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FACTORS ASSOCIATED WITH CONTRACEPTIVE USE IN ROMBO DISTRICT TANZANIA

BY

D. SIYAME (MD)

A DISSERTATION SUBMITTED IN THE PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MEDICINE IN COMMUNITY HEALTH OF THE UNIVERSITY OF DAR ES SALAAM - MARCH, 1996

I have read this dissertation and approved it for award of the degree.

Prof. M.T. Leshabari. B.Sc., M.A, ScD (Johns Hopkins).

Date 25/11/1996.

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Abstract.

A cross-sectional Community based study was conducted in Rombo district, during the month of September, 1994. The major aim of the study was to determine factors which are associated with contraceptive use in this district.

The study sample consisted of 804 respondents of whom 458 were males and 346 were females. Data was generated using structured interview schedule, which was administered by trained research assistants.

Findings of the study revealed that the majority (90%) of the respondents were aware of modern contraceptive methods. Women were found to be better informed of these methods than men. Despite the observed high level of contraceptive awareness, use behaviour was found to be low.

Communication between partners ought to be seriously considered as a focus of future family planning programmes.

Men and women were found to differ in some aspects of decision making on fertility control matters.

Results of the multiple logistic regression analysis showed that knowledge of specific contraceptive methods and sex were strong factors influencing use of a method of contraception.

From these findings, the majority of people are now well aware of issues of family planning, efforts should be placed on quality of services.

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ABBREVIATION

CPR = Contraceptive Prevalence Rate.

DHS = Demographic and Health Survey.

FPPPO = Family Planning Program Plan of Operations.

GNP = Gross National Product.

HIV = Human Immuno Deficiency Virus

IEC = Information Education and Communication.

IUD = Intrauterine Device.

MCH/FP= Maternal and Child Health/Family Planning.

MMC = Muhimbili Medical Center.

MUCHS= Muhimbli University College of Health Sciences.

MOH = Ministry of Health.

NACP = National Aids Control Program.

NFPP = National Family Planning Program.

PHC = Primary Health Care.

SD = Standard Deviation..

SPSS = Statistical Package for Social Sciences.

TBAS = Tanzania Baseline Audience Survey.

TFR = Total Fertility Rate.

TKAP = Tanzania Knowledge Attitude and Practice

UMATI= Chama cha Uzazi na Malezi Bora Tanzania (Family Planning Association of Tanzania).

UNFPA= United Nations Fund for Population Activities.

FHP = Family Health Project

GTZ = German Agency For Technical Co-operation

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For all this I thank, JESUS.

DECLARATION.

I, David Siyame, declare solemnly that this dissertation is my own original work and that it has never been submitted for a similar degree to any other University.

---------- Siyame ----------

Date 20/11/ -------1996.

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CHAPTER 1

INTRODUCTION

Background:

The United Republic of Tanzania is the largest country in East Africa. It comprises the Mainland and the two Islands of Unguja and Pemba which are collectively known as Zanzibar. The country lies on the eastern coast of Africa, and shares borders with Kenya and Uganda to the north, Rwanda, Burundi, Zaire and Zambia to the west, Malawi and Mozambique to the south, Indian Ocean to the east.

Administratively, Tanzania is divided into 25 regions which are further subdivided into 136 districts.

Tanzania has a mixed economy with agricultural products playing the dominant role. The primary export commodities are coffee, sisal, cotton and diamonds. It has a Gross National Product (GNP) of US $ 100 (World Bank Report 1993).

The population of Tanzania has increased from 7.7 million in 1948 to 23.1 million in 1988 and currently the population is estimated to be 27 million people (Bureau of Statistics, 1990). With an estimated growth rate of 2.8%, the population is expected to be 33 million people by the year 2000.

The government of Tanzania did not have an official population policy till 1992, although it supported family planning services. These involved provision of family planning information, education and services through the Maternal and Child Health Programme.

Family Planing Services were introduced in Tanzania by the Family Planning Association of Tanzania (UMATI) in 1959. The Government became actively involved in service provision in 1974, following the launching of the integrated Maternal and Child Health and Family Planning (MCH/FP) Programme in the Ministry of Health.

In 1984 the government started the National Child Spacing Programme, with support from the United Nations Fund for Population Activities (UNFPA).

Evaluation of the programme which was held in 1987, revealed that contraceptive use increased from five percent in 1984, to only seven percent in 1987. This low performance in use behaviour prompted the government to look for other strategies of raising contraceptive use. Consequently, in 1989 a National Family Planning Programme (NFPP) was launched whose major aim was to raise awareness and demand for family planning services.

The National Family Planning Programme formulated a five-year term plan (from 1989 to 1993), with an ambitious plan of raising the contraceptive prevalence from seven percent in 1989 to twenty five percent in 1993.

An explicit population policy in Tanzania was launched in 1992, as part of comprehensive national economic and social development plan. The National Population Policy was of critical importance because it outlined the major objectives of the country's population policies, and spelled out key measures to be adopted in the delivery of family planning information, education and services. With specific reference in the family planning, the goals of the policy are to lower the annual population growth rate by increasing contraceptive use behaviour in the eligible population.

However, available data show that contraceptive use prevalence since 1987 has just increased from 7 to 10 percent (TDHS 1992). This is certainly far below the targeted level of 25 percent which was originally planned. There is need therefore to determine factors which influence use of modern family planning methods in order to generate input variables for intervention measures aimed at addressing reproductive health problems in the country.

STATEMENT OF THE PROBLEM:

Available survey data show that the level of contraceptive awareness in Tanzania is fairly high even though use rates are quite low. Contraceptive awareness in a recent survey was found to be 78% for men and 74% among women (TDHS, 1992). However, the overall use rate was found to be only 10 percent.

Evidence from Zimbabwe, Botswana and Swaziland, where contraceptive use rate are relatively higher than Tanzania suggest that exposing men and youth to family planning information and services increases general use behaviour, (Shah 1994). Historically, existing family planning programmes in Tanzania did not focus on men and youth for reasons which are not well documented. The target group for family planning education and services in Tanzania has usually been women attending MCH clinics. The main reason for focusing education on family planning issues at MCH centres was probably the relative ease of access to this target group during antenatal or postnatal care.

The use of MCH services as a focus for family planning activities not only provides limited exposure to eligible women who may not be using available modern health services, but also excludes men from playing an active role in fertility control.

In most African cultures, such exclusion is likely to contribute to low contraceptive use since men are the main decision makers in many households and this includes issues which relate to fertility control.

There is a strong link between contraceptive use and the level of communication between partners on reproductive issues. A Demographic and Health Surveys (DHS) conducted in Burundi (1987), Ghana (1988), Kenya (1988) and Mali (1989) showed that communication between partners on contraceptive use, can determine not only whether a woman will use family planning method but also how efficiently she will use a contraceptive method, (Green 1992). The extent at which communication between partners on contraceptive use exists in Tanzania is not well documented. However, a recent study reported that fertility related behaviour is rarely discussed among sexual partners (TDHS, 1992). While it is quite possible the study failed to tap the language used in various cultures to communicate on sex related issues among the partners, one doubts the extent to which existing health education models which are based on the biological models of disease causation can influence fertility behaviour in local communities whose perception of the problem may be drastically different from that of health care workers.

The extent to which people in Rombo discuss fertility related issues is not known. Little is known about processes at family level which couples use in determining their family size.

Likewise, nothing is known about who among couples should be responsible for the prevention of unwanted pregnancies.

Some studies in Tanzania have shown that women with higher education are more likely to communicate with their partners on fertility related issues than those with low education, (Mbunda and Mpangile, 1991). Rombo is a district in Kilimanjaro Region which according to TDHS (1992), has the highest proportion of women (12%) with secondary or higher education. The proportion of women with a similar level of education at national level is less than 5%. Logically, it could be assumed that given the high level of education among women in the area, communication on reproductive health issues would be better than in other areas in the country.

