SOCIO-ECONOMIC AND CULTURAL BARRIERS TO UTILIZATION OF
CONTRACEPTIVES AMONG WOMEN IN NDHIWA DISTRICT, HOMA BAY
COUNTY, KENYA.

By

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CHAPTER 1

1.0 Introduction

1.1 Background to the study

Contraceptive prevalence was already high in developed countries in 1960 – 1965 (67 percent) and it remained over time at 69 percent in 2005 and 67 percent in 2007 United Nations (2007). On the other hand, contraceptive prevalence – an originality in developing countries at 9 percent in 1960 – 1965 prolonged to 59 percent in 2005 and 62 percent in 2007 United Nations (2007). The sharpest increase in contraceptive prevalence occurred between the late 1960s and 1980s. This was also the period characterized by the launch and expansion of national family planning programmes in several heavily populated countries, including China, India, Indonesia, and Pakistan, United Nations (2005a).

Generally, there has been an impressive increase in contraceptive prevalence in the entire world (Carl and Toshiko, 2013). However, at the regional level, the progress in the efficiency of family planning programme and in the range of contraceptive method used has been different. In fact, in 2013, investigations by Carl and Toshiko (2013) revealed that Africa and sub-Saharan Africa had the lowest contraceptive prevalence at 31 percent and 26 per cent, respectively, as compared to 75 percent in Latin America and the Caribbean, and 65 percent in Asia (Table 1.1) (Carl and Toshiko, 2013). Thus, the statistics show that the use of modern methods in Africa and sub-Saharan Africa continues to be about one-third of the levels in the other two developing regions. Differential in contraceptive prevalence is also distinguished at the sub-regional levels within each major area. For example, Northern and Southern Africa regions have much higher prevalence of all methods or of modern methods of contraception compared to any other African region (Carl and Toshiko, 2013). Comparatively, utilization of modern methods of contraception
is very low in Middle and Western Africa (Carl and Toshiko, 2013), 8 per cent and 11 per cent, respectively, in 2013 (Table 1.2).

Table 1.1: Percentage of married women using any method and modern methods of contraception, by region, 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>All Methods (%)</th>
<th>Modern Methods (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>62</td>
<td>56</td>
</tr>
<tr>
<td>Africa</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>Asia</td>
<td>65</td>
<td>59</td>
</tr>
<tr>
<td>Europe</td>
<td>71</td>
<td>60</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>75</td>
<td>68</td>
</tr>
<tr>
<td>Northern America</td>
<td>76</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: Carl and Toshiko (2013): World Population Data Sheet

Table 1.2: Percentage of married women using any method and modern methods of contraception, by sub-region in Africa, 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>All Methods (%)</th>
<th>Modern Methods (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td>Middle Africa</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Eastern Africa</td>
<td>34</td>
<td>28</td>
</tr>
<tr>
<td>Northern Africa</td>
<td>53</td>
<td>54</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Western Africa</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Carl and Toshiko (2013): World Population Data Sheet
By the standards of the rest of the world, TFR in Africa as a whole is still high. However, Southern Africa has a remarkably low total fertility rate (TFR) of 2.5 as shown in Table 1.3, compared to the other regions of Africa (Carl and Toshiko, 2013). For the period 2012 – 2013, total fertility rate at the world level stood at 2.5 children per woman (Carl and Toshiko, 2013).

**Table 1.3: The total fertility rates and births by region of the world**

<table>
<thead>
<tr>
<th>Region</th>
<th>Total fertility rate (TFR) 15 – 49 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>2.5</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>1.6</td>
</tr>
<tr>
<td>Africa</td>
<td>4.8</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>5.2</td>
</tr>
<tr>
<td>Middle Africa</td>
<td>6.1</td>
</tr>
<tr>
<td>Eastern Africa</td>
<td>5.1</td>
</tr>
<tr>
<td>Kenya</td>
<td>4.5</td>
</tr>
<tr>
<td>Nyanza Province</td>
<td>5.4</td>
</tr>
<tr>
<td>Northern Africa</td>
<td>3.2</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>2.5</td>
</tr>
<tr>
<td>Western Africa</td>
<td>5.7</td>
</tr>
</tbody>
</table>

*Source: Carl and Toshiko (2013): World Population Data Sheet*

The importance of meeting the unmet need for contraception is nowhere more vital than in the countries of sub-Saharan Africa, (SSA). Contraceptive prevalence is low in the African region despite considerable family planning programmatic efforts. The total fertility rate decline is stalling and total unmet need for family planning exceeds 30 percent among married women (Carl and Toshiko, 2013). From 1984 to 1998, the Contraceptive Prevalence Rate (CPR) more than doubled from 17 percent to 39 percent in Kenya. The CPR then stagnated for some time.
before increasing to 46 percent in 2009, and then declined slightly to 45 per cent in 2013. Table 1.4 shows CPR among selected counties in Kenya between 2011 and 2012. While Kiambu, Kisumu, Nyamira, Siaya and Migori counties and generally the whole country depict an increase in CPR between the years, the CPR in Homa Bay County is declining and still small. Despite the fact that Embu, Kirinyaga, Nyeri, experienced declines in CPR, their CPR is quite high. Knowledge of family planning methods remained universal at over 97 per cent in Kenya (NCPD, 2012). Despite this achievement, there is an unmet need for family planning at 26 percent. Nyanza and Rift Valley provinces have the highest unmet need of 32 percent and 31 percent, respectively (NCPD, 2012).

Table 1.4: Percentage of contraceptive usage in Kenya and selected counties in 2012

<table>
<thead>
<tr>
<th>Contraceptive Usage</th>
<th>Total Population</th>
<th>Contraceptive Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KENYA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>41,088,810</td>
<td>44.0%</td>
</tr>
<tr>
<td>County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embu</td>
<td>549,352</td>
<td>84.6%</td>
</tr>
<tr>
<td>Homa Bay</td>
<td>1,025,668</td>
<td>41.8%</td>
</tr>
<tr>
<td>Kiambu</td>
<td>1,727,494</td>
<td>27.6%</td>
</tr>
<tr>
<td>Kirinyaga</td>
<td>561,954</td>
<td>64.0%</td>
</tr>
<tr>
<td>Kisumu</td>
<td>1,031,112</td>
<td>41.4%</td>
</tr>
<tr>
<td>Nyamira</td>
<td>636,659</td>
<td>47.9%</td>
</tr>
<tr>
<td>Nyeri</td>
<td>738,093</td>
<td>72.2%</td>
</tr>
<tr>
<td>Siaya</td>
<td>896,379</td>
<td>43.0%</td>
</tr>
<tr>
<td>Migori</td>
<td>976,051</td>
<td>32.6%</td>
</tr>
</tbody>
</table>

Source: NCPD (2012)
According to the Republic of Kenya (2009), only 32.9 per cent of the married women in Nyanza province aged 15 to 49 years use modern contraceptives compared to Nairobi, 49.0 per cent, Central, 62.5 per cent, Eastern, 43.8 per cent, Rift Valley, 34.7 per cent and Western, 41.1 per cent. This is despite the larger percentage, 93 per cent, of availability of facilities offering modern methods of contraception in Nyanza province in comparison to Nairobi, 68 per cent, Central, 89 per cent, Coasts, 79 per cent, Eastern, 79 per cent, Rift Valley, 92 per cent and North Eastern, 67 per cent.

1.2 Statement of the Problem

Kenyan population growth is unsustainable given the projected economic growth in Vision 2030 and its socio-economic and political implications. According to NCPD (2012), the Government of Kenya plans to promote a policy requiring women to have only two children over their reproductive age of between 15 to 49 years and to achieve its goal of reaching a 56 per cent modern contraceptives prevalence rate by 2015 from the present 46 per cent. Nyanza Province has a high total fertility rate of 5.4 compared to other Provinces like Nairobi, 2.8, Central, 3.4, Eastern, 4.4, and Rift Valley 4.7. Moreover, Nyanza has the highest percentage of 93 per cent of facilities offering family planning services that improve the health of women and provide tools to plan their families and their lives (Republic of Kenya, 2009). Despite the available reproductive health and family planning programmes that are offered by the Government in collaboration with other stakeholders, most men and women particularly in rural areas are still reluctant to embrace family planning methods in Nyanza. Ndhiwa district being one of the districts in Nyanza Province, there was need to examine the factors that affect the utilization of contraceptives among women in Ndhiwa district. This would at the same time intensify the utilization of family planning among these women to bring them in line with the rest of the country and according to the demographic indicators of 2015.
1.3 Objectives of the Study

Main Objective

The general objective of this proposed study was to investigate the socio-economic and cultural constraints to utilization of contraceptives among women in Ndhiwa district, Homa Bay County, Kenya.

Specific objectives

a) To identify the cultural barriers women face in the use of contraceptives in Ndhiwa district.

b) To examine the socio-economic barriers in the utilization of contraceptives among women in Ndhiwa district.

c) To examine the perceptions of spouses on utilization of contraceptives among women in Ndhiwa district.

1.4 Hypotheses of the Study

H₀₁: There is no significant relationship between cultural factors and contraceptive use among women in Ndhiwa district.

H₀₂: There is no significant relationship between socio-economic factors and contraceptive use among women in Ndhiwa district.

H₀₃: Spouses perceptions do not significantly affect the utilization of contraceptives and actual use among couples in Ndhiwa district.
1.5 Justification and significance of the study

The study area was in Ndhiwa district for the reason that the district depicted one of the highest total fertility rates in comparison to other districts in Kenya. Moreover, little research has been conducted on the subject matter. Better understanding of factors influencing utilization of contraceptives is fundamental for realizing increased contraceptive use and the country’s realization of its desired impact of contraceptive practice on unwanted fertility.

Conducting a study on factors influencing utilization of contraceptive services was particularly pertinent for health care providers, programme planners, policy makers and researchers. More information about attitudes on contraceptive and practices related to it could contribute to current efforts geared to the management of programmes that are relevant to childbearing women in Ndhiwa. The study would contribute to the expansion of knowledge in the area of family planning and constraint factors to their utilization.

In addition, the study provides information and awareness on population matters that address issues such as unwanted pregnancies and family planning. It is envisaged that these will encourage social modernization, specifically family planning, and in turn encourage a small family norm thus helping to reduce the population expansion problem. Local communities could also use the findings of this study in nursing education to emphasize the socio-cultural aspects of contraceptive practices by local communities.

1.6 Scope and limitations of the study

The study area was in Ndhiwa district that had a population of 172,212 persons. The researcher narrowed the study population to two divisions that were selected randomly. The respondents were married women aged between 15 – 49 years and had been in marriage for at least over 6 months. In total 164 respondents were involved in the study. The researcher with the assistance of two assistants administered the questionnaire.
The study was based on 164 women selected from Ndhiwa district and the scope is limited to the area of unmet contraceptive use and the factors that contribute to this in the district.

During the study, the researcher faced difficulty in getting respondents to answer questions because of language barrier and difficulty in explaining concepts. For this reason, the researcher translated the questions into the local languages especially the leading concepts before the start of the fieldwork. The study relied entirely on women’s report on family planning discussion which could have had error of underreporting. Consequently, the study dealt with a large sample size that is mostly used in demography and health related studies. The research assistants were professionals selected based on their understanding of the local language in the study area and the topic of study. This ensured that there was no communication barrier and the questionnaire method was appropriate data collection instrument. In addition, research assistants were given constant field supervision and incentives to overcome the challenges.
CHAPTER TWO

2.0 Literature review

2.1 Introduction

In societies where ethnic identities are very strong like they are in Africa, reproductive outcomes also tend to follow certain ethnic patterns, i.e., arising from cultural values and behaviour regarding fertility. Customs tend to emphasize the importance of childbearing. Currently, sub-Saharan Africa has the world’s highest total fertility rate (5.2), the highest estimated level of unmet need of family planning (25 percent) and lowest rate of modern contraceptive use among married women (17 percent) (Cleland et al., 2011; UNICEF 2008). About 39 percent of all pregnancies in the region are unintended, which rises to about 50 percent for adolescent pregnancies (Singh et al. 2009; Guttmacher, 2010). Consequently, family planning services may be poorly accepted in these societies.

Many researchers have identified several factors that affect women’s use of modern contraceptives including or non-use of contraceptives. Numerous studies have been done in different countries in the past to find out the factors that affect contraceptive use. Some of these studies are reviewed in this chapter. The researchers give various reasons as discussed below.

2.2 Cultural factors that affect utilization of contraceptives

Generally, there are certain cultural factors that would affect the use of contraceptives by women in the society. These factors are pointed by various scholars as would be discussed one by one include the following; polygamy, religion and son preference.
2.2.1 Polygamy and contraceptive use

A report by Baschieri (2013) shows that in West and East Africa, more than 20 percent of married women are in polygamous marriages. Even if the KDHS (2008 – 2009) statistics indicate that polygamy has decreased in Kenya, polygamy in Nyanza still prevails and has implications on sexual activity and fertility (KDHS, 2008 – 2009). The KDHS (2008 – 2009) statistics indicate that among men, polygamy in Nyanza as compared to that in Central Province is at 15.4 percent and 0.5 percent respectively, indicating that Nyanza Province is leading in polygamy relations.

