

**COMMUNICATION ABOUT FAMILY PLANNING ON DESIRED
FERTILITY AMONG MARRIED PEOPLE IN RWANDA**

**Dissertation submitted in Partial Fulfillment of the Requirement for
The
Degree of Masters in Population Studies**

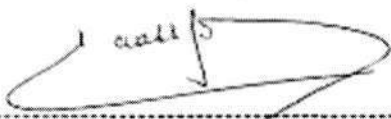
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Declaration

Except where specific reference is made to the work of others, this work is original and has not already been submitted either wholly or in part to satisfy any degree requirement at this or other university.

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Acceptance

Accepted by the school of Development Studies, Faculty of Humanities, Development and Social Sciences; University of KwaZulu-Natal, Durban in partial fulfillment of the requirement for the degree of Masters in Population Studies.

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Dedication

This study is dedicated to my
daughter, Diane Kamariza.

Acknowledgments

First and foremost I would like to thank God for seeing me through and protecting me during my stay in Durban and for giving me the courage to go on, when I lost hope and determination, He gave me new strength. Lord you are the best. My sincere gratitude goes to Professor.Dr.Rwigamba Balinda, for the assistance he has provided me during my studies at the University of KwaZulu-Natal. I am also grateful to my supervisor Doctor Esther Dungumaro, who was patient, encouraging and always willing to share her experience with me. Her guidance will always be viewed with respect and appreciation.

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Abstract

The decision to have a child is one of the most significant two people can ever make. Specifically, couple can typically plan when to begin a family, how large a family they want. Thus if a couple is planning on having a child, they have the responsibility to consider and discuss many things involved in parenting such as family planning. The main purpose of this study is to assess the extent of spousal communication about family planning by focusing on the preferences concerning family size and the desire of additional children.

Drawing on the literature review; the study address the conceptual definitions and notions of spousal communication about family planning, attitudes towards family planning and desired fertility, communication and desired fertility, and economic value of children.

Using data from the 2000 Rwanda demographic and health survey, the study analyzed a set of selected socio-demographics factors and its correlation with the desire of more children within married people in Rwanda. The results reveal that husbands are more likely to desire additional children compared to their wives. Women in urban areas are more likely to stop childbearing compared to those who live in rural areas and the reverse for man. However education and employment are also associated to the desire for no more children and are significant in the multivariate analysis. As expected son preference is important and affect the desire for additional children, then within any given parity, couples with one or more sons are more likely to stop childbearing compared to those who have no sons. The analysis of the impact of spousal communication about family planning shows that partner who discuss on family planning are more likely to desire no more children than their counterparts who have never discussed the issue.

In order to enhance the spousal communication about family planning in Rwanda and improve attitudes towards family planning, it is proposed to promote IEC as a tool of intervention to increase the awareness of spacing and limitation of childbearing.

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ACRONYMS

DFS : Desired Family Size

DHS : Demographic and Health Survey.

FP : Family Planning

HIV/AIDS: Human Immunodeficiency Virus/ Acquired immunodeficiency syndrome

IEC : Information, Education and Communication

ONAPO: National Population Office

ORC : Opinion Research Corporation

SDM : Standards Day's Methods

SPSS : Statistical Package for Social Science

STI : Sexually Transmitted Infections

TFR : Total Fertility Rate

UNFPA: United Nations Population Fund

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

The importance of spousal communication is often emphasized in family planning programs and research. It is perceived as the true first step in rational fertility decision-making process. The couples that do not communicate on reproductive issues are at greater risk for sexually transmitted disease and unintended pregnancy. Providers who counsel clients on how to negotiate with partners and how to talk openly about sexual fears, risks and concerns will help clients achieve better contraception. A common assumption is that communication leads to family planning use, but the reverse could also be true. For example, one study conducted in Cairo suggests that use of natural family planning methods leads to greater communication, because couple needs to talk about the reproduction cycle (Shivnandan et al, 1986). The decision to have a child is one of the most significant two people can ever make. Specifically, couples can typically plan when to begin a family and how large a family they want. Thus if a couple is planning on having a child, they have the responsibility to consider and discuss many things involved in parenting such as family planning (Balmer et al, 1995).

Lack of communication about family planning may be associated with misperceptions about a spouse's views on family planning, which in turn may inhibit mutual decision-making. In a Zambian study, the odds that women used a method secretly, rather than using no method, were about four times as high among those who were not comfortable talking to their spouse about family planning as among others (Biddlecom et al, 1998). Furthermore, husband's disapproval of contraception appeared to work through spousal communication, rather than having a direct influence on secret use (ibid).

Men and women who do not communicate with their spouse about family planning may not be aware that their spouses view contraceptive use positively. Other factors that may

inhibit spousal communication are household crowding, fatalism and perceived insignificance of such discussions, dominance of other relative such as mothers in law, reproductive decisions and embarrassment about discussing family planning (Kamal, 1999). Furthermore, partners in couples who communicate may perceive their spouses to be more supportive, feel less fatalistic about childbearing and more in control of their reproductive decisions. Partners can be less embarrassed about discussing reproductive issues with their spouses than partners in couples who do not communicate. By encouraging couples to discuss family planning issues, these perceptions indirectly lead to family planning adoption (Rogers, 1999).

Lack of spousal communication is one of causes of unmet need¹ of family planning. Analysis of data from 13 DHS surveys by (Bongaarts and Bruce, 1995) showed that lack of knowledge, fear of side effects, and husband's disapproval were the principal reasons for non-use among women who were otherwise motivated to use family planning. A study by (Westoff and Bankole, 1995) using DHS data of less developed countries indicated that lack of information about family planning, opposition to family planning, and ambivalence about future childbearing were the principal factors responsible for unmet need for family planning. Similarly, reasons for not using a contraceptive method among Ghanaian women were assessed by (Boadi et al, 2000) using data collected in the Ghana Demographic and Health Surveys that were conducted in 1988 and 1998. According to the results, a significant number of women mentioned fertility related reasons (infrequent sex, menopausal/sub fecund, postpartum/breastfeeding, and wanting more children) as principal reasons for non-use.

Another report presented a review of literature on males' attitudes and behaviours concerning family planning and male initiative in Africa. The results indicated that men often have positive attitudes towards family planning, but women believe that their husbands disapproved family planning. The report further notes that spousal communication was positively associated with family planning use (Toure, 1996).

¹ Unmet need: The concept of unmet need refers to a gap between someone's stated fertility preference and his or her contraceptive use at a given point of time (Robey et al, 1992).

However, another study conducted by (Ezeh, 1993) in Ghana showed that spousal influence, rather than being mutual or reciprocal, is an exclusive right of the husband. According to Demographic and Health Surveys, many married women who want to avoid pregnancy are not using contraception because their husbands object. Nearly one in ten married women with unmet need cited husband's disapproval as the principal reason for non-use of contraception (Drennan, 1998).

Spousal communication about family planning improves maternal, child and infant health by reducing the number of high-risk pregnancies (those of very young or older women, those too closely spaced, and those that are unwanted) and by protecting against sexually transmitted infections (STIs). Failing to meet family planning needs has negative health consequences for both mother and child. Among the 585000 annual cases of maternal mortality worldwide, 582000 occur in less developed countries (Abouzar, 1998). Approximately 200000 can be attributed to the lack of failure of contraception as well as poor communication about family planning (ibid). When births are closely spaced, mortality is higher for the preceding child, often because of early weaning from breastfeeding. Babies born within two years of their next oldest sibling are twice as likely to die within their first year, communication about reproductive matters should enhance the period of birth space among couples (Shane, 1996).

The Rwandan Context

There is a series of constraints, which causes low level of modern contraception as well as spousal communication about family planning in Rwanda. According to (Mukamanzi et al ,1990), among these constraints include: social, cultural and religious reticence; women or couples who know about modern contraceptive methods do not use them because of male opposition, desire to have boys, social pressures, fatalism, religious convictions, religious hierarchical bans especially by the catholic church, and/or traditional values. In Rwanda illiteracy rate is 40%. This is seen as an obstacle since it can hinder family planning awareness campaigns based on printed material.

Economic constraints; children are economic assets for farm work, wood and water collection, and social security for old parents. Moreover, potential users of family planning services in rural areas could hardly afford to buy contraception; hence poverty and economic value of children force couples in rural areas to avoid talking about family planning. Fear of side effects exists alongside an awareness that proper care will be difficult to obtain if complications occur. Rumours, which sometimes are spread deliberately by opponents of family planning, may also discourage potential users and then they forget about discussions related to the benefits of family planning (ibid).

Traditional culture in sub-Saharan African countries is one of the hindrances of spousal communication due to their pronatalist and societal accepted male behaviour. The African woman's role is as a life bearer, nurturer and source of generations. For an African woman in a traditional rural community, the chief measure of success in life is her ability to bear many children. The very existence of the family and clan depends on women's ability to bear children, who will provide security for their parents in old age and who will continue to nourish the spirits of the ancestors through sacrificial offering (Kamal, 1999).

The Rwandan woman was certainly considered through her husband, but especially through the number of children she has. The more the children she had, the more the joy and pride. Traditional practices could give an idea of the importance of many descendants for the woman. With each birth the couple received visits, congratulations and gifts from the parents, brothers and sisters, as well as from friends. All would say to them "turn over there, there is no spine, in other words do not delay to become pregnant".

A national survey about traditional contraception and attitudes towards fertility in Rwanda conducted in 1985, found that among Rwandan couples the utmost personal happiness is to have children in order to transmit life through them; people without children disappear from life forever. Life must be transmitted, especially to sons, as a sacred duty to family, ancestors and lineage. In addition, children are viewed as the only security for old age. Finally having many children gives honour, prestige, social and

economic strength to the parents. The existence of male sterility is denied, and wives of sterile men are traditionally allowed to have sexual intercourse with their husband's brothers or close friends, in an attempt to conceal the husband's sterility (Ilinigumugabo, 1989). According to customary and cultural behaviour in Rwanda, women have nothing much to say about the reproductive issue, as their roles are to bear many children. Owing to women's low social status, they are not allowed to decide on the number of children the family should have, meaning that there is low level of spousal communication about family planning in Rwanda.

Various strategies were used in order to enhance spousal communication about family planning; one of them is Information Education and Communication (IEC). The concept of Information Education and Communication was developed and used primarily by health planners in the 1960s, initially in the field of reproductive health and family planning. It encompassed all communication activities aimed at demand creation, and targeted at both service providers and users of family planning services. The initial purpose of IEC was to narrow the gap between the relatively high levels of knowledge of family planning and the comparatively low level of practice, or use of existing services. This was to be achieved through a combination of education, information and communication, all geared towards behaviour change. The IEC strategy provides a plan of preferred options for action, those most likely to have an impact on problems related to attitude and/or behaviour changes of specific audiences in a set time frame, given the available external and resources (human, institutional and financial) and the priorities of a national programme. For instance, if the overall country population programme goal is to increase contraceptive prevalence, the starting point of an IEC strategy would be to identify the social groups most likely to respond to action, and to understand why they are not doing so now and what the causes of behaviour change are (UNFPA, 1993).

The IEC project in Rwanda developed a successful communication strategy by using the abakangurambaga (social workers). These are traditional carriers of information within the community. According to a survey taken by the project, 72 percent of abakangurambaga were appointed by the community and 28 percent by the local

authorities to promote and follow up on family planning practice. The abakangurambaga promoted family planning through home visits during which they tried to convince women of the advantages of contraception. Among the argument used: 51 percent were related to birth spacing, 34 percent to the scarcity of the land, and 17 percent to education of children. According to the same survey, the abakangurambaga convinced an average of 5 women per year. The rise in contraceptive prevalence from 6.2 percent in 1989 to 12.6 percent in 1992 was attributed largely to the abakangurambaga efforts (ibid). As the contraceptive prevalence increased, after the visits of abakangurambaga, couples improved their discussion about family planning use.

An additional strategy of promoting spousal communication about family planning was contraceptive use such as Standards Day's Methods (SDM). In a study conducted by (Institute for Reproductive Health, Georgetown University, 2004) on Standard Days Methods in Rwanda, among most couples, women suggested using the Standards Days Methods, while the men made the decision to use it. The SDM is a natural method of family planning, it is based on the fact that there are certain days during a woman's menstrual cycle when she can become pregnant. The SDM helps women identify the days in their cycle when they are likely to become pregnant if they have unprotected intercourse, and the days when pregnancy is very unlikely. Health reasons, economic circumstances and costs of education and medical care were among the things discussed before deciding on a family planning method. Couples discussed other contraceptives methods, including difficulties in their use and potential side-effects. They also discussed the relative advantages of SDM and how they would manage the fertile days. Ninety percent of women said that they and their husbands agreed to avoid unprotected intercourse on the fertile days. A majority of couples using the SDM felt that it strengthens marital relationships because it leads to dialogue between partners.

Family planning in Rwanda dates back 40 years. The first family planning programme offering modern contraception was established in 1962, but family planning goals were included for the first time in the five-year plan 1977-1981. In 1974, the government of Rwanda established the scientific council for socio-demographic problems, which

proposed the creation of an institution that would address population issues on a permanent basis. In 1981, the National Population Office (ONAPO) was established to implement population programme, to integrate family planning service into all of the health care facilities in Rwanda (Blair et al, 1994).