There is also a problem of beliefs and attitudes influencing contraceptive use. Some studies in Africa have shown that even where women are motivated to use modern family planning, male attitudes towards such services may constitute barriers to contraceptive use, (Mott et al, 1988).

One study from Mbeya Region in Tanzania reported that 16.5% of the women were using contraceptives without the awareness of their husbands (Mmbuji, 1991).

However, reasons behind using contraceptive methods secretly were not given.

Religion is another major factor mentioned in available literature that inhibits contraceptive use. A study in Nigeria reported that a religious group known as "Church of Aladula" in the Yoruba area believed that use of contraceptive was against God (Udjo et al, 1984). Rombo district is predominantly Catholic and the extent to which religious beliefs influence contraceptive use in this area are not known. There is also a problem of service delivery arising not only from too much emphasis on women attending MCH clinics, but also providing such services at the convenience of the health workers, instead of the target population. It is against this background that this study was conducted.

Rationale of the study:

The National Family Planning Programme Plan of Operation 1989 to 1993, aimed at raising the prevalence of contraceptive use to 25 percent by 1993. Reports from TBAS (1991) and TDHS (1992) revealed that there was a gap between contraceptive awareness and use.

Awareness of contraceptive methods was reported to be high but use was low. In this study an attempt was made to determine factors which inhibit contraceptive use behaviour and use the information generated for improving service delivery in the district.

The data generated especially on partner communication on contraceptive related issues would also provide useful information which could be used in community settings when discussing fertility problems and steps which could be taken to address the problem.

Information obtained from this study will open the way for further researches on factors associated with contraceptive use within Rombo as well as in other parts of the country.

OBJECTIVES:

Success of a family planning program depends on the extent to which factors which promote or inhibit the program are known. For this reason the major objective of this study was to determine factors which influence contraceptive use among males and females in Rombo District. Specifically the study intended to:

1. determine the proportion of people who are aware and use modern contraceptives.
2. determine the extent which partners talk about desired number of children and the need for family planning services.

3. determine the proportion of people who approve contraceptive use.
4. find out peoples' awareness of family planning delivery points, in the study area.

CHAPTER 2

REVIEW OF LITERATURE:

The importance of contraceptive use in fertility control is now a subject of major concern to governments all over the World (Ulin et al, 1994). Rapid population growth has led to a situation where the ability of the government, especially in poor countries, to provide basic services for her people has declined (Heckel, 1985). With explicit population policies few countries south of the Sahara have managed to raise contraceptive use rate to a satisfactory level.

Several studies on fertility related issues in different countries; Bangladesh, Paul (1987), Swaziland, Armstrong (1987) and Peru, Tucker (1989) have shown that women are better informed about contraceptive methods than men (Paul, 1987; Armstrong, 1987; Tucker, 1989). This is possibly another factor influencing use. Reasons for the observed gender differences in contraceptive knowledge are not quite clear but could partly be due to poor participation of men in family planning programs. An indepth interviews with 78 women who had recently given birth in Mali showed that women had better contraceptive knowledge than men and the level of awareness increased with increasing level of education (de Walle and Maiga, 1991).

It has also been reported that little attention has been paid to the involvement of men in family planning programs in most African countries (Gallen, 1986; Coeytaux, 1988; Adamchack and Mbizvo, 1990).

Available data show that contraceptive use rates are much higher in developed countries compared to developing countries (Mouldin and Segal, 1998). The reported high level of contraceptive use in developed countries could be due to several factors including partners' ability to discuss issues related to family size and means of attaining set family goals.

Little information is available on how partners communicate, as well as how they make decisions on fertility related matters in developing countries. In most developing countries men dominate decision making at family level including issues related to fertility control (World Bank Report, 1986a). A positive relationship between partner communication on reproductive issues and contraceptive use has been reported in several studies, Nigeria (Oni and McCarthy, 1991), Ghana (Green, 1992), and Zimbabwe (Shah, 1994). A study in Zimbabwe on levels and trends in contraceptive use for example, reported that contraceptive use was relatively higher where partners discussed with each other about fertility control (Shah, 1994) than where this was not the case.

Data from the Zimbabwean Male Fertility Survey, using interview questionnaire showed that most men that believed, men should make primary decision on fertility issues and the responsibility of women is to procure and use the agreed family planning methods (Tunner, 1991). A qualitative survey on family planning in Bamako, Mali reported that partners lacked common agreement on most fertility issues, and that one partner may suspect the other wants more or no children but neither bothers to verify this by talking to each other, (de Walle and Maiga, 1991). One consequence of insufficient discussion on fertility related issues was a low contraceptive use prevalence.

Available literature show that attitudes of men, especially in sub-Saharan Africa, encourage larger families and discourage open discussion of sex related matters (Mott et al, 1990). In a study conducted by Oni and McCarthy (1991), it was found that men who had positive attitudes towards family planning were willing to support use of such services by their wives. Where support from men is weak, use behaviour has been found to be low. A study from Indonesia for example revealed that male opposition was a major barrier to contraceptive use by women who did not want any more children (Joesoef et al, 1988).

Male opposition to contraceptive use was also a reason given in a study involving a sample of 78 married women in Niamey (Wawer et al, 1990).

The 1983 Rwandan National Fertility Survey on status and future prospects of family planning and major constraints to modern contraceptive use, revealed that men believed that introduction of modern family planning in their country was a source of erosion of their cultural morals (May et al, 1990). Another study from Bukina Faso reported that men believed that introduction of modern family planning will change the balance of social control between men and women (McGin et al, 1989).

Reports from twenty-one focus group discussions conducted among men and women in Zaire to identify obstacles to contraception use for women, showed that women are reluctant to use contraceptive methods due to fear that their men might look for other women if they find out they were using contraceptive methods, (Chibalonza et al, 1989). There are also reports from studies in family planning conducted in Zambia in which men believe that women contraceptive users are sexually more promiscuous than none users (Hardee-Cleaveland, 1992).

Awareness of family planning service delivery points has been associated with increased use behaviour. Two cross-sectional studies on the importance of awareness of family planning service delivery points in Nepal showed that women who were aware of sources of contraceptive methods have higher use rates than those who are unaware of such sources (Tuladhar, 1987).

A study on Knowledge, Attitude and Practices of family planning among female teachers in Primary and Secondary Schools in Enugu, Nigeria showed that knowledge of sources of contraceptive methods increases with increasing level of education (Oyeka, 1989).

Women with primary education and those with secondary or higher education were better informed on where the methods are delivered than those with no formal education. It was against this background of inter-related variables which influence contraceptive use behaviour that this study was designed.

CHAPTER 3

METHODOLOGY

The Study area

Rombo district lies in the North-East of Tanzania and covers an area of 990 square kilometres. The altitude rises from 275 metres to 1,830 metres. The district embraces the two peaks of Mount Kilimanjaro, Mawenzi and Kibo which is the highest mountain in Africa. The District borders with Kenya on the eastern side and Monduli District in Arusha Region to the north. Moshi Rural District is on the west and slopes of the Kilimanjaro Mountain lie on its southern border. Administratively, the District is divided into five divisions (Mengwe, Mkuu, Mashati, Useri and Tarakea).

The 1988 profile shows a total of 201,243 people with 47.2% males and 52.8% females. The indigenous people in the study area are mainly the Chagga and their main food crops are bananas, potatoes, beans, maize and a variety of fruits and vegetables. They also grow coffee and to a small extent pyrethrum as cash crops. The District has several forests which are good sources of timber which is sometimes sold to various parts of the region.

Organization of Health Services.

