USE OF MODERN METHODS OF FAMILY PLANNING AND ASSOCIATED FACTORS AMONG WOMEN OF REPRODUCTIVE AGE WITH AT LEAST ONE LIVING CHILD IN KOROGWE DISTRICT, TANGA. TANZANIA.

BY

Dr. SAMUEL G MGEMA

A DISSERTATION SUBMITED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH IN

THE UNIVERSITY OF DAR ES SALAAM.

SEPTERMBER 2000.

DECLARATION.

I hereby declare that this dissertation is my original work and has never been submitted for a diploma or degree in any other University.

CANDIDATE'S SIGNATURE.

Dr. Samuel G Mgema

12mg OCTOBER 2000

DATE

SUPERVISOR'S SIGNATURE

Mr. Makwaya C. K

12-10-2000

DATE

COPYRIGHT.

This dissertation is copyright material protected under the Barne Convention, the Copyright Act of 1996 and other international and national enactments, in that behalf, on intellectual property. It may not be reproduced by any means, in full or in part, except for short extracts in fair dealing; for research or private study, critical scholarly review or discourse with an acknowledgement, without written permission of the Directorate of Postgraduate studies, on behalf of both the author and the University of Dar es Salaam.

ACKNOWLEDGMENT.

One of the most difficult things to do is to write acknowledgement. A lot of people from various fields have in one way or another contributed to my formation. I dare to say if it was not for their assistance I would have never reached this stage, thus I am very much indebted to all these people.

I am indebted to the staff of the Institute of Public Health MUCHS for their tireless assistance and support that they gave me during my stay at MUCHS.

Always I will remember the assistance given to me by Ms Nnko and Mr. Bunu from Korogwe School of public health nurses the nursing students and primary school teachers of Korogwe. Without forgetting the district MCH coordinator, Anna Moshi. I am indebted to my sponsor the GTZ who through their health team leader Dr Görgen H, I have been receiving a lot of advice and support. I can not forget Dr Kisanga of the District health support project who played a very crucial role in guiding me to make a proper decision

I am indebted to my supervisor Mr. Makwaya who has played a major role in the whole process from day one when I was told that he was my supervisor. He has been quite understanding, without his efforts and advice I would have never produced this document. Personally I have learnt a lot from him. Dedication working hard are amongst the things I have learned from his tireless effort when he was supervising me. It is my hope that he will always be available for other coming students.

My father, mother and my wife have been quite understanding and supportive. Without their support I would have never finished this course.

DEDICATION.

- * To my wife Patricia, for her moral and material support.
- To all women who have suffered the consequences of unintended pregnancy because of our failure to reach them timely and advice them on modern methods of family planning and reproductive health.

"As a male physician, I must always remember that the female gender so lacking in equity including my own daughters, sisters, mother and grandmother, whom I so cherish. Would I allow another person to place their lives in jeopardy? As a husband, I may desire more children, but my wife is the one who faces the physical challenge of the pregnancy, delivers the child, and takes the major role in rearing. How could I have a pure conscience if I insisted on having a child when my wife is hesitant"

Manzila (1999)

ABSTRACT.

High morbidity and mortality associated with high parity, adolescent pregnancy, and poor spacing of children are among the most important public health problems in the world. Use of modern methods of family planning has a positive influence on women, family life, the community and nation at large.

A cross sectional study was done between 8th June and 4th July 2000 to determine the extent of use of modern family planning methods and associated factors among women of reproductive age with at least one living child in Korogwe district, Tanga region Tanzania.

Both quantitative and qualitative methods were used whereby four hundred randomly selected women from twenty villages participated in the quantitative study and fifteen randomly selected women participated in the qualitative part of the study. The criteria for the selection of respondents were the same for both the quantitative and qualitative data collection i.e. women of reproductive age and having at least one living child. For the quantitative method both structured and semi-structured questions were used in a questionnaire. While for the qualitative data collection indepth interviews were conducted. Also observation of availability of IEC material at the health facilities and village level was done. Check list was used to assess the availability of modern methods of family planning at ten randomly selected dispensaries and one health center.

The results revealed that the extent of use of modern methods of family planning was relatively high as 44.5% of the respondents were using the modern methods of family planning. It was found that the knowledge of family planning was high among the respondents (86.5%) and also majority (82.7%) of the respondents had positive

attitude towards modern family planning methods. The high knowledge and positive attitude on modern methods of family planning were also detected during the indepth interviews.

These two factors in association with others factors such as level of education (p = 0.001), discussion of family planning issues with health workers (p = 0.001) were found to have positive association with the use of modern family planning methods. Other factors found to have significant association with the use of modern methods of family planning were, having own source of income (p = 0.0003) and discussion with spouse or other persons (p = 0.001), believing that spouse is an ideal person for deciding on the use of modern family planning methods (p = 0.02) were found to have positive effect on the use of modern family planning methods.

The history of having infant or child death was associated with low use of modern family planning methods. It was found that only 37.7% of women who have history of having infant/ death are using the modern methods of family planning compared to 48.4% of those with no the history of infant or child death.

Women identified the MCH clinic as an ideal place for obtaining modern methods of family planning. Various reason were given for the choice of this place but among them, we have the dual services offered at the MCH clinic, the quality of services offered and confidentiality.

Fears of side effects and spousal refusal were mentioned as reason for not using modern methods of family planning among the women who are currently not using the methods. Also lack of wide choice of methods might influence the negativity on the use of modern methods of family planning.

Only two types of modern methods of family planning (Depo-Provera and pill) are available at the health center and dispensaries and are widely use. Also it was found that, women relate the male condoms with promiscuity, not as method to be used by stable couple for family planning. No enough IEC materials at the health facilities level and almost none at the village level.

It is recommended that the health facility capability in handling family planning issues should be increased, so that wide varieties of family planning methods are always available for the couple or women to choose.

Health workers should be trained on the dynamic of family planning counseling and communication skills so that they will be able to refute the "side effects" claims.

Make available enough IEC materials at all levels.

Involvement of men in family planning should be a reality, not only promoting vasectomy and use of condoms. There is a need of promoting conducive environment by establishing clinics or clubs to offer family planning and reproductive health counseling for male clients, within the health facility or outside.

The local and central government should look for ways of ensuring that girl are having at least secondary education.

TABLE OF CONTENTS.

Declaration		Ι
Copyright		II
Acknowledgment		III
Dedication		IV
Abstract		V
Table of contents	V	/III
List of tables		IX
List of figures		XI
List of appendices		XII
Abbreviations		III
Definition	X	VIV
CHAPTER ONE: INTRODUCTION		1
Back ground information		1
Statement of the problem		8
Rationale		11
Literature review		12
		33
CHAPTER TWO: OBJECTIVES	S 46	17
Broad objective		17
Specific objectives		17
CHAPTER THREE: METHODOLOGY		18
Selection of study area		18
District profile		18
Study type		21
Study variables		21
Study population		22
Sample size		22
Sampling		23
Data collection procedures		23
Data processing and analysis		26
Ethical considerations		28
Pretest		28
Study limitation		29
CHAPTER FOUR: RESULTS		30
CHAPTER FIVE: DISCUSSION		55
CHAPTER SIX: CONCLUSIONS AND RECOMENDATIONS		74
CONCLUSION		74
RECOMMENDATIONS		75
REFERENCES.		77
APPENDICES.		87

LIST OF TABLES.

Table 1.1.Modern methods of family planning.	4
Table 1.2. Methods use rate in some selected countries.	5
Table 1.3. Tanzania mother and child health indicators.	7
Table 1.4. Tanzania socio economic indicators.	8
Table 2.1. Korogwe administrative structure and population.	19
Table 2.2. Korogwe mother and child indicators.	20
Table 2.3. Korogwe district health facilities and ownership.	21
Table 4.1. Use of modern methods by age of respondent.	31
Table 4.2. Reason for not using modern methods of family planning.	34
Table 4.3. Use of modern methods by knowledge.	35
Table 4.4. Use of modern methods by attitude.	37
Table 4.6.1. Use of modern methods by age at first pregnancy.	37
Table 4.6.2. Use of modern methods by years of last pregnancy.	38
Table 4.6.3 Use of modern methods by tribe.	38
Table 4.6.4 Use of modern methods by religion.	39
Table 4.6.5 Use of modern methods by education.	40
Table 4.6.6 Use of modern methods by marital status.	40
Table 4.6.7 Use of modern methods by ideal place.	41
Table 4.6.8 Use of modern methods by discussion with health workers.	42
Table 4.6.9. Use of modern methods by discussion with others.	43
Table 4.6.10. Use of modern methods by outcome of first pregnancy.	43

Table 4.6.11. Use of modern methods by number of living children.	44
Table 4.6.12. Use of modern methods by history of having infant	44
death.	
Table 4.6.13. Use of modern methods by sex distribution of living	45
children	
Table 4.6.14. Use of modern methods by sex of the current last-born.	46
Table 4.6.15. Use of modern methods by major source of income.	46
Table 4.6.16. Use of modern methods by the distance from the source.	47
Table 4.6. 17. Use of modern methods by siblings.	47
Table 4.6.18. Use of modern methods by attaining the desired number	48
of children.	
Table 4.6.19. Use of modern methods by ideal person for deciding.	49
Table 4.7 Availability of modern methods of family planning and	50
utilization rate at the Health facilities.	

LIST OF FIGURES.

Figure 1.1 Tanzania population trends year 1980 to year 2020	6
Figure 1.2. Gestation cycle	12
Figure 4.1 Tribe distribution in the study sample.	31
Figure 4.2. Prevalence of modern family planing use by type	32
Figure 4.3. Contraceptive preference by all respondents	33

LIST OF APPENDICES.

Appendix I. Questionnaire for quantitative data collection.	86
Appendix I b. Swahili version of the questionnaire.	95
Appendix II. Guiding questions used for the in-depth interview.	104
Appendix II b. Swahili version of the guiding questions.	105
Appendix III. Health facility contraceptive checklist.	106

ABBREVIATIONS.

AIDS Acquired Immune Deficiency Syndrome.

CIHI Center for International Health Information.

CPR Contraceptive prevalence rate.

GNP Gross National Product.

H/Facility Health facility.

HIV Human Immune deficiency Virus.

IEÇ Information Education Communication.

IUCD Inter Uterine Contraceptive Device.

MCH Mother and Child Health

MOH Ministry Of Health

NGOs Non Governmental Organizations

TDHS Tanzania Demographic and Health Survey

USA United States of America

WHO World Health Organization.

DEFINITION OF TERMS.

Non users Those not using the modern methods of family planning.

Reproductive age 15 to 49 years of age

Users Those using modern methods of family planning.

CHAPTER ONE

INTRODUCTION.

1.1. BACKGROUND INFORMATION.

Human reproduction is the key not only to human survival but also to the continuing health of billions of men and women and their present and future children. Yet human reproduction has always been among the most sensitive and challenging areas of public health. Nevertheless, issues relating to reproduction are becoming increasingly prominent on the public health agenda. In matters of reproduction and sexuality, private behavior has public consequences such as effect on maternal health and child health without forgetting population growth. What an individual or couple may consider "nobody's business but my own" become every one concern (Phyllis et.al., 1997)

Human reproduction if left unchecked or uncontrolled results in high birth rate. High birth rates bring about large family sizes and large family sizes have negative effect on the health of mothers and children. Also has negative impact on the family and the community and the nation. The government will have to spend more on various project of public health importance and social economical aspects such as health facilities construction, drugs availability, schooling, housing, social welfare and waste disposal. As a result there will be a constant economic pressure on the government to increase its revenue so as to cover the excessive demands. This can only be achieved by increasing taxes, and the community has to bear the burden (Dodd 1985).

Much evidence has accumulated in recent years on the effect of excessive childbearing on maternal mortality and morbidity. By allowing women the freedom

to control birth through the use of family planning methods we are indirectly preserving their health (Dodd, 1985) Family planning has significant impact on saving and improving lives of women and their families, maternal mortality increases rapidly with birth order. It is known that pregnancy occurring before the age of 18 or above 35 and birth intervals of less than three years are associated with high maternal and child mortality (Chen *et.al.*, 1974).

- To conserve the women and child health and also to control the population growth, which has a negative impact on quality of life, all over the world, institutions, policies and programs have been established to enable people to regulate their fertility, that is family planning (Bouzidi *et.al.*, 1990).
- The use of contraceptive methods to regulate birth or avoid unwanted pregnancy is simply known as family planning. According to WHO (1971), family planning refers to the practice that help individuals or couple to attain certain objectives such as avoiding unwanted pregnancy, to control time in which birth occurs in relation to the age of the parents and to determine the number of children in the family.

