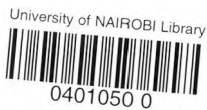


**CONTRACEPTIVE USE AMONG WOMEN
WITH DISABILITY IN KENYA**

BY

MUNENE ROSE WAIRIMU

Q50/71702/2008



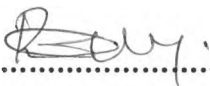
**A RESEARCH PROJECT SUBMITTED TO THE POPULATION
STUDIES AND RESEARCH INSTITUTE IN PARTIAL
FULFILMENT FOR THE DEGREE OF MASTER OF ARTS IN
POPULATION STUDIES, UNIVERSITY OF NAIROBI**

NOVEMBER 2010

DECLARATION

This Research Project is my original work and has not been presented for a Degree award in any other institution

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DATE: 18 NOVEMBER 2010

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18 November 2010

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23-11-10

DEDICATION

This work is dedicated to my parents, the late Mr. Charles Munene and Mrs. Grace Muthoni Munene.

ACKNOWLEDGEMENTS

I wish to acknowledge all the people who contributed to this Research Project through various ways. First and foremost, I wish to express my sincere thanks to God for giving me strength during this period.

To my Supervisors, Mr. Ben Obonyo Jarabi and Dr. Lawrence Ikamari, I greatly acknowledge their efforts in guiding me tirelessly. Your critique rather than criticisms helped the project take its present form. My deep gratitude and special thanks are extended to other lecturers at Population Studies and Research Institute (PSRI) who participated in the first presentation of the project as well as gave advice which helped me to advance clearly.

Finally, to all my fellow classmates, I thank you for your support and encouragement. A special thanks to Wandia, Kundu, Njenga and Nderitu: I cannot forget the support you gave me during this project writing process.

ABSTRACT

Women with disability need the same options as other women to choose to conceive or to control their fertility. Several studies have found disparities in contraceptive use among all women and women with disability. According to the 2008-09 Kenya Demographic and Health Survey (KDHS, 2008), slightly less than half (46%) of currently married women are using some method of contraception. On the other hand, according to the Kenya National Survey for Persons with Disabilities (KNSPWD, 2008) report, only 15.6 percent of married women with disability use any type of family planning.

This study explored factors influencing contraceptive use among women aged 12-49 years with a disability in Kenya. Specifically, it looked at demographic, socio-economic and other intervening factors influencing contraceptive use among this group of women. It utilised data from the 2008 KNSPWD. The survey covered a total of 14,569 households in which 3,095 individuals with disability were interviewed, and 6,943 women aged 12-49 were interviewed on reproductive health issues. The population studied was 281 women aged 12-49 years with disability in Kenya. A total of 6,638 women aged 12-49 years without disability were also used in the study for comparative analysis during bivariate analysis among the different variables.

Descriptive analysis and cross tabulations were used to describe as well as test for associations between the dependent variable and independent variables respectively. Multiple logistic regression was done using stepwise statistical method for the purpose of identifying the most significant factors influencing contraceptive use among women with disability.

The study confirmed observations from other studies that show that married women living in regions with high contraceptive prevalence are more likely to use contraceptives. The study also confirmed that women without disability are more likely to use contraceptives than women with disability. However, the study revealed some conflicting results whereby women with disability who resided in rural areas and those with lower level of education were more likely to use contraceptives as compared to women with disability who resided in urban areas and

those with higher level of education. The study also found that having access to information and family planning services does not influence contraceptive use among women with and without disability.

From the findings, further research is recommended on factors that would make women with disability who have no education or lower level of education and residing in rural areas to have a higher rate of contraceptive use than those with higher level of education and residing in urban areas. The study recommends further research on access to reproductive health information for women with disability as well as on their sexuality. Through national policies, there is need to stress for availability of programs and materials to inform women about how disability can affect their reproductive health, and how they can work with health care providers to ensure that they are receiving the same quality of service as all women. Programs on reproductive health need to ensure that disability issues are mainstreamed so that women with disability can benefit from them the same way as women without disability do.

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CHAPTER ONE: INTRODUCTION

This section outlines background of the study, problem statement, research question, research objectives, justification as well as scope and limitations.

1.1 Background of the Study

Having a disability places one in the world's largest minority group. An estimated 10 percent of the world's population – 650 million people – live with disability. According to the United Nations Development Program (UNDP), 80 percent of persons with disability live in developing countries, and more than half are women. The World Bank (2004) estimates that 20 percent of the world's poorest people have some kind of disability, and tend to be regarded in their own communities as the most disadvantaged.

Women with disability often cannot obtain even the most basic information about sexual and reproductive health (SRH). Thus they remain ignorant of basic facts about themselves, their bodies, and their rights to define what they do and do not want. They may have little experience relating to and negotiating with potential partners. Women with disability may be denied the right to establish relationships. They fit the common pattern of structural risks for HIV/AIDS and other sexually transmitted infections – e.g. high rates of poverty, high rates of illiteracy, lack of access to health resources or information, and lack of power when negotiating safer sex.

Women with disability face many barriers to care and information about SRH. There is the frequent assumption that persons with disabilities are not sexually active and therefore do not need SRH services. However, research shows that persons with disabilities are as sexually active as persons without disabilities (World Bank, 2004). In a qualitative study conducted in the United States (1997), 10 women aged between 18 and 50, with a variety of physical disabilities reported on their experiences with reproductive health care. They described difficulties with health care providers who made assumptions that they were not sexually active because of their disability and who had limited knowledge about their needs. The respondents reported that they were provided with little information about contraceptive options and that they were not screened for sexually transmitted infections. They described being treated as if they were a disability, not a woman, and being talked to as if they were children, not adults. They also cited difficulties with inaccessible facilities and the equipment inside the offices (Becker et al., 1997).

An assessment conducted in 2009 in selected districts of Tanzania mainland in order to highlight the multiple challenges that people with disabilities face in HIV/AIDS service provision indicates that 30 percent of those interviewed thought it was 'common' for people living with disability to have sex with many partners. The reasons given included: to get money, rape, drunkenness and having no spouse. Despite this, their sexuality has been ignored and their reproductive rights denied. The existing policies and programs in Tanzania concentrate on the prevention of pregnancy but ignore the fact that many persons with disabilities will eventually have children of their own. At worst, forced sterilization and forced abortion often have been imposed on persons with disabilities.

Furthermore, SRH services are often inaccessible to women with disability for many reasons, including physical barriers, the lack of appropriate clinical services, and stigma and discrimination. In many situations, barriers to health services include: lack of physical access, including transportation and/or proximity to clinics and, within clinics, lack of ramps and adapted examination tables; lack of information and communication materials (e.g. lack of materials in Braille, large print, simple language and pictures, lack of sign language interpreters); health-care providers' negative attitudes and; providers' lack of knowledge and skills about persons with disabilities.

According to the Center for Research on Women with Disabilities (1996), gynaecologists are less likely to ask women with three or more functional limitations or obvious physical disability about contraceptive options. One United States study on women with disability (1998) found that only 19 percent of physically disabled women received counselling on SRH. Doctors often fail to test women with disability for sexually transmitted infections (STIs), assuming that they are not sexually active. Women with disability are further discouraged from seeking reproductive healthcare due to their doctors' lack of knowledge of disability-related symptoms such as spasticity, imbalance and autonomic dysreflexia.

Since people with disability are often hidden from view or may have difficulty reaching clinics, family planning providers may not be aware of their reproductive health needs. "Disabled people tend to be hidden in their homes for many years", says Eileen Giron, Executive Director of the Cooperative Association of the Independent Group for Rehabilitation (ACOGIPRI) in El Salvador. "Physical barriers outside the house and lack of transportation also make it very difficult for them to get out. As a result, they are not represented on

committees and their needs are not known. But when we have held workshops about sexuality, the disabled women and men with whom we work say they need more reproductive health services. They say they have long wanted to learn more, but just didn't know whom to ask." (Leavesley, 1982).

Kenya is a highly patriarchal society; women with disability are subject to double discrimination based on their gender and their disability status. Many disabled women continue to miss out on education, training and employment on account of their disability and are often marginalized when key decisions are made. This aggravates poverty levels of women living with disability. Girls who are disabled are hidden at home and restricted from social integration, and therefore receive no or limited information concerning menstruation, contraceptives, pregnancy or sexually transmitted diseases (STDs). They are regarded as "non-marriageable" and therefore this information is regarded irrelevant to them. Adolescents who are disabled are brought up oblivious of their desires; their caregivers ignore the fact that they need information as regards sexuality causing the girls to get confused about changes in their bodies. A woman is equated to the wealth she will bring to the community in terms of bride price. However, a woman who is disabled is regarded as less productive and of diminished value as she will not attract a suitable suitor. Women with disability are generally regarded as women without sexual attractiveness and without sexual desire; they are therefore not included in the platform of advocating for sexual and reproductive health rights, and are rarely considered in national debates with a focus on sexuality¹.

