

**THE RELATIONSHIP BETWEEN FEMALE EDUCATION LEVEL AND FERTILITY
RATES
A CASE STUDY OF KAGULU SUBCOUNTY
(BUYENDE DISTRICT)
UGANDA**

**BY
Wakidha Mubaraka
BAE/36172/113/DU**

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DECLARATION

I, WAKIDHA MUBARAKA, DO HERE DECLARE THAT THIS Thesis is my original work and has not been submitted for a Degree in any other University.

Signature.......... Date.....12/11/2015.....

This thesis has been submitted for examination with our approval as University Supervisor

Signed

.......... Date.....12-11-2015.....

MR. SSEKISWA PETER

DEDICATION

This research is dedicated to my mother (Faridah Nabusoo); my father (Sulaiman Wakida Liida); my children (Waiswa Sulaiman Wakidha and Tenya Salman Kadugala); my spouse (Besigaani Aisha), my sponsors (vision for Africa international) to my brothers mostly Waded Ali and Kintu Hakim, Isabirye Ramathan. Thank you for supporting me in writing this book

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ABSTRACT

The present paper deals with the topic of fertility in KAGULU SUBCOUNTY and takes as its point of departure the need to reduce very high fertility, given its potential harmful effects. Two approaches to reducing fertility are identified, viz. coercion and voluntarism. As coercion is rejected, the paper works within a voluntary approach to fertility reduction. This entails trying to understand what causes high fertility to persist so these causes can be targeted. It is discussed how such causes can best be examined, and as it is my belief that a problem with many fertility theories is their focus on just one explanatory factor, I identify a theoretical framework that is able to incorporate insights from several different theories.

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CHAPTER ONE

INTRODUCTION

Social scientists have long observed a strong relationship between female education and fertility across countries and over time. High levels of schooling appear associated with fewer children per woman. In particular, the first forty years have seen widespread fertility declines accompanied by the increase in educational attainment levels in most western countries. The question of whether this correlations causal remains open, however. Despite the various reasons to be expected a causal relationship between schooling and fertility, emptying reach to date has provided a definitive and satisfactory answer.

The key challenge in estimating the effect of education on fertility decisions is that unobserved characteristics affecting schooling choices are potentially correlated with the unobservable factors influencing the decisions to have children. For instance a woman with high ability levels, strong tastes for work or low discount rates are relatively more likely to finish high school and attend college. At the same time, for any given the level of education, they are likely to be more inclined to pursue a professional career and delay having children. Therefore one might expect a negative relationship between the years of schooling and the number of children even in the absence of any causal effect of education on fertility. On the other hand, women with better access to credit market may be more likely both to attend school and to have children, whereas females coming from less affluent households may lack the opportunity or incentives to get education as well as the to rise children and support an extended family. As a result, a positive spurious correlation between education and fertility is possible too. The presence of error in available measures of schooling can introduce a bias towards zero, thus creating the appearance of a weaker correlation between the two variables than may exist in reality.

Estimating the impact of schooling on fertility rate may help clarify the role of education in demographic transitions. Moreover, this effect can be seen as yet another dimension of the social consequence in the form of fiscal cost or welfare

benefits, which are not taken into account by individuals, then this constitutes another reason why the social return to education may be different from its private return.

An analysis of the impact of education on fertility rates is also motivated by important fiscal and welfare policy implications. Falling fertility rates, along with longer life expectancies, result in population ageing. Unless immigration flows are large enough to offset this process (and countries are typically reluctant to let that happen), this tends to reduce the labor force relative to the elderly population. In other words, it raises the dependence ratio of retirees to working – age adults, thus putting pressure on the public spending in pensions and health care. This is a major concern in many industrialized countries, where such fiscal burden constitutes a major threat to their current social security systems. If secondary and post – secondary education enrolment rates are growing in those countries, no analysis of sustainability of welfare systems can be complete without an assessment of the impact of higher education on fertility rates, which in turn affect the future size of the labor market. In developing countries, on the other hand, decreasing fertility may reduce health risks for both women and children, and contribute to the improving welfare conditions, especially of rural households. Programs like the World Bank's female secondary schooling assistance project aim to achieve these goals precisely by encouraging education of girls. The effectiveness of such ventures depends on whether, and to what extent, female education stimulates reductions in fertility rates.

In order to solve the identification problem outlined above and estimate the effect of education on fertility rates, I use changes in the state education programs over time as sources of exogenous variation in individual schooling choices. Female teenagers typically faced compulsory attendance and child labor prior to those women's fertility decisions. Moreover, legislators appeared to be concerned with raising education levels and preventing children from entering the labor force too young, and did not seem to be acting in response to the causal links between education and labor market outcomes. Has used supply side instruments such as child schooling laws: Angrist and Krueger (1991) first documented a relationship between quarter of birth and individual schooling and used it to analyze private returns to education: Acemoglu and

Angrist (2000) studied wage spillover : Lochner and Moretti analyzed the effect on crime and Lleras - Muney studied motility rates.(Moretti, 2004) Vary little or no work has been done linking education and fertility rates rate through the study of natural experiments. However an exception is McCrary and Royer (2003), who used birth day information for Texan and California women in the 1990s and a regression discontinuity approach to study the effect of mother education on infant motility, by first establishing no impact of schooling on the probability of becoming a mother (an age – specific fertility rate). Instead of relying solely on school age entry laws (which is the rationale behind a strategy based on date of birth), this paper also uses information on other regulations such as minimum school dropout age, and minimum schooling requirements for leaving school and for entering the workforce, in order to obtain a more complete picture of the institutional constants affecting education of women in all fifty contiguous states during five decades in the early and mid – twentieth century, a period when high school attendance rates rose dramatically.

1.1 **Statement of the problem**

For the estimate now, there has been considerable attention and interest in the relationship between female education levels and fertility rate this has been particularly so following the development of economic models of fertility behaviors. In these models, price and income variables are postulated to affect fertility decisions. Accordingly childbearing and early nurturing of infants, which are of biological necessity a woman's role (Ellis, 1988), are seen as activities that intensively use a woman's time. But with increased education, urbanization and modernization, the opportunity cost of women staying at home and taking care of children is very high. These activities consume a lot of the woman's time which can otherwise be used to earn income in case she had to go through a certain level of education. Therefore mother education level is an important that affect the number of children she gives birth to. On the other hand, since the woman's expected life time wage rate is not a directly observable variable; her educational attainment provides an important proxy for her expected life time.

