

## UTILIZATION OF MODERN FAMILY PLANNING METHODS AMONG WOMEN OF REPRODUCTIVE AGE IN A RURAL SETTING: THE CASE OF SHINYANGA RURAL DISTRICT, TANZANIA

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### Abstract

**Objective:** This study investigated prevalence and determinants of modern family planning practice among women in Shinyanga rural district, Tanzania

**Methods:** A contraceptive prevalence survey was conducted among 271 women of reproductive age (15–49 years) from six villages in the district. Data was collected using an interview administered structured questionnaire. Information gathered included socio-demographic characteristics, parity, family size, knowledge of modern family planning methods as well as current use of the methods.

**Results:** Modern family planning methods were generally known, with the pill being the most commonly mentioned method (81.2 percent) followed by the injectable type (76.8%). More than half of the women (56.5 percent) had low level of knowledge of the methods and the use rate was low, 12.2 percent. Respondents' religious denomination, their levels of knowledge of the methods as well as communication between spouses regarding family planning issues were significantly associated with contraceptive use ( $p < 0.05$ ).

**Conclusion:** We conclude that it is imperative for reproductive health programmes to intensify efforts in improving women's knowledge of modern FP methods and encourage partner communication in order to raise contraceptive prevalence rate. In addition, further studies are necessary to identify other potential factors facilitating use of modern FP methods among rural women.

### Introduction

In the developing countries, the proportion of couples using modern family planning (FP) methods either for spacing or limiting births has been increasing from 9 to 60 percent in a span of forty years until recently. Such encouraging figures have led some to claim that research in family planning is no longer a global issue or priority and that a sufficient choice of safe and effective methods is already available (1). This view ignores the reality that over 120 million couples do not use contraceptives despite wishes to space or limit their child bearing and that a further 300 million are dissatisfied with the methods they use (2). It also ignores fertility levels and the contribution of family planning in reducing maternal mortality.

When human reproduction is left unchecked, it results into high birth rates, bringing about large family size with the negative effects on the health of the respective mothers and children. Consequently this leads to negative impact on the family, the community and the nation at large as a result of economic overload in covering the additional demand. Indeed, uncontrolled births can destroy a nation's development aspirations and prevent its people from enjoying an improved standard of living (3).

In Tanzania mainland, modern FP services were initiated by a non-governmental organization, the Family Planning Association of Tanzania, popularly known as UMATI in 1959. In 1974, the government started providing the services by integrating them within the existing maternal and child health services. Since then the services have been freely provided throughout the country down to the dispensary level. These methods account for more than two-thirds of all contraceptive practices worldwide and have been documented to be effective and safe with high degree of success rate wherever they have been used appropriately (4).

Data in a recent nationwide survey in Tanzania indicate that awareness of FP methods is high among both women and men. Almost all respondents in this survey knew at least one method of contraception; and nine out of every ten women had heard about the pill, injectables and the male condom (5). Further analysis of the data revealed that despite the observed high awareness of modern FP methods, only 20.3 percent of the currently married women reported to be using any of the methods; 34.3 percent and 15.5 percent for urban and rural women respectively. This level is low whilst the total fertility rate is high (5.7) and little is known about factors influencing use of family planning. This study therefore investigated factors that influence use of modern FP methods among women in a rural setting. The findings contribute to the insight of the potential factors which may inform the designing of specific interventions that shall promote the identified opportunities.

### Subjects and methods

A cross-sectional community based survey was conducted in Shinyanga rural district in Shinyanga region, which is in the lake zone, south of Lake Victoria in Tanzania. The district has a total population of 570560, comprised of 296690 females. According to the year 2002 national population census, the average household size is 6.3 and the annual population growth is 3.3. The district has a total of seventy-six health facilities which include the regional hospital that serves as the district hospital; one private hospital, eight public health centres; and sixty-one public and five private dispensaries.

The study population consisted of 271 women of reproductive age (15–49 years) from six randomly selected villages in Shinyanga rural district. Trained interviewers collected data using an interview administered structured questionnaire that was initially pre-tested in a village which was not included in the survey. Information gathered included socio-demographic characteristics, parity, family

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size, knowledge on modern FP methods as well as current use of the methods.