The government of Rwanda has long been aware of the major threat that population growth poses for the development of the country. Government actions were nevertheless constrained by the strong pronatalist sentiments of the population and by the opposition of religious groups to family planning. However, the pressure of population on agriculture land gradually brought about a change in attitude, and family planning is now considered to be a key element in national development. Religious groups have also acknowledged demographic problems in Rwanda and begun to soften their opposition. In 1990, the family planning programme was expanded and a national policy and a plan of action were adopted, with the goal of reducing the population growth rate from 3.7 to 2.0 percent by the year 2000. Related goals were to increase the contraceptive prevalence rate from 2 to 48 percent and to decrease the total fertility rate from 8.6 to 4.0 births per woman (*ibid*).

The total fertility rate (TFR) of Rwanda was estimated at 8.6 children per woman in 1978 declined to 6.9 in 1991 before reaching 5.9 in 2002. The TFR declined between 1978 and 1991 by 1.7 children per woman, while the decline between 1991 and 2002 was only one child per woman. The slow pace of decline in fertility between 1991 and 2002 was due to many factors such as fertility of recuperation after the genocide during the decade of the 90's (Ministry of finance, 2002). According to the results of Rwanda Demographic and Health Survey (RDHS) 2000, the proportion of women who wanted no more children shifted from 36 percent in 1992 to 33 percent in 2000. Ideal desired family size was 4.9 children per woman in 2000 compared to 4.2 in 1992 (Ministry of Finance, 2005). The present high fertility levels among couples in the country are such that the country has one of the highest population densities in Sub-Saharan Africa and these are destined to be increasing inexorably in the future if strong measures are not taken to reduce population growth. The high mortality levels imply that survival probabilities are still low especially

among the young children. As long as infant and child mortality levels remain high, fertility is likely to remain high (ibid).

For the period 1995-2000, the rate of infant mortality was estimated at 107 deaths per 1000 birth. This level of infant mortality is a result of the disastrous situation in Rwanda that followed the war and genocide of 1994. Given that this rate was similar to that of 20 years before the 2000 RDHS, it means that infant mortality did not change during this period (ONAPO, 2001). This rate is very high compared to the overall infant mortality rate of sub-Saharan Africa which is 93.8 per thousands live births. In countries with persistent high fertility and gender inequality like Rwanda, spouse's fertility desire may be less compatible, given low level of education, the relative confinement of women and societal norms that convey little need or model for couples to communicate their desire to each other. In such societal settings, husbands' fertility desire may be presumed to be more exposed to influences outside the family, whereas wives' desires are probably formed to a larger extent by familial norms and pressure. A husband's demand for children is significantly related to his wife's desired fertility, as well as to the couple's fertility outcomes. This compatibility is not surprising, in that the husband's and wife's desire are subject to similar if not entirely overlapping familial, religious, socio-economics and cultural norms influence (Khan et al, 1977).

1.2. STATEMENT OF THE PROBLEM

In developing countries, more than half a million women die every year from pregnancy related causes. There are four important reasons for these deaths. Births are either "too soon, too close, too many or too late". Statistically, young women are more likely to die during pregnancy. Women who marry or enter union at a young age are likely to have husbands who are much older than they are, up to 15 years older in some Sub-Saharan African countries. This difference in age reduces the chance that the women will be able to participate in decisions about childbearing or be able to discuss the use of contraceptive (Abouzar, 1998).

Many studies have reported a low level of communication between spouses about family size and family planning (Lasee et al, 1997). Little spousal communication is also reported in women with low levels of contraceptive use. Most of these studies have focused on only one dimension of communication, which is discussion between husband and wife about family size or family planning. In the literature, evidence on how far researchers have gone on exploring the other dimensions of communication, namely agreement between partners regarding approval of family planning, fertility preferences and each spouse's perceptions of the attitudes of his or her partner, are not well covered. Spousal communication concerning contraception, especially in developing countries remains rare. Since relatively little is known about communication about reproductive issues, studies on the process and its outcomes are important for both programmatic and theoretical reasons. The main question in this study is to assess the extent of spousal communication about family planning by focusing on their preferences concerning family size and having additional children.

1.3. THE RATIONALE OF THE STUDY

Prior to 1994, Rwanda had actually made progress in family planning. After the genocide, the prevailing attitude among returnees was to fill the gap caused by the genocide and to rebuild lost population through increased fertility. Thus the 2000 RDHS found that the current use of contraceptives among women in relationships had fallen from 13 percent in 1992 to 4.3 percent in 2000 (ONAPO, 2001). The total fertility rate in Rwanda is 5.9 lifetime births per woman exceed by one birth per woman being the ideal number of children reported by ever married women participated in the RDHS 2000. Ideal family size varied from 4.0 children in Kigali, which is the most developed region to 5.4 in Cyangugu, the least developed region in the country (ibid).

The observation by ONAPO is not an isolated case, since it is reported that in developing countries evidence of desire for smaller families and a latent demand to control fertility exists in all groups, particularly among the most educated and urbanized (Mahmood et al, 1997). In order to reach the ideal family size, couples in Rwanda need to discuss issues

related to family planning. So far there is no study carried out in Rwanda on communication about family planning on desired fertility. This study will enhance understanding about spousal communication on family planning which can contribute to: improve on well being of children because of spacing, improve socio-economic status of women and reduce maternal mortality.

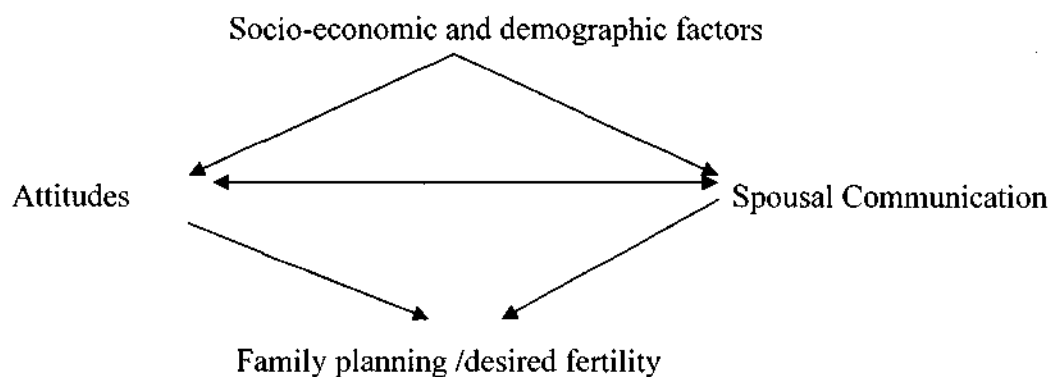
1.4. OBJECTIVES OF THE STUDY

The general objective of this study is to examine the relation between attitudes and spousal communication about family planning on desired fertility among married people in Rwanda.

Specifically the study seeks to:

- Assess the socio-economic and demographic factors of spouse's desire for additional children.
- Examine gender differences in the factors influencing desired fertility.
- Assess attitudes about family planning on desired fertility.
- Assess spousal communication about family planning on desired fertility.

Figure 1: diagrammatic representation of the study



1.5. ORGANISATION OF THE STUDY

Chapter one; introduction, this chapter discusses the context and background of the study. It presents the research problem, rationale and objectives of the study. The second chapter of literature review aims to review previous studies in the current area of research. The third chapter of research methodology presents the analytical approach of the study and data used in this study. The fourth chapter give the actual findings of the study as well as discussion of findings. The last chapter summarises important aspects of the study and gives a conclusion pertaining to findings and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

The aim of this chapter is to review studies that will highlight the extent of spousal communication about family planning and its relationship with desired fertility. This issue includes studies related to: factors affecting spousal communication such as education, type of residence, age and income. Although men have been viewed as uninvolved in fertility beyond their capacity to provide sperm, their involvement in reproduction has been considered. This involvement has usually been viewed negatively with men being perceived, primarily, as obstacles to women's contraceptive use (Greene, et al, 2000). Husband-wife communication about reproduction issues will enhance the role of man in family planning. The structure of the literature review is identified by the major research themes that are relevant to the study. The review covers studies related to: spousal communication about family planning, attitudes towards family planning and desired fertility, communication and desired fertility and economic value of children.

2.2. SPOUSAL COMMUNICATION ABOUT FAMILY PLANNING

Spousal communication is defined by (Bamikale, 2000) strictly in terms of joint spousal decision-making, and the expected outcome of any meaningful discussion between marital partners. This definition is adopted in order to avoid ambiguity in the perceptions of what constitutes real husband-wife communication. The use of the outcome joint decision-making is identified by the difficulty in justifying or establishing the existence of husband-wife communication on an issue when only one or none of them claims to have been involved in decision-making. However, it is logical to argue that both partners could only report to have taken joint decisions on issues which have been discussed by both of them (ibid).

Therefore the issue of discussion among couples in this study is family planning or contraceptive use among married people. The ideal situation is good communication between husband and wife about the spacing and number of children they will have. Some women are lucky and are able to make decisions about family planning and family size in collaboration with their husbands. Others, particularly newly married and younger women, have little or no decision-making power in the home, and husbands, parents or mothers-in-law decide for them. Still others use contraception clandestinely, fearing husbands or relatives will disapprove (Bamikale, 2000).

Women may be afraid out of a sense of modesty or shame to talk to their husbands about family planning. Some say they are too shy to begin discussion with their husbands; others fear their husband's response or worry that their knowledge of sexual issues could be interpreted as promiscuity or infidelity. Conflicts arise about when to have intercourse, whether to use contraception, which method to use, spacing of children, and when the children already born, are enough. Many men say their role as financial provider gives them authority to decide how many children the family can afford (Kamal, 1999).

2.2.1. FACTORS INFLUENCING SPOUSAL COMMUNICATION

According to (Gage, 1995), a study conducted in Togo reveals that, there is a relationship between selected indicators of women's position and the contraceptive outcomes of interest. The study shows that fewer than 40 percent of currently married Togolese women have ever discussed family planning with their husbands. Husband-wife communication is significantly more prevalent among women who exercised independence in the choice of spouse than among those in arranged marriages. Furthermore, the younger the woman's age at first marriage, the lower the prevalence of spousal communication about family planning. The study found that about half of all educated women have discussed family planning with their husbands, compared to less than a third of uneducated women. Most studies have found a strong negative association between mother's education and fertility in both developed and developing countries.

Formal education has been found to lead to increased contraceptive use and improved dialogue between partners (Diamond et. al, 1999).

Education background may improve prospects for couple communication and contraceptive use. In a survey conducted on 1,022 Nigerian men reveals that, among educated men who communicated about family planning with their partners, 60 percent used contraceptives. Among the educated men who did not discuss sexual matters with partners only 10 percent used contraception. Among uneducated men in the survey, 27 percent who talked about family planning were using contraception compared with only 4 percent who did not communicate with their partners. For husbands and wives, the proportion of who said they had discussed contraception with their spouse was highest among the younger and better educated (Onig, 1991).

Literacy itself increases the ability to communicate. Communication with a partner may be facilitated by an increase in education. The level of education reached by both men and women tend to affect their respective attitudes towards contraception. This positive correlation is possible due to an increased understanding and a decrease in superstition about the process of conception and contraception. As education increases, it is assumed that people are more exposed to literature and to new ideas, in particular those suggesting new lifestyles including the advantages of having small family size (ibid).

In Togo, (Gage, 1995) confirmed that women who work for cash are more likely to discuss family planning and use modern contraceptives methods than are those who do not. Large differences are seen in spousal communication about family planning by women's economic status. Discussion of family planning is least likely when women do not work for cash and most likely when they work for cash and are able to allocate part of their earning to rotating credit or saving schemes. The results of this study found that about 49 percent of women currently married who work for cash discussed family planning with their spouse compared to 29 percent who do not work for cash.

Communication can also be non verbal, especially where there is no tradition of discussion between spouses about sexual intercourse, contraception, or sexual play (Balmer et al, 1995). Many obstacles prevent men and women from talking about sexual and reproductive issues. In many societies sex is taboo subject for men and women to discuss. Men and women are often afraid of rejection by a sex partner, especially at the beginning of a relationship. Consequently, they may not bring up uncomfortable issues, such as sexual history or use of contraception. As with decision making in general, women's low social status and lack of power limits couple communication. For many women traditional female gender roles mean they have little say in sexual matters and lack of the status to influence their partner's behaviour, even when men and women discuss reproductive issues, it is usually not on equal terms (Diaz, 1997).

Traditional cultures often discourage married women for starting discussions about contraception. For their part, men may feel there is nothing to discuss or no need to take account of their wives' feelings and opinions. In countries such as India, Kenya and Nigeria, traditional male dominance is a major obstacle to spousal communication about family planning. Also, a husband might consider his wife promiscuous or unfaithful if she tries to discuss contraception with him (Fort, 1989). As women's equality with men increases, so does their ability to communicate about reproductive matters and to participate in reproductive decision. When a women shares decision making power, she is better able to bring up and discuss family planning and sexual relations with her sex partner.