A number of studies, using data from both developing and developed countries show that female education is associated with a decrease in fertility, (Slackly, 2005: Lam and Duryea, 1999 Ainsorth etc.) in this trend, even the absence of other factors (Lam and Duryea, 1999). In addition to the importance of women education level, higher levels of education of people in the community have a strong negative impact on fertility. Using demography and health surveys data for 22 sub-Saharan African countries, Krandal finds a strong negative impact of the level of education at community level on fertility rates(Krandal, 2002). These findings confirm the neoclassical theory which suggests that as investment in human capital increases and as more women participate in the labor market, the fertility behavior of households is bound to change, in favor of fewer children.

On that ground, this study will seek to provide answers to the following questions: Does education acquired by a woman affect her decision in terms of the number of children born, and if so, how many years of a woman's schooling have a significant negative impact on fertility in Uganda? What is the relationship between mother's education and child outcomes? Such as the probability of survival of children.

1.2 Purpose of the study

The purpose of the study intends to express the variable which determines the relationship between fertility rates of Ugandan women and their educational levels.

1.3 Study objectives

The objectives of this study are as follow:-

- i. To find out the causes of high fertility rates in kagulu sub county.
- ii. To identify the possible solutions to keep the girl child in schools much longer to reduce on early marriage.
- iii. To examine the roles of education in determining fertility rates among women in Kagulu sub county.

- iv. To find out the relationship between education and fertility rates.

1.4 SIGNIFICANCE OF THE STUDY

The study comes at an opportune when the debate on the likely implication of high population growth rates and the impact of female education on fertility is hottest in Uganda. The Uganda population policy aimed at reducing on fertility rates from 6.9 is on ground thus the study will be significant in combating the proposed debate topic. To the students and other academic expatriates in the country and all over the world, the study will help generate knowledge more especially to the girl child about the intervention of the fertility levels through critically identifying the causes of fertility rates among the women in the country and how such results have affected the educational levels of the girls in Uganda and how the government of Uganda has tried to combat the resultant effects.

1.5 Research questions

- i) What are the major causes of high fertility rates in Kagulu Sub County?
- ii) What measures can be put forward to reduce on high fertility rates in Kagulu Sub County?
- iii) What role dose education play in determining the fertility rates?
- iv) Is there a significant relationship between mother education and fertility rates in Kagulu Sub County?

1.6 The scope

This study on women education level and fertility will be conducted between January and February 2015 in Kagulu Sub County through simple random sampling survey design. Specifically this study will be researched the relationship between these variables: female education and fertility rate.

1.7 Operation definition of terms

Fertility rate is the average number of children produced by each woman in the course of her life. Fertility rates tends to be higher in economically less developed countries than in developed countries – in Uganda fertility rate is around 6.15 children woman, and in Sweden is 1.6 children per woman according to *world bank,2010*

Total fertility rate, according to *the Republic of Uganda,(2010)* refers to the number of children that would be born to a woman if she were to live to the end of her childbearing years.

Education refers to any act that has a formative effect on one's character, mind or physical phermative. It is therefore a process that transmits knowledge, skills, values, and norms from one generation to another. According to Kenyatta, *journey to Kenyans*, (1986), education is a journey that starts from birth and ends social economic success. It is structured learning which takes place continuously that must eradicate man's problems like poverty, social, cultural norms and values.

Population, this refers to the total number of born permanent and temporary residents inhabiting a given area at a given time. Thus it is the number of people living in a given area.

Population growth, this is the percentage increase in the size of the population of a given area in a given period of time.

Population explosion, this refers to the sudden increase in the population of a country in relation to the available resources.

Birth rate, this is the number of deaths per 1000 people over a period of one year. It is also called crude birth rates because it includes the whole population. The death rates depend on a number of social and economic factors such as standards of living, deity, diseases, natural disasters, access to clean water and medical services.

Mortality rate,

Infant mortality rates, is the number of deaths of infants less than one year per 1000 live birth in a year.

Life expectance, this is the average number of years an individual in a particular location is expected to live. This varies from country to country, or from village to village. However life expectance in developed countries is high compared to less developed countries due to the differential in health care, deity, housing conditions, and education.

CHAPTER TWO LITERATURE REVIEW

2.1 INTRODUCTIONS

There is a wide literature on the importance of female education in reducing fertility rate and the general importance in the social welfare.

Concepts, Opinions, Ideas from Authors/ Experts

Neocolonial theory suggests that as investment in human capital increases and as more women participation in education, fertility behavior of household is bound to change, in favor of fewer children.(Singh, 1986) Empirical evidence from both the developed and developing countries unambiguously reveals that female education is associated with a decrease in fertility rates.(Sackey, 2005) Increased participation of women in schooling and labor market raises the economic values of their time, which increases the opportunity cost of raising children 9 Guilkey,1998; Singh, 1994 ; Ben – Porath, 1973 Schultz, 1973) studies on female education and fertility rate concluded that female education leads to a decrease in fertility rate i.e. with higher levels of education, the number of children born per woman reduces (Guilkey 1998; Ben – Porathe, 1973; Schultz 1993) confirmed that women’s education is associated with smaller desire family size across the world.

This negative relationship between women’s education, on the one hand, and fertility and desired family size, on the other, is explained by a number of factors which have been explored by both economists and sociologists. First, with higher levels of education, a woman’s expectation of future earnings is very high thus increasing the opportunity costs of giving birth and rising of children, Secondly, the longer a woman stays in school, the lower the chances of giving birth to many children.(McDonald, 2000) Related to this is the fact that with more education and exposure, women acquire more information about their bodies and are more able to process that information to their advantage .(vavrus and Larsen, 2003; Singh, 1994). The positive impact of women’s education on their autonomy leading to later marriages, increased

use of contraceptives and lower fertility is discussed by Mason (1986). In fact, the links between women's autonomy on fertility is much stronger than that of the household's

More importantly, higher levels of education are associated with lower children motility rates, in the order of 5 – 10% for each addition year of the mother's schooling (Schultz, 1993; Mensch, 1985; Cochrane *et al*, 1980). This is because higher levels of education of women leads to improved child care, nutrition, and basic health and better child outcomes – health and school attainment (Strassu and Thomas, 1995)

In general, there are two major determinants of fertility in Uganda. First , underlying or indirect factors known as socio-cultural and economic (intermediate) determinants including education, the desire for large families, extended family influence , economic values of children, occupation, property ownership, and residence. Second, immediate or direct (proximate) determinants including marriage patterns, sexual customs, and abortion. In this study, I focus on education, a factor that policy makers can influence. It is also a factor that has other important implications including participation in labor force, poverty reductions and improved standards of living.