A study in Kenya showed that high and low fertility areas correspond with particular ethnic groups where polygamy is characterised by high fertility areas (Ezeh, 1997). This emerges since the many wives may compete in giving birth resulting to high population growth rate. The scenario is evident among the Luo, Mijikenda and the Kamba communities. Wives symbolized wealth – both in terms of the man’s ability to provide bride wealth for several women, and increased labour provided by women and children that enhances the family wealth while ensuring a continued lineage. As a result, more wives translated into increased social status. The reasons for this are inadequate exposure to contraceptives and early marriages. Nonetheless, the contraceptive use was substantially lower among women in polygamous marriages than among those in monogamous ones in Malawi (Baschieri, 2013). The study suggests that characteristics of polygamous couples have caused polygamous women to be more resistant to birth control use than monogamous women. The polygamous women tended to be married to older men who had not gone to primary school and who desired more children than monogamous husbands. Among polygamous couples, monogamous couples or both, contraceptive use was negatively associated with age and positively associated with level of education and number of living children. While the study was not designed to elucidate the reasons for this, the investigators speculate that the ability of women in polygamous marriages to share responsibilities (including childcare) with
their co-wives softens the impact of having an unplanned birth, and thus may reduce women’s motivation to practice contraception.

The reviewed literature indicates that women in polygamous unions record higher fertility than in monogamous unions. This revelation helps in the study in explaining how types of marriage affect utilization of contraceptives.

2.2.2 Religion and contraceptive use

There is some link between religious values and use of contraceptive as the former can influence a woman’s decision on the method of contraceptive to use (Sangi–Haghpeykar, 2006). Ezeh and Dodoo (2001) also observe that religious systems that associate pronatalism as divine blessing and infertility as a curse could motivate reversals in fertility preferences. A shift towards large fertility preferences among Muslims in Kenya was observed by Westoff and Cross (2006) while Gregson et al. (1999), Agadjanian (2001) and Agha et al. (2006), note a rise in certain Pentecostal movements, especially among young people and the link with doctrines opposed to modern contraceptive use in Zambia.

In Swaziland, some Muslim women did not accept the birth that occurs as fatalism even though religious beliefs emphasize the spiritual importance of progeny (Ziyane and Ehlers, 2007); to them it signifies humility (Izugbara and Ezeh, 2010). The religious barriers are evident in Africa where 20 percent of the population is Catholic whose doctrines emphasize that all sexual acts must be open to procreation. Thus, any artificial method of contraception is opposed. The worst affected are the permanent methods such as tubal ligation for women and vasectomy for men. The church only accepts the natural forms of birth control like natural family planning methods such as periodic abstinence outlined by the late Pope John Paul Vi in his 1968 encyclical Humanae Vitae, which affirms the traditional teaching of the Roman Catholic Church regarding contraception and other reproductive issues. Between one-quarter and one-half of women in
sub-Saharan Africa report that their religion negatively impacts their contraceptive use (Akintade et al. 2011 and Clements and Madise 2004).

**2.2.3 The impact of son preference on contraceptive use**

Customs emphasize the importance of childbearing in most of African countries; Kenya included (Ndubani and Hojer, 2001). These societies do not identify with family planning and even though they vary greatly in culture, son preference is a common feature (Jegede, 2009). A boy child is considered as a woman’s “seat” to mean that a woman’s remains a visitor in her husband’s home until she has a son. This is according to the Yoruba of Nigeria. This custom illuminates the lack of worth accorded to adult women (Jegede, 2009). This happens because of the social obligations expected of men, like being an heir to the father for continuity purposes and family’s status and influence. A couple with only girls end up giving birth to many children with the hope of luckily getting a boy leading to large and unplanned families.

Therefore, son preference has been found to be a leading factor influencing contraceptive use especially for newly married women (Kamal and Islam, 2010). Just to mention, in Bangladesh, there is the desire for the first child to be a boy in couples and mother who already had a son were 60 percent more likely to use contraceptives than those who did not (Kamal and Islam, 2010). In Nepal as well, son preference is closely tied to women’s fertility aspirations (Brunson, 2010). Brunson (2010) conducted ethnographic work with Hindu women in one semi-urban village and concluded that son preference remains strong in Nepali culture. According to Brunson, women have internalized the expectations of their society, community and family, and still feel a strong pressure to produce sons.
2.3 Socio-economic factors that affect utilization of contraceptives

It is found that there are both social and economic factors that influence the use of contraceptives by women in the society. These factors include the following: the quality of family planning services, misconceptions and fears of side effects, accessibility to contraceptives, level of education, infant and child mortality rates and spouses’ perceptions and approval on contraceptive use.

2.3.1 The quality of family planning services and contraceptive use

Improvement in family planning programmes calls for expansion of the choice of the method used, providing adequate information, increase in technical competence of providers, increasing interpersonal relations between providers and clients and incorporating adequate client support and follow up. This is because failure to use existing services is attributed to lack of quality (Koc, 2000).

Investigations by the Government of Kenya, Republic of Kenya (2012) observed that contraceptive services in Western Kenya are free and are about 93 percent available; however, the demand for the products and services was low. Modern methods like emergency pills expire in hospitals since nobody comes for them especially in rural areas (Republic of Kenya, 2012). It is realized that high birth rate, high fertility and large unmet need of family planning is most experienced in Western Kenya. Therefore, the Government through the Ministry of Health has taken the initiatives of providing contraceptive services majorly free of charge to help control birth rate in order to achieve the 2030 vision of two (2) children per woman.

Another study in Kenya by Magadi and Curtis (2003) reveals that opening the choice of contraceptive methods increased overall contraceptive prevalence and the opportunity for individual couples to obtain a method that suits their needs. Ross et al. (2001) also note that contraceptive method choice in developing countries confirmed that prevalence is highest in
countries where access to a wide range of methods is uniformly high. Paek et al. (2008) found that exposure to mass media at the community was significantly associated with family planning behaviour in Uganda. The authors hypothesized that mass media facilitates greater interpersonal communication and allows for increased dissemination of information (Paek et al., 2008). UNFPA (1996) recommended that family planning programmes should offer a variety of safe, effective, acceptable and affordable contraceptive methods to help women avoid unwanted pregnancies, sexually transmitted diseases and to help them achieve their childbearing goals. Sevil et al. (2006) suggest that health-care consultants should provide advice in accordance with international norms and ethics.

2.3.2 Misconceptions and fears of side effects associated with use of contraceptives

There have been myths about misconceptions and fears of side effects especially the IUDs performance from excessive bleeding, weight gain to added cancer risk. News of any complications arising from incompetence in handling the devices can spread easily, produce undesired effects among potential adopters, and indeed keep them way (Inaoka et al., 1999). The side effects noted by Inaoka et al. (1999) include nausea, vomiting, and weight gain. A Bangladesh study highlighted that women discontinued using injectables and had wrong information about side effects and their significance due to lack of counselling (De Graaf, 2001). In Morocco, it was also noted that misinformation and fear of side effects reduced access to contraceptives (Westoff and Bankole, 1998). Fear of side effects can be overcome through good communications and information, especially through community based distribution (CBD) programme (Omondi-Odhiambo, 1999).

Myths suggesting that the use of contraceptives lead to cancer or infertility can lead to discontinuation of use of contraceptives (Inaoka et al., 1999). A study in Ethiopia shows that another reason for discontinuation of use of contraceptives is the disturbance caused by
menstrual cycle (Weldegerima and Denekew, 2008). Westoff and Cross (2006) study in Kenya show that discontinuation rate rose from 28 percent in 1998 to 33 percent in 2003 and was linked to side effects associated with hormonal methods like pills and injectables. Shane (1996) however, discovered that oral contraceptives could protect a woman against pelvic inflammatory disease, ovarian and endometrial cancers, fibroids of uterus and benign breast disease. Contraceptives also help decrease problems associated to menstrual cycle such as pain and cramps (common during adolescence), dysfunctional uterine bleeding, functional ovarian cyst, premenstrual tension syndrome and anaemia caused by heavy menstruation. Shane also observes that consistent and correct use of condoms can prevent infection from sexually transmitted diseases including ectopic pregnancy, chronic pelvic pain, infertility (in both sexes), cervical dysplasia and cervical cancer. Most of all, it has continued to benefit any sexually active person who may be at risk of acquiring HIV / AIDS or other STIs. Yam, et al. (2007), note that health providers should demystify misinformation about contraceptives and instead provide factual information about risks, potential side effects, and incorporate it in family planning strategy that meet each client’s personal needs. Educational and enlightenment programmes should also focus on providing specific knowledge, with special attention to correcting common misconceptions about the methods.

2.3.3 Accessibility to contraceptive services

Knowledge without the necessary access to contraceptive use is useless. Centre for Disease Control (CDC), (1999) note other obstacles women face in obtaining contraceptives including transportation to clinics. Irrespective of their age, women who live furthest from clinics use contraceptives less than those who easily access them (Dickinson et al. 2010; Campbell et al., 2006).
In developing countries, women also mention cost as another factor to access to contraceptives (Campbell et al., 2006; Nalwadda et al., 2011; Bankole and Malarcher, 2010). According to Ocholla-Ayayo (1997), poverty is another factor that has led to high fertility. This in turn creates a heavy dependency load and ratios for families living in poor conditions as the money received is all spent on food, school fees, funerals, housing and clothing with nothing to invest or improve living conditions. Poor people tend to have no other source of employment apart from sexual enjoyment. Therefore, in the course of this, children would be born including those unplanned for. Unlike rich households that have a lot of money to spend in leisure activities other than sex, for example, travelling for leisure, enjoying drinks and other entertainment. Thus, securing transportation to family planning services by the poor is therefore a challenge as most of the finances go to basic needs.

National Council for Population and Development, NCPD (2012), records that Central, Nairobi, and Eastern regions have the highest contraceptive use and have the lowest number of poorest people. In Kenya, family planning services are offered by the MOH, NGOs and the private sector. According to KNBS (2009), contraceptive use in Kenya is clinic based; suggesting the model of family planning delivery is expensive. This raises doubts as to whether it can be replicated in other regions that are still struggling to increase contraceptive use and reduce fertility, such as Ndhiwa district the study case. The MOH (2010) noted that health facilities in Kenya designated as service delivery points (SDPS) for family planning services are not equitably distributed throughout the country. Sustainable provision of family planning methods, in addition to increased communication on the need for family planning, could help increase the uptake of the service.
2.3.4 Level of education and contraceptive use

In the community, there are different types of people in terms of education levels. There are those with no formal education, primary level of education, secondary level of education and tertiary level of education. Those with better levels of education tend to have better understating of their reproductive health than those with less levels of education.

Westoff and Cross (2006) cite an initial increase in unmet need of family planning with education, which is due to a gap between increasing desire to control fertility and the ability to do so, leading to an eventual decline in unmet need with education, as more women use contraception. Magadi et al. (2000) note that education is an alternative means of creation of status for women as well as a source of self-esteem and self-value. Therefore, education promotes the use of contraceptives as well as encouraging termination of a pregnancy if unwanted. Educated women tend to marry later, have fewer children and use contraception more (Caldwell and Caldwell, 2003). A study by Casterline (2001) reveals a significant relationship between a woman’s level of education and contraceptive use. Schooling by women is an indicator of socio-economic development and the variable is negatively associated with infant mortality, thus reducing the overall demand for children (Addai, 1998). The cultural lag in women’s education still encourages preference for large families and prevents women from having the number of children they need. Education improves reproductive health since educated women are more likely to seek adequate prenatal care, skilled attendance during childbirth and use of contraception.

2.3.5 Infant / child mortality rates and contraceptive use

Casterline (2001) observes that rapid mortality decline leads to even more rapid decline in fertility. Under-five mortality in Kenya stands at 74 deaths per 1000 live births, with Nyanza leading with 149.2 deaths per 1000 live births followed by Western at 121, Coast 87, North
Eastern 80, Nairobi 64, Rift Valley 59 and Central 51 (Republic of Kenya, 2009). Prevalent diseases such as malaria and typhoid do not solely cause high mortality rate of children. The situation in Nyanza is therefore dictated by how parents are able to cope with these prevalent diseases in the environment of the district. For instance, high mortality rate of children means low confidence in survival rates of infants hence the need for mothers to have many children as security against death. Complications and infections that happen at birth due to inadequate care are the greatest cause of child deaths, leading to the hesitation in using contraceptives thinking that the use may lead to childlessness or small families should any of their children die. Cleland and Bernstein (2006) note that shorter spacing between births increases chances of fetal death because of non-use of family planning methods, low birth-weight, prematurity and or infant and child death. NCPD (2012) recommends three-year spacing after birth for another pregnancy to help reduce the child and maternal mortality rate. A three year spacing between children ensures full breast-feeding, the best possible emotional and physical development of the child in relation to the rest of the family, and a complete recovery of the mother from the effects of one pregnancy and childbirth before starting another.

Evidence from literature review points out that reduction in fertility, child and infant mortality rates are critical to record a decline in population growth rate. This is particularly relevant to the study to investigate the impact of infant and child mortality on the utilization of family planning.

