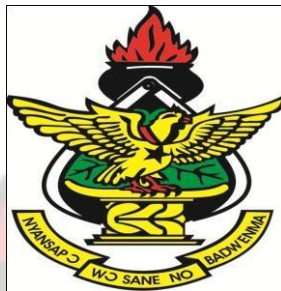


KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,

KUMASI

DEPARTMENT OF COMMUNITY HEALTH

SCHOOL OF MEDICAL SCIENCES



**PERCEIVED ACCEPTANCE OF VASECTOMY AMONG MARRIED MEN IN
THE OFFINSO MUNICIPALITY**

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MPH (HEALTH SERVICES PLANNING AND MANAGEMENT)

SEPTEMBER , 2014

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TECHNOLOGY COLLEGE OF HEALTH SCIENCES DEPARTMENT
OF COMMUNITY HEALTH**

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THE OFFINSO MUNICIPALITY**

**THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES,
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF MPH DEGREE IN HEALTH SERVICES, PLANNING AND
MANAGEMENT**

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MPH (HEALTH SERVICES PLANNING AND MANAGEMENT)

SEPTEMBER , 2014

DECLARATION

Except for the specific references which have been duly acknowledged, I declare that this work is the result of my own field research and it has not been submitted either in part or whole for any other degree elsewhere.

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ABSTRACT

Introduction

Vasectomy has been accepted as an important alternative to female sterilization for couples who want a permanent method of contraception. However its utilization remains low in Africa and Ghana is typical in this respect. This study assessed the perceived acceptance of vasectomy among married men in the Offinso Municipality in the Ashanti region of Ghana.

Methods

The study was descriptive cross-sectional and employed both qualitative and quantitative methods. The study population consisted of married men aged between 17-56 years who had at least two children. The study involved randomly selected 390 married men. Quantitative data was conducted through interviewing with structured questionnaires. Data was analysed with STATA 11.

Results

Awareness of vasectomy was good among men in the Offinso Municipality and the media was the most cited source information on vasectomy. Acceptance of vasectomy among the married men was influenced by the level of education and occupation. Respondents who were self-employed had increased odds of accepting vasectomy as compared to those who were public servants (OR =7.7 and 8.2). The perceived reactions from family members upon accepting vasectomy also influenced the men's decision to accept vasectomy as compared to those who believed their family members will support them (OR=0.1; $p<0.05$).

Conclusion

The hope for increasing acceptance of long lasting family planning methods, especially, vasectomy is not lost after all. Most considered that it would be difficult to persuade a man to

undergo vasectomy even if offered financial reimbursement, however when given more information some men are willing to opt for the method particularly if those who had experienced a successful sterilisation operation spoke with them and if health workers provided such men with accurate information about the procedure.

Thus, improved understanding and awareness of vasectomy at the individual and community level is important to improve utilization of vasectomy services



DEDICATION

This work is dedicated to my husband Mr. Charles Twum and children Owura Kwaku Twum Barimah and Nana Yaw Agyapong Twum Barimah for their kind support and understanding.

KNUST



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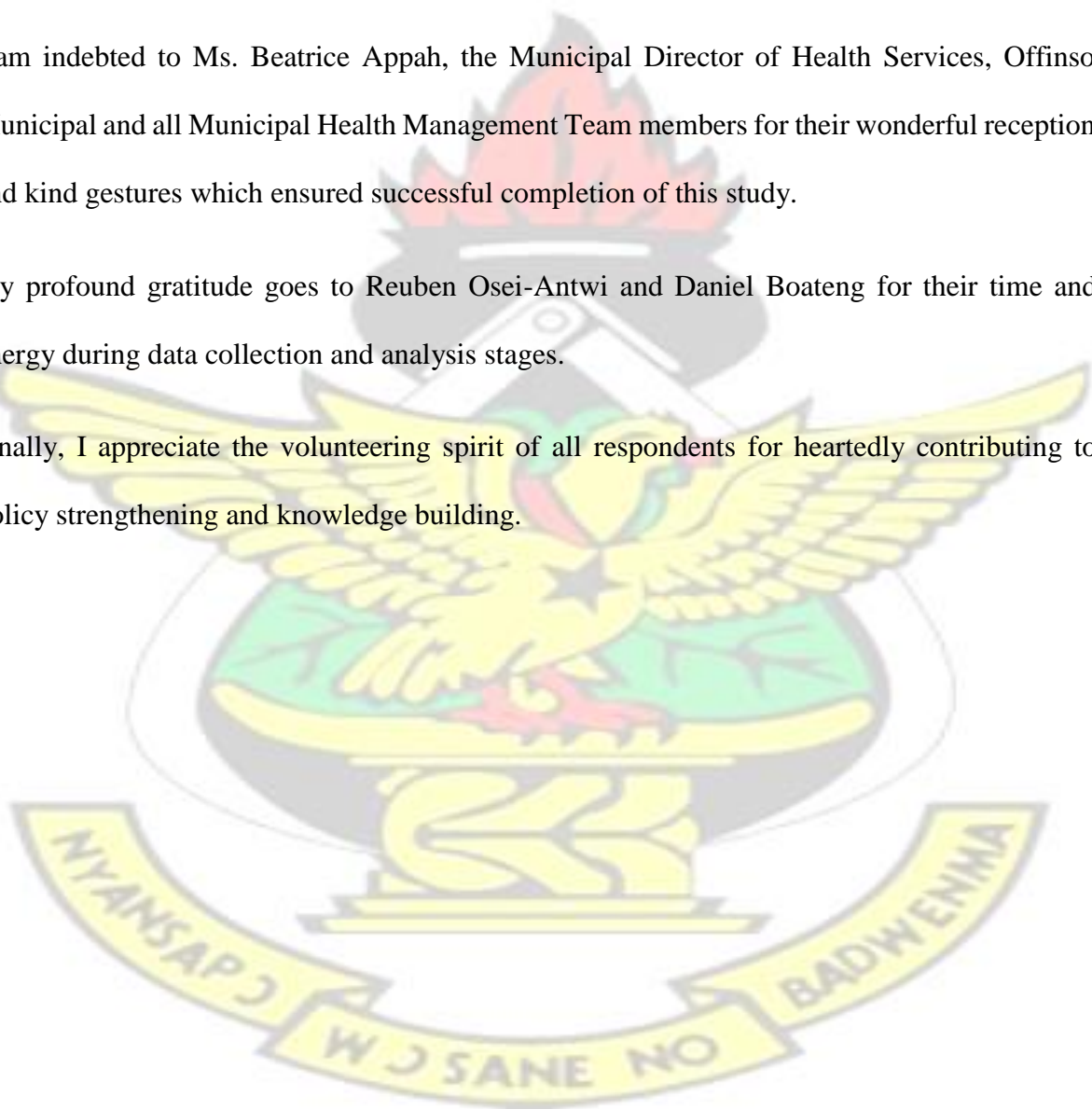


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LIST OF ABBREVIATIONS AND ACRONYMS

ADRA	The Adventist Development and Relief Agency International
AIDS	Acquired Immune Deficiency Syndrome



AVSC	The Association for Voluntary Surgical Contraception
BCC	Behavior Change Communication
CDC	The Center for Disease Control
CHD	The Community Health Department
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-based Health Planning and Services
CPR	Contraceptive Prevalence Rate
CPT	Contraceptive Procurement Tables
CYP	Couple-Years Of Protection
DHS	The Demographic and Health Survey
FHD	Family Health Department
FP	Family Planning
GAC	The Ghana AIDS Commission
GEMI	Ghana Essential Medicines Initiative
GHS	The Ghana Health Service
GOG	The Government of Ghana
GPRS II	Ghana Poverty Reduction Strategy II
GSA	Ghana Situation Analysis
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
HPI	Health Policy Initiative
HSOA	Health Sector Advisory Office
IPPF	The International Planned Parenthood Federation
IUD	Intrauterine Contraceptive Device
JHSPH	The Johns Hopkins Bloomberg School of Public Health
KNUST	The Kwame Nkrumah University of Science and Technology
LAPM	Long-Acting and Permanent Method
MCH	Maternal and Child Health
MDG	Millennium Development Goals
MGI	The Meridian Group International, Inc
MHMT	The Municipal Health Management Team
MMR	Maternal Mortality Ratio
MOF	The Ministry of Finance



MOH	The Ministry of Health
MWRA	Married Women of Reproductive Age
NHIA	The National Health Insurance Authority of Ghana
NHIS	The National Health Insurance Scheme
NMIMR	The Noguchi Memorial Institute for Medical Research
NPC	The National Population Council of Ghana
NPDC	The National Planning and Development Commission
NRHSPS	The National Reproductive Health Service Policy and Standards
NSV	No-Scapel Vasectomy
PECHN	Population Education Cleaning House
PPME	Panning, Performance, Monitoring and Evaluation Department,
PPAG	The Planned Parenthood Association of Ghana
PRB	Population Reference Bureau
QHP	Quality Health Partners Project of USAID/Ghana
R3M	Reducing Maternal Morbidity and Mortality (project)
RCH	Reproductive and Child Health
SMS	The School of Medical Sciences
SWAA	The Society for Women and AIDS in Africa (SWAA)
STDs	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
TFR	Total Fertility Rate
The ACQUIRE Project	Access, Quality, and Use in Reproductive Health
USAID	The United States Agency for International Development
WHO	The World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The National Reproductive Health Service Policy and Standards (2003) explains family planning (FP) as methods and practices aimed at spacing births, limit family size and prevent unwanted pregnancies. The goal of family planning is to assist couples and individuals of all ages to achieve their reproductive goals and improve their general reproductive health. As a fertility regulatory policy, its benefits are to reduce the number of unwanted pregnancies, decrease total exposure to risk of pregnancy and decrease in the number of unsafe abortions.

Family planning comes with different contraception methods ranging from short term, long term, permanent and emergency methods. Some Examples of short term method includes condoms (male/female), spermicides, oral contraceptive pills and natural methods. Long term methods also have examples such as intrauterine device (IUD), norplant and progestin only injectables. Some examples of permanent methods include voluntary surgical contraception, tubal ligation and vasectomy. Emergency contraceptives also include oral pill and intrauterine device. It is envisaged that good knowledge of these contraceptives should guide service providers and users to effectively adopt a method that is best for the user. However, attitude of partners, service providers and the community, and some misconceptions have greatly impaired adoption of FP practice (GHS/RCH Annual Report 2007). One of such methods greatly affected is the male sterilization (vasectomy).

There is a worldwide estimation of 42 million couples relying on vasectomy as a family planning method; by comparison, nearly 210 million women rely on female sterilization. In Africa, barely 100,000 couples are protected from unwanted pregnancy through vasectomy.

Ghana is typical in this respect, with only about one couple in 1,000 relying on vasectomy (The ACQUIRE Project 2005).

Imogen and Huezo, (1997) explain vasectomy as a minor surgical procedure involving occlusion of the vas deferens, which prevents transport of sperm into the ejaculate. Vasectomy more precisely, vas sectioning and occlusion – has become a popular elective procedure for permanent male contraception in the USA, Asia, and parts of Europe. Although cultural barriers to its acceptance exist in some parts of the world, vasectomy has been introduced into Africa, the Middle East and Latin America. In consonant with Imogen and Huezo, E-medicine health.com also defines vasectomy as a procedure in which the two tubes that carry sperm from the two testicles to the urinary tract are surgically altered so sperm cannot pass through and be released to fertilize a woman's egg during sexual intercourse. For couples who have made the decision not to have any more children, vasectomy is the safest and easiest form of surgical sterilization. While reversible in many cases, vasectomy should be considered a permanent form of birth control (Emedicinehealth, 2012). (http://www.emedicinehealth.com/vasectomy/article_em.htm, 31/3/12).

Ghana as in many countries, vasectomy has been a relatively —invisiblel method. Not surprisingly, the prevalence of vasectomy is less than 0.1%, and vasectomy has been more difficult to obtain in Ghana than other family planning (FP) methods. One in four married women say they do not want any more children, yet fewer than half of these women are using a contraceptive method. This translates to nearly 350,000 Ghanaian couples with an unmet need for limiting births. Despite this high unmet need, awareness of vasectomy services is low compared with awareness of other methods: Ninety-eight percent of women and 99% of men in Ghana know of at least one FP method, yet fewer than half of women and only three out of five men have heard of vasectomy (GSS, NMIMR, & ORC Macro, 2004).

Vasectomy has been more difficult to obtain in Ghana than other family planning methods. The 1996 Ghana Situation Analysis (GSA) noted that fewer than 5% of physicians had performed a vasectomy, informed a client about vasectomy, or referred a client for vasectomy in the past three months. Moreover, two out of five providers said they would not recommend vasectomy for couples who did not want any more children (GSS, 1998).

Pile, (2008) contributed to the discourse on vasectomy by indicating in his summarized research findings that the under utilization of vasectomy in Ghana and elsewhere can be attributed to four key factors: 1) a lack of awareness of vasectomy as an FP option; 2) incomplete and incorrect information; 3) a lack of access to services; and 4) provider indifference and bias (Pile, 2008).

In 2003, the Ghana Health Service, the U.S. Agency for International Development (USAID) Mission in Ghana, and Engender Health (under its former cooperative agreement) collaborated on an initiative in the Accra and Kumasi metropolitan areas to improve acceptance of vasectomy by coupling site interventions that focus on quality and access (supply-side interventions) with effective and strategic interventions aimed at increasing public awareness (demand-side interventions). The ACQUIRE Project later provided technical assistance to design and carry out the communications campaign and community outreach and to evaluate the results of the supply-demand approach (The ACQUIRE Project 2005).

In early 2004, the ACQUIRE project launched the first phase of the demand strategy for vasectomy, through a communications campaign called —Vasectomy: Give Yourself a Permanent Smile.‡ To understand the impact of these communications efforts on awareness about, knowledge of, and attitudes toward vasectomy, ACQUIRE also conducted a panel study among 200 men in Accra. The demand for vasectomy services increased significantly immediately following introduction of the campaign (ACQUIRE Project, 2005).

Although several additional campaign strategies are ongoing to ensure increased demand for vasectomy services, yet coverage for this method remains barren in most part of the country including the Offinso Municipality. The purpose of this study is to assess vasectomy acceptance among married men in the Offinso Municipality.

1.2 Problem Statement

Although vasectomy is an important alternative to female sterilization for couples who want a permanent method of contraception, barriers to its wider use exist in many places. Service providers who believe men are not interested and who consequently limit information and access is a principal constraint; other barriers are negative attitudes and misinformation. Yet even in Latin America and Africa, where few family planning policymakers believed vasectomy would never be used, experience has shown that when information and services are provided, men will seek out and use vasectomy (Liskin, et al ,1992)

Vasectomy is safer, simpler, and less expensive than female sterilization, and is just as effective a contraceptive method, yet in many countries it remains one of the least-known and least-used methods (The ACQUIRE Project, 2005). In Ghana, vasectomy has been a relatively —invisiblel contraceptive method. Prevalence is less than 0.1%; a total of only 18 vasectomies were performed in Ghana in 2003. The ACQUIRED Project which was initiated in 2003 achieved some success as depicted below;

Table 1.1: Vasectomy Cases Performed as a result of the ACQUIRED Project in Ghana

Period (Years)	2003	2004	2005	2006	2007	2008
No. of Vasectomy Cases Performed	26	83	13	30	18	33

Source: The ACQUIRED Project, 2008

Why is vasectomy so underutilized, both in Ghana and in other African nations? For many years, the relative underutilization of vasectomy has been attributed to men - that they do not

want to take responsibility for family planning. Yet experience suggests otherwise: Men do care about avoiding pregnancy and want to share the responsibility for family planning with their partners. Many people simply do not know about vasectomy; negative myths and rumors about the procedure abound; no provider skilled in vasectomy may be anywhere nearby; and many providers may not care about the method or may be biased against it. Because men lack full access to both information and services, they cannot make informed decisions nor take the active part in family planning that their attitudes indicate they may be willing to take (Drennan, 1998; Salem, 2004).

Researchers have suggested that vasectomy is unacceptable to many African men and probably will long remain so (Caldwell & Caldwell, 2002). Yet similar predictions in the late 1980s that female sterilization would never be an acceptable method (Caldwell & Caldwell, 1987) proved unfounded (Dwyer & Haws, 1990; EngenderHealth, 2002). Thirty years ago, —experts and providers said that men in Latin America would never accept vasectomy - and they have been proved wrong. Vasectomy use in Latin America has increased four-fold in the past 10 years (The ACQUIRE Project, 2005).

Though it may seem so, the ongoing discourse do not necessarily points out overall men disinterest in vasectomy as a Family Planning method. Building adequate knowledge to clear out misconceptions, making the service available and affordable, together with trained providers, as well as community conscientization will evolve a generation of married men who will be interested to purposefully go in for vasectomy method.

This study was intended to assess the rate of vasectomy acceptance among married men in the Offinso Municipality and to make recommendations as to how adoption of vasectomy could be increased to address the issue of unmet needs in family planning.

1.3 Justification of Study

Male involvement in family planning decision making is a critical component in reproductive health strides in developing countries, especially much more, if the male decide to opt for family planning method no other than vasectomy. This attitude depicts high level understanding of reproductive health issues, and not only does this situation benefit the couples alone, but also the society and the nation as a whole.