A study conducted in Sri Lanka by (Klitsch, 1990), pointed out that communication was greatest among those who said they wanted no more children. Those with 2-4 children were the most likely to have discussed family planning, while those with no children or with six or more were the least likely to have done so. Both urban and rural residents were more likely to report having discussed family planning with their spouse than were those whom lived in tea estates. Moreover in a study conducted in Pakistan, two-third of rural spouses had never discussed family planning or the number of children they would like to have with their partner, while a majority of urban men and women said they had

some communication with their spouse about family planning in one year before the survey (Mahmood et al, 1997).

Spousal disagreement on reproductive matters is directly related to how men and women communicate about their preference. In fact, spousal disagreement may be more related to the lack of communication between spouses rather than being a meaningfully articulated opposition of one spouse to the other's desires (Odhiambo, 1997). The result is that men may have a more "benign" influence on reproductive decisions than is usually assumed. A study conducted in Uganda went beyond basic measure of couple communication to examine the ways that negotiating occurs within sexual unions (Blanc et al, 1996). Detailed questions were asked about communication and how disagreement was resolved, and comparisons were made between partners. The authors found that both communication and open disagreement between spouses were uncommon. Roughly one-third of respondents had ever discussed family size or child spacing with their partner, although most respondents believed they had a clear understanding of their partner's desires. Moreover, each partner tended to claim responsibility for decisions and women were more likely than men to perceive disagreement with their partner over reproductive issues.

2.2.2 ROLE OF MAN IN FAMILY PLANNING

Although both men and women make important contributions towards bearing of children, demographic studies of fertility and family planning have focused on women or have looked at men from a narrow range of approaches. One of the main justifications for including men in demographic studies of reproduction has been that they are barriers to women who want to use contraceptives (Greene et al, 2000). Rarely, though, is the justification posed the other way round that women block men who want to use contraceptives and even more rarely that men block women who want to have more children. The literature tends to be grounded in the assumption that men block their wife's lower fertility desires. Despite the emphasis on men as pronatalist barriers in

reproductive decision-making and behaviours, the evidence at the first glance, is generally unsupportive of this assumption (Westoff and Bankole, 1995).

One of the most common motivations for research on men is that they hold a dominant role in reproductive decision-making. The decision-making on reproductive issues is more descriptive and draws on specific survey questions such as: who is the main decision-maker, who initiated the decision to use contraception, or who has final say on a specific matter. These kinds of questions have become standard in a number of nationally representative surveys of men and illustrate, for the most part, that men perceive reproductive decisions to be made jointly, though when they deviate from this they more often claim responsibility for decisions themselves. For example, 55 percent of men interviewed in a 1992 survey in Egypt said that they and their wives decided together on the use of family planning methods, while 37 percent said that they, alone, had the last word (El-Zanaty et al, 1993).

Numerous motivations are described in the literature to explain women's secret use of contraception as opposed to open use or to no use at all. There are three main motivations for it: the husband's disapproval of contraception, the difficulties associated with communication between partners about contraceptive use, and the pronatalism of husband. The last motivation may be related either to the husband's opposition to contraceptive use or to the fact that the topic is embarrassing or uncomfortable for the husband and wife to discuss (Biddlecom et al, 1998).

2.2.2.1 Husband opposes contraceptive use.

Based on their qualitative work in four rural communities in Kenya, (Walkinson et al, 1997) identified three main reasons for male opposition to contraceptive use: the concern that family planning will encourage infidelity among wives, that it will interfere with men's desire to raise large number of children as compensation for bride payments, and that will weaken control of husbands over their wives. Thus in contrast to the general approval statistics which indicate, that many men may be uncomfortable with the idea

that their wives use contraceptives for fear that it may jeopardize their control over their wives, whether this be sexual or reproductive control. A study in India found that husbands were the principal decision-makers and initiators of discussions about family planning use (Raju, 1987). As one group of researchers has noted, power imbalance in marriage favour men and the husband's opposition to contraception may be sufficient to block use in many cases, but the reverse will occur less often. This asymmetry means that when spouses disagree, women's family planning aspirations will more often be frustrated than men's (Biddlecom et al, 1997).

A longstanding assumption about men's fertility preference is that they want more children than women, because men do not suffer the physical experience that repeated childbearing has on women. In general, studies of couples support this gender difference, husbands tend to want more children than their wives, and to want the next child sooner, (Bankole and Singh, 1998). A study in Nigeria based on longitudinal data found that the influence a men's fertility preferences depended on the number of living children (Bankole, 1995). If there were four or fewer children, a subsequent birth was likely if the husband wanted it, but if there were five or more children, another birth was likely if the wife wanted it. A woman was better able to defend her desire and conversely, a man was less likely to press for his desire once she adequately demonstrated her ability to bear children.

2.2.2.2 Difficulties associated with couple communication about contraceptive use.

Another motivation for clandestine use is that it is the only way a woman can meet her own reproductive needs while avoiding problematic communication with her husband. Numerous studies show a positive association between the frequency of spousal communication and contraceptive use in general (open and secret); though this association involves problems of causality when cross-sectional data are used (Odhiambo, 1997). Spouses who disagree with each other about whether or not to use contraception may also be less likely to discuss family planning, and the wife may thus be more likely to use contraceptives secretly. For example, the study in Uganda found

that women felt that open disagreement with their husbands had high social costs (divorce being the extreme) and covert use was a way of circumventing both an unwanted pregnancy and the social costs of directly opposing a husband's wishes (Blanc et al, 1996).

There are cause-effect linkages which affect the decision to adopt contraception. A study conducted on Kenyan men revealed that men take an interest in planning, support family planning and use of contraception to achieve their goals (Odhiambo, 1997). Perceptions of family planning are changing, and men play an essential part in this change, especially given the harsh economic climate and the rapidly changing cultural and social values which act as catalysts (Robinson, 1992). Men's participation in family planning can mean using a condom, coitus interruptus, periodic abstinence or vasectomy, but more often it means reaching agreement with their wives to allow her to use other methods. The husband's co-operation is essential for consistent and continued use of the preferred method. Though the same study provided evidence that Kenyan men are becoming more involved in and supportive of family planning. However, significant obstacles remain, which need to be overcome before there can be further progress. The study indicated that lack of communication between husband and wife may be a more important obstacle to the adoption of contraception than men's opposition. Some couples may begin to discuss family planning; usually the wife would have already begun to use contraception frequently secretly. In general couples are more likely to initiate and continue contraceptive use only after having discussed the subject between themselves. Women who have used contraception secretly are unlikely to bring up the subject for discussion with their husbands, because they may be afraid of vengeance. This makes it difficult to discover when current contraceptive use began and how consistently it was used.

2.3. ATTITUDES TOWARDS FAMILY PLANNING AND DESIRED FERTILITY.

The level of approval of contraception is an indicator of the potential willingness of a population to accept the use of family planning methods (Hennink, 2001). In practice contraceptive use is influenced by many factors, most notably the husband. However, the majority of women stated that if the decision was entirely their own, they would be willing to use a method of contraception. According to (Mahmood, 1997) in a study conducted in urban Pakistan, women were asked whether their husband approved or disapproved contraception.

Although some men stated that it is a woman's decision to use contraception, all agreed that a woman is unable to use family planning without the husband's consent. Older women stated that their husband passively approved family planning, and that they did not object to women using a method but did not actively encourage them to use family planning. Although the majority of women and their husbands both approve contraceptive use, some women approve contraceptive use while their husband disapproves. There is a significant increase in the proportion of husbands who approve of contraceptive use after parity one. The highest approval of contraceptive use is at parity three. Husband's approval declines after parity five, which may be influenced by age, where older husbands generally show a lower level of acceptance of contraceptive use regardless of parity (ibid).

Using data from the DHS and other surveys, (Ezeh et al, 1996) argues, men generally approve of family planning. In 8 to 12 countries with available DHS of men, 70 percent of men approve of contraceptive use. In six of these countries, 90 percent or more approve. Although men's approval rates are high, they are usually lower than women's. For example, in Senegal 72 percent of women approve compared with 52 percent of men. In Malawi and Pakistan however, men are more likely than women to approve of family planning. In Pakistan men's approval rates are higher than the approval rate of women by more than 10 percent. Women and men aged less than thirty years were more likely than

those who are older to identify the benefits of adopting family planning and to approve its use. Younger couples felt that adopting family planning would assist in reducing family size and the economic burden of large families, as well as improving women's health through child spacing. However they stated that their elders may not approve of contraception and discourage its use. Although many older women and men approve of family planning, they were more likely than younger women to identify that childbearing is the will of Allah and advocate for large families (ibid).

In a study of attitudes toward family planning and discussion between wives and husbands on contraceptive use in Ghana, they concluded that couple's attitudes and preferences on matters related to fertility, and their discussion on family planning, influence the adoption of contraception. Furthermore, in couples in which both partners approved family planning, the wife was more likely to report contraceptive use than in couples in which either the wife or the husband alone reported approval. Both discussion reported by the wife and discussion reported by the husband were strongly associated with current contraceptive use, even when confounding variables were controlled (Salway, 1994).

In a study conducted in Nigeria, (Adewuyi et al ,2003) found that respondents were asked if they "approve" or "disapprove" the statement that many couples do something to delay or prevent a pregnancy so that they can have just the number of children that they want and have them when they want them. About 63 percent of men compared to just 35.7 percent of women would approve the use of family planning. At least 50 percent of women and 38.1 percent of men indicated that they had talked about family planning matters with their spouses on three or more occasions. On the other hand, both male and female respondents in the study area agreed with the statement that men should decide family size (47.6 percent), decide when to have sex (34.4 percent), decide what to do with an unwanted pregnancy (57.3 percent), and when to take firm decision on family planning. This confirms (Isiugho-Abanihe's, 1994) earlier findings on reproductive decision-making among couples in Nigeria that most of the vital decisions on reproductive matters rest with men. The general impression to be deduced from the male

responses to these statements is that while they support the fact that women should be assisted in the home, and that they should not be forced to obey with their husband's wishes with regard to number of children, they are very much in favour of maintaining authority and leadership in the home and at the workplace.

In a study conducted in Kenya, (Dow et al ,1983) found that, when asked if they would approve a woman's use of family planning, 24.7 percent of the women indicated that they would 'always' approve, 47.6 percent that they would sometimes approve and 27.7 percent that they would never approve. Desired family size levels varied inversely with approval, increasing in a linear fashion from 7.13 births among women who 'always' approved, to 7.87 among women who sometimes approved to 9.21 among women who never approved. While this relationship is in the expected direction, it should not obscure the fact that even the lowest average family size expectations among women most favourably disposed to the practice of family planning exceed seven children.

Turning to actual fertility, they observed that women who 'always', 'sometimes', or never approve of family planning have had 6.27, 5.97 and 6.12 births respectively. At this stage, then, there is no evidence of approval being expressed in the form of lower fertility. Approval is also related to the wife's perception of her husband's attitude toward family planning. Among women who "always", "sometimes" or never approve of family planning, 59.1 percent, 32.2 percent and 8.4 percent respectively, thought their husbands would approve of their use of family planning to delay another pregnancy. The corresponding proportions in the context of using family planning by wives is facilitated if they perceive their husband's position regarding use to be favourable. Yet only 29.8 percent and 18.2 percent of the wives, respectively, thought their husbands would approve of their use of family planning to delay another pregnancy or to stop having children.

According to (Ezeh et al ,2001), in Kenya the difference in husband's approval between those who do not discuss and those who discuss is not large enough to explain the correctness of women's reporting of spouse's approval. On balance, it appears that

increased partner willingness to discuss is interpreted as indicating approval. Although the overall correctness of reporting appears to improve with discussion, women are relatively handicapped in their ability to gauge husband's disapproval when there is no discussion. It seems that those who are in unions in which there is no discussion have ways of knowing that their spouses' disapprove, that are more accurate than those of women who report that discussion has taken place more often (Bongaarts et al, 1995). Furthermore the 1997 Chad DHS compared women's perceptions of their husband's attitude toward family planning with his actual attitude, by frequency of discussion. Overall, proportions of women correctly citing their husband's attitudes were large if discussion had occurred than if it had not, regardless of whether the husband reported approval or disapproval.

Many factors such as education, age, income, and residence influence attitudes towards family planning. Couples with low level of education and who live in rural areas are less likely to approve family planning. Generally, most of these people believe that children are gift from God and they grow up by the will of God. The cost of bringing up children in a modern world is a burden to many people and hence forcing them to adopt family planning. However some couples, though approve of family planning, are not using contraceptives since they can not afford it. In addition, the attitudes of son's preference may lead people to disapprove of family planning, because, as long as they don't have the number of sons they want, they can't stop childbearing and thus disapprove family planning.

2.4 COMMUNICATION AND DESIRED FERTILITY

Most African societies are patriarchal including Rwandan society, with a family structure in which husbands exert authority over their wives on most issues. Men and their kinsmen are decision-makers on issues relating to reproductive health, while their women are expected to remain submissive. In this society, women hardly have a say on matters relating to the timing of the next birth, the number of children and when to stop childbearing except among a relatively small emergent highly educated career women.

Because the views of women who bear the burden of pregnancy and child-birth are hardly required in traditional societies, the number of children a woman bears is perceived to most often reflect the desired fertility of her husband and his relatives (Caldwell and Caldwell, 1987).