The district has a Missionary Hospital which is the designated district hospital, three health centres and seventeen government and eight non-government dispensaries. The district hospital is manned by three Medical Officers, two Senior Nursing Officers and one Family Planning Coordinator. There are also five Medical Assistants and several Nursing Assistants. The Hospital has a Nursing Training Centre for Grade "B" nurses.

Study design

A cross-sectional community based study was conducted in Rombo during the month of September, 1994. The study involved men and women of child bearing age.

Sample size determination

Since there was no contraceptive prevalence information for the study area, contraceptive prevalence of 10% from the TDHS (1992) was used for estimating the sample size using the formula:

$$n = \frac{Z^2pq}{\delta^2}$$

Where,

n = The desired number of subjects required in the sample

Z = The standardized normal deviate that corresponds to the 5% level of statistical significance, thus Z was set at 1.96

δ = Corresponds to the precision of the results desired, was assigned a value of 2%

p = Proportion of the subject in the population who use contraceptives, 10%

q = Proportion of the subject in the population who don't use contraceptives, 90%

From the above formula the number of participants for this study was 864. Although the formular used to obtain the number of subjects to be recruited in the study, was that of random sampling, method for selecting the subjects was done using a multistage random selection approach.

Sampling procedure

Participants for the study were selected using a multistage random selection approach. First, one village was randomly selected from each of the five divisions in the district. From each selected village a sampling frame of ten-cell leaders in the village was drawn using a random selection approach and twelve Ten-cell leaders were selected. Ten-cell leaders are heads of the smallest administrative units in Tanzania. From each selected ten-cell leader a sampling frame of households in his/her administrative area was drawn. From each household selected all members aged 15 years and above who had been living in the household for at least six months were enrolled for the study.

Data gathering instrument:

Data was collected using structured interview schedules and the interviews were conducted by trained research assistants. The interview schedules were first designed in English and later translated into Kiswahili which is the national language in Tanzania and is easily understood by the majority of the population. Apart from the basic demographic characteristics the interview schedule focused on participants' contraceptive knowledge and use, partner communication on fertility issues, approval of modern family planning and awareness of service delivery points (See Appendix "A").

Ethical clearance

Permission to conduct the study was obtained from relevant authorities. These included, ethical clearance from the Muhimbili University College of Health Sciences (MUCHS), Research Committee, endorsement from the District Medical Officer of Rombo, and informed consent of participants in the study from the village chair-person of selected villages and heads of households.

Eligible subjects for the study were informed individually about the purpose of the study and a voluntary request to participate was acquired. Each participant was assured that all the information from him/her was confidential and would not be given or used by anybody except the investigator.

Limitations of the study

1. A limitation which is common in social research, especially those which focus on sensitive personal issues such as sexual behaviour, is the validity and reliability of the responses. These drawbacks were minimized by assuring the subjects that the information which was provided by them was confidential and no one except the principal investigator will have access to the interview schedules.

2. Recall bias, especially when one is required to remember their age, contraceptive methods ever used was also another potential source of bias.

   An attempt was made in few cases where recall of age was a problem to use a calendar of major events in the area as a method to approximate their dates of birth.

3. Sixty respondents (0.6%) were not obtained for the interview even after three consecutive follow-up visits. Since little was known about their demographic characteristics this could in one way or another have affected the results.

The majority (82.2%) of the respondents were married and only 5% were separated, widowers, or cohabiting at the time the study was conducted.

A slightly higher proportion of males were married compared to females even though women as a group were more likely to be divorced, separated, cohabiting or widowed compared to men, (see table 2).

Table 2: Marital status by sex:

SEX	MARITAL STATUS			TOTAL %	TOTAL NUMBER
	MARRIED (%)	SINGLE (%)	OTHERS (%)		
Male	84.9	11.6	3.5	100.0	458
Female	78.6	14.5	6.9	100.0	346
TOTAL	82.2	12.8	5.0	100.0	804

* **Others** = Separated/Widowers/Cohabiting/Divorce.

The level of literacy in the study area appears to be fairly high. Only about one-in-ten of the respondents did not have any formal schooling and the rest had completed at least primary school.

Examination of the level of literacy in different age groups (table 3) revealed that the youth as a group were better educated than the rest of the respondents while those who were 45 years or older had the highest proportion (38%) of people who did not have any formal schooling.

Table 3: Level of education by age:

AGE (YRS)	EDUCATION			TOTAL %	TOTAL NUMBER
	NO EDUCATION (%)	PRIMARY (%)	SECONDARY AND ABOVE (%)		
15 - 19	1.6	59.0	39.4	100.0	61
20 - 24	4.0	84.4	11.6	100.0	103
25 - 29	3.0	87.4	9.6	100.0	135
30 - 34	8.6	79.9	11.5	100.0	139
35 - 39	6.0	80.0	14.0	100.0	130
40 - 44	15.1	74.5	10.4	100.0	106
45+	37.9	54.5	7.6	100.0	130
TOTAL	12.4	75.6	12.0	100.0	804

Three quarters of both male and female participants had completed primary education and 11% of the females as well as 13% of the males had completed secondary education or higher.

As expected the proportion of women with secondary or more advanced education was found to be high (10.7%) compared to the national average which was reported to be 4.8 percent in TDHS (1992). Summary of the results is in table 4.

Table 4: Level of education by sex:

SEX	EDUCATION			TOTAL %	TOTAL NUMBER
	NO EDUCATION (%)	PRIMARY (%)	SECONDARY AND ABOVE (%)		
Male	12.0	75.1	12.9	100.0	458
Female	13.0	76.3	10.7	100.0	346
TOTAL	12.4	75.6	12.0	100.0	804

Chi-square = 0.99; 2Df; P = 0.611.

The majority of the respondents (83%) were peasant farmers, 10% reported to be engaged in commercial business and the rest (7%) were employees either in government, parastatal or private sectors.

The reported mean number of living children was 4.5; with 23.9% of the respondents having 4-5 living children. About 15% reported to have no children and the rest (61%) had six or more children.

A substantial majority of the respondents (95%) were Catholics, 0.6% were Moslems and 4.4% were Christians of other denominations.

Level of Contraceptive Knowledge and use

One of the major aims of the study was to determine the extent to which the target population was aware of fertility control methods especially modern family planning. Overall, a high proportion (91%) of the study sample was aware of modern family planning methods. These methods were known to 90.4% of the males and 91% of the females in the study sample. The youth appeared to be the most ignorant group about fertility control methods. Less than 20% of them were aware of any modern family planning method compared to 34.8% among those respondents aged 25-34 years. The awareness of modern family planning was positively associated with level of education.

An attempt was also made to determine the meaning of family planning in the study population. The responses obtained from the study participants are summarized in Table 5. For many people in Rombo the concept of family planning means "Spacing of children". Only one-fifth of the respondents said family planning to them meant limiting number of children and less than 14% said the concept refers to preventing pregnancies.

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Table 5: Percent distribution of the meaning of family planning by sex:

SEX	MEANING OF FAMILY PLANNING			TOTAL %	TOTAL NUMBER
	LIMIT CHILDREN (%)	SPACE BIRTHS (%)	PREVENT PREGNANCY (%)		
Male	20.7	65.5	13.8	100.0	458
Female	16.8	70.0	13.2	100.0	346
TOTAL	19.0	67.6	13.4	100.0	804

Chi-square = 223.51; 2Df; $P < 0.001$.