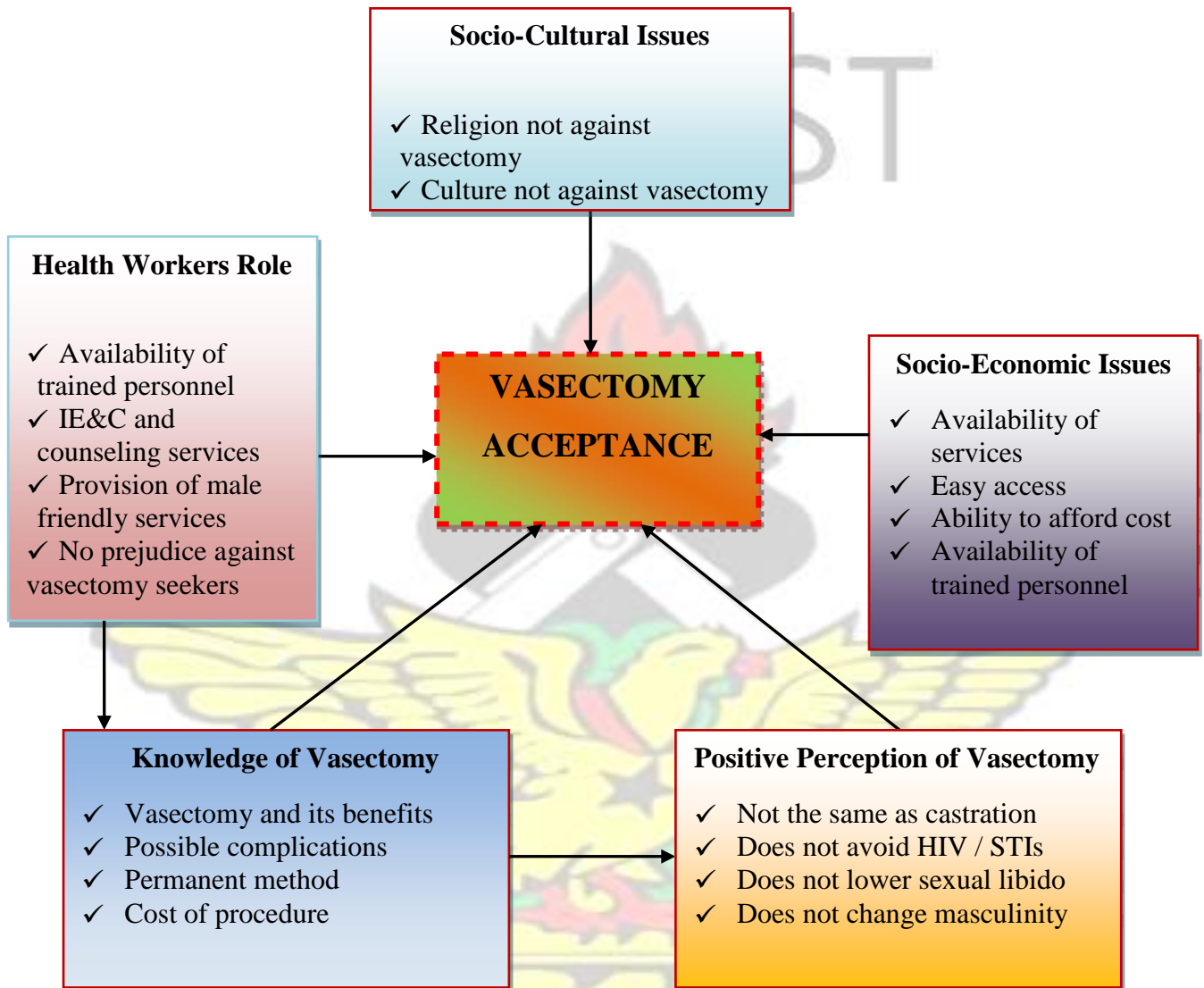
A decision by a man to opt for family planning has a broader individual, family, and societal benefits, including a healthier and more productive work force; greater financial and other resources for each child in smaller families; and as a means working hard to use meager resources to provide basic needs (food and shelter) as well as quality education for children who are alive.

Kishori et al, (2010) recounts the escalating world population that population growth which was once just a national concern has now come to have global ecological implications. The most significant burden is visible among the developing nations due to a combination of poverty and uncontrolled births.

Assessing the perceived acceptance of vasectomy among married men in the Offinso Municipality will provide the researcher with possible information which could be used to address the quest to increase vasectomy acceptance by married men in the municipality. A positive acceptance of additional family planning method will go a long way to address the unmet needs which has characterized the family planning programme for ages.

1.4 Conceptual Framework

Figure 1.1: Author's Construct of the Study



Source: Author's construct, 2011

The author of this research was of the view that vasectomy acceptance is affected by several factors which when addressed could increase level of patronage of the method. The author believed that knowledge of vasectomy as a permanent method, its benefits, and possible complications, as well as cost of procedure, could erase erroneous perception about the method, and therefore lead to acceptance. More so, health workers role of providing

Information, Education and Communication (IE&C) and counselling services on vasectomy, as well as providing male friendly services, and avoiding prejudices against males who express the desire to opt for vasectomy method, could also increase knowledge for the betterment of acceptance.

Many people including men for that matter have misconceptions about vasectomy. Vasectomy is mostly wrongfully explained as castration. Most people are of the view that vasectomy procedure could lower sexual libido as well as distorting ejaculation process. Other wrongfully preconceived ideas are that it changes the masculinity of a man. All these and other misconceptions have distant the interest in the method away from choice.

Again, the author was of the view that without any religious, cultural and societal stigma, men could boldly accept vasectomy as a family planning method. This is because the complex situation of African societies could not underestimate the potential religious as well as cultural barriers on this physiological alteration.

However, the author was quick enough to indicate that vasectomy services could be accepted if it is accessible to the people. Also, the procedure should be always available and affordable, in order to attract the attention of men who desire it. The attrition rate in Ghana though have subsided in recent times, could be deterrent to vasectomy acceptance because more qualified staff are needed to fill capacities to provide this special services to cherished clients. It was the believe of the author that the conceptual framework as explained, will be tested, and findings measured to assess any possible interlinking associations.

1.5 Research Questions

1. What is the level of knowledge of vasectomy among married men?
2. What is the perception of married men about vasectomy method?

3. What socio-cultural factors affect vasectomy acceptance?
4. What socio-economic factors affect vasectomy acceptance? And
5. What is the role of health workers towards achieving high vasectomy coverage?

1.6 Research Objectives

1.6.1 General Objective

The general objective of the study was to assess the perceived acceptance of vasectomy among married men in the Offinso Municipality.

1.6.2 Specific Objectives

1. To determine level of knowledge of vasectomy among married.
2. To have married men describe their perception about vasectomy.
3. To assess the socio-cultural and socio-economic factors influencing vasectomy acceptance.
4. Determine health workers role towards achieving high vasectomy coverage.

1.7 Background Information about the study area

Offinso Municipal Assembly is one of the new Municipalities created in Ashanti Region in 2007. It was part of the then Offinso District Assembly which was divided into two, Offinso North District Assembly and Offinso South Municipal Assembly. The Municipality shares common boundaries with Offinso North District Assembly in the North, Afigya Kwabre in the East and South, Atwima Nwabiagya and Ahafo Ano South District Assemblies in the West. The Municipal capital is New Offinso comprising about 22 suburbs. The Municipality has a total land area of about 600km.

Topographically, the land in the Municipality is generally undulating with the highest elevation of about 300ft above sea level. The Municipality is drained by Offin, Anyinasu,

Ode, Pra and their tributaries. The predominant vegetation type in the Municipality is mainly moist semi-deciduous forest which is interspersed with thick vegetation cover. Tree species found in the forest are wawa, cedar, odum, ofram, emire among others. The Municipality is located only 20km from the Regional capital, Kumasi. The proximity of the Municipality to the Regional capital provides market for the Municipality.

Based on the 2000 population census the population of Offinso South Municipal Assembly in 2010 is estimated at 90,000 with a growth rate 3.4%. The high population growth rate of the Municipality can be attributed to in-migration as a result of favourable climatic conditions and fertile soil which supports the cultivation of diverse food and cash crops. The population density for the Municipality in 1970, 1984 and 2000 and 2010 were estimated at 45, 64, 110 and 144 persons respectively. The 2000 and 2010 population densities are higher than the national figure of 79.3 in 2000. About 75% of the houses are compound and are mostly constructed with sandcrete, landcrete and mud. Corrugated metal sheet is the main roofing material followed by palm leaf.

Offinso Municipality being an agrarian economy employs as much as 62% of the labour force. Commerce follows by 21% with services and industries 15% and 4% respectively. Religiously Christianity is the dominant religion comprising 68%, Islam follows with 15.9% and traditional religion 8.5%. A significant percentage of 6.8% of the population do not belong to any of the above mentioned religious denominations. Akan culture most especially the Asante culture dominates in the Municipality. However there are migrant settlers mostly of the Northern Ghana who also practice their culture alongside the Akan/Asante tradition and culture.

The Municipality has one major festival, the Mmoaninko, which is celebrated by the Chiefs and people of the Municipality to remember their forefathers and also to bring Offinso citizens

home and abroad together to formulate and implement programmes to accelerate the pace of development in the Municipality.

The Municipality is served by 8 health institutions. Both private and the public sector are involved in the provision of health care in the Municipality. The type of facility and location and management of the facility are St. Patrick's Hospital, Maase/Offinso; Abofour Health Centre, Abofour Health Centre; Bonsua MCH/FP Centre Bonsua; Offinso MCH Centre, Dentin; Quality Health Care Clinic, Adukro; Anyinasuso SDA Clinic, Anyinasuso; CHIPS Centre, Kwagyekrom; Amoawi Clinic, Amoawi,

The ten top cases of diseases recorded in the Municipality in the year 2009 are shown in table 1.2 below.

Table 1.2: Ten Top Out-Patient Morbidity

Disease	Total No. Recorded	% Total
Malaria	36,079	49.0
ARI	3,652	5.0
Diarrhoea	2,284	3.0
Rheumatic and other joint pains	2,264	3.0
Skin Diseases	2,037	3.0
Home Accidents	1,563	2.0
Hypertension	1,402	2.0
Typhoid Fever	1,389	2.0
Acute ATI	833	1.0
Intestinal worms	735	1.0
Sub-Total	52,238	71.0
All other Diseases	21,396	29.0
Grand Total	73,634	100

Source: District Health Report 2009

The nurse population ratio has improved. In 2005, the ratio was one nurse to one thousand six hundred and ninety-five while in 2009 the ratio was one nurse to nine hundred and ninety three.

Doctor patient ratio was 1:16,948 in 2005 while in 2009 the ratio was 1:14, 890

1.8 Organization of Chapters

The study was organized into six chapters. Chapter one covered the introductory notes including background of the study, statement of the problem, justification, objectives, research questions, and background of the study area. Chapter two reviewed related literature by other scholars with respect to the specific objectives. Chapter three provided procedures by which the study was conducted. Chapter four dealt with the findings of the study. While chapter five discusses the presented findings, chapter six provides conclusions and recommendations.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction and Definition

Several definitions and explanations to vasectomy abound, yet all point to the understanding of carrying out surgical procedure on men to make them unable to father a child. As explained by Imogen and Huezo, (1997) vasectomy is a minor surgical procedure involving occlusion of the vas deferens, which prevents transport of sperm into the ejaculate. Vasectomy more precisely, vas sectioning and occlusion – has become a popular elective procedure for permanent male contraception in the USA, Asia, and parts of Europe. Although cultural barriers to its acceptance exist in some parts of the world, vasectomy has been introduced into Africa, the Middle East and Latin America.

Medicinenet.com gives a more literal touch to the definition by stating that vasectomy is a simple operation designed to make a man sterile. It is used as a means of contraception in many parts of the world. A total of about 50 million men have had a vasectomy- a number that corresponds to roughly 5% of all married couples of reproductive age. In comparison, about 15% of couples rely on female sterilization for birth control (<http://www.medicinenet.com/vasectomy/article.htm> (31/3/12)). Plannedparenthood.org posted a simple explanation that sperms are made in the testicles. They pass through two tubes called the vasa deferentia to other glands and mix with seminal fluids to form semen. Vasectomy blocks each vas deferens and keeps sperm out of the seminal fluid. The sperm are absorbed by the body instead of being ejaculated. Without sperm, your "cum" (ejaculate) cannot cause pregnancy (<http://www.plannedparenthood.org/health-topics/birth-control/vasectomy-4249.htm>, 31/3/12).

2.1.1 Types of Vasectomy Procedure

Information gathered from the plannedparenthood.org site continued that there are different ways for men to be sterilized. One type does not require an incision - a cut. The other types of vasectomy require an incision. Incision methods take about 20 minutes, while the no-incision method takes less time. With incision method, usually, a local anaesthetic is injected into the pelvic area. Then, the doctor makes an incision on each side of the scrotum to reach each vas deferens - the tubes that carry sperm. Sometimes a single incision is made in the center. Each tube is blocked. In most procedures, a small section of each tube is removed. Tubes may be tied off or blocked with surgical clips. Or, they may be closed using an instrument with an electrical current. With the no-incision ("no-scalpel") method, the skin of the scrotum is not cut. One tiny puncture is made to reach both tubes. The tubes are then tied off, cauterized, or blocked. The tiny puncture heals quickly. No stitches are needed, and no scarring takes place. The no-scalpel method reduces bleeding and decreases the possibility of infection, bruising, and other complications.

Webmd.com presents additional information that the scrotum will be numb for 1 to 2 hours after a vasectomy procedure. Apply cold packs to the area and lie on your back as much as possible for the rest of the day. Wearing snug underwear or a jockstrap will help ease discomfort and protect the area. You may have some swelling and minor pain in your scrotum for several days after the surgery. Unless your work is strenuous, you will be able to return to work in 1 or 2 days. Avoid heavy lifting for a week. You can resume sexual intercourse as soon as you are comfortable, usually in about a week. But you can still get your partner pregnant until your sperm count is zero. You must use another method of birth control until you have a follow-up sperm count test 2 months after the vasectomy (or after 10 to 20 ejaculations over a shorter period of time). Once your sperm count is zero, no other birth control method is necessary. Most men go back to the doctor's office to have their sperm count checked. But there

is also a home test available (<http://www.webmd.com/sex/birth-control/vasectomy-14387> 31/3/12)

2.1.2 Complications Following Vasectomy

Immediate complications following vasectomy such as allergic reactions to the antiseptic or the local anaesthetic are very rare, especially if the anaesthetic is 1% lignocaine without adrenaline. Toxic reactions to lignocaine accidentally injected into a blood vessel may manifest as convulsions. Intermediate complications or short term postoperative side-effects are minor and usually subside within 1-2 weeks. The most common complaints are swelling of the scrotal tissue, bruising, and pain. Although these symptoms generally disappear without treatment, ice packs, a scrotal support, and simple analgesics provide relief. The short-term complications of vasectomy that require treatment are postoperative bleeding and infection. Looseness of the scrotal skin and a persistent bleeding vessel can lead to a slowly enlarging haematoma. Small haematomas usually resorb completely without treatment (Imogen and Huezo, 1997)..

With respect to long-term complications – an experiment in monkeys suggested that vasectomy increased dietary-fat-induced atherosclerosis. However, a subsequent study in monkeys found no such association and further numerous published studies have shown no association between vasectomy and atherosclerosis in men. Some studies have linked vasectomy with an increase in risk of testicular cancer. However, in western countries, while upper-middle class males are more likely to choose vasectomy and are also the group most likely to be diagnosed with testicular cancer. A recent study reporting on nearly 74,000 vasectomized men showed the incidence of testicular cancer in this group to be no higher than of the general population. It also showed that vasectomy does not accelerate the growth of pre-existing testicular tumours. It is now generally agreed that there is no link between vasectomy and testicular cancer. Again, many studies have been done that show no increased risk of prostate cancer in vasectomized men. (Imogen and Huezo, 1997).

Webmd.com indicates that the risk of complications after a vasectomy is very low. Complications may include; bleeding under the skin, which may cause swelling or bruising; infection at the site of the incision. In rare instances, an infection develops inside the scrotum; sperm leaking from a vas deferens into the tissue around it and forming a small lump (sperm granuloma). This condition is usually not painful, and it can be treated with rest and pain medication. Occasionally, surgery may be needed to remove the granuloma; inflammation of the tubes that move sperm from the testicles (congestive epididymitis); in rare cases, the vas deferens grows back together (recanalization), and the man becomes fertile again. (<http://www.webmd.com/sex/birth-control/vasectomy-14387>) 31/3/12

2.1.3 The Ghana Vasectomy Initiative

In 2003, the Ghana Health Service, the U.S. Agency for International Development (USAID) Mission in Ghana, and Engender Health (under its former cooperative agreement) collaborated on an initiative in the Accra and Kumasi metropolitan areas to improve acceptance of vasectomy by coupling site interventions that focus on quality and access (supply-side interventions) with effective and strategic interventions aimed at increasing public awareness (demand-side interventions). The ACQUIRE Project later provided technical assistance to design and carry out the communications campaign and community outreach and to evaluate the results of the supply-demand approach (The ACQUIRE Project 2005).

In early 2004, ACQUIRE launched the first phase of the demand strategy for vasectomy, through a communications campaign called —Vasectomy: Give Yourself a Permanent Smile. To understand the impact of these communications efforts on awareness about, knowledge of, and attitudes toward vasectomy, ACQUIRE also conducted a panel study among 200 men in Accra. The demand for vasectomy services increased significantly immediately following introduction of the campaign (ACQUIRE Project, 2005).