Services that make these practices possible include education and counseling of family planning, provision of contraceptives, the management of infertility, education about sex and parenthood.

Family planning and development are intrinsically interrelated. According to the population and community development association of Thailand, family planning is the first most pressing step in the development process. Uncontrolled births can destroy a nation's development aspirations and prevent its people from enjoying an improved standard of living (Viravaidya et. al., 1997)

Historically it was Margaret Sanger in USA who coined the phase *Birth Control*. She was a young public health nurse, who witnessed so much sickness, death and poverty because of unwanted pregnancies, that she spent the rest of her life striving to alleviate those conditions by introducing and propagating the idea of birth control. (Kaj Folster; 1989).

- Family planning methods are divided into two major groups, which are known as natural methods and the modern methods. Among the natural methods of family planning we have the rhythm or calendar method, the cervical mucus method, coitus interrupts or withdrawal, periodic abstinence, post-coital douching and lactation ammenorrhoea (Donald *et.al.*, 1996).
- A large variety of modern family planning methods are now available, including several means to administer hormonal contraception, highly effective long term methods and simple sterilization techniques (Table 1.1). Modern methods of family planning are effective and safe for most women and some have beneficial health effects other than prevention of pregnancy (Diaz. 1998). Modern methods of contraception are divided into hormonal, barrier and surgical methods.

Over the past few years many family planning programs have experienced considerable frustration in producing significant results in promoting the acceptance and use of modern methods of family planning (Bouzidi et.al., 1990).

Millions of dollars have been poured into family planning delivery system, promotion efforts, and research. Yet in all but a few countries such as Mongolia, United Arab Emirates, Oman, Bolivia, Kenya, Turkey, Botswana, Kuwait, Iran and Venezuela the level of modern contraceptive use attributed to these programs is below the level required to produce a measurable impact on national demographic

trends or maternal and child health (Population, 1997). Phyllis, et.al., (1997) identified countries, which have shown tremendous improvement in family planning. (Table 1.2)

Table 1.1. Some of modern methods of family planning available in the world. Classification by type, usage effectiveness and duration.

Name	Туре	N 25	Use	Effectivenes	Duration
				S	
Oral contraceptives	Hormonal		Daily	99% .	Until desired
IUCD	Hormonal/		Inserted	99%	5-10 years
	Mechanical		once		
Implant	Hormonal		Inserted	99%	5 years
			once		
Injectable	Hormonal		Once	99%	3 months
Diaphragm	Barrier		Once	80%	6-8 hours
Condoms	Barrier		Once	90%	Once
Sterilization	Surgical		Once	99%	Permanent

Source. Center (1999)

Table 1.2. Modern methods of family planning methods use rate in some developing countries.

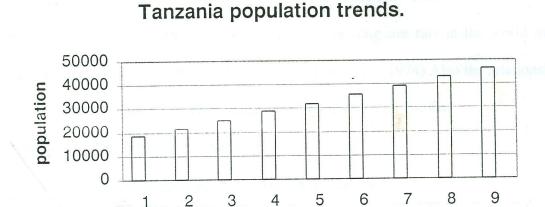
COLINTRY	National CPR 1970	Due to CPR 1996
COUNTRY and year family planning program beg		
Taiming program beg	gan government	program
" SUCCESSFUL"NATION	AI FAMII Y PI ANNI	NG PROGRAM 1973
SINGAPORE 1965	25	65
TAIWAN 1964	25	75
SOUTH KOREA 1961	24	79
	19	75
MAURITIUS 1965		81
HONG KONG 1956	19	01
WAR TO VICE OF COPY IN NAME OF		NUNC DROCE AM 1072
"UNSUCCESSFUL" NATIO		
COLOMBIA 1967	06	72
EGYPT 1965	06	48
INDIA 1952	08	41
INDONESIA 1968	0.5	55
IRAN 1967	08	65
KENYA 1965	02	33
MALAYSIA 1966	08	56
MOROCCO 1965	01	42
NAPEL 1966	02	23
PAKISTAN 1960	12	12
BANGLADESH	N/A	45
PHILIPPINES 1970	08	40
SRI LANKA 1965	07	66
0 TH AILAND 1968	13	66
TUNISIA 1964	06	50
TURKEY 1967	03	63

In Tanzania family planning activities were initiated by NGO, the Family Planning Association of Tanzania commonly known as "UMATI" in 1959. In 1974 that the government started providing family planning services when it integrated the family planning services in the existing MCH program (MOH 1989) and were propagated all over the country.

In 1948 Tanzania had a population of 7.7 million inhabitants and by the year 1988 the population of Tanzania was 23 million (TDHS 1996) and now it is estimated to

be more than 30 million inhabitants and has maternal mortality rate 529/100000 (TDHS 1996). With an annual growth of 2.14%, it is estimated that the population of Tanzania will be 41.6 million by the year 2020 (World Facts 1999). Figure 1.1.

Figure 1.1. Tanzania population trends from year 1980 to year 2020.



Key. 1=1980, 2 = 1985, 3 = 1990, 4 = 1995, 5 = 2000, 6 = 2005, 7 = 2010, 8 = 2015 and 9 = 2020.

Source Center for international health information. (1999)

By the year 1989 the modern family planning methods acceptance rate was 5-7% and due to the low prevalence of the acceptance, a national five years family planning program was initiated with overall goal of protection of the health and nutrition status of the family especially the mothers and children. The broad objective of the program was to raise the acceptance rate in women from 7% to 25% by the year 1993 (MOH 1989).

To date eleven years since the first five years family planning plan of action the use rate of modern family planning method in Tanzania is only 12% when the services are accessible easily through the use of the Tanzanian health infrastructure. The

current use of modern family planning methods differs within the country. Urban women are much more likely to be using modern contraceptive methods (24%) than rural area (8%). The levels of use are highest in Kilimanjaro, coast and Dar-essalaam regions (23-24%), while Shinyanga, Kagera and Mara regions have the lowest levels of 4-5% (TDHS 1996).

Both maternal and child mortality rates are very high in Tanzania. The relation between these two-health indicator and family planning use rate in the world have been studded and documented. (Dodd, 1985, Chen *et.al.*,, 1974) Also the relationship between the two and social economical development is well known.

Tanzania health and demographic overview

Table 1.3. Tanzania Mother and Child Health indicators

· Maternal mortality rate	529/100000
Under-five mortality rate	137/1000
Infants mortality rate	88/1000
Crude birth rate	41/1000
Total fertility level.	
Rural area	6.3 children/woman
Urban area	4.1
Birth spacing.	
Percent of children with birth interval of at least 35 months	43%
Family planning.	
Total contraceptive use rate women	16%
Modern contraceptive use rate women	12%
Total use rate men	22%
Modern contraceptive use rate men	14%
Tanga Region	
Regional total modern contraceptive use	12.6
Korogwe district modern contraceptive use	15%

Source. TDHS 1996.

Table 1.4. Tanzania Socio-economic indicators.

INDICATOR	VALUE	YEAR
Adult literacy rate	72%	1997
Urban population	26%	1997
Household within 15 minutes of safe water	30.4%	1996
Access to improved sanitation(Urban)	97%	1993
Access to improved sanitation (Rural)	83%	·· 1993
Population per Doctor	23,454	1995
Public health expenditure as % of GDP	1%	1997

Source. Center for international health information (1999).

1.2. STATEMENT OF THE PROBLEM.

Prevention of pregnancies occurring within the first 12 to 18 months after giving birth has been an area increasingly targeted by family planning services almost all over the world, many couples are trying to use variety of methods during this time. The alterations in fertility and coital behavior associated with childbirth necessitate special consideration of postpartum contraception. In their study using focus group discussion and questionnaire Bulut *et.al.*, (1985) found that many couples use family planning methods to avoid pregnancy in the first 6 to 12 months after delivery. The survey indicated that little is being done to provide birth control information to postpartum mothers at the health facilities.

In a study done in Manila to determine contraceptive efficacy of lactation amenorrhoea among lower income mothers with experience of breast feeding, it was found that it was 99% effective when used correctly i.e. during lactation amenorrhoea and exclusive breast feeding for up to six months. (Ramos, *et.al.*, 1996)

Postpartum abstinence is still being practiced but in most areas the period of abstinence is shrinking to the point that it is no longer a useful family planning method. It has been documented that the length of abstinence is inversely correlated with every factor of modern living. In urban areas, the conjugal and emotional bonds between partners are growing closer due to the forced physical closeness, which makes abstinence more difficult. In addition, *AIDS* has motivated some men to abandon their extramarital relationships and this has put more pressure on female partners to resume sexual relations more quickly (Scheinman *et.al.*, 1990)

In a study of postpartum contraception conducted in Colombia, Dominican Republic, Kenya, Mali, India and Turkey unmet needs on the part of new mothers for family planning information and counseling was identified. Approximately 1/3 to 2/3 of the women in the six countries did not desire their current pregnancy. Mothers identified the pregnancy, prenatal and immediate postpartum periods as optimal for family planning information provision (Verme *et.al.*, 1991).

In Tanzania all couples and individuals have the basic right to decide freely and responsibly, the number and spacing of children, as well as to have access to information, education and means to do so (National population policy 2000).

Prior to the adoption of the explicit national population policy, Tanzania pursued implicit population policies programs. This is reflected in action taken by the government in dealing with various issues pertaining to population, like provision of family planning services as part of MCH services, limiting employment related benefit such as tax relief to four children only and paid maternity leave of 84 days at most to all employed women who have delivered with birth spacing of three years.

(National population policy, 2000)

The actual total fertility rate in Tanzania is rural areas of the country is 6.3 and that of urban areas is 4.1 which gives an average of 5.8 children per women. Almost 57% of children are born at intervals of below 35 months after a prior birth and about one-fourth of births in Tanzania are reported to be unplanned; 15% were wanted later and 9% were unwanted (TDHS1996). If unwanted births could be eliminated altogether, the total fertility rate in Tanzania would be 5.1 births per woman instead of the actual level of 5.8(TDHS 1996).

Three major factors that play important role in increase prevalence in the use of modern family planning methods are the accessibility of the source, the availability and acceptability of the methods by the targeted population. The level of modern family planning use has strong association with availability and accessibility of the methods (Brackett 1980). The accessibility of government health facilities in Tanzania is almost 90%(World 1997), 72% are within 5 kilometers and 90% within 10 kilometers (TDHS 1996) and almost all government health facilities provides family planning services. Over 80% of pregnant women attend MCH clinics.

Major source of obtaining modern family planning methods in Tanzania is through health facilities, mainly at the MCH clinics were both antenatal and postnatal clinics are conducted.

There are three major phases in women in relation to pregnancy. These phases are;

- Before pregnancy.
- During pregnancy (antenatal period)
- □ After delivery/abortion (postpartum period)

The question is in which of the three phases to introduce proper family planning counseling so as to raise the acceptance and use of modern family planning methods.

In Tanzania majority of mothers stay at the place of delivery for at least 6 to 8 hours for minimum initial postpartum care if they have delivered without any complication. This amount of time is quite enough for counseling the women on the use of modern family planning methods.

Despite high knowledge of modern contraceptive methods in Tanzania, modern family planning use rate is only 12%(TDHS1996), however opportunities for reaching new client are enormous, during delivery, antenatal clinic and under five clinics.

The aim of this study was to look into factors that influence in the use of modern family planning methods among women who have at least one child. The assumption is that they have been exposed in one way or another to the opportunity of being counseled either during delivery, or during antenatal clinic attendance or at underfive clinics and thus they have high knowledge of modern contraceptive methods.

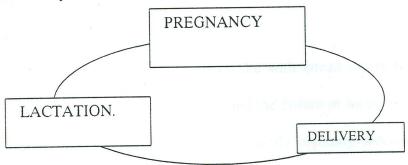
1.3. RATIONALE.

In Sub Sahara Africa and other developing countries, women may spend between 20 to 30 years of their life in pregnancy related physiological circle, as illustrated in figure 1.2. Use of modern family planning method prolongs the period between lactation ammenorrhoea and the next pregnancy.

In Tanzania various factors have been attributed to the use or discontinuity of the use of modern family planning methods among women of reproductive age group. (Mmbuji 1991,Nyang'anyi 1995, Siyame 1996) The extent to which women with at least one child accept and use modern family planning in Tanzania is not well

documented except for the general acceptance rate and use rate in all married women.

Figure 1.2. Gestation cycle.



Source; Investigator.