2.2 IMPORTANCE OF EDUCATION IN FERTILITY REEDUCATION

Higher levels of education are great desire in many developing countries, both for individual and national development (UNESCO, 1994; UN, 1996; Republic of Uganda 1992) this is even more so for female who ,due to the number of factors, most of which are gender – related, have long been disadvantaged in various socio aspects (Tylor, 1985; Wamahiu, 1997; the republic of Uganda 1995) several traditional societies in Africa considers female education as unimportant and for many reasons girls will easily dropout of school while boys continue to higher levels. For example. If a family has two children, a boy and a girl, and it faces income constraints forcing one of the children to drop out of school, it would be the girl child to drop out. Girls also more involved in household chores, before and / or after school in comparison to their male counterparts. Girls may also drop out of school because of pregnancy, which does not affect the boys. Lack of separate sanitary facilities for girls and boys in

schools can cause the girls to drop out of school especially when they reach adolescent age.

Consequently girls' education and performance has remained behind that of boys, forcing governments and non-government organizations (NGOs) to direct efforts towards the promotion of education, especially for the females. In Uganda for example, the government has since 1993 asked Makerere University (and other government – aided universities) to give girls who apply for admission 1.5 extra points so as to enable more girls qualify for admission. In the universal primary education scheme (UPE) which, at its initial stage offered free primary education to four children from every family, it was a requirement that at least two of the children were to be girls. Now the program caters for all children without discrimination.

In the case of Uganda, women start giving birth at an average age of 15 years and in some cases, girls have given birth at ages as low as 12 years. The peak age group for childbearing is the 20 – 29 years (Republic of Uganda, 1908) such that if between these ages the women are still at school, it would tremendously reduce their chances of having many children.

The measured overall total fertility rate TRF (in Uganda is very high in the range of six to seven (6-7) children as shown in table 1. However, the level of education is found to tremendously reducing the ideal number of children both women and men chose to have. The UDHS 2006, 2000/01 and 1995 show that women with some level of secondary education have fewer children (between 4 and 5) compared to those with no education at all (about 7.8). (Ref table 1). It is also noteworthy that TFR is significantly lower in urban areas (between 4 and 5 per woman) than in rural areas (over 7 children per woman). One reason for the urban – rural difference is the concentration of women with secondary and higher levels of schooling in urban areas. In addition, women in urban areas are engaged in labor market, thus finding it relatively more expensive to have children many children.

Women who have completed primary education or those with some secondary education have a lower TFR than those without schooling. It is noted, however that the differential between the fertility of women with primary schooling and those with no schooling is small. Overall, the table shows that female education has a strong negative impact on fertility. However, the quantitative impact has not been explicitly estimated for Uganda and its intention of this to provide empirical evidence on this assertion.

Source; Republic of Uganda, 2007. Demographic and Health Survey 2005/6, final report. Uganda Bureau of Statistics, Kampala.

2.3 THE TREND OF UGANDA'S OVERALL FERTILITY RATES

Uganda's fertility rates have for a long time remained at around 7 children per woman (table 1 and table 2), something that should worry policy maker as high fertility rates leads to and sustain high population growth rates. The 1988/89 Uganda demographic and health survey (UDHS) indicated that a drop in fertility rates from 7.6 – 6.9 between 1969 – 73 and 1984 – 88, respectively. The 1995 UDHS reported a further decline from 7.4 to 6.8 between 1976 – 80 and the 2000/01 UDHS reported decreasing rates from 7.2 to 6.8 between 1985 and 1996 – 2000 (table 2). From table 2, it is important to note that the fertility rates (over the monitory rates) reported in the UDHS actually refer to about 2 ½ years just before they survey. In the survey the birth (or the child death) histories for the previous 5 years prior to the survey asked for every woman included in the sample, thus the average number of children born (or dead) would refer to the mid – point between the time of the survey and 5 years prior. Accordingly, the number reported are most likely to be different from the reality at the time of the survey report to finalized and may not reflect the impact of current health care or family planning intervention on fertility rates – 6.8 children per woman in 1959, 7.1 for the period 1968 – 1991 and 7.0 children per woman.

Uganda's fertility rate is projected to decline rather slowly, unless deliberate actions are taken to change this trend. Currently Uganda's fertility rate is the fifth highest in

the world and is projected to become the 3rd highest by 2050 (United Nations population Division, 2007). Although it is expected to decrease by 2050, the total fertility rate will still be high, at close to 3 children per woman (figure 1). This calls for urgent attention to the factors that may help to accelerate a fertility decline if Uganda is to improve the quality of life of its people through poverty reduction, improved education attainment rates as well as child and maternal health.

The age specific fertility rates confirm the fact that Ugandan women start giving birth to children at a very early age. In 2006, fertility within the age group 15 -19 years was as high as 150 (down from over 200 in 1995) children for every 1,000 women in this age group, peaking at over 300 children per 1,000 in the age group 20-24 years (figure 2). This descriptive evidence that Ugandan women start giving birth at early ages is important for policy and actions to reduce school could play an important role in reducing fertility. Uganda has in place universal primary education and universal secondary education programs which could provide avenues to keep girls in school.