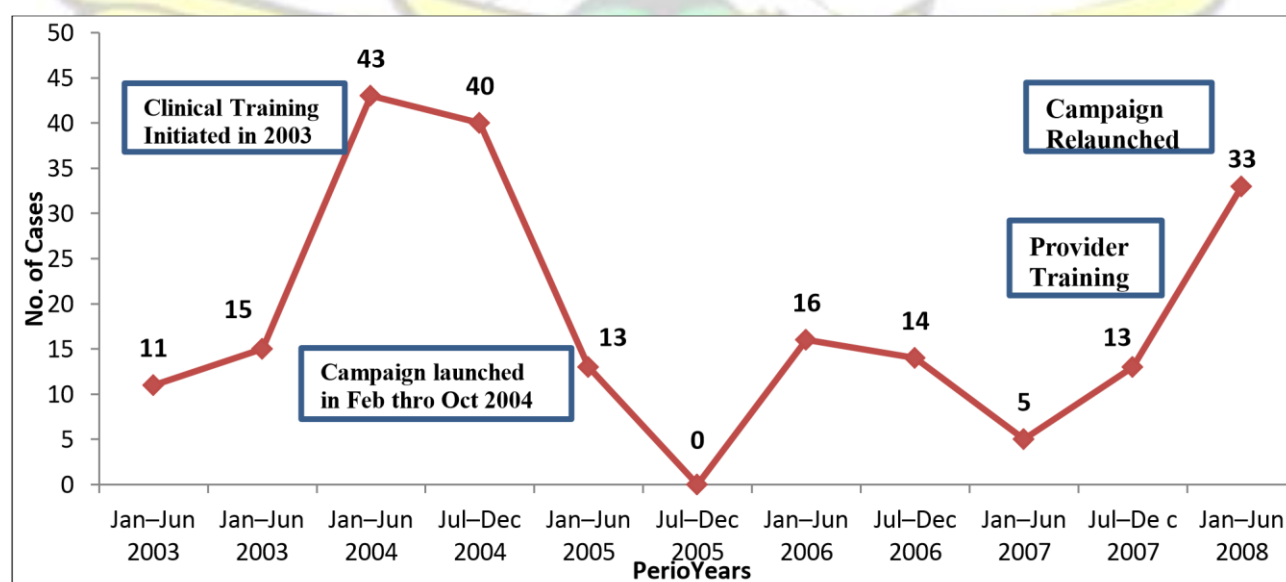
In 2008, in collaboration with the Ghana Health Service, ACQUIRE re-launched the —Permanent Smile campaign, with support from the Reducing Maternal Mortality and Morbidity (R3M) Project (also managed by EngenderHealth). The primary goal of the project was to assess whether minimum investments could be used to cost-effectively stimulate vasectomy awareness, knowledge, and use. ACQUIRE periodically fielded a randomized consumer panel survey (using a pooled cross-section methodology) throughout the 2008 campaign. Three waves of research were conducted in Accra, Kumasi, and Takoradi before and after each mass media burst. For each of the three surveys, the panel study interviewed 240 respondents - 160 men and 80 women. The ultimate goal was to learn whether programs can sustain past gains with intermittent, low-level communications support. According to The ACQUIRE Project, (2008) The Ghana Vasectomy Initiative sought to provide a comprehensive approach to addressing the gaps in the health care environment by addressing provider biases and the lack of availability of services (both supply-side issues) and the low level of knowledge about vasectomy and the myths and misinformation surrounding it (demand-side issues). The integrated supply-demand approach focused on a selected number of sites and consisted of these key interventions; (1) Strengthening the supply of vasectomy services through training of physicians in no-scalpel vasectomy (NSV), whole-site training to create —male-friendly service sites and follow-up training and supervision; (2) Increasing awareness of and demand for vasectomy services through community outreach, the —Permanent Smile media campaign oriented to potential clients and establishment of a vasectomy telephone hotline.

According to The ACQUIRE Project, (2008) the Ghana Vasectomy Initiative sought to provide a comprehensive approach to addressing the gaps in the health care environment by addressing provider biases and the lack of availability of services (both supply-side issues) and the low level of knowledge about vasectomy and the myths and misinformation surrounding it

(demand-side issues). The integrated supply-demand approach focused on a selected number of sites and consisted of these key interventions:

During the first phase of the demand strategy in 2004, the number of vasectomies increased threefold compared with the previous year. In 2004, 81 men accepted vasectomies at service sites, compared with 26 in 2003. Following the end of communications activities in October 2004, the number of vasectomies dropped significantly during 2005 and 2006. Then, in 2007, concurrent with the additional clinical trainings that were conducted for new providers, the number of vasectomies began to increase again. Once the communications activities began, the number of vasectomies more than doubled, increasing from 13 in the latter half of 2007 to 33 in the first half of 2008. The figure below depicts the achievement.

Figure 2.1: Number of vasectomy procedures performed in participating facilities, 2003-2008



Source: *ACQUIRING KNOWLEDGE, 2008, No. 13*

2.1.4 Reasons for Chosen Vasectomy

In their six country study, Landry and Ward, (1995) found one striking finding which was that the reasons for choosing vasectomy were similar in all of the countries, despite the many cultural, economic and racial differences between them. What varied was the way in which people framed the problems and, to some extent, the degree to which one reason outweighed

others as a primary rationale. Much of the literature on vasectomy reports that men and women around the world are misinformed about vasectomy, example that it causes impotence or makes men weak. In this study virtually all respondents reported hearing negative comments about vasectomy, mostly from friends, but their concerns were dispelled when they obtained information from providers or other vasectomised men.

Findings by Landry and Ward continued that many couples in all the countries saw vasectomy as a better choice compared to tubal ligation in that the recovery time for tubal ligation was longer than for vasectomy and tubal ligation was more risky than vasectomy. These findings suggest that at least some men are more concerned about the well-being and health of their partners than has been commonly believed by service providers. While these data do not indicate what proportion of men feels this way, they do suggest that a subset of men in each country find such concerns important enough to motivate the vasectomy decision. Messages which encourage men to have a vasectomy for the sake of their partner's health and which stress that it is the man's 'turn' to take responsibility for family planning may thus be effective promotional strategies. This conclusion has been corroborated by recent research in Latin America (Vernon, 1996). The fact that problems with pregnancy and delivery and that many couples made the decision to have a vasectomy during a pregnancy or at the time of the birth of their last child suggests that information and, where requested, counselling about vasectomy would-be an appropriate component of antenatal and postpartum care.

2.2 Level of Knowledge of Vasectomy

Even when men and women are aware of vasectomy, their information is frequently incomplete or incorrect. In 2001, EngenderHealth conducted a qualitative study in Ghana to assess knowledge about and attitudes toward vasectomy among both users and nonusers of the method. The research found that while users of vasectomy were very satisfied with the method,

nonusers had very negative attitudes toward it. Among men who knew about vasectomy, their information was frequently incomplete or incorrect with the primary misconception being that vasectomy is equivalent to castration (In some dialects in Ghana, the term for vasectomy in fact translates to —castration.!). Other false fears identified were that vasectomy would result in a lack of sex drive, poor sexual performance, decreased strength, or a loss of manliness.

Nearly all Ghanaian women know about family planning, and 62.6 percent of women know about female sterilization, whereas only 36.6 percent know about male sterilization (GSS, GHS, and ICF Macro, 2009). About 43 percent of women know about the IUD, and 63.8 percent know about implants. These high levels of awareness and the fact that 35 percent of Ghanaian women do not want any more births indicate that a great deal of potential demand for LAPMs may exist. In fact, an assessment of the impact of an FP promotional campaign on uptake of LAPM in 37 districts demonstrated that an FP campaign consisting of health talks at community gatherings, durbars, skits, and radio talk shows triggered a spike in uptake of FP methods from 369 couple-years of protection for new LAPM clients in one month to 665 couple-years of protection for new LAPM clients the next (QHP and GHS, 2009a). This 80 percent increase occurred despite sporadic interruptions in service availability resulting from commodity stock-outs and lack of trained personnel and supplies.

Knowledge of FP is nearly universal in Ghana. More than 90 percent of women have heard of at least one contraceptive method, regardless of where they live (GSS, GHS, and ICF Macro, 2009). Knowledge is high across all wealth and education levels. However, lack of access to information and services has been a formidable obstacle to women wanting to space or limit their births. The majority of nonusers of FP did not have any contact with an FP provider the year before being surveyed, and among women who visited a health facility, only 13 percent discussed family planning (ICF Macro, 2010).

Based on his study —Policy Barriers to Long-Acting and Permanent Method Use in Ghana,

Emmart, (2010) recommended that there was the need for increased funding and support for BCC campaigns that promote smaller family size, present benefits of LAPM, address misconceptions concerning the health consequences of long-acting methods, and present testimonials of satisfied users of LAPM can significantly increase use. The messages in these campaigns should coordinate and complement information provided by health providers during group counselling and one-on-one counselling sessions provided at health facilities.

Training to improve providers' counselling skills and update their knowledge of LAPMs is also needed.

Emmart also recommended increase in availability of trained personnel by revising service delivery standards so that community health nurses can be authorized and trained to insert and remove IUDs and implants. Stakeholders at the central, regional and district levels supported revising the role of community health nurses. For this change truly to have an impact, pre-service and in-service training curricula need to be revised, as do systems for supervision. There is a strong need to have a policy dialogue on expanding access with full participation of professional nursing and midwifery groups, physicians and the Ministry of

Health, Human Resources Directorate.

The Ghana Statistical Service Report (2004) revealed that knowledge of modern contraceptive methods is high, with 97.7% of all women having knowledge of at least one method. There has also been an increase in the use of family planning methods, from 12.9% in 1988 to 25.3% in 2003, however, it is important to note that the current unmet need for contraception for all married women is 34%. In collaboration with this findings, Rajesh et al, (2003) conducted a rapid appraisal of knowledge, attitude and practices related to family planning methods among men within 5 years of married life in India, and reported that all respondents were aware of the permanent methods of sterilization (both vasectomy and tubectomy).

With respect to Family Planning method(s) practiced Rajesh et al, (2003) also reported that Condoms were the most popular (54%) temporary method practiced by the subjects followed by abstinence (28%). None of the couples used Oral Contraceptive Pills or Intra-Uterine Contraceptive Devices. All couples who completed their family practiced ‘Tubectomy’ as the permanent method of sterilization. Vasectomy was not being practiced by any of the husbands after completing their family. As of 31st March 1999 about 74.22 million couples (44% of 168 million eligible couples) were effectively protected against conception by one or the other family planning method (India Annual Health Report, 1999-2000). The percentage by each method is as follows. Sterilization 29.1%, Intra-Uterine, Contraceptive Device insertion 7.4%, Condom users 4.2%, Oral Contraceptive pill users 3.3% (India Annual Health Report, 1999-2000).

Rajesh, (2003) presented some findings on attitude towards Family Planning methods. The following were some of the reasons cited by the subjects for preferring tubectomy as the permanent method of sterilization. *"It was the decision taken by my wife", "Women are usually motivated by health workers to undergo tubectomy", "it can be done when the wife is admitted in the hospital for delivery", and "Since women work in the house they will not have much difficulty after the operation"*. The reasons for preferring Condoms were cited as follows: easy availability, comfortable to use, no ill effect on health. When asked to opine as to why vasectomy was not popular among the masses, the replies obtained were: —*I may not be able to return to work soon after the operation", "My friends will tease me if they come to know that I had undergone vasectomy", "People say that undergoing vasectomy will result in loss of masculinity", "In case my wife dies, I may not be able to marry again"*. Previous studies conclude that lack of adequate knowledge is the major reason for not undergoing vasectomy (Huether et al., 1984). Fear of side effects and difficulty in taking the pill everyday were the main reasons cited for not using Oral Contraceptive Pills.

2.3 Some Perceptions about Vasectomy

A vasectomy will not interfere with your sex drive, ability to have erections, sensation of orgasm, or ability to ejaculate. You may have occasional mild aching in your testicles during sexual arousal for a few months after the surgery (<http://www.webmd.com/sex/birth-control/vasectomy-14387>, 31/3/12).

Webmd.com provides some positive information on vasectomy. Vasectomy is a permanent method of birth control. Once your semen does not contain sperm, you do not need to worry about using other birth control methods. Vasectomy is a safer, cheaper procedure that causes fewer complications than tubal ligation in women. Although vasectomy is expensive, it is a one-time cost. The cost of other methods, such as birth control pills or condoms and spermicide, is likely to be greater over time. It should be noted however that vasectomy does not protect against sexually transmitted diseases (STDs), including infection with the human immunodeficiency virus (HIV). Condoms are the most effective method for preventing STDs. To protect yourself and your partner from STDs, use a condom every time you have sex.

Web.com advises that if you are considering a vasectomy, be absolutely certain that you will never want to father a child. Surgery to reconnect the vas deferens (vasectomy reversal) is available. But the reversal procedure is difficult. Sometimes a doctor can remove sperm from the testicle in men who have had a vasectomy or a reversal that didn't work. The sperm can then be used for in vitro fertilization. Both vasectomy reversal and sperm retrieval can be expensive, may not be covered by insurance, and may not always work. Researchers are studying other male birth control methods, such as reversible vasectomy or hormonal methods. Reversible vasectomy involves plugging the vas deferens and then removing the plug when birth control is no longer wanted. Hormonal methods include pills or injections that the man

would use to prevent sperm production. So far, no new method has been shown to be effective enough, with low side effects, to be marketed for men.

The Family Planning Methods and Practice: Africa is a health education and promotion book produced by the Centers for Disease Control in 1993. The book explains some perceptions of vasectomy. The book clarifies that vasectomy is not the same as castration. Vasectomy cuts only the passageway for your sperm. Your testicles will be unhurt. Again, vasectomy does not affect the manhood neither does it alter social masculinity of a man. A person who have undergone through the procedure will still have the ability to enjoy sex and also carry out normal manly function. The procedure merely prevents sperm from being released. The body will absorb the sperm. Some men who have undergone through the procedure have reported that their wives enjoy sex more since they are no longer worried about getting pregnant.

AVSC International, (1998) provides these helping tips that vasectomy may be an appropriate contraceptive method for a man who has all the children he ever wants to have. The method is appropriate for a man who prefers a very effective method, and cannot or does not want to use other methods. Vasectomy is a good method for permanent protection, and also for a man whose partner has medical conditions that limit the use of other family planning methods.

Information reviewed under perceptions of vasectomy present the author of this study, the opportunity to assess married men's perception of the method, and perhaps identify some misconceptions in their thinking about the method so as to recommend appropriately.

2.4 Socio-Cultural Issues of Vasectomy Acceptance

Recent research in developing countries has revealed that men can play an important role in deciding whether or not women use a family planning method (Bongaarts and Bruce, 1995; Salaway, 1994; Ward, *et al.*, 1992). National contraceptive prevalence surveys for many developing countries now include interviews with male respondents and include questions

related to communication between partners about family planning (Ezeh, *et al.*, 1996). Existing studies show that men's role varies greatly according to cultural and social context (McCauley, *et al.*, 1994). In the USA, among couples who choose both tubal occlusion and vasectomy, (Miller *et al.*, 1991; Shain, *et al.*, 1985; Bean, *et al.*, 1983; Mumford, 1983; and Clark and Swicegood, 1982) the woman plays a key role in the decision to have a vasectomy. Among couples who have chosen vasectomy, women are more likely to have discussed the procedure with their partners and to have known a satisfied vasectomy user before the choice was made (Miller, *et al.*, 1991; Shain, *et al.*, 1985; Bean, *et al.*, 1983; and Mumford, 1983)

In their studies, Jafar, *et al.*, (2007) recounted that side effects of contraceptives were the major hurdles in accepting them by men. Any reason highlighted was —desire to have a male baby which didn't improve for female baby even after educational intervention ($p=0.43$). In response to the question —If you are forced to use male contraception, would you prefer vasectomy? Men did not show any interest ($p=0.3$). Use of contraceptives by men (25.4 per cent) remains low in case of their wives illness even after intervention (31.5 per cent).

Educational intervention was able to persuade men to agree with women's use of contraception ($p=0.03$) but not to men's contraception because of agreement for pills, IUDs, Depot and norplant contraceptives. There was not much increase in accepting vasectomy.

Jafar, *et al.*, (2007) concluded in their research that educational intervention on family planning increases the knowledge about modern methods of contraceptives among men but unable to bring any improvement in their practice. Their attitude towards use of family planning methods by their wives improves after the intervention. It is expected that such behaviour change may take longer time but an improvement in their knowledge and attitude to accept contraceptives by their wives could be taken as initial steps of the behaviour change process. Such education

intervention should be incorporated in the services provided by the health center, particularly to promote the participation of men in family planning.

2.5 Socio-Economic Issues of Vasectomy Acceptance

The Ghana Poverty Reduction Strategy II (GPRS II) 2006–2009 recognizes the importance of - population management and identifies the following program priorities: promoting access to and use of family planning (FP) services; educating youth on sexual and reproductive health (RH) issues; promoting sexual health and delaying marriage and childbearing; promoting compulsory education for girls through secondary school; and improving the coverage of births and death registrations. Although the country has achieved success in reducing poverty rates from 52 percent in 1991 to 29 percent in 2000 (MOF, 2007), similar success in MDGs related to maternal mortality, gender, and child health has not been achieved. Increased emphasis on population management and investment in the national FP program will advance progress in each of these areas, as well as ensure that population growth does not overtake gains in social and economic development.

Ghana's population is growing rapidly and, if it continues to grow at the current rate of 2.7 percent, will double in 26 years (NPC, 2006). The total fertility rate (TFR) has declined from 6.4 children per woman in 1993 to 4.0 children per woman in 2007; reaching the lowest level in West Africa (ICF Macro, 2010). Increased investment in the national FP program will reduce government spending on other social service programs. A recent update of the MDG analysis of the costs and benefits of the family planning program showed that each dollar invested in family planning in Ghana in 2010 could have a net return of 40 percent as a result of reduced spending on other social services (Health Policy Initiative, 2009). Fertility has declined despite low and declining use of modern family planning methods. Researchers attribute this to either widespread abortion or abstinence (Aboagye, *et al.*, 2007).

In 2008, 36 percent of Ghanaian married women of reproductive age (MWRA) had an unmet need for family planning; 23 percent wanted to wait at least two years before their next birth; and 13 percent did not want any more children. Stakeholders are concerned about the role that unmet need for FP plays in maternal deaths, and conservative estimates attribute as many as 20 percent of all maternal deaths to abortion (HSAO, 2008).

Although Ghana has made progress in reducing maternal mortality from an estimated 540 maternal deaths per 100,000 live births in 2000 to 451 per 100,000 live births in 2007 (PRB, 2010), much more needs to be done to achieve the target of 145 maternal deaths per 100,000 live births established in MDG 5. Increases in FP use, especially use of more cost-effective long-acting and permanent methods (LAPMs), will enable Ghanaian women to reach their desired level of fertility; substantially reduce abortion, and significantly improve maternal health.

The TFR in Ghana is the lowest in West Africa and has declined from 6.4 in 1993 to 4.0 in 2008 (GSS, GHS, and ICF Macro 2009). Fertility is closely linked to a woman's education and wealth. Married women of reproductive age in the poorest households have an average of 6.4 births; whereas those in the wealthiest have only 2.3 births. Similarly, women with no education have an average of 6.0 births; whereas those who have attained secondary education or higher have an average of 2.1 births. A significant regional disparity exists in fertility. For example, women living in Greater Accra have an average of 2.5 births; whereas those living in the Northern Region have 6.8 births. When asked to give the ideal number of children women would like to have, their responses averaged 4.3 children and men's responses averaged 4.5 children (ICF Macro, 2010).