Taking the African setting and general views, women without a single child who are sexually active having been married or not, but having a desire for children will never use contraception and those married but do not have children are stigmatized thus also they will never use contraception.

This study tried to have an insight of contraceptive knowledge, attitude and practice among women who have already been exposed to pregnancy at least once. The study tried to identify opportunities and obstacles, which might influence the decision to use or not to use modern family planning methods. The findings of this study and recommendation will be assessed and disseminated so as to improve the contraceptive prevalence rate among the target population by eliminating observed obstacles and promoting the opportunities identified.

1.4. LITERATURE REVIEW.

Majority of the modern family planning methods are directed to women and the family planning movement started as movement by women for women. Thus

perception and attitude of women must always be considered if we are to raise the modern family planning use rate as actual acceptance of practice of using modern family planning methods entails major decision making on the part of women. (Oyediran 1984)

A strong motivation to seek an abortion rest on the widespread desire for smaller families, the need to control the timing of births and the failure or inconsistent use of contraception which is a result of poor access to family planning services. (WHO 1999).

Various researches have been done in different areas of the world to investigate factors, which are associated with acceptance of modern family planning methods. Religion is the most controversial factor that has been found to have influence on the use of modern family planning methods. All religions are pronatalist and antiabortion. Many religion many may not adverse to planning or limiting one's family size but may be divided along the modes of doing so. The Roman Catholic Church advocates abstinence or use of natural methods for family planning. The use of modern methods of family planning is against the religious beliefs of Roman Catholics (Elphis 1991). In Tanzania the Roman Catholic religious beliefs were found to be major reason for non-acceptance and modern family planning use discontinuity among women of reproductive age in Hai district. (Nyanganyi 1995) Anate (1995) documented that the role of religion in family planning varies even among followers of the same religion in different settings, but she observed that more Muslims were using modern contraception than Christians. However Freetown it has been found that more Christian are using modern family planning methods than Muslims (Amin et.al., 1992)

Cultural factors rather than religious ones appear more significant among Caribbean women (Elphis 1991. Unger 1981). The influence of culture on the use of family planning has also been observed in Sub Sahara Africa (Adongo *et.al.*, 1997).

Among the Ekiti Yoruba (Renne 1993) and in northern Ghana (Bawah, et.al., 1999), it has been observed that there is a gender ideology in family planning with the male spouse having authority on family planning matters. In a study conducted in rural Kenya, it was found that the wives participation in decision making about family size, family planning and management of income is likely to have a dampening effect on fertility (Gwako1997)

Among many factors that influence the practice of birth control in Hindu community, the most important is the desire for son on the part of parents. This desire is conditioned by the traditional value of Hindu society and buttressed by the existing social and economic structure (Singh, et.al., 1983). In Bairagai et.al., (1986) study done in the rural area of Bangladesh it has been observed that 98% of women desire at least one daughter. If women have at least one daughter, the risk of subsequent birth is related negatively to the number of sons. Women with no daughters also experience a high risk of having a subsequent birth. This suggests that there is also some preference for daughters. Son preference is strong in both the early and later stage of family formation but women also want to have at least one daughter after having several sons (Rahman et.al., 1993)

Women's social economical position employment and education have been found to have strong influence in the acceptance of modern family planning methods. (Shapiro *et.al.*, 1994, Gage (1995). Hoque *et.al.*, (1997) found that in nineteen districts of Bangladesh the social economic development and women's status have a

significant impact to the use of contraceptive methods. Better education, employed women are more likely to use contraception than those who have little are or no formal education and who are not employed. Communication is key process underlying changes in knowledge of the means of contraception, in attitudes toward fertility control and use of contraceptives, in norms regarding ideal family size, and in the openness of local cultures to new ideas and aspirations and new health behavior (Phyllis et.al., 997). Inter-person relationship and communication are among the most important factors that may influence personal decision. In studies about factors related to contraception use it was noted that the most important determinant of accepting modern family planning methods was discussion of family planning among partners and interpersonal communication about family planning with one's spouse and with other women, and interaction with family planning field workers (Tawiah 1997, Kincard et.al., 1993). The likelihood of spousal communication about family planning and modern contraceptive use is significantly higher among women who exercised complete control over selection of partner than among those with arranged marriages.

Women who works for cash are significantly more likely to communicate with their spouses about family planning than those who do not (Gage 1995)

Siyame (1996) in his study of factors associated with contraceptive use in Rombo district Tanzania observed that despite a high rate communication (62.5%) among partners on fertility related issues, the use rate was quite low and he attributed it to be due to lack of agreement secondary to insufficient and ineffective dialogue.

The relationships of between number of living children and child death to the use of family planning have been studied. Akhter *et.al.*, (1992) found that previous death of

children, number of living children and desire for additional children were important determinants of contraception use or discontinuity. Chowdhury *et.al.*, (1992) found that couples who lost a child often stop practicing contraception. In his study, logistic regression analysis revealed that contraception use or continuity was related to maternal age, parity, sex of last child and husband education.

CHAPTER TWO

STUDY OBJECTIVES.

2.1. Broad objective

To determine the level of use of modern family planning methods and associated factors among women with at least one child in Korogwe district.

2.2. Specific objectives.

- 2.2.1. To determine the level of knowledge of modern family planning methods among women with at least one child.
- ✓ 2.2.2.To determine the attitude of women with at least one child on modern family planning methods.
- 2.2.3.To determine the level of use of modern of modern family planning methods among women with at least one child
- 2.2.4.To determine factors that influence on the decision on the use of modern family planning methods among women with at least one child.
 - 2.2.5. To determine the type of modern family planning methods preferred by women with at least one child.
 - 2.2.6.To identify the most frequently used type of modern contraceptive methods in selected health facilities.
 - 2.2.7.To assess the availability (by type) of modern contraceptive methods in selected health facilities.
- 2.2.8. To assess the availability of IEC materials at community level and health facility level.

CHAPTER FOUR.

RESULTS.

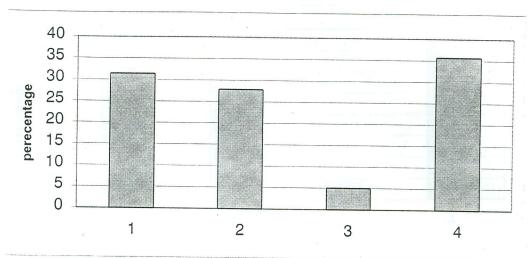
4.1. Socio-demographic characteristics.

The study involved 400 women of childbearing age who had at least one living child. The maximum age was 49 years and the minimum was 15 years. The mean age of the respondents was 29.5. The religion which had more representatives was the Moslems forming 59.8% of the total, they are followed by the non-Catholic Christians, the Roman Catholics Christian and others. Looking at the education most (60%) of the respondents had finished primary education (60%), while 27.5% did not complete primary education. Also it was found that 6.0% did not have any formal education while only 6.5% had secondary education or professional training. In our sample 58.0% of the respondents were married, 30% were cohabiting, 9% divorced and the least 3% widowed. The minimum age at first pregnancy was 14 years, mean age at 18 years while the maximum age at first pregnant of 36 years.

Almost all the respondents 397 (99.3%) desired to have children of both sexes. The maximum number of pregnancies was found to be nine while the minimum was one pregnancy, setting the mode at two pregnancies and the mean number of pregnancies was 3.2. The maximum number of children per women was nine, while the minimum was one. The mean number of children per women was 2.6.

The Sambaas contributed nearly one third of all the respondents, i.e. 31.5% while the Zigua and Bondei contributed 27.8% and 5% respectively. Other tribes, which included the Bena, Chagga, Zaramo, Pare, Arabs, Yao etc, formed about 35.7% of the total sample (figure 4.1).

Figure 4.1. Tribe distribution in the study sample.



Key 1=sambaa. 2= Zigua 3 = Bondei 4= Other tribes.

4.2. Use of modern family planning methods.

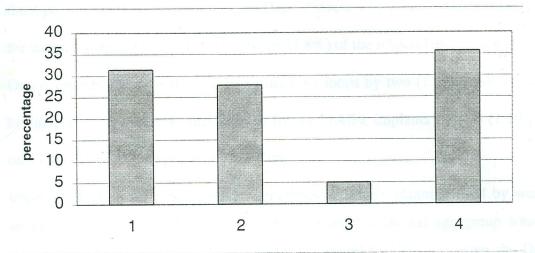
The overall prevalence of modern family planning method use among the sample population was 44.5%. Age group 20 - 29 had the highest proportion (45.8%) of modern family planning users while age group 15 - 19 had the lowest proportion of users (41.7%). However there is no significant difference in the use of modern methods of family planning by age (p = 0.9)

Table 4.1. Use of modern methods of family planning by age of respondents.

Age group	users	%	Non users	%	Total @
rige group	users	70	Non users	70	Total %
15 – 19 ,	5 ,	41.7	7	58.3	12 3.0
20 – 29	92	45.8	109	54.2	201 50.2
30 – 39	63	43.4	82	56.6	145 36.5
40- 49	18	42.8	24	57.2	42 10.5
Total	178	44.5	222	55.5	400

 $X^2 = 0.28$, P = 0.9

Figure 4.1. Tribe distribution in the study sample.



Key 1=sambaa. 2= Zigua 3 = Bondei 4= Other tribes.

4.2. Use of modern family planning methods.

The overall prevalence of modern family planning method use among the sample population was 44.5%. Age group 20-29 had the highest proportion (45.8%) of modern family planning users while age group 15-19 had the lowest proportion of users (41.7%). However there is no significant difference in the use of modern methods of family planning by age (p = 0.9)

Table 4.1. Use of modern methods of family planning by age of respondents.

Age group	users	%	Non users	%	Total %
15 – 19	5	41.7	7	58.3	12 3.0
20 – 29	92	45.8	109	54.2	201 50.2
30 – 39	63	43.4	82	56.6	145 36.5
40- 49	18	42.8	24	57.2	42 10.5
Total	178	44.5	222	55.5	400

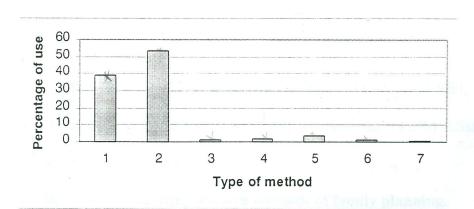
 $X^2 = 0.28$, P = 0.9

Different types of modern family planning methods were reported to be used but the most popular method reported was the Depo-Provera which is used by 95(53.4%) of the users, followed by the pill whereby 69(38.8%) of the respondents do use it.

Others modern methods that are being used are loops by two (1.1%) male condoms by three (1.7%), bilateral tubal ligation by six (3.4%), implants by two (1.1%) and cervical cups by one respondent (0.7%) only.

When we look at the type of modern methods of family planning used by women above 39 years of age, we find that out of 18 women in that age group who are currently using the methods, 44.4% are using the pill, 33.3% are using the Depo-Provera injection and 16.7% are using Norplant. The rest 5.6% have undergone bilateral tubul ligation.

Figure 4.2: Prevalence of modern family planning use by type.

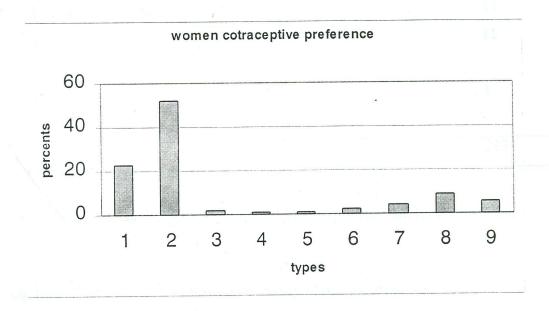


Key. Type 1= pill 2= Depo-Provera. 3 are loops 4 = male condoms. 5 are bilateral tubal legation. 6 are the Norplant while 7 are cervical cup.

Among those who reported to be users of modern family planning methods, 68 of them (17%) claims that their spouses do not know that they are using the modern methods of family planning.

The most preferred type of modern family planning methods by the respondents was found to be the Depo-Provera, followed by the pill and use of safe period.

Figure 4 3. Preferred type of contraceptive by the respondents independent to the use status.



Key; 1.Pill (22.8%), 2.Depo-Provera (52.3%), 3.Implants (1.8%), 4.loop (1.0%), 5.cervical caps (1%), 6.condoms (2.3%) 7.Abstinence (4.3%) 8.Safe period (9%) 9.Local remedies (5.3%)

4.3 Reasons for not using modern methods of family planning.

Various reasons were been given for non-use of modern family planning methods by respondents. The main reason being afraid of infertility/side effect (56.8%) followed by spousal refusal (14.4%). Other mentioned reasons are want to became pregnant, use of natural methods, abstaining from sex, lactating and religion. (Table 4.3)

Table 4.2. Reason for not using modern methods of family planning.