2.4 FERTILITY CHARACTERISTIC IN UGANDA

The long reproduction and poverty are some of the underlying reasons for the high fertility rates in Uganda. Limited access to family planning services, low education, and being resident in rural areas compound the problem – we noted that on average 66% and 74% of women aged 15 – 49 years were married by age of 20 and 25 respectively. These percentages are quite big and this implies that women have a long reproductive period hence being vulnerable to producing many children. For those with no education, over 83% were married by the age 20 compared to only 23% with post-secondary education. Also for women in poorest quintile, 74% got married by age of 20 compared to only 48% in the richest quintile. There is little wonder then, that women with low education, those in lower welfare groups, those in North, the East and in rural areas tend to have more children compared to those with higher education, the relatively rich and those in the central, west and in urban areas.

The current use of birth rate controls in Uganda is very low, implying that women are at a high risk of getting unwanted pregnancies. For example, only 20% of women in the 15 – 49 years age group are currently using any method of birth control and only about 17% are using a modern method (table 4). On the other hand, only 3% of the women indicate using a condom. This is in contrast with the fact that knowledge of birth control methods is almost universal among women of child bearing age (UDHS, 2006), which seems to suggest that there exist impairments to access that the government must seek to effectively address.

In table 5 we summarized the individual characteristics, including age of women, their level of education and their partners. The evidence here further shows that Ugandan women are vulnerable to having many children. The average number of years of education attained by women is only 5 years. The male partners "average years of education are slightly higher at 6.2 years (table 5). About 19% have no education at all and close to 60% have only completed primary school. Only about 1 in 5 women have completed secondary school or higher. This has important implication for lowering fertility since the level of education is negative associated with fertility. As can be expected, the situation is even worse among the poorer women in lowest quintile. For example almost 40% of the women in the lowest quintile had zero education (table 5). While the observed relationship between female education and the number of children born to a woman is negative and robust, the relationship is rather weak with respect to the partner's education level (figure 3).

1.4 Theoretical framework

The study will be related to the Malthusian theory of population which states that " as food supply grows at an arithmetic rate that is 1,2,3,4,5,6,7,8....., population will grow at a geometric rate that is 2,4,8,16,32 and that at a certain time interval, population will out compete food supply and this will result into starvation, wars, hunger and death.

In his observation, Malthus made the following observation:-

- Food output depends on soil fertility

- High output of food induces high production in human beings which lead to population growth
- Food grows at an arithmetic rate and population grows at a geometric rate.

The key argument in Malthusian theory of population is that population growth depends on depends on food growth and that because population tends to grow faster than food growth, at time T soon reaches when the population is unable to feed itself and it will be checked.

Nevertheless, Malthus considered food to be the only determinant on population growth, other factors like health, education, security, and diseases significantly affect population growth.

In addition, Malthus argued that, population can be checked positively by reducing on the existing people through death, famine, diseases, among others. or it can be checked negatively by reducing birth rates through family planning legislations.

However Malthusian theory of population is applicable the study due to the existence of famine, high death rates, diseases which are common in Uganda as they are fruits of high fertility rates among women thus population growth.

Secondly, Malthus suggested education as a measure to reduce population growth. This is applicable to the study as the research is interested in finding out the relationship between education and fertility rates among women in Uganda. This has been due to the existence of high levels of illiteracy among women in Uganda.

Thirdly, Malthus assumed that food supply grows at an arithmetic rates that is 1,2,3,4,5,6,7,8 and population at a geometric rate that is 2,4,8,16,32. This is applicable to the study as the population growth in Uganda is very high and yet food supply is low – this has been witnessed from the importation of food from abroad to feed the local population. It should be remembered that Uganda is taken to be the pearl of Africa- a country with fertile soils, green vegetation among other. Little

wonder the cases of famine are very common in most of the homes in the country – in karamoja, some parts of Busoga among others.

CHAPTER THREE METHODOLOGY

INTRODUCTION.

This chapter entails the methods that will be used to conduct the data necessary to answer the research. It includes the followings:-

3.1 Research design

The study will use descriptive design to create a snapshot of the current state of affairs.

Descriptive research is designed to create a snapshot of the current thoughts, feelings, or behavior of individuals. This section reviews three types of descriptive research: case studies, survey, and naturalistic observation. Case study will involve ordinary individuals such as the female teachers, and other female servants, not forgetting women in different village levels. This will provide relatively complete picture of what is occurring at a given time and automatically allowing the development of questions for further study.

In other cases the data from descriptive research projects come in the form of a survey - a measure administered through either an interview or a written questionnaire to get a picture of the beliefs or behaviors of a sample of people of interest. This will be done through sampling where some groups of people are chosen to represent the many. For instance in this study, the sample will be women of different levels who are categorized as, local women, teachers, and other civil servants will represent the women. This method will enhance the researcher to obtain a better understanding of the relationship between women education level and fertility rates in Kagulu sub county.

This method will allow collection of well detailed and comprehensive data and provide an in-depth study of the topic as needed.

The results of descriptive research projects are analyzed using descriptive statistics - numbers that summarize the distribution of scores on a measured variable. Most variables have distributions similar to that shown in, where most of the scores are located near the center of the distribution, and the distribution is symmetrical and bell-shaped.

Study population

The population to be covered under the study will take a sample of numbers from different parts of the sub-county to respond to research questions which will include the sub - county population offer (Kagulu sub county) sub-county chief(Kagulu sub-county), the female teachers, and other female servants, not forgetting women at deferent village levels making a total sample population of 30 respondents?

3.2 Sampling strategies

The study will apply sampling strategies simple random sampling, and interviewing.

Simple random sampling refers to randomly selected sample from a larger sample or population, giving all the individuals in the community an equal chance to be chosen. In a simple random sample, individuals are chosen at random and not more than once to prevent a bias that would negatively affect the validity of the result of the experiment.

Interviewing, an interview according to Olive m. and Abel G, (2003) is an oral administration of a questionnaire or an interview scheduled. Interviews are there for face to face encounters.

The above will be used by the researcher because:-

- Maximum co-operation between the researcher and the respondents is observed.
- Provides in-depth data which is not possible to get using questionnaires.

- Guard against confusing questions.

The above mentioned methods will be used with the aim of ensuring that every member of the population under the study has an equal chance of taking part in the study sample.

3.3 Research instrument

The study will use questionnaires because it is easy to administer to large respondents, it saves time and it is easy to analyze the data based on structural questions.

The study will employ interviews to deferent respondents for the purposes of interacting between the researcher and the population under the study.