Ghana's population is quite young; more than 43 percent are below 15 years of age (PRB, 2010). The median age at first marriage for Ghanaian women ages 25-49 is 19.8; however, sexual activity begins about 1.5 years before marriage (ICF Macro, 2010). More than half of Ghanaian MWRA are pregnant or have given birth by the time they are 20.7 years old, and 13 percent of married Ghanaian women ages 15–19 are pregnant or have already given birth.

Table 2.1: Fertility Trends in Fertility-Related Indicators 1993–2008

Indicators	1993	1998	2000	2003	2008
Total fertility rate	6.4	5.2	4.4	4.4	4
Contraceptive prevalence rate	12.9	20.3	22	25.3	23.5
Modern method contraceptive prevalence rate	5.2	10.1	13.3	18.7	16.6
Unmet need for family planning	NA	23	35.6	34	35.3

Source: (GSS, GHS, and ICF Macro, 2009)

Almost one of every four Ghanaian women is using some kind of family planning method. Contraceptive use doubled from 12.9 percent of MWRA in 2003 (GSS, GHS, and ICF Macro, 2009). Between 2003 and 2008, however, contraceptive use declined 23.5 percent of MWRA. Ghana has reached the highest level of modern method use in West Africa: 16.6 percent of MWRA use a modern method. Use of modern methods tripled from 5.2 percent of MWRA in 1993 to 18.7 percent of MWRA in 2003 and then declined, reaching 16.6 percent in 2008.

Unmet need is defined as the percentage of women who want to delay their next birth by at least two years or to have no more children. In Ghana, 36 percent of MWRA have an unmet need for FP; 23 percent wish to space their births, and 13 percent wish to limit their births (ICF Macro 2010). Unmet need for FP has increased from 34 percent of MWRA in 2003 to 36 percent in 2008. Currently married women ages 15–19 years have the highest rate of unmet need at 61.7 percent. Unmet need is closely linked to wealth: 36.2 percent of MWRA in the

poorest households have an unmet need for FP, compared with only 24.2 percent of MWRA in the wealthiest households. More rural MWRA have an unmet need for FP at 37.6 percent, compared with 32.3 percent of urban MWRA. In addition, unmet need varies greatly by region and is highest in the central (49%), eastern (39.6%), and western (39.4%) regions. Only in Greater Accra and upper west regions do less than 30 percent of MWRA have an unmet need for FP.

The 1994 *National Population Policy* calls for a reduction in the annual population growth rate from 3 to 1.7 percent by 2020. This is to be achieved by reducing fertility from a TFR of 5 in 2000 to a TFR of 3 in 2020 and an increase in modern method use to 50 percent of MWRA by 2020 (NPC 1994). To reinvigorate implementation of the *National Population Policy*, the NPC and the FHD developed a *Road Map to Reposition Family Planning (2006–2010)* (Akitobi et al., 2009). This document explicitly calls for a reduction in FP unmet need from 36 percent in 2008 to 20 percent by 2020, as well as for achieving the fertility and population growth targets cited above. Principal changes outlined in the road map include (1) expanding outreach to clients, (2) training new cadres of health workers in family planning, (3) integrating family planning logistics into the supply chain for essential commodities, (4) and revising population projections to better inform GOG policy and planning. The road map currently guides population and FP programming in Ghana. Other strategies and policy documents that guide population activities include the *National Reproductive Health Strategic Plan (2007–2011)* (GHS 2003); the *Health Sector Five-Year Programme of Work (2007–2011)* (MOH 2007); the *Adolescent Reproductive Health Strategy* (NPC 2000); the *Meeting the Commodity Challenge: The Ghana National Contraceptive Security Strategy, 2004–2010* (MOH 2004), which is currently being updated; and the *National HIV/AIDS and Sexually Transmitted Infection Policy* (GAC 2004).

Although the GOG has been very effective in developing policies and strategies for meeting the FP needs of its population, it has not consistently prioritized FP service delivery or provided the national program with the necessary funding. Total annual funding for the national FP program between 2003 and 2009 ranged from a high of \$8,750,000 in 2007 to a low of \$4,470,000 in 2005 (PPAG, 2009). The average annual funding during that period was \$6,047,100. The portion contributed by the GOG ranged annually from a high of 41.4 percent in 2005, when the GOG contributed \$1,850,000, to a low of 0 percent in 2009. Although variations in annual funding levels are to be expected as a result of varying program needs, a distinct downward trend has existed in GOG contributions since 2003. This, together with the changing priorities of the donor community, has severely reduced both access and quality of FP services in Ghana. In 2011, the Interagency Coordinating Committee on Contraceptive Security identified a \$7 million gap between requirements and commitments for forecasted contraceptive commodity needs alone (PPAG, 2009). If the GOG is to achieve all of the goals established in its policies and strategies, it must commit the necessary funding to support population and FP programs.

According to key stakeholders, user fees for FP contraceptives are a significant barrier for clients, particularly for women in rural areas and poorer households. Although FP counseling is provided free of charge, users are required to pay an average of 10 percent of the international cost for the contraceptive (PPME, 2008). Estimates of out-of-pocket spending for FP reach as high as \$2 million per year (PPAG, 2009). Contraceptives have been classified as an essential public good that, like immunizations, should be provided for free; however, in practice, users are asked to pay for contraceptives in all public sector facilities. In 2008 the median fee paid for pills, injectables, and male condoms was 50 *pesewas* (ICF Macro 2010). Stakeholders agree that, regardless of facility level or location, consumers pay more

than the established public sector price for FP commodities. Research should be conducted to verify this anecdotal evidence.

2.6 Health Workers Role in Vasectomy Acceptance

Lack of trained personnel is a serious constraint that pervades Ghana's health system and limits provision of LAPM. Many trained providers leave the country or stop practicing, taking their skills with them. Attrition is a serious problem affecting all types of service providers from doctors down to community health assistants. Between 1996 and 2002, the number of doctors in Ghana declined by 17 percent and the number of nurses dropped by 24 percent (JHSPH, 2007).

Staff shortages are more acute in rural than urban facilities. One way to address these staff shortages is to review the functions of each service provider to determine if opportunities exist for shifting tasks and increasing the types of service providers authorized and trained to provide each method. For example, the *National Reproductive Health Service Policy and Standards* (GHS, 2003) currently authorizes only FP nurses and midwives or doctors to insert and remove IUDs and implants. Authorizing and training nurses and medical assistants to insert and remove IUDs and implants will increase access to those methods, as well as free up FP nurses, midwives, and doctors for tasks requiring greater skill and training. The GEMI pilot project successfully trained CHNs to insert and remove IUDs. In addition, anecdotal evidence from some implementing partners and district management teams indicate that

CHNs with appropriate training are already providing some long-acting methods. The MOH director of human resources is interested in revising current standards and protocols and shifting more tasks to CHNs, so that more clients can be reached with services. The Nurses and Midwife Council Ghana does not want to see the role of midwives and FP nurses modified, and oppose revision of the standards. However, midwives have been losing revenue as a result

of the tariff structure in the NHIS. This may motivate the council to engage in negotiations and be more willing to compromise on changes to both services that midwives provide and levels at which they are reimbursed for those services.

In the past 10 years, the use of all contraceptive methods has dropped, as has the use of LAPMs. Ghana's FP program has seen a steady decline in couple-years of protection provided from 1,163,944 in 2004 to 892,853 in 2006 and a further decline to 598,572 in 2007 (QHP and GHS, 2009a). The GHS attributes this more than 50 percent drop to the attrition of trained personnel; low demand for methods, particularly for LAPM; and lack of support for FP from leaders and managers. To reverse this downward trend, barriers to LAPM use must be identified and policies that impede access to services reformed.

As the *National Reproductive Health Strategic Plan (2007–2011)* (GHS 2007) states, - while national family planning programs routinely operate within adverse conditions such as scarcity of personnel, inadequate facilities, disruptions in logistics and transport, etc., the absence of the commodities around which the program is built can constitute an absolute barrier. Stock-outs of long-acting methods have been a barrier for increasing use. In a 2008 assessment of 13 facilities, 46 percent of facilities providing IUDs and Jadelle implants suffered stock outs (QHP and GHS, 2009a). Research conducted in 2002 found that, although 17 percent of facilities claimed they provided implants, almost one-third did not have commodities on the day of the survey (JHSPH, 2007). With respect to vasectomy, not even every health facility provides the needed services.

While many talk about the importance of addressing men's concerns, the family planning program in Ghana Health Service has taken some very concrete steps in addressing this issue, thus giving more than lip service to male involvement. Both the private and the public sectors in Ghana have made progress in implementing education and services for men's reproductive health needs, with several important milestones on the journey to date. Planned Parenthood

Association of Ghana (PPAG) pioneered services for men with its Daddies' Clubs and community-based distribution programs in the 1980s. In 1994, the Ghana Health Service (GHS) developed a five-year action plan that included a strategy to address male involvement in family planning. Since that time, the GHS has turned the action plan into reality by training doctors in no-scalpel vasectomy (NSV), developing community education programs that can reach men and women outside of the traditional clinic setting, and ensuring that clinical services are available to male clients. Engender Health began training in NSV in 1994, and services were available at six sites. In 1998, the GHS, the National Population Council, and Engender Health convened a national workshop to look at how to improve the involvement of men in family planning. Recommendations from this work shop served as a practical means for the GHS to realize the goals of its five-year plan and set the stage for EngenderHealth's vasectomy initiative. From 2001 to 2003, health partners in Ghana worked to reposition family planning via the —Life Choices - It's your life, it's your choice campaign. Upon further reflection and analysis, the Ghana Health Service and health partners realized that a more concerted effort for male involvement was needed, thus leading to the —Get a Permanent Smile campaign.

According to the Kumasi Metro Health Directorate, about 10 percent of women of fertility age (WIFA) were enrolled in family planning services and using contraception in 2007 (KMHD, 2008). This percentage went down in 2008, when only 7.2 percent of WIFA were enrolled in such services (KMHD, 2009). In 2007, the most frequently used contraceptive was the injectable, with 36.8 percent of WIFA who used family planning services choosing this method. The next most popular forms of contraceptives are intra-uterine devices (IUDs, 17.3 percent), oral pills (15.7 percent) and male condoms (13.9 percent). Other methods, used with less frequency, include female sterilization, Norplant and vasectomies (KMHD, 2008). The majority of condoms available in Kumasi are male condoms. There are no reports of emergency contraception (EC) usage in Kumasi; indeed, most people in Kumasi are unaware of EC.

KNUST

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter contains detailed methods and techniques which were deployed for the study. The chapter highlights on study design, population, sampling procedure and techniques, sample size, data collection tools and techniques, as well as data analysis methods. The chapter also gave attention to ethical considerations, possible limitations of the study and the author's assumptions prior to the study.

3.2 Study Method and Design

Descriptive cross sectional method was used for the study. The study which was conducted in November 2012 adopted the quantitative approach which provided the option to examine relationships between variables.

3.3 Study Population

The study population consisted of married men aged between 17-56 years who had at least 2 children. Men who fell within this age group but were not married with at least two children were excluded from the study. It is the responsibility of couples to decide which family planning method they want to adopt. Most family planning methods are designed to be used by women with the exception of vasectomy, condom use and natural methods. A decision to adopt vasectomy means that the man will be the family planning user. The study therefore wanted to assess vasectomy acceptance among married men.

3.4 Sampling Techniques and Sample Size

The study selected 390 married men to answer a structured questionnaire which enabled the researcher to obtain appropriate data for analysis. The sample selection was based on sample size formulae calculated as follows;

$$n = \frac{Z^2 p(1-p)}{d^2}$$

Where

n = Estimated sample size,

Z = Reliability coefficient = 1.96,

P = Population of married men = 49%,

$$q = 1-p = 1-0.48 = 0.52, d =$$

Width of variation = 0.05

$$n = 1.96^2 \cdot 0.49 (0.51) / 0.0025 = 384$$

A total of six respondents were added to the sample size to cater for unexpected non response rate. The estimated sample size therefore was 390.

The Offinso Municipality was divided into a cluster of six suburbs. In every suburb 65 married men were selected until the desire sample size was obtained. The study deployed simple random sampling to select married men from households in each suburb with a sampling interval of three. Health workers were conveniently selected to participate in the study based on their defined activity in family planning service delivery such as health policy implementation, public health education, reproductive health counseling, and vasectomy surgical procedure.

3.5 Study Variables

The study examined some background characteristics of respondents such as age, level of educational, occupation and religion. Other variables which were studied included level of knowledge of vasectomy, perception of vasectomy, socio-cultural and socio economic issues as well as health worker role in vasectomy acceptance.

3.6 Data Collection Technique and Tools

A well structured questionnaire comprising open and close ended questions were administered to participants to obtain information using a language that they understand well (mostly in the Asante dialect), but for those who could read, the questionnaire was given to them to provide

their views. Health workers were interviewed using interview guide. Health workers were interviewed because they play important role in family planning service delivery. They provide education and counselling on FP methods, as well as providing male friendly services. Avoidance of prejudices against males, who express the desire to opt for vasectomy method, has the potential of improving vasectomy acceptance.

3.7 Data Analysis Method

Data collected were checked for completeness. SPSS version 16.5 software was used for the data analysis and MS excel. Processed data were presented in tables indicating univariate and multivariate analysis which were mostly in frequencies and percentages and also showing significant association test between variables.

3.8 Pre-testing

Tools for the study were pre-tested in Bekwai Municipality. It was realized from the pre-test that most of the questions in the questionnaire were demanding the same answers. This allowed the researcher to make appropriate corrections prior to the study. The pre-test also served as a lesson period for the data collectors, because they learned some ethical considerations in dealing with men especially so when vasectomy is the subject of discussion.

3.9 Ethical Consideration

The researcher obtained clearance from the ethics committee at Kwame Nkrumah University of Science and Technology (KNUST). An authority note was taken from the Municipal Health Directorate of the study area to allow the research to be carried out. Consent of respondents' was sought prior to participation in the study. Respondents were assured of high level of

confidence about information they provided. Respondents were given the privilege to decide whether to participate in the study or not.

3.10 Limitations of the Study

Reproductive health issues continue to attract some level of privacy, more so in the area of family planning, and especially when it has to deal with vasectomy. The study encountered the challenge of getting married men to come out wholeheartedly to discuss vasectomy. However, effective assurances on confidentiality and privacy of information provided ensured that they opened up and even wanted to be educated more on the subject.

3.11 Assumptions

Prior to the study, the researcher assumed that overwhelming majority of married men had adequate information about vasectomy method, although they might have some misconceptions. However, this study revealed that while 55.9% have heard of vasectomy, appreciable proportions of 44.1% have not heard. It was assumed prior to the study that there were some socio-cultural factors as well as health care system factors which influenced vasectomy acceptance. The results of the study proved affirmative to these assumptions. The researcher also hoped to achieve 99.5% response rate, however, 100% response rate was achieved.

OPERATIONAL DEFINITION

Acceptance Is a favourable agreement or reception to an issue or an idea.

Accessibility The opportunity to gain approach to something.

Affordability The ability to purchase something without having undesirable financial difficulty.

Availability

The presence of something, or something one can get buy or find

Knowledge

Information, skills and understanding gained or acquainted through experience or education.

Perception

The act of becoming aware of something through intuitive observation with the senses.

Vasectomy

Excision of a part of the vas deferens to avoid the release of sperm into the ejaculate, a procedure now employed as a family planning method.



CHAPTER FOUR

RESULTS

This chapter entails results of the study. The results comprise analysis of respondents' background information, level of knowledge of vasectomy, perceptions, socio-cultural issues, and socio-economic issues of vasectomy. The results have been presented in tables and described in percentages with some association tests and odds ratio analysis. A total of 390 questionnaires were distributed for responses and all were returned representing 100% response rate.

4.1 Background Characteristics of Respondents

Table 4.1 depicts background information of respondents of which majority 54.6% (213) were in the age group 31-40 years, followed by age group 41-50 years 28.7% (112), 17-30 years were 12.3% (48) while 51-56 years were 4.4% (17). The minimum and maximum age of

respondents was 17 and 56 years respectively. Most 30.5% (119) of the respondents had attained Middle/JHS level of education, 27.7% (108) were tertiary, 23.3% (91) GCE/SHS.

About 6.9% (27) had no formal education. In terms of occupation, public servants formed 39.2% (118) of respondents. However traders accounted for 14.9% (58), farmers 15.4% (60), self-employed 13.6% (53), unemployed 2.6% (10) and others 14.4% (56). All respondents belonged to a religious denomination with majority 54.9% (214) in the charismatic/Pentecostal denomination, 30.3% (118) in orthodox, 13.6% (53) Muslim and 1.3% (5) traditional. Majority 74.4% (290) of respondents were Akans, 5.6% (22) were dagomba, whereas 20.6% (78) were from other ethnic origins in the country.