2.4 Spouses’ perceptions on contraception use

Feyisetan (2000), Oyediran and Isiugo-Abanihe (2002b) observe that inter-spousal communication dictates whether or not to use family planning, the method to use, when to start and the number of and timing of children as well as enabling husbands and wives to know each other’s attitudes towards family planning and use of contraceptives. It also allows spouses to say their concerns about reproductive health matters like unintended pregnancies, side effects of a
method or STDs (Drennan, 1998). Communication may therefore affect contraceptive use by transforming attitudes into the physical act of using contraceptives. However, a study by DeRose et al. (2004) using DHS data from 21 sub-Saharan African countries contradicted the idea that discussion between partners helps increase knowledge of a partner’s contraceptive attitudes (DeRose et al., 2004). They concluded that the anticipated reductions in unmet need for contraception may not be achieved through improvements in inter-spousal communication.

Many obstacles prevent men and women from talking about sexuality, family planning and reproductive issues and a complex web of social and cultural factors hamper such discussions (Islam, 2008). In most societies, discussing sexual matters is a taboo subject for men and women. In addition, men and women are often afraid of rejection by a sexual partner, especially if the discussion about sexuality takes place at the beginning of a relationship. Consequently, they may not feel comfortable discussing reproductive health issues, such as sexual history or contraception (Drennan, 1998). Furthermore, a husband might suspect his wife being promiscuous or unfaithful if she tries to discuss contraception with him.

Inter-spousal communication can be regarded as a way toward increasing men’s participation in family planning and reproductive health (Lasee and Becker, 1997; Becker, 1996; Biddlecom et al., 1997; Omondi-Odhiambo, 1997). Male involvement does not refer to use of male methods alone, it also includes supporting female method use, which suggests that husbands should communicate family planning matters with their wives (Donahoe, 1996). Spousal contraception communication has been described as a means that will make possible couples to disclose their fertility preferences to each other and make use of contraceptives as a result. The misconception that wives seem to have of their husbands’ family planning approval is one area that spousal communication is expected to improve.
2.5 Summary of literature review

The major sources of the literature review indicate that there are different factors that influence the unmet contraceptive use. These are polygamy, religion, son preference, quality of family planning services, misconceptions and fears of side effects, barriers to accessibility to contraceptives, educational level and literacy, infant and child mortality and spousal communications and perceptions as pointed out by key scholars. The literature review indicates that quite a number of studies have been in areas of unmet contraceptive use in various parts of the world and some parts of Kenya. The reviewed literature indicates that women in polygamous unions record higher fertility than in monogamous unions. This revelation helps in the study in explaining how types of marriage affect utilization of contraceptives. The reviewed literature further indicates that there are various misconceptions and fears that are related to contraceptive use. These reviews are important and shed some light that is significant to the current study. Nevertheless, few studies have been done in Ndhiwa district, hence the need for this study. The researcher, therefore, investigate the barriers to utilization of contraceptives among women in Ndhiwa district to provide knowledge, information and ideas to people to enable them make enlightened decisions especially about demographic matters or changes with the purpose of developing positive and rational behaviour and attitudes.

2.6 Conceptual framework for the study

The analysis make use of societal and individual factors, demographic variables, intermediate variables, socio-economic variables and the outcome variables influencing couple’s decision to use contraceptives. Family planning supply factors e.g. accessibility, quality and acceptability are one of the components that encourage or discourage contraceptive use. The study assumes that communication between spouses about family planning discourages a couple from having unwanted children and encourages contraceptive use. The use of the contraceptives on the other
hand will result into high contraceptive prevalence rate (CPR) and low total fertility rate (TFR), figure 2.0.

**Figure 2.0 Conceptual framework for the determinants of contraceptive use.**

**Independent variables**
- Level of education
- Accessibility to contraceptives
- Polygamy
- Quality of family planning services
- Misconceptions and fear of side effects of contraceptives

**Intermediate variables**
- Spouses’ perceptions on contraception
- Infant / child mortality
- Son preference
- Religion

**Dependent variable**
- Contraceptive use

**Source:** Author (2013)

Independent variables influence either positively or negatively on the dependent variable. In every case, the intermediate variable comes in to influence the impact as interpreted below.

The level of education, if high would promote contraceptive use. An enlightened person is well informed about the financial and mutual demands of child rearing. Hence, she would opt to get children only when planned so that she can accord quality upbringing. This would call for contraceptive use. In addition, a highly learned person does not look at children as the only form of wealth and at sex as the only form of entertainment. Hence, such a person would not involve in unprogrammed sex and births. However, when the spouse to such an enlightened individual wills to have many children or does not for whatever reason approve of contraceptive use, he /
she can prevail upon the spouse to stop using contraceptives, resulting to low contraceptive use instead.

A couple who loses an infant can be compelled to get another child immediately as a replacement of the dead one for fear of becoming childless or having too few children. This is irrespective of their education level. A highly educated person who prefers sons may opt to avoid using contraceptives in the event that all the children begotten so far are girls. This would be in order to beget more children in the hope of getting sons. Moreover, an individual of high literacy level may avoid contraceptive use if his / her religion condemns the use of contraceptives.

Concerning level of education as an independent variable, the reverse is the situation when the individuals’ level of education is low. Level of contraceptive use would be low as well. A person who prevails upon his / her spouse to use contraceptives, or a religious faith that recommends contraceptive use for its followers would only reverse this to be high. Child mortality and son preference would have no impact, as contraceptive use would remain low.

It is possible that for women in polygamous marriages to use contraceptives. However, if their need were hindered by other factors such as men’s opposition, son preference, religion and infant / child mortality, then these women would have low utilization of contraceptives.

Factors that affect the use of contraceptives also do so through quality of family planning services in terms of a wide access of contraceptive methods, provision of adequate information on potential users and increased technical competence of providers. Similarly, if quality of family planning services were hindered by men’s disapproval, son preference, religion and infant / child mortality, then these women would have low use of contraceptives.

Accessibility to family planning services is also one of the components that encourage or discourage contraceptive use. Women who live furthest from clinics with contraceptive services
are disadvantaged by high costs of transportation. Improved access motivates women to use contraceptives. Nevertheless, if contraceptive use were stalled by the intermediate variables here too, the overall result would still be low utilization of contraceptives. Spouses’ perception on family planning is described as a tool that will enable couples to reveal their fertility preferences to each other and make use of contraceptives as a result. The study contributes to a better perception of the role played by contraception in Kenya’s demographic changes by investigating the factors that affect the utilization of contraceptives among women in Ndhiwa district.

2.7 Hypotheses

i. Education of married women has positive effects on contraceptive use

ii. Spouses perceptions on contraception has effect on contraceptive use

iii. Quality of family planning services has positive effect on contraceptive use

iv. Infant / child mortality has negative effects on contraceptive use

v. Son preference has a significant relationship with contraceptive use

vi. Polygamy has negative effects on contraceptive use

vii. Religion of respondent has influence on contraceptive use

viii. Misconceptions and fears of side effects of contraceptives has negative effect

ix. Accessibility to family planning services has positive effect on contraceptive use
CHAPTER THREE

3.0 Research design and methodology

3.1 Introduction

This chapter outlines research design, the target population, the study area, the sample size and sampling procedure. Also included are the research instruments, ethical considerations, and data collection procedures and data analysis techniques.

3.2 Research design

A descriptive survey design was employed in this study. In a survey, the investigation examines those phenomena that exist in the universe independent of his action (Kothari, 2004). A survey is therefore a self-report study that requires the collection of quantifiable information from the sample. Descriptive survey design was used because the research involved collection of data by administering of questionnaire to a sample of women from households. A descriptive survey design was therefore a more inclusive approach.

3.3 Operationalization of variables

Current contraceptive use was the dependent variable of this study. Independent variables in this study were categorized into socio-economic factors, intermediate factors and cultural factors.

3.3.1 Dependent variable

Contraceptive use was the dependent variable. Contraceptive use refers to a couple who have continuously used modern methods of contraception in the past six months. Contraceptive use was measured by asking question on contraceptive use or not use.
3.3.2 Independent variables

Social variables

**Education:** Education refers to the level of attainment in formal education by the individuals and it is classified into three categories: no formal education, primary level of education, secondary level of education and tertiary level of education for women. The variable was collected by use of questionnaire and focused group discussion and analyzed by Chi-square, stepwise multiple regressions, cross tabulation and frequencies methods.

**Spouses’ perceptions on contraception:** refers to husbands’ favorable attitude to family planning or unfavorable attitude. It was classified as husbands’ approval or husbands’ disapproval. The data collection instruments were by use of questionnaire and focused group discussion. The data analysis method applied was chi-square, stepwise multiple regression model and frequencies.

**Misconceptions’ and fears of side effects of contraceptives:** this variable was measured using the “yes” and “no” answers. The variable was collected by use of questionnaire and interviews. The statistical test used to analyze the variable was Chi-square, stepwise multiple regression model and cross tabulation.

**Infant and child mortality:** it was grouped into two categories: how many children were alive and how many children were dead. The variable was collected by use of questionnaire and focused group discussion. The statistical test to analyze the data was by use of Chi-square, stepwise multiple regression model, cross tabulation and frequencies methods.

Cultural variables

**Polygamy:** refer to unions in which there is one man and more than one wife. It was measured by “yes” or “no” answers. The variable was collected by use of questionnaire and focused group
discussion and analyzed by Chi-square, stepwise multiple regression model, cross tabulation and frequencies methods.

**Religion**: The variable was grouped into four categories: Catholic, Protestant, Muslim and African Independent Church. The variable was collected by use of questionnaire and focused group discussion and analyzed by Chi-square, stepwise multiple regression model, cross tabulation and frequencies methods.

**Child gender preference**: was grouped in three categories; male, female and either male or female gender preference. The variable was collected by use of questionnaire and focused group discussion and analyzed by Chi-square, stepwise multiple regression model, cross tabulation and frequencies methods.

**Economic variables**

**Quality of family planning services**: quality of family planning services are grouped according to satisfaction of existing services by family planning providers. The “yes” and “no” are answers to measure it. The data collection instruments was by use of questionnaire and focused group discussion and analyzed by Chi-square, stepwise multiple regression model, cross tabulation and frequencies methods.

**Accessibility to family planning services**: the accessibility factors are grouped into: (Low Income Household ($\leq$ Kshs 6,000 per month), Middle Income Household (Kshs 6,000 – 30,000 per month) and High Income Household ($\geq$ Kshs 30,000 per month). The variable was collected by use of questionnaire and focused group discussion. Chi-square, stepwise multiple regression model, cross tabulation and frequencies were the statistical tests used to analyze the variable.
3.4 The study area

This refers to the boundaries set up by the researchers. The geographical coverage of the study was within Homa Bay County. The study was conducted in Ndhiwa district, Homa Bay County, Kenya. Ndhiwa district lies between latitude 0° 31’ south and 0° 50’ south, and between longitudes 34° 11’ east and 34° 33’ east, figure 3.0.

It has a total surface area of 711 km². It has five divisions, 26 locations and 49 sub locations and a total of Households 37,113.

Ndhiwa district borders Homa Bay district to the North East, Rongo district to the East and South East direction, Uriri district to the South West direction and Nyatike district to the North West direction. The major drainage features are river Kuja and Riana. River Kuja and its tributaries is the largest river in the district.

3.5 Target population

Target population refers to the population to which a researcher wants to generalize the results of a study (Mugenda and Mugenda, 1999). The district has a population of 172,212, a household number of 37,113 and an average household size of 5.0 (Republic of Kenya, 2009). The households’ breakdowns per division are Kobama – 7835, Ndhiwa – 12183, Pala – 6032, Riana – 7835 and Nyarongi – 4697 (Republic of Kenya, 2009). The target population constituted Ndhiwa women. The accessible population was all the women in Ndhiwa district within their households. These were spread in five divisions.
Figure 3.0: Location and map of the study area, Ndhiwa district
3.6 Sampling techniques and sample size

3.6.1 Sample size determination

Sample size refers to the number of respondents who complete a survey or project.

Table 3.1: Sample size breakdown

<table>
<thead>
<tr>
<th>Population Size (N)</th>
<th>Plus or Minus 3%</th>
<th>Plus or Minus 5%</th>
<th>Plus or Minus 10%</th>
<th>95% Confidence</th>
<th>Plus or Minus 3%</th>
<th>Plus or Minus 5%</th>
<th>Plus or Minus 10%</th>
<th>99% Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>696</td>
<td>323</td>
<td>92</td>
<td>959</td>
<td>498</td>
<td>154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,000</td>
<td>788</td>
<td>341</td>
<td>94</td>
<td>1142</td>
<td>544</td>
<td>158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td>880</td>
<td>357</td>
<td>95</td>
<td>1347</td>
<td>586</td>
<td>161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td>965</td>
<td>370</td>
<td>96</td>
<td>1556</td>
<td>622</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000</td>
<td>1,014</td>
<td>377</td>
<td>96</td>
<td>1687</td>
<td>642</td>
<td>165</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The researcher used Rea and Richard (1997) comprehension table guide while determining a sample size in a survey research. Table 3.1 describes sample size breakdown for a range of various sizes of target population using either 99 per cent confidence levels or 95 per cent confidence levels. Since the households’ size was 16,888 for the two divisions, namely Nyarongi and Ndhiwa where the research was based on, a desired confidence level of 99 per cent and a margin of error of ±10 per cent were preferred. Therefore, the resulting sample size of respondents was 164 (Table 3.1).
3.7 Sampling methods and procedure

The study area had five divisions, a population of 172,212 and a household number of 37,113 (Republic of Kenya, 2009). The study chose two divisions out of the five divisions. Simple random sampling procedure was adopted. The simple random sample was taken by writing the name of each division on a slip of paper. These divisions were Ndhiwa, Nyarongi, Pala, Riana and Kobama. The five slips of papers so prepared were put into a cup and mixed thoroughly and then the researcher drew as a lottery (without looking) the required number of slips, two, for the sample one after the other without replacement. The researcher ensured that in successive drawings each of the remaining elements of the division had the same chance of being selected. Since this was a finite population of five divisions and the researcher needed a sample size of 2 divisions, the probability of drawing any one division for the sample in the first draw was 2/5. The probability of drawing one more division in the second draw was 1/4, (the first division drawn was not replaced). Since these draws are independent, the joint probability of the two elements which constituted the sample was the product of their individual probabilities and this worked out to $\frac{2}{5} \times \frac{1}{4} = \frac{1}{10}$. (Kothari, 2004) noted that the practical utility of such a method is very much limited in complex problems sampling. Therefore, if the researcher chose one this sampling method in such a way that each had the probability of 1/10 of being chosen, then this is called a random sample. The first two pieces of papers drawn out of the cup were Ndhiwa division and Nyarongi division that were used for the study. These divisions had the respondents of all socio-cultural backgrounds and therefore they were a reflective of the whole target population.