According to qualitative data collected from the Kenya National Survey for Persons with Disabilities (KNSPWD, 2008), there was concern that most women with disability are not likely to make personal choices on family planning methods preferred. Most reproductive health decisions are made by family members or other close relatives. In most cases, these women either lacked or could not get first hand information on reproductive health. They were also not invited to any awareness workshops. According to a female respondent, "people with disabilities (PWDs) do not seek voluntary counselling and testing (VCT) services because they have to be accompanied by either a family member or community health worker and hence privacy would be compromised. Moreover, there are no specially trained VCT counsellors to specifically attend to PWDs." Some participants were also concerned that traditional birth attendants (TBAs)

¹ A Case for a National Disability Health & HIV/AIDS Policy Framework, <http://www.disabilitykenya.org/acasefornationaldisabilityhealthaidspolicy.htm>

are not trained on how to assist pregnant mothers with disability. Whenever they encounter a pregnant woman with disability, they only encourage them to go to hospital, which would normally be quite far.

Reproductive health issues are of growing importance to the disabled women's community. Persons with disabilities represent a significant portion of the world's population and are part of every community. Attention to the SRH needs of persons with disabilities is important to ensure the protection and promotion of their human rights, to move forward the international development agenda, and to build a truly inclusive society. Although the full picture of SRH issues for persons with disabilities is not yet clear, it is certain that there are significant unmet needs. Like everyone else, persons with disabilities need SRH information and services in order to make informed reproductive decisions for themselves. Contraceptive use is the main proximate determinant of fertility. The use of contraception affects fertility because it decreases the risk of conception. There is an established, near-universal linear relationship between the contraceptive prevalence and level of fertility in a population. According to studies carried out in several countries, an increase of 15 percentage points in contraceptive prevalence is expected to yield a decline of about one child in the total fertility rate (Ross and Frankenberg, 1993).

Past efforts by the Government of Kenya and Non-Governmental Organizations have been made in offering training on family life education to teachers in public schools. These trainings however lack a special focus towards the needs of people with disabilities.

When offering contraceptive information and counseling, family planning providers need to consider medical issues associated with various physical disabilities. Contraceptive options will depend upon such factors as blood circulation, abnormal clotting is associated with the condition, degree of physical sensation, manual dexterity, whether the condition is stable, whether a contraceptive could worsen the condition, possible drug interactions with medications a person is taking, whether the individual is depressed, and any problems the client has with menstrual hygiene (Leavesley, 1982).

1.2 Problem Statement

According to the Kenya Demographic and Health Survey (KDHS, 2008), slightly less than half (46%) of currently married women are using some method of contraception. According to the Kenya National Survey for Persons with Disabilities (KNSPWD, 2008) report, only 15.6 percent of married women with disability use any type of family planning. Table 1.1 below demonstrates the disparities in contraceptive use among women with and without disability.

Table 1.1: Differentials in Contraceptive Use among all Women and Women without Disability (2008)

| Contraceptive use | % of all women | % of all women with disability |
|---|-----------------------|---------------------------------------|
| Use of modern methods of contraception | 39 | 13 |
| Use of traditional methods of contraception | 6 | 2.4 |
| Contraceptive use among women living in urban areas | 53 | 10.8 |
| Contraceptive use among women living in rural areas | 43 | 17.9 |

Source: KDHS 2008 and KNSPWD 2008

From the above, there are disparities in contraceptive use among all women and women with disability. Several studies have associated increased level of unmet need for contraceptive use to increased levels of fertility. This study examined underlying issues that cause the disparity in contraceptive use.

Women with disability, like all people, should enjoy human rights that are secured by international laws and policies. The Convention on the Rights of Persons with Disabilities (2008), the Program of Action of the International Conference on Population and Development (1994), and the 1993 Vienna Declaration recognise the importance of ensuring that women with disability enjoy the reproductive health rights that are enjoyed by the rest of the women. They stress issues such as the right to equality and non-discrimination, the right to marry and found a family, the right to comprehensive reproductive health care including family planning and maternal health services, education, information, the right to be free from sexual abuse and exploitation and, the right to have access to reproductive and family planning information and education.

The Government of Kenya, being a signatory to the above protocols, needs to ensure that women with disability enjoy these rights. The disparity in contraceptive use between women with and without disability also needs to be addressed. If not, Government's efforts to reduce fertility levels in Kenya may not be achieved.

1.3 Research Question

What are the factors that influence contraceptive use among women with disability in Kenya?

1.4 Research Objectives

The general objective of the study was to determine factors influencing contraceptive use among women aged 12-49 years with disability in Kenya. The following are the specific objectives of the study:

- a) To determine demographic factors influencing contraceptive use among women with disability.
- b) To determine socio-economic factors influencing contraceptive use among women with disability.
- c) To determine intervening factors influencing contraceptive use among women with disability.

1.5 Justification of the Study

Sexual and reproductive health (SRH) for women with disability in Kenya deserves attention because their needs have been neglected. There is little concern of the fact that a number of patients who go to health facilities have different physical needs. Persons with disabilities (PWDs) are generally not factored in planning of health facilities infrastructure especially in public health facilities. As a result, they have limited or no access to important information especially on sexual and reproductive health. On 3 May 2008, The Convention on the Rights of Persons with Disabilities came into force, and Kenya is a signatory. It emphasizes the importance of mainstreaming disability issues for sustainable development. Attention to health and its social determinants is essential to promote and protect the health of PWDs for greater fulfilment of human rights.

The Government of Kenya has adopted a number of laws and policies pertaining to people with disabilities, including their right to productive and decent work and basic services. The new constitution outlaws discrimination on the grounds of disability. The Persons with Disabilities Act (2003) covers rights,

rehabilitation and equal opportunities for people with disabilities. A Disability Policy was drafted to operationalise the act. The act also led to the creation of the National Council of Persons with Disabilities (NCPWD) as a statutory organ to oversee the welfare of persons with disabilities. The council developed a strategic plan (2008-2012), with reference to the vision 2030 as well as the Millennium Development Goals (MDGs). The National Development Plan (2002- 2008), focused on strengthening vocational rehabilitation centres for people with mental and physical disabilities and affirmative action in areas of employment, vocational training and education. This shows that the country is already doing something to address the needs of people with disabilities. This study highlights reproductive health needs of women with disability as well as challenges they face and if they have an effect on contraceptive uptake.

A world that neglects 20% of the poor in developing countries cannot achieve some of the Millennium Development Goals (e.g. reducing child mortality and improving maternal health) and other international agendas, including goals in the Program of Action of the International Conference on Population and Development (ICPD). Disability concerns must be integrated into all the programmatic and policy goals associated with SRH and reproductive rights.

1.6. Scope and Limitations

The scope of this study is a sample of women, aged 12-49 years, with disability in Kenya. According to the KNSPWD Report, they represent 281. A total of 6,638 women aged 12-49 years without disability were also used in the study for comparative analysis during bivariate analysis among the different variables. Secondary data used include the KNSPWD data set as well as literature review on similar studies that have been carried out.

The KNSPWD survey is the first of its kind to be conducted in Kenya. This presents a limitation as no comparisons can be made with previous studies. Another limitation is that the survey did not study fertility levels among women with disability. Thus, the effect of contraceptive use on fertility levels cannot be established.

CHAPTER TWO: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This section reviews literature that looks at the relationship between contraceptive prevalence and fertility level by examining the proximate determinants of fertility. It goes further to review factors associated with contraceptive use in Kenya as well a contraceptive use among women with disability in various parts of the world. The choice of the conceptual framework used and definition of the dependent and independent variables used in the study are also looked at in this section. Finally, the hypotheses are presented at the end of this chapter.

2.2 Literature Review

The literature reviews the relationship between contraceptive prevalence and fertility paying close attention to the proximate determinants of fertility. It goes on to review the determinants of contraceptive use according to studies conducted by various researchers. Finally, it examines literature on contraceptive use among women with disability.