Table 4.1: Background characteristics of respondents

Variables	Frequency (n=390)	Percentage (%)
Age (years)		
<input type="checkbox"/> 17-30	48	12.3 54.6
<input type="checkbox"/> 31-40	213	28.7
<input type="checkbox"/> 41-50	112 17	4.4
<input type="checkbox"/> 51-56 Total	390	100
Level of Education		
<input type="checkbox"/> No education	27	6.9
<input type="checkbox"/> Primary	54	11.5 30.5
<input type="checkbox"/> Middle/JHS	119 91	23.3
<input type="checkbox"/> GCE/SHS	108	27.7
<input type="checkbox"/> Tertiary Total	390	100
Occupation		
<input type="checkbox"/> Public Servants	153	
<input type="checkbox"/> Trader	58	
<input type="checkbox"/> Farmer	60	39.2 14.9
<input type="checkbox"/> Self employed	53	15.4
<input type="checkbox"/> Unemployed	10	13.6 2.6
<input type="checkbox"/> Other Total	390	100

Religion			
<input type="checkbox"/>	Orthodox	118	30.3 54.9
<input type="checkbox"/>	Charismatic/Pentecostal	214	13.6
<input type="checkbox"/>	Muslim	53	1.3
<input type="checkbox"/>	Traditional Total	5	100
		390	
Ethnicity			
<input type="checkbox"/>	Akans	290	74.4 5.6
<input type="checkbox"/>	Dagarti	22	20.6
<input type="checkbox"/>	Other Total	78	100
		390	

Source: Field Data, 2012

4.2 knowledge and perceptions of Vasectomy

Tables 4.2 to 4.5 present respondents level of awareness, knowledge and perceptions of vasectomy. Majority 55.9% (218) of respondents have heard of vasectomy, while 44.1% (172) have not heard. Health workers accounted for 24.8% (54) of sources of information on vasectomy while radio and television accounted for 33.9% (74) and 12.8% (28) respectively. About 84.9% (185) were able to give appropriate definition of vasectomy, however, 10.6% (23) did not know while 4.6 (10) gave wrong definition. About 17.9% (39) stated that vasectomy is a temporal FP method, while 82.1% (179) stated it was a permanent method. Majority 69.3% (151) of respondents didn't know the elapsing time it takes for vasectomy to work properly following the procedure, however 30.7% (67) were aware (Table 4.2)

Table 4.2: Level of Knowledge of Vasectomy

Variables	Frequency	Percent
Heard of Vasectomy (n=390)		
<input type="checkbox"/> Yes	218	55.9
<input type="checkbox"/> No	172	44.1
Source of information (n=218)		
<input type="checkbox"/> Health Facility/Worker	54	24.8
<input type="checkbox"/> Radio	74	33.9
<input type="checkbox"/> Television	28	12.8
<input type="checkbox"/> Friend	57	26.1
<input type="checkbox"/> Church	5	2.3
What is vasectomy? (n=218)		
<input type="checkbox"/> FP method involving surgical procedure which prevents a man from achieving erection.	10	4.6
<input type="checkbox"/> FP method involving surgical procedure to make a man infertile.	44	20.2
<input type="checkbox"/> Minor surgical procedure involving occlusion of the vas deferens which prevents transport of sperm into the ejaculate	141	64.7
<input type="checkbox"/> Don't Know	23	10.6
Vasectomy is a temporal FP Method (n=218)		
<input type="checkbox"/> True	39	17.9
<input type="checkbox"/> False	179	82.1
Following vasectomy procedure it takes at least twelve weeks, or more, or 10-20 ejaculations for the procedure to work properly (n=218)		
<input type="checkbox"/> True	67	30.7
<input type="checkbox"/> False	151	69.3

Source: Field Data, 2012

Table 4.3 presents respondents knowledge of other family planning methods. Awareness of the pills, condoms, injectables and natural method were very high among respondents. Almost 96% and 84.4% of total respondents were aware of the male and female condoms respectively and 79.2% were aware of the pills. Majority of the respondents had used male and female condoms. Only 0.5% and 0.3% had used the Norplant and traditional methods respectively. The male

condom was the most cited currently used FP method (33.8% of total respondents). About 25% were also using the natural method. However, only 0.3% and 0.5% were using the IUD and Norplant respectively.

Table 4.3: Knowledge of Other FP Methods

Variables	Relative Frequency	Percentage
Other FP Methods Known*		
<input type="checkbox"/> Pills	309	79.2
<input type="checkbox"/> Male Condom	374	95.9
<input type="checkbox"/> Female Condom	329	84.4
<input type="checkbox"/> IUD	50	12.8
<input type="checkbox"/> Norplant	52	13.3
<input type="checkbox"/> Injectables	278	71.3
<input type="checkbox"/> Withdrawal	151	38.7
<input type="checkbox"/> Natural	247	63.3
<input type="checkbox"/> Traditional	21	21.5
Other FP Methods Used before *		
<input type="checkbox"/> Pills	57	14.6
<input type="checkbox"/> Male Condom	244	62.6
<input type="checkbox"/> Female Condom	28	71.24
<input type="checkbox"/> IUD	39 2	10.0
<input type="checkbox"/> Norplant	34	0.5
<input type="checkbox"/> Injectables	48	8.7
<input type="checkbox"/> Withdrawal	187	12.3
<input type="checkbox"/> Natural	1	47.9
<input type="checkbox"/> Traditional		0.3
FP Methods Currently Using *		
<input type="checkbox"/> Pills		5.1
<input type="checkbox"/> Male Condom	20	33.8
<input type="checkbox"/> Female Condom	132	3.8
<input type="checkbox"/> IUD	15 1	0.3
<input type="checkbox"/> Norplant	2	0.5
<input type="checkbox"/> Injectables	19	4.9
<input type="checkbox"/> Withdrawal	29	7.4
<input type="checkbox"/> Natural	96	24.6
<input type="checkbox"/> Traditional	1	0.3

Source: Field Data, 2012

**Multiple response*

As shown in Table 4.4, majority 91.7% (200) perceived that vasectomy did not provide protection against HIV and other STIs, whereas 8.3% (18) believed otherwise. While 17.4% (38) believed that vasectomy is the same as castration, majority 82.6% (180) did not believe. Vasectomy will affect my manhood was a statement agreed to by 21.6% (47) of respondents, as against majority 78.4% (171) who did not agree. Some 20.6% (45) of respondents indicated that vasectomy will not allow them to enjoy sex, as against majority 79.4% who thought otherwise. About 25.7% (56) agreed to the statement that the unproduced sperms will create discomfort in their body; however, majority 74.3% (162) indicated that the statement was false. Some 19.7% (43) of respondents believed that vasectomy will lower their sexual libido, while 80.3% (175) did not believe. Majority 95.4% (208) of respondents did not agree to the fact that vasectomy could be provided by any health worker, yet 4.6% (10) believed. In terms of serious complications, 27.5% (60) believed that vasectomy has some serious complications as against majority 72.5% (158) who did not believe.

Table 4.4: Perceptions about Vasectomy

Variables	Frequency	Percentage
Vasectomy provides protection against HIV and other STIs		
<input type="checkbox"/> True	18	8.3
<input type="checkbox"/> False	200	91.7
Total	218	100
Vasectomy is the same as castration		
<input type="checkbox"/> True	38	17.4
<input type="checkbox"/> False	180	82.6
Total	218	100
Vasectomy will affect my manhood		
<input type="checkbox"/> True	47	21.6
<input type="checkbox"/> False	171	78.4
Total	218	100
Vasectomy will not allow me to enjoy sex		
<input type="checkbox"/> True	45	20.6
<input type="checkbox"/> False	173	79.4
Total	218	100
The unproduced sperms will create discomfort for my body		
<input type="checkbox"/> True	56	25.7
<input type="checkbox"/> False	162	74.3
Total	218	100
Vasectomy will lower my sexual libido		
<input type="checkbox"/> True	43	19.7
<input type="checkbox"/> False	175	80.3
Total	218	100
Vasectomy has to be provided by any health worker		
<input type="checkbox"/> True	10	4.6
<input type="checkbox"/> False	208	95.4
Total	218	100
Vasectomy has some serious complications		
<input type="checkbox"/> True	60	27.5
<input type="checkbox"/> False	158	72.5
Total	218	100

Source: Field Data, 2012

Serious complications of vasectomy as perceived by the respondents in this study are presented in Table 4.5. This included impotence, profuse bleeding, weakness, severe pains and death. Other mentioned complications included erectile dysfunction, swollen testes and overweight among others which have been listed in Table 4.5.

Table 4.5: Complications Mentioned by Respondents

Serious Complications	Frequency	Percentage
Profuse bleeding	8	13.6
Infection	1	1.7
Damage to the urethra	1	1.7
Death	5	8.5
Dizziness	2	3.4
Frequent illness	2	3.4
Impotence	18	30.5
Overweight	1	1.7
Severe pains	11	18.7
Swollen testes	3	5.1
Weakness	7	11.9
Total	59	100

Source: Field Data, 2012

4.3 Socio-Cultural Issues of Vasectomy Acceptance

Table 4.6 presents results of socio-cultural issues relating to vasectomy acceptance among men in the Offinso district. Results revealed that most 39% (85) have married for 6-10 years, followed by 1-5 years which was 28% (61), 11-15 years which was 14.7% (32) and 13.8% (30) which was 16-20 years. About 4.1% (9) have married for 21-25 years while only one have married for 26 years and above. Minimum and maximum number of years respondents have married was 3 and 35 years respectively, while average years of marriage were 9 years. Majority 92.7% (202) of respondents had 1-5 children, while 7.3% (16) had 6-10 children, with an average number of children being 5. About 77.5% (169) of respondents indicated that they

wanted to have at least 1-5 children, while 22.5% (49) indicated 6-10 children. Majority 89% (194) of respondents indicated that their religion did not abhor vasectomy, but 11% (24) indicated otherwise. For those who indicated otherwise, 83.3% (20) indicated that their religion is against FP, while 16.7% (4) indicated that FP is not in the bible. Only one respondent indicated that his culture abhors vasectomy.

Majority 96.8% (211) have not discussed adopting vasectomy with their wives as against 3.2% (7) who have done that. Among those who have discussed, 57.1% (4) indicated that their wives supported the idea, while 42.9% (3) suggested different method. Most 45.4% (99) of the respondents indicated that they didn't know how their family members will react in case they decided to opt for vasectomy, however, 24.3% (53) didn't care about their reactions, while 23.4% (51) indicated that their family members will not support the idea compared with 6.9% (15) who indicated that they will support. In terms of friends' reaction, about 48.6% (106) indicated that they didn't care about their friends views, while 30.3% (66) indicated that they didn't know how they will react. Some 16.1% (35) said friends will mock them if they opt for vasectomy, however, 5% (11) said that friends will congratulate them.

Table 4.6: Socio-Cultural Issues of Vasectomy Acceptance

Variables	Frequency	Percentage
Number of years of married life (n=218)		
<input type="checkbox"/> 1-5	61	28.0
<input type="checkbox"/> 6-10	85	39.0
<input type="checkbox"/> 11-15	32	14.7
<input type="checkbox"/> 16-20	30	13.8
<input type="checkbox"/> 21 and above	10	4.6
Number of children (n=218)		
<input type="checkbox"/> 1-5	202	92.7
<input type="checkbox"/> 6-10	16	7.3

Number of expected children (n=218)

<input type="checkbox"/> 1-5	169	77.5
<input type="checkbox"/> 6-10	49	22.5

Dictates of religion abhors vasectomy (n=218)

<input type="checkbox"/> Yes	24	11.0
<input type="checkbox"/> No	194	89.0

If yes in what ways? (n=24)

<input type="checkbox"/> Religion is against FP	20	83.3
<input type="checkbox"/> FP not in the Bible	4	16.7

Any cultural barriers to adopting vasectomy? (n=218)

<input type="checkbox"/> Yes	1	0.5
<input type="checkbox"/> No	217	99.5

Have you ever discussed adopting vasectomy method with your wife?(n=218)

<input type="checkbox"/> Yes	7	3.2
<input type="checkbox"/> No	211	96.8

If yes, what was her reaction?

<input type="checkbox"/> She support the idea	4	57.1	0.0
<input type="checkbox"/> She didn't support the idea	0	42.9	
<input type="checkbox"/> She suggested a different method	3		

If you decide to do vasectomy, what will be the reaction of your family members? (n=218)

<input type="checkbox"/> Support the idea	15	6.9
<input type="checkbox"/> Wouldn't support the idea	51	23.4
<input type="checkbox"/> I don't care about their views	53	24.3
<input type="checkbox"/> I don't know	99	45.4

How will friends regard you?(n=218)

<input type="checkbox"/> Congratulate me		
<input type="checkbox"/> Mock me	11	5.0
<input type="checkbox"/> I don't care about friends views	35	16.1
<input type="checkbox"/> I don't know	106	48.6
	66	30.3

*Source: Field Data, 2012***4.4 Socio-Economic Issues of Accepting Vasectomy**

Table 4.7 summarizes the socio-economic issues surrounding vasectomy acceptance. All respondents (100%) who have heard of vasectomy didn't know the cost, and couldn't therefore estimate whether their average income could afford the procedure. However, 3.2% (7) of respondents indicated that they will go for vasectomy if they could afford, but 96.8%

(211) wouldn't do that. Majority 73.4% (160) of the respondents indicated that they knew where to get vasectomy services, but 26.6% (58) didn't know. For those who knew, 99.4% (159) indicated hospital as the place for services. About 22% (48) of those who have heard of vasectomy indicated that they will accept vasectomy as their FP method, while 78% (170) indicated they wouldn't. (Table 4.7)

Table 4.7: Socio-Economic Issues of Vasectomy Acceptance

Variables	Frequency	Percentage
Do you know the cost of vasectomy procedure (n=218)		
<input type="checkbox"/> Yes	0	0.0
<input type="checkbox"/> No	218	100
Will you go in for vasectomy because you can afford? (n=218)		
<input type="checkbox"/> Yes	7	3.2
<input type="checkbox"/> No	211	96.8
Do you know where you can get this service? (n=218)		
<input type="checkbox"/> Yes	160	73.4
<input type="checkbox"/> No	58	26.6
If yes, where? (n=160)		
<input type="checkbox"/> Hospital	159	99.4
<input type="checkbox"/> Health Centre	1	0.6
Will you accept vasectomy as your FP method?		
<input type="checkbox"/> Yes	48	22.0
<input type="checkbox"/> No	170	78.0

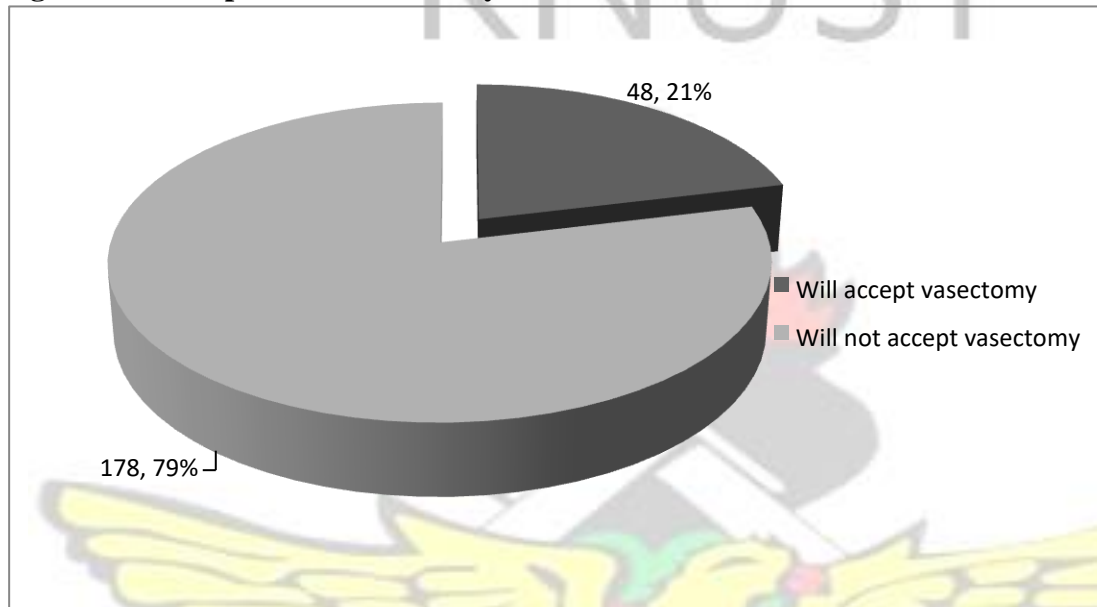
Source: Field Data, 2012

4.5 Acceptance of vasectomy

Figures 4.1 to 4.3 present level of acceptance as well as respondents reasons for accepting or refusing vasectomy. As shown in Figure 4.1, only 48 out of 226 respondents, representing 21% indicated their willingness to accept vasectomy whereas 79% will not. Respondents reasons why they will accept vasectomy as their FP method, included; it will help them solve family poverty issues, other people have benefited from it, avoid future delivery complications, avoid

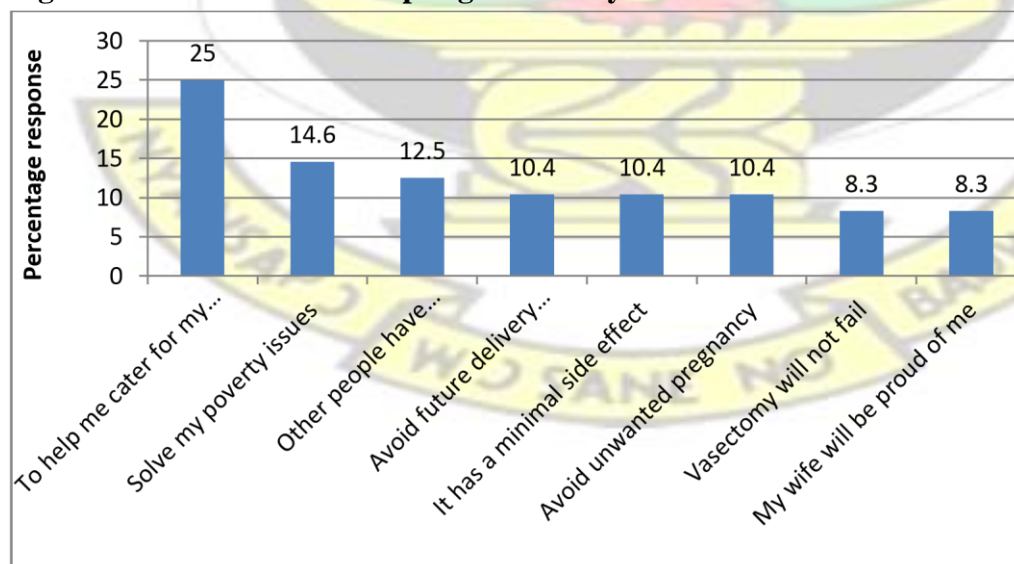
any unwanted pregnancy and wife will be proud of me as detailed in Figure 4.2. Other respondents indicated that they will not accept vasectomy because they are afraid it will hurt their manhood, it is against their religion, it is irreversible, don't know much about its effect, the wife is already on FP, and preferring other methods (Figure 4.3).