From the two divisions the study adopted stratified random technique to select the locations. Each location from the two divisions constituted a stratum. The locations and the size of each stratum were as shown in figure 3.1.
Figure 3.1 Sampling strategy of households in the study area.

Source: Author (2013).

The advantage in stratified random sampling is that it ensures inclusion, in the sample, of subgroup, which otherwise would be omitted if other sampling methods were used because of their small numbers in the population (Mugenda and Mugenda, 2003). Free sampling was used to select married women respondents from each stratum. According to Kothari (2004), random sample for the households of this nature could have been selected by use of tables of random numbers from finite populations such as this only when lists of households are available and items are readily numbered. Consequently, it was not possible to number the households, and choose random numbers to select a random sample. In such situations according to Kothari
(2004), the researcher need to select households for the sample freely without aim or purpose, and should treat the sample as a random sample for the study purposes. The process followed by selecting from the various strata that was then combined to form the sample size for the study. A total of 164-sample size was used in the study based on the procedure for selecting the sample size proposed by Rea and Richard (1997). (Table 3.1). Such a broadened sample size of 164 women respondents was preferred to improve reliability.

The women respondents used in the study were aged 15 to 49 who had been in marriage for at least six months. The reason for the age range was to ensure better representation of Ndhiwa females at age of marriage and reproduction. However, mentally challenged and pregnant women were excluded from the study. On the other hand, purposive sampling method was used to sample the focus group discussants.

3.8 Research instruments

Researcher-administered questionnaire was used with the selected respondents. The researcher and two Research assistants administered the questionnaire. The close-ended questions included questions that could be completed quickly, analysed easily and enable direct comparisons between variables. However, open-ended questions were also included in order for respondents to reveal information in their own words.

Qualitative data was collected by focus group interviews with eight discussants. The focus group discussants were purposively sampled from the two divisions of Ndhiwa and Nyarongi, which were selected for the study site. The total number of participants in this focus group interview was eight. This was manageable and effective ensuring full participation of the participants without leaving anyone out. The eight participants included one male village elder, one male professional from the local health centre, two female village elders; one of the female
elders was a member of the community-based organization and three religious leaders each from Muslim, Protestant and Catholic religions. The discussants were aged between 40 to 50 years. The actual selection of the participants was done by the researcher with the assistance of the area chief in Ndhiwa division. The chief of the area provided a local headman, who gave the researcher a verbal description of the area and its residential arrangements. The research team who were from the local area was selected to efficiently serve the focus group discussion collection method. The focus group discussion had two moderators including the researcher. The role of the moderators during the focus group discussion was to use the discussion guide to keep the session focused, while at the same time allowing for open and continuous interaction between the participants. There was one note taker, a university college student at Masinde Muliro University. The members of the research team were trained for a period of two weeks. The training involved reviewing the tasks of each of the members and revisiting the focus group discussion guide. The participants were compensated in way of food and refreshments.

3.9 Administering the questionnaire

Two research assistants were employed. English, Kiswahili and Luo languages were used interchangeably in order to obtain data. At the end of each day, questionnaires administered were collected and checked for completeness and clarity of information. The data was then recorded for compilation and analysis.

3.10 Reliability and validity

3.10.1 Reliability

The study adopted the suggestion of Kothari (2004) to improve reliability aspect. An instrument is reliable if it yields consistent results over a period. The questionnaire was researcher administered (the researcher and two assistants) to check and compare the consistency of results and findings with the main body. The research assistants were trained and motivated persons to
increase reliability. Moreover, the researcher also improved reliability by ensuring that external sources of variation such as boredom and fatigue by research assistants during administering the questionnaire were minimized to the extent possible.

3.10.2 Validity

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). Content validity was considered in this study. According to Kothari (2004), content validity can be determined by using a panel of persons who shall judge how well the measuring instrument meets the standards, but there is no numerical way to express it. Consequently, the supervisors reviewed the questionnaire and focus group discussion guide and their suggestions and remarks were sought.

3.11 Sources of data

The study relied on two complimentary sources of data: primary and secondary. The important sources of secondary materials included books, journal articles, and MA theses, PhD dissertations, planning documents, statistical abstracts, sessional papers and population census reports. These were accessed through the libraries of Kenyatta University and University of Nairobi. The primary sources were the primary information gathered directly from respondents.

3.12 Data analysis and presentation

Data was first edited and cleaned accordingly, tabulated then coded according to their categories and then exported to SPSS for further analysis. Quantitative data was analysed using descriptive statistic analysis measurements like frequencies, percentages and cross tabulation. This was accomplished using the computer software called Statistical package for social Scientists (SPSS), version 17.0 Windows and Microsoft Excel.
Chi-square test was used to assess the nature and degree of the relationship between contraceptive use and the socio-economic, cultural variables and spousal communication using P values. The results were tested for significance at 0.01 (99 percent confidence levels). It enabled the testing of the significance of association between the independent and dependent variables. Chi-square test was applied because the data were in form of frequencies and nominal in nature (Kothari, 2004).

Chi-square was calculated by the formula:

\[ \chi^2 = \sum \left( \frac{(O - E)^2}{E} \right) \]

Where, \( \chi^2 = \text{chi-square} \)

\( O = \text{Observed frequencies} \)

\( E = \text{Expected frequencies} \)

The null hypothesis was rejected whenever the computed value was greater than the critical value for test at 0.01 significance levels (99 per cent confidence level). Stepwise multiple regression analysis was performed in order to find how the independent variables were related to contraceptive use in Ndhiwa district. The stepwise multiple regression analysis was used because it lists the independent variables in descending order of their predictive power on contraceptive use. In this study, the independent variables were son preference, education level, polygamy, spouses’ perception on contraception, infant and child mortality, religion, quality of family planning services, misconceptions and fear of side effects and accessibility to contraceptives while the dependent variable was contraceptive use. Following the guideline proposed by Pallant (2011) and Kothari (2004) in a multiple regression analysis of this kind, the independent variables were put into the model to determine the predictor variables of contraceptive use among the sampled population. Thus, the formula for the model is:
\[ Y = f(X_1, X_2, \ldots, X_n) + e \]

Where, \( Y \) = dependent variable, contraceptive use

\( f(\cdot) \) = signifies the function of explanatory variables, (independent variables)

\( e = \) stochastic error term, (held constant)

By the nature of the step-wise regression model, independent variables which did not contribute significantly in explaining (predicting) the dependent variable were eliminated. This was done by reporting the R square (\( R^2 \)), which is the square of the measure of the variance in the criterion variable that is accounted for by our model (Pallant, 2011). \( R^2 \) refers to the amount of variation explained by the independent variables. If \( R^2 \) is calculated, it means that the percentage of the variation in a given dependent variable is explained or predicted by variables in the equation.

After the data were analyzed through frequencies, percentages, cross tabulation, Chi-square and stepwise multiple regression model, the results were presented in form of figures, tables, graphs and text forms for easy understanding.

**3.13 Data management and ethical considerations**

All concerned relevant authorities were officially contacted through letters and permission in order to obtain the required information. The department of Geography, Kenyatta University, approved research topic. National Commission for Science, Technology and Innovation approved the research before the study was conducted (appendix 3). After the purposes and the procedure of the study were explained, verbal consent was obtained from the respondents. The respondents had a right to agree or refuse to participate in the study.
CHAPTER FOUR

4.0 Data analysis, presentation and discussion

4.1 Introduction

This chapter presents qualitative and quantitative data analysis described as follows: respondents’ demographic characteristics, factors affecting contraceptive use and spouses’ perceptions on contraceptive use.

4.2 Respondents’ distribution by age

The distribution of age among the respondents’ is shown in (Table 4.1) by five-year age groups. A total of 164 women of reproductive age were studied and constituted all females. The mean age of respondents was 28.98 with a median of 26.42. The total fertility rate for the women respondents was high at 5.100 compared to Kenya’s 4.6. This depicts a very high total fertility rate revealing clearly that women have low use of contraceptives in Ndhiwa district.

\[
\text{TFR} = \sum_{i=1}^{7} \text{A. S. F. R} \times 5 = (0.036 + 0.187 + 0.301 + 0.195 + 0.197 + 0.067 + 0.037) \times 5 \\
= 1.020 \times 5 = 5.100
\]

Table 4.1: Number of respondents per age group and age specific fertility rates

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Live births per 1000 women</th>
<th>A.S.F.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 – 19</td>
<td>6</td>
<td>36</td>
<td>0.036</td>
</tr>
<tr>
<td>20 – 24</td>
<td>38</td>
<td>187</td>
<td>0.187</td>
</tr>
<tr>
<td>25 – 29</td>
<td>52</td>
<td>301</td>
<td>0.301</td>
</tr>
<tr>
<td>30 – 34</td>
<td>33</td>
<td>195</td>
<td>0.195</td>
</tr>
<tr>
<td>35 – 39</td>
<td>26</td>
<td>197</td>
<td>0.197</td>
</tr>
<tr>
<td>40 – 44</td>
<td>6</td>
<td>67</td>
<td>0.067</td>
</tr>
<tr>
<td>45 – 49</td>
<td>3</td>
<td>37</td>
<td>0.037</td>
</tr>
</tbody>
</table>
### Table 4.1: Age Group Distribution of Live Births per 1000 Women

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Live births per 1000 women</th>
<th>Adjusted S.F.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 – 19</td>
<td>6</td>
<td>36</td>
<td>0.036</td>
</tr>
<tr>
<td>20 – 24</td>
<td>38</td>
<td>187</td>
<td>0.187</td>
</tr>
<tr>
<td>25 – 29</td>
<td>52</td>
<td>301</td>
<td>0.301</td>
</tr>
<tr>
<td>30 – 34</td>
<td>33</td>
<td>195</td>
<td>0.195</td>
</tr>
<tr>
<td>35 – 39</td>
<td>26</td>
<td>197</td>
<td>0.197</td>
</tr>
<tr>
<td>40 – 44</td>
<td>6</td>
<td>67</td>
<td>0.067</td>
</tr>
<tr>
<td>45 – 49</td>
<td>3</td>
<td>37</td>
<td>0.037</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>1.020</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from own Fieldwork data

#### 4.3 Results of stepwise multiple regression model

The study sought to investigate the influence of cultural and socio-economic constraints in Ndhiwa district that had significant impact on contraceptive use. A step-wise multiple regression analysis was performed and nine variables: polygamy, religious preference, son preference, infant / child mortality, quality of family planning services, respondents’ level of education, misconceptions and fears of side effects, accessibility to contraceptives and spouses’ perception on contraception were considered while the dependent variable was utilization of contraceptives. The findings are as shown in Table 4.2.

**Table 4.2: Model summary of the stepwise multiple regression**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.448(\text{a})</td>
<td>.200</td>
<td>.195</td>
<td>.445</td>
</tr>
<tr>
<td>2</td>
<td>.517(\text{b})</td>
<td>.268</td>
<td>.259</td>
<td>.427</td>
</tr>
<tr>
<td>3</td>
<td>.549(\text{c})</td>
<td>.302</td>
<td>.289</td>
<td>.418</td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)

a. Predictors: (Constant), Spouses’ perception on Contraception
b. Predictors: (Constant), Spouses’ perception on Contraception, Accessibility to contraceptives

c. Predictors: (Constant), Spouses’ perception on Contraception, Accessibility to contraceptives, Infant / child Mortality

The predictor variables in the model were Spouses’ perception on Contraception, accessibility to contraceptives and Infant / child Mortality. The stepwise multiple regression output clearly reveal that the value of the $R^2$ (multiple coefficient of determination) is 30.2 per cent. This indicated that over 30.2 per cent of the total variance in the dependent variable is accounted for by the combination of the three variables (Table 4.2). The stepwise multiple regression model eliminated the other six variables, respondents level of education, misconceptions and fears of side effects, polygamy, respondent's religious preference, respondent's son preference and quality of family planning services (Table 4.4).