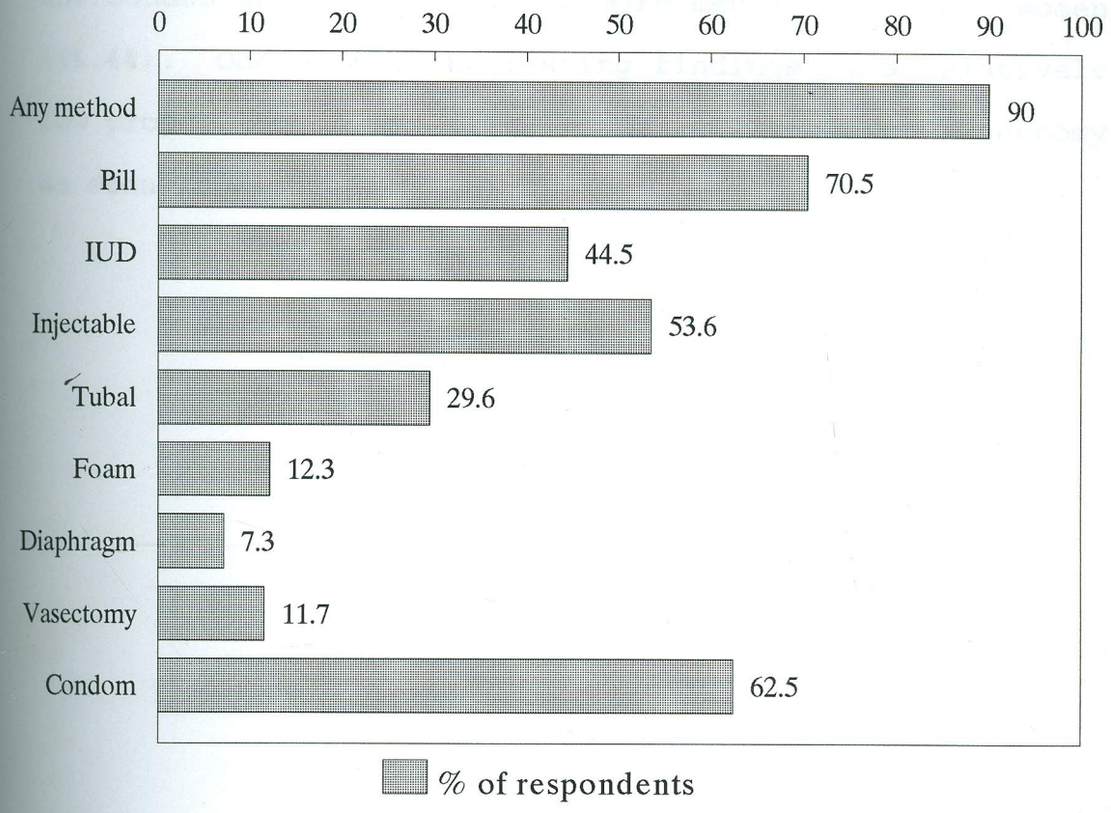
The reported variation in the meaning of family planning appears to be significantly different between males and females.

Awareness of specific family planning methods

Analysis of specific contraceptive methods known in the study area revealed that the pill was the most commonly known method, followed by the condom. The diaphragm and foam were the least known methods and these results were not surprising given the way family planning services are promoted in the country. In most cases the pill is the most widely used method because there is a little method mix when promoting different family planning methods.

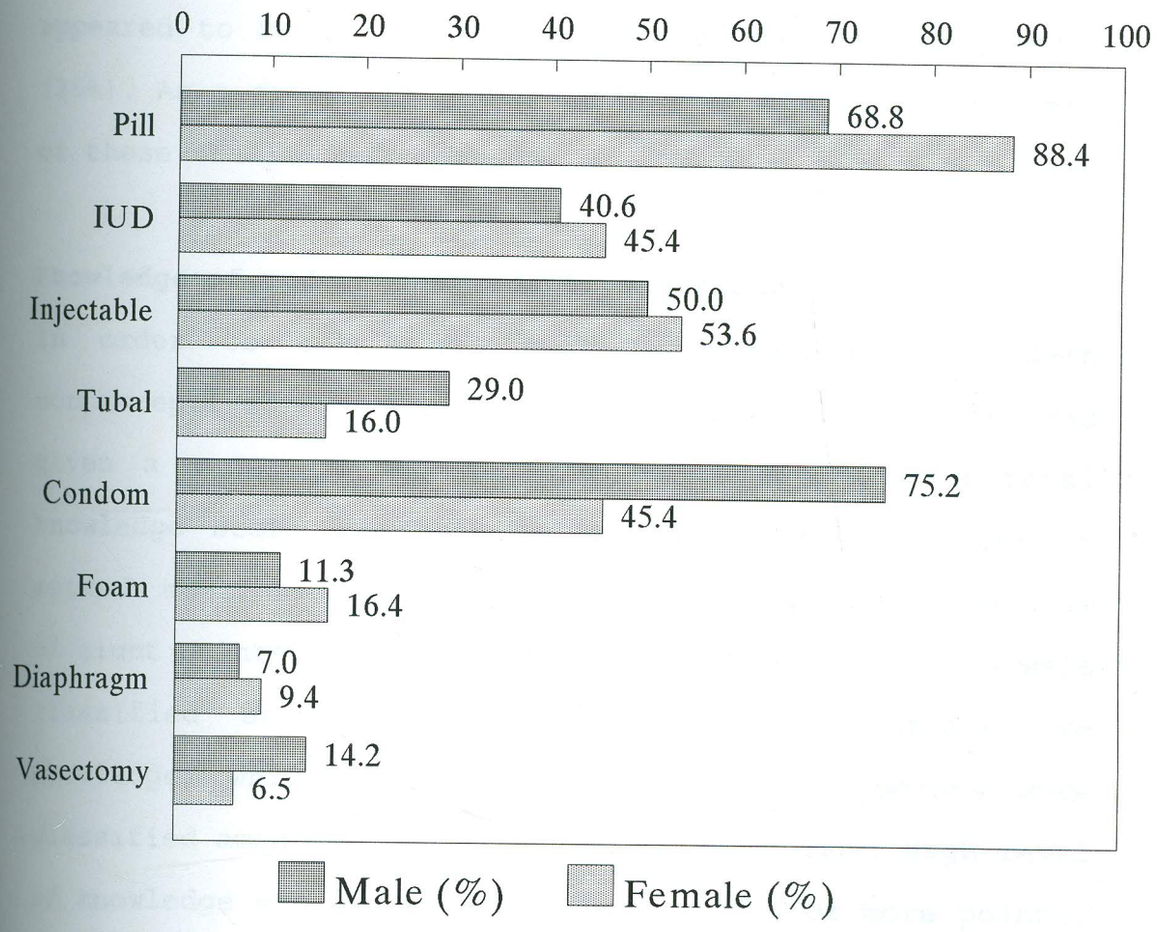
Of late the condom is also widely known and used due to HIV/AIDS prevention campaigns. Although norplant has been introduced into the country, no respondent appeared to be aware of it. The findings again reflect how this method is being promoted. Emphasis is in urban areas probably due to the need for doctors in the initial phase of introducing norplant. Vasectomy which is one of the few male methods available was known to about 12% of the respondents. The pattern of awareness of different family planning methods known to the study sample is summarized in Figure 1.

Figure 1: Awareness of specific modern family planning methods of the study sample:



In all methods women were better aware than men except for the condom which was known by more men (75.2%) than women (45.4%). One of the interesting findings is a relatively low proportion of men (14.2%) who were aware of vasectomy as seen in Figure 2.

Figure 2: Knowledge of modern family planning by sex:



Some respondents also reported to be aware of traditional fertility control methods. These included rhythm, withdrawal and abstinence. A higher proportion of men (65%) appeared to be aware of this type of methods than women (35%). As a group the youth again were the least informed of these traditional methods.

Knowledge of modern contraceptive methods

In order to test the level of knowledge on modern contraceptives, each modern method which was mentioned was given a score of one and for each respondent a total knowledge score was obtained by counting the number of methods mentioned. The scores ranged from zero to a maximum of eight points. Those who scored less than two points were classified as having a low level of contraceptive knowledge, while those with three to five points were classified among people with average knowledge. High level of knowledge was reflected by scores of 6 or more points. Using this scale 43% of the respondents were found to have low knowledge and only 11% of the respondents knew six or more modern contraceptive methods.