Reasons	Trisl 910 modern garacter	Number	%
Want to be pregnant		26	11.7
Afraid of infertility/side effects		126	56.8
Spouse does not want		32	14.4
Abstaining from sex		12	5.4
Use of other methods		14	6.3
Lactating		11	5.0
Religion	ka ka " - eredenta ya y fon	ng to have g	0.4
			1
Total		222	100

NB use of other methods includes safe period, withdraw and local remedies.

4.4.Level of knowledge of modern family planning methods.

It was found that 346 (86.5%) of the respondents had good knowledge on modern family planning methods. The respondents identification of the family planning logo was also good as 352 (88%) of the respondents associated the green star with family planning.

Various interpretations of family planning were given by the respondent, 35.4% defined family planning as act of birth spacing of more than two years, having desired number of children and at the same time avoiding unintended pregnancy. The rest defined it with any of the three categories mentioned by the first group i.e. 26.8% related family planning with avoiding unintended pregnancy. Others 24% with birth spacing of more than two years, 12.8% of the respondents said that family planning simply means having desired number of children and only 1% associated

family planning with mother and child health. Out of the four hundred respondents, 84.5%(338) managed to mention at least one modern method of family planning, 62.3% knows more than two methods. The most known methods being the pill followed by Depo-Provera, implants, loop and the male condoms. Male vasectomy and cervical caps were also mentioned. Female condoms were not mentioned.

On place of obtaining modern family planning methods, 93.5% of the respondents mentioned health facilities while 6.5% did not know where to get the modern contraceptives methods. In general 346(86.5%) respondents were found to have good knowledge on modern family planning methods.

As table 4.3 below shows, it was found that among those with good knowledge on modern methods of family planning, about 51% are currently using the modern methods of family planning, compared with less than 4% among those with poor knowledge. A strong statistical association between the knowledge on modern methods of family planning and the use of the methods (P< 0.001) was observed.

Table.4.3. Use of modern methods of family planning by level of knowledge about modern methods of family planning.

Knowledge level	Users % Non users % Total						
Good	176 50.9	170 49.1	346				
Poor	2 3.7	52 96.3	54				
	*1						
Total	178 44.5	222 55.5	400.				

 $[\]gamma^2 = 42.07$ and P = < 0.001

4.5. Attitude to modern family planning methods.

Looking into the attitude of the respondents on modern family planing methods, study findings show that in general, the respondents have a positive attitude (82.7%). This is reflected by the respondent's behavior of discussing modern methods of family planning with various people (Interpersonal communications). Majority of the respondents 296 (74%) reported to have discussed the use of modern family planning methods with health workers. 153 (38.2%) respondents have discussed with both health workers and other persons apart of health workers. Only 81 (20.2%) respondents had neither discussed family planning with health workers nor others persons.

Most of the respondents, (76.3%) identified spouses as the most appropriate person to discuss with family planning. More three-quarters of the respondents (76.8%) say the use of modern family planning methods will not affect their current relationship with their spouse.

The relationship between attitude of the respondents and use of modern family planning methods was found to be statistically significant. (P< 0.001). The kind of relationship between attitude and use can be seen in table 4.4. We note from the table among those with positive attitude, 173 (55.6%) are currently using modern methods of family planning. Less than 6% of those with negative attitude are using the methods.

Table. 4. 4. Use of modern methods of family planning by attitude.

Attitude	Users %	Non users %	Total
Positive	173 55.6	158 44.4%	331
Negative	5 5.6%	84 94.4%	89
Total	178	222	400

 $\chi^2 = 55.6$ and P = 0.001



4.6. Factors associated with the use of modern family planning methods.

Other factors likely to influence the use of modern family planning methods were also investigated. The age at first pregnancy was one of the factors that were examined. The mean age at first pregnancy was 18.7+/- 3.2 years for the current users and 18.9 +/- 3.5 years among the non-users. (Note the reported values are mean +/- standard derivation). Age at first pregnancy was then categorized into two groups those who had their first pregnancy before 20 years of age and those at or after the age of 20 years. From table 4.6.1 it is seen that there is not much difference in use rate when the two groups are compared.

Table.4.6.1. Use of modern methods of family planning by age at first pregnancy.

Age in years	Users	%	Non users	%	Total	
<20 years	67	45.9	79	54.1	146	
20 or more	111	43.7	143	56.3	254	
Total	178		222		400	

 $\chi^2 = 0.18$; P = 0.67

Respondents were asked to report on when they had their last delivery. It was found that this ranged from 1975 to 2000. The table 4.6.2 shows that 50.8% of those who had delivered more than three years ago, 50.8% of them ware using modern family planning methods compared to 39.6% of those who had delivered in period of less than three years. This finding was statistically significant. (P= 0.02)

Table.4.6.2 Use of modern methods of family planning by years of last pregnancy.

Years	Users %		Non users %		Total
< 3 years	89	39.6	136	60.4	225
3 or more	89	50.8	86	49.1	175
Total	178		222		4000

 $[\]chi^2 = 5.1$ and P = 0.02

Taking into consideration the tribe of respondents as a factor it was found that the Sambaa had the highest proportion of users (52. %) followed other tribe. The Zigua had the lowest proportion of users (36.9%). However this finding was statistically not significant.

Table.4.6.3. Use of modern methods of family planning by tribe.

Tribe	Users	%	Non users	%	Total	%
Sambaa	66	52.4	60 preside	47.6	126	31.5
Zigua	. 41	36.9	70	63.1	111	27.7
Others	71	43.6	92	56.4	163	40.8
Total	178		222		400	

 $[\]chi^2 = 5.8$ and p-value = 0.06

Table 4.6.4 compares use of modern methods of family planning with religion. It shows that more than half (53.1%) of the Roman Catholics were using modern methods of family planning compared to 43.7% of the Moslems and 42.5% of other Christian denomination. When all the Christians are grouped together, it is seen that 46.8% Christians are using the modern methods of family planning compared by 43.7% Moslems. This relationship between the religion of the respondent and the use of modern methods of family planning was statistically not significant (p = 0.35). Table 4.6.4. Use of modern methods of family planning by religion.

Religion	Users	%	Non users	1%	Total
Roman Catholics	34	53.1	30	46.9	64
Other Christians	40	42.5	54	57.4	94
Moslems	104	43.7	134	56.3	238
Total	178		218	5	396

 $[\]chi^2$ = 2.10 and P= 0.35.

Note. Four respondents did not mention their religion.

Table.4.6.5 compare use of modern family planning methods with education level. It is seen that use of modern family planning increases with level of education, percentage of respondents who had finished primary education using modern methods of family planning is relatively higher (49.4%) compared to those who had not finished the primary school (34.8%). This finding is statistically significant (P = 0.005)

Table 4.6.5 Use of modern methods of family planning by education level.

Education	Users	%	Non users	%	Total
Not finished primary education	47	34.8	88	65.2	135
Finished primary	131	49.4	134	50.6	265
Total	178		222	%). Óthei	400

 $\chi^2 = 7.74$; P = 0.005

When we look at the association between the use of modern family planning and marital status (Table 4.6.6). We find that among those who are married 47.8% are users of the methods and among those cohabiting the users are 40.8%. Only 39.6% of those who are either divorced or widowed are currently using the modern methods of family planning. The differences were not significant (P > 0.05)

Table 4.6.6.Use of modern methods of family planning by marital status.

Status	Users	%	Non users	%	Total
Married	110	47.8	122	52.5	232
Widowed/ divorced.	19	39.6	29	60.4	48
Cohabiting	49	40.8	71	59.2	120
Total	178		222		400

 $\chi^2 = 1.92$; P = 0.38

It has been found that 379(94.8%) of the respondents mentioned MCH-Clinic as ideal place for getting modern family planning methods. 46.7%(177) of these respondents are users forming 99.4% of the all users (Table 4.6.7). Only 4.8% of those whose ideal place of getting modern methods of family planing was other place than MCH clinics are using the methods.

Reasons for choosing the MCH-Clinic as ideal place were various and among them there are those who said that they are offered good services (58.8%). Others said that the place is good because it offers dual services i.e. Mothers and child services at the same place. 18% of the respondents they said they like the place simply because they are adapted to it and 5.8% of the respondents said the place is ideal as they can attend the clinic of family planning without their spouse knowledge. Others respondents said there is no other place and some said they meet friends at the MCH-Clinic.

A strong statistical association was observed between the respondents' ideal place of getting modern family planning methods (P < 0.001)

Table.4.6.7 Use of modern methods of family planning by presumed ideal place for obtaining the services.

Place		Users	%	Non users	%	Total
MCH Clinic	'at . '	177	46.7	202	53.3	379
Others places		1	4.8	20	95.2	21
Total		178	of older	222	rst child?	400

 $[\]chi^2 = 14.17$ and P < 0.001.

Table 4.6.8, shows that most of the respondents, 296(74.4%) had discussed the use of modern family planning methods with health workers prior to the use and of these

(173) 58.4% are currently using the methods. Strong statistical association between the use of modern methods of family planning and discussion with health workers about family planning was seen (P = 0.001).

Table 4.6.8. Use of modern methods of family planning by having discussed with health workers.

	Users	%	Non users	%	Total	8.5%	
Discussed	173	97.2	123	55.4	296		
Not discussed	5	2.8	99	44.6	104		
Total	178		222	r ev cui	400		
					•		

 $[\]chi^2 = 89.65$ and P = 0.001

Table 4.6.9 shows the relation between the influence of interpersonal relationships and the use of modern methods of family planning. Most of respondents (78.5%) had discussed with their spouse, while 13% had discussed with a female relative/ friend and only 8.5% had discussed with others. Use of modern family planning methods among those who had discussed with others has almost similar i.e.26.9% and 26.4% respectively. The findings of this table are highly statistically significant (P = 0.001).

Respondents were asked to report on the sex of their first child (Table 4.6.10). More than half of them (53.8%) had female babies. 52.4% of those who had a male as their first child are currently using modern family planning methods, while only 37.5% of

those who had female reported to be using the modern methods of family planning, this findings is not statistically significant.

Table 4.6.9. Use of modern methods of family planning by discussion with others.

PERSON	Users	%	Non users	%	Total	%
Spouse	155	49.4	159	50.6	314	78.5
Female	14	26.9	38	73.1	52	13.0
Other	9	26.4	25	73.6	34	8.5%
Total	178	NAMES AND ADDRESS OF THE STATE	222 -		400	

 $[\]chi^2 = 13.99$; P= 0.001

Table 4.6.10. Use of modern methods of family planning by outcome (by sex) of the first pregnancy.

Sex	Users %	Non users %	Total
Male	97 52.4	116 47.6	185
Female	81 37.5	106 62.5	215
Total	178	222	400

 $[\]chi^2 = 0.20$; and P = 0.65

The numbers of live children that the respondent had in relation to the use of modern family planning methods is shown in Table 4.6.11. It is seen that as the number of live children increases there is also some increase in the use of modern methods of family planning. Only 39.7% of those having one child have to be using the modern methods of family planning compared to 47.6% of those having two to three children This finding was however not statistically significant (P = 0.74).

Table 4.6.11. Use of modern methods of family planning by number of living children.

Number	Users	%	Non use	ers %		
1	50	39.7	76	60.3	126	
2-4	104	47.7	114	52.3	218	
4+	24	42.9	32	57.1	56	
Total	178		400		400	

 $\chi^2 = 0.59$ and P = 0.74.

A total of 146 respondents (36.5%) reported history of having had infant or child death. Only 37.7% of those who had history of a child death were using modern methods of family planning, at the time of the study compared to 48.4% of those with no history of having infant or child death (Table 4.6.12). This association between the use of modern methods of family planning and history of child death was found to backed by evidence (P = 0.04).

Table 4.6.12. Use of modern methods of family planning by history of having had or no infant/child death.

Death	Users	%	Non users %	Total
Child death	55	37.7	91 62.3	146
No death	123	48.4	131 51.6	254
Total	178		222 - 1/2/2 40.4%. 2	400

 $\chi^2 = 4.34$ and P = 0.04

Table 4.6.13 shows the sex distribution of the living children of respondents with relation to the use of-modern methods of family planing. It was observed that 42.5%

of the respondents had more male children, 37% had more female children than male while the rest 20.5% had an equal number of male and female children. Use of modern family planning methods was highest among those respondents with more male children (47.6%) followed by those with equal sex distribution (45.1%) and lowest amongst those with more female children (40.5%). This finding was however not statistically significant (P = 0.44)

Table 4.6.13. Use of modern methods of family planing by sex distribution of living children.