**Table 4.3: Evaluation of each predictor variables to the prediction of the dependent variable**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.757</td>
<td>0.111</td>
<td>6.838</td>
</tr>
<tr>
<td></td>
<td>Spouses’ perception on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contraception</td>
<td>0.443</td>
<td>0.070</td>
<td>0.488</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>1.386</td>
<td>0.195</td>
<td>7.111</td>
</tr>
<tr>
<td></td>
<td>Spouses’ perception on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contraception</td>
<td>0.364</td>
<td>0.070</td>
<td>0.367</td>
</tr>
</tbody>
</table>
The independent variables were entered into the model once. The results in Table 4.3 reveal how the set of variables is able to predict contraceptive use, and how much unique variance each of the independent variables explain in the dependent variable over and above the other independent variables included in the set. Interpretation was based on the standardized coefficients in Table 4.3 to ascertain the contribution of each predictor variable to the prediction of the dependent variable using the beta values. The stepwise regression output in the table above indicates that the most important single predictor variable of contraceptive use was the spouses’ perception on contraceptive use. The multiple coefficient of determination (r²) for this variable is 0.200, (Table 4.2), indicating that 20 per cent of the variation in contraceptive use is accounted for by the spouses’ perception on contraceptive use. Its beta weight is 0.448 and is statistically significant (t = 6.370).

The next important variable is accessibility to contraceptives. The multiple coefficient of determination (r²), when both spouses’ perception on contraceptive and accessibility to contraceptives are included in the regression, is 0.268, (Table 4.2), indicating that over 26.8 per cent of the total variation in contraceptive use is accounted for by the combination of the
spouses’ perception on contraception and accessibility to contraceptives. Its beta weight is -0.272 and is statistically significant (t = -3.850). The addition of the independent variable, accessibility to contraceptives, adds 6.8 per cent additional explained variance in contraceptive use.

Infant / child mortality is introduced in the final step. The multiple coefficient of determination (r2), when the spouses’ perception on contraception, accessibility to contraceptives and infant / child mortality are included in the model, is 0.302, (Table 4.2). This shows that the three variables account for about 30.2 per cent in the variation in contraceptive use. The addition of the independent variable, infant / child mortality, adds 3.4 per cent additional explained variance in contraceptive use. It is statistically significant (t = -2.791). Its beta weight is -2.791. The sizes of the beta weights in the regression model indicate the relative importance of each independent variable. The larger the absolute value of beta weight, the more important the contribution of the independent variable. The beta weights show that much of the variation in contraceptive use is caused by spouses’ perception on contraceptive use followed by accessibility to contraceptives and then finally infant / child mortality.

Table 4.4: Standardized coefficients of the stepwise multiple regression for excluded variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents level of education</td>
<td>.140c</td>
<td>1.720</td>
<td>.087</td>
</tr>
<tr>
<td>Misconceptions and fears of side effects</td>
<td>-.094c</td>
<td>-1.321</td>
<td>.188</td>
</tr>
<tr>
<td>Polygamy</td>
<td>-.121c</td>
<td>-1.784</td>
<td>.076</td>
</tr>
<tr>
<td>Respondent’s religious preference</td>
<td>.056c</td>
<td>.835</td>
<td>.405</td>
</tr>
<tr>
<td>Respondent’s son preference</td>
<td>.073c</td>
<td>1.108</td>
<td>.269</td>
</tr>
</tbody>
</table>
Table 4.4 shows multiple stepwise regression analysis demonstrating the excluded variables. The beta values for respondents level of education, misconceptions and fears of side effects, polygamy, respondent's religious preference, respondent's son preference and quality of family planning services was .140, -.094, -.121, .056, .073, and .077 respectively. These beta values were very low indicating that they made very less of a unique contribution to explaining the dependent variable hence excluded in the model. The excluded variables had significant values greater than .05 (Table 4.4), therefore, the variables did not make a unique and statistically significant contribution to the prediction of barriers to utilization of contraceptives and hence left out of the multiple stepwise regression model.

4.4 Cultural barriers to utilization of contraceptives

4.4.1 Relationship between polygamy and contraceptive use in Ndhiwa district

The statistical analysis using Chi-square test shows that there was a significant relationship between type of marriage and contraceptive use. Since p-value (0.001) is less than the statistical significance, (0.01), the null hypothesis stated is thus rejected. Hence, there is a significant relationship between contraceptive use and type of marriage. The results of this analysis underscore the previous studies in Kenya by Ezeh (1997). Wives symbolized wealth – both in terms of the man’s ability to provide bride wealth for several women, and increased labour provided by women and children that enhances the family wealth while ensuring a continued lineage.

Table 4.5: Chi-square test for relationship between contraceptive use and type of marriage
Concerning type of marriage, findings indicate that 55 and 109 respondents were in polygamous and monogamous marriages. Table 4.6 shows that only 40 per cent of the married women in polygamous unions used contraceptives while 60 per cent did not use contraceptives within respondents type of marriage. Most of the women in monogamous unions, 66.1 per cent embraced the use of contraceptives within type of marriage as compared to 33.9 per cent who did not use contraceptives. However, a similar study in Malawi by Baschieri et al, (2013) revealed that women in polygamous marriages were less likely than those in monogamous marriages to use contraceptives. The polygamous men tended to be married to men who had not gone to primary school and who desired more children than monogamous couples and thus may reduce women’s motivation to practice contraception.

A regression analysis carried out revealed a significant relationship between woman’s marriage type and utilization of contraceptives. Therefore, type of marriage was a predictor variable (Table 4.2).

Table 4.6: Cross-tabulation of respondents’ utilization of contraceptives and type of marriage

<table>
<thead>
<tr>
<th>Respondents Utilization of Contraceptives</th>
<th>Polygamy</th>
<th>Monogamy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>22(40.0%)</td>
<td>72(66.1%)</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)
<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>33(60.0%)</th>
<th>37(33.9%)</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>55(33.5%)</td>
<td>109(66.5%)</td>
<td>164</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)

One male village elder discussant pointed out:

“... polygamy is a cultural practice that ensures rise of many children in a family and this ensures some sense of security in terms of children in case some children die. Therefore it should not permit utilization of modern contraceptives that champion for fewer children.”

Polygamy being viewed as part of the community’s culture and tradition would not therefore require use of contraceptives. This is because most of these contraceptives are products of modern technology and people believe that modernity cannot be mixed with traditions. Furthermore, traditions demand families to have as many children as possible as these would be a sense of security to the family in case some children die.

4.4.2 Relationship between religion and contraceptive use in Ndhiwa district

Table 4.8 cross-tabulate respondents’ religious preference and how their religion promotes use of contraceptives by their members.
Table 4.7: Cross tabulation of respondents utilization of contraceptives and respondents’ religious preference

<table>
<thead>
<tr>
<th>Respondents utilization of contraceptives</th>
<th>Respondents Religious Preference</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Catholic</td>
<td>Protestant</td>
</tr>
<tr>
<td>Yes</td>
<td>17 (58.6%)</td>
<td>61 (63.5%)</td>
</tr>
<tr>
<td>No</td>
<td>12 (41.4%)</td>
<td>35 (36.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>29 (100%)</td>
<td>96 (100%)</td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)

It is evidenced from the table 4.7 above that protestant church was recorded to have the highest percentage number of women using the contraceptives that is 63.5 percent. Women in Muslim religion recorded the least number in terms of contraceptive use that is 31.8 percent as shown in the table 4.7 above. Catholic Church recorded 58.6 percent of women using contraceptives while African Independent Churches recorded 52.9 percent of women using contraceptives.

Table 4.8: Chi-square test for relationship between contraceptive use and religion

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.521a</td>
<td>3</td>
<td>.057</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)
Respondents type of religion showed no statistically significant relationship with contraceptive use p≥ 0.01 (df=3, p=p.057) as shown in table 4.8.

A priest from the Catholic argued that:

“... it is viewed as a sin by Catholic Church if one uses contraceptives. This is because the Bible says that God wanted man to multiply and fill the earth and therefore all sexual acts are meant for procreation.”

His counterpart, a Muslim cleric, supported this view:

“... moreover, use of contraceptives implies murder. This is because contraceptive stops conception of children who would otherwise be conceived as per the wish of Allah the Creator. Therefore, those who use contraceptives are sinners and more so murderers who are likely to face judgment in the end.”

Similarly, a Protestant church pastor voiced:

“... contraceptives help in controlling unwanted pregnancies quite rampant among married couples of modern day. It is more or less the same as the natural ways of birth control such as abstinence and safe days. Therefore it is acceptable as it helps families plan appropriately for their future.”

From the above discussion, it is evident that the Catholic and Muslim religion do not accept the use of contraceptives though some of their members embrace the use of contraceptives. The churches believe that the use of contraceptives is a sin more so murder. Therefore, it goes against the will of God and Allah. On the other hand, the protestant church appears to accept the use of contraceptives as it helps families give birth to children they can provide for.

Table 4.9: Respondent’s religious preference and religion reason against contraceptives
| Source: Compiled from research data (2013) |

Table 4.9 shows descriptive statistics of frequencies and percentages for the various religions, namely Catholics, Muslims, Protestant and African Independent Churches reasons against the utilization of contraceptives. The Catholics believed that all sexual acts were for procreation, while the Muslims said that the Quran states that it is against God’s will to use contraceptives, thus hindering them from using contraceptives. The stepwise multiple regression analysis performed indicated that the variable, religion, was not a predictor variable, hence no significant relationship between utilization of contraceptives and religion.
4.4.3 Relationship between son preference and contraceptive use in Ndhiwa district

Table 4.10: Chi-square test for relationship between contraceptive use and son preference

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.116a</td>
<td>2</td>
<td>.347</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)

Table 4.10 show chi-square test results that sought to determine son preference and contraceptive use. Since p-value (0.347) is more than the statistical significance value, (0.01), \( p \geq 0.01 \) (df=2, p=0.347), we accepted the null hypothesis and concluded that there was no significant relationship between son preference and contraceptive use, contrary to Kamal and Islam (2010) and Brunson (2010). Brunson (2010) concluded that son preference remains strong in among women in Nepali culture due to pressure from their society, community and family to produce sons. The stepwise multiple regression analysis carried out revealed that the proportion of variance in the dependent variable (contraceptive use), 39 per cent, was not predicted from one of the independent variables, son preference, entered into the model. This signifies that son preference was not among the predictor variables.

Descriptive statistical analysis of frequencies and percentages shows that 120 of the women respondents preferred either male or female child gender preference (table 4.11). This is because they regarded children as the same and God given. 26 preferred males whom they see as important in the continuity of the family name and as heirs, while 18 preferred the females because they believed that females were more responsible and could help parents more than the males (table 4.11).
Table 4.11: Cross tabulation of respondent’s child gender preference and reasons for child gender preference

<table>
<thead>
<tr>
<th>Child Gender preference</th>
<th>Reasons for child gender preference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family stability</td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
</tr>
<tr>
<td>Either</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Compiled from research data (2013)

One male village elder, a discussant, explained:

“... in today’s society, economic resources have become very scarce unlike in the olden days. Bringing up children involves not only feeding and clothing them but also medication and education. This poses a challenge to us parents. Consequently, many parents now prefer to have just the number of children that they can comfortably take care of, irrespective of their sex. A family that manages to get three daughters would stop at that if that is the number they can bring up comfortably. This is opposed to what used to happen earlier where such a couple would keep on begetting more children in the hope of...
getting sons. We have realized that children are just children, whether boys or girls. What counts is that they should be brought up to become productive members of society.”

From the discussion above, it comes out clearly that, in today’s society, parents have no real issues about the sex of their children. What matters most to them is the ability to mentor these children unto people who can contribute meaningfully to the development of society. They have become appreciative of the girl child as well.

4.5 Socio-economic barriers to utilization of contraceptives

4.5.1 Relationship between quality of family planning services and contraceptive use in Ndhiwa district

Descriptive statistic analysis using frequency and percentages shows high family planning awareness knowledge of 95.1 per cent while only 4.9 per cent of the women interviewed had no idea of what contraceptives were and therefore, have not heard of any modern method of family planning (Table 4.12).

Table 4.12: Knowledge of family planning among respondents

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>156</td>
<td>95.1</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Figure 4.0: Type of contraceptive in current use
Figure 4.1 shows a bar chart for the type of contraceptive in current use. The percentage analysis shows that majority of the women, 70.21 per cent were using injection. 13.83 per cent, 6.38 per cent and 4.26 per cent of the women in Ndhiwa district used pills, condom and intra uterine device respectively (Figure 4.1). The statistics presented in figure 4.1 show that very few women were using contraception methods such as implant and female sterilization both at 2.13 per cent. No respondent was using diaphragm, douche, spermicidal jelly, withdrawal and herbs.

The percentages from the study also demonstrate that injection, pills and condom, were the most widely known and available methods of contraception in Ndhiwa district at 92.7 per cent, 89.0 per cent and 75.6 per cent respectively (Table 4.13).

The implications of the findings above therefore suggest that the Government, Non-Governmental Organizations and private sectors through local leaders should create awareness on the other contraceptive methods not known to the society. This would make the society to
have a variety of methods to choose from apart from injection and pills that are majorly used by the representative of the majority.