The variation of the level of contraceptive knowledge by age is summarized in table 6. As observed previously, the youth especially teenagers and respondents who were 45 years old or older were the most ignorant about these methods.

Two-thirds of teenagers and half of the respondents aged forty years and older knew two modern methods or less. About 8.3% of both youth and respondents aged 45 years and older knew six or more modern contraceptive methods.

Table 6: Distribution of respondents' level of contraceptive knowledge by age:

AGE (YRS)	KNOWLEDGE OF CONTRACEPTIVE			TOTAL %	TOTAL NUMBER
	LOW (%)	MODERATE (%)	HIGH (%)		
15 - 19	65.6	27.9	6.5	100.0	61
20 - 24	36.9	56.3	6.8	100.0	103
25 - 29	36.3	49.6	14.1	100.0	135
30 - 34	36.7	49.6	13.7	100.0	139
35 - 39	36.7	48.5	13.8	100.0	130
40 - 44	48.4	40.6	11.0	100.0	91
45+	53.8	37.9	8.3	100.0	145
TOTAL	43.4	45.5	11.1	100.0	804

When the level of contraceptive knowledge was examined across different marital categories, single respondents were found to be fairly poor in contraceptive awareness. Only 3% of single respondents scored high on the knowledge scale compared to 12% of the married respondents. These findings partly reflect the way family planning services have been promoted in the country.

The target group for family planning education and services has usually been pregnant or lactating women attending MCH clinics and the majority of these are married.

Table 7: Distribution of respondents' level for contraceptive knowledge by marital status:

MARITAL STATUS	KNOWLEDGE OF CONTRACEPTIVE			TOTAL %	TOTAL NUMBER
	LOW (%)	MODERATE (%)	HIGH (%)		
MARRIED	41.3	46.7	12.0	100.0	661
SINGLE	55.3	41.7	3.0	100.0	103
OTHERS	47.5	35.0	17.5	100.0	40
TOTAL	43.4	45.5	11.1	100.0	804

Chi-square = 11.33; 2Df; P = 0.003;

Others = Separated/Widowers/Cohabiting.

When the level of contraceptive knowledge was examined in relation to number of children, the pattern summarized in table 8 emerged.

The proportion of respondents with low level of contraceptive knowledge increased with increasing number of children varying from 32% among those with one or none to over 49% among those with six or more children.

Table 8: Distribution of respondents' level for contraceptive knowledge by number of children:

CHILDREN	KNOWLEDGE OF CONTRACEPTIVE			TOTAL %	TOTAL NUMBER
	LOW (%)	MODERATE (%)	HIGH (%)		
0 - 1	32.0	49.3	18.7	100.0	75
2 - 3	33.5	55.9	10.6	100.0	179
4 - 5	46.4	42.3	11.3	100.0	222
> 6	49.6	41.1	9.5	100.0	328
TOTAL	43.4	45.5	11.1	100.0	804

Chi-square = 10.84; 5Df; P = 0.054.

This observation is partly due to age since older respondents in the study sample are not only more likely to have many children, but they are also likely to be less educated than younger respondents.

CONTRACEPTIVE USE BEHAVIOUR:

Results presented in this section reflect contraceptive use behaviour in the study population. At the time this study was conducted 16% of all respondents were using a modern method of contraception. Respondents aged 20-29 years had the highest proportion of users.

The pill, IUD and injectables were the most commonly used methods, even though there was a wide variation across different age groups in the use pattern.

Given that a substantial majority of the respondents (85%) were Catholics, this low use may have been contributed by the Catholicism ideas.

Although the proportion of users in each age category is small, the pill was the most common among youth, while IUD had the highest proportion of users among women aged 25-29 years. Although vasectomy was rarely promoted in the country due to cultural reasons, some men (0.2%) reported to have undergone this surgical procedure. This finding was rather unexpected given the influence of Catholicism and the rural nature of the study population.

An attempt was also made to look into use behaviour specifically among women who were in the study sample. Overall 12.3% of the married women were using modern contraceptive methods at the time the study was done, compared to only 3.3% of the single women who reported similar behaviour.

This observation may be due to the fact that family planning services in the study area are still targeted to married people.

Communication on reproductive health issues between partners:

This section focuses mainly on peoples' perception on how issues of fertility are discussed among partners. Information from respondents in this study revealed that 77% had discussed with their partners issues related to the number of children in the family in the six months period prior to the study. Such discussions were reported in all age groups. However, the extent of such discussions varied by age, sex and marital status. While nearly 40% of the youth aged 15-24 years reported to have been involved in such discussions with their partners, this increased to 86% among people aged 40 years and above. Such discussions were found to more among married (77%) than among single respondents (68.4%). A slightly higher proportion (97%) of the respondents with secondary or more advanced education discussed such issues than those without formal education (65%).

An attempt was made to find out respondents' opinion on who they believed should make decisions on the number of children needed in a family. Three-quarters of the respondents believed that such decisions should be made by both partners and 16.8% said men should be responsible. Only a very small proportion were of the opinion that women should do so.

Support for women making decisions on the number of children she should bear was highest among youth and respondents aged 40-44 years and lowest among those aged 30-34 years, as summarized in table 9.

Table 9: Distribution of respondents' perception on who should decide the required number of children in a household by age:

AGE (YRS)	DECISION SHOULD BE MADE BY:			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
15 - 24	22.7	11.8	65.5	100.0	110
25 - 29	15.6	7.8	76.6	100.0	128
30 - 34	10.9	5.2	83.9	100.0	137
35 - 39	10.0	7,8	82.2	100.0	129
40 - 44	17.5	11.0	71.5	100.0	91
45+	24.3	8.3	67.4	100.0	144
TOTAL	16.8	8.6	74.6	100.0	739

Chi-square = 35.29 5df; P < 0.001

Table 10 shows the perception of respondents on who should decide on the number of children a couple should have by sex. When this issue was examined among men and women it was generally observed that quite a high proportion of both men and women expect such decisions to be made jointly by both the partners. While the International Conference on Population and Development held in Cairo emphasized the need for women to decide freely over their own fertility Ulin et al (1994), data from Rombo show support for such views by men to be fairly weak.

Less than 4% of the men supported the idea that women should be the major decision makers on how many children a family should have and less than 15% of the women in the group were in favour of such an idea. This finding was not surprising given the impact of socialization processes in the community on issues related to fertility at household level.

Table 10 : Distribution of respondents' perception on who should decide the required number of children in a household by sex:

SEX	WHO SHOULD DECIDE THE NUMBER OF OF CHILDREN REQUIRED			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
MALE	18.7	3.6	77.7	100.0	422
FEMALE	14.2	14.8	71.0	100.0	317
TOTAL	15.4	7.7	68.9	100.0	739

Chi-square = 118.63; 3Df; $P < 0.001$.

An attempt was also made to determine the extent to which the marital status of the respondents influenced his/her perception on who should determine the number of children required in a family. As shown in Table 11 married respondents (78.2%) were more likely to support joint decisions on such issues compared to other marital categories. Support for male partner deciding how many children they should have was fairly strong among respondents who were single (52.6%), divorced, separated or widowed (50.2%). Reasons for these interesting pattern was not explored.

While it can be argued that lack of experience coupled with the impact of social construction issues related to fertility account for responses given by the single, it is difficult to explain why such a large proportion of those who had some experience of living together with a partner of the opposite sex believed men should be given priority on deciding the number of children a family should have.