Figure 4.1: Acceptance of vasectomy



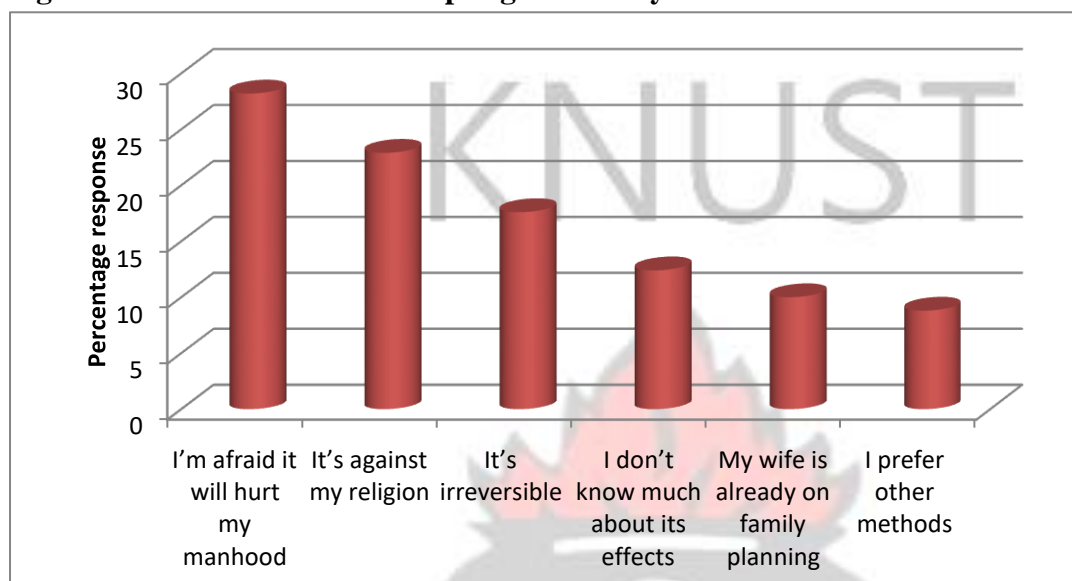
Source: Field Data, 2012

Figure 4.2: Reasons for accepting vasectomy



Source: Field Data, 2012

Figure 4.3: Reasons for not accepting vasectomy



Source: Field Data, 2012

4.6 Factors influencing acceptance of vasectomy

This section presents results of bivariate and multivariate analysis of factors that influence acceptance of vasectomy among men in the Offinso district of Ghana.

4.6.1 Influence of socio-demographic characteristics and acceptance of vasectomy

Education background had significant ($p=0.040$) association with accepting vasectomy. Majority 41.7% (20) of respondents who indicated that they will accept vasectomy had their education background as tertiary, while 29.2% (14) were GCE/SHS and Middle/JSS respectively. Respondents occupation had significant ($p=0.019$) association with accepting vasectomy. Among those who wanted to accept vasectomy 50% (24) were public servants, while 22.9% (11) were self-employed. Ethnic background of respondents did not have significant ($p=0.077$) association with accepting vasectomy. Among those who wanted to

accept vasectomy majority 77.1% (37) were Akans, while 12.5% (6) were Dagarti. Age of respondents however did not have significant ($p=0.143$) association with accepting vasectomy.

Table 4.8: Accepting Vasectomy and Respondents Background Information

Will you Accept Vasectomy?				Chi Square (p-value)
Background Data	Yes N (%)	No N (%)	Total	
Age (years)				
□ 17-30 9 (40.9)	13 (59.1)	22 (100)	5.425**	(0.143)
□ 31-40 27 (19.9)	109 (80.1)	136 (100)		
□ 41-50 10 (18.9)	43 (81.1)	53 (100)		
□ 51-56 2 (28.6)	5 (71.4)	7 (100)		
Total	48 (22.0)	170 (78.0)	218 (100)	
Educational Background				
□ No education 0 (0)	3 (100.0)	3 (100)	10.005**	(0.040)
□ Primary 0 (0)	7 (100.0)	7 (100)		
□ Middle/JSS 14 (40.0)	21 (60.0)	35 (100)		
□ GCE/SHS 14 (20.3)	55 (79.7)	69 (100)		
□ Tertiary 20 (19.2)	84 (80.8)	104 (100)		
Total	48 (22.0)	170 (78.0)	218 (100)	
Occupation				
□ Public Servants 24 (17.3)	115 (82.7)	139 (100)	13.515**	(0.019)
□ Trader 3 (17.6)	14 (82.4)	17 (100)		
□ Farmer 3 (23.1)	10 (76.9)	13 (100)		
□ Self Employed 11 (52.4)	10 (47.6)	21 (100)		
□ Unemployed 2 (28.6)	5 (71.4)	7 (100)		
□ Other 5 (23.8)	16 (76.2)	21 (100)		
Total	48 (22.0)	170 (78.0)	218 (100)	
Religion				
□ Orthodox 19 (27.9)	49 (72.1)	68 (100)	3.153	(0.207)
□ Charismatic/Pentecostal 24 (18.0)	109 (82.0)	133 (100)		
□ Muslim 5 (29.4)	12 (70.6)	17 (100)		
Total	48 (22.0)	170 (78.0)	218 (100)	

Ethnic Background

□ Akans	37 (21.9)	132 (78.1)	169 (100)	22.05**		
□ Dagarti	6 (28.6)	15 (71.4)	21 (100)	(0.077)	□ Other	5
(17.9)	23 (82.1)	28 (100)	Total 48 (22.0)	170 (78.0)		218
(100)						

Source: Field Data, 2012 **Fisher exact

4.6.2 Association between Socio-Cultural Issues and Accepting Vasectomy

As shown in Table 4.9, discussing vasectomy adoption with the wife had significant (0.000) association with accepting vasectomy. About 85.7% (6) of respondents who discussed with the wife wanted to do vasectomy. Reaction from family members was significant (0.000) in accepting vasectomy. The percentage of respondent who would accept vasectomy was higher among respondents who indicated that their family would support as against those whose family would not support (66.7% versus 24.5%). Reaction from friends was significant (0.000) in opting for vasectomy. About 54.5% (6) of those whose friends would congratulate them for opting for vasectomy wanted to do vasectomy as compared to 28.6% (10) of those who indicated their friends would mock them.

There was no significant (0.428) association between number of years of married life and accepting vasectomy as FP method. Number of Children that a man have did not have significant (0.941) association with accepting vasectomy. Likewise, there was no significant (0.594) association between culture barriers and accepting vasectomy.

Table 4.9: Association between Socio-Cultural Issues and Accepting Vasectomy

Socio-Cultural Issues				Will you Accept Vasectomy?		Total	Chi Square (p-value)
				Yes n (%)	No n (%)		
Number of years of married life							
<input type="checkbox"/> 1-5	12 (19.7)	49 (80.3)	61 (100)				
<input type="checkbox"/> 6-10	14 (16.5)	71 (83.5)	85 (100)				
<input type="checkbox"/> 11-15	13 (40.6)	19 (59.4)	32 (100)		23.56**		
<input type="checkbox"/> 16-20	7 (23.3)	23 (76.7)	30 (100)		(0.428)		

<input type="checkbox"/> 21-25	1 (11.1)	8 (88.9)	9 (100)				
<input type="checkbox"/> 26 and above	1 (100.0)		0 (0.0)	1 (100)			
Total			48 (22.0)	170 (78.0)	218 (100)		
Number of children							
<input type="checkbox"/> 1-5	45 (22.3)	157 (77.7)	202 (100)	2.300			
<input type="checkbox"/> 6-10	3 (18.8)	13 (81.2)	16 (100)	(0.941)			
Total			48 (22.0)	170 (78.0)	218 (100)		
Number of expected children							
<input type="checkbox"/> 1-5	37 (21.9)	132 (78.1)	169 (100)	5.670			
<input type="checkbox"/> 6-10	11 (22.4)	38 (77.6)	49 (100)	(0.684)	Total	48 (22.0)	170 (78.0) 218 (100)
Religion abhors vasectomy							
<input type="checkbox"/> Yes	4 (16.7)	20 (83.3)	24 (100)	0.45**			
<input type="checkbox"/> No	44 (22.7)	150 (77.3)	194 (100)	(0.502)			
Total			48 (22.0)	170 (78.0)	218 (100)		
Any cultural barriers to adopting vasectomy?							
<input type="checkbox"/> Yes	0 (0)	1 (100.0)	1 (100)	0.284**			
<input type="checkbox"/> No	48 (22.1)	169 (77.9)	217 (100)	(0.594)			
Total			48 (22.0)	170 (78.0)	218 (100)		
Have you ever discussed adopting vasectomy method with your wife?							
<input type="checkbox"/> Yes	6 (85.7)	1 (14.3)	7 (100)	16.981	<input type="checkbox"/> No	42 (19.9)	169 (80.1) 211 (100) (0.000)
Total			48 (22.0)	170 (78.0)	218 (100)		
If you decide to do vasectomy, what will be the reaction of your family members?							
<input type="checkbox"/> Support the idea	10 (66.7)	5 (33.3)	15 (100)				27.732
<input type="checkbox"/> Wouldn't support the idea	12 (24.5)	39 (75.5)	51 (100)	(0.000)			
<input type="checkbox"/> I don't care about their views	16 (30.2)	37 (69.8)	53 (100)				
<input type="checkbox"/> I don't know	10 (10.1)	89 (89.9)	99 (100)				
Total			48 (22.0)	170 (78.0)	218 (100)		
How will friends regard you?							
<input type="checkbox"/> Congratulate me	6 (54.5)	5 (45.5)	11 (100)				
<input type="checkbox"/> Mock me	10 (28.6)	25 (71.4)	35 (100)				24.937
<input type="checkbox"/> I don't care about friends views	10 (9.4)	96 (90.6)	106 (100)				
<input type="checkbox"/> I don't know	18 (30.5)	41 (69.5)	59 (100)		<input type="checkbox"/> Other	4 (57.1)	3 (42.9) (0.000)
	7 (100)						
Total			48 (22.0)	170 (78.0)	218 (100)		

Source: Field Data, 2012

4.6.3 Association between Socio-Economic Issues and Accepting Vasectomy

Affordability was significant (0.000) with accepting vasectomy. Out of 7 respondents who indicated that they will go in for the method if they can afford all of them wanted to accept vasectomy. Knowing where vasectomy procedure could be obtained was not significant

(0.232) in accepting the method. About 27.6% (16) who accepted vasectomy did not know where to get it.

Table 4.10: Association between socio-economic issues and accepting vasectomy

Some Perceptions	Will you Accept Vasectomy?			Chi Square (p-value)
	Yes n (%)	No n (%)	Total	
Will you go in for vasectomy because you can afford?				
<input type="checkbox"/> Yes	7 (100.0)	0 (0.0)	7 (100)	25.61**
<input type="checkbox"/> No	41 (19.4)	170 (81.6)	211 (100)	(0.000)
Total	48 (22.0)	170 (78.00)	218 (100)	
Do you know where to get this method?				
<input type="checkbox"/> Yes	32 (20.0)	128 (80.0)	160 (100)	1.427
<input type="checkbox"/> No	16 (27.6)	42 (72.4)	58 (100)	(0.232)
Total	48 (22.0)	<u>170 (78.0)</u>	218 (100)	

Source: Field Data, 2012

4.6.4 Multivariate analysis

Table 4.11 summarises results of the logistic regression analysis factors influencing acceptance of vasectomy. Model 1 involved analysis of the socio-demographic and socioeconomic factors that showed significant in the bivariate analysis. Model 2 on the other hand involved combination of all factors that were considered in the study (socio-demographic, socio—economic and socio-cultural). Among the socio-demographic factors, occupation showed a significant association in the multivariate analysis. Respondents who were selfemployed had increased odds of accepting vasectomy as compare to those who were public servants and this relationship was observed in both model 1 and model 2 (OR =7.7 and 8.2 respectively).

There was also a significantly inverse association between affordability of vasectomy and acceptance. In model 2, men who indicated that they will not accept vasectomy because it is affordable were less likely to accept vasectomy (OR=0.4; $p<0.01$). This relationship was again observed in model 3. The perceived reactions from family members upon accepting vasectomy also influenced the men's decision to accept vasectomy as compared to those who believed their family members will support them (OR=0.1; $p<0.05$). Men who had no knowledge of what sort of reaction they will receive from family members upon acceptance of vasectomy also had less odds of accepting vasectomy as compared to those who believed their family members will support them (OR=0.1; $p<0.01$).

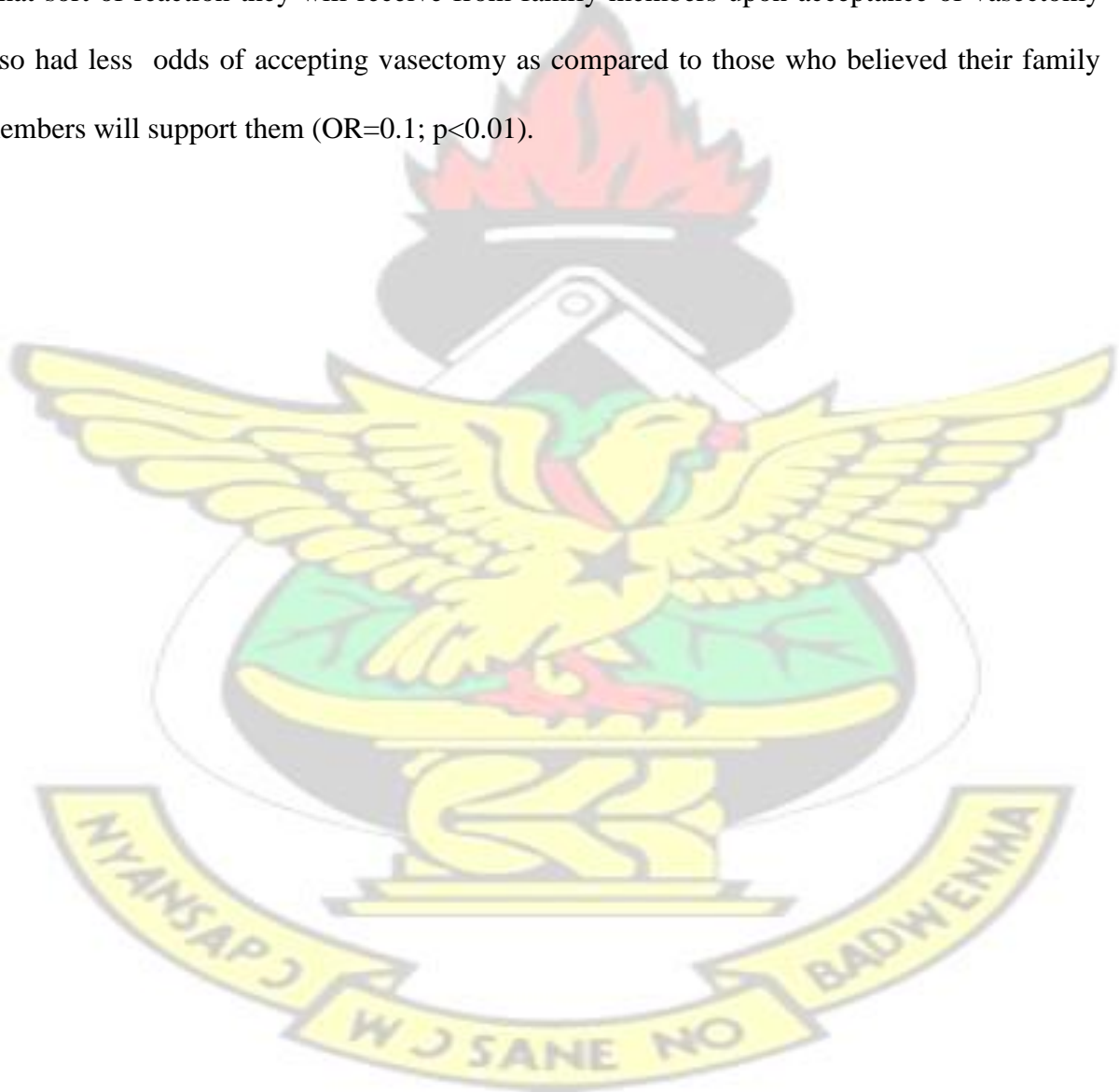


Table 4.11 Results of a stepwise regression analysis of factors influencing acceptance of vasectomy

Variables		Model 1	Model 2
		OR (95% CI)	OR (95% CI)
<i>Socio-demographic and socio-economic factors</i>			
Education	No formal (ref)	1	1
	Basic (primary/ JSS)	1.1 (0.3, 3.9)	3.0 (0.7, 14.3)
	Secondary	2.4 (0.3, 12.9)	3.9 (0.2, 17.9)
	Tertiary	1.2 (0.07, 5.9)	1.8 (0.1, 10.2)
Occupation	Public servants	1	1
	Trader	0.4 (0.07, 2.8)	0.5 (0.08, 3.5)
	Farmer	1.2 (0.2, 7.0)	1.4 (0.2, 8.6)
	Self-employed	7.7 (2.4, 24.8)**	8.2 (2.3, 28.9)**
	Unemployed	2.4 (0.4, 14.1)	0.8 (0.07, 7.9)
	Other	1.6 (0.5, 5.0)	1.3 (0.3, 5.0)
Accept vasectomy because it is affordable	Yes (ref)	1	1
	No	0.4 (0.1, 0.4)**	0.5 (0.3, 0.6)*
<i>Socio-cultural factors</i>			
Discuss vasectomy with wife	Yes (ref)		1
	No		2.0 (0.09, 4.3)
Family reaction	members Support idea (ref)		1
	Wouldn't support		0.1 (0.01, 0.6)*
	Don't care about their views		0.2 (0.02, 1.2)
	Don't care about their views		0.1 (0.01, 0.5)**
Friends reaction	Congratulate me (ref)		1
	Mock me		2.9 (0.4, 23.9)
	Don't care about their views		1.0 (0.1, 8.0)
N		218	217
Log likelihood		-98.9337	-82.7024
Prob>chi2		<0.001	<0.001
<i>Outcome=Acceptance of vasectomy;</i>		<i>*p<0.05;</i>	<i>**p<0.01;</i>
			<i>***p<0.001</i>

4.7 Summary of Health Workers Interview Report

As part of the study, health workers were interviewed to know their knowledge, perception and attitudes towards vasectomy as a family planning method. A total of 12 health workers were interviewed comprising medical officer (1), general nurses (3), midwives (4) and community health nurses (4). The average age of health staff was 36 years, and average age spent in the service was 8 years.