Gender differences in fertility desires have been attributed to the relative position of men and women in the male dominated cultures (Mason et al, 1987), and might be reduced through effective spousal communication on fertility expectations of individuals in marital unions. There has recently been a revival of interest in the relative roles played by men and women in reproductive decisions, particularly those concerning number of, and timing of children (Ezeh, 1993). Since marital fertility involves participation of the wife and husband who may differ in their reproductive goals in terms of number and sex composition of children, timing of having the children, successful planning and decision-making about family size and use of contraceptives require effective communication of both marital partners (Feyisetan, 2000). Hence, the pattern and process of a couple's communication can undoubtedly have major consequences for the number of children, timing of birth and contraceptive adoption. Thus communication between marital partners becomes the first step in a rational fertility decision-making procedure.

According to (Abanihe , 2002) in a study conducted in Nigeria among the Yoruba, 66 percent of couples reported joint spousal communication on family planning, and 59 percent on fertility. These represent fairly high rates of spousal communication on family issues, which is an important precondition for a sustainable decline in fertility. It is also evident that spousal agreement on fertility intentions within marital partners is high, with about 87 percent of couples reporting similar fertility preferences. Of these 59.5 percent wanted more children and only 27.8 percent did not want any more children. Results from the same study showed that spousal communication about family planning, husbands and wives and current family size were significantly related with wanting no more children. These are quite intuitive, indicating that a reasonable family size, which is more likely at older ages, is a stimulus for spousal discussion and consideration of contraceptive use and fertility reduction. The economic hardship that has prevailed in

Nigeria over the past decades may have engendered more husband-wife communication because of the known burden of a large family size in the face of declining resources and reduced contribution of children to their parents.

2.4.1 GENDER DIFFERENCE AND REPRODUCTIVE PREFERENCE.

The impact of gender preference on fertility has usually been investigated by examining data relating to the sex composition of living children of couples who do not want any more children. The assumption being that, if preference for a son has an impact on fertility, couples who have sons are much more likely to not want more children therefore use contraceptives. Such an impact has been documented and empirically demonstrated in several South Asian countries (Malhi, 1995).

Some of the earlier studies conducted in India did not find any association between son preference and higher fertility. The first all India family planning Survey, for instance, found that the parity progression ratios of couples were not affected much by the sex of their living children. However, the survey did find that the desire for additional children was greatest among couples who had daughters only. In another study from Jordan, Bangladesh and India, it has been observed that the fertility decisions of couples were not influenced by the desire to have sons. On the contrary, they were motivated by the economic advantages associated with having children, regardless of their sex and the couples who already have more sons may be more likely to want more children, because of the perceived financial utility of sons. Couples with more daughters may be more likely to terminate childbearing sooner because of the economic liability of having several daughters. An alternate hypothesis explaining the positive association between the number of sons and fertility is that despite a strong preference for sons, couples with several daughters may not risk having an additional child because of the fear that the child may be another daughter (*ibid*).

Despite the emphasis on men as pronatalist barriers in reproductive decision-making and behaviors, the evidence at first is generally unresponsive of this assumption. For example, only a small proportion of women who want to delay or limit childbearing state in survey

interviews that their partners' opposition is the main reason that they do intend to use contraception (Bankole, 1995). (Mason et al, 1987) found that when gender differences occurred they were typically small, the average difference in ideal family size was less than one-fifth of a child. In a more review of 17 Demographics and Health Surveys of men and women, (Ezeh et al ,1996) documented as wide a variation in men's fertility preference as in women's. Men's ideal family size ranged from around 9 children in West Africa to 5 children in East Africa to about 3.5 in North Africa and Asia. Documented gender difference in fertility preference was very small except in West Africa, where men's ideal family size exceeds women's by 2 to 4 children. Of course, difference between men and women in the number of children wanted may not be as nearly as critical for subsequent reproductive outcomes as differences in the desired timing of another child. Preferences for children of a certain sex, usually a boy, are also argued to make man more pronatalist than women.

There is a tendency for men to prefer sons over daughters (Mason et al, 1987), but this varies across countries. (Pebley et al, 1980) found that the predominant preference among both men and women in Guatemala was for equal numbers of sons and daughters. Difference between men and women on sex preferences of children may also be more in degree than in kind. When asked to consider hypothetical situations of family size and gender composition, more husbands than wives were willing to pursue larger family size than their ideal in order to reach their desired number of sons.

The term son preference refers to the attitude that sons are more important and more valuable than daughters. In many eastern and southern Asian societies, parents honor their sons for economic, religious or social reasons. In India, for example, adult sons are expected to provide economic support to their parents. In contrast, daughters may represent a substantial burden in places where their parents provide a dowry. The more valuable sons are to their parents in relation to daughters, presumably the greater the parent's desire for high ratio of sons to daughters. One simple measure of the degree of sons preference is a woman's expressed desire for the ideal number of sons and daughters, converted into the ideal proportion of sons (ideal number of sons/ideal total number of children)(Shelley, 2000).

Evidence show that couples decide preference for a particular sex combination of children. For example, in many South Asian countries, including India, there is a strong preference for sons over daughters. In fact, son preference has been considered to be one of the factors responsible for the high fertility in these countries, and it is argued that such gender preferences for children may act as a major constraint in the implementation of family planning programs, particularly in countries which are beginning to experience a fertility transition (Malhi, 1995).

Some of the earlier studies conducted by (Chowdhury et al, 1990) in India did not find any association between son preference and higher fertility. The first All India family planning Survey, for instance, found that the parity progression ratios of couples were not much affected by the sex of their living children. However, the survey did find that the desire for additional children was greatest among couples who had daughters only. In another study from Jordan, Bangladesh and India, they observed that the fertility decisions of couples were not influenced by the desire to have sons. On the contrary, they were motivated by the economic advantages associated with having children, regardless of their sex. Couples who already have more sons may be more likely to want more children because of the perceived financial utility of sons, while couples with more daughters may be more likely to terminate childbearing sooner because of the economic liability of having several daughters. An alternate hypothesis explain the positive association between the number of sons and fertility is that despite a strong preference for sons, couples with several daughters may not risk having an additional child because of the fear that the child may be another daughter(*ibid*).

Most fertility surveys, which seek to measure the demand for children and gender preference, are confined to currently married women and hence assume that the woman's response reflects the preference of the couple. Thus, it remains unclear whether it is the men or the women who exhibit a greater demand for children, particularly male children. This issue is further complicated by the fact that conflicting theoretical formulations regarding men's and women's reproductive goals are suggested in the literature. On the other hand, (Caldwell et al, 1987) argues that in pre-transition society's men receive a disproportionate share of their children's love, loyalty, and labor while women have to

bear the costs of childbearing and rearing, and in such social settings, the fertility desires of men will be higher than those of women. In contrast, in South Asian countries where women are economically dependent on their male family members, women will be motivated to want a greater number of children, especially sons, who are perceived as an insurance against the risks of divorce, widowhood and old age.

In an extensive review of the literature on the differences between men's and women's reproductive preferences in developing countries, (Mason et al,1987) conclude that although gender differences in fertility desires appear to be small and statistically insignificant, whenever differences do exist, there is a tendency for men rather than women, to prefer more sons. Further, they noted that studies from high fertility countries were somewhat more likely to show, greater gender differences in fertility intentions than studies from countries with low fertility. However, they found no consistent evidence to indicate whether married men or women desire more children even after such a qualification (Mahmood et al, 1997).

2.4.2. FAMILY SIZE PREFERENCE

Despite some regional variations, several generalizations can be made about the African household: they are mostly rural, patriarchal and hierarchical, they give great emphasis to maintenance of the lineage, they are frequently polygynous, and they are not nuclear embracing relationship networks. These characteristics of the African households affect individual perception of the possibility and desirability of making a conscious choice regarding the number and timings of births. The social organisation of households, especially the place of women within them, tend to inhibit the taking of conscious, deliberate choices regarding the number and timing of births (Makinawa , 2001). It is especially important to appreciate that this African household is very much at odds with the demographer's household in models of fertility decision-making.

The economic theory of fertility decision-making used in demography, assumes that husbands and wives, acting as a unit, weigh the costs and benefits of children against the

cost of other competing goods and subsequently arrive at desired family size that reflect their interest (ibid). This conjugal household, with its pooled resources and shared responsibilities is the one that is viewed as the primary locus of reproductive decision-making. If this were so, then it should be easy to offer couples sufficient incentives to make them prefer smaller family size. In most African households, however, couples are more likely to have different interests as regards fertility and other issues. Decision-making about children is more likely to be predicated on family status and considerations for the preservation of lineage and, respect for ancestors. According to traditional beliefs, ancestors are incarnated through additional births (National Research Council, 1993).

(Mhloyi ,1994) argued that the conventional approach measures desired family size (DFS) at a fixed point in time, which assumes that a woman adopts the same fertility behavior, and has the same views about the social and economic value of children throughout her reproductive life, whereas fertility preferences are constantly reviewed over the course of life. Similarly, (Rasul ,1993) argued that the conventional measure of DFS is econocentric in that individuals, as decision-makers, are assumed to carefully weigh costs and benefits of making choices to satisfy personally-defined objectives. He argued that overlapping cultural, socio-economic and physical realities define the relative power of women and men in decision-making and, therefore, that changes in the circumstances affecting women could cause them to revise their fertility preferences over the life course irrespective of market considerations.

(Bushan et al ,1995) argued that responses to questions on DFS are characterized by a great deal of ambivalence because individuals are not sure of what might happen in the future and that is why individuals say that the number of children to have is up to God. They argued that this hesitation accounts for the high incidence of non-numeric answers to questions on DFS. It logically follows that the lower the proportion giving non-numeric answers as in the case of Kenya, the higher the reliability of the answers, and the less the role played by ancestors and Gods in fertility desires.

On the basis of this logic, the measure of ideal family size is likely to be highly reliable in Kenya because the proportion giving non-numeric answers is one of the lowest in sub-

Saharan Africa. DFS has several advantages over the alternative measures. First, it is a measure of fertility desires; there is no measure that provides an equally effective index of the potential for change in family size in the developing countries (Ware, 1974). Secondly, it reflects the norms and culture of a place (Bankole, 1995), particularly, those that are related to the value of children (Kent et al, 1982). Thirdly, the literature reports significant correlation between DFS and fertility behavior in different contexts. For example, (Farooq, 1987) found considerable correspondence between DFS and contraceptive use in Egypt.

The study indicated that 66 percent of the low-income rural women who said they wanted no more children were using modern contraception compared with 2 percent among those who said they wanted more. DFS was found to have a stronger effect on contraception than education and place of residence. Similarly, an analysis of DHS data from 18 developing countries revealed considerable agreement between stated preferences and demographic behavior among women in these countries (Bongaarts, 1991). The study found that 85 percent of the respondents, whose actual fertility exceeded their DFS, said they wanted no more children. The inconsistencies observed among the remaining 15 percent were attributed to unachieved sex composition preferences and to real life constraints which inhibited the realization of stated preferences.

2.4.3. NUMBER OF CHILDREN AS A KEY REPRODUCTIVE GOAL.

Couples in most countries want smaller families than they did in the past. Over the last 30 years, the size of the average family in many developing countries has fallen from roughly six children to about three. The ability of women to have the number of children they want, when they want them, is central to the quality of women's lives. Improvement in women's education, the spread of mass media and other changes has caused women to examine the desirability of large families and how to fulfil the role of mother. Extreme poverty, profound inequalities between men and women and early marriage severely limit women's ability to achieve their childbearing goals. The high level of unmet need for quality contraceptive services is a key reason why there is frequently a gap between the

numbers of children women say they want and the number they actually have. In Burundi, for example women want 5.4 children and have 6.5, in Bolivia; they want 2.7 and have 4.6 (Bushan et al, 1995).

As couples increasingly want and value smaller families, women still bear the primary burden of trying to avoid unplanned or unwanted pregnancy. The gap between reproductive hopes and reproductive realities persists, because millions of women who are at risk of pregnancy and say they do not want to be pregnant are not using an effective method of family planning; because men in most countries play only a small part in family planning and often do not support their partner's reproductive decision-making, and because some women who are using effective contraceptive methods fail to use them correctly. Women's control over childbearing is closely related to many areas of their lives besides access to contraception, major improvements are necessary in these areas, educational achievement, the age at which women marry, their likelihood of being subjected to domestic violence and the degree to which husbands or partners endorse their family size and contraceptive use goals (Da Vanzo et al, 2003).

In a study conducted in Senegal and Zimbabwe, a few Senegalese men answered the question with numbers of wives rather than children, suggesting that they are thinking of children in terms of wives or sets, rather than overall numbers (Bledsoe et al, 1998). For these people at least, numeric expressions of ideal family size are unlikely to reflect meaningful fertility goals. For many respondents, if they had at least a minimum number of surviving children, the exact number was much less important than several other objectives. Fertility preferences were commonly expressed in number of boys versus girls, or in numbers of good children. People also frequently qualified desired family sizes by referring to uncertain future economic and living situations, the mother's health, and other circumstances over which they have little control.