The study will also use secondary information posted on internet, journals and text books trying to relate female education and fertility rates in the different parts of the country.

3.4 Validity and Reliability

The qualitative and quantitative data collected during the interview will be coded, categorized, assembled, and conceptualized, interpreted and prescribed in accordance with research questions in order to make descriptive and qualitative conclusion.

3.5 Research procedure

The research will get the authority from the chairperson L.3, of Kagulu Sub County, and the head of villages say the local council one chairpersons. The researcher will get responds, gather information and will take its analysis here: he will be in position to prepare the fair report to the supervisor who will internalize it critically for further considerations.

3.6 Data analysis

Data will be analyzed using computer statistical package for social science (SPSS) in the generation of frequency table and descriptive statistics percentages, frequencies and counts will be used simply because it is useful in summarizing small amount of data and Microsoft excel. These packages will be preferred because it is faster, reliable and accessible. Microsoft excel will be used for simple calculations and generalization of data and charts.

3.7 Ethical considerations

The researcher will obtain an introductory letter from Kampala international university which will be presented to the concerned body for permission to conduct this study, during data collection, the right individuals will have to first get the consent of all the respondents and assure confidentiality of their responses and all the necessary protocol observed.

3.8 Limitation of the study

The study will be limited by time because there is a lot of information to be collected, sorted and analyzed.

The researcher will face challenges in data collection, for example some respondents will not be willing to co-operate and give out information.

The researcher will also face a challenge in transportation and movement to different villages of the sub county due to the inadequacy in finance to carry out research.

Suspensions of the respondents on the researcher also may become a limitation since they may be worried of their confidential information would be exposed to the research.

Language barrier will also become a challenge to the research since not all respondents are well versed with English.

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 INTRODUCTION

This chapter highlights the presentation, interpretation and discussions of the collected information in tables, graphs and charts among others where 30 respondents were interviewed to provide information about the study of the subject.

This chapter deals with the presentation of, interpretation and the analysis of data. Views of the respondents are drawn and organized.

The researcher presents his findings as a result of the study on "the relationship between female education level and fertility rates in Kagulu sub county, Buyende district in Eastern Uganda.

Out of the targeted population of 30 of the women in the non-educated class, primary, secondary and post-secondary getting 7 from each of the four categories. All the 30 questionnaires were returned representing a response rate of hundred percent as shown below.

Back ground information of respondents.

4.1. TABLES SHOWING FREQUENCIES AND PERCENTAGE AGES OF RESPONDENTS.

4.1.0 A TABLE SHOWING AGES OF RESPONDENTS.

	Frequency	Percent
below 20 years	7	23.3
21-25 years	11	36.7
Valid 26-30 years	11	36.7
above 30 years	1	3.3
Total	30	100.0

Source: primary data

From the graph below, it show that the women aged 21 to 30 years are engaged in the reproduction process in the sub-county compared to the ones aged below 20 and above 30years. This implies that most of the people interviewed are above the age of consent so the information they provided is true and reliable.

4.2 A TABLE SHOWING MARITAL STATUS:

	Frequency	Percent
single	9	30.0
married	17	56.7
Valid widow	3	10.0
divorced	1	3.3
Total	30	100.0

Source: primary data

The table below shows the different status of the respondents where 56.7% were married, 30% were single, 10% were widow and only 3.3% of the respondents were divorced. This implies that most of the people who deliberately fall this particular line of assessment are the married group of people because it is through marriage that most of the activities like fertility determination are analyzed. There the table above also analyses that the greatest percentage of the people in the sub county are married compared to other marital status groups in Kigulu Sub county.

4.3 A TABLE SHOWING RESPONDENTS OCCUPATION:

	Frequency	Percent
peasant	14	46.7
teacher	5	16.7
Valid nurse/doctor	4	13.3
police officer	7	23.3
Total	30	100.0

Source: primary data

The table above shows the different occupational activities of the respondents , where 46.7% were peasants, 16.7% teachers, 13.3% nurses/ doctors and 23% police officers. However, according to the data given below, most of the population in the sub county are peasants with less professional occupations, so this implies that most of the people carry out subsistence agriculture which is on small scale production, usually family labor is used after which they stay at home, leading to easy and increased level of multiplication in the number of the population since most of the men will mostly concentrate on reproducing.

4.4. A TABLE SHOWING INCOME LEVELS

			Frequency	Percent
Valid	lower income levels		21	70.0
	middle income levels		9	30.0
	Total		30	100.0

Source: primary data

The table below shows the income level of respondents, with 70% as low income earners, 30% as middle income earners and without high income earners. According to the information above, it implies that most of the people have a low income status with few middle income earners, meaning that most of the people are under the poverty line. This is evident as there was no information about the existence of high income level earner in the sub county. Due to low income levels of the population, it indicates that education is mostly provided by the government with government schools operating in the area as there is UPE and USE programs since parents cannot afford fees for private schools.

4.5. A TABLE SHOWING THE USE OF FAMILY PLANNING

	Frequency	Percent
Valid yes	23	76.7
no	7	23.3
Total	30	100.0

Source: primary data

The graph shows that most of the female in the sub-county are knowledgeable about and use family planning methods to control birth rates among the women in Kigulu Sub County. This is so because 76% of the sample population acknowledged the usage of family planning methods compared to the 23.3% who vowed not using any family planning method. However, even though there has been information passed all over the country about the use of contraceptive, some of the people in this country are still back of the information about family planning and control measures resulting into no usage as it is evidenced by 23% of the sample population.

4.6. A TABLE SHOWING THE EXACT FAMILY PLANNING METHOD USED

	Frequency	Percent
condoms	8	26.7
pills	1	3.3
injections	13	43.3
IUDS	2	6.7
Total	24	80.0
Missing System	6	20.0
Total	30	100.0

Source: primary data

The table below shows the different methods of family planning used in Kigulu Sub County with 26% used condoms, 3.3% used pills, 43% used injections, 6.7% used

IUDS and 20% did not apply any of the above methods. This implies that even though people have information about the availability and usage of family planning methods in the sub county, it is mostly one common method used in relation to other types and that being that most of the women go for injection hence neglecting others like the use of condoms and pills. In addition to the above, there are a number of people in the sub county who either do not know about the availability of such programs or stubbornly neglecting the use of family planning methods.