Level of knowledge of vasectomy was high among interviewed staff as all of them were able to give good definition to vasectomy, and also knew that it was a permanent method. Staff interviewed exhibited good perception of vasectomy. They knew that vasectomy didn't protect against HIV or STIs, and also knew that vasectomy wasn't the same as castration, and vasectomy could not affect manhood. Health staff interviewed indicated that most men wouldn't go in for vasectomy because of some social issues such as family reaction, wife reaction, friends' reaction and expected number of children. Some cultural issues mentioned were the fact that a man who aspires to be chief or kings-man wouldn't go in for vasectomy. Economically, even most of the health workers interviewed didn't know the cost of the procedure, besides they couldn't predict if it could affect vasectomy acceptance.

Health workers interviewed admitted that the only hospital in the municipality was a catholic facility which didn't practice family planning and therefore couldn't perform vasectomy on the basis of family planning. Interested individuals therefore had to visit Komfo Anokye Teaching Hospital (KATH) for the services. Among interviewed staff only 4 have been trained in general family planning counselling. There were no special IE&C and counselling services for men on vasectomy. Health workers response is supported by findings of a an assessment by JHSPH in 2007 which stated that lack of trained personnel is a serious constraint that pervades Ghana's

health system and limits provision of LAPM. Many trained providers leave the country or stop practicing, taking their skills with them. Attrition is a serious problem affecting all types of service providers from doctors down to community health assistants. Between 1996 and 2002, the number of doctors in Ghana declined by 17 percent and the number of nurses dropped by 24 percent (JHSPH, 2007).

Staff shortages are more acute in rural than urban facilities. One way to address these staff shortages is to review the functions of each service provider to determine if opportunities exist for shifting tasks and increasing the types of service providers authorized and trained to provide each method. For example, the *National Reproductive Health Service Policy and Standards* (GHS, 2003) currently authorizes only FP nurses and midwives or doctors to insert and remove IUDs and implants. Authorizing and training nurses and medical assistants to insert and remove IUDs and implants will increase access to those methods, as well as free up FP nurses, midwives, and doctors for tasks requiring greater skill and training. Similarly, more doctors at the district hospital level could be trained in vasectomy procedure to ensure easy access. Research conducted in 2002 found that, although 17 percent of facilities claimed they provided implants, almost one-third did not have commodities on the day of the survey (JHSPH, 2007). With respect to vasectomy, not even every health facility provides the needed services.

Some of the health workers interviewed were not in favour of vasectomy on socio-culture basis, but were ready to provide good counselling for clients. Other staff were in favour of it and was ready to provide counselling assistance to clients. All the health facilities visited claimed they were practicing —male friendlyl services, yet not a single male have been counselled for vasectomy.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

Chapter five discusses results of the study based on available literature. Discussions have been made under the major objectives of the study. The chapter also discusses health workers interview report which had shortage of FP staff.

5.2 Background Characteristics of Respondents

The minimum and maximum age of respondents was 17 and 56 years respectively and majority of respondents were in the age group 31-40 years. Most of the respondents had basic education whereas about 7% had no formal education. In terms of occupation, public servants formed 39.2% of respondents, traders accounted for 14.9%, whereas farmers were 15.4%. All respondents belonged to a religious denomination with majority in the charismatic/Pentecostal denomination. Offinso Municipality has several inhabitants from almost all parts of the country. However, most of respondents in this study were Akan.

Education background of the respondents significantly influenced their acceptance of vasectomy. Majority 41.7% (20) of respondents who indicated that they will accept vasectomy had their education background as tertiary, while 29.2% (14) were GCE/SHS and Middle/JSS respectively. This is however inconsistent with study by Ali and Cleland (1999) which found no significant association between education and contraception. Respondents' occupation also had significant association with accepting vasectomy. Among those who wanted to accept vasectomy 50% (24) were public servants, while 22.9% (11) were selfemployed. Respondents

who were self-employed had increased odds of accepting vasectomy as compare to those who were public servants in the multivariate analysis.

5.3 Level of acceptance of vasectomy

Results from the study indicated that the level of acceptance of vasectomy was low among married men in the Offinso district. Among the men studied, only 21% showed their willingness to accept vasectomy whereas 79% will not. Respondents reasons why they will accept vasectomy as their FP method, included; it will help them solve family poverty issues, other people have benefited from it, avoid future delivery complications, avoid any unwanted pregnancy and wife will be proud of me. Reasons for not accepting vasectomy included fear of side effects (it will hurt their manhood), its irreversibility, and not knowing much about its effect. Fear of side effects of contraceptives have emerged reasons for refusing or discontinuing use of contraceptives in other previous studies including that of Khan (2001) and D'Antona et al., (2009).

5.4 Level of Knowledge of Vasectomy

The extent of influence of knowledge, and perceptions on utilization, acceptability and smooth implementation of health care interventions has been explored in previous studies (Ensor and Cooper, 2004; Griffith and Stephenson, 2000; Boateng et al., 2013). This study explored the knowledge and perceptions of vasectomy among men in the Offinso district. Majority of men studied had heard of vasectomy and about 85% of this group were able to give appropriate definition of vasectomy. However, 44.1% had not heard and this illustrates a gap of information provision on vasectomy for men. This contradicts Rajesh et al (2003) who conducted a rapid appraisal of knowledge, attitude and practices related to family planning methods among men within 5 years of married life in India, and reported that all respondents were aware of the

permanent methods of sterilization (both vasectomy and tubectomy). The most cited source of information on vasectomy in this study was the mass media (radio and TV), highlighting the usefulness of media in providing information on healthcare to clients in Ghana.

Huetheret al., (1984) in their previous studies concluded that lack of adequate knowledge is the major reason for not undergoing vasectomy. In this study, majority of the men did not know the elapsing time it takes for vasectomy to work properly following the procedure. These misconceptions characterize information that men have on vasectomy, and this ought to be addressed by way of health education and promotion activities.

It is worth noting that all men who participated in the study know at least one family planning method. This is consistent with the 2008 GDHS report which indicated that knowledge of family planning was universal among men and women in Ghana (GSS, GHS, and ICF Macro, 2009). Among responses were male condom, pills and injectable and this is also consistent with the 2008 GDHS report which showed that the most commonly known family planning methods among males and females are the condom, pills and injectables (GSS, GHS, and ICF Macro, 2009). This finding is again corroborated by The Ghana Statistical Service Report (2004) which revealed that knowledge of modern contraceptive methods is high, almost all men and women having knowledge of at least one method.

5.5 The perception of married men about vasectomy method

This study further assessed the perceptions of men on vasectomy as a family planning method. Results from this study indicated that majority of the men in this study had positive perceptions about vasectomy. Most of the respondents agreed that vasectomy did not provide protection against HIV and other STIs and disagreed that vasectomy is the same as castration, will affect their manhood, will lower their sexual libido and will not allow them to enjoy sex and also have

serious complications. Although most respondents held positive perceptions, it could be deduced that there were some contrasting and misconception issues in relation to vasectomy, and this is in line with a study by Engender Health in 2001 which indicated that among men who knew about vasectomy, their information was frequently incomplete or incorrect with the primary misconception being that vasectomy is equivalent to castration. However, a person who has undergone the procedure will still have the ability to enjoy sex and also carry out normal manly function. In line with this, AVSC International (1998) provides helping tips that vasectomy may be an appropriate contraceptive method for a man who has all the children he ever wants to have.

5.6 Socio-cultural factors that affect acceptance of vasectomy

The role of men in the decision to use family planning among couples is gaining attention in recent research (Bongaarts and Bruce, 1995; Salaway, 1994; Ward, Bertrand and Puac, 1992). This has led to the inclusion of include questions related to communication between partners about family planning in national contraceptive prevalence surveys for many developing countries (Ezeh, Seroussi and Raggars, 1996). This study also assessed the sociocultural issues surrounding acceptance of vasectomy among married men.

Results from this study revealed that most of the men have married for more than 5 years and had 1-5 children. Most of the respondents indicated that they wanted to have at least 1-5 children. The number of years of marriage and the number of children however did not influence the acceptance of vasectomy in this study. The desired number of children also did not influence acceptance of vasectomy and this corroborate the study by Jafar, Jugal and Behja, (2007) which recounted that the —desire to have a male baby| did not have statistically significant relationship with adopting family planning method among men. For most of the clients in this study, religion did not abhor vasectomy although 11% indicated otherwise

indicating that FP is not in the bible. However, culture and religion did not influence acceptance of vasectomy among married men in the Offinso district.

Among couples who have chosen vasectomy, women are more likely to have discussed the procedure with their partners and to have known a satisfied vasectomy user before the choice was made (Miller, et al., 1991). Findings of this study corroborate that discussing vasectomy adoption with the wife had a significant association with vasectomy acceptance. About 85.7% of respondents who discussed with the wife, wanted to accept vasectomy. The positive outcome of couple discussion on issues relation to family planning has been the basis for inclusion of male respondents and questions related to communication between partners about family planning in many prevalent studies as stated by Ezehet al., (1996). Reaction from family members was significant in accepting vasectomy. Among respondents who wanted to opt for vasectomy, 25% indicated that their family members will not accept the idea. Respondents who believed their family wouldn't support the idea of adopting vasectomy were less likely to accept it as compared to those who believed their family members will support them (OR=0.1; $p<0.05$). Reaction from friends significantly influenced decision to opt for vasectomy. Some respondents indicated that friends will mock them if they accept vasectomy. Men who had no knowledge of what sort of reaction they will receive from family members upon acceptance of vasectomy also had less odds of accepting vasectomy as compared to those who believed their family members will support them (OR=0.1; $p<0.01$). This calls for general education at the community level to demystify perceptions surrounding vasectomy.

5.7 The Socio-economic factors influencing vasectomy acceptance

According to key stakeholders, user fees for FP contraceptives are a significant barrier for clients, particularly for women in rural areas and poorer households. Although FP counselling is provided free of charge, users are required to pay an average of 10% of the international cost for the contraceptive (PPME, 2008), including vasectomy procedure. According to this study,

all respondents who have heard of vasectomy didn't know the cost, and couldn't therefore estimate whether their average income could afford the procedure. Besides, only 3.2% of respondents indicated that they will go for vasectomy if they could afford, but 96.8% wanted it free of charge, or at a highly subsidized cost.

The issue of affordability was significant) with accepting vasectomy. All respondents who indicated that they could go in for vasectomy if they could afford were willing to accept vasectomy. Men who indicated that they will not accept vasectomy based on affordability were less likely to opt for vasectomy (OR=0.4; $p<0.01$).

Although Ghana has made progress in reducing maternal mortality from an estimated 540 maternal deaths per 100,000 live births in 2000 to 451 per 100,000 live births in 2007, much more needs to be done to achieve the target of 145 maternal deaths per 100,000 live births established in MDG 5. Increases in FP use, especially use of more cost-effective long-acting and permanent methods (LAPMs), will enable Ghanaian women to reach their desired level of fertility; substantially reduce abortion, and significantly improve maternal health (PRB, 2010). In Ghana, 36 percent of MWRA have an unmet need for FP; 23 percent wish to space their births, and 13 percent wish to limit their births (ICF Macro 2010), and this presupposes the need for men to be motivated to go in for long term FP methods.

According to this study, majority 73.4% of the respondents indicated that they knew where to get vasectomy services, but 26.6% didn't know. For those who knew, 99.4% indicated hospital as the place for services, but they were not specific as to which hospital provides the services. This assertion by respondents was an indication of low level of awareness on place to access the service. Thus, strong promotional activities and subsidization of cost could improve the acceptance of vasectomy by men.

5.8 Health workers role towards achieving high vasectomy coverage

As part of the study, health workers were interviewed to know their knowledge, perception and attitudes towards vasectomy as a family planning method. The average age of health staff was 36 years, and average age spent in the service was 8 years. Level of knowledge of vasectomy was high among interviewed staff as all of them were able to give good definition to vasectomy, and also knew that it was a permanent method. Staff interviewed exhibited good perception of vasectomy. They knew that vasectomy didn't protect against HIV or STIs, and also knew that vasectomy wasn't the same as castration, and vasectomy could not affect manhood. Health staff interviewed indicated that most men wouldn't go in for vasectomy because of some social issues such as family reaction, wife reaction, friends' reaction and expected number of children. Some cultural issues mentioned were the fact that a man who aspires to be chief or kings-man wouldn't go in for vasectomy. Economically, even most of the health workers interviewed didn't know the cost of the procedure, besides they couldn't predict if it could affect vasectomy acceptance.

Health workers interviewed admitted that the only hospital in the municipality was a catholic facility which didn't practice family planning and therefore couldn't perform vasectomy on the basis of family planning. Interested individuals therefore had to visit Komfo Anokye Teaching Hospital (KATH) for the services. Among interviewed staff only four have been trained in general family planning counselling. There were no special IE&C and counselling services for men on vasectomy. Health workers response is supported by findings of an assessment by JHSPH in 2007 which stated that lack of trained personnel is a serious constraint that pervades Ghana's health system and limits provision of LAPM. Many trained providers leave the country or stop practicing, taking their skills with them. Attrition is a serious problem affecting all types of service providers from doctors down to community health assistants. Between 1996 and 2002, the number of doctors in Ghana declined by 17 percent and the number of nurses dropped by 24 percent (JHSPH, 2007).

Staff shortages are more acute in rural than urban facilities. One way to address these staff shortages is to review the functions of each service provider to determine if opportunities exist for shifting tasks and increasing the types of service providers authorized and trained to provide each method. For example, the *National Reproductive Health Service Policy and Standards* (GHS, 2003) currently authorizes only FP nurses and midwives or doctors to insert and remove IUDs and implants. Authorizing and training nurses and medical assistants to insert and remove IUDs and implants will increase access to those methods, as well as free up FP nurses, midwives, and doctors for tasks requiring greater skill and training. Similarly, more doctors at the district hospital level could be trained in vasectomy procedure to ensure easy access. Research conducted in 2002 found that, although 17 percent of facilities claimed they provided implants, almost one-third did not have commodities on the day of the survey (JHSPH, 2007). With respect to vasectomy, not even every health facility provides the needed services.

Some of the health workers interviewed were not in favour of vasectomy on socio-culture basis, but were ready to provide good counselling for clients. Other staffs were in favour of it and were ready to provide counselling assistance to clients. All the health facilities visited claimed they were practicing —male friendly services, yet not a single male have been counselled for vasectomy.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The hope for increasing acceptance of long lasting family planning methods, especially, vasectomy is not lost after all, because 22% of men who have heard of vasectomy before are ready to accept vasectomy as their family planning method.

6.1.1 Level of Knowledge of Vasectomy

- Awareness of vasectomy was good because 55.9% of men in the Offinso Municipality have heard, yet a sizeable proportion of 44.1% have not heard. The media was most cited source information on vasectomy. Level of knowledge of vasectomy was high among those who have heard, but this wasn't without inconsistencies. For instance, while 82.1% knew it was a permanent method, 17.9% didn't know.

6.1.2 Perception of Married Men about Vasectomy

- Perception of married men about vasectomy was good. However there exist some misconceptions and incorrect perceived ideas. Most of the respondents agreed that vasectomy did not provide protection against HIV and other STIs and disagreed that vasectomy is the same as castration, will affect their manhood, will lower their sexual libido and will not allow them to enjoy sex and also have serious complications. However, there existed some contrasting and misconception issues in relation to vasectomy which needs to be addressed.

6.1.3 Socio-Cultural Factors Influencing Vasectomy Acceptance

- Some socio-cultural factors affected acceptance of vasectomy among married men in the Offinso district.
- Reaction from family members and friends influenced acceptance of vasectomy.
Respondents who believed their family wouldn't support the idea of adopting vasectomy and those who had no knowledge of what sort of reaction they will receive from family members upon acceptance of vasectomy were less likely to accept as compared to their counterparts.
- The religion of most of the men did not abhor vasectomy.