2.2.1 Relationship between Contraceptive Prevalence and Fertility

The proximate determinants of fertility are the biological and behavioral factors through which the indirect determinants - social, economic, psychological and environmental variables - affect fertility. The distinguishing feature of a proximate determinant is its direct connection with fertility. If a proximate determinant, such as contraceptive use changes, then fertility necessarily changes also (assuming the other proximate determinants remain constant), while this is not necessarily true for an indirect determinant of fertility such as income or education. Consequently, fertility levels and trends among populations over time can always be traced to variations in one or more of the proximate determinants. These relationships were first recognized in the mid-1950s when Kingsley Davis and Judith Blake developed an analytical framework of proximate determinants that they called the “intermediate fertility variables”. These variables affect either the exposure to intercourse or the exposure to conception or gestation and successful parturition.

While Davis and Blake (1956) were the first to identify a set of 11 proximate determinants known as “Intermediate Fertility Variables”, their classification did not get wide acceptance because it was not easily incorporated in fertility analysis. In view of that, Bongaarts (1978) reclassified this list of determinants into eight variables, including marriage pattern, contraceptive use, induced abortion, lactation infecundability, fecundability, spontaneous abortion, frequency of coitus and sterility. However, after various studies, Bongaarts realised that some of these factors are more relevant than others in determining the magnitude of fertility change. In fact, only four of them (proportion married, contraceptive use and effectiveness, induced abortion and postpartum infecundability) are the most important in explaining fertility variation, accounting for up to 96 percent of fertility change in some populations (Bongaarts, 1982; 1978).

Contraceptive use is the main proximate cause of decline in fertility. The use of contraception affects fertility because it decreases the risk of conception. The effectiveness of contraception is measured as the percent of reduction in fecundability. Contraceptive effectiveness depends on the method as well as on the motivation and knowledge of the user.

Several studies have uncovered the existence and extent of covert contraceptive use among women, which may account for about 6 percent to 20 percent of total contraceptive use (Biddlecom and Fapohunda, 1998) for reasons of secret use of contraception (Bawah et al., 1999; Castle et al., 1999; Rutenberg and Watkins, 1997). According to Blanc and Poukouta (1997), the contraceptive prevalence/fertility discrepancy is largely a rural phenomenon in Kenya (as well as in Senegal and Zimbabwe). This implies that if data deficiencies are indeed responsible for the observed contraceptive prevalence/fertility discrepancy, then such errors do vary considerably by rural/urban residence and possibly other background characteristics, such as education, religion and ethnicity/region. For example, covert use of contraceptives may be more prevalent among members of religious denominations strongly opposed to contraceptives or pronatalist communities.

Despite substantial declines in fertility and increases in contraceptive adoption over the past two decades, unmet need for family planning remains high in Kenya with about one in four married women having an unmet need for family planning. This represents a major reproductive health challenge given the government’s commitment to “make available quality and sustainable family planning services to all who

need them, in order to reduce the unmet needs for family planning” (APHRC, 2001). It also suggests a large potential for further increases in contraceptive use.

2.2.2 Determinants of Contraceptive Use

Global studies on fertility and contraceptive use have identified socio-economic, socio-cultural and demographic variables as significant determinants and include; female educational attainment, assets or wealth, place of residence, gender inequality, infant and childhood mortality, age at first marriage, religion, marital status, polygyny and ethnicity among many others (Westoff and Cross, 2004). Similar studies have been conducted in Kenya and include Kimani and K'Oyugi (2004), Bauni, Gichuhi and Wasao (2000), among others. These studies confirm the importance of socio-economic and cultural factors and their high correlation with fertility and contraceptive use. They isolate key among them to be education, marital type, degree of urbanization, status of women, wage employment, wealth status, health facilities and personnel, access to information, social infrastructure, exposure to media, urban life styles and active support of the population policy. These studies link fertility transition and contraceptive use with the context of broad social and economic changes experienced in Kenya during that period.

In a comparative study of reasons for non-use of contraceptives in three Asian and three Latin American countries, the desire for a child, side effects or health reasons and temporary infecundity were the most commonly given reasons for current non-use (Nair and Smith, 1984). Disapproval of contraceptives was minimal in some countries, but appreciable in others. Among the socio-economic and demographic characteristics examined, age of women, number of living children, and ever use of family planning methods were identified as the most powerful discriminators of the main reason for non-use.

Few studies have examined factors associated with specific reasons for non-use of family planning in sub-Saharan Africa. An important contribution in this area comes from a study of patterns of contraceptive behaviour in Lesotho, which identified health reasons as more common among young women, those with high educational attainment and those who were previously married. Lack of information was cited most commonly by never married women and those whose partners were not working or had received no education, while social pressures were cited commonly by currently married women and those whose partners had no education (Touane, 1999).

The analysis of unmet need in Morocco revealed that the most intractable reason for non-use was either religious based or because of a husband's objections. In contrast, fear of side effects and lack of information were the most easily surmounted obstacles, as women citing these reasons were the most likely to be persuaded to adopt family planning (Westoff and Bankole, 1998). A recent study in Siaya District in Kenya showed that fear of side effects or sterility was the objection most easily overcome by good communications and information, particularly through the community based distribution (CBD) program (Omondi-Odhiambo, 1999).

Despite the increase in contraceptive use in Kenya over the years, a substantial proportion of women still have an unmet need for family planning. According to the 2008 Kenya Demographic and Health Survey (KDHS), 25 percent of currently married women have an apparent unmet need for family planning, and the total wanted fertility rate of 3.5 births is significantly lower than the current total fertility of 4.6 births per woman. Hence, there is room for improvement in meeting women's family planning needs and considerable potential for further increases in contraceptive use. Better understanding of factors associated with non-use of family planning in the country is vital for realizing this potential.

2.2.3 Contraceptive Use among Women with Disability

Although disability may carry less stigma in the developed world, a United States study (1989) of 55 women aged 18 and older with either acquired or congenital physical disabilities showed that only 19 percent had received sexuality counseling. Some 65 percent had received information about contraception, but women with paralysis, impaired motor function or obvious physical deformity were rarely offered contraceptive information or methods.

Disabled adolescents may be as sexually active as healthy, able-bodied adolescents. A United States survey (1996) of disabled young people between 12 and 18 years old found that disabled adolescents did not differ from their healthy peers in terms of the proportion ever having intercourse, age of first sexual intercourse, ever causing or having a pregnancy, or contraceptive use patterns.

Meenu Sikand, Toronto-based vice-chairwoman of the Canadian Association of Independent Living Centers' International Committee (2003), says that in her native country of India "women with even simple physical disabilities or conditions - like seizures - never learn about reproductive health because they are considered to have no marriage prospects. They are routinely denied the opportunity even to go to school since they may have a seizure, fall down and humiliate the family. They are not seen as full human beings. Any imperfection that compromises a woman's ability to take care of her family means she is out of the marriage market."

In southern Africa, says Musakanya of Southern Africa Federation of the Disabled (SAFOD, 1986), "tradition generally views disability as a curse, a punishment from the ancestral spirits or God for wrongs committed by one's parents. As a result, most parents hide their disabled children, and a disabled woman is not expected to have children."

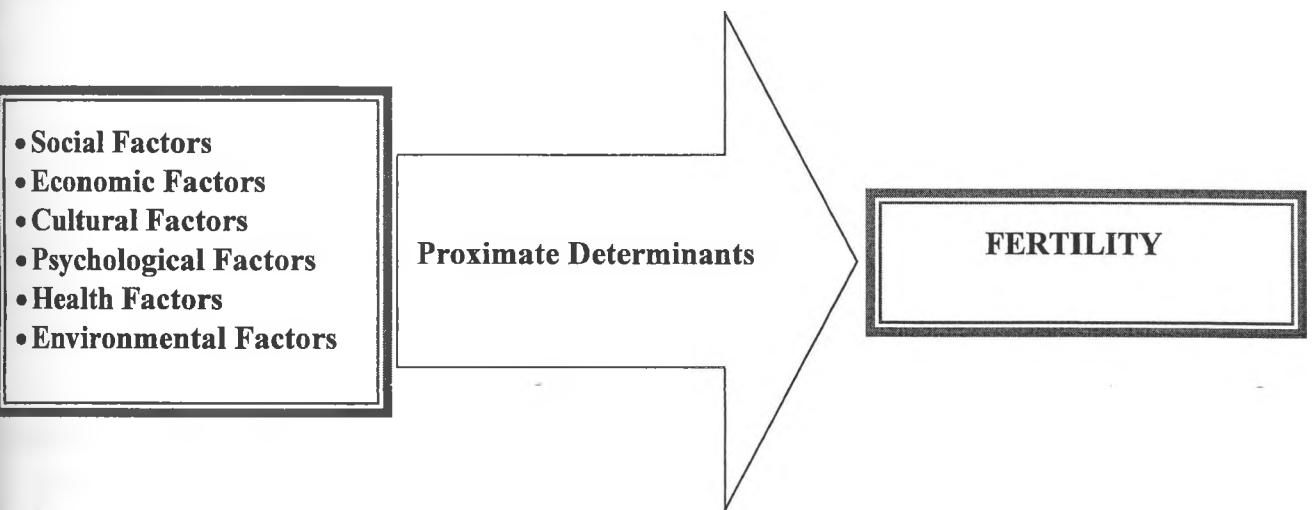
Furthermore, "in the developing world, it is highly unusual for a disabled woman even to have had a routine gynecological checkup," says Lucy Wong-Hernandez, executive director of the Winnipeg, Canada-based Disabled Peoples International (1999). "I have personally known many disabled women with cervical or breast cancer who never had the opportunity to have these conditions detected with a Pap smear or mammogram. Because no one talks about breast cancer in disabled women, these women do not even know how to examine their own breasts."