4.7. A TABLE SHOWING EDUCATION LEVEL

	Frequency	Percent
primary dropout	5	16.7
secondary dropout	14	46.7
tertiary graduate	8	26.7
Valid University graduate	2	6.7
5	1	3.3
Total	30	100.0

Source: primary data

The table below show the different level of education attained by the respondent with 16.7% being primary dropouts, 46.7% secondary dropouts, 26.7% tertiary graduates, 6.7% university graduates and 3.3% did not attain any level of education. This information implies that the greatest number of the population of this sub county have attained education up to secondary level with less surpassing that level and few not attaining up to that standard. Therefore this shows that most of the women and girl child have few chances of advancing to higher levels of education therefore limiting on their exploring capabilities about the advantages attaining higher levels of education.

4.8. A TABLE SHOWING THE AGE AT WHICH MOTHERS HAVE THEIR FIRST BIRTH

	Frequency	Percent
Valid 13 years	2	6.7
14 years	12	40.0
15 years	13	43.3
18 and above years	3	10.0
Total	30	100.0

Source: primary data

The table above shows age at which girls in Kigulu sub county have their first births with 13% of the respondents revealing that it is 13 years, a mother carrying her first born, 40% said that it up to 14 years when mother carry their first babies, 43% adding up that it 15 years when mothers have their first birth and only 3% arguing that it is up to 18 and above years that mothers carry their first birth. This implies that a woman gives birth at a tender age since most of the women drop out of the school at primary levels marrying immediately.

4.9. A TABLE SHOWING NUMBER OF CHILDREN A SINGLE MOTHER CAN DELIVER

	Frequency	Percent
Valid 2-5	1	3.3
6-10	6	20.0
11-15	21	70.0
15 and above	2	6.7
Total	30	100.0

Source: primary data

The table above shows the number of children to which a single mother can deliver with a 3.3% representing that mothers always carry about 2-5 children, 20% suggested that mothers give birth between 6-10 children per mother, 70% pronounced that mothers give birth between 11- 15 children while 6.7% responded

that deliver children above 15 children. This implies that due to existence of early marriages, women always have time to give birth too many children since most of them consider children as wealth more so to the girl child. The information also analyses that even though there is application of family planning methods in the sub county, people are not actively applying such measure to control their birth rates. Basing on the information above, we can identify that there is an increasing population pattern in Kigulu Sub County due to the number of new born babies per mother. This has perpetuated poverty among the residents, which has negatively affected the education growth among the children due to the lack of the needs to acquire education. According to the research still, it is very identical that mothers in the sub county have a high fertility rate, this is evidenced by a number of children per mother where the majority give birth to around 15 children.

4.10 A TABLE SHOWING LEVEL OF SCHOOL ENROLLMENT

	Frequency	Percent	Valid Percent	Cumulative Percent
very	20	66.7	66.7	66.7
low	10	33.3	33.3	100.0
Valid Total	30	100.0	100.0	

THE TABLE ABOVE SHOWS THE DAILY SCHOOL ATTENDANCES OF THE GIRL CHILD IN KIGULU SUB COUNTY WITH THE RESPONDENTS REVEALING THAT THE ATTENDANCE OF THE GIRL CHILD AT ALL EDUCATION LEVELS ARE VERY LOW. THIS IS AS A RESULT OF EARLY MARRIAGES, LACK OF THE NEEDS LIKE FEES, WRITING MATERIALS DUE TO THE POVERTY STANDARDS OF THE PARENTS, MOST OF THE PARENTS FORCING THEIR CHILDREN TO MARRY AT A VERY YOUNG AGE, LACK OF CARRIER GUIDANCE ADVICES AND THE STUPIDITY OF THE CHILDREN WHO ACT BASING ON THEIR ELDER SISTERS. THIS IMPLIES THAT THERE IS A RELATIVELY LOW ACADEMIC ACHIEVEMENT AMONG GIRLS IN THE SUB COUNTY COMPARED TO THE BOYS SINCE DETERMINATION AND ENGAGEMENT IS ONLY ACCRUED TO THE BOYS. IT HAS ALSO BEEN FOUND OUT THAT PARENTS HAVE PLAYED A GREATER ROLE IN LIMITING THE ATTENDANCE OF THE GIRL CHILD SINCE THEY TEND TO PROMOTE EARLY AND FORCED MARRIAGES WITH THE GREED FOR THE BRIDE WEALTH.

4.11. A TABLE SHOWING GIRL CHILD SCHOOL DROPOUTS

	Frequency	Percent	Valid Percent	Cumulative Percent
very low	1	3.3	3.3	3.3
high	14	46.7	46.7	50.0
very high	15	50.0	50.0	100.0
Total	30	100.0	100.0	

Source: primary data

The table above shows the level of school dropouts among the girl child in Kigulu Sub County where there was a combined voice of revealing that there is a high level of school dropouts among the girls. This is as a result of increase in the level of unwanted pregnancies among the girls, increase in the cases defilements among the children, early marriages and lack of financial support for the girl child to continue with their studies. This implies that there is increases rates of early marriages since girls are left without an option except marrying which leads to earl birth among the young people resulting into a population increase of the area.

4.12. CAUSES OF HIGH FERTILITY RATES

The researcher identified the main factors precluding high fertility rates in Kagulu sub-county to have been rooted in cultural background, which is centered on the traditional, religious belief systems that uploads to a lineage continuation and the succession of generations. The researcher identified high fertility rate to be a byproduct or residue of cultural, economic and social factors. Social factors such as early marriage, pregnancy, and hence school dropout, desire for wealth, say from the girl child were pinpointed to play a pivotal role for relatively high fertility rates prevailing in the Kagulu sub-county. This was witnessed when the respondents from the un educated quintile who were found out that they had their first born as early as 14-16 years.