6.1.4 Socio-Economic Factors Influencing Vasectomy Acceptance

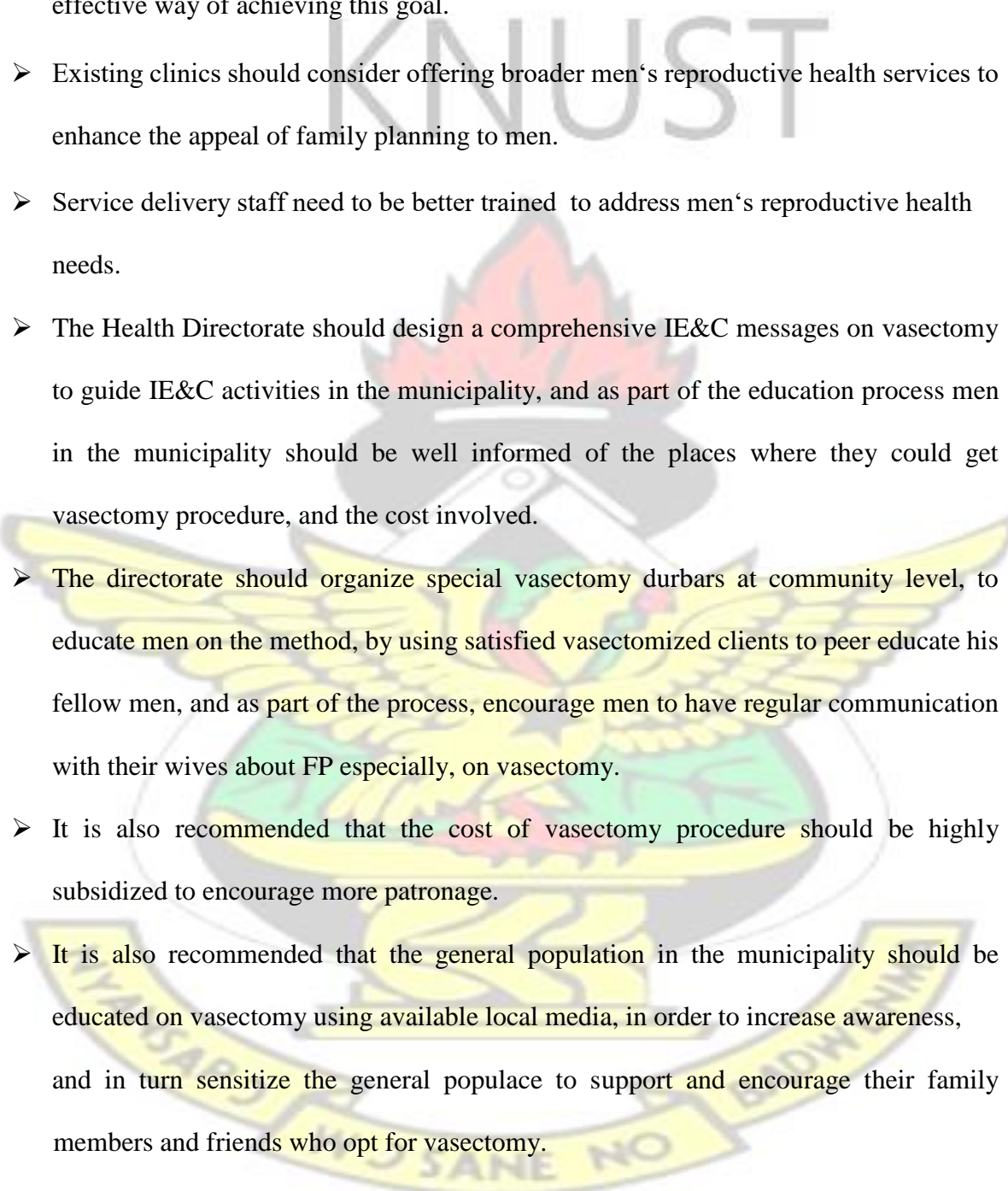
- Affordability was significant factor as far as acceptance of vasectomy is concerned.
Men who could afford it were willing to accept it.
- Subsidization of cost of vasectomy can improve its acceptance by men.

6.1.5 Health Workers Role towards Achieving High Vasectomy Coverage

- Very few health workers provide FP services especially, on vasectomy. Only four out of the twelve health staff interviewed have received training in general family planning counselling.
- The Offinso municipality doesn't have designated health facility for vasectomy procedure.

6.2 Recommendations

Based on the findings and conclusions of this study, the following recommendations have been made;

- 
- Increased inclusion of men in family planning services and education programmes is an important part of efforts to increase vasectomy uptake.
 - Establishing separate spaces for men to learn about family planning would be an effective way of achieving this goal.
 - Existing clinics should consider offering broader men's reproductive health services to enhance the appeal of family planning to men.
 - Service delivery staff need to be better trained to address men's reproductive health needs.
 - The Health Directorate should design a comprehensive IE&C messages on vasectomy to guide IE&C activities in the municipality, and as part of the education process men in the municipality should be well informed of the places where they could get vasectomy procedure, and the cost involved.
 - The directorate should organize special vasectomy durbars at community level, to educate men on the method, by using satisfied vasectomized clients to peer educate his fellow men, and as part of the process, encourage men to have regular communication with their wives about FP especially, on vasectomy.
 - It is also recommended that the cost of vasectomy procedure should be highly subsidized to encourage more patronage.
 - It is also recommended that the general population in the municipality should be educated on vasectomy using available local media, in order to increase awareness, and in turn sensitize the general populace to support and encourage their family members and friends who opt for vasectomy.
 - It is recommended that educated men should be targeted for vasectomy because they are likely to accept.

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APPENDIX

APPENDIX1:QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF COMMUNITY HEALTH

**TOPIC: ACCEPTANCE OF VASECTOMY AMONG MARRIED MEN IN THE
OFFINSO MUNICIPALITY**

RESPONDENTS' QUESTIONNAIRE

My name is Georgina Amankwah a student of Kwame Nkrumah University of Science and Technology. I am conducting a study into —factors influencing vasectomy acceptance among married men in the Offinso municipality. Although the purpose of this study is an academic requirement, findings and recommendations arising out of the research would be used by health care providers and other stakeholders in the pursuit to improve the health status of Ghanaians and this community in particular, in the area of reproductive health and contraceptives. I will therefore be appreciative if you could provide your views to help us in that regard by answering or discussing your views in relation to the following questions. You have the will to participate, and also have the prerogative to respond to any question or not. By participating, you are assured that information you provide would be used for the purposes of the research and also be kept confidential without indication to your personal identity. As and when you wish to discontinue participating is your choice, however, honest responses are needed to all questions.

Do you wish to participate in the study?

Yes ☐

If Yes, please sign:

☐

No

Date: / /2012

Name of interviewer:

SECTION A: BACKGROUND INFORMATION OF RESPONDENTS

1. Age in complete years
2. Education Background
 - No Education 1
 - Primary 2
 - JSS 3
 - SSS 4
 - Tertiary 5
3. Occupation
 - Public Servant 1
 - Trader 2
 - Farmer 3
 - Self employed 4
 - Unemployed 5
 - Other (Specify) 6
4. Religion
 - Orthodox 1
 - Charismatic/Pentecostal 2
 - Islam 3
 - Traditional 4
 - Other (Specify) 5
5. Ethnic Background

SECTION B: LEVEL OF KNOWLEDGE OF VASECTOMY

6. Have you ever heard of vasectomy before?
 - Yes 1
 - No 2
7. If yes from which source?
 - Health Worker / Health Facility 1
 - Radio 2
 - Television 3
 - Friend 4
 - Church 5
 - Mosque 6
 - Other (specify) 7
8. What is vasectomy?
 - It is a family planning method involving surgical procedure which prevents a man from achieving erection. 1
 - It is a family planning method involving surgical procedure to make a man infertile. 2
 - It's a minor surgical procedure involving occlusion of the vas deferens, which prevents transport of sperm into the ejaculate? 3
 - I don't know 4

Other (Specify) 5

9. Vasectomy is a temporal family planning method.

True 1
False 2

10. Following vasectomy procedure it takes at least twelve weeks, or more, or 10-20 ejaculations for the procedure to work properly.

True 1
False 2

11. What other family planning methods do you know? (Tick as many as apply)

Method	Tick
Pills	<input type="checkbox"/>
Male Condom	<input type="checkbox"/>
Female Condom	<input type="checkbox"/>
IUCD	<input type="checkbox"/>
Norplant	<input type="checkbox"/>
Injectables	<input type="checkbox"/>
Withdrawal method	<input type="checkbox"/>
Natural (Specify)	<input type="checkbox"/>
Traditional (Specify)	<input type="checkbox"/>
Other (Specify)	<input type="checkbox"/>

12. Which of these methods have you used before? (Tick as many as apply)

Method	Tick
Pills	<input type="checkbox"/>
Male Condom	<input type="checkbox"/>
Female Condom	<input type="checkbox"/>
IUCD	<input type="checkbox"/>
Norplant	<input type="checkbox"/>
Injectables	<input type="checkbox"/>
Withdrawal method	<input type="checkbox"/>
Natural (Specify)	<input type="checkbox"/>
Traditional (Specify)	<input type="checkbox"/>
Other (Specify)	<input type="checkbox"/>

13. Which of these methods are you using currently? (Tick as many as apply)

Method	Tick
Pills	<input type="checkbox"/>
Male Condom	<input type="checkbox"/>
Female Condom	<input type="checkbox"/>
IUCD	<input type="checkbox"/>
Norplant	<input type="checkbox"/>
Injectables	<input type="checkbox"/>
Withdrawal method	<input type="checkbox"/>
Natural (Specify)	<input type="checkbox"/>
Traditional (Specify)	<input type="checkbox"/>
Other (Specify)	<input type="checkbox"/>

SECTION C: SOME PERCEPTIONS ABOUT VASECTOMY

14. Vasectomy provides protection against HIV and other sexually transmitted infections.

- True 1
False 2

15. Vasectomy is the same as castration.

- True 1
False 2

16. Vasectomy will affect my manhood.

- True 1
False 2

17. Vasectomy will not allow me to enjoy sex.

- True 1
False 2

18. The unproduced sperms will create discomfort for my body.

- True 1
False 2

19. Vasectomy will lower my sexual libido.

- True 1
False 2

20. Vasectomy has some serious complications.

- True 1
False 2

21. If yes, list some of them.,

22. Vasectomy has to be provided by any health worker.

- True 1

2

23. Number of years of married life		
24. Number of children		
25. How many children do you intend to have?		
26. Does the dictates of your religion abhors vasectomy method?	Yes 1	No 2
27. If yes, in what way(s) does your religion abhor this method?	
28. Are there any cultural barriers to adopting vasectomy method in your community?		
Yes	1	
No	2	
29. If yes, what are some of these cultural barriers?	
30. Do you know anybody in your family/community that has done this method?		
Yes	1	
No	2	
31. Have you ever discuss adopting vasectomy method with your wife?		
Yes	1	
No	2	
32. If yes, what was her reaction?		
She supported the idea	1	
She didn't support the idea	2	
She suggested a different method	3	
Other (specify)	4	
33. If you decide to do vasectomy, what will be the reaction of your family members?		
They will support the idea	1	
They wouldn't support the idea	2	
I don't care about their views in my life	3	
I don't know	4	
Other (specify)	5	
34. How will your friends regard you after chosen vasectomy?		
They will congratulate me	1	
They will mock me	2	
I don't know	3	
I don't know	4	
Other (specify)	5	

35. Do you know the cost of going in for vasectomy procedure?

Yes	1
-----	---

- No 2
36. If yes can you state the cost? GH¢
37. Do you think your average monthly income can support you for this procedure?
- Yes 1
- No 2
38. Will you go in for vasectomy method because you can afford it?
- Yes 1
- No 2
39. Do you know where you can get this method? (Availability)
- Yes 1
- No 2
40. If yes where?
41. Will you accept vasectomy as a family planning method?
- Yes 1
- No 2
42. If yes, why?
43. If no why? **KWAME**

NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF COMMUNITY HEALTH

TOPIC: ACCEPTANCE OF VASECTOMY AMONG MARRIED MEN IN THE OFFINSO MUNICIPALITY.

HEALTH WORKERS QUESTIONNAIRE

SECTION A: BACKGROUND INFORMATION OF HEALTH WORKERS

1. Age in complete years
2. How many years in service?
3. Professional Background
 - Medical Officer 1
 - Nurse (specify) 2

SECTION B: LEVEL OF KNOWLEDGE OF VASECTOMY

4. What is vasectomy?

.....
5. Vasectomy is a permanent family planning method. True / False
6. Following vasectomy procedure, it takes twelve weeks or more, or 10-20 ejaculations for it to work properly. True / False

SECTION C: SOME PERCEPTIONS ABOUT VASECTOMY

7. Vasectomy provides protection against HIV and other sexually transmitted infections.
- | | |
|-------|---|
| True | 1 |
| False | 2 |
8. Vasectomy and castration are the same.
- | | |
|-------|---|
| True | 1 |
| False | 2 |
9. Vasectomy affects manhood.
- | | |
|-------|---|
| True | 1 |
| False | 2 |
10. Vasectomy does not allow men to enjoy sex.
- | | |
|-------|---|
| True | 1 |
| False | 2 |

SECTION D: REASONS WHY MEN DONOT OPT FOR VASECTOMY

11. What has been some of the reasons why men don't want to opt for vasectomy?

Social

Cultural

Economic

SECTION E: HEALTH WORKERS ATTITUDE TOWARDS VASECTOMY

12. Have you been trained to provide IE&C and counseling services on vasectomy?
.....
13. Do you provide IE&C and counseling services to men?
.....
14. Do you provide vasectomy procedure in any facility in this municipality?
.....
15. As a health worker, do you think vasectomy should be encouraged
.....
16. Do you have —male friendly services in this facility?
.....

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KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF COMMUNITY HEALTH

TOPIC: ACCEPTANCE OF VASECTOMY AMONG MARRIED MEN IN THE OFFINSO MUNICIPALITY.

FOCUS GROUP DISCUSSION GUIDE

The Focus group discussion was designed to elicit information from married men with at least two children. The purpose of this activity was to understand and their general impression influence of religion in vasectomy acceptance.

1. What is vasectomy?
2. What do we mean when we say vasectomy is a permanent family planning method?
3. Following vasectomy procedure, how many days will it take to work properly?
4. What other family planning methods do you use?
5. What other information do you have on vasectomy? In relation to HIV / STIs prevention, castration, enjoying sex, complications etc.
6. How does vasectomy method offend your religious teachings and belief?

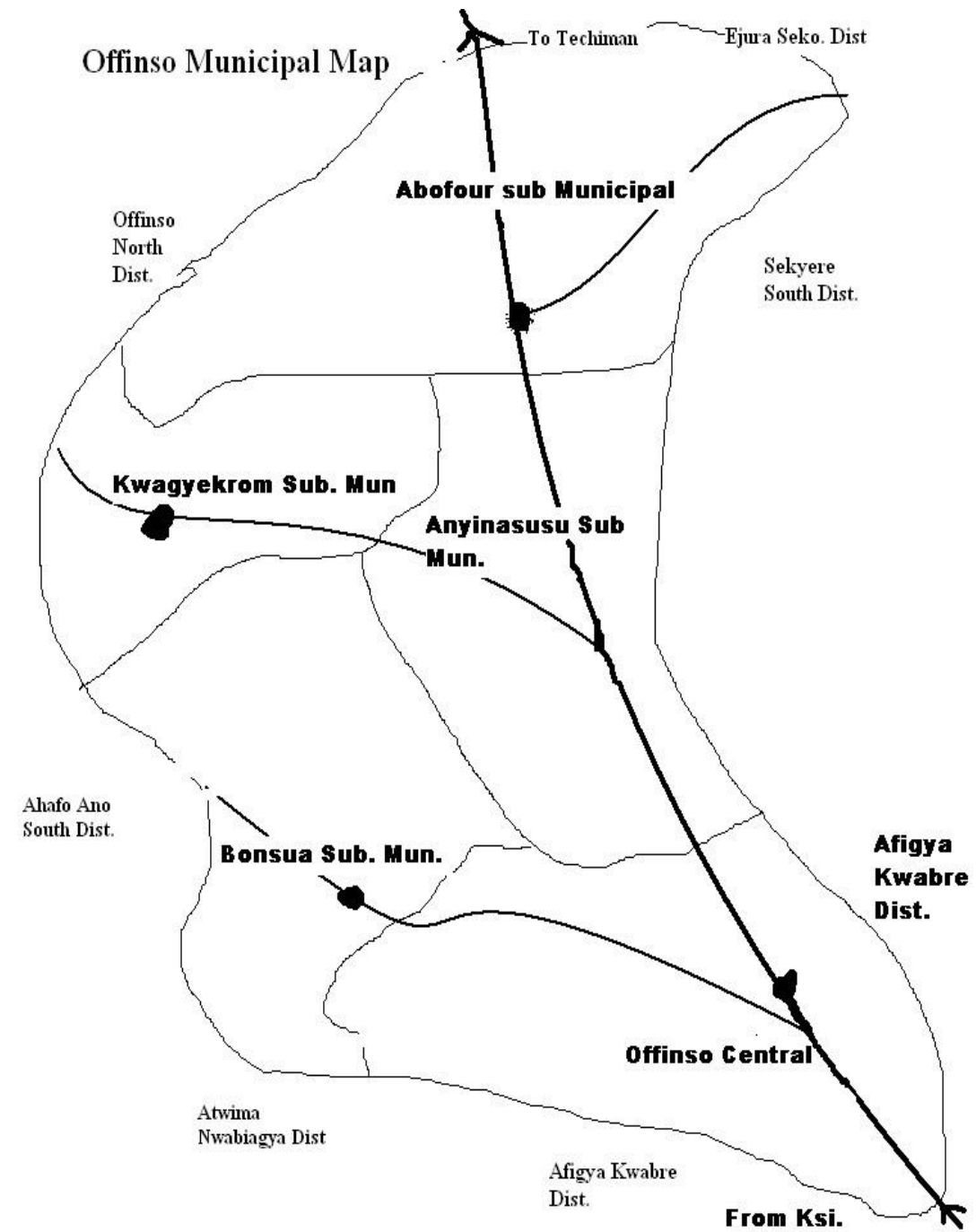
7. How does vasectomy method offend your cultural values?
8. Between you and your wife, who will you recommend should go in for family planning method?
9. Even when you have the desired number of children will you go in for family planning?
10. In that situation will you go in for vasectomy?

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APPENDIX 2

MAP OF OFFINSO MUNICIPALITY



Source: Offinso Municipal Profile, 2011

APPENDIX 3

OFFICIAL AUTHORIZATION LETTERS

Kwame Nkrumah University Of Science And Technology
Department of community Health, School of Medical Sciences
University Post Office
Kumasi, Ghana
/08/2011

The Director

Municipal Directorate of Health Services

Offinso, Ashanti

Dear Sir/Madam,

Request To Carry Out a Research Study at Offinso Municipality

I await your positive response.

Yours faithfully,

Georgina Amankwaa

(MPH, Health Education and Promotion student)

APENDIX 4

APPLICATION FOR ETHICAL CLEARANCE
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF COMMUNITY HEALTH
SCHOOL OF MEDICAL SCIENCES

Telephone: 051 60293
Telex : 2555 UST (GH)
Fax : 233-51-60302
E-Mail : Ustlib@libr.ug.edu.gh

University Post Office
Kumasi, Ghana
West Africa



Our Ref: _____

Date: _____

The Chairman
The Committee on Human Research, Publications and Ethics
KNUST-SMS/KATH
Kumasi

Dear Sir,

APPLICATION FOR ETHICAL CLEARANCE FOR STUDY TITLED
“ACCEPTANCE OF VASECTOMY AMONG MARRIED MEN IN THE OFFINSO
MUNICIPALITY”.

I urge your support for this research project.

Sincerely,

Georgina Amankwah