**Table 4.13: Knowledge on contraception methods in Ndhiwa district**

<table>
<thead>
<tr>
<th>Contraception Method</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pills</td>
<td>146</td>
<td>89.0%</td>
</tr>
<tr>
<td>Injection</td>
<td>152</td>
<td>92.7%</td>
</tr>
<tr>
<td>Condom</td>
<td>124</td>
<td>75.6%</td>
</tr>
<tr>
<td>Diaphragm, douche, jelly</td>
<td>12</td>
<td>7.3%</td>
</tr>
<tr>
<td>Intra uterine device (IUD)</td>
<td>56</td>
<td>34.1%</td>
</tr>
<tr>
<td>Female sterilization</td>
<td>36</td>
<td>21.9%</td>
</tr>
<tr>
<td>Male sterilization</td>
<td>26</td>
<td>15.8%</td>
</tr>
<tr>
<td>Herbs and roots</td>
<td>25</td>
<td>15.2%</td>
</tr>
<tr>
<td>Prolonged Breastfeeding</td>
<td>67</td>
<td>40.9%</td>
</tr>
<tr>
<td>Implant / Inplant</td>
<td>36</td>
<td>21.9%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>8</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

*Source: Compiled from Research Data (2013)*

There was little awareness of female sterilization, male sterilization, implant / inplant, douche, intra uterine device (IUD), diaphragm and spermicidal jelly as depicted in Table 4.13. This limited awareness leads to decreased opportunity for individual couples to use a method that suits them. The limited knowledge on contraception methods therefore suggest that the greater number of contraceptive methods not known to the Ndhiwa district society leads to low utilization of these methods. The results of this analysis confirm the findings of previous studies by Magadi and Curtis (2003) and Ross et al. (2001). They found out that availability of a wide
choice of contraceptives methods increased overall contraceptive prevalence and the opportunity for individual couples to obtain a method that suits their needs.

Table: 4.14 Respondents reason for using contraceptives

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Spacing</td>
<td>83</td>
<td>50.6</td>
</tr>
<tr>
<td>Health of the mother</td>
<td>8</td>
<td>4.9</td>
</tr>
<tr>
<td>Fertility limitation</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Not applicable</td>
<td>70</td>
<td>42.7</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.14 provides reasons for using contraceptives. It is evident from the table that, most women, 83 (50.6 per cent) used contraceptives for birth spacing. Only 8 percent and 3 per cent respectively, used contraceptives for health reasons and for fertility limitation. While 42.7 per cent of married women respondents’ in Ndhiwa district did not use contraceptives. The result analysis clearly reveals a large unmet need for both birth spacing and fertility limitation among women respondents interviewed. This clearly indicates that women in Ndhiwa tend to want to postpone rather than limit childbearing.

Data from the field shows that 51 (31.1 per cent) of the women respondents were provided with adequate information on side effects and importance of contraceptives. However, 65 (39.6 per cent) of the women interviewed were not provided with any information on side effects and importance of use of contraceptives (Table 4.15).
Table 4.15: Adequacy of information on side effects and importance of use of contraceptives

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>65</td>
<td>39.6</td>
</tr>
<tr>
<td>Little</td>
<td>48</td>
<td>29.3</td>
</tr>
<tr>
<td>Adequate</td>
<td>51</td>
<td>31.1</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.16 shows sources of information through which the respondents learnt of contraceptive methods. It reveals that hospital / clinic, radio and friends were the most common sources of information through which women knew contraceptive methods. These registered 43.9 per cent, 18.3 per cent and 17.1 per cent, respectively. The media; radio, television, newspapers and magazine were generally been effective and accessible to the public. The study revealed that the mass media had provided reliable information and organized campaigns aimed at persuading women to use contraceptives. Similarly, family planning services had also been provided by hospitals to the clients and potential users. Parents and television were the least sources of information to women in knowing about the contraceptive methods as they recorded 1.2 per cent and 0.6 per cent respectively. The results of this study confirm the findings of previous studies by Paek et al. (2008). The researchers found out that exposure to mass media at the community were significantly associated with family planning in Uganda. They hypothesized that mass media facilitates greater interpersonal communication and allows for increased dissemination of information.
Table 4.16: Source of information through which the knowledge about contraceptive methods reached the women

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Mother</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Radio</td>
<td>30</td>
<td>18.3</td>
</tr>
<tr>
<td>Informal discussions</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td>Hospital / Clinic</td>
<td>72</td>
<td>43.9</td>
</tr>
<tr>
<td>Educational seminars</td>
<td>7</td>
<td>4.3</td>
</tr>
<tr>
<td>School</td>
<td>7</td>
<td>4.3</td>
</tr>
<tr>
<td>Friends</td>
<td>28</td>
<td>17.1</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>8</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

From table 4.16 compiled, it is recorded that hospital/ clinic and radio lead in providing knowledge to the women about contraceptives as they recorded higher percentages that is 43.9 per cent and 18.3 per cent as compared to the rest of the sources of information. This was possibly because hospital / clinic and radios are more accessible and reliable compared to the other sources mentioned above.

However, other sources of information such as television, mother, newspaper, informal discussions, educational seminars, schools and friends provided lower percentage of information
about contraceptives possible because they are less reliable and less accessible as compared to hospital and radio.

**Table 4.17: Chi-square test for relationship between contraceptive use and quality of family planning services**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.380</td>
<td>2</td>
<td>.003</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Compiled from Research Data (2013)*

Pearson Chi-square correlation test was carried and showed that there was a significant relationship between contraceptive use and quality of family planning services \(p \leq 0.01\) (df=2, \(p=0.003\)), Table 4.17. This implies that as the quality of family planning services improved and went high, there was likelihood that more women would adopt contraceptive use. However, the idea had less support as stepwise multiple regression analysis model eliminated the quality of family planning services. It was therefore not amongst the predictor variables (Table 4.2).

### 4.5.2 Relationship between misconceptions and fears of side effects and contraceptive use

The study indicates that 84.8 per cent of the sample women interviewed were aware of the side effects of the contraceptives while 15.2 per cent of the sample women interviewed was unaware of the side effects of the contraceptives. Figure 4.2 shows a cross tabulation between awareness of side effect and respondents utilization of contraceptives.
Figure 4.1: Cross-tabulation of respondents’ utilization of contraceptives and awareness of side effects

![Bar chart showing respondents' utilization of contraceptives and awareness of side effects]

Source: Compiled from Research Data (2013)

The data above about cross-tabulation of respondents’ utilization of contraceptives and awareness of side effects shows the following results; 60.4 per cent who were aware of the side effect were using contraceptives compared to 39.6 per cent who were aware of the side effect and did not use contraceptives within awareness of side effect. Among the women who were not aware of the side effect, 40.0 per cent had been using contraceptives while 60.0 per cent had not been using contraceptives within respondents’ awareness of side effect in Ndhiwa district (Figure 4.2).
Figure 4.2: Proportion of contraceptives that cause side effects

Source: Compiled from Research Data (2013)

Figure 4.2 above shows proportion of contraceptive methods that cause side effects. Injection and pills were the methods of contraceptives that had bigger percentage of side effects at 66.2 per cent and 23.7 per cent respectively, while intra uterine device, condom and female sterilization had comparatively smaller percentage of side effects at 7.9 per cent, 1.4 per cent and 0.7 per cent respectively.

Figure 4.3 shows percentage level of side effects experienced among women respondents. Side effects that were perceived to be major included irregular menstrual cycle, weight gain and increased menstrual bleeding at 20.7 per cent, 17.7 per cent and 14.0 per cent, respectively (Figure 4.3).
The one female elder who was a member of the community-based organization pointed out:

“... there is a general feeling amongst women who use the contraceptives that there are some known side effects of the contraceptives manifested in newborn babies and the women themselves. For example, irregular menstruation, weight gain and severe bleeding have been evident as side effects in some women who use some of these contraceptives especially pills and injection. Giving birth to partially deformed babies especially on the head is another side effect reported by some mothers who use contraceptives.”
From the discussant, it is revealed that there are some side effects associated with the use of contraceptives especially pills and injection. For example weight variations, irregular menstruation and severe bleeding is evident as the side effects amongst women who use the contraceptives especially pills and injection. On the other hand, women who use these contraceptives claim to have given birth to deformed babies and this is attributed to the use of these contraceptives especially pills and injection.

About 37.8 per cent, 22.6 per cent and 18.9 per cent of the women interviewed respectively, indicated that friends, health personnel (providers) and oneself respectively were the major source of information on side effects attributed to the use of contraceptive methods (Table 4.18).

**Table 4.18: Source of information of side effect attributed to contraceptive use**

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>62</td>
<td>37.8</td>
</tr>
<tr>
<td>Books</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Mass media e.g radio</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Health personnel (Provider)</td>
<td>37</td>
<td>22.6</td>
</tr>
<tr>
<td>Oneself</td>
<td>31</td>
<td>18.9</td>
</tr>
<tr>
<td>Mother</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>None</td>
<td>25</td>
<td>15.2</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Compiled from Research Data (2013)*
Table 4.19: Chi-square test for relationship between contraceptive use and misconceptions and fears of side effects of the contraceptive use

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.094a</td>
<td>1</td>
<td>.148</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.19 shows chi-square test results that sought to determine the misconceptions and fears of side effects. The results show that there was no significant relationship between misconceptions and fears of side effects and contraceptive use $p \geq 0.01$ (df=1, $p=0.148$). The study therefore justifies the null hypothesis that stated, “there was no significant relationship between contraceptive use and misconceptions and fears of side effects”. This was further supported by the stepwise multiple regression analysis which revealed that the proportion of variance in the dependent variable (contraceptive use), 39 per cent was not predicted from one of the independent variables, misconceptions and fears of side effects, entered in the model. Therefore, misconceptions and fears of side effects of contraceptives were not amongst the predictor variables (Table 4.2). The findings of this study refute other previous findings by Ejiougu (1996), Inaoka et al. (1999) and Weldegerima and Denekew (2008) that found a significant relationship between contraceptive use and misconceptions and fear of side effects. They revealed that the perceived side effects included excessive bleeding, weight gain, cancer risk and problems associated to menstrual cycle that kept potential adopters away.
4.5.3 Relationship between accessibility to contraceptives and contraceptive use in Ndhiwa district

Table 4.20: Chi-square test for relationship between contraceptive use and accessibility to contraceptives

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>23.686</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.20 shows that there was significant relationship between accessibility to contraceptives and contraceptive use $p \leq 0.01$ (df=1, $p=0.001$). Findings from the field therefore indicate that in the district, economic status of the families influenced the utilization of contraceptives (table 4.21).

The one male professional discussant commented:

"... most of the health facilities are still situated out of the reach of many families that reside at least 10 kilometres from these health institutions with family planning services. Because most of these families still live under poverty line of below one US Dollar per day, they certainly find it difficult to access the family planning services found in these far-off health institutions offering contraceptives. The distance would require use of vehicles or motorbikes that are supposed to be boarded by use of money. Unfortunately, these families lack money as they are just peasants who depend on purely subsistence farming for living."
From the discussant, it is reported that due to the fact most of the families still live in abject poverty coupled with long distance of at least 10 kilometres that one has to cover to reach the nearest health institution with family planning services, it makes accessibility to these contraceptives difficult. In addition, these families lack money to board public transport on their way to obtain contraceptives. All these barriers prevent the women from accessing these family planning services with ease.

Table 4.21: cross tabulation of respondents utilization of contraceptives and economic level of the household

<table>
<thead>
<tr>
<th>Respondents Utilization of Contraceptives</th>
<th>Economic Level of Household</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low-income Households (&lt; Kshs 6000 per month)</td>
<td>Middle-Income Households, (Kshs 6,000 - 30,000 per month)</td>
</tr>
<tr>
<td>Yes</td>
<td>13 (27.7%)</td>
<td>81 (69.2%)</td>
</tr>
<tr>
<td>No</td>
<td>34 (72.3%)</td>
<td>36 (30.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>47 (100%)</td>
<td>117 (100%)</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Survey data indicate that out of all the respondents sampled in Ndhiwa district, 47 and 117 were from low-income households and middle-income households, respectively (Table 4.21). It is evident from the table that, 27.7 per cent and 69.2 per cent of women from low and middle-income households, respectively used contraceptives. The study reveals that the local
pharmacies and family planning clinics were not within travel distance. Securing transportation to obtain contraceptives was an obstacle as most women walked very long distances of over 10 kilometers, before reaching the pharmacies and clinics. This was attributed to high poverty levels among the households, as most women did not have adequate finances to access family planning services.

Figure 4.4: Respondents having health center with contraceptives services within reasonable distance of less than ten kilometers

It is evident from figure 4.5 above that 22.6 percent of the respondents had difficulty in accessing contraceptive services with the fact that the health facilities with these contraceptive services were not within reasonable distance of less than 10 kilometres. 72.6 per cent of the respondents accepted the fact that they were having health centres with contraceptive services
within reasonable distance of less than 10 kilometres. Only 4.9 per cent of the respondents had limited knowledge of the existence, location and availability of the health centres with contraceptive services.

**Figure 4.5: Means used to reach health centre / clinic having contraceptives**

![Bar chart showing means of transport to family planning clinics](chart.png)

**Source: Compiled from Research Data (2013)**

In figure 4.6 above, it clearly reveal that 62 respondents used trekking as their means of transport to the clinics in order to obtain contraceptives. This limited the women’s access to contraceptives as they lived far away from the clinics with contraceptives. On the other hand, 25 respondents employed motorbikes in order to access contraceptives from clinics. Five respondents boarded or cycled bicycles to the clinics to obtain contraceptives. Only two
respondents could afford to board vehicles to the clinics on their way to obtain contraceptives. As Dickinson et al. (2010) and Campbell et al. (2006) found out, women who live furthest from clinics use contraceptives less than those who easily access them.

