they get advice from friends, 19 (19%) get the advice from their partners, 11 (11%) from parents, 9 (9%) from the doctor, 6 (6%) private and sister while 4 (4%) from University health workers.

Furthermore, traditionally, discussions around issues of sex and contraception are not encouraged between the older members of society who are married and the young unmarried youths. As was also found in an earlier study by Arowojolu *et al.,* (2002), it is believed that exposing youths to issues of contraception is likely to promote sexual promiscuity among

them, Friedman cited in Sugh (2011) [35], reveals that traditional socialization of youths considers information about reproductive health as dirty and should not be discussed openly with young people.

Respondents were asked to mention the method of contraceptives they knew since they heard about them. The findings in this study revealed that (73%) of the respondents mentioned oral pills, (12%) of the respondents mentioned condom, (11%) of the respondents mentioned injectable and (4%) abstinence. This is higher compared with the study done in India in which only 54% of the respondents mentioned the oral pill and in another study in the southern part of India where 73% of the respondents mentioned oral pills. Many studies show that respondents are more aware of oral pills as contraception method compared to another method of EC (Ottesen, Narring, Renteria and Michaud, 2002; Eygene, 2007; Puri, Bhatia, Swami, Singh, Sehga, Kaur, 2007; Choongo M, 2014).

The findings of this study is similar with that of the Central Statistics Office (2015) which reported that, modern methods are more widely known than traditional methods; almost all women know of a modern method, while 75 percent know of a traditional method. Male condoms (97 percent), oral pill (96 percent), and injectable (95 percent) are the most commonly known modern methods among women, with a slightly smaller percentage mentioning female condoms (90 percent). When asked how contraceptives works. The findings revealed that the majority (94%) of respondent indicated that contraceptives prevent pregnancy, 2 (2%) prevent STI's, and 3 (3%) prevent IHV/AIDS and STI'S. This is a very high response.

5.4 Sexual practice and contraceptive use

It was found that, out of the 100 respondents 22 (22%) have not been engaged in sexual relationship before, while the majority 76 (76%) of the respondents have been in sexual relationship before. This is similar to the South African study which reported that 65.7% of the university students had sex prior to the study (Hoque and Ghuman 2011). Other studies from Africa reported higher rates of having sex among the university students, namely, 70% in Uganda, and 80% from Madagascar, had sex prior to the study (Rahamefy, Rivard, Ravaoarinoro, Ranaivoharisoa, Rasamindrakotroka and Morisset 2008; Sekirime, Tamale, Lule and Wabwire-Mangen 2001). A Nigerian study reported that 54% undergraduate students were sexually active (Omoteso 2006).

Sexual activity among adolescents and young females is often associated with a greater risk for unintended pregnancies. Young females joining universities often become sexually active partly due to peer-pressures, alcohol use, or as result of a perceived sense of being in control of their social lives. Similar levels of sexual activity were reported from other studies done among female university students of the same age group. In contrast, some earlier studies done in Africa showed lower levels of sexual activity among university students, these ranged from 14 % to 48 %.The differences in levels of sexual activity may be due to temporal events like increased sexual reproductive health over time or could be explained by differences in religious and cultural beliefs surrounding premarital sex.

Findings revealed that majority 58 (58%) of the sexually active respondents indicated that they were not using contraceptives, even though 36 (36%) indicated yes and 6 (6%) of respondents could not say anything. This findings are in line with CSO (2015) which shows that, use of any method is higher among women who are currently married (49 percent) than among sexually active unmarried women (39 percent).In a well presented manner, studies from Ethiopia and Nigeria concluded that only 10% and 30.1% used contraceptives regularly (Oyedokun 2007; Tamire and Enqueselassie 2007). However, studies conducted in South Africa by Hoque and Ghuman (2011) indicated that, 67.8% of the sexually active students were using contraceptives, sometimes or rarely**.**

Studies by HilaryYacham Zaggi (2014) revealed a relatively high prevalence rate of sexual activity among students, with a low level of contraceptive use. Of the 60% sexually active respondents only 38% were using contraceptives. Also, the condom was found to be the most commonly used contraceptive. Furthermore, studies by Chongo M (2007) revealed that majority of the respondents (76%) had never used any modern contraceptives before. Only 24% of the respondents were using contraceptives. The study also revealed that 55% of the respondents who were not using contraceptives had low knowledge on contraceptives.