In both Senegal and Zimbabwe, child spacing often appears to be much more important than the absolute number of children. Expressed fertility preferences may in fact represent a best feasible outcome rather than a reproductive target, given intervening spacing desires, the age span during which women feel they can safely bear children, and,

especially in Dakar, women's rising age at marriage. In Zimbabwe, births intervals around four to six years were preferred because of economic and maternal health concerns. Childbirth after age 35 was viewed as unhealthy for both women and their children and even as being shameful: older women were afraid of being scolded by nurses. Thus a Shona woman who marries in her early 20s can reasonably expect to have at most four or five children. For the Wolof of Senegal, births spaced more closely than two years apart were viewed as undesirable for both mothers and children. Women's age at marriage is also rising; with women often remaining single at age 30, in Dakar, may thus view more than five births as impractical (Le Grand et al, 2003).

For younger men and women in Dakar and in both urban and rural Zimbabwe, there is nevertheless a tendency towards hardening of fertility preference around a small number of children, usually two or three, at times irrespective of their sex. For them the number desired seems to be converging on the socially acceptable minimum number, and their desired family size appears to be a target. For both Zimbabwe and Senegal this hardening seems to be a direct consequence of parent's worries over the escalating cost of living and difficulties in raising their children well (ibid).

2.5. ECONOMIC VALUE OF CHILDREN

The benefits which parents expect from their children may vary with the children's age and sex and according to whether they have been to school or not. These expectations may also vary with parents' age and social and economic position in the community. It would appear that most parents in traditional societies expect economic help from their children. These expectations may affect preferences for children of a given sex and ultimately reproductive behaviour. Evidence from a study of the value and cost of children among the Yoruba of Nigeria (Okediji et al, 1976) confirms the active participation of children in the household economy. Although children's participation in productive work is relatively insignificant under the age of ten years, the majority of parents in this study believed that boys were more productive than girls of the same age.

The various kinds of assistance noted conform naturally with the traditional occupation of the parents as well as the customary definition of sex roles for women and men. More men than women think that boys are generally the most productive. The preference for sons is not only for economic reasons, however, but also related to the desire for continuity of the family name. Comparative evidence from (Uyanga's, 1980) study among 600 rural wives and husbands in Nigeria also indicates that parents spend more on their male children.

Children's economic value, defined in terms the money, goods, and labour they provide to their parents and family, has fallen over time (Mhloyi, 1994). With rising levels of schooling, children's productive value has declined, especially for boys in urban areas. High levels of urban unemployment, increasing migration, and to some extent, declining family solidarity have all decreased children's economic value to their parents in old age. In the past, older children in Zimbabwe paid many of the costs of raising and educating their younger siblings, but such support has become weak in recent years (ibid). Sons and daughters are valued differently in economic terms, and (Shankar et al ,2001) found that the sex composition of children in the family, in particular the lack of a child of a particular sex, was an important consideration motivating Shona men and women to have children after the first two births. In traditional families, a key task for a son is to provide a daughter- in -law to help his mother. In addition, the costs of bringing up children in terms of schooling, food, clothing, health care, and so forth have increased over time (Kaler, 2003).

The traditional economic system encourages high fertility; child-care is delegated, and parents gain from the labour of their children. The expectations of mothers and fathers regarding children's labour and financial support are obviously major factors determining reproductive behaviour in Yoruba society. There is a clear preference for male children, partly because of traditional sex role differences and the longer-term economic and social expectations from male children (Orubuyole, 1977).

The introduction of Western education has made new types of employment and income generation possible. Children no longer work side by side with their parents in families whose awareness of education is high. The physical obligations of children to their parents are gradually giving way to the monetary obligations. Boys are expected to contribute more than girls. The continuity and perpetuation of family name remains the exclusive function of the boys, who are expected to provide some kind of old age security for the parents. The significant differences in expectations regarding sons and daughters are likely to continue to affect the reproductive behaviour of parents, in that parents tend to continue to produce children until there are enough sons to serve these long-term economic, social and religious functions. In this way, continuing perceptions about inequalities and differences between girls and boys serve to perpetuate high fertility values and practices (ibid).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 .OVERVIEW OF THE AREA OF THE STUDY

Rwanda is a small mountainous country covering an area of 26,338 square kilometres. Rwanda's countryside is covered by grasslands and small farms extending over rolling hills, with areas of rugged mountains that extend southeast from a chain of volcanoes in the northwest. The divide between the Congo and Nile drainage systems extends from the north to south through western Rwanda at an average elevation of almost 9,000 feet. On the western slopes of this ridgeline, the land slopes abruptly toward Lake Kivu and the Ruzizi River valley, which forms the western boundary with the people's Democratic Republic of Congo and constitutes part of the Great Rift Valley. The eastern slopes are more moderate, with rolling hills extending across central uplands at gradually reducing altitudes, to the plains, swamps, and lakes of the eastern border region. Although located only two degrees south of the Equator, Rwanda's high elevation makes the climate temperate. The average daily temperature near Lake Kivu, at an altitude of 4800 feet (1,463 meters) is 73⁰ F (23⁰ C). During the two rainy seasons (February-May and September-December), heavy downpours occur almost daily, alternating with sunny weather. Annual rainfall averages 80 centimetres but it is generally heavier in the western mountains than in the eastern savannas (Ministry of Finance, 2002).

With a total population of 8,128,553 inhabitants living on a total surface area of 25,312 square kilometres, Rwanda had an overall population density of 321 persons per square kilometre in 2002, which is among the highest in the continent. In fact, of this total surface area, only 21,502 square kilometres are available or habitable, that is when the areas occupied by water and by forest reserves and parks have been excluded. Thus the density per habitable surface area becomes 378 inhabitants per square kilometre (ibid).

With regard to languages spoken in Rwanda, the Kinyarwanda language is the mother tongue of the Banyarwanda. It is not only spoken by all Rwandese but also in the regions

bordering the country. It is one of the three official languages of the country. Article 5 of the constitution of Rwanda states that Kinyarwanda is the national language of the country and that the official languages are Kinyarwanda, French and English. There are four main languages spoken in Rwanda which are Kinyarwanda, French, English and Swahili. Almost all the residents of the country (99.7 percent) can speak Kinyarwanda. The French, English and Swahili languages were spoken only by 3.9 percent, 1.9 percent and 3 percent of the population respectively. Foreign languages are spoken more by men than by women in Rwanda and more in the urban areas than in rural areas (Ministry of Finance, 2005).

According to the urbanisation, with an overall proportion of 17 percent of the population in urban areas, including some largely rural population, were only recently incorporated into adjacent urban agglomeration. One must consider the fact that the population of the city of Kigali alone constitutes some 44 percent of the entire urban population of the country. It can be concluded that Rwanda has a very low urbanisation rate. In terms of figures, there were 1,372,604 persons living in urban areas in 2002, of which 603,049 were resident in Kigali City (ibid).

The overall sex ratio for the country is 91.3. This implies a deficit of males compared to females (91 males to 100 females) within the population of Rwanda in 2002. This excess of females is observed in every age-group. According to the place of residence, males predominate in urban areas with 112.7 males to 100 females, but more especially within the economically active age group (20 to 60 years). The opposite is true in the rural areas where the sex ratio is as low as 87.5 males to 100 females. This is largely the result of sex selective urban ward migration in favour of males in search for jobs and better conditions of living and who go to increase urban sex ratios but also to consistently higher male mortality in Rwanda and to out migration from rural to urban. Compared with data from previous period, sex ratios in Rwanda rose from 92 in 1978 to 95.1 in 1991 before dropping again to 91.3 in 2002. The observed drop can be partly attributable to the excess male mortality during the time of war and genocide of the early 1990s (ibid).

Marriage is universal in Rwanda. Almost everybody ends up getting married especially among the women aged between 15 and 49 years. At age 50 when entry into first union is very rare, 96.5 percent of the men and 97.4 percent of the women have already been married. In urban areas, the intensity of entry into first union is 94.5 percent among males and 95.9 percent among females. Corresponding proportions are 97.4 percent and 97.7 percent respectively in rural areas. With regard to the proportion of elderly never married persons, they comprise 3.5 percent of the males aged 15 years and above and 2.6 percent of females at the national level. The mean age at first union is 26.8 years for males, and 24 years for females (ibid).

The level of mass education in Rwanda is very low. Education at secondary and higher levels is extremely low. Thirty three percent of the population of 15 years and above have no education, and 60 percent have only primary education, 7.1 percent have post-primary or secondary education, and only 0.4 percent has some tertiary education. Current educational enrolment has been increasing. Most people in Rwanda now have some access to primary education for their children. However, access to secondary and tertiary education is much more limited. Some 60 percent of the population aged 15 years and above in Rwanda can read and write a text in at least one language. Another 4.4 percent can only read while 35.6 percent can neither read nor write. In the urban areas of the country, the proportion of literate residents is higher than those in rural areas 76.7 percent as against 56.6 percent. The highest rates of literacy are observed within 15 to 34 year age range with rates ranging from 67 percent to 74 percent. Levels of illiteracy are found to worsen with age from age 40 and the disparities by sex become even worse (ibid).

The Rwandan economy is predominantly agricultural featuring mainly subsistent agricultural production in small holdings land using intensive artisanal methods. The high rural population densities coupled with the tradition of sharing landed property among heirs have led to an excessive fragmentation of family plots to the extent that agriculture production itself is producing lower returns. The very low per capita income in Rwanda (US \$ 250) is such that little else can be spared for investment in this sector or in others. Furthermore, the financial sector has not developed any interest in the rural sector of the

economy. On the other hand, activities of secondary and tertiary sectors are very limited in Rwanda. They are generally limited to the urban areas and mainly to the Kigali city (Ministry of Finance, 2002).

Table 3.1. Selected Demographics indicators of Rwanda.

Index	Census 2002
Population size	8, 128,553 inhabitants
Infant mortality rate	139 deaths per thousands live births
Total fertility rate	5.9 children per woman
Physical population density	321 persons per square kilometre
Sex ratios	91.3 males to hundred females
Crude birth rate	41.2 per thousand
Crude death rate	15.4 per thousand
General fertility rate	162 per thousand
Life expectancy at birth	53.75 years

Source: Ministry of Finance, 2005.

3.2. SOURCE OF DATA

This study uses secondary data from the 2000 Rwanda Demographic and Health Survey (RDHS) of married people of 15 to 49 years. This is the second round in a series of national-level Demographic and Health Surveys conducted in Rwanda. It was conducted by the Rwandan Ministry of Health in collaboration with the National Office of Population (ONAPO). Opinion Research Corporation (ORC) Macro provided technical support for the survey through the MEASURE *DHS* program.

3.3. SAMPLE DESIGN

The sample for the 2000 RDHS covered the population residing in private households in the country. A representative probability sample of about 9696 households was selected nationwide. The survey was carried out mainly to evaluate several socio-economic indicators, demographics and health of a sample of the population. The main source of contraceptive data collected in the 2000 RDHS was the birth history of each female aged 15-49. Each female was asked to provide information on contraceptive use, date of birth of each child, sex of the child, survival status, breastfeeding and age of death of child. All women aged 15-49 and all men aged 15-59 that were either usual resident of the households in the RDHS sample or visitors present in the household the night before the survey were eligible to be interviewed in the survey.

In the households interviewed in the survey, a total of 10 622 eligible women age 15-49 were identified; interviews were completed with 10 421 of these women, yielding a response rate of 98.1 percent. In the same households, a total of 2857 eligible men aged 15-59 were identified and interviews were completed with 2717 yielding a male response rate of 95.1 percent. In all 4891 women and 1362 men were in union. In this study, the researcher will restrict analysis to 1140 women and 1140 men who were currently married. All couples considered in this sample were monogamous.

3.4. INSTRUMENTATION

Three questionnaires were used for the 2000 RDHS; the household questionnaire, the women's questionnaire, and the men's questionnaire. The contents of these questionnaires were based on the model questionnaires developed by the MEASURE *DHS+* program and were designed to provide information needed by health and family planning program managers and policymakers. The questionnaires were adapted to the Rwandan situation and were translated from French into Kinyarwanda, the local language.

The household questionnaire was used to list all the usual members and visitors in the selected households. Information was collected on the characteristics of each person listed, including the age, sex, education, and relationship to the head of household. The main purpose of the household questionnaire was to identify eligible women and men for the individual interview. The Household Questionnaire collected information on characteristics of the household's dwelling unit, such as the source of drinking water, type of toilet facilities, flooring materials, ownership of various consumer goods, and ownership and use of mosquito nets. It was also used to record height and weight measurements of women 15-49 and children under the age of 5, and to record the respondents' consent to the hemoglobin and HIV testing.

The women's questionnaire was used to collect information from all women age 15-49. These women were asked questions that will provide: respondent's background characteristics, such as:

- education,
- residential history,
- media exposure,
- knowledge and use of family planning methods,
- fertility preferences,
- antenatal and delivery care,
- breastfeeding and infant and child feeding practices,
- vaccinations and childhood illnesses,
- childhood mortality,
- marriage and sexual activity,
- woman's work and husband's background characteristics,
- awareness and behavior regarding AIDS and other STIs.