Table 11: Distribution of respondents' perception on who should decide the required number of children in a household by marital status:

MARITAL STATUS	WHO SHOULD DECIDE THE NUMBER OF OF CHILDREN REQUIRED			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
MARRIED	12.7	9.1	78.2	100.0	661
SINGLE	52.6	2.7	44.7	100.0	38
OTHERS*	50.0	2.5	47.5	100.0	40
TOTAL	16.8	8.4	74.8	100.0	739

Chi-square = 45.48; 1Df; $P < 0.000$.

* **Others** = Separated/Widowers/Cohabiting/Divorce.

Interestingly, support for joint decision on the required number of children in family increased with increasing level of education, varying from 49% among illiterate respondents to 81% among those with secondary education or higher. Support for such decisions to be left to women decreased with increasing level of education and only 3% of those with secondary education or higher supported such ideas, (See table 12).

Table 12: Distribution of respondents' perception on who should decide the required number of children in a household by education:

EDUCATION	WHO SHOULD DECIDE THE NUMBER OF CHILDREN REQUIRED			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
ILLITERATE	33.0	18.0	49.0	100.0	100
PRIMARY	14.0	7.4	78.6	100.0	570
SECONDARY OR HIGHER	16.0	3.0	81.0	100.0	69
TOTAL	16.8	8.4	74.8	100.0	739

Chi square = 42.34; 2Df; $P < 0.001$

The study also explored the extent to which partners discuss issues related to family planning among themselves. More than two-thirds of the respondents reported to have discussed with their partners about family planning at least once within six months prior to the study. Respondents aged 15-24 years and those aged over 45 years had the smallest proportion (15%) of people who had done so and as indicated previously, this is the same group whose contraceptive awareness was fairly low.

Lack of discussions on family planning issues by the youth (15-24 years) is rather worrying. This is the group according to a recent review, which is highly sexually active (Leshabari and Kaaya, 1994) and it appears that much of their sexual behaviour is recreational with little, if any, consideration about consequences.

This study also attempted to find out respondents' opinions on who among partners should be responsible for preventing unwanted pregnancies. As shown in table 13, 45% of the respondents were of the opinion that pregnancy prevention is the responsibility of both partners. Half of the men in the study sample were of the opinion that prevention of pregnancies was the responsibility of both partners and this opinion was supported by only a third of the women.

Over 55% of the female in the sample were of the opinion that prevention of pregnancy is the responsibility of women views which were shared by only 15% of the men.

Table 13: Distribution of respondents' perception on who should be responsible for the prevention of pregnancy in a household by sex:

SEX	WHO SHOULD BE RESPONSIBLE FOR PREGNANCY PREVENTION			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
MALE	15.0	34.0	51.0	100.0	259
FEMALE	10.7	55.3	34.0	100.0	215
TOTAL	13.0	43.7	43.3	100.0	474

Chi-square = 92.26; 2Df; $P < 0.001$

Opinions on prevention of pregnancy appear to vary by marital status of the respondents. Married respondents strongly supported the idea that such responsibility lies in both partners an opinion which was shared by less than 19% of the single respondents.

In all cases respondents who believed such responsibility should be left to men was higher than those who believed such issues should be left to women (See table 14 below).

This finding again appears to suggest that while family planning services are mainly directed to women, many people, at least in Rombo, think men should be more responsible for such fertility problems than women.

Table 14: Distribution of respondents' perception on who should be responsible with prevention of pregnancy in a household by marital status:

MARITAL STATUS	WHO SHOULD BE RESPONSIBLE FOR PREGNANCY PREVENTION			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
MARRIED	19.7	15.3	65.0	100.0	661
SINGLE	56.2	25.0	18.8	100.0	32
OTHERS*	43.5	17.4	39.1	100.0	23
TOTAL	22.0	15.8	62.2	100.0	716

Chi-square = 108.17; 3Df; $P < 0.001$.

*** Others** = Separated/Widowers/Cohabiting/Divorce.

Table 15, shows distribution of respondents on who they believed should be responsible with family planning by educational level.

Most respondents with no formal education (50%) support the idea that male alone should be responsible with fertility control issues. Surprisingly quite a good number of respondents with secondary education (38%) supported the idea that male alone should be responsible for pregnancy prevention.

Table 15: Distribution of respondents' perception on who should be responsible with prevention of pregnancy in a household by level of education:

EDUCATION	WHO SHOULD BE RESPONSIBLE FOR PREGNANCY PREVENTION			TOTAL %	TOTAL NUMBER
	MALE PARTNER (%)	FEMALE PARTNER (%)	BOTH PARTNERS (%)		
ILLITERATE	50.0	19.6	30.4	100.0	46
PRIMARY	30.7	24.2	45.1	100.0	397
SECONDARY OR HIGHER	38.2	17.6	44.2	100.0	34
TOTAL	33.0	23.4	43.6	100.0	477

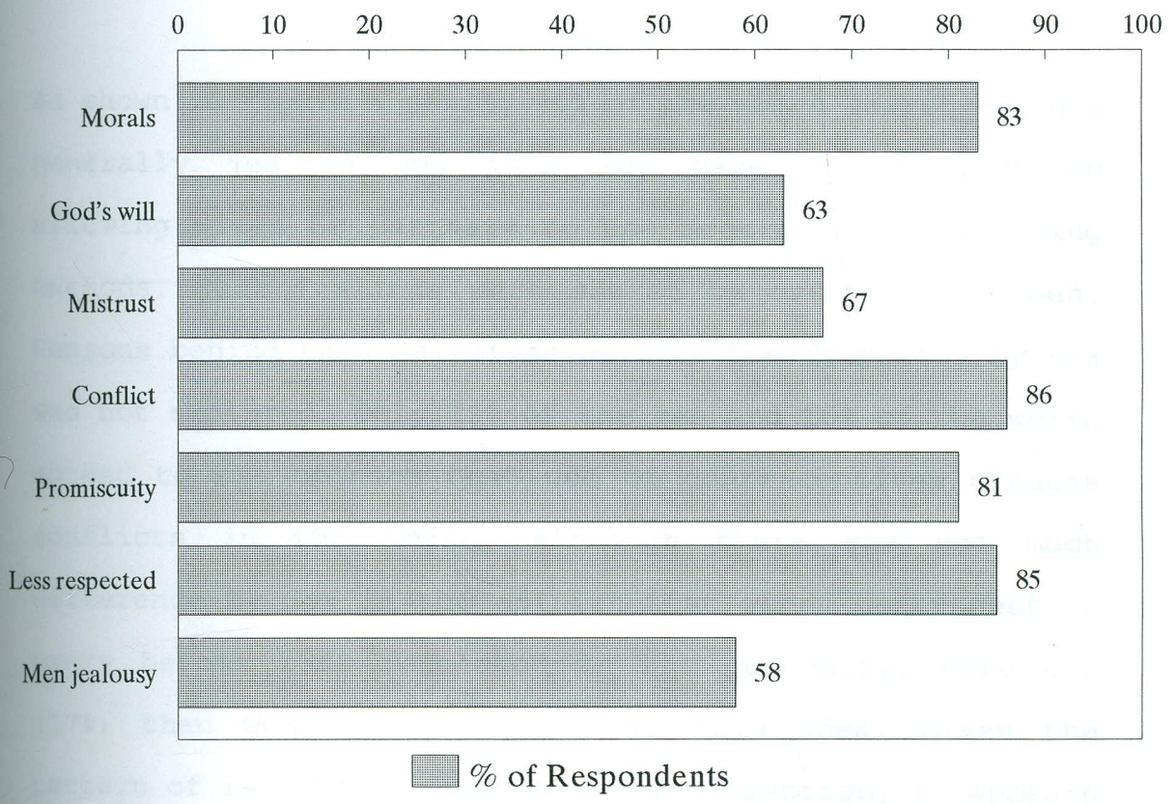
Chi-square = 205.22; 3Df; P < 0.001.