Distribution	Users %	Non users %	Total
Equal	37 45.1	45 54.9	82
More male	81 47.6	89 52.4	170
More female	60 40.5	88 59.5	148
Total	178	222	400

 $[\]chi^2$ = 1.63 and P = 0.44.

Respondents were asked to report on the sex of their current last born (Table 4.6.14). Those who reported that it was a male child were 46% and those who reported it was a female were 54%. It is seen that use of modern methods of family planning among those whose last born was a male was 43.5% and among those who had female last born the users of modern family planning methods were 45.4%. This finding was not statistically significant (P = 0.07)

Table 4.6.14. Use of modern methods of family planning by sex of the current last born.

Sex		Users	%	Non users	%	Total
Male	P - P -	80	43.5	104	56.5	184
Female		98	45.4	118	54.6	216
Total		178		222	the near	400

 $\chi^2 = 0.14$ and P= 0.7.

Respondents were asked to report their major source of income (Table 4.6.15). It is seen that most of them 80.2% depend on their spouse, while 14.5%dependd on business and 5.3% were employed. Use of modern methods of family planning was highest amongst those who were employed (66.7%), followed by those who were in business (60.3%) and lowest among those who depend on their spouse (40.2%). Strong relationship between the use of modern methods of family planning and major source of respondent income was observed.

Table 4.6.15 Use of modern methods of family planning by major source of income.

Source	Users	%	Non users %		Total	
Spouse/ peasant.	129	40.2	192	59.8	321	
Business.	35	60.3	23	39.7	58	
Employed.	14	66.7	7	33.3	21	
Total.	178	90/2	222	ho were b	400	e use

 $\chi^2 = 18.52$; P= 0.0003

Table 4.6.16. Show the relationship between the use of modern methods of family planning and the distance from nearest health facility. It is seen that more than 50% of those who are living beyond five kilometers from the nearest health facility are using the modern methods of family planning compared to 42.4% of those who were living within five kilometers. The use of modern methods of family planning was, however found to be independent of the distance from the nearest health facility (P = 0.054)

Table 4.6.16. Use of modern methods of family planning by the distance from the nearest health facility.

Distance	Users	%	Non u	sers %	Total	
Within 5 kms.	142	42.4	193	57.6	335	
Beyond 5 kms.	36	55.4	29	44.6	65	s to Tard
Total	178		222		400	children

 $[\]chi^2 = 3.72$; P= 0.054

The association between the use of modern family planning methods and number of respondents siblings was also investigated (Table 4.6.17). Most of the respondents (70.2%) had 5 or more siblings, those with 2-4 siblings were 22.3%, while 7.5% were born alone. It was found that 50% of those who were born alone were users. Also 41.6% and 44.8% of those who had two to four brothers/ sisters and five or more brothers/sisters respectively were using modern methods of family planning . No statistical association observed (P = 0.7)

Table 4.6.17. Use of modern family planning methods by number of siblings.

Siblings	Users	%	Non use	ers %		
Alone	15	50	15	50	30	
Two to four	37	41.6	52	58.4	89	
Five or more	126	44.8	155	55.2	281	
Total	178		222		400	

 $\chi^2 = 0.69$; P = 0.7

Among the respondent, one hundred thirty nine (34.7%) desired to have four children, which is 34.7% of all respondents. In this group, only 47.5% are currently using modern family planning methods. Only one respondent desires to have one child and she is currently a user. For those who desire to have two children, 58.6% of them are currently non-users and 52.9% of those who desire to have three children are not using modern family planning methods. More than 55% of those who desired to have more than four children are currently not using modern family planning methods at the time of the study. Only 79 respondents (19.7%) reported to have attained their desired number of children. Use of modern methods of family planning was 59.5% among those who had attained the desired number of children (Table 4,6.18). The use of modern methods of family planning is associated with attaining number of desired children (P = 0.003)

Table.4.6.18. Use of modern methods of family planning by status of attaining the desired number of children.

Attained	Users	Users %		sers %	Total	3
Yes	47	59.5	32	40.9	79	
No	131	40.8	190	59.2	321	
Total	178	h in Inc.	222	edger to dete	400	

 $[\]chi^2 = 8.96$; P = 0.003.

Respondents were asked to report on who is the ideal person to decide on the use of modern family planning methods (Table 4.6.19). Most of them (77.5%) said it was the spouse, while 22.5% mentioned other person. However 47.7% of those who said it was the spouse were using modern methods of family planning compared to 33.3% who said that it was other person. Statistical association was observed. (P = 0.02)

Table 4.6.19 Use of modern methods of family planning by ideal person to make the decision to use or not to use modern methods of family planning.

Users	%	Non users	%	Total
148	47.7	162	52.3	310
30	33.3	60	66.7	90
178		222		400
	148	148 47.7 30 33.3	148 47.7 162 30 33.3 60	148 47.7 162 52.3 30 33.3 60 66.7

 $[\]chi^2 = 5.86$; P= 0.02.

On the question of sex preference, it was found that, 397 (99.25%) respondents' desires to have children of both sexes (i.e. a mix of both boys and girls). Due to the small deference cross tabulation to look for association between respondents sex preference and the use of modern methods was not done.

4.7. AVAILABILITY OF MODERN METHODS OF FAMILY PLANNING METHODS AT THE HEALTH FACILITIES AND THE UTILIZATION RATE.

Table 4.7 show data collected from ten randomly selected health's facilities (ten dispensaries and one health center from 31/12/1999 to 15/06/2000). The principal investigator went through the health facility drugs ledger to determine the availability by type of modern family planning methods. Also to determine the most used modern method of family planning at the health facility level

Table 4.7. Availability and use of modern family planning methods, data from ten dispensaries and one health center.

% Used.		7.07	57.0	61.1	66.4	70.5	70.9	
Used		4773	1279	859	6911	3101	8913	
Balance	15/6/200	1981	963	546,	3490	1300	3654	
by Total		6754	2242	1405	10401	4402	12567	
Received	15/6/2000.	5441	2204	941	8586	3356	8972	
Stock 31/12/1999		1313	39	464	1816	1045	3595	
Serial Methods		Microgynon	Lo-feminal	Microval	Total pills	Depo-Provera	Male condoms	8
Serial			7	3		4	2	

Findings show that only three type of modern methods of family planning were available during the time of study and the male condoms are the most used type of modern family planning methods (70.9%). No stock destroyed for the past two to three years.

4.8. THE AVAILABILITY OF IEC MATERIALS.

4.8.1.HEALTH FACILITY LEVEL.

Various types of IEC materials concerning family planing were observed at the facilities level. The materials were in the form of paper posters and leaflets in either Swahili or English language. There was no difference in the availability of IEC materials between the health center and the dispensaries.

The posters were plastered on the walls inside the MCH-clinics and none were found on the outside walls or in the non-MCH rooms. Leaflets were only available at the MCH consultation rooms.

The message within the IEC materials was quite clear, except for the massage about the male condoms which was targeting those who had multiple sex partners with relation to AID/HIV and not targeting couples for family planning.

There were no IEC materials about family planning targeting men.

4.8.2. COMMUNITY LEVEL.

Of all villages visited, only in two villages out of twenty visited IEC in form of old calendars plastered inside the village government office and are of 1990s. No posters were seen at the common places about family planning but about condoms and Aids prevention were seen in common social areas.

4.9. IN-DEPTH INTERVIEW RESULTS.

Fifteen in depth interviews were conducted from same number of villages and it was found that the key informants had wide knowledge about modern methods of family planning. The respondents were able to define family planning. Women related family planning with mother and child health

The key respondents showed positive attitude on family planning, they argued that the use of modern methods of family planning permit women to have spare time to conduct development activities rather than giving birth each year. "Women who are using modern methods of family planning will have good health and will be able to take part in outdoors activities" Also it was argued that women using modern methods of family planning are very close to their spouse as they will have as many contacts without fear of becoming pregnant

The key respondents identified the spouse as the most important person in making the decision on the use of modern family planning methods but women should take the initiative as some men has the tendency of avoiding the women in deciding about important family maters. "Men prefers to talk with their peers or relatives" It was argued that if a woman has reached the decision to use the modern methods she can always use without spouse concert " one can just go to a health facility with pretext that she taking a sick child to MCH clinic while in reality she is going for modern family planning methods".

The respondents had wide knowledge of modern family planning methods. The most known methods are the Depo-Provera, the pills and implants. The women related the use of male condoms with infidelity. "Condoms are for women who are for every

man". No woman who respect her relation will dare to ask her spouse to use condoms but if the spouse brings the condoms then they will use them.

It was also argued that the modern methods of family planning are strong for the body. Women using these methods have decreased sexual drive associated with lower abdomen pains and changes in the menstrual flow. The respondents argued that prolonged uses of the methods would result in secondary infertility.

Women needs of resting time and freedom of movement are the most important determinants in the use of modern family planning methods. They said that a woman who practice the use of modern family planning methods are having longer rest time between each pregnancy and this would make her be able to perform other social obligation.

The study was not able to identify local remedies for family planning, as the respondents were not so sure. But some of the respondents mentioned wearing peace of wooden material around the groin as local measure to prevent unwanted pregnancy. They argued that only women with at least children of both sex should use modern family planning methods otherwise those who needs to delay pregnancy and are not having children of both sex should used natural methods of family planning.

The respondents were asked about the male perception on the modern family planning methods, in general they all fills that men are not exposed to family planning thus they have negative perception of modern family planning methods arguing that the empower women with a lot of freedom which is bad for family life.

CHAPTER FIVE

DISCUSSION.

Despite the availability of a number of modern methods of family planning unintended pregnancy, poor birth spacing, adolescent pregnancy induced abortions and maternal death related to high parity remains to be problems in the social and public health field. These problems would have been avoided or reduced if women of reproductive age were using modern family planning methods.

• The broad objective of this study was to determine the extent of use of modern family planning methods and associated factors among women of reproductive age having at least one living children irrespective of their marital status.

The crucial assumption was that these women have been exposed in one way or another on family planning issue either during antenatal attendance, delivery or under-five clinic. Another assumption was that women would be in a position to use modern family planning methods so as to have enough spacing for the desired number of children.

Findings of this study have revealed that there is a higher modern family planning use rate (44.5%) compared to findings from other studies in Tanzania. TDHS (1996) reports that the modern family planning use rate among all women in Tanzania is 12% while Siyame (1996) reported modern family planning use rate of 13% in Rombo District Tanzania.

Study findings show that 86.5% of the participants had good general knowledge on modern family planning methods. Most of the respondents (84.5%) managed to mention one modern method while 62.3% could mention two modern methods, Depo-Provera and pill the most known methods. This findings are supported by the

findings in the in-depth interview were the respondents were observed to have wide knowledge of modern methods of family planning. The most known methods were the Depo-Provera, the pills and implants.

The high knowledge about modern family planning methods have been reported else where, in TDHS (1996) the overall knowledge of modern methods of family planning was found to be higher among married respondents and also that 71% of women had knowledge of at least one method of modern family planning. In his study about attitude of rural women towards contraceptives and use, Jain, *et.al.*, (1999) reported that knowledge of modern family planning methods in the rural India was quite high among women with one child. He observed that 78.8% had knowledge of at least one modern method of family planning. In a study done in Mynmar Panitchpakdi *et.al.*, (1993) observed that the knowledge of modern family planning methods was above 70%.

From all above, it can be argued that knowledge alone can not be attributed to the use of modern family planning methods. If it were so we would have expect very high use rate among the study population rather than the 44.5% registered. This discrepancy in the knowledge of modern family planning methods and the use rate has been documented elsewhere. It has been observed that despite the high knowledge on modern family planning in Bamako Mali, Francine, et.al., (1991) found that the use rate was quite low. Jain, et.al., (1999) also observed that there is high knowledge of modern family planing methods in rural India but the total use was only 34.2%

The gap between the high knowledge of modern methods of family planning and the use rate of modern methods of family planning has been found elsewhere in

Tanzania. (Siyame 1996/TDHS1996). This indicates that other reasons in association with knowledge are crucial for deciding on the use of modern family planning methods.