The men's questionnaire was administered to all men of age 15-59 in every household in the RDHS sample. The men's questionnaire collected much of the same information found in the women's questionnaire, but was shorter because it did not contain a reproductive history or questions on maternal and child health and nutrition. The

questionnaires were then pre-tested in a pilot study whereby 200 women and 75 men interviews were conducted in two cells, one in Kigali Ville and another in Kigali Rural under the supervision of ONAPO and Macro. After the pilot study, the questionnaires were revised and translated based on the discussions that were held with the pilot field staff. For the main survey, candidates were selected for fieldwork based on their education, maturity, field experience and fluency in the language required to conduct interview. These fieldworkers then underwent training on questionnaire administration and field training, which was conducted by ONAPO for four weeks. Overall 10 interviewing teams carried out fieldwork. Each team had three interviewers, one nurse, a supervisor, a field editor and a driver. Fieldwork commenced in June and was completed in November 2000.

3.5. DATA ANALYSIS

The statistical package for social sciences (SPSS) software is used to analyse Rwanda Demographic and Health Survey data. Frequencies and cross tabulation are used to describe the association between socio-economic and demographic characteristics and attitudes, communication in couple's towards contraceptive use on desired fertility. In addition, both bivariate and multivariate analyses are used to assess the effect of a number of independent variables on desired fertility.

3.5.1. Dependent Variable

The dependant variable, a measure of desired fertility, is taken directly from a survey question asking fecund women and their husbands whether the respondent would like to have a child (or another child) or would prefer not to have any more children. The variable has six categories of responses, indicating wants more within two years, wants more after two years, and wants unsure timing, undecided, wants no more, declared infecund. Because our concern is with the demand for additional children, we measure the dependant variable as dichotomous, assigning a value of zero for respondents who do not want any more children and a value of one for all other responses. The respondents

who replied “undecided” have been included among “all others”, under the assumption that they did not have a clear wish to stop childbearing and could be counted as effectively wanting more children.

For the multivariate analysis, the researcher used logistic regression, an appropriate function form for the analysis of dichotomous variables. The logit analysis provides the natural logarithm of the odds of desiring not to have more children (the dependant variable) as a function of a set predictor or independent variables. The probability of the desire not to have more children is predicted to be dependent on or to be correlated with the characteristics of women and men, and the coefficients represent the magnitude of the increase in the log-odds of desiring no more children when there is a unit increase in the predictor variables.

3.5.2. Independent Variables

In order to assess the socio-economic and demographics factors; current age, type of residence, education of wives and husbands, number of living sons and number of living daughters will be analysed in relation with the desire for additional children. In order to examine gender difference as a factor influencing desired fertility, men and women differ in the degree in which having living sons and living daughters is important in formulating a desire of not having more children. The researcher evaluated the significance of having living sons and living daughters towards the decision of not having more children.

To capture the influence or awareness of couples and the compatibility of their views, a couple’s variable has been created in order to compare the responses of husbands and wives. In each case, the reference category in the logistic regression is the category that is predicted to have the largest negative association with the desire to have no more children for instance, both partners disapproved family planning, but neither has discussed this. Communication was liberally interpreted in the communication about family planning variable, by including whether the couple had discussed the number of children they

would like to have. If either family planning or desired family size had been discussed, the communication variable took the value of one.

A number of control variables have been used also in the regression; current age, husband's and wives' education, type of residence, employment, attitudes toward family planning, discussed family planning, number of living children, number of living sons and number of living daughters. In this study, the researcher presented separately for wives and husbands two logistic regression models of the effect of selected predictor variables. The first model includes the control variables only, age, type of residence, number of living sons and daughters, employment and education. The second model adds in variables that serve as proxies for awareness of attitudes toward the family planning program; their approval of family planning, discussion with their spouse about family planning. The researcher also demonstrates the results for urban and rural respondents separately.

3.5.3. Missing Values

Although complete data for all subjects are desired, the possibility that some data items will not be available, will become lost, or will be unusable for other unknown reasons should not be ignored. Data that is not available for any subject will be assigned a "missing" value in the database. In the treatment of data, after identification of errors, missing values, and true (extreme or normal) values, the researcher must decide what to do with problematic observations. The options are limited to correcting, deleting, or leaving unchanged. There are general rules for which option to choose. Impossible values are never left unchanged, but should be corrected if a correct value can be found, otherwise they should be deleted (Jan Van den Broeck et al, 2005).

(As De Vaus ,2002) warns, the inclusion of missing cases confuses real responses with non responses; can distort results; can inflate or deflate summary statistics or scale scores and can also destroy the ordinal and interval character of any variable. Untreated, missing data can introduce serious error into estimates. Frequently, there is a correlation between

the characteristics of those missing and variables to be estimated, resulting in biased estimates. For this reason, it is often best to employ adjustments and imputation to mitigate this damage. Without weight adjustments or imputation, calculations of totals are underestimated. In this study missing cases were excluded from analysis. This was done by assigning them a code, then declaring them missing to ensure their exclusion from data analysis. While this might have affected data reliability, opting to impute would have also introduced bias to the study. I therefore argue that it is best to exclude the missing cases from analysis than exaggerate the correlation between communication about family planning and desired fertility as well as attitudes towards family planning and desired fertility that might result if missing cases are replaced through data imputation.

3.5.4. Limitation of the study

The fact that this research process will be conducted by means of a quantitative research strategy that is based on secondary data poses the possibility limitations. There is a general lack of information about men in the sexual and reproductive health and this is perceived as a constraint to elaborate on this subject. Therefore, there can be a possibility of capturing lesser variables from this data set, some socio-economic variables which may be used in our analysis were not applicable, and these are religion, income and ethnicity of the respondents.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

The purpose of this chapter is to analyze data in order to determine socio- demographics characteristics of this sample. The relationship between socio-demographic variables and desired fertility through spousal communication and attitudes towards family planning, and gender difference in desired fertility are analysed. The importance of analysing socio-demographics variables is based on understanding that these variables have a relation with attitudes towards family planning and desired fertility. It should be noted that this chapter is divided in two main sections: findings and discussion.

4.2 SAMPLE

The sample for this analysis was obtained from the 2000 Rwanda Demographics and Health Survey (2000 RDHS). Specifically, The RDHS provided a subset of 10 421 females' respondents and 2717 males' respondents. The survey yielded information on 6663 ever-married women aged 15-49 and a sub-sample of 1439 of their husbands. We have selected for analysis a matched set of currently married; fecund women aged 15-49 and their husbands of any age. The sample size of 1140 couples is used to represent the actual urban-rural distribution of the population sampled better, yielding 883 rural and 257 urban couples.

4.3 FINDINGS

4.3.1 Age

The ages of the women in the sample population, ranged from 15 years to 49 years while the ages for men were ranged from 15 years to 64. The sample was restricted to women who were in the childbearing age and currently married as well as men currently married. Men (n= 1140) that were 15-29 years of age accounted for 25.6 percent of the respondents. Men 30-39 years accounted for 36.2 percent while men aged 40 and above accounted for 38.2 percent of the sample. Women (n=1140) that were 15-29 years accounted for 47.4 percent respondents. Women 30-39 years accounted for 32.1percent respondents while women aged 40 and above accounted for 20.4 percent respondents of the sample.

Table 4.1: Percentage of males and females respondents according to their age.

Age-group	Females respondents		Males respondents	
	n	%	n	%
15 -19	41	3.7	5	0.4
20 -24	235	20.6	99	8.7
25 -29	265	23.2	188	16.5
30 -34	198	17.4	203	17.8
35 -39	168	14.7	210	18.4
40 -44	143	12.5	215	18.9
45 -49	90	7.9	133	11.7
50 -54			66	5.8
55 -59			21	1.8
Total	1140	100	1140	100

Source: calculated by the author from 2000 RDHS

4.3.2. Education

In general there was a low level of educational achievement throughout the sample. In the present sample, only 11.4 percent of the women and 14.3 percent of the men went through secondary school. Only 1.1 percent of the women and 2.3 percent of the men had attended the university. There is a difference between the educational levels of women and of the men. Generally, the woman had considerably less education than their husbands. Some of the major causes of women's unequal participation in education are:

Lack of time: girls begin helping out at an early age with the household everyday jobs that burden women (fetching fuel, water, preparing food, childcare and working in the fields), even when girls go to school with boys; girls fail to continue. These responsibilities increase as children grow, resulting in a decline in participation in education with increasing age. (Marilee, 1995)

Customs, traditions and attitudes: a combination of mutually reinforcing customs and attitudes place greater value on males than females in many societies. Preferences within families are often for boys to advance their education since social and cultural perceptions confine girls to roles that are thought to require little, if any education (ibid).

Cycle of poverty: the poorer a family is, the less likely that girls are sent to school because their labour is required at home and in the fields. Extreme poverty in many countries tends to lock illiterate women into a cycle of early marriages and bringing up illiterate girls who continue the cycle of early marriages and illiterate children (ibid).

Table 4.2: Percentage of educational attainment of females and males respondents

	Females respondents		Males respondents	
	n	%	n	%
No education	368	32.3	309	27.1
Primary	629	55.2	642	56.3
Secondary	130	11.4	163	14.3
Higher	13	1.1	26	2.3
Total	1140	100	1140	100

Source: calculated by the author from 2000 RDHS

4.3.3. Desire for more Children

Table 4.3 shows the percentage of women and men who want more children and those who do not want more children. The overall proportion of women and men who want more children after two years is the highest when compared to other categories among women and men. They account for 48 percent and 50 percent respectively. About one-third of the sample wants no more children. The percentage for women and men are 32 and 30 percent respectively. There was a small percentage among those who declared infecund, undecided, unsure timing and those who wanted more children within two years.

Table 4.3: Percentage of wives and their husbands according to their desire for more children

Characteristic	Females respondents		Males respondents	
	n	%	n	%
Wants within two years	172	15.1	174	15.3
Wants after two years	548	48.1	567	49.8
Wants unsure timing	10	0.9	17	1.5
Undecided	29	2.5	19	1.7
Wants no more children	364	31.9	344	30.1
Declare infecund	17	1.5	19	1.6
Total	1140	100	1140	100

Source: calculated by the author from 2000 RDHS

4.3.4. Discussion with partner about family planning

According to Table 4.4, it was found that in twelve months before the survey, 40.1 percent of women currently married had never discussed family planning with their husbands. More than one woman over two (59.9 percent) declared that they discussed with their partner about family planning; 23.5 percent had discussed once or twice only while 36.4 percent had discussed more often in twelve months before the survey. The proportion of men who have never discussed with their partner about family planning once was 29 percent, while those who discussed were 70 percent; 23 percent had discussed once or twice while 47 percent had discussed more often in twelve months before the survey.

Table 4.4: Percentage of wives and their husbands who discuss family planning with their partner.

	Females respondents		Males respondents	
	n	%	n	%
Never	457	40.1	332	29.2
Once or twice	268	23.5	266	23.3
More often	415	36.4	542	47.5
Total	1140	100	1140	100

Source: Calculated by the author from 2000 RDHS

4.3.5. Employment

The Table 4.5 presents results on information collected from women and men regarding their current employment situation. Fifteen percent of women were unemployed. This proportion is small because most of women in rural areas are self employed in agricultural activities. Thirty nine percent of men were not employed. This difference is due to the fact that employment in non-agricultural occupations is relatively more common among men and among those with formal education.

Table 4.5: Percentages of wives and their husbands according to their employment.

	Females respondents		Males respondents	
	n	%	n	%
No	173	15.2	439	38.6
Yes	967	84.8	701	61.4
Total	1140	100	1140	100

Source: Calculated by the author from 2000 RDHS

4.4. SOCIO-DEMOGRAPHICS FACTORS ACCORDING TO THE PLACE OF RESIDENCE.

Table 4.6 provides the distribution of the individual characteristics including the measures of family planning and attitudes of wives and husbands for the total, urban and rural samples. Thirty five percent of women and 32.8 percent of urban men indicated that they do not want more children, compared with 30.1 percent of rural women and 29.3 percent of rural men. As expected, rural respondents are much more likely than urban men and women to have no formal schooling, and the proportion with secondary or higher education was much higher among urban residents than among rural respondents. The results demonstrate that rural women have lower levels of education than women in urban. According to 2000 RDHS, almost 38.8 percent of rural women had no education while the figure for urban was only 11.7 percent.

The gap between rural and urban education levels can be explained by the disadvantage experienced by rural areas compared to urban areas. For instance, secondary schools in rural areas are not readily accessible and available. Although men in rural areas want more children than their wives, they are also less likely than their wives to approve of family planning 52 percent and 74 percent respectively. One-third of rural spouses had never discussed family planning or the number of children they would like to have with

their partners, whereas majority of urban men and women said they had some communication with their spouses about these topics in the past year.

Most people, who are well educated, employed and with good income live in urban areas and are aware of family planning use due to the cost of rising children. The availability and communication about family planning through mass media like television and radio is higher in urban than in rural areas, hence urban couples are more likely to report discussion about family planning than rural couples.

Table 4.6: Percentage distributions of fecund wives aged 15-49 and of their husbands by selected socio-demographics and family planning characteristics, according to urban-rural residence.