In countries with active disability programs, health-care providers are increasingly giving reproductive health information to persons with physical disabilities, says Musakanya of SAFOD (1999). "They are also learning to assess the patient's pre-disability versus current sexual functioning; how the disability affects the patient's sexual expression, contraceptive needs and use; and any sexual abuse that might be occurring."

2.3 Conceptual Framework

This study was analysed using a framework adapted from Bongaarts proximate determinants of fertility (1978). According to this framework, fertility is directly influenced by a set of factors such as contraceptive use, which are referred to as the proximate determinants. These are in turn influenced by social, economic, cultural, psychological, health and environmental factors, which are referred to as the background factors.

Figure 2.1: Conceptual Framework



Bongaarts Proximate Determinants of Fertility (1978)

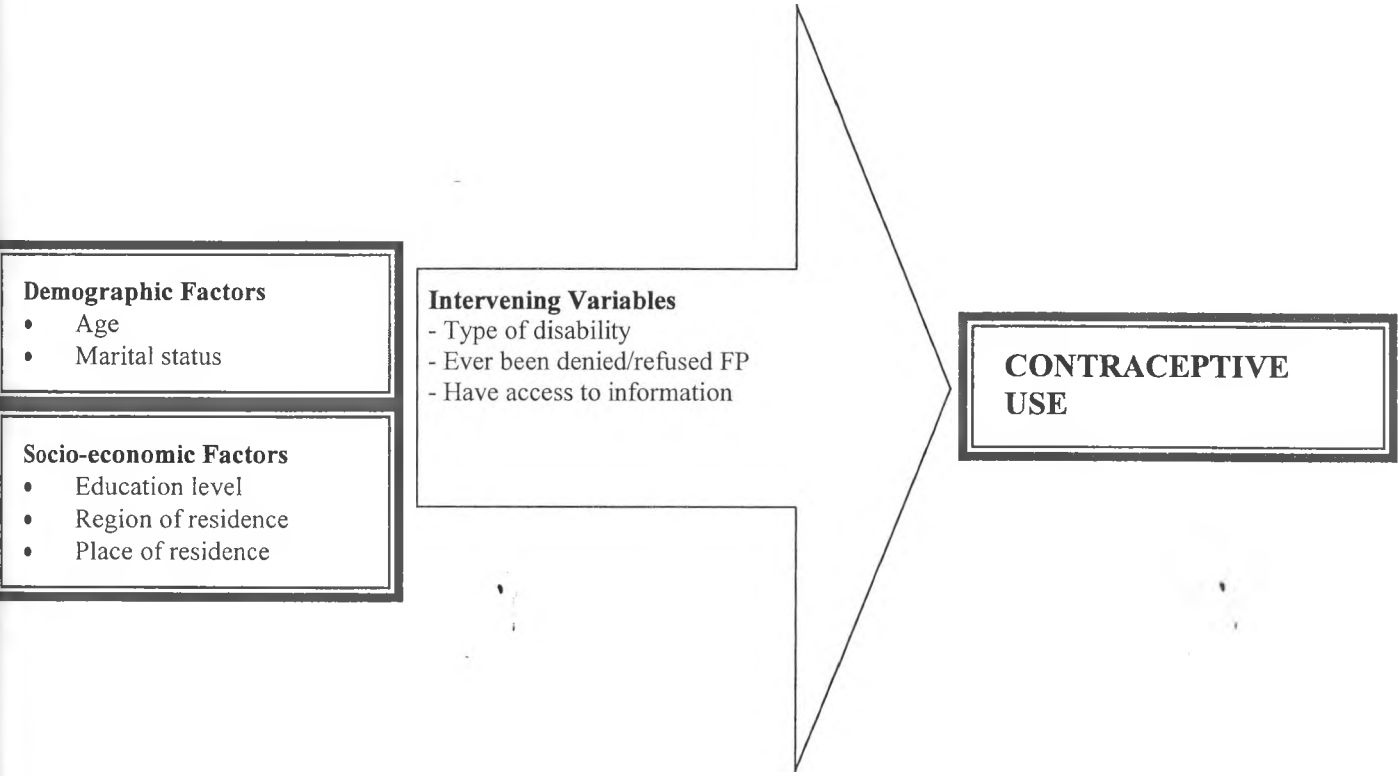
The fact that the framework encompasses independent variables that were examined in this work, makes it far more suitable compared with others. Further, the Bongaarts framework has been modified by other authors to study the effects of socio-economic, socio-cultural and demographic factors on contraceptive use, for example Gichuhi (1991) and Osiro (2001).

The study focussed on individual women aged between 12-49 years with disability. This was done in order to permit comparison of the results of the study with those obtained from previous studies on women in Kenya.

2.4 Operational Framework

The variables considered in the operational framework included: age and marital status for demographic factors; highest education level, region of residence and place of residence for socio-economic factors and; type of disability, ever been denied/refused family planning (FP) and have access to information for intervening factors. These variables were seen as the most appropriate considering their availability in the dataset from the KNSPWD.

Figure 2.2: Operational Framework



Adapted From Bongaarts Proximate Determinants of Fertility (1978)

2.5. Hypotheses

- Age influences the uptake of contraceptives among women with disability.
- Marital status influences the uptake of contraceptives among women with disability.
- Level of education influences the uptake of contraceptives among women with disability.
- Region of residence influences the uptake of contraceptives among women with disability.
- Place of residence influences the uptake of contraceptives among women with disability.
- Type of disability influences the uptake of contraceptives among women with disability.
- Having access to family planning influences the uptake of contraceptives among women with disability.
- Availability of information influences the uptake of contraceptives among women with disability.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter presents the source of data and methods that were used to carry out the analysis. The first section looks at data source and the second section methods of analysis. This is followed by a section on variables and their description which outlines in a table all variables used in the study and how they are defined.

3.2 Data Source

The study utilised data from the 2008 KNSPWD. The survey covered a total of 14,569 households in which 3,095 individuals with disability were interviewed, and 6,943 women aged 12-49 were interviewed on reproductive health issues. The population studied was 281 women aged 12-49 years with disability. A total of 6,638 women aged 12-49 years without disability were also used in the study for comparative analysis during bivariate analysis among the different variables.

3.3 Methods of Analysis

To begin the data analysis process, descriptive analysis was used to describe the frequency distribution of the respondents by various socio-economic and demographic characteristics. Cross tabulations were used at bivariate level of analysis to test for associations between the dependent variable and independent variables. Cross tabulations show the frequency between two variables of interest; hence they are useful in comparative analysis. Chi square test was used to test for significance of associations between each of the dependent and independent variables. Cross tabulation and chi square is one of the quantitative methods used to analyse the relationship between two variables. Multiple logistic regression was done using stepwise statistical method for the purpose of identifying the most significant factors influencing contraceptive use among women with disability. Multiple logistic regression is a statistical technique that allows one to determine the most important independent variables that influence the dependent variable. Stepwise statistical method was used to run the regression. In this method, variables that are not statistically significant are eliminated in steps. Thus, the method ensures that one ends up with the smallest possible statistically significant set of independent variables to be included in the model.

3.4 Definition of Variables

This section defines the variables used in the study. Table 3.1 below defines the dependent and independent variables with respect to type, detailed description as well as the measurements used.