Among the most controversial issue in family planning is the measure of attitude or approval of the new behavior of use of modern family planning methods. Adaptation of a new behavior is a function of intent, which is determined by person's beliefs and expected values towards performing the behavior and by the perceived social norms (Fishben *et.al.*, 1975). In our study those found to be having positive attitude reflected by interpersonal communications about the modern family planning methods were 82.7%. Thus our expectation was that the high level of knowledge associated with high percentage of the respondents with positive attitude, the use rate of modern family planning methods would have been higher than what it has been observed. Nevertheless, in our study those who were found to have positive attitude 55.6% are using the modern methods of family planning compared to 5.6% of those having negative attitude. The findings from in-depth interviews complement this finding. They key respondents showed positive attitude by arguing that the use of modern methods of family planning permit women to have spare time to conduct development activities.

These discrepancies of good attitude on modern methods of family planning with low us of modern methods of family planning have been observed in various parts of the World. Spinell *et.al.*, (1993) also found that although the women attitude on modern family planning methods are good, the use rate was relatively low in his study area in Italy.

Tawiah (1997) in his study of factors affecting contraceptive use in Ghana commented that approval of family planning methods by the respondent was among the most important variable for predicting the use of modern family planning methods.

In Great Britain and Germany the low use rate of modern methods of family planning was associated with poor attitude about the methods. (Oddens, *et.al.*, 1997). Thus it is most likely that other factors in conjunction with knowledge and attitude are important for women to adopt the use of modern family planning methods.

It has been observed that the pattern of use of modern methods of family planing among those who had their first pregnancy before their twentieth birthday and of those who had the first pregnancy at twenty years or more is almost the same. But it was higher in the first group that was 45.9% compared to those who had the first pregnancy at the age of twenty years or more (43.7%). Current age of the respondent might have more influence on the use of modern methods of family planning than the age at first pregnancy. Ayangade (1984) found that the status of acceptance of modern family planning appeared to be more in women of 30 years and above while Tawiah (1997) found that in Ghana the age had no influence. In Italy those likely to use modern family planning methods have been found to be the youngest and the oldest women (Spinelli, et.al., 1993). In the study of Nyanganyi (1995), in Hai Tanzania the non-use or discontinuity of modern family planning was found to be higher among women above forty years of age.

These findings simply mean that the age of women alone can not be used to predict the trend of use of modern methods of family planning among particular age groups. The need of spacing between delivery of three years or more is among the reason for the women to use modern methods of family planning. This is observed in the study whereby 50.8% of those who have delivered their current last born three or more years ago were using the modern methods of family planning compared to only 39.5% of those who have delivered less than three years ago. It is difficult to assess the behavior of use of modern family planning methods using this data, as we do not know when these women who were currently using the methods at the time of the study started the practice. Looking at the data we can say that there is a delay of initiation in the use of modern family planning methods among the respondents. This might be due to over dependency of lactation ammenorrhoea associated with breastfeeding. Dependence of lactation ammenorhoea is not proper and it has been found that lactation amennorrhoea can be used safely up to 32 weeks for ammenorrhoic and fully breastfeeding women. Afterwards, women should be encouraged to use reliable methods of family planning regardless of their breastfeeding status (Rojnik et.al., 1995). The delay of initiation of the use of modern family planning or the complete non use is reflected by the low proportion (43%) of Tanzanian children who are born with birth spacing of at least 35 months (TDHS 1996). The delay in initiation of the use of modern family was also observed during the in-depth interview. The women argued that these methods are very strong thus it is better to start using modern methods of family planning after having children of both sex.

Tribe, cultural behavior or ethnical behavior has strong influence on the use of modern family planning methods. Study findings indicate that there is an ethnical

factor, which might influence different use level among the respondents from different tribes. This type of relation has also been observed in other studies. TDHS (1996) Findings indicate that in the whole of Tanzania there is a variation in modern family planning method use rate between different regions and different districts within the same region. In rural Peru, the villagers in quechua speaking Indians are not using modern methods family planning as a result of cultural barriers created by family planning services that do not take into account the lifestyle of the people (Turker 1986). These findings are similar to the findings in Uganda, whereby Agyei, et.al., (1995), reported that ethnicity is among the strong predictor of knowledge and favorable attitude towards contraception in Uganda.

The influence of religion on the use of modern family planning in our study was found not to be of importance. It was seen that 53.1% of the Roman Catholic are currently using the modern family planning methods. Our findings differs from the findings of a study done in Rombo Tanzania were low use rate (12%) of modern family planning methods is associated to the influence of the Roman Catholic Church which is quite influential in the area (Siyame1996). Among the Moslems only 43.7% are currently using the modern methods of family planning, Mihler (1999), in his review of demographic health surveys of nine most Islamic countries found that among women who practice Islam, there exist wide varieties of reproductive attitude and behavior. In all the nine countries education was found to be the most influential factor in the lowering the fertility than the religion per se.

base of our conclusion that it is not the religion alone that influence the decision on the use of modern family planning methods.

- The level of education plays an important role in the use of modern family planning methods and fertility control. Among women with high education level, the use of modern family planning methods is also high. It has been seen that between those who have not completed primary education, only 34.8% are currently using the modern methods of family planning compared to 49.4% for those who have finished primary education. These findings are complementing various studies on factors influencing contraceptive use rate. In a study about family planning attitude and use in Nigeria, Odimegwu (1999) observed that contraceptive use was best predicted by level of education approval of educating girls and women was important determinate factors in predicting the family planning behavior. The importance of education was also mentioned by Nazar-Beulelspacher *et.al.*, and (1999). He noted that in the border region of Chiapas in Mexico, there is still a high non-use rate of modern family planning methods despite the increase in the availability of family planning services. He argued that this was due to lack of education among the community members.
- Women and among those who are cohabiting, so we expect that the use of modern family planning will be influenced by the exposure status of women to daily risk of becoming pregnant. There were no significant statistical relationship between the marital status and the use of modern family planning methods among our

respondents. More than 80% of the respondents were found to be either married or cohabiting but only 45.2% of them were currently using modern family planning methods. This indicates that women in matrimonial union or cohabiting are for one reason or another are not in favor of using modern family planning methods. It can be concluded that marriage or cohabiting is done with intention of bearing children. Nyanganyi (1995) observed that the married women are mostly likely to discontinue use of family planning methods due to social pressure of having large family.

The quality of services given at a particular place has an influence on the use of the said services. The integrated dual services at the MCH clinic makes it an ideal place for proving family planning services, women who are taking their under-five years children for routine check ups are at the advantage of doing two things at once. In this study a high proportion of respondents (94.8%) identified the MCH clinic as an ideal place for obtaining modern family planning methods and among the reasons for choosing this particular place, the dual activity and the quality of services was mentioned. The importance of having ideal place of obtaining modern methods of family planning depends on personal reason than community reasons. For those who require confidentiality moving the source to the community will decrease rather than increases the accessibility. Offering good quality of care has always been a goal of family planning programs. Women are said to obtain other health care and family planning advice at the MCH-Clinics. Constant availability of modern methods of family planning at the MCH-Clinic ensure the clients of the supplies.

According to population reports (1998) most health and family planning programs are built on the premise that people have fundamental right to health care. A client

will always go where she/he gets better treatments. Perceptive quality of a family planning is more important determinant of use of modern methods of family planning than accessibility measures in within a particular distance from the source (Mroz et.al., 1999). Our findings are some how related to those of Hotchkiss et.al., (1999) in his study done in Morocco and he concluded that improving the intensity of use of MCH services might bring about sizeable increases in the use of modern family planning methods.

Discussion of health matters with learned health workers plays a very crucial role towards behavior change of individual. In our study it (Table 19) has been observed that there is a strong relation ship between the use of the modern family planning methods and the act of discussing the issue with health workers which can be regarded as counseling. Nearly 59% of those who have been counseled are currently using the modern family planning methods. This simply means that improving the counseling skills might increase the modern family planning use rate among women.

According to Sweezy (1992), nurses can provide an important role in improving the modern family planning use rate among the postpartum women by counseling them regarding contraceptives alternatives.

The interpersonal communications play a very important role in stimulating behavior changes. Women who discuss the family planning issues with their spouses or others within their social networks have high chances of using the modern family planning methods once they are assured the social support. In our study (Table 20) the social network or interpersonal communication was found to be the most influential factor

on the use status of the respondents. The behavior and characteristic concerning the family planning methods of women personal networks (friends or relatives) are associated with the respondent behavior on the use of modern methods of family planning.

Spouse discussion on the use of modern family planning methods and agreement is an important psychological backing to women and this might influence on the women final decision. The study findings are some how similar to studies done in other place. Odimwegu (1999) found that spouse communication about the use of modern family planning methods is among the major that can be used to determine the use of the methods. Biddlecom, et.al., (1998) noted that covert use of modern family planning methods among Urban Zambian women is tied to poor spousal communication on the use of the modern methods of family planning. Discussion of family planning issues with one's spouse and with other women and interaction with family planning field workers was highly related to family planing practice in Bangladesh. Discussion of family planning within the women social networks had significant effect on the raise of acceptance of modern family planing methods (Kincaid, et.al., 1993/Kincaid, 2000).

Although there seems to be no relation between the use of modern family planning methods and the sex of the first born there is a tendency for women who had the first born a male to delay the next pregnancy. This is reflected by the percentage of those who had baby boy as the outcome of the first pregnancy were 52.4% of them are currently using the methods which is also 54.5% of all users. This slight difference in the relationship between the sex of the of the first child and the use of modern

methods of family planning, might mean that the women prefers to have children of both sex as reflected in the in-depth interview. The key respondents reflected the general attitude concerning children sex and the importance of both sexes was given. "Ideally it is better to start using modern methods of family planning once a women has children of both sex". Women need to have girls to assist the mothers in the daily household activities and to assist them when they are sick. Female children bath their mothers when they are seriously sick and to expose one self to daughter in law is like exposing oneself to a son. Sons are also having their importance, as they are the one who are expected to run the family in case of the absence of the father. Also sons (and their friends) are the ones who will carry the parents coffin to the graveyard. This explain the findings of the use of modern family planning methods with relation to the outcome of the first born and the sex preference in our study whereby the majority preferred to have children of both sex.

There are others studies that have explored this situation in depth; Rahman, et.al., (1993) reported that if women have at least one daughter, the risk of subsequent birth is related negatively to the number of sons. Women with no daughter also experience a high risk of having a subsequent birth.

Findings in Pakistan differ with our findings in that women express strong preference for son, mostly for economic reasons, reflecting women's subordinate position in society and low economic value placed on women work. Mothers of daughters only and women without children are harassed in the family (Winkvist, *et.al.*, 2000).

The number of living children was found to have no association with the use of modern family planning method. This might be due to the fact that majorities have not yet attained the desired family size as it has been seen that there is a direct

relation between the use status of modern family planning methods with the completion of the desired family size. It is possible that women with small family size have not yet attained the desired number of children thus they are not using the methods. This reflects that the modern methods are mainly used to limit birth and not to control pregnancy. According to Nyanganyi (1995) subject with small family size who has not attained the desire number of family size have high tendency in contraceptive discontinuity in Hai Tanzania. The findings of this study indicate that the number of living children has no association with the use of modern methods of family planning. This finding differs from some of studies in done in other places. Jayne *et.al.*, (1998) found that the number of children ever born have significant effects on the desire to restrict fertility. In Bangladesh, Khan (1996) reported that the number of living children is the best predictor for the use of modern family planning methods.

There is a strong relationship between the history of infant or children death with the use of modern methods of family planning. It appears that women who have no history of child death are currently forming the high percentage among the users of the modern family planning methods. Women will not start using modern method of family planning if she has history of having death of a child. For those who were using they will discontinue the methods. This finding are complement to the findings of Lawoyin, *et.al.*, (1997) in his study about fertility and childbearing were he found that the low child survival rate in rural African community has negative influence on the use of modern family planning methods. Grummer *et.al.*, (1998) reflected that the

death of a child has a substantial effect upon birth intervals, which is related more to maternal behavior such as cessation of contraceptive uses.

The sex distribution of living children has no influence on the use of modern family planning methods. Basing on the sex of the children desired by the women, we expected that those who already have male and female children to be using modern family planning methods. The finding indicates that 44.3% those having children of both sexes are using the modern family planning methods, which is 81.3% of all users. This simply means that the tendency to use modern family planning methods is influenced by the sex distribution of the living children independent to the number of children desired. That is once a woman has children of both sexes there is a high chance for the women to use the modern methods of family planning. Also women with more male children are forming 45% of all users of modern family planning methods in our study followed by those with more female 33.7% of all users. It is concluded that women having more male children are most likely to use modern methods of contraceptive than those with more female children. Also those having children of same sex are mostly unlikely to do so.

These findings are similar to the findings of Bairagai et.al., (1986) who found that women with a higher proportional of sons are less likely to want more children and are most likely to practice contraception and to be sterilized.