As alluded to by Hilary, in his research it was observed that the most common contraceptive method used is (17%) condom, oral pills 9%, injectable 6% withdrawal 1% abstinence 2% and those using temperature method 1%. The findings of this study is similar with that of the Central Statistics Office (2006) which reported that 93.3% of the sexually participants used condoms. On contrarily, the study conducted in Ethiopia reported that the contraceptive method mostly used was the pill, followed by the injection (Tamire and Enqueselassie 2007). In line with this, Nsubuga *et al.* (2016) [11] indicated that, overall, 46.6 % reported current contraceptive use, with male condoms (34.5 %) being the commonest methods.

Furthermore, it was observed that, 47(47%) of the students sited fear of side effects, not sexually active 24%, no enjoyment during sexual intercourse 15% and those who said their partners are using were (10%). On the large extent the finding of this study has been also confirmed by Girma *et al.* (2015).According to Girma, the most frequently reported reasons for the non-use of the contraceptive method were fear of side effect and lack of information. Studies by Chongo M (2007) revealed that majority of the respondents (76%) had never used any modern contraceptives before. Only 24% of the respondents were using contraceptives. Other studies conducted in Africa reviewed that the most common reasons (23%) cited for not using contraceptives were that it was against their religious beliefs to use a contraceptive and that it would interfere with sexual pleasure. However 19% felt that use of contraceptives may cause weakness and nearly 10% felt that it may lead to obesity.

The respondents who were using contraceptives were asked question about where they obtain contraceptives. The findings of study showed that 25% obtained contraceptives from public places, pharmacy 3%, friends 18% local clinic outside the university 7%, private doctors 2 (2%) and others (1%).This

results indicated that public places were the largest suppliers of contraceptives followed by the Chemists. This study confirms the findings of CSO (2015) which shows that, the public sector remains the major source of contraceptive methods in Zambia, providing methods to 82 percent of current users. The share of the public sector as a source of modern methods has increased from 68 percent in 2007.

Within the public sector, 69 percent of users obtain their method from government health centers /posts and 9 percent from hospitals, while mobile clinics, family planning clinics, and community based agents contribute to the remaining 3 percent. Nine percent of modern contraceptive users obtain their methods from the private medical sector, primarily from pharmacies (4 percent) and private hospitals or clinics (3 percent). It is worth noting that the percentage of users obtaining their methods from the private sector has decreased from 17 percent to 9 percent in the past six years. Such information on where women obtain their contraceptive method is important for programme managers and implementers in designing family planning policies and programmes.

The nature of the services from the places were contraceptives is obtained by the respondents were found to have positive and friendly attitudes to students irrespective of whether students are married or not. 25 (25%) said that the services were friendly, those who said that it was helpful were 18 (18%), well-informed were 10 (10%).

Additionally, it was observed that when respondents 'were asked about their opinion with regards to improving contraceptive availability to students at Kwame Nkrumah University. The majority of respondents 82 (82%) felt that contraceptives should be made more readily available for students, while 13 (13%) would rather not support the idea of improving contraceptive availability to students and 5 (5%) were not sure. Confirming findings with other studies, Nsubuga *et al.* (2014) [11] has indicated that, the findings of the study done in Ethiopia that evaluated major sources of information about contraceptives found out that a high knowledge of sources was not enough to result into actual use, rather the students needed more information about freely available contraceptive services. These observations suggest that reproductive health education programs should offer accurate and comprehensive information while building skills for negotiating safer sexual behavior. In this study, it also remerged that the majority (54%) of respondents suggested that clubs should be formed in the university, 15% suggested that workshop on contraceptives should be taking place, 12% said that the institution be providing guidance and counseling to the students on the use of contraceptives, 10% had a view of contraceptives be distributed freely to students in the institution and a few respondents were of the opinion that lecturers to be lecturing on contraceptives (9%).

5.5 Attitudes of female students towards contraceptives

The findings revealed a positive attitude towards how contraceptive work, 48% of the respondents said it is the method of preventing unwanted pregnancy,23 (23%) indicated that is a drug that interferes with religiosity, (27%) said it is a life destroying drug. Furthermore, most of the respondent (79%) would like to use contraceptives than abortion while 16% would go for abortion and 5% of the respondents were silent about the matter. Positive attitude was also observed by most of 79% female students who indicated that contraceptive use is more desirable than abortion while 16% of students indicated that contraceptive use is not more desirable than abortion showing a negative attitudes towards contraceptive use.