Table 3.1: Definition of Variables

| Variable | Type of Variable | Description | Measurement |
|-------------------------------|-------------------------|---|--|
| Contraceptive use | Dependent | This variable measures status of contraceptive use among women with disability at the time of the interview. It specifies whether women with disability have ever used any method of contraceptive. | 1 = Yes 2 = No |
| Demographic Factors | | | |
| Age | Independent | Current age of women with disability (12-49 years). | 1 = Below 30 years 2 = 30 years and above |
| Marital status | Independent | Respondent's marital status at the time of survey. This is divided into in 2 categories. | 1 = Currently married 2 = Not married |
| Socio-economic Factors | | | |
| Education | Independent | Highest level of education attained by women with disability. | 1 = No education 2 = Primary level 3 = Secondary level and above |
| Region of residence | Independent | Region of respondent's residence at the time of the survey categorized into provinces with high | 1 = Provinces with high contraceptive prevalence |

| | | | |
|-----------------------------|-------------|--|--|
| | | contraceptive prevalence (above 46%) and provinces with low contraceptive prevalence (below 46%). The contraceptive prevalence rate is according to the 2008 KDHS results. | 2 = Provinces with low contraceptive prevalence |
| Place of residence | Independent | Place of respondent's residence at the time of survey | 1 = Rural 2 = Urban |
| Intervening Factors | | | |
| Type of disability | Independent | Type of disability that a respondent has at the time of survey. This is divided into 3 categories. | 1 = Visual impairment 2 = Physical disability 3 = Hearing impairment 4 = Other disabilities |
| Ever been denied/refused FP | Independent | Whether women with disability have ever been denied/refused family planning at the time of survey. | 1 = Yes 2 = No |
| Have access to information | Independent | Whether respondents had access to information they needed at the time of survey. This is divided into 2 categories. | 1 = Yes 2 = No |

CHAPTER FOUR: FACTORS INFLUENCING CONTRACEPTIVE USE AMONG WOMEN WITH DISABILITY

4.1 Introduction

This chapter presents results of analysis of factors that influence contraceptive use among women aged 12-49 years with disability. It is arranged by first outlining the background characteristics of the study population in order to facilitate meaningful univariate analysis. Results of bivariate analysis are then presented to show the association between the study variables and the dependent variable. This was done for women with and without disability for comparative purposes. A separate bivariate analysis was also done among women with disability to determine the association between contraceptive uptake and type of disability. Finally, multiple logistic regression was conducted using stepwise statistical method to identify the main factors influencing contraceptive use among women with disability.

4.2 Distribution of Women with Disability by Background Characteristics

The sample population comprised 281 women aged 12-49 years with disability. Table 4.1 below shows the distribution of the sample population by background characteristics. Most of the women with disability were 30 years and above (56%), while those below 30 years were 44 percent. On marital status, most of the women with disability were not married (53%), while those married constituted 47 percent.

Thirteen percent of the women had no education, 47 percent had attained primary level and 40 percent had secondary level of education and above. Regionally, most of the women with disability came from provinces with low contraceptive prevalence (52%), and 48 percent came from provinces with high contraceptive prevalence. On place of residence, most of the women with disability came from rural areas (69%), while the rest came from urban areas (31%).

Regarding type of disability, 42 percent of the women with disability had visual impairment, 16 percent had physical disabilities, while 10 percent had hearing impairments. Thirty two percent (32%) of the women had other types of disability (mental, self care and multiple disabilities). On access to contraceptives, 98 percent reported as having never been denied/refused family planning, while only 2 percent reported as

having ever been denied/refused access to family planning. On access to information, 85 percent of the women reported that they had access to information, while 15 percent reported as not having access to information.

Table 4.1: Distribution of Women with Disability by Background Characteristics

| Variable | Percent | Number |
|--|---------|--------|
| Age | | |
| Below 30 Years | 43.8 | 123 |
| 30 Years and Above | 56.2 | 158 |
| Marital Status | | |
| Currently Married | 47.1 | 132 |
| Not Married | 52.9 | 149 |
| Highest Education Level | | |
| None | 12.8 | 36 |
| Primary Level | 47 | 132 |
| Secondary Level and Above | 40.2 | 113 |
| Region of Residence | | |
| Provinces with High Contraceptive Prevalence | 48.0 | 135 |
| Provinces with Low Contraceptive Prevalence | 52.0 | 146 |
| Place of Residence | | |
| Rural | 69.4 | 195 |
| Urban | 30.6 | 86 |
| Type of Disability | | |
| Visual Impairment | 41.5 | 116 |
| Physical Disability | 16.4 | 46 |
| Hearing Impairment | 10.2 | 29 |
| Other Disabilities | 32.0 | 90 |
| Ever Been Denied/Refused FP | | |
| Yes | 2.1 | 6 |
| No | 97.9 | 275 |
| Have Access to Information | | |
| Yes | 85.1 | 239 |
| No | 14.9 | 42 |

4.3. Association between Contraceptive Use and Background Characteristics among Women with and without Disability

This section presents the results of bivariate analysis that shows the association between contraceptive use and the study variables. The results are presented in Table 4.2 below. The variables which were found to be statistically significant include: Age of women without disability ($p = 0.001$); level of education for women without disability ($p = 0.001$); region of residence for women with disability ($p = 0.01$) and women without disability ($p = 0.001$); place of residence for women without disability ($p = 0.01$) and ever been denied/refused family planning ($p = 0.001$) for both categories of women.

4.3.1. Age

The results show that the association between age of women with disability and contraceptive use is statistically insignificant. Women aged 30 years and above had the highest rate of contraceptive use (18%), as compared to women aged below 30 years (13%). On the other hand, the chi square test shows that the association between age of women without disability and contraceptive use is statistically significant. Women aged 30 years and above had a higher rate of contraceptive use (23%), as compared to women aged below 30 years (17%). Both results from women with and without disability indicate that women above 30 years had a higher rate of contraceptive use than those aged below 30 years. Overall, women without disability had a higher rate of contraceptive use than women with disability in both categories of age.

4.3.2. Marital Status

The chi square test shows that the association between marital status and contraceptive use is statistically insignificant for both groups of women. However, the results indicate that currently married women with disability had a higher rate of contraceptive use (17%) than women with disability who were not married (16%). For women without disability, the results also indicate that currently married women had a higher rate of contraceptive use (21%) than women who were not married (20%). Overall, the results indicate that currently married women had a higher rate of contraceptive use than women who were not

married. Under this variable, women without disability had a higher rate of contraceptive use than women with disability.

4.3.3. Highest Level of Education Attained

The chi square test indicates that the association between level of education among women with disability and contraceptive use is statistically insignificant. Women with disability who had attained primary level of education had the highest rate of contraceptive use at 21 percent, followed by women with no education (14%), and women with secondary level of education and above had the lowest rate at 12 percent. On the other hand, the results show that the association between level of education among women without disability and contraceptive use is statistically significant. Women without disability who had attained secondary level of education and above had the highest rate of contraceptive use (24%), followed by women with primary level of education (21%) and, women who had no education had the lowest rate of contraceptive use at 9 percent.

From the results, women with disability who had a lower level of education registered a higher rate of contraceptive use than women who had a higher level of education. On the other hand, women without disability who had attained a higher level of education registered a higher rate of contraceptive use than women who had attained a lower level of education. It is interesting to note that among women with disability, those with no education or had attained primary level of education had higher rates of contraceptive use than those with secondary level of education and above.

4.3.4. Region of Residence

The results show that the association between region of residence for women with disability and contraceptive use is statistically significant. Women who came from provinces with high contraceptive prevalence had the highest rate of contraceptive use (22%), and women who came from provinces with low contraceptive use had a rate of 10 percent. The chi square test also indicates that the association between region of residence for women without disability and contraceptive use is statistically significant. Women who came from provinces with high contraceptive prevalence had the highest rate of contraceptive use

(28%), and women who came from provinces with low contraceptive use had a rate of 12 percent. Overall, women coming from provinces with high contraceptive prevalence registered higher rates of contraceptive use than women residing in provinces of low contraceptive. In general, women without disability registered a higher rate of contraceptive use than women with disability.

4.3.5. Place of Residence

The results indicate that the association between place of residence of women with disability and contraceptive use is statistically insignificant. Women who came from rural areas had the highest rate of contraceptive use at 18 percent, while women who came from urban areas had a rate of 12 percent. On the other hand, the chi square test indicates that the association between place of residence of women without disability and contraceptive use is statistically significant. Women who came from urban areas reported a higher rate of contraceptive use (23%) than women who came from rural areas (19%).

From the above, the results indicate that the rate of contraceptive use among women with disability residing in rural areas is higher than that of women residing in urban areas. Among women without disability, those residing in urban areas reported a higher rate of contraceptive use than women from rural areas. Overall, women without disability registered a higher rate of contraceptive use than women with disability.