Women who have their own major source of income or those who are economically independent are most likely to use contraception than those who mainly depend on their spouse income. The finding in this study showed that there was a strong

association of the use of modern family planning methods and the economical status of the respondents. 62.0% of those who were either employed or businesswomen were using modern family planning methods, compared to 40% of the group who were farmers or spouse dependent. The reason for these is that the economical independent women are more occupied to economical venture thus the need to control their fertility. Bertland *et.al.*, (1990s) had similar observation in his study on postpartum events and fertility control in Kinshasa-Zaire. He observed that economical status of women was highly associated with the use of modern family planning methods. Also the findings complement the findings of study done in Cebu-Philippines were it was found that professional and self-employed women were found to be most likely to use modern family planning methods. The jobs that offered women greater autonomy were associated with greater likely hood of using modern family planning methods (Estrin 1999)

The effect of living near to health facility or distance accessibility is the core policy of the Primary health care all over the world. According to TDHS (1996) in Tanzania almost more than 75% of the population are living in a walking distance to a health facility. The modern family planning use rate was expected to be more influenced by the distance from the source that is the majority of those living nearest to the health facility would be using modern family planing methods. But on the contrary 80% and 53% of those living more than ten kilometers and between 5 to ten kilometers respectively were using modern methods of family planning. While only 42% of those living in distance of less than five kilometers are using. Study findings indicate that once women are determined to use the modern family panning methods the

distance from the source or accessibility of the source is not of importance. Our findings support those of Mroz (1999) that a community level subjective perception of family planning facility's quality has a significant impact on community members contraceptive uses where as other community measures such as time and distance and subjective perception of the accessibility have trivial and insignificant direct impact. The finding differs from those of Steele (1999) in Morocco who observed that the availability of public health facility within five kilometers increases postpartum use of modern family planning methods. The proximity of a health facility influence on women to adopt modern family planning methods after a live birth (Moore 1999)

Findings of the study indicate that the mother's family size has no relationship with their daughter's use of modern family planning methods, it is interesting that fifty percents of those who have been born alone were using modern family planning methods. This means that once the woman starts having a family of her own, she does not try to have the same number of children as her mother.

The desired number of children was related to the use of modern family planning methods. But it has been found that among those who have attained the desired number of children, the relation is quite significant. 59.5% of all those who have attained the desired number of children were using modern methods of family.

This is supported by the findings in the in-depth interview whereby the key respondents insisted that the family planning using modern methods should start after having either children of both sex or reached the desired number of children. These findings are similar to those obtained in Thailand and other countries. Whereby it

was reported that women who reached their desired family size are the users of modern family planning methods (Palmore et.al., 1981).

Recently Nyanganyi (1995) reported that the desire for more children among the women in Hai Tanzania so as to attain their desired family size are the main reason for discontinuity the use of modern methods of family planning.

- The decision on the use of modern family planning method is a step towards fertility control among the family members. For those who are either cohabiting or married they need to have a mutual understanding about how to proceed or what type of family planning method they want to use. There exist strong relationship between the use and compliance of family planning methods among spouses who have decided together the use of modern family planning methods. In this study, women in both quantitative and the qualitative methods agree that the decision is spousal. This findings were reflected also by Ware *et. al.*,(1994) in his study on attitudes of males on contraceptive in Kenya rural areas. He reported that more than 60% of men respondents preferred a husband and wife approach.
- The age of respondent has no influence on the use of modern family planning methods. In our study more than 50% of the respondents aged between 24 to 27 years of age are currently using the modern methods of family planning. This findings differs from the finding of Nyanganyi (1995) who noted that the age of respondent is among the factors that influence women to discontinue or not to use the modern methods of family planning in Hai, Tanzania. In Bertrand *et.al.*, (1985) it was found that the use of modern methods of family planning was highest among women over 30 years of age.

More than 50% of the respondents who were not using modern methods of family planning mentioned fears of side effects as the reason of not using the methods. The side effects include infertility lower abdominal pains and irregular menstruation Women argue that these methods are so powerful that they are threat to health. This is supported by the in-depth interview were the women noted that the methods bring about a lot of irregularity in women body. The fears of side effects as the reason for not using modern methods of family planning has also been observed in Nigeria, Obisesan (1998) documented that although the awareness of the methods is high in Nigeria, the perceived constraint to the use include fears of side effects. The same findings were reported by Salway, et.al., (1998). In his study done in among poor urban women of Bangladesh, he found that women are reluctant to adopt modern methods of family planning particular during postpartum ammenorrhoea simply because they perceive them to be strong and potentially damaging to women health.

There were no differences between the availability by type of modern family planning methods between the dispensaries and the health centers visited. Both had enough stock of pills, the injectable Depo-Provera and the male condoms. Clients had limited number of choice of modern methods of family planning. The limitation of supply might have negative effect in the adaptation of modern methods of family planning. As we have seen women do not regard male condoms as methods of family planning, thus they have to choose among the two methods available. This problem of family planning supplies was also observed in other studies. According to Mensch, *et.al.*, (1994), among the problems in the functioning of the subsystem of

family planning, supplies of commodities was one of the major problem in Nigeria,

Tanzania and Zimbabwe.

• The finding indicates that the male condom is the most used method of contraception (70.9%), followed by Depo-Provera (70.5%) and the pill (66.4%). This figure might be reflecting the reality in the use of the Depo-Provera and the pill as it has been seen in the most preferred methods of family planning were by the Depo-Provera was the most preferred method followed by the pill.

Our findings differs from those of Konje, *et.al.*, who observed that the intrauterine device was the most preferred of family planning in Ibadan as 66.2% of those attending the family planning clinic at the university collage hospital choose the intrauterine device. While Gold, *et.al.*, (1998) found that the injectable modern methods of family planning have universal appeal across ethnic, educational and age. Our findings indicate that the women respondents do not use the male condoms. Only 2.3% of all respondents preferred male condoms. Among those who are currently users of modern family planning methods, only 1.7% is currently using the male condoms. As seen in the IEC findings male condoms are portrayed as materials to be used for preventing sexual transmitted diseases. As reflected by the key respondents no women who is decent and who trust her spouse will dare to take condom as means for family control.

The high prevalence in the use of the injectable modern methods of family planning might be associated with the nature that women needs to have only one injection in every two to three month which is quite practical for women in rural areas or due to husband disapproval.

The importance of any form of IEC material on behavior change is well known, in our study the exposure or knowledge of family planning logo was found to have a significant association with the use of modern family planning methods. Non availability of enough IEC materials might have negative influence to the use of the modern methods. Improper IEC language like that in condom will also effect the use of condom as a modern method of family planning. Jato *et.al.*, (1999) observed that exposure to mass media sources of family planning message was associated with increase of contraception use specially the modern methods of family planning. Women exposed to family planning messages are more likely than other women to discuss with their spouses and visit health facilities are. Mishra (1999) also expressed that women who are not exposed to communication media are more likely not to use modern family planning methods with a pretext of fear of side effects.

CHAPTER SIX

6.1 CONCLUSIONS.

The extent of use of modern methods of family planning among women of reproductive age with at least one living child in Korogwe district is relatively high (44.5%) compared to modern family planning acceptance rate of the district (13%). Various factors in conjunction with the level of knowledge about modern family planning methods and attitude determine the use status among women of reproductive age having at least one living child. Among those factors the level of education, women source of income, discussion with health workers and interpersonal communication were found to have positive influence on the use of modern methods of family planning. History of having infant or child death has a negative influence on the use of modern methods of family planning.

Fears of side effects and husband refusal are among the reason of not using modern methods of family planning.

Only two type of modern family planning methods are available at the health centers and at dispensary levels. Women do not consider male condoms as method for family planning. Hormonal methods of family planning are widely used independent to the age of women. Small proportions of women are using the IUCD.

The IEC materials are located at the MCH clinic only and at the village level. Practically there are no IEC materials. Condoms are promoted for those who have multiple sexual partners against AIDS and other sexual transmitted diseases but not as methods for family planning.

6.2 RECOMMENDATION.

The rate of use of modern methods of family planning could be increased if the women were empowered with education and own source of income. The central government and local government have an important role in ensuring girls education and economical independence for women. This can be done by subsidizing the girl's education and making it obligatory for girls to reach at least secondary school level.

There is a need to establish national family planning dialogue by having an annual family planning week whereby songs and other family planning oriented activities will be organized for competition and the best should be awarded accordingly. This type of activity will raise the awareness and minimize the general fear of "side effects"

There is a need to evaluate the postnatal and under-fives clinic attendance rate so as to identify reasons which contributes to early death of children and look for a way to reduce the child mortality rate. Reducing the death will increase the use of modern family planning methods as it has been found that the history of infant or child death has a negative influence on the use of modern methods of family planning.

Health workers should be empowered with counseling skills and communication dynamics so as to be able to deal with the negativity of men on modern family planning methods. Also there is a need of widening the health facilities capability in stock and management of modern family planning methods at all levels. Women should have wider range of modern methods of family planning so as to be able to make an appropriate choice.

There is a need to promote the long duration use of modern family planning methods such as the IUCD by offering women this method soon after delivery. The IUCD can be inserted soon after delivering the placenta or within 48 hours.

There is a need of ensuring the availability of good number of IEC materials at all levels. This materials should be plastered at a place were by all those attending health facility will be able to have an access to the massage. At the village level there is a need of having the IEC materials at all social and other common places.

Involving men in family planning should be a reality by promoting conducive environment for male not only promoting the use of condoms and vasectomy.

There is a need to promote the long duration use of modern family planning methods such as the IUCD by offering women this method soon after delivery. The IUCD can be inserted soon after delivering the placenta or within 48 hours.

There is a need of ensuring the availability of good number of IEC materials at all levels. This materials should be plastered at a place were by all those attending health facility will be able to have an access to the massage. At the village level there is a need of having the IEC materials at all social and other common places.

Involving men in family planning should be a reality by promoting conducive environment for male not only promoting the use of condoms and vasectomy.

REFERENCES.

- 1. Adongo, P.B., Phillips, J.F., Kajihara, B, Fayorsey, C, Debpuur, C., Biuka, F.N. (1997). Cultural factors constraining the introduction of family planning among the Kassema-Nanka of northern Ghana. Social science medicine. Dec; 45(12) pages 1789-1804.
- 2. Agyei, W. K, Migaddle M. (1995). Demographic and social cultural factors influencing contraceptive use in Uganda. Journal of Biosocial Science. Jan; 27(1): 147 60.
- 3. Akhter HH., Ahmed S. (1992). Determinants of contraceptive continuation in rural Bangladesh. Journal Biosocial science. 24(2): 261-8.
- 4. Ayangade O. (1984). Characteristics of contraceptive acceptors in an urban Nigeria setting. International Journal Gynaecol Obstetric. Feb; 22(1): 59 66.
- 5. Amin, Ruhul., Chowdhury, J., Hill, R. (1992). Social economic differential in contraceptive use and desire for more children in Greater Freetown Sierra Leone.

 International family planning perspectives. 18 (24)
- 6. Anate, M. (1995). Factors influencing family planning use in Ilorin, Nigeria. East Africa medical journal. 72 (7). 418-20.
- 7. Bairagai, R., Langasten, R.L. (1986). Sex preference for children and its implications for fertility in rural Bangladesh. Studies in family planning. Nov-Dec; 17: 302-7
 - 8. Bawah, A. A., Akweongo, P., Simmos, R., Phillips, JF. (1999). Women's fear and men's anxieties. The impact of family planning on gender relation in northern Ghana. Studies in family planning. Mar; 30(1); 54-66.

- 9. Bertland, J. T., Chirhamolekwa, C., Djughu, B., Chibalonza, K., Mahama, K. (1990). Postpartum events and fertility control in Kinshasa, Zaire. Journal of Biosocial Science. April; 22 (2): 197-211.
 - 10. Biddlecom, A E., Fapohunda, B M. (1998). Covert contraceptive use: Prevalence, motivation and consequences. Studies in family planing. 29 (4): 360 72.
- 11. Bouzidi, M., Korte R (1990). Family planning for life: Experiences and challenges of the 1990s. International planned parenthood federation. London. 1-4.
- 12. Brackett, J.W. (1980). Role of family planning availability and accessibility in family planning use in developing countries. World fertility survey conference.