In summary this study had revealed that there is little support for free decision by women on fertility issues. Most people are of the idea that decisions on fertility issues should be made by both partners rather than women alone. This probably suggests that promoting joint decisions on fertility control may in the long run be more acceptable in various communities than interventions, which focus on only women as has been the practice for years in Tanzania.

Attitudes towards modern family planning

People's beliefs and attitudes towards modern family planning were assessed in relation to approval rate, rumours and misconceptions about family planning methods. Figure 3, shows percent distribution of the said population on attitudes towards modern family planning. Generally the results of this study show that people in Rombo have favourable attitudes towards modern family planning as 86.6% of the respondents approved of modern family planning. Many respondents disagreed with common rumours and misconceptions on modern family planning methods, such as women contraceptive users become more promiscuous than non-users, are not respected in the community and use of contraceptives causes marital conflicts.

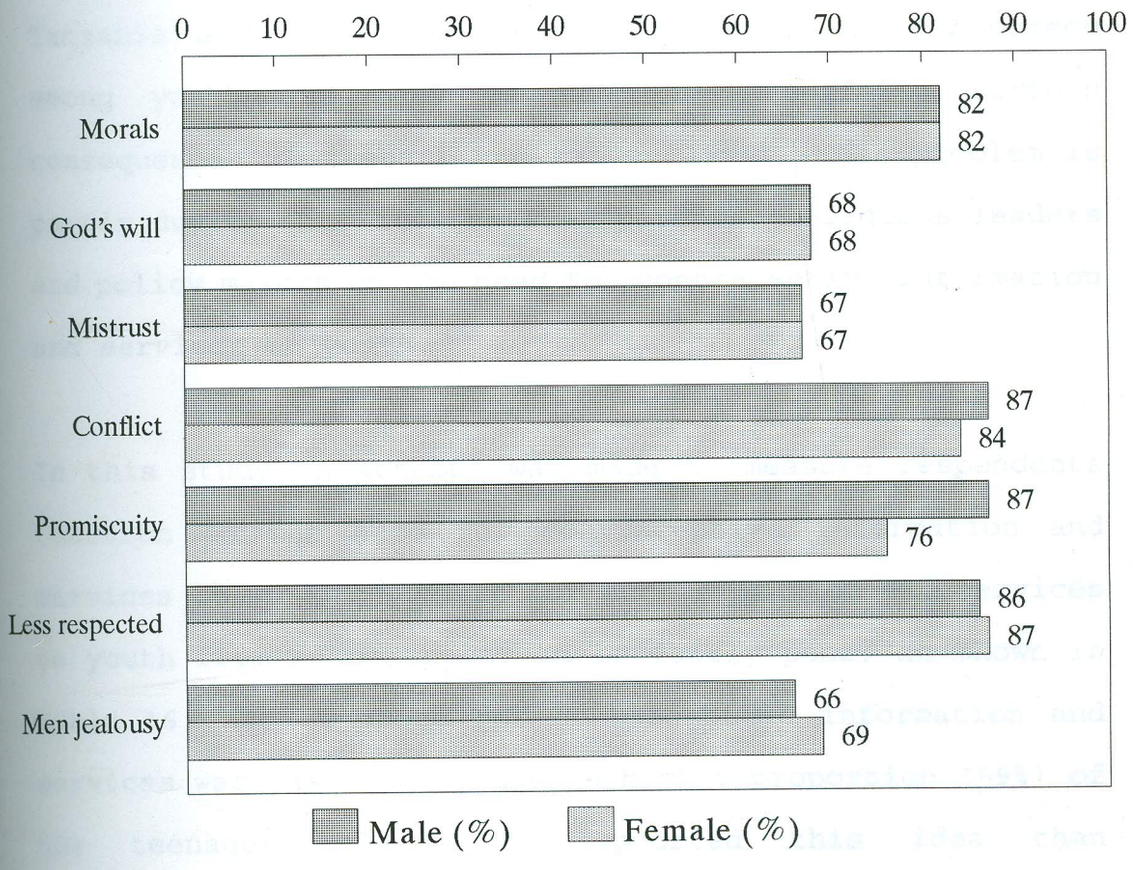
Figure 3: Distribution of respondents on level of disagreement with rumours or misconceptions about modern methods of family planning:



Interestingly, however, 24% of the male respondents in the study sample appear to believe that female contraceptive users are promiscuous a view which was supported by only 13% of the female respondents. About 67% of both male and female respondents did not believe use of modern family planning methods can lead to mistrust between partners.

As shown in Figure 4 nearly 31% of the women feared men are generally jealous and this may have implications on allowing wives or partners to use modern family planning methods. Such feelings were shared by one-third of men. Reasons behind this belief as well as the disparity by sex was not explored. Only 13% of the men and 16% of the women agreed to the opinion that use of contraceptives creates conflicts in the house. Although there was not much difference by sex in the opinion that women contraceptive users become less respected in the community, more men (17%) than women (13%) agreed to this idea. Given the pattern of responses generated in this section, it appears fears and misconceptions regarding modern contraceptive methods do not have much to do with the belief system in the community.

Figure 4: Distribution of respondents on level of disagreement with rumours or misconceptions about modern methods of family planning by sex:



Barriers to modern family planning information and services to Youth

Premarital sex among school-girls is fairly common and many girls have been expelled from schools due to this problem (Boohene et al, 1991). Data from various sources in Tanzania also show unprotected sex to be fairly common among youth and many of them have suffered serious consequences (Leshabari and Kaaya, 1994). This problem is partly due to conflicts between parents, religious leaders and policy makers on the need for contraceptive information and services to youth.

In this study an attempt was made to measure respondents reaction on the need for contraceptive information and services to youth. Support for such education and services to youth from Rombo appear to be fairly poor, as shown in Table 16. When support for contraceptive information and services was examined by age, a higher proportion (59%) of the teenagers themselves supported this idea than respondents aged 45 years and above (26.9%). Results are summarized in table 16.

Table 16: Distribution of respondents' level of support for information, education and services to youth by age:

AGE (YRS)	LEVEL OF AGREEMENT		TOTAL %	TOTAL NUMBER
	AGREED (%)	DISAGREED (%)		
15 - 19	59.0	41.0	100.0	61
20 - 24	41.7	58.3	100.0	103
25 - 29	33.3	66.7	100.0	135
30 - 34	31.7	68.3	100.0	139
35 - 39	28.5	71.5	100.0	130
40 - 44	33.0	67.0	100.0	90
45+	26.9	73.1	100.0	145
TOTAL	36.3	63.7	100.0	804

Nearly, two-thirds of the respondents were not in favour of family planning education for school youth and the proportion of men who are not in favour of such ideas was slightly higher than that of women. This finding is rather surprising given the extent of sex related problems among school youth and the role of men in this general problem (See table 17).

Table 17: Distribution of respondents' level of support for information, education and services to youth by sex:

SEX	LEVEL OF AGREEMENT		TOTAL %	TOTAL NUMBER
	AGREED (%)	DISAGREED (%)		
MALE	32.5	67.5	100.0	458
FEMALE	36.1	63.9	100.0	346
TOTAL	34.0	66.0	100.0	804

Chi-square = 0.03; 1Df; P = 0.287

Awareness of family planning services delivery points

The extent to which respondents were aware of family planning service delivery points was examined. The results revealed that 80% of the respondents were aware of places where family planning services can be obtained. As expected awareness of services delivery points was significantly higher among females (84%) than males (54%).

Also awareness was higher among married respondents (84%) than single (55%). This result was not surprising given the way family planning services are promoted in the country. These services were provided through MCH services which targeted pregnant women or those with under five children of whom the majority would be married.