Table 4.2: Differentials in Contraceptive Use among Women with and without Disability

| Variable | Use any Type of Family Planning (%) | | | | | |
|--|-------------------------------------|--------|----|--------------------------|---------|----|
| | Women with Disability | | | Women without Disability | | |
| | Yes | No | df | Yes | No | df |
| Age | | | | | | |
| Below 30 Years | 13.0 | 87.0 | 1 | 16.6*** | 83.4*** | 1 |
| 30 Years and Above | 18.4 | 81.6 | 1 | 23.2*** | 76.8*** | 1 |
| Marital Status | | | | | | |
| Currently Married | 16.7 | 83.3 | 1 | 20.8 | 79.2 | 1 |
| Not Married | 15.5 | 84.5 | 1 | 19.8 | 80.2 | 1 |
| Highest Education Level | | | | | | |
| None | 13.9 | 86.1 | 2 | 9.4*** | 90.6*** | 2 |
| Primary Level | 20.5 | 79.5 | 2 | 21.0*** | 79.0*** | 2 |
| Secondary Level and Above | 11.5 | 88.5 | 2 | 23.6*** | 76.4*** | 2 |
| Region of Residence | | | | | | |
| Provinces with High Contraceptive Prevalence | 22.2** | 77.8** | 1 | 28.4*** | 71.6*** | 1 |
| Provinces with Low Contraceptive Prevalence | 10.3** | 89.7** | 1 | 12.1*** | 87.9*** | 1 |
| Place of Residence | | | | | | |
| Rural | 17.9 | 82.1 | 1 | 19.4** | 80.6** | 1 |
| Urban | 11.6 | 88.4 | 1 | 22.8** | 77.2** | 1 |

*p = 0.05, **p = 0.01, ***p = 0.001

4.4. Association between Contraceptive Use and Intervening Factors

This section presents results of bivariate analysis between contraceptive use and intervening factors, which include ever been denied/refused family planning, have access to information for both categories of women and type of disability for women with disability.

4.4.1. Ever Been Denied/Refused Family Planning

The chi square test indicates that the association between access to family planning for women with disability and contraceptive use is statistically significant. Women with disability who reported having ever been refused family planning had a higher rate of contraceptive use (83%) than women who reported having never been refused family planning (14%). The results also indicate that the association between access to family planning for women without disability and contraceptive use is statistically significant. Women without disability who reported having ever been refused family planning had a higher rate of contraceptive use (54%) than women who reported having never been refused family planning (20%).

From the results, women with disability who had ever been refused family planning registered a higher rate of contraceptive use (83%) than women without disability (54%). On the other hand, women without disability who had never been refused family planning had a higher rate of contraceptive use (20%) than women with disability (14%). The results indicate that women who have never been refused family planning reported lower rates of contraceptive use than women who had ever been refused family planning.

4.4.2. Access to Information

The results indicate that the association between access to information among women with disability and contraceptive use is statistically insignificant. Women with disability who reported having no access to information had a higher rate of contraceptive use (36%) than women who had access to information (24%). The chi square test also indicates that the association between access to information among women without disability and contraceptive use is statistically insignificant. Women without disability who reported having no access to information had a higher rate of contraceptive use (19%) than women who had access to information (15%).

For this variable, women with disability registered a higher rate of contraceptive use than women without disability. It is also interesting to note that women who reported having no access to information registered a higher rate of contraceptive use than women who reported having access to information.

Table 4.3: Association between Contraceptive Use and Intervening Factors

| Variable | Use any Type of Family Planning (%) | | | | | |
|------------------------------------|-------------------------------------|---------|----|--------------------------|---------|----|
| | Women with Disability | | | Women without Disability | | |
| | Yes | No | df | Yes | No | df |
| Ever Been Denied/Refused FP | | | | | | |
| Yes | 83.3*** | 16.7*** | 1 | 54.4*** | 45.6*** | 1 |
| No | 14.5*** | 85.5*** | 1 | 19.8*** | 80.2*** | 1 |
| Have Access to Information | | | | | | |
| Yes | 23.8 | 76.2 | 1 | 14.6 | 85.4 | 1 |
| No | 36.4 | 63.6 | 1 | 19.0 | 81.0 | 1 |

*p = 0.05, **p = 0.01, ***p = 0.001

4.4.3. Type of Disability

The results from Table 4.4 below indicate that the association between type of disability and contraceptive use is statistically insignificant. Women with visual impairment reported the highest rate of contraceptive use (21%), followed by women with other disabilities (14%) and women with physical disability (13%). Women with hearing impairment registered the lowest rate of contraceptive use at 11 percent.

Table 4.4: Contraceptive Use among Women with different Types of Disability

| Type of Disability | Use any Type of Family Planning (%) | | |
|---------------------|-------------------------------------|------|----|
| | Yes | No | df |
| Hearing Impairment | 10.7 | 89.3 | 3 |
| Visual Impairment | 20.9 | 79.1 | 3 |
| Physical Disability | 13.3 | 86.7 | 3 |
| Other Disabilities | 13.6 | 86.4 | 3 |

*p = 0.05, **p = 0.01, ***p = 0.001

4.5 Factors Influencing Contraceptive Use among Women with Disability

The study conducted multiple logistic regression using stepwise statistical method. This was done for women aged 12-49 years with disability. This level of analysis was conducted to identify the main factors influencing contraceptive use among women with disability. The regression went through five steps, eliminating the statistically insignificant independent variables. The variables eliminated through the five steps include access to information, followed by age, then highest level of education and finally type of disability.

From the results, the variables that were found to be statistically significant in the last model (fifth step) of the multiple logistic regression included marital status ($p = 0.01$), region of residence ($p = 0.01$), place of residence ($p = 0.05$) and ever been refused family planning ($p = 0.05$). These are the major factors influencing contraceptive use among women aged 12-49 years with disability.

The results from Table 4.5 below indicate that women with disability who are not married are less likely to use contraceptives as compared to currently married women with disability. On region of residence, the results indicate that women with disability residing in provinces with low contraceptive use are less likely to use contraceptives as compared to those residing in provinces with high contraceptive prevalence. On place of residence, the results indicate that the women residing in urban areas are less likely to use contraceptives as compared to those residing in rural areas. Finally, on access to family planning, the results indicate that the women who reported having never been refused family planning are less likely to use contraceptives as compared to women who reported as having ever been refused family planning.

Table 4.5 Multiple Logistic Regression on Women with Disabilities

| Variable | Variable Name | B | df | Sig | Exp (B) |
|---------------------|---|--------|----|-------|---------|
| Marital Status | Not Married | -1.343 | 1 | 0.003 | 0.261 |
| Region of Residence | Provinces with Low Contraceptive Prevalence | -1.307 | 1 | 0.004 | 0.271 |
| Place of Residence | Urban | -0.908 | 1 | 0.057 | 0.403 |
| FP Access | Never been Refused FP | -2.434 | 1 | 0.038 | 0.088 |

* $p = 0.05$, ** $p = 0.01$, *** $p = 0.001$

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents a summary of findings of the study that sought to determine factors influencing contraceptive use among women aged 12-49 years with disability. Specifically, the study aimed to examine demographic, socio-economic and intervening factors influencing contraceptive use among women aged 12-49 years with disability.

The study used data from the 2008 KNSPWD. The survey covered a total of 14,569 households in which 3,095 individuals with disability were interviewed, and 6,943 women aged 12-49 were interviewed on reproductive health issues. The sample population studied was 281 women aged 12-49 with disability. A total of 6,638 women aged 12-49 years without disability were also used in the study for comparative analysis during bivariate analysis among the different variables.

The first step of the analysis was to describe the characteristics of women with disability. The second step involved bivariate analysis using cross tabulation with chi square. This was done for women with and without disability. The objective of the bivariate analysis was to determine the kind of association background and intermediate factors had with ever use of contraceptives. Another objective was to determine differentials in contraceptive use among women with and without disability. Finally, multiple logistic regression was conducted to identify the main factors influencing contraceptive use among women with disability.

5.2 Summary of Findings

This section summarises the findings from the analysis by first looking at the description of women with disability by background characteristics, followed by association between contraceptive use and demographic, socio-economic and intervening factors and finally the main factors influencing contraceptive use among women with disability. The conclusions are then looked at based on the findings and, finally appropriate recommendations are made.

1 Characteristics of Women Aged 12-49 Years with Disability

From descriptive analysis, majority of women with disability were 30 years and above, not married and had attained primary level of education. In addition, a higher percentage of women came from rural areas in provinces with low contraceptive prevalence. Majority of women had visual disability and the most type of disability was hearing impairment. On access to information and family planning, a high percentage of women reported having no problems of access.

2 Association between Demographic Factors and Contraceptive Use

The first objective of the study was to examine demographic factors influencing contraceptive use among women aged 12-49 years with and without disability. These factors include age and marital status of women with and without disability. According to the results, the highest percentage of women with disability who had ever used contraceptives are those who were older and currently married. The same goes for women without disability. These results are consistent with expectations.