WIVES				HUSBANDS		
Characteristic	Total	Urban	Rural	Total	Urban	Rural
	(1140)	(257)	(883)	(1140)	(257)	(883)
Wants more children						
Yes	68.8	65.1	69.9	69.9	67.2	70.7
No	31.2	34.9	30.1	30.1	32.8	29.3
Current Age						
< 30	47.5	48.2	47.2	25.6	18.3	27.7
30 -39	32.1	37.7	30.5	36.2	42.0	34.5
40 -49	30.4	14.0	22.3	30.5	30.4	30.6
50 -64				7.6	9.3	7.1
Education						
No Education	32.3	11.7	38.8	27.1	8.2	32.6
Primary	55.2	47.1	57.5	56.3	44.4	59.8
Secondary +	12.5	41.2	4.2	16.6	47.5	7.6
Attitudes towards family planning						
Disapproves	24.7	20	26	44.3	33.1	47.6
Approves	75.3	80	74	55.7	66.9	52.4
Discussed family planning with partner						
Some	69.4	77.1	67.2	73.1	64.5	75.6
No	30.6	22.9	32.8	26.9	35.5	24.4
Employment						
Yes	84.8	59.1	92.3	61.4	75.5	42.7
No	15.2	40.9	7.7	38.6	24.5	57.3

Source: Calculated by the author from 2000RDHS

Table 4.7 gives percentage distributions of selected joint characteristics for couples. About half of responding couples had four or more children, and among 14 percent of all couples, neither husband nor wife had any be compared indicate that only 2 percent of couples did both husband and wife disapprove of family planning, while in 53.9 percent both approved. The data also indicate disagreement in reported discussion about family planning, with only 66 percent of couples in agreement about whether family planning had been discussed in the last year and the majority of these reporting that it had not been. Rural couples were more likely than urban couples to report having never discussed family planning 69.7 percent and 54.7 percent respectively.

Table 4.7: Percentage distribution of couples by selected joint characteristics, according to urban-rural residence.

Characteristic	Total (1140)	Urban (257)	Rural (883)
Number of children			
0 -3	55.8	56.4	55.7
4 -5	21.4	25.7	20.2
≥ 6	22.7	17.9	24.1
Education			
Both none	13.7	3.1	16.8
Other	86.3	96.9	83.2
Attitudes towards			
Family planning			
Both approves	53.9	67.7	50.0
Husbands approves	4.5	2.4	5.1
Wife approves	39.5	27.8	43.0
Both disapproves	2.0	2.4	1.9
Discussed Family			
planning with partner			
Both report discussion	3.2	5.1	2.6
Either report discussion	30.5	40.2	27.1
Neither report discussion	66.3	54.7	69.7

Source: Calculated by the author from 2000 RDHS

Table 4.8 shows the percentage of currently married, fecund women and their husbands who express a desire to have no more children, according to age, number of living children, level of education and family planning discussion and attitudes. Among 30-39 year old women, the proportion indicating that they would prefer to have no additional children is substantial, 41 percent overall 39 percent in rural areas and 46 percent in urban areas, whereas a lesser but still substantial proportion of men older than 40 years prefer not to have more children (66 percent of rural men and 67 percent of urban men).

By and large, urban-rural differences are smaller among men and women who both approve family planning. For example, 38 percent of urban women and 34 percent rural women who approve family planning say they want to end childbearing.

There is similarity of proportion of women and men who approve family planning and those who both disapprove, meaning that urban-rural differences are small 18 percent and 13 percent respectively. Perhaps the most striking finding difference in Table 4.8 is the substantial gap in the desire to have no more children among couples in which only the men approved family planning. If their own preferences could be served 100 percent of urban men who approved of family planning would have no more children, but only 33 percent of their wives are in agreement.

The impact of sex preference of children on fertility has usually been investigated by examining the sex composition of the living children of couples who do not want additional children. If son preference is important and affects desire for additional children, then within any given parity, couples with one or more sons would be more likely not to want more children as compared to those who have no sons.

Table 4.8 clearly indicates a strong preference for sons among women and men. Generally the percentage of respondents who did not want additional children increased with the number of surviving sons. For instance 82 percent of women who had more than 4 sons did not want more children while 73 percent of women who had more than 4 daughters did not want more children, while a percentage of 77 husbands who had more than 4 sons did not want more children compared to 68 percent of husbands who had more than 4 daughters. However, the gap of these percentages is not big, because couples with several daughters may not risk having an additional child because of the fear that the child may be another daughter.

The results of the present study thus reveal a higher preference for sons among women when compared to men. But why in this country, do women tend to have a relatively stronger preference for sons? It appears that in social settings where women are relatively

more economically and socially dependent on men, their concern about security is more marked and sons are perceived as an essential future investment.

Table 4.8: Percentage of wives and their husbands who desire no more children, by selected characteristics, according to urban-rural residence.

Characteristic	WIVES			HUSBANDS		
	Total (1140)	Urban (257)	Rural (883)	Total (1140)	Urban (257)	Rural (883)
Current age						
< 30	8.5	6.8	14.3	6.6	19.1	4.1
30 -39	41.0	45.6	39.4	18.1	19.8	17.5
40-49	70.5	81.3	68.6	58.2	52.1	59.9
50 -64				75.0	81.8	72.4
Number of living sons						
0 -3	25.1	30.8	23.4	23.5	29.3	21.7
≥ 4	82.1	88.2	81.0	76.7	80.8	75.9
Number of living daughters						
0 -3	26.1	31.7	24.8	25.1	31.9	23.1
≥ 4	73.2	76.5	72.6	68.2	60.0	69.8
Education						
None	38.5	59.3	36.7	28.3	35.3	28.7
Primary	27.7	34.5	26.2	32.4	33.9	32.1
Secondary +	27.7	28.7	25.0	30.8	35.7	22.4
Attitudes towards family planning						
Both approves	34.8	37.9	33.7	32.6	35.7	31.7
Wife approves	28.4	33.3	27.5	26.4	44.8	22.4

Husbands approves	34.0	50	31.7	25.0	100	18.2
Both disapprove	13.6	16.7	12.5	27.9	42.9	25.0
Discussed family planning with partner						
No	30.5	36.6	28.9	25.8	26.9	25.6
Yes	36.6	25	42.1	32.6	38.0	30.9
Employment						
No	33.7	32.0	36.4	28.7	33.7	26.8
Yes	30.7	36.9	29.6	34.7	38.6	34.1

Source: Calculated by the author from 2000RDHS

4.5. Multiple Regression Analysis

Since the dependant variable is binary, logistic (logit) regression is utilised in this multivariate analysis. Logistic regression models are commonly estimated by maximum likelihood, with the likelihood function expressing the probability of obtaining observed sample as a function of parameters (De vaus, 2002). Our regression model will be predicting the logit that is the natural log of the odds of desire for more children or no more children. That is

$$\text{Logit } P = \ln (P/1-P) = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + \dots + b_i X_i + e$$

Where b_1 , b_2 , b_3 , b_4 and b_i , represent the coefficients of each variables included in the model; b_0 is the intercept , while e is an error term ; $\ln(P/1-P)$ represents the natural logarithm of the odds of the outcome. The output of the SPSS package, which was utilised in this analysis, contains logit coefficients and odds ratios with the latter being logit coefficient which have been transformed through exponentiation.

The odds ratios indicate the magnitude of the predictor variable's impact on the probability of the outcome occurring. Additionally, just in ordinary least squares, the logit coefficients can be interpreted for their significance and direction. The odds ratios are the measure of the odds that couples state preference for no more children by the independent variables. With regard to the direction of the logit coefficients; odds greater than one indicate an increased probability that couple will state a preference for more children; while those less than one indicate a decreased probability. On the other hand, a lack of effect or absence of a relationship between the independent variables and the outcome variable is suggested by odds equalling one.

4.5.1 Multivariate Findings

According to Table 4.9, results for the total samples of women and their husbands show that across all models, current age has a small but highly significant effect at one percent significance level on the desire for additional children among both men and women. As predicted, the older men and women are, the more likely they are to want no more children. Urban residence is significantly related to desired fertility at 0.1% significance level thus indicating the overall level of wanting no more children in urban areas than in rural areas. The odds of desire for no more children are 2 times higher for urban wives than rural wives (model 2). Similarly, in the husband's models, except for the small effect of wife's secondary education, the net predictive power of either partner's education is reduced to no significance when couple views of family planning are added.

In both models, no education is the reference category, the odds of desire for no more children increase with the increase in level of education. The odds of desire for no more children are 0.507 times higher for wives with secondary education compare to those with no education (Model 2) whereas the odds of desire for no more children are 0.547 times higher for husbands with secondary education compared to those with no education (Model 2). Education may act on the desire for more children through partner communication, with educated couples better able and more likely to converse about

sensitive topics such as family planning, since there are likely to be better informed about benefit of using contraceptives.

Men and women differ in the degree in which having living sons and living daughters is important in formulating a desire not to have more children. In this analysis, a significant coefficient at 0.1 percent significance level, positive coefficient for living sons indicates that having at least one son is important to the decision not to have more children. If the coefficient is not significant, the number of sons is not relevant to the individual's fertility desires. For both women and men, in all models, number of living sons and number of living daughters are positively related to the desire not to have more children. For sons, the size of coefficient among wives remain constant and significant from initial to the final model, whereas among husbands, the coefficient for sons is smaller initially and diminishes but remains significant in the final model. Among the husbands, the coefficient for living daughters is nearly two times that for living sons, and among wives, it is approximately twice as great as that sons. This reinforces the primary importance of having sons in the Rwandan context.

For both men and women, nearly all of the couples' family planning variables proved to be significant when they were introduced in the second model. However, while shared approval is a strong and significant correlate to the desire to have no more children, approval only by the other partner is negatively related to the desire for no more children. Approval of family planning only by one's spouse implies either a negative attitude towards or uncertainty about family planning on the part of the respondent that is correlated with the desire for more children. For the remaining family planning variable, even if only one partner states that family planning has been discussed, the relationship with the desire to have no more children is significant and positive when compared with the reference groups. However in model 2 when "no discussion" is the reference category, the odds of women who desire no more children are 0.564 times higher with those who both discussed about family planning compared to those who have never discussed about family planning (Model 2).

Findings for the rural sample reveals that there is consistency with those for the sample as whole, indicating a greater impact of number of living daughters on desired future fertility for rural men than for urban men. In the second model, for both men and women, there is a strong association between fertility desires and communication about family planning, thus discussion about family planning is significant at one percent for husbands while it is significant at five percent significant level for rural wives. The attitudes towards family planning for rural women and rural men were not significant. Surprisingly there is association between employment of rural husbands and desire for no more children which is significant at one percent significant level while it is not significant for rural wives. This finding deserves further research to find out why rural husbands desire no more children. Since it is generally known that in rural areas children are highly valued in term of economic and social terms.

Table 4.9: Logistic regression coefficients of the effect of selected demographic and family planning variables on the desire to have no more children among wives and husbands, by set of variables included in regression.

	WIVES		HUSBANDS	
	Model 1	Model 2	Model 1	Model 2
Age	0.267***	0.254***	0.332***	0.310***
Residence				
Urban	1.843***	1.919**	0.631**	0.552**
Rural	†	†	†	†
Wife's education				
None	†	†	†	†
Primary	0.514**	0.434**	0.474**	0.452**
Secondary +	0.558*	0.507**	0.572	0.547
Husband's education				
None	†	†	†	†
Primary	1.713*	1.382	1.971**	1.812**
Secondary +	1.212	1.113	1.402	1.236
Children				
No of living sons	0.185***	0.182***	0.209***	0.184***
No of living daughters	0.339***	0.325***	0.347***	0.345***
Attitudes towards family planning				
Both disapprove	na	†	na	†
Both approve	na	0.188***	na	0.848**
Only husbands approves	na	-0.285**	na	1.238
Only wife approves	na	0.218*	na	3.365**
Discussed family planning with partner				
No discussion	na	†	na	†
Both report discussion	na	0.564***	na	0.387**
Either report discussion	na	0.856*	na	0.824
Employment	1.406**	1.480*	1.451**	1.608**
Constant	6.62***	8.4***	5.6***	7.54***
-2Log Likelihood	973.6	949.3	975.1	867.2
Model Chi square (df)	387.5(9)	411.9(16)	386.1(9)	361.9(15)
% of desire correctly predicted	80.2	78.9	78.9	79.0

* p<0.10. ** p<0.05. *** p<0.01 † Reference category, na: not applicable.

Source: Calculated by the author from 2000 RDHS

4.6 DISCUSSION OF THE RESULTS

The purpose of this section is to discuss the findings of the study. The present study is set out to consider the relationship between communication about family planning and attitudes towards family planning among married people in Rwanda on the one hand, and selected socio-demographic factors on desired fertility on the other hand, as well as gender difference in reproductive preference.

According to Table 4.9, there is association between place of residence and the desire to have no more children. The odds of desire for no more children are about two times higher for urban wives than rural wives. (Watkins, 2000) pointed out that culture of reproduction is different from the one that has existed a generation ago. There is a difference in number of children people used to have in their own parent's time and grand parent's time. The present generation is having smaller number of children compared to earlier generation. For rural residents, the reproduction model is based on the principle of "a child can grow in its own destiny".