MULTIVARIATE ANALYSIS

Multiple logistic regression analysis was done to determine factors which influence contraceptive use in the study population. Independent variables used in the regression model included age, sex, education, marital status, number of children and knowledge of contraceptive methods. These variables were chosen on the bases of their theoretical importance in contraceptive use or their influence on the dependent variables in the unvariate analysis.

Results of the multiple logistic regression revealed that knowledge of a contraceptive method and sex were strong factors influencing use behaviour. In particular, the results show that females are more likely to use contraceptive methods when compared to the males ($P < 0.001$). Details of the results fitting the multiple linear logistic regression model are given in Table 18 below.

Table 18: Main effects model predicting contraceptive use pattern:

VARIABLE	PARAMETER	STD ERROR	95% CI	P-VALUE
CONSTANT	-1.2844	0.5326	-2.1907 to 0.1028	0.0313
AGE	-0.1894	0.1393	-0.4627 to 0.0831	0.1729
CHILDREN	0.1037	0.1423	-0.1752 to 0.3826	0.4663
EDUCATION	0.2127	0.2769	-0.3301 to 0.7554	0.4425
KNOWLEDGE	0.2457	0.0669	0.1145 to 0.3769	0.0000
MARRIED	0.0335	0.4131	-0.7761 to 0.8431	0.9353
SINGLE	1.0939	0.9151	-0.6996 to 2.8874	0.2319
SEX	-1.2844	0.2621	-1.7982 to -0.7706	0.0000

The results of multiple logistic regression analysis that as age increased, the probability that one will use a method decreased, but these results were not significant (P = 0.172). Respondents with no children were found to be less likely to use a method than those with children.

Explanation of Variables used:

Sex:

0 = Male

1 = Female

Age: 0 = 15 - 24 years

1 = 25 - 29 years

2 = 30 - 35 years

3 = Over 36 years

Education:

0 = Illiterate

1 = Primary

2 = Secondary and Advanced

Knowledge:

0 = Low (0 - 2 points)

1 = Medium (3 - 5 points)

2 = High (6 or more points)

Marital Status:

0 = Cohabiting, Separated, Divorced, Widowed

1 = Single

2 = Married

Children:

0 = 0 - 1

1 = 2 - 3

2 = 4 - 5

3 = Over 6

CHAPTER 5

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS:

DISCUSSIONS:

Findings of this study have revealed that the majority of people in Rombo District are aware of modern family planning methods, but contraceptive use rate was only 13%. This gap between contraceptive knowledge and use has also been reported from studies conducted in other parts of the country (Mbunda et al, 1991; Ngalaba et al, 1992). Similar findings have also been reported from studies outside Tanzania (McGinn et al, 1989; May et al, 1990; de Walle and Maiga, 1991). Lack of positive relationship between knowledge and behaviour is not only confined to family planning. Available reports on HIV/AIDS in the country show substantial proportion (over 90%) of people are aware about this epidemic but only a small minority have changed their behaviour which make them susceptible to HIV infection (NACP, 1994).

The observed low contraceptive use rate in the study area was not surprising due to a variety of reasons. First, as noted elsewhere, raising the level of reproductive knowledge does not necessarily mean use rates of contraceptive method will also increase. Circumstances which facilitate use behaviour include improving quality of service delivery.

A recent report from Kenya showed that improving the quality of care in family planning service delivery from the perspective of both clients and providers significantly improved use rates (MOHK, 1995). Quality of care was defined using six elements: choice of methods, information given to users, technical competence, inter-personal relations, follow-up and appropriate constellation of services. Experience of the author in Rombo show that few of this quality of care elements are appropriately taken into account during family planning services due to variety of reasons; for example, lack of instruments, lack of rooms for counselling and so on.

Apart from quality of care, exclusion of men from family planning services could have also contributed to low contraceptive use. Family planning services were targeted to women through MCH services leaving men outside the system. The lack of male involvement in family planning programs not only provides limited exposure to men it also excluded men from playing a role on fertility control. In Swaziland, Armstrong (1987) associated low contraceptive use behaviour with lack of male involvement in the family planning program and the need for women to get permission from their husbands so as to use the services.

Similarly in Mali de Walle and Maiga (1991), attributed low contraceptive use to lack of male involvement in family planning provision.

These findings were supported by Finger (1992), who established that providing family planning services to married women alone was a barrier to effective fertility control, since such policies isolated sexually active clients including men. A study from Zimbabwe showed that contraceptive prevalence rate of 33% was reached probably as a result of both men and women taking part in fertility control issues, (Shah, 1994).

High partner communication has been associated with high contraceptive use (Green, 1992). Findings of the current study show that, despite a high rate of partner communication (62.5%) on fertility related issues, use behaviour was quite low. The possible explanation to such observation in the current study could have been attributed to a lack of common agreement between partners on who should decide on whether to use contraceptives or not, and who should be responsible for procurement of contraceptives. Half of the men felt that both partners should be responsible for pregnancy prevention, on the other hand 55% of the women wanted all such decisions to be left to women alone.

While Ulin et al (1994), argues that women should have free decisions on their own fertility, men in Rombo seem not to agree with such an idea.

In Peru, Tucker (1989), reported that men's dominant role in reproductive behaviour was related to cultural norms that emphasize traditional gender roles. In Burkina Faso McGinn et al (1989), and in Zaire Chibalonza et al (1989), revealed that men felt that if they allowed women to decide freely on fertility matters they will be a change in balance of social control between men and women since men are paramount decision makers. It was not known whether the cultural factors in the study area were a reason for the lack of support for males of free decisions by women on issues related to fertility control.

The majority of people in Rombo are Catholics and the Catholic Church is quite influential in the area. The Catholic attitudes torwards modern family planning to some extent may have contributed towards low use rate. Several health units in the study area including the District Hospital are owned by the Catholic Church. This weakens the ability of such units to promote contraceptive use due to the stand of the Church on fertility control issues. It will be rather difficult to achieve set targets of contraceptive use prevalence due to barriers arising from the influence of the Catholic Church.

The observed low support for youth, especially school girls, to be exposed to information, education and services on family planning was rather worrying given available data on rates of unprotected sex and related consequences to this population sub-group. The Family Planning Program of Tanzania had for some years, not included youth in its services despite the fact that one goal of Primary Health Care is to provide health services including family planning to all people irrespective of gender, age or marital status. Information from the study area on support for contraceptive information and services to school girls show girls will continue to have very hard life and suffer from consequences of premarital pregnancy such as being expelled from school, have fewer job opportunities and even raising children alone, since parents in this area had very low support for this issue.

Traditional marriages among youth in the country appear to be common, particularly in rural areas (Mbunda et al 1991). The youth therefore, get married with little or no information at all on contraceptives, yet we expect them to be the future contraceptive users. Finger (1992) has pointed out that an increasing number of young people, especially girls, who experience sex while remaining ignorant of reproductive health will still be a problem to family planning provision.

Hughes (1994), argues that sexual health including reproductive health information and services is concerned with having or not having children and how this affects people's lives. It is a human right and should not be denied to anybody even the youth.

CONCLUSIONS:

The study planned to determine factors associated with contraceptive use and it was observed as follows.

The low contraceptive use observed in this study, could have been attributed by factors such as the quality of services.

Men and women appeared to have no common agreement on most decisions concerning fertility control. This may have been attributed to insufficient and ineffective dialogue on fertility control methods. Many of the contraceptives require the cooperation of both men and women. Thus, future efforts to promote fertility control can be achieved through male involvement in family planning programs.

RECOMMENDATIONS:

Since awareness was high and use was low an ongoing effort by the Family Planning Program Policy makers to find ways in which more people will use the methods is needed; this should be through community based types of services.

The focus of family planning planners should be on how partners may be assisted to communicate openly and have common agreement on fertility issues.

Greater efforts on information, education and services should be targeted to areas where there is a high influence from the Church as there will always be people who want to use modern family planning methods.

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