In bivariate analysis, results showed that the association between age of women with disability and contraceptive use is statistically insignificant. On the other hand, the results showed that the association between age of women without disability and contraceptive use is statistically significant. On marital status, results showed that the association between marital status of both categories of women (with and without disability) and contraceptive use is statistically insignificant.

Overall, women without disability had a higher rate of contraceptive use than women with disability in both categories of age. Under marital status, women without disability had a higher rate of contraceptive use than women with disability.

3 Association between Socio-economic Factors and Contraceptive Use

The second objective was to examine socio-economic factors influencing contraceptive use among women aged 12-49 years with and without disability. These factors include highest level of education attained, region of residence and place of residence. It was found that women with disability who had no education and those who had primary level of education registered a higher rate of contraceptive use than

women who had attained secondary level of education. This is not in line with expectations that contraceptive use increases with increased level of education. On the other hand, women without disability who had attained secondary level of education and above registered the highest rate of contraceptive use, while women with no education registered the lowest rate of contraceptive use. This is in line with expectations. Women without disability who had attained primary level and secondary level of education and above had higher rates of contraceptive use than women with disability in the same category. It is interesting to note that women with disability who had no education had a higher rate of contraceptive use than women without disability who had no education.

On region of residence, both categories of women residing in regions with high contraceptive prevalence registered higher rates of contraceptive use than women residing in regions of low contraceptive prevalence. The results on place of residence indicated that the rate of contraceptive use among women with disability residing in rural areas is higher than that of women residing in urban areas. This is contrary to expectations that women living in urban areas are more likely to use contraceptives than women from rural areas. Among women without disability, those residing in urban areas reported a higher rate of contraceptive use than women from rural areas. This is according to expectations.

The bivariate analysis showed that the association between region of residence and contraceptive use for women with disability was statistically significant. On the other hand, the results indicated that the association between highest education level and ever use of contraceptives for women with disability was statistically insignificant. This was also the case for the association between place of residence of women with disability and ever use of contraceptives. The results showed that all the socio-economic factors were found to have a statistically significant association with the use of contraceptives among women without disability.

2.4 Association between Intervening Factors and Contraceptive Use

The third objective was to examine intervening factors influencing contraceptive use among women aged 12-49 years with and without disability. These factors include ever been denied/refused family planning, access to information and type of disability. The results showed that women with and without disability who reported having been refused family planning had a higher rate of contraceptive use than women who reported having never been refused family planning. On access to information, women with and without disability who reported having no access to information had a higher rate of contraceptive use than women who had access to information. The results on type of disability showed that women with visual impairment reported the highest rate of contraceptive use, while women with hearing impairment registered the lowest rate of contraceptive use.

It is interesting to note that the fact that being denied family planning does not affect women's contraceptive uptake, especially among women with disability. In fact, women who reported having never been refused family planning reported lower rates of contraceptive use than women who reported having ever been refused family planning. For access to information, women with disability registered a higher rate of contraceptive use than women without disability. It is also interesting to note that women who reported having no access to information registered a higher rate of contraceptive use than women who reported having access to information.

Bivariate analysis shows that the association between ever been denied/refused family planning and ever use of contraceptive use was the only association that was found to be statistically significant among the intervening variables.

2.5 Main Factors Influencing Contraceptive Use among Women with Disability

The final objective of the study was to identify the main factors influencing contraceptive use among women aged 12-49 years with disability. This was done through multiple logistic regression using stepwise statistical method. From the results, the major factors include marital status, region of residence, place of residence and ever been refused family planning. The results indicate that women with disability who are not married, residing in urban areas and in provinces with low contraceptive use, and those who reported as

...ing never been refused family planning are less likely to use contraceptives as compared to currently married women residing in rural areas and in provinces with high contraceptive use, and those who as having ever been refused family planning. It is interest to note that results from this analysis indicate that women residing in rural areas and those who as having ever been refused family planning are more likely to use contraceptives than the women with disability residing in urban areas and those who as having never been refused family planning. This is not in line with expectations.

3 Conclusion

This study sought to investigate demographic, socio-economic and intervening factors influencing contraceptive use among women aged 12-49 years with and without disability. Based on the findings, it is clear that contraceptive use is influenced by a variety of factors - the main ones being marital status, region of residence, place of residence and access to family planning. The study confirms observations from other studies that show that married women living in regions with high contraceptive prevalence are more likely to use contraceptives than women who are not married and living in regions with low contraceptive prevalence. The study also confirms that, overall, women without disability are more likely to use contraceptives than women with disability.

However, the study revealed some conflicting results whereby women with disability who resided in rural areas and had no or primary level of education were more likely to use contraceptives as compared to women with disability who resided in urban areas and had secondary level of education and above. The reason for this would be that women with lower education residing in rural areas are less knowledgeable about available contraceptive options. Their parents/guardians may choose for them more permanent methods because of the assumption that women with disabilities are not able to take care of children. According to studies done by Cleland, Kamal, and Sloggett (1996) on contraceptive methods used by women in Bangladesh, findings show that educated women use modern reversible methods of contraception more than sterilization. In addition, studies conducted by Center for Research on Women with Disabilities (CROWD, 1999) indicate that hysterectomy was a contraceptive option used more frequently among women with disabilities. Findings from the 2008 KNSPWD indicate that majority of women with disability who had

primary level of education were sterilised (63%) as compared to women with disability who had attained secondary level of education and above (25%). In addition, 100 percent of women with disabilities from rural areas were sterilised and no woman from urban areas had undergone female sterilisation.

The study also found that having access to information and family planning does not influence contraceptive use among women with and without disability. As earlier explained, the variable on having access to information was used as a proxy for access to reproductive health information - the question asked during the survey was based on access to information in general. Thus, no conclusions can be drawn from the findings on this variable. On access to family planning, results from both analyses (bivariate and multivariate) indicate that women who reported as having never been refused family planning were less likely to use contraceptives as compared to those who reported as having ever been refused family planning. This is not in line with expectations that women who are refused family planning are less likely to use contraceptives than those who are not refused family planning. This might be due to contraceptive methods chosen by women with disability such as periodic abstinence or traditional methods. If they use such methods, then they don't need to go to health centers to have them.

Though bivariate analysis results indicated that association between highest education level and place of residence for women with disability were found to be statistically insignificant factors in influencing contraceptive use, these findings have important implications on the intervention for contraceptive behaviour. In fact, according to results from multivariate analysis, place of residence was found to be a significant factor influencing contraceptive use among women with disability.

4 Recommendations

Based on the findings and conclusion, this study proposes recommendations for research, policy and programs.

4.1 Recommendations for Research

Several studies have found that women with disability who had no education or primary level of education and residing in rural areas are more likely to use contraceptives than those residing in urban areas and with secondary level of education and above. This is not consistent with expectations. From the

KNSPWD, most women with disability residing in rural areas and had no education or primary level of education were sterilised. This study recommends further research on factors influencing method of contraception among women with disabilities.

Results from bivariate analysis indicate that women with and without disability who reported not having access to family planning registered a higher percentage of contraceptive use than those who had access. This is not in line with expectations and needs to be explored further to determine the reasons for such findings. The main focus recommended for this further research is on methods of contraception among women with disabilities. It should be noted, however, that only 2 percent (6 out of 281 women) of women with disability had been refused access to family planning. This presents a very small number to be able to draw conclusions. However, further research on this is recommended.

Bivariate analysis results found that women who reported as having no access to information registered a higher rate of contraceptive use than women who reported having access to information. As this variable was used as a proxy for access to reproductive health, no conclusions can be drawn. However, commendation would be to research further on access to reproductive health information.

Overall, the study found that a small percentage of women with disability use contraceptives. Various reasons are explained from bivariate analysis findings. Since the KNSPWD did not have questions on their sexuality, further research needs to be done to find out if these women are sexually active.

4.2 Recommendations for Policy

Based on the findings, this study recommends clear policies on women with disability regarding reproductive health issues. Further investigations need to be carried out about the needs of these women so that policies can address them clearly. There is a critical need for information to be available for physicians, nurses and traditional birth attendants about the reproductive health care needs of women with disabilities. Health facilities need to be accessible (ramps, spacious rooms and special examination beds, among others) for women with disabilities.

Through national policies, there is need to stress for availability of programs and materials to inform women about how disability can affect their reproductive health, and how they can work with health care providers to ensure that they are receiving the same quality of service as all women.