4.5.4 Relationship between respondents’ level of education and contraceptive use in Ndhiwa district

Table 4.22: Cross tabulation of respondents utilization of contraceptives and respondents level of education

<table>
<thead>
<tr>
<th>Respondents Utilization of Contraceptives</th>
<th>Respondents Level of Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Formal Education</td>
<td>Primary Education</td>
</tr>
<tr>
<td>Yes</td>
<td>3 (17.6%)</td>
<td>48 (59.3%)</td>
</tr>
<tr>
<td>No</td>
<td>14 (82.4%)</td>
<td>33 (40.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>17 (10.4%)</td>
<td>81 (49.4%)</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

The above cross-tabulation of respondents’ utilization of contraceptives and the respondents level of education reveals that 10.4 per cent of the respondents had no formal education, majority of the women, 49.4 per cent, had primary education, 25.6 per cent of the respondents had secondary education while only 14.6 per cent attained tertiary level of education. Contraceptive utilization rate for women with no formal education, primary level of education, secondary level of education and tertiary level of education were; 17.6 per cent, 59.3 per cent,
64.3 per cent and 66.7 per cent respectively. Tertiary and secondary level of the respondents’ education translated into more contraceptive usage.

Table 4.23: Chi-square test for relationship between respondents’ level of education and contraceptive use in Ndhiwa district

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.752</td>
<td>3</td>
<td>.005</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.23 shows Chi-square test result on the level of education and contraceptive use. It may be observed a significant relationship exists between the level of education and contraceptive use \( p \leq 0.01 \) (df=3, \( p=0.005 \)). Increases in women’s educational attainment, were consistently associated with a greater likelihood of using a contraceptive method (Casterline, 2001). This may point to the role that education plays in expanding women’s networks and allowing them to build greater social capital. Other studies and similar findings are reported by Westoff and Cross (2006) and Caldwell and Caldwell (2003).

4.5.5 Relationship between infant / child mortality and contraceptive use in Ndhiwa district

The study to test the null hypothesis was done to determine the relationship between infant / child mortality and contraceptive use in Ndhiwa district. Table 4.24 reveals that there was a significant relationship between infant / child mortality and contraceptive use \( p \leq 0.01 \) (df=1, \( p=0.001 \)). Therefore, contraceptive use was dependent on infant / child mortality in Ndhiwa district as shown and explained further in table 4.24.
Table 4.24: Chi-square test for relationship between contraceptive use and infant / child mortality

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.919*a</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Casesb</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Table 4.25: Cross-tabulation of respondents’ utilization of contraceptives and infant / child mortality influence on the respondents’ usage of the contraceptives

<table>
<thead>
<tr>
<th>Respondents Utilization of Contraceptives</th>
<th>Infant and Child Mortality</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>10 (27.0%)</td>
<td>84 (66.1%)</td>
</tr>
<tr>
<td>No</td>
<td>27 (73.0%)</td>
<td>43 (33.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>37 (100.0%)</td>
<td>127 (100.0%)</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

It is evident that women who have experienced infant / child mortality cases tend not to use contraceptives. Cross-tabulation of respondents’ utilization of contraceptives and child / infant mortality influence on the respondents’ usage of the contraceptives in table 4.25 above shows that a bigger percentage of women who have experienced infant / child mortality, 73 per cent,
preferred not to use contraceptives while smaller percentage, 27 per cent, preferred using the contraceptives. This was because most of these women who have experienced infant / child mortality believe that contraceptives may lead to childlessness and small family size.

A larger number of women, 66.1 per cent, do not see the relationship between contraceptive use and infant / child mortality. Therefore, they continued to use contraceptives given the fact that they have not experienced infant / child mortality hence no fear of being childless and having small family size (table 4.25). However, smaller percentage, 33.9 per cent of the women who have not experienced infant / child did not use contraceptives.

Table 4.26: Average total fertility rate among the respondents

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>TFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children Ever Born (CEB)</td>
<td>164</td>
<td>5.100</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>164</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

The total fertility rate among the sampled respondents averaged 5.100 (Table 4.1). This was closely associated with low educational levels and low use of contraceptives. Table 4.26 reveals that most of the women are very prolific and they tend to have more than five children. This was because of ignorance on the importance of smaller families.

The survey sample revealed that the communities in Ndhiwa district still cling to traditions and customs that encourage large family size. A large percentage of women, 68.3 per cent, interviewed stated that the community still preferred large family size while 31.7 per cent stated small family size (Table 4.27). Consequently, a large percentage of women, 68.9 per cent, would still want to have more children (Table 4.28).
Table 4.27: Family size liked in the community

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>52</td>
<td>31.7</td>
</tr>
<tr>
<td>Large</td>
<td>112</td>
<td>68.3</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

A further survey of a sample of 164 respondents who already had between three and four children revealed that many of them still wanted to have more children. This proportion translated to 68.9 per cent. The majority of this proportion who still wanted more children would not welcome contraceptive use, as this would interfere with their desire to have more children. The other proportion, translating to 31.1 per cent were contented the number of children they already had (Table 4.28).

Table 4.28: Proportion of respondents who would still want to have more children

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>113</td>
<td>68.9</td>
</tr>
<tr>
<td>No</td>
<td>51</td>
<td>31.1</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

From table 4.29, it is evidenced that family sizes of 2, 3, 4, 5 and 6 are majorly preferred because these number of children are believed to be easy to educate and bring up, while the
larger family sizes of more than 6 children and God gives are mostly preferred for they help in family duties and roles. A few respondents’ also gave reasons such as being manageable in number, fear of death and existence of families. It is evident therefore; that most parents are ignorant concerning the ideal family size hence they are highly prolific.

Table 4.29: Cross tabulation of preferred family size and reason for preferred family size

<table>
<thead>
<tr>
<th>Preferred family size</th>
<th>Reason for preferred family size</th>
<th>Existence of family</th>
<th>Easy to educate and bring up</th>
<th>Help in family duties and roles</th>
<th>Manageable number</th>
<th>Fear death</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3</td>
<td>21</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>2</td>
<td>32</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
<td>19</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>&gt; 6</td>
<td></td>
<td>3</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>God gives</td>
<td></td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15</td>
<td>95</td>
<td>21</td>
<td>20</td>
<td>13</td>
<td>164</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

One female village elder, a discussant, showed an understanding of infant / child mortality and contraceptive use:

“... in this society child mortality is still very high. Many couples especially the very poor ones have not embraced contraceptive use that would result to proper spacing of their
children. For the poor, the only form of entertainment at their disposal is sex. This leads to unplanned births. Again, in the event that a child dies at the infant stage, the couple would immediately get another one for fear of becoming childless. All these factors are crowned by the traditional requirement that a couple recruits many members into the society through birth. When children are born one after the other, the poor parents are not able to take proper care of them. Hence many of them die within their first five years of life.”

The above discussant reveals that infant mortality is still quite prevalent in Ndhiwa district. He attributed this to several factors such as lack of contraceptive use. In the rural areas particularly, contraceptive use is still surrounded by many myths. Some ignorant couples even believe that children born after stopping the use of contraceptives would be deformed. This is not true. Another factor raised is the unplanned sex among married couples, leading to unplanned pregnancies hence unplanned births. This is because among the poor, sex is a form of entertainment hence it is not controlled or planned. Lack of proper spacing means that a couple may have two or three children under the age of five years. Such a couple, if poor, may not afford proper feeding and healthcare. This leads to death because of malnourishment and sickness. In the event that an infant dies, the parents feel threatened by the possibility of childlessness and opt to get another child the soonest possible as a replacement. Cleland and Bernstein (2006) clearly revealed that shorter spacing between births increases chances of foetal death because of non-use of family planning methods, low birth-weight, prematurity and or infant and child death. As NCPD (2012) concluded, three-year spacing after birth for another pregnancy helps reduce the child and maternal mortality rate. A three-year spacing between children ensures full breastfeeding, the best possible emotional and physical development of the child in relation to the rest of the family, and complete recovery of the mother from the effects one pregnancy and childbirth before starting another.
4.6 Relationship between perceptions of spouses on contraception and contraceptive use in Ndhiwa district

Table 4.30 shows that 24.4 per cent of the married women never discussed with their spouses about contraception. Majority of the women, 56.7 per cent occasionally discussed while 18.9 per cent often discussed contraception with their husbands.

Table 4.30: Cross tabulation of respondents utilization of contraceptives and how often spouses discuss about contraception

<table>
<thead>
<tr>
<th>Respondents Utilization of Contraceptives</th>
<th>How often spouses discuss about contraception</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Often</td>
<td>Occasionally</td>
</tr>
<tr>
<td>Yes</td>
<td>26 (83.9%)</td>
<td>54 (58.1%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5 (16.1%)</td>
<td>39 (41.9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31 (18.9%)</td>
<td>93 (56.7%)</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: Compiled from own Fieldwork data

One elderly woman discussant explained:

“... in the society women are required to submit to their husbands even when it comes to the use of contraceptives. Therefore, women usually have little or no say at all as they require directive from their husbands on matters pertaining to family planning especially use of contraceptives. Some women, who are already enlightened about the use of contraceptives and desire to use them, often do it secretly without their husbands’
knowledge. And in case those women are found out by their husbands, they are even beaten seriously by these husbands who view this idea of using contraceptives secretly as a sign of unfaithfulness, that could lead to acquisition of diseases and even lead to infertility.”

From this discussant, it is clearly revealed that women are still directed by their husbands who are opposed to the use of contraceptives due to their limited knowledge and misconceptions and fears of side effects of contraceptives. For example, the husbands have misconceptions and fears that the contraceptives may lead to infertility or even contraction of diseases.

Table 4.31: Chi-square test for relationship between contraceptive use and perceptions of spouses on contraception use

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.099</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>164</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Since p ≤ 0.01 (df=1, p=0.001) Table 4.31, there was a statistical significant relationship between spousal communication and contraceptive use. The null hypothesis was therefore rejected. More married women who either discussed contraception occasionally or often with their spouses used contraceptives more than those who never discussed contraception (Table 4.35). The results of this analysis confirm the findings of previous studies by Lasee and Becker (1997); Becker (1996); Biddlecom et al., (1997); Mahmood and Ringheim (1997); Omondi-Odhiambo (1997), that report that communication among spouses increases the utilization of contraceptives.
Table 4.32: Proportion of respondents’ spouses that embrace the use of contraceptives

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>78</td>
<td>47.6</td>
</tr>
<tr>
<td>No</td>
<td>86</td>
<td>52.4</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled from Research Data (2013)

Descriptive statistical analysis also shows that 52.4 percent of the respondents’ partners disapprove the use of contraceptives while only 47.6 percent approve and embrace the use of contraceptives. This proportional difference is evidence that some women were still denied access and use of contraceptives by their spouses (Table 4.32).
CHAPTER FIVE

5.0 Summary, conclusions and recommendations

This chapter summarizes the major findings derived from the study and makes the recommendations for appropriate interventions for increasing contraceptive use among the married women in Ndhiwa district. It also gives suggestions for further research on the issue of contraceptive use.

5.1 Summary of key findings

The study was undertaken to investigate the cultural and socio-economic factors affecting the utilization of contraceptives among the married women in Ndhiwa district, Homa Bay County, Kenya. For this purpose, the study analyzed the data from the primary source and focused group discussion. The sample size for the study was a total of 164 women respondents who were currently married. The study included nine independent variables. The socio-economic variables such as quality of family planning services, misconceptions and fear of side effects, accessibility barriers, level of education, infant / child mortality and spouses’ perceptions on contraceptive use. Moreover, other independent variables including cultural factors such as polygamy, religion and son preference, whereas the dependent variable were contraceptive use.

For explaining the position of contraceptive use, frequency distributions and cross tabulations had been used, whereas for assessing the impact of the independent variables on dependent variable, bivariate analysis of the Chi-square statistics and step-wise regression technique had been used.

From the Chi-square statistical analysis among the nine independent variables, six were found significant. These were quality of family planning services, accessibility to contraceptives, level of education, infant / child mortality, spouses’ perceptions and polygamy. The use of stepwise
regression model helped to identify three independent variables that were found predictor variables after controlling other variables and found significant hence related to contraceptive use. These were spouses’ perceptions on contraceptive use, accessibility to contraceptive services and infant / child mortality.