When the students were asked about the need for permission from the parents to use contraceptive.60% of the respondent pointed out that they need no permission from parents to use contraceptives while the 37% of the respondents indicated that students need permission from parents to use contraceptive. Additionally, respondents were asked if contraceptive use promote promiscuity. It was observed that 78% respondents pointed out that student who use contraceptives become promiscuous while 12% were of positive attitude. Adding to this, 89% of the respondents indicated that they feel embarrassed discussing contraceptive use to their friends while 5% they do not feel embarrassed discussing the contraceptive. The views of the respondents on the use of contraceptive also indicated that, 43% believed that contraceptive is harmful for health, 15% said contraceptive use is a way of showing that you care about the partner, 9% said that contraceptive make intercourse less romantic, 13% said that contraceptive use promote promiscuous among the students and 10% do believe that contraceptive use can harm the baby.

After analyzing the attitude scores through the Contraceptive Attitude Scale, the findings indicated a positive attitude regarding contraception use among female students at Kwame Nkrumah University. The finding of this study is in line with the studies conducted by Mangesa (2014) who pointed out that more than 80% of students had positive attitudes towards contraceptive**.** Overall the students had positive attitudes and perceptions towards using contraceptives. However, a study in Nigeria reported that a high proportion of students perceived contraceptive use as bad because they believed it caused infertility. Other studies have reported positive attitudes specifically toward contraception among students at Jimma and Adam University in Ethiopia and negative attitudes toward emergency contraceptives increasing promiscuity in female students of Trinidad and Tobago.

6. Conclusion and Recommendation

6.1 Introduction

The core values of the study was to investigate the knowledge and attitude towards contraceptive use among the female students in the higher learning of institution. Therefore, it is imperative to mention that it is against this vivid background that the chapter proposes, make conclusion and recommendation of the mentioned study.

6.2 Conclusion

It is worthwhile to mention that, the conclusions and the recommendations are based on the research findings from informants. The sample size was 100 respondents. The respondents were female and fourth year students. The respondents were subjected to the questionnaires. The data analysis and presentation of results were organized around the research questions and objectives that were created. Therefore,

the conclusions and recommendations are based on the findings in relation to the study objectives. In this research study an attempt was made to explore contraceptive knowledge and attitude among female students of Kwame Nkrumah University.

Despite students' high awareness of the existence of contraceptive methods and continuous engagement in sexual activity, the rate of contraceptive use among students was found to be low. Oral pill was well known method of contraception among the female students followed by condom, at the same time condom and oral pills were found to be the most commonly used methods of contraception among students. However, the reasons cited for not using contraceptive among the female student was fear of side effects while others stated that they are not sexually active. Respondents also believed that contraceptive is harmful for health. Patterns of students' sexual behaviours were found to influence the students' attitude towards the use or non-use of contraceptives. Contraceptives were not easily accessible by students in Kwame Nkrumah University. Non availability of information within the institution has contributed to the female student wanting to know more about contraceptive**.** Since the students surveyed have positive attitudes regarding contraception. Sexual practices of some of the respondents remain at risk, as there are still many students engaging in unprotected sexual acts. Contraceptive use has to be 'high', even though there were instances of infrequent use, with the most commonly used method, being the condom.

6.3 Recommendation

In view of the findings and based on suggestions by the various respondents, the following recommendations should be considered for comprehensive knowledge towards contraceptive use.

- The university management should be organizing workshops on regular basis at the university on changing reproductive health and sexual behavior, as well as health education programmes.
- The University management should increase contraceptive access to the female students. The findings of this study revealed that students did not have adequate information about where exactly they can find contraceptives. Student should therefore be provided with accurate, specific information regarding accessibility of contraceptives. This information should be easily accessible and widely available. University students could become more involved by using different media as discussed above.
- There is need to avail accurate, detailed information about contraceptive to undergraduate female students in information like usage and correct timing of contraception in order to make it effective.
- The Ministry of Higher Education should be organizing workshops for Life Skills and Health Education lecturers across the country to equip them with the requisite knowledge and skills to enable them impart same to their learners.
- Ministry of Higher Education needs to look at revising the health program in order to include information on contraception, and also lay strategies of presenting the information to the female students of teachers' colleges who will in turn hand it on to the students.

6.3.2 Recommendation for future research studies

The researcher wishes to make the following recommendations with regards to further studies. First of all, this study was carried out within one public university and it focused on female students. As such, findings from this research may not be fully appropriate to other settings outside this study area, owing to differences in cultures and varying social environments.

- The researcher wishes to recommend that, a similar research be conducted with a focus on comparative analysis of two or more universities. In this study the focus was only on female students and the simple size was 100 females. The researcher recommend that male students be concluded to have a balanced views of different sexes.
- Future research studies should include focus group discussions so as to be able to determine the effects of group enthusiasm in responses to questions asked during interviews. Also, further studies could try working with a larger sample of respondents so as to be more accurate in making generalizations based on the findings of the study.

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