5.4.3 Recommendations for Programs

Programs on reproductive health need to ensure that disability issues are mainstreamed so that women with disability can benefit from them the same way as women without disability benefit. During planning, indicators on disability need to be included to ensure their inclusion in program implementation.

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ANNEXES

Annex 1: Results from Multiple Logistic Regression on Women with Disabilities

Categorical Variables Codings

| | | Frequency | Parameter coding | | |
|-----------------------------|--|-----------|------------------|-------|-------|
| | | | (1) | (2) | (3) |
| Disability Type | Hearing Impairment | 8 | .000 | .000 | .000 |
| | Visual Impairment | 73 | 1.000 | .000 | .000 |
| | Physical Disability | 26 | .000 | 1.000 | .000 |
| | Other Disabilities | 39 | .000 | .000 | 1.000 |
| Highest Education Level | None | 18 | .000 | .000 | |
| | Primary | 75 | 1.000 | .000 | |
| | Secondary Plus | 53 | .000 | 1.000 | |
| Marital Status ² | Currently Married | 43 | .000 | | |
| | Not Married | 103 | 1.000 | | |
| Region of Residence | Provinces of High Contraceptive Prevalence | 68 | .000 | | |
| | Provinces of Low Contraceptive Prevalence | 78 | 1.000 | | |
| FP Access | Ever been refused FP | 6 | .000 | | |
| | Never been refused FP | 140 | 1.000 | | |
| Residence | Rural | 92 | .000 | | |
| | Urban | 54 | 1.000 | | |
| Have Access to Information | Yes | 124 | .000 | | |
| | No | 22 | 1.000 | | |
| Rage | Below 30 Years | 61 | .000 | | |
| | 30 Years and Above | 85 | 1.000 | | |

Variables not in the Equation

| | | | Score | df | Sig. |
|-----------|-----------|--------------------|-------|----|------|
| Step 2(a) | Variables | Info(1) | .742 | 1 | .389 |
| | | Overall Statistics | .742 | 1 | .389 |
| Step 3(b) | Variables | Rage(1) | 1.009 | 1 | .315 |
| | | Info(1) | .518 | 1 | .472 |
| | | Overall Statistics | 1.729 | 2 | .421 |
| Step 4(c) | Variables | Rage(1) | 1.258 | 1 | .262 |
| | | HEduc | 2.887 | 2 | .236 |
| | | HEduc(1) | 1.031 | 1 | .310 |
| | | HEduc(2) | 2.703 | 1 | .100 |
| | | Info(1) | .676 | 1 | .411 |
| | | Overall Statistics | 4.644 | 4 | .326 |
| Step 5(d) | Variables | Rage(1) | 1.295 | 1 | .255 |
| | | HEduc | 1.554 | 2 | .460 |
| | | HEduc(1) | .706 | 1 | .401 |
| | | HEduc(2) | 1.520 | 1 | .218 |

| | | | | |
|--------------------|----------|-------|---|------|
| | Disab | 3.380 | 3 | .337 |
| | Disab(1) | 2.074 | 1 | .150 |
| | Disab(2) | .599 | 1 | .439 |
| | Disab(3) | .037 | 1 | .847 |
| | Info(1) | .598 | 1 | .439 |
| Overall Statistics | | 7.922 | 7 | .340 |

Variable(s) removed on step 2: Info: Variable(s) removed on step 3: Rage: Variable(s) removed on step 4: HEduc: Variable(s) removed on step 5: Disab.

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|------------|-------------|-------------|--------|-------|--------|------|--------|
| Step 1(a) | Rage(1) | .570 | .518 | 1.207 | 1 | .272 | 1.768 |
| | Maristat(1) | -1.335 | .521 | 6.571 | 1 | .010 | .263 |
| | Regres(1) | -1.417 | .487 | 8.471 | 1 | .004 | .242 |
| | HEduc | | | 2.368 | 2 | .306 | |
| | HEduc(1) | -.238 | .708 | .113 | 1 | .737 | .788 |
| | HEduc(2) | -1.001 | .797 | 1.578 | 1 | .209 | .367 |
| | QHRESID(1) | -.833 | .521 | 2.558 | 1 | .110 | .435 |
| | Disab | | | 4.418 | 3 | .220 | |
| | Disab(1) | 1.874 | 1.243 | 2.270 | 1 | .132 | 6.511 |
| | Disab(2) | .830 | 1.320 | .395 | 1 | .530 | 2.293 |
| | Disab(3) | 1.197 | 1.296 | .853 | 1 | .356 | 3.310 |
| | Info(1) | .523 | .610 | .734 | 1 | .392 | 1.687 |
| | QF33R(1) | -2.780 | 1.284 | 4.686 | 1 | .030 | .062 |
| | Constant | 2.008 | 1.864 | 1.160 | 1 | .281 | 7.445 |
| Step 2(a) | Rage(1) | .510 | .510 | .998 | 1 | .318 | 1.665 |
| | Maristat(1) | -1.381 | .518 | 7.116 | 1 | .008 | .251 |
| | Regres(1) | -1.421 | .486 | 8.537 | 1 | .003 | .241 |
| | HEduc | | | 2.573 | 2 | .276 | |
| | HEduc(1) | -.279 | .705 | .157 | 1 | .692 | .756 |
| | HEduc(2) | -1.057 | .791 | 1.788 | 1 | .181 | .347 |
| | QHRESID(1) | -.847 | .522 | 2.638 | 1 | .104 | .429 |
| | Disab | | | 4.263 | 3 | .234 | |
| | Disab(1) | 1.949 | 1.240 | 2.471 | 1 | .116 | 7.020 |
| | Disab(2) | .936 | 1.309 | .512 | 1 | .474 | 2.551 |
| | Disab(3) | 1.398 | 1.271 | 1.211 | 1 | .271 | 4.048 |
| | QF33R(1) | -2.848 | 1.263 | 5.085 | 1 | .024 | .058 |
| | Constant | 2.167 | 1.852 | 1.369 | 1 | .242 | 8.733 |
| | Step 3(a) | Maristat(1) | -1.564 | .490 | 10.182 | 1 | .001 |
| Regres(1) | | -1.385 | .483 | 8.244 | 1 | .004 | .250 |
| HEduc | | | | 2.812 | 2 | .245 | |
| HEduc(1) | | -.284 | .698 | .165 | 1 | .684 | .753 |
| HEduc(2) | | -1.099 | .784 | 1.967 | 1 | .161 | .333 |
| QHRESID(1) | | -.853 | .522 | 2.671 | 1 | .102 | .426 |
| Disab | | | | 4.400 | 3 | .221 | |
| Disab(1) | | 1.978 | 1.225 | 2.605 | 1 | .107 | 7.225 |
| Disab(2) | | .984 | 1.294 | .579 | 1 | .447 | 2.676 |
| Disab(3) | | 1.367 | 1.256 | 1.184 | 1 | .276 | 3.923 |

| | | | | | | | |
|------|-------------|--------|-------|-------|---|------|--------|
| | QF33R(1) | -2.706 | 1.240 | 4.768 | 1 | .029 | .067 |
| | Constant | 2.457 | 1.820 | 1.821 | 1 | .177 | 11.665 |
| Step | Maristat(1) | -1.467 | .474 | 9.587 | 1 | .002 | .231 |
| 4(a) | Regres(1) | -1.276 | .459 | 7.737 | 1 | .005 | .279 |
| | QHRESID(1) | -1.079 | .499 | 4.673 | 1 | .031 | .340 |
| | Disab | | | 3.160 | 3 | .368 | |
| | Disab(1) | 1.812 | 1.215 | 2.226 | 1 | .136 | 6.123 |
| | Disab(2) | 1.100 | 1.289 | .728 | 1 | .394 | 3.004 |
| | Disab(3) | 1.424 | 1.250 | 1.296 | 1 | .255 | 4.152 |
| | QF33R(1) | -2.561 | 1.231 | 4.326 | 1 | .038 | .077 |
| | Constant | 1.803 | 1.689 | 1.141 | 1 | .286 | 6.071 |
| Step | Maristat(1) | -1.343 | .452 | 8.811 | 1 | .003 | .261 |
| 5(a) | Regres(1) | -1.307 | .450 | 8.445 | 1 | .004 | .271 |
| | QHRESID(1) | -.908 | .478 | 3.609 | 1 | .057 | .403 |
| | QF33R(1) | -2.434 | 1.176 | 4.287 | 1 | .038 | .088 |
| | Constant | 3.067 | 1.222 | 6.297 | 1 | .012 | 21.479 |

a Variable(s) entered on step 1: Rage, Maristat, Regres, HEduc, QHRESID, Disab, Info, QF33R.