5.2 Conclusions

The following are some major findings observed from the analysis:

i) Sampled respondents had an average of 4.6 children. Most of the married women had desire for additional children. This finding reflects the intention to have large family size among the married women.

ii) Majority of the partners’ respondents disapproved the use of contraceptives. Moreover, most of the women respondents who had never discussed with their husband about contraception did not use contraceptives. The Chi-square statistic analysis showed a significant relationship of spouses’ perceptions on contraceptive use.

iii) It was evident from the study that infant / child mortality was related to low use of contraceptives. Most of the women who had experienced infant / child mortality did not use contraceptives.

iv) Quality of family planning services was found to have a significant effect on contraceptive use. Knowledge on contraception was very high and among the married women but on the same note contraceptive use is low among the married women.

v) The findings of the study showed that inaccessibility to contraceptive services also related to low use of contraceptives. Low-income households tend to have low utilization of contraceptives and larger families.
vi) The education and literacy level was very low among the married women respondents. Contraceptive use for women with no formal education and primary level of education was low in comparison to those married women respondents who had secondary and tertiary level of education. Low education negatively affect on contraceptive use while improved levels of education have a significant effect in reducing fertility, mortality, and high contraceptive prevalence rate.

vii) Polygamy was found to have a significant effect on current contraceptive use. This finding is unanticipated. It is possible that for women in polygamous marriages to utilize contraceptives. Nevertheless, if their need were hindered by other factors such as husbands’ disapproval, then these married women would have low utilization of contraceptives.

5.3 Recommendations

The following recommendations deal with (a) policy recommendations and (b) future research, to achieve further decline of fertility and increase utilization of contraceptives. On the basis of findings from the study, recommendations here for promoting contraceptive use among married women in Ndhiwa are:

1. Providing quality health, education and social services would be very difficult unless the households reduce their preference for large families. The policy makers and development planners could drastically reduce the desire for large family sizes through policies that aim to improve the status of women. Moreover, the Government, with the assistance of NGOs and private sector an organize formal and informal forums to sensitize families and households to reduce family size and on the benefits of small family sizes. Effective increase in contraceptive use can be realized in Ndhiwa district through these avenues.
2. The study points the need to improve the status of women through education. Low level of education is subject to change through intervention. Education has the potential to do away with traditional cultural values relating to contraception use. Policies for improved education for women, in terms of both quality and quantity of education facilities could be the key determinants for increasing contraceptive use in the long term.

3. The study adopts the recommendation of the NCPD (2012) that the Government incorporate leaders in family planning campaign programmes to reduce infant / child mortality. Religious leaders would provide informed counseling to families who seek advice on family size and birth spacing, using a multimedia presentation. The presentations would comprise of music, videos and animation to deliver positive, compelling and evidence based messages. With this, the community would benefit from the positive effects of the demographic change that would see families able to invest in health and education of every child. Parents should wait for at least three years after birth for another pregnancy so as to help reduce the child and maternal mortality rate. The lengthening of birth interval could be achieved by abstinence and prolonged breastfeeding. Other child survival activities include immunization, oral rehydration for diarrhoeal diseases and children be taken to the hospital whenever they fall sick. Moreover, expected mothers should be encouraged at all times to utilize the free maternal care services and deliver in health centre to reduce infant / child mortality.

4. The study adopts the recommendation of United Nations Population Fund (UNFPA), (1996) that family planning programmes should offer a variety of safe, effective, acceptable and affordable contraceptive methods. There needs to be a variety of methods from which people can choose the one best suited to their needs. Influencing efforts such as switching from short-term to long term methods, for example, less accepted methods like vasectomy and sterilization, especially among couples that have already had
children need to be encouraged by the family planning designers and implementers. Moreover, the Government, through the Ministry of Health in collaboration with development partners involved in the provision of family planning services need to enhance large training of service providers in quality care, client follow up, communication skills, counseling, referral and feedback and provision of a wide choice of methods. With good customer care, potential users of contraceptives will have confidence in the staff, which in the process will attract more users while at the same time encouraging further usage on those currently using them.

5. The study adopts the recommendation of Timothy et al., (2011) on the need to support Community Based Distribution of Family Planning services by the Government, NGOs and the Community Based Organizations (CBOs). The NGOs and need to support the services of community based distributors so that contraceptives could reach the undeserved who are the majority in rural areas. Family planning designers and implementers should ensure that contraceptives made available at an affordable cost to low-income earners. They should ensure that contraceptives are easily accessible in terms of the distance to the nearest hospital, clinic or health centre. If possible, mobile health clinics are availed so that these women with unmet need of family planning can receive the services at their doorstep. Moreover, the Government should find more alternative employment opportunities that include an increase in women’s jobs.

6. The Government through the local leaders and health professionals at the local centers could organize intensive awareness forums that encourage and enlighten men to be more involved and participate fully in family planning. This should encompass influencing men’s attitudes towards family planning to support and approve contraceptive use. Educational and enlightenment programmes should also focus on correcting common misconceptions about the methods of contraception. These leaders and health workers
need to address the social customs, beliefs and traditions such as polygamy that tend to devalue women and regard motherhood as the most desirable female role.

7. The goal of achieving high contraceptive prevalence rate and population related targets require a lot of funding and money. Consequently, the Government of Kenya should seek for more funding from the World Bank and Non Governmental Organizations donors such as Danish International Development Agency (DANIDA), Federal Republic of Germany (FRG) and Swedish International Development Agency (SIDA) that fund population related activities.

5.4 Recommendation for further research in the study area

There have been few studies investigating the factors influencing contraceptive use among women in Kenya. There is inadequate documentation considering the magnitude and importance of factors using self-ranking. Therefore, the study aimed to fill these gaps by studying the factors related to contraceptives use, as well as their magnitude and other influencing factors among couples. Similar study can be conducted in other parts of Kenya for the purpose of comparisons. To increase contraceptive prevalence rate across the country, further studies should be carried out concerning male involvement and contribution to utilization of family planning programmes. The role of women empowerment concerning contraceptive use should not be overlooked and ignored. Possible areas for research in Ndhiwa District could be:

1. An assessment of barriers to male involvement and participation in family planning programmes and negative perceptions of men on contraceptive use.

2. Assessment of women empowerment and its impact on decision making on utilization of contraceptives.

3. Further research into polygamy on the use of modern contraceptive methods is proposed.
REFERENCES


APPENDICES

Appendix 1: Questionnaire for local community

**General instructions:** This questionnaire is prepared for the purpose of collecting relevant data for an academic research study on the socio-economic and cultural barriers to the use of
contraceptives among women in Ndhiwa district. There is no need to write the name or the addresses of the respondent. Though some of the questions touch personal life and secret, we kindly request you to fill in the blank spaces provided below with appropriate answers.

**General Information**

Division________________ Location________________ Sub-location__________

Sex of respondents Male ( ) Female ( )

What is your age now? (Based on last birth day) __________ Years

**1.0 Cultural Barriers to utilization of Contraceptives**

1.1 Polygamy

1.2 Are you married?

   o Yes
   o No

1.3 Which type of marriage are you in?

   o Polygamy
   o Monogamy

1.4 Does your spouse embrace the usage of contraceptives?

   o Yes
   o No

1.5 If no, which reasons does he give? ____________________________________________

**2.0 Religion**

2.1 What is your religion?

   o Catholic
   o Protestant
o Muslim
o African Independent Church

2.2 Does your religion support the usage of contraceptives?
   o Yes
   o No

2.3 If yes, state which ones are acceptable in your church?
   o Natural family planning method e.g. periodic abstinence
   o Any modern method
   o Any traditional method
   o Any method
   o Others e.g. herbs and other folk methods (Specify) _______________________

2.4 If no, give reasons why they are not accepted.
________________________________________________________________________

3.0 Son Preference

3.1 Suppose you desire having children, what would be your gender preference?
   o Male
   o Female
   o Either

3.2 Give reasons for your answer.
________________________________________________________________________

5.0 Socio-economic barriers to utilization of Contraceptives

5.1 Quality of family planning Services

5.2 Are you aware of any family planning method?
5.3 Which of the following contraceptives do you know are available in your community?

- Pills: Yes (       )            No (     )
- Injection: Yes (       )            No (     )
- Condom: Yes (       )            No (     )
- Spermicidal Jelly /foaming tablets: Yes (       )            No (     )
- Diaphragm: Yes (       )            No (     )
- IUD: Yes (       )            No (     )
- Douche: Yes (       )            No (     )
- Withdrawal: Yes (       )            No (     )
- Female sterilization: Yes (       )            No (     )
- Male sterilization: Yes (       )            No (     )
- Herbs / roots drunk or worn: Yes (       )            No (     )
- Safe days: Yes (       )            No (     )
- Prolonged breastfeeding: Yes (       )            No (     )
- Sexual abstinence: Yes (       )            No (     )
- Don’t know: Yes (       )            No (     )

5.4 How did you come to know about the contraceptive methods? __________________________

5.5 What contraceptive method are you practicing now? __________________________

5.6 What are your reasons for using contraceptives?

_____________________________________________________________________________

5.7 Are you satisfied with the existing services provided by the family planning providers?

- Yes
- No
6.0 Misconceptions and side effects

6.1 Are you aware of possible side effects of contraceptives?

- Yes
- No

6.2 Give a description of the side effects you associate with particular method.

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Particular Type of Contraceptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain weight</td>
<td></td>
</tr>
<tr>
<td>Lose weight</td>
<td></td>
</tr>
<tr>
<td>Sterility</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
</tr>
<tr>
<td>Irregular menstrual cycle</td>
<td></td>
</tr>
<tr>
<td>Increased menstrual bleeding</td>
<td></td>
</tr>
<tr>
<td>Infections (of skin, breasts, stomach, uterus)</td>
<td></td>
</tr>
<tr>
<td>Inflammation</td>
<td></td>
</tr>
<tr>
<td>Side pains</td>
<td></td>
</tr>
<tr>
<td>Headaches</td>
<td></td>
</tr>
<tr>
<td>Child deformity</td>
<td></td>
</tr>
<tr>
<td>Lose of sexual desire</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
</tr>
</tbody>
</table>

6.3 What are the sources of information of perceived side effects of specific contraception methods?  

______________________________________________________________________________
6.4 Are you provided with adequate information about the side effects and the significance of contraceptives?
   - None
   - Little
   - Adequate

7.0 Access Barriers

7.1 Do you have health centre / clinic having contraceptives services within reasonable distance from your house?
   - Yes
   - No
   - Not aware

7.2 How do you go to the health centre / clinic having contraceptives?
   - Walking
   - Bicycle
   - Motorbike
   - Vehicle

7.3 How do you perceive the economic status of your family?
   - Low Income Household, (≤ Kshs 6,000 per month)
   - Middle Income Household, (Kshs 6,000 – 30,000 per month)
   - High Income Household, (≥ Kshs 30,000 per month)

8.0 Education and Literacy
8.1 What was your first age at marriage?
   - < 15 Years
   - 15 – 17 Years
   - 18 – 19 Years
   - 20 – 21 Years
   - >21 Years

8.2 What is your level of education you have achieved?
   - No formal education
   - Primary
   - Secondary
   - Tertiary

9.0 Infant and child mortality

9.1 Which family size does your community like?
   - Small
   - Large

9.2 What is the number of your children ever born (CEB)?

None (  )    1 (  )    2 (  )    3 (  )    4 (  )    5 (  )    6 (  )    >6 (  )

9.3 How many are:
   - Alive __________
   - Dead __________

9.4 Would you still want to have more children?
   - Yes
   - No

9.5 Considering a hypothetical situation, could you suggest the exact number of children you would like to have?
9.6 Give reasons for your preferred family size.

_____________________________________________________________________________

10.0 Spousal communication

10.1 How often do you discuss with your spouse about contraception?

   o  Often

   o  Occasionally

   o  Never

10.2 Who do you think should take responsibility to practice modern contraceptive?

   o  Female partner

   o  Male partner

   o  Both partners

10.3 Do you discuss freely with your spouse the number of children you desire?

   o  Yes

   o  No

10.4 Do both of you (you and your spouse) agree to use / not to use contraception?

   o  Yes

   o  No

10.5 What is your spouse’s opinion on contraception use?

   o  Approved

   o  Disapproved

Thank you for your participation

Appendix 2
Focus group discussion guide for discussants

Focus Group Discussion was also be used to generate qualitative data. The method was applied by discussing research questions with the eight knowledgeable groups purposively sampled to augment the qualitative part of the study. The discussion guide constituted ten questions:

1. In your view, have your church members adopted the use of contraceptives as a means of family planning?
2. In your view, does the community still embrace polygamy?
3. In the past, male children have preferred to female children. How does the community today view a family that has given birth to female children only or have few sons?
4. Do the women today influence decisions on contraceptive use in your society?
5. Are you aware of any misconceptions and fears of side effects of contraceptive methods?
   In your view, are misconceptions and fears of side effects an hindrance to the use of contraceptives?
6. In your view, is the use of contraceptives the same among the middle and low-income members of the society?
7. Of the educated and non-educated, which group is having large family size? In your view, does the level of education influence the use of contraceptives?
8. Infant and child mortality still exist today, in your view how is it influenced by contraceptive use?
9. How free does your society discuss contraceptive use? Are there complains among the spouses about contraceptive use?
10. How should services be arranged in order to address the problems faced by women to use contraceptives?

Appendix 3:
THIS IS TO CERTIFY THAT:

MUKHWA AGATHA

of KENYATTA UNIVERSITY, 24-48302

has been permitted to conduct research in Homa Bay - County

on the topic: SOCIO-ECONOMIC AND CULTURAL BARRIERS TO UTILIZATION OF CONTRACEPTIVES AMONG WOMEN IN NDHIWA DISTRICT, HOMA-BAY COUNTY, KENYA

for the period ending 31st December, 2015.

[Signatures]

National Commission for Science, Technology & Innovation

CONDITIONS:

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do so may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Examination, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.