However on asking them the cause for that, it was found that 20/30 the women in the non-educated class gave birth to their first bones at the age between 14 -16 years compared to their counterparts in the second class that is primary who whom the researcher found out that 16/30 had their first bones at the age of 14 – 16 years

Never the less, the cause of this was found out that many women in this sub – county are influenced by the social, economic factors – many of them got married at the age of 13 – 16 years being forced by their parents who were in favor of bride price “omwandhu”. This there for meant that parents on the other hand play a key role on the increasing levels of fertility rates as force their daughter to marry as early as possible so as to get wealth from them.

CHAPTER FIVE

5.0 INTRODUCTION

This chapter summarizes the major findings of the discussion. It also give the conclusion drown from the results together with the recommendations by the researcher. The discussion was based the relationship between mother education level and birth rates.

5.1 SUMMERY

The researcher found out that there are a number of factors that lead to high fertility rates. The major one was early marriage and low levels of education among women. Early marriage was attributed to un wanted pregnancy where the girls on becoming pregnant at an early age of 13, she is straight away given to the man who impregnated her thus marring at an early age. In addition, many parents of the girl child force their girls into marriage at an early age of about 13-16 years for wealth reason – getting bride price. Worse of all most of the parents more so those who are alcoholic in nature – those who love alcohol so much end up forcing there girl child into marriage since they have debits on the drinking ground and the only option they remain with is to give away their daughters to repay the debits.

Alcoholism more so among the male parents of most girls in this community contributed so much toward the early marriage thus increasing the fertility rates in Kagulu sub- County. This was witnessed among most of the women who had been given out by their fathers on the drinking place as they had already sold them off in bottles of bear without the notices of the girls and their mothers since they have no say on the social affairs in the African setting.

On the other hand, low levels of education among the women were also pointed out as one of the major causes of high fertility rates in the region. That is to say, non-educated girls stand higher chances of marring at an early age compared to those with secondary or post-secondary education. This is because the educated girls spend a lot of their time in book – at school, which reduces their chances of getting married

at an early age for example, it is estimated that for someone to complete secondary education would have made 18 or 20 years for either Ordinary level and Advanced level of education respectively.

On the other hand, girls with no education at all tend to become a threat to their families, were most of the families don't want to see their girls at the age of 16 years still at home. The family for intense take girls who stay long at home without going to school to be a misfit in the family.

5.2 CONCLUSION

After carrying the study, the researcher made the following conclusions based on the findings.

Using the data collected by the researcher, we examined the relationship between female education level and fertility rates in Kagulu sub county. The results of the analysis confirm the hypothesis of this study. We show that education, particularly of women is an important factor in reducing fertility rates in Uganda. While the partner's education is also negatively related to the number of children born, the magnitude is much smaller. There is near universal knowledge of methods of family planning, but very few women have used these methods or even fewer the modern methods. Our findings further show that access to or use of contraceptives is positively associated with the education of both the women and her partner.

These findings are import for improving the quality life Uganda women (and also children) through a number of policy actions. Policy to reduce fertility can play both direct and indirect roles in enhancing maternal and child mortality reeducations. When women give birth to fewer children, it reduces their exposures to the risks of child birth, particularly in rural areas where health and material care services are poor or non – existence. Having fewer children also implies that family income is shared among fewer heads. With fewer born, parents (both women and men) are more likely to provide more and adequate care thus ensuring their survival and attention to their early childhood development.

5.3 RECOMMENDATIONS

Reducing fertility rates is expected to play an important role in achieving both the national development goals contained in the national development plan and the millennium development. However, reducing fertility needs concerted efforts from various stakeholders including the central government needs to provide the overall direction, political commitment and financial support for family planning. In addition, the health sector needs to provide the technical guidance on all actions needed to reduce fertility and facilities for family planning.

District authorities and communities need to provide adequate facilities to ensure access to time on the importance of planning their family in order to change their aspirations and behavior.

The findings of the study suggest that efforts to reduce fertility need to target measures that aim to educate women beyond the secondary level. The government program to extend free education at the secondary level is therefore an important measure that may help to reduce fertility rates. This need to be embrace by all stakeholders, including donors, parent community leaders, and local government authorities as well as women's organization with special interest in female education.

The ministry of education on the behalf of the central government in collaboration with community leaders, and local government authorities and school administrators should actively sensitize parents about the importance of female education beyond secondary level. Government legislation can be put in place to penalize parent who discourage their children from taking advantage of the universal secondary education program established by the government. Measures need to be put in place to remove, or at least minimize factors that may lead girls to drop out early, including improving the quality of schools and teaching, government legislations against early marriage, and ensuring that all schools have separate sanitary facilities for girls and boys.

Measures to expand access to family planning facilities and the capacity to use them are needed. The evidence shows that while almost all women in Uganda know of at

least one method of family planning only half have used any. Both government and non –government organizations can play an important role in improving and women's access to contraceptives through stocking public and private health centers and pharmacies with the required contraceptives. Policies to eliminate all barriers of access to family planning services are needed for example by removing any taxes and ensuring accessibility in the rural areas.

Consistence information and public awareness of the important of appropriate family size is needed. For the recommendation emerging from our study to be realized, political and financial commitment on the part of the government is necessary. This should be complemented with donor financial support as well as sensitization campaigns by non-government organization concerning the utilization and importance of contraceptives and family planning. Village level sensitization seminars are highly recommended to catch women who may not be reached via the mass media; this is a powerful instrument for ensuring more understanding of gender justice and equity. The strong linkage between female education and fertility found in this study portrays the quantity and quality trade off and the opportunity cost of time that highly educated women is a prime future strategy for important demographic changes not in Uganda also in other developing countries.

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APPENDIX 1

Questionnaire format

1. How old are you?
 - i) Below 20 years
 - ii) 21- 25 years
 - iii) 26- 30 years
 - iv) Above 30 years.
2. What is your marital status?
 - i) Single
 - ii) Married
 - iii) Widow
 - iv) divorced
3. What is your occupation (Farmer, teacher, doctor/nurse, police officer/army officer)
 - i) Peasant
 - ii) Teacher
 - iii) Nurse/ doctor
 - iv) Police officer
 - v) None of the above
4. What is your family income status?
 - i) Lower income levels
 - ii) Middle income levels
 - iii) High income levels
5. Do you use family planning methods?
 - i) Yes
 - ii) No
6. If yes, which method exactly do you use?
 - i) Condoms
 - ii) Pills

- iii) Injections
- iv) IUDs
- v) Local methods (withdraw and breast feeding)

7. What is your Level of education?

- i) Primary drop out
- ii) Secondary dropout
- iii) Tertiary graduate
- iv) University graduate
- v) None of the above

8. At what age do girls give their first birth in this sub-county?

- i) 13 years
- ii) 14 years
- iii) 15 years
- iv) Beyond 18 years

9. How many children does a single mother give birth to?

- i) 2-5
- ii) 6-10
- iii) 11-15
- iv) 15 and above

10. What is the level of girl child enrollment in schools?

- i) Very low
- ii) Low
- iii) High
- iv) Very high.