Accordingly large family size is promoted through the norms and cultural ideas of the society. Rural residents are more likely to respect the norms of society hence the desire for no more children is smaller than in urban areas. Urban residents are adopting a new model of reproduction that is justified in term of their state of higher life- style, and their strong desire of enhancing the social mobility of their children. Economic hardships are factors that contribute to the shift towards small family size preference by urban residents. In particular, the changing taste for a higher life style by parents, and for their children, in the face of economic hardship, puts pressure on people's reproductive choices.

In Table 4.9, age has a high significant effect at one percent significant level on the desire for additional children among women and men, rural and urban. Older people are more likely to stop childbearing because they are already aware of the nature of burden of upbringing of children. In addition, most of the time the number of children increases

with age and communication about family planning including limitations of childbearing improve with age.

The level of education attained by both men and women tended to affect their desire to have no more children. According to Table 4.9, there is positive correlation between education and the desire to have no more children. This is possibly due to an increased understanding of, and a decrease in superstition about the process of conception and contraception. As education increases; it is assumed that people are more exposed to modern and new ideas, in particular those suggesting new life styles. In the literature, education is considered to be important for effective family planning. The major reasons for its importance may lie in the fact that it offers people the opportunity to learn to assimilate new ideas, and to evaluate new goals. Women who have low or no education and who are secluded from the interaction with out-side the home are not easily reached with health education messages. While the education of the women and the expansion and the improvement of services are clearly necessary, the importance of raising the reproductive awareness of husbands and of informing men about the advantages of child spacing, and limitation of childbearing is important.

There are a number of reasons why fertility control and employment have always been associated; some of these are as follows: children, particularly young infants, require care and attention, which a working woman may well not be able to give. If economic pressures are forcing the educated woman to work in the first place, they may also force her to limit her fertility as children represent another expense to be met.

An explanation of the present finding, the positive association between employment of women and desire to have no more children, may be the economic pressures upon the family. Women may be required to work and therefore to have fewer children. The job on the other hand, may be a source of personal satisfaction and therefore an alternative to childbearing. The woman may however, simply be inclined to work and to control her fertility as means to independence, both financial and personal. Educated mothers are the ones who are employed. The gender gap in education causes a large number of illiterate

females in rural areas. Consequently there are many unemployed and this leaves women with little or no understanding of childbearing risks and other health matters, including how to negotiate timely issues related to reproductive health, in their household. There are limits to sub-Saharan's women who look for a relative to take care of their children when they are working. In this case the employment of the woman cannot contain her desire for additional children.

Communication about family planning and family size is a significant covariate of the desire to have no more children. The direction of causation in this relationship is plausibly two-way, occurring when already established fertility desires are articulated to the partner and when a discussion of advantages of child spacing or birth limitation is translated into lower fertility desires, for one or both partners. According to table 4.7 fertility desire of wives and husbands are shaped by the partner's desire, whether or not these are explicitly communicated. Thirty-one percent of women and 27 percent of men said they had not discussed the number of children they would like to have each other. As (Bankole et al, 1995) pointed out that in many African societies, and certainly Rwanda, there are several obstacles to the idea of negotiation and cooperation for reproduction. They include;

- discussion and a shared process of decision making are not common in most rural African marriage,
- the very idea of decision making and planning around reproduction may not be acceptable, Polygynous marriage and the possibility of extramarital partners challenge the construct of a discrete couple,
- the influence of the extended family is very strong in most matters connected to reproduction.

These obstacles challenge the effectiveness of any program that sets out to promote cooperative decision-making between partners without an understanding the specific context of marriage, family and gender (ibid).

The Table 4.9 shows that, approval of family planning by either or both partners and communication with the spouse about family planning are shown in this study to be

covariates of the desire to have no more children among both husbands and wives, particularly in rural areas. The inability of couples to protect themselves from unwanted pregnancy, points to the need to expand the awareness and improve the family planning service delivery system, especially in rural areas, where the majority of the population live. In addition in Table 4.6 and 4.9 females are more likely to approve of family planning than their husbands, 75.3 percent of females approved of family planning while only 55.7 percent of males approved of family planning.

The desire for no more children seems to be higher among men than women, 34 percent of husbands who approved of family planning wanted no more children while 28.4 of women who approved family planning wanted no more children. Lack of demand for contraception in Rwanda is the dynamic of a male dominated society in which women who bear the children may desire to have fewer, but men who harvest the benefits, want more. With few exceptions the desire to have no more children is greater among women than among men. In Table 4.9, among rural couples in which only the wife approved of family planning, women were nearly four times as likely as their husbands to want no more children. In a strongly patriarchal society where a small proportion of are literate, ignoring the influence of husbands on family decision-making by failing to involve men in family planning program could hamper program efforts. Controlling of other factors, results from this study suggests a strong association between both joint approval and discussion of family planning by couples and desire to have no more children.

There is little doubt that seeking information about family planning and discussing it, are logical steps for couples to take when they want to stop having children. Except urban wives for whom attitudes towards family planning were significant, there was no significance for rural women and rural men.

There are many factors influencing attitudes towards family planning among married people in Rwanda such as:

- perception of family planning as a limitation of births rather than spacing of births,
- impact of genocide on reproductive behaviour.

Family planning (FP) has become synonymous with the limitation of births rather than an intervention to improve the health of both mothers and children. In a qualitative study on assessment of family planning in Rwanda (Ministry of health, 2002) a woman representative from women's association said "the people think that FP is the limitation of children, and women who space children are abandoned by the husbands". Family planning is considered only as a means to limit births. As such FP is an option for women who have reached their reproductive intentions. Other aspects FP such as child spacing, child survival and maternal health does not figure prominently in their understanding of the benefits of FP.

Undoubtedly, the genocide provides part of the answer for the decrease in contraceptive use in Rwanda; the following summarises some factors that may have contributed to increase fertility and low contraceptive use as a result of the genocide. The cultural and social realities of the people have been transformed by the genocide. These have reinforced certain aspects of cultural traditions such as polygamy and early marriage. Survival during and after the genocide took on different meanings for the population. The result was that individuals sought to: find a new meaning in life, a chance to replace the dead, an opportunity to create a family that was lost, a chance to heal. For many this meant having a child or having more children.

According to the same study (ibid), in all districts, men are considered to be the primary decision makers related to family size. When support from husbands and partners are not forthcoming, women avoided using contraceptives. Even adolescents felt that "since men are responsible for the family, they should either decide or be involved in making decisions on the number of children". There are other misconceptions against FP such as: husbands are against their wives using FP, women do not have much say in the number of children the family should have, the husband's family may be against the woman who practices FP to stop or have fewer children, people also still believe that children are gift from God; hence they want to continue having more children. Furthermore, women who saw their children in terms of financial support or

companionship for old age, tend to want more children, although they often felt favourably towards family planning. Women who did not see their children in these terms, use some form of contraceptive, hence they can delay their pregnancy or stop childbearing. This behaviour may be due to the fact that parents, who see their children in the light of companionship, see them in qualitative rather than material terms.

In certain families children made a contribution to the household income from their wages. These parents tend to be less favourably disposed towards family planning than parents who had not had children contributing to family income. From this reality however, it is inferred that children very often, are seen as a source of income, based on the real experience of their contribution to family income. This fact appears to discourage people from planning their families. Men and women differ in the degree to which having living sons and living daughters is important in formulating a desire not to have more children. In this analysis, a significant coefficient at 0.1 percent significance level, positive coefficient for living sons indicates that having at least one son is important to the decision not to have more children.

Sex preference has been measured by the number of living sons and living daughters. The impact of sex preference of children on fertility is investigated by sex composition of living children. Therefore as the table 4.9 indicates, there is strong son preference in Rwanda, in that women who have a large number of sons were more likely to stop childbearing compared to those who have the same number of daughters. Furthermore the same table shows that wives are more likely to stop childbearing than their husbands. This is emphasized by (Mason et al, 1987) who concluded that, although gender differences in fertility desires appear to be small, whenever differences do exist, there is a tendency for men rather than women, to prefer more sons.

In addition (Orubuyole, 1977) argues that the economic benefits which parents derive from their sons are socio-cultural benefits. In most African communities, particularly in sub-Saharan Africa, most married men surveyed say they want more children. Men are more likely than women to want additional children, and on average they want to have a

larger number of children than women do. The presence of at least one male child in the family is regarded as absolutely necessary. The main reason it is considered important to have sons include economic support, continuity of the family name, and their permanent residence near the ancestral home, unlike girls who leave at marriage.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. CONCLUSION

This section gives a summary of the findings of the study as well as a conclusion pertaining to these findings. The study reveals that some socio-demographics factors are associated with the desire for more children, such as: age, place of residence, education, employment, number of living sons and number of living daughters. On the other hand communication about family planning and attitudes towards family planning are strongly associated with the desire for more children.

According to Table 4.7 in chapter Four, the results show that when the age increases, the desire to stop childbearing increases. For instance, overall 8.5 percent of women less than 30 years of age wanted to stop childbearing, while 70.5 percent of women 40 to 49 years of age desired no more children. This explains the fact that some of the aged women had already reached the ideal family size and others are aware of factors in upbringing children hence older women are more likely to communicate about family planning, including the limitation of childbearing.

When it comes to the place of residence, the results reveal that, considering any characteristics, the percentage of women or men who do not desire additional children is higher in urban areas than in rural areas. For instance the percentage of urban women with no education who want no more children was 59.3, while the percentage of rural woman with no education who wants no more children was 36.7. However education and employment are also associated to the desire for no more children and are significant at one percent significant level in the multivariate analysis. The percentage of women and men who want no more children increases with the increase of education, the percentage of husbands with no education who desire no more children was 28.3 percent while the husbands with secondary plus education who desire no more children was 34.7 percent.

There is a similarity between education and employment, because people who have high level of education are more likely to get a job, hence the percentage of husbands who were employed and who want no more children was higher than those who are unemployed and who want no more children , 34.7 percent and 28.7 percent respectively.

In addition, the number of living daughters and living sons was also associated with additional children. The impact of sex preference of children on fertility has usually been investigated by examining the sex composition of the living children of couples who do not want additional children. If son preference is important and affect desire for additional children, then within any given parity, couples with one or more sons would be more likely not to want more children as compared to those who have no sons. The percentages of couples who want no more children increase with the number of sons compared to the number of daughters. For instance, 82.1 percent of women with more than four sons wanted no more children, while 73.2 percent of women with more than four daughters, wanted no more children. The results of the present study reveal a high preference for sons among women as compared to men. The explanation of this is that Rwandan women tend to have a relatively stronger preference for sons, because in Rwandan society women are relatively more economically and socially dependent on men.

Furthermore, analysis of the impact of spousal communication on family planning shows that marital partners who discuss on family planning are more likely to desire no more children than their counterparts who have not discussed the issue. In model 2 when “no discussion” is the reference category, the odds of women who desire no more children are 0.564 times higher with those who both discussed about family planning compared to those who have never discussed about family planning (Model 2)

According to Table 4.6, the percentage of couples who both husbands and wives approve family planning is higher in urban areas than in rural areas, 67.7 percent and 50 percent respectively. On the other hand, the percentage of wives who approve of family planning is much higher than husbands who approved of family planning, 39.5 percent and 4.5

percent respectively. Results from this study shows that men are less likely than women to approve family planning in Rwanda. This implies that the number of men who want to have another child is higher than the number of women who want another child.

5.2. RECOMMENDATIONS

- ❖ Discussion between couples seems to encourage small family size as does shared decision-making between men and women. It is recommended that such communication and shared decision-making be encouraged. Men should be encouraged to play a greater role in contraceptive practice in particular. Men and women could be reached through their place of employment, for example promoting and teaching about family planning at the place of work could be recommended. Unemployed men and women should be reached through IEC by using social workers who have to promote family planning through home visits during which they have to convince couples the advantages of contraception.

- ❖ Childbearing appears to be related to specific benefits that accrue to parents of large families as they are a source of care and a financial support for parents in their old age. They are a source of added income when they reach a working age and can contribute to the household's income. This would appear to indicate that, in Rwandan context, the government would increase certain social security benefits, e.g. pensions, so that parents will be economically self reliant in their old age. A further incentive would be an increase in wages and in socio-economic status in general, so that people do not have to rely on their children for financial support. Thus attitudes towards family planning among Rwandan couples will be positive. The limitation of this recommendation is that Rwanda as a poor country cannot afford to pay these services in the short term.

- ❖ Improving the status of women, particularly through education, and maintaining a strong national commitment to family planning are presumed to be essential to achieving a sustainable level of fertility.

- ❖ Husband-wife communication about family planning could be increased through mass media. Media messages should promote husband-wife communication on all households' decision.
- ❖ Change in the current set-up of family planning clinics to allow for the presence of husbands with their wives in the clinics. This could enhance better husband-wife communication as husbands will become more aware of the issues and their wives' health needs.
- ❖ Training of health providers to help husband and wives communicate better about reproductive health matters. Training should help providers resolve ethical dilemmas, example which side should the provider take in case of husband wife disagreement about a specific issue.
- ❖ The intervention of IEC can promote communication about family planning among couples in Rwanda. The implementation of IEC is a strategy which can increase the dialogue between husband and wife and the awareness of the burden of upbringing children, birth spacing and limitation of childbearing. Thus, this is one of the major strategies which could allow the government of Rwanda to reach its 2020 vision of reducing total fertility rate from 5.9 births per women to 4.5 births per women.

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