 Record of proceedings(2)
- 13. Bulut, A., Turan, J.M. (1985). Postpartum family planning and health needs of women of low income in Istanbul. Studies in family planning. Mar-April; 26(2): 88-100.
 - 14. Center for disease control and prevention. (1999). Family planning methods and practice Africa. 2nd edition. Atlanta, Georgia. United State department of health and human services, centers for disease control and prevention, National center for chronic disease prevention and health promotion. Division of reproductive health.
 - 15. Chen, L.C., Gesche, M.C., Ahmed, S., Chowdhury, A.I., Mosley, W.H. (1974).

 Maternal mortality in rural Bangladesh. Studies in family planning. Nov. 5 (11):

 334 -41.

- 16. Chowdhury, A I., Fauvean, V., Azziz, KM. (1992). Effect of child survival on contraceptive use in Bangladesh. Journal of Biosocial science. October; 24(4): 427-32.
- 17. Diaz, S. Contraceptive technology and family planning service. (1998).

 International journal Gynecology and Obstretics. Dec; 63. Supplement 1. 585-90.
- 18. Dodd.N. (1985). Population dynamics in Dereck Robinson Epidemiology and the community control of diseases in warm climate countries.2nd edition Churchill Livingstone. Edinburg London Melbourne and New York.1985. 707-727.
- 19. Donald. R. Coustan., Ray. V. Haning Jr., Don B. Singer. (1997). Human reproduction. Growth and development. Little Brown and Company. Boston. New York. Toronto. London. 359-377.
 - 20. Elphis C. Family planning and reproductive decisions. (1991). Journal of reproductive and infant psychology. 1(9) 217-226.
 - 21. Estrin DJ. (1999). Reproductive behavior is linked to autonomy, not to employment it self. International family planning perspectives. Nov; 25(1) 50 51.
- 22. Francine Van de Walle., Mariam, M. Family planning in Bamako, Mali.

 International family planning perspectives. 17(3): 84-90.
- 23. Fishbein, M., I Ajzen. (1975). Belief, attitude, intention and behavior: An Introduction to Theory and Research. Reading, M A. Addison Wesley.
- 24. Gage A.J. (1995). Women's social economic position and contraceptive behavior in Togo. Studies in family planning. Sep- Oct (5). 264-77.
 - 25. Gold, M A., Coupey, S M. (1998). Young women's attitude towards injectable and implantable. Journal of Pediatric Adolescent Gynecology. Feb 11(1): 17–24.

- 23. Grummer S.L.M., Stupp P.W. Meiz. (1998). From death to birth. Mortality decline and reproductive changes. Edited by Mark R Montgomery and Barney Cohen. Washington, D.C. National Academy Press. 34-73.
 - 26. Gwako, E.L. (1997). Conjugal powers in rural Kenya families. Its influence on women's decisions about family size and family planning practice. Sex roles Feb; 36(3-4); 127-47.
 - 27. Hotchkiss, D R., Magnani, R.J., Curtis S Florence., Leigh Anne Shafer. (1999).

 The impact of family planning supplies environment on contraceptive inventions and use in Morocco. Studies in family planning. 30(2) 120-132.
 - 28. Hoque M N, Murdock S H. (1997). Socio-economic development, status of women, family planning and fertility in Bangladesh. A district level analysis.

 Journal of Soc.Biol. 44 (3-4): 179-97.
 - 29. Jain S., Singh J V., Bhatnagar M, Garg S K, Chopra H and Balpai S K. (1999).

 Attitude of rural women towards contraceptive and its use. Indian Journal of maternal and child health. Jan Mar; 10 (2): 18-19.
 - 30. Jato M N., Simbakalia C., Tarasevich J M., Awasom D N., Kihangi C N., Ngirwamungu E. (1998). Impact of multimedia family planning promotion on the contraceptive behavior of women in Tanzania. International family planning perspectives. Jun; 25 (2): 60-7.
 - 31. Jayne S H., Guilkey D K. (1998). Contraceptive determinants in three leading countries. Population research and policy review. Aug; 17 (4): 329-50.
 - 32. Kaj Folster. (1989). Review of family planning: Current situation and trends in industrialized countries. Paper presented at the conference of management of family planning programmes. Harare, Zimbabwe. 1-7 October 1989.

- 33. Khan, M A. (1996). Factors affecting use of contraceptives in Matlab. Journal of Biosocial science. Jul. 28 (3): 265 79.
- 34. Kincaid, D.L., Massiah, E., Das Gupta. A., Mitra, NS. (1993). Communication networks, ideation and family planning in Trishal Bangladesh. Paper presented at the annual meeting of population association of America, Cincinnati, Ohio, April 1-3.
- 35. Kincaid D L. (2000). Social network, ideation and contraceptive behavior in Bangladesh a longitudinal analysis. Journal of Social Science Medicine. Jan; 50 (2): 215 31.
 - 36. Konje, J C., Oladin, F., Otolonn, E O., Ladipo, O O. (1998). Factors determining the choice of contraceptive methods at family planning clinic, university collages hospital, Ibadan, Nigeria. Br. Journal. Fam. Plann. Oct. 24 (3). 107-10
 - 37. Lawoyin T O., Onadeko M O. (1997). Fertility and childbearing practices in rural

 African community. West African Journal of Medicine. Oct Dec; 16 (4) 204 –

 207.
 - 38. Manzilla Tarande. (1999). Preface. Family planning methods and practices in Africa. Second edition. Center for disease control and prevention Atlanta, Georgia. United State Department of Health and human services centers for Disease control and prevention, National center for chronic disease prevention and health promotion, division of reproductive health.
 - 39. Menssch, B., Fisher, A., Askew, I., Ajayi, A. (1994). Using situation analysis data to assess the functioning of family planning clinics in Nigeria, Tanzania and Zimbabwe. Studies in family planning. Jan Feb. 25 (1): 18 31.

- 40. Mihler K. (1999). Women who practice Islam vary widely in reproductive attitude and behavior. International family planning perspective. Mar; 25(1): 52 53.
- 41. Ministry of health. The national family planning program. Plan of operations 1989-1993.
- 42. Mishra V K., Retherford R D., Nair P S., Feeney G. (1999). Reasons for discontinuing and not to use contraception in India. Mumbai, India, International Institute for population science. Jun. 36. National family health survey subject reports No 13.
- 43. Mmbuji, Peter Kanyinyi Langeni. (1991). Contraceptive prevalence rate and factors related to contraceptive use among childbearing women in Mbeya urban Tanzania. Master of medicine dissertation (community health) University of Dar Es Salaam. Tanzania.
- 44. Moore M. (1999). Proximity to health centers raises Moroccan women's postpartum method use. International family planning perspectives. Sep;25(3):
 - 45. Mroz T A., Bollen, K A., Speizer, I S., Mancini, D J. (1999). Accessibility and contraceptive use in rural Tanzania. Demography. Feb; 23 40.
 - 46. National (Tanzania) population policy draft (2000). January; 1-6.
 - 47. Nazar-Beutelspacher A., Molina Rosales D., Salvatierra-Izaba B., Zapata-Martelo E., Halperin D. (1999). Education and non-use of contraceptives among poor women in Chiapas Mexico. International family planning perspectives. Sep; 25 (3) 132-8.

- 48. Nyang'anyi Mwita. (1995). Factors associated with incidence of contraceptive discontinuation among women 15-49 years of age in Hai district Tanzania.

 Master of medicine dissertation (community health). University of Dar es salaam.

 Tanzania.
 - 49. Obisesan K A., Adeyemo A., Fakakunde B O. (1998). Awareness and use of family planning methods among married women in Ibadan Nigeria. East African medical Journal. Mar. 75 (3): 135 8.
 - 50. Oddens, B J., Lehert, P. (1999). Determinants of contraceptive use among women of reproductive age in Great Britain and Germany. I. Demographic factors. Journal of Biosocial science. Oct. 29 (4): 415 35.
 - 51. Odimwegwu ,C O. (1999). Family planning attitude and use in Nigeria. A factor analysis. International family planning perspectives. Jun. 25 (2): 86 91.
- 52. Oyediran, MA (1984). Family planning in Nigeria. British journal of family planning. 9(4). 110-2.
- 53. Palmore J A., Mercedes B. (1981). Desired family size and contraceptive use: An eleven-country comparison. International family planning and parenthood. 7(1): 37 41.
- 54. Panitchhpakdi P., Podhipak A., Sein U K., Kywe B. (1993). Family planning:

 Knowledge attitude and practice. Survey in Zigone, Myanmar. Southeast Asian

 Journal of Tropical medicine and Public Health. Dec; 24 (4): 636 –46.
- 55. Phyllis Tilson Piotow, D. Lawrence Kincard, Jose G. Rimon II and Ward Rinehart. (1997). Health communication. Lessons from family planning and reproductive health. Johns Hopkins School of Public Health. Praeger. Westport. Connecticut.

- 56. Population action international 1997.
 - 57. Population report. (1998). The impact of quality. Population reports series

 Journal. (47). Family planning programs 3-7.
 - 58. Rahman, M., Da Vario J. (1993). Gender preference and birth spacing in Matlab,

 Bangladesh. Demography. August. 30 (3). 315-52.
 - 59. Ramos Rebecca., Kathy Irene Kennedy., Cynthia. M. Visness. (1996).

 Effectiveness of lactation ammenorhoea in prevention of pregnancy in Manila the

 Philippines. Non comparative prospective trial. British medical journal. 313; Oct

 (12). 909-12.
 - 60. Renne, EP. (1993). Gender ideology and fertility strategies in Ekiti Yoruba village. Studies in family planning. Nov Dec 24. 343-53.
 - 61. Rojnik B., Kosmelj K., Andolsek-Jeras L. (1995). Initiation of contraception postpartum. Contraception. Feb; 51 (2): 75-81.
 - 62. Salway, S., Nuran, S. (1998). Uptake of contraception during postpartum amenorrhoea, understanding and preferences of poor, urban women in Bangladesh. Journal of social science medicine. Oct. 47 (7): 899 909.
 - 63. Scheinman, D., Christine Hongoke., Jeremiah Mshana. (1990). The social soundness of supporting family planning. Paper prepared for USAID. June. 1-5.
 - 64. Shapiro, D., Tambase, BO. (1994). The impact of women's employment and education on contraceptive use and abortion in Kinshasa. Zaire. Studies in family planning. Mar- April.25 (2). 96-110.
 - 65. Singh, J.P., Das Gupta. A. (1983). Social and cultural considerations of sterilization. Case study of Patna. Demography India. Jan-June 12(1). 74-85.

- 66. Siyame, D. (1996). Factors associated with contraceptive use in Rombo district

 Tanzania. Master of medicine dissertation (community health). University of Dar es salaam. Tanzania.
 - 67. Spinell A., Grandolfo M., Donati S., Medda E. (1993). Family planning in Italy.

 Advance Contraception. Jun; 9 (2): 153-60.
- 68. Steele F., Minja C. (1990). The impact of family planning services provision on contraceptive use dynamics in Morocco. Studies in family planning. 30 (1); 28-42.
 - 69. Sweezy S R. (1992). Contraception for the postpartum women. Clinical issues
 Perinatal women. Health nurses. 3 (2): 209-26.
- 70. Tawiah, E.O. (1997). Factors affecting contraceptive use in Ghana. Journal of Biosocial science. April.29 (2). 141-9.
- 71. Tanzania demographic health survey 1996.
 - 72. Turker, G M. (1986). Barriers to modern contraceptive use in rural Peru. Studies in family planning. Nov Dec. 17 (1): 308 16.
 - 73. Unger, J.B. (1998). Contraceptive uses among Latina women. Social, cultural and demographic correlates. Women health issue. Nov Dec 8(6) 359-69.
 - 74. Verme, CS., Rabinovitz, L.M., Landry, E., Misra, G. (1991). Contraception during the postpartum. Perspectives from client and providers in six countries.
 - Paper presented at the 119th Annual meeting of American public health association. Atlanta, Georgia, November 11-14.
 - 75. Viravaidya M., Sacks R G. (1997). Health and rural to urban migration in Thailand. The population and community development association's experience in rural development. Medical Journal of Australia. Feb; 166(3): 152-5

- 76. Ware O E., Karanja J K. (1994). Attitude of males to contraception in a Kenya rural population. East Africa Medical Journal. Feb; 71 (2): 106-9.
 - 77. Winkvist A., Akhtar H Z. (2000). God should give daughters to rich families only: attitude towards childbearing among low-income women in Punjab Pakistan. Journal of social science medicine. Jul. 51 (10): 73 81.
- 78. WHO (1971). Report of World Health Organization expert committee on family planning and health services. Technical report series No. 476. WHO, Geneva.
- 79. WHO (1999). Press release WHO/28 17 may.
- 80. World facts (1999). Population trends.