11. What is the level of girl child school dropouts in this sub-county?

- i) Very low
- ii) Low
- iii) High
- iv) Very high

12. In your opinions, what should be done to improve or reduce on the following:

- i) Girl child education.....
- ii) School enrollment.....
- iii) Number of children per mother

Expected number of children in your life time..... (Number of children you want to produce)

Reason for that expected number of children.

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APPENDIX 2

Trends in the total fertility rates in Uganda between 2000/01 and 2006

		Total fertility rates (TFR)		
Back ground characteristic		1995	2000/01	2006
Education	No education	7.0	7.8	7.7
	Primary	7.1	7.3	7.2
	Secondary	5.2	3.9	4.4
Residence	Urban	5.0	4.0	4.4
	Rural	7.2	7.3	7.1
Wealth index	Lowest Quality	n.a.	8.5	8.0
	Lower middle	n.a.	8.2	7.9
	middle	n.a.	7.5	7.0
	Upper middle	n.a.	6.3	6.8
	Highest	n.a.	4.1	4.3
TOTAL		6.9	6.9	6.7

Source: Uganda DHS, 2006, 2000/01, and 1995; n.a. information not available

APPENDIX 3

The total fertility rate various UDHS series and census 1958 – 2002

		UDHS 1995		UDHS 2000/01		UDHS 2006		Censuses 1958-200	
Reference period	TFR	Preferred period	TFR	Preferred period	TFR	Preferred Period	TFR	Preferred period	TFR
59 -73	7.6	1976 - 80	7.4	1981 –85	7.2	-	-	1958 – 59	6.8
'4 -78	7.3	1981 – 85	7.2	1986 – 90	7.1	1993 – 1995	6.9	1968 – 69	7.1
'9 – 83	7.1	1986 – 90	6.9	1991 – 95	7.0	1998 / 99-2000/01	6.9	1990 – 91	7.1
4 – 88	6.9	1991 - 95	6.8	1996 - 2000	6.8	2003/ 2006	6.7	1991 - 2002	7.0

Source: *Blacker et al.* 2005, table 2, page 358.

Republic of Uganda, 2006. UDHS 2006,

The UDHS 2006 numbers are adjusted for districts that were not included in the 2000/01 survey

APPENDIX 4

FERTILITY CHARACTERISTICS

Category	All women	Married		Number of children born		Cumulative fertility	
		By age 20	By age 25	By age 20		by age 25	By age 30
Non educated	77.7	83.4	93.9	5.5	1.0	2.3	3.6
Primary	78.6	70.3	86.3	3.5	1.2	2.6	4.0
Secondary	72.1	39.4	79.3	1.8	0.7	2.1	3.5
Post-secondary	78.8	22.8	50.8	1.6	0.2	1.0	2.2
Poorest quintile	78.3	73.7	48.0	4.1	1.2	2.3	3.7
Poorer quintile	78.0	75.0	83.8	3.9	1.0	2.5	3.8
Middle quintile	79.0	60.9	82.1	3.8	1.0	2.5	3.8
Rich quintile	73.0	67.2	74.7	2.4	1.1	2.6	4.0
Richest quintile	71.6	48.0	59.1	3.1	0.8	2.2	3.5
Central	80.8	37.0	67.1	3.9	1.0	2.4	3.7
East	78.2	71.3	77.9	3.7	1.2	2.7	4.0
West	78.2	69.2	79.5	3.6	0.9	2.1	3.4
Rural	67.6	51.1	74.6	3.8	1.0	2.4	3.8
Urban	79.4	68.6	62.1	2.3	0.8	2.1	3.3
Total	77.0	65.6	76.8	3.5	1.1	2.5	3.8
N	8,531	5,494	6,296	8531	6583	4921	3,511

APENDIX 5: CURRENT USE OF CONTRACEPTIVES

Category	Current use, any method	Current use, modern method	Use of condoms-Current
No education	11.7	9.7	0.4
Primary	17.9	16.1	2.0
Secondary	28.2	24.7	7.4
Post -secondary	43.4	38.0	16.
Poorest quintile	8.4	7.5	0.9
poor quintile	12.5	11.5	1.5
middle quintile	15.9	13.4	1.6
Richer quintile	21.9	19.2	2.3
Richest quintal	33.9	30.1	8.2
Central	29.1	25.8	6.1
East	17.7	15.9	2.3
North	9.7	9.3	1.5
West	18.7	15.5	2.3
Rural	32.5	29.4	2.2
Urban	16.9	14.7	8.3
Total	19.5	17.2	3.2

Source; *Uganda Demographic Health survey, 2006*

APPENDIX 6

Time frame of the study.

ACTIVITY	WEEK 1	WEEK 2	WEEK 3
Data collection; primary and secondary Data – questionnaires, interviewees, text books			
Data analysis – use of SPSS and MS-Excel			
Dissertation writing and submission – report completion, proof reading and first draft, final corrections and submission of final report.			

APPENDIX 7

Costs

	ITEME	QUANTITY	UNITY COST (ugs)	TOTAL (ug s
A	STATIONARY			
	Box of pencils	1	8,000	8,000
	Box of pens	1	12,000	12,000
	Ream of ruled papers	1	6,000	6,000
	Flash disk	1	20,000	20,000
	CD Rom disks	2	1,000	2,000
	Note book	2	2,000	4,000
B	PERSONAL			
	Transport			70,000
	Feeding			40,000
C	TATA PROCCESING			
	Secretarial services		100,000	100,000
	Photocopying and binding		50,000	50,000
	TOTAL			3,12000