### Ethical clearance:

Permission for conducting the survey was obtained from the District Executive Director, the District Medical Officer and the local government leaders in the study villages. The aim of the research was explained to the respondents and informed verbal consent obtained from each individual respondent, who was also assured of the confidentiality of the information disclosed.

### Data analysis

Data were coded, entered and analyzed using Epi Info 6 computer software. Responses on the knowledge questions were scored and knowledge levels classified into three categories. The maximum number of points that an individual could score was 18 and the categories for the levels of knowledge were low (score 0-5), moderate (6-12) and high (13-18). Chi square test was used to test for association between the dependent and independent variables while chi square test for trend was used to examine trends in proportions.

### Results

#### *Socio-demographic characteristics*

The study sample on which these results are based constituted 271 women of reproductive age (15-49 years); and their socio-demographic characteristics are summarized in Table 1. Age group 25-34 years represented more than half of the respondents (55.0 percent), whilst youth (15-24 years) as a group contributed about a quarter of the total study respondents. About 95 percent of the women had ever been married and the vast majority (95.2 percent) were peasants and predominantly of the Wasukuma tribe (95.6 percent). Whilst slightly over a quarter of the women belonged to Roman Catholic denomination, the religion which had more representatives was Traditional Religion (49.5 percent) while less than two percent of the respondents were Muslims. The level of education in the study area seemed to be fairly low. Whereas slightly over half (56.5 percent) of the women had completed primary school education, a further one-fifth of them did not have any formal schooling and at the same time no more than eight women had some kind of secondary level of education.

**Table1. Socio-demographic characteristics of women of reproductive age in Shinyanga rural district (N=271)**

Characteristics	No. in group	%
<b>Age (years)</b>		
15-24	67	24.7
25-34	149	55.0
35-44	47	17.3
45-49	8	3.0
<i>Total</i>	<i>271</i>	<i>100.00</i>
<b>Marital Status</b>		
Single	15	5.5
Ever married	256	94.5
<i>Total</i>	<i>271</i>	<i>100.00</i>
<b>Religion</b>		
Traditional	134	49.5
Catholic	71	26.2
Protestant	61	22.5
Muslim	5	1.8
<i>Total</i>	<i>271</i>	<i>100.00</i>
<b>Education Level</b>		
No formal education	51	18.8
Primary incomplete	59	21.7
Primary complete	153	56.5
Secondary	8	3.0
<i>Total</i>	<i>271</i>	<i>100.00</i>
<b>Occupation</b>		
Peasant	258	95.2
*Others	13	4.8
<i>Total</i>	<i>271</i>	<i>100.00</i>
<b>Tribe</b>		
Wasukuma	259	95.6
**Others	12	4.4
<i>Total</i>	<i>271</i>	<i>100.00</i>

\* Include petty traders, civil servants and students

\*\* Include Wanyamwezi, Wachagga, Wataturu and Wanyiramba

#### *Awareness of modern family planning methods*

On the overall, the pill was the most commonly known method (81.2 percent) followed by the injectable type (76.8%), suggesting that a high proportion of the study sample was aware of at least one type of modern FP methods as shown in Table 2. Spermicide/jelly as well as tubal ligation were the least known methods while a further 11.4 percent of the respondents could not mention any of the methods. Regarding the most preferred method, findings showed that the injectable contraceptive was ranked highest (69.3 percent) followed by the pill (24.7 percent).

**Table 2: Percent distribution on the awareness and preference of the various types of modern FP methods**

Attribute	%
<b>Types of methods aware of (multiple responses)</b>	
Pill	81.2
Injectable	76.8
Condom	29.7
IUCD	14.9
Tubal ligation	11.9
Spermicide/jelly	4.0
None	11.4
<b>Modern FP method preferred*</b>	
Injectable	69.3
Pill	24.7
Condom	3.0
Spermicide/jelly	1.0
Tubal ligation	2.0
<b>Total</b>	<b>100.0</b>

\*N=240, women who were aware of modern FP methods

#### *Use of modern family planning methods*

The distribution of women of reproductive age using the various types of modern FP methods in Shinyanga rural district is presented in Table 3. Thirty-three out of the 271 women (12.2 percent) who participated in the survey were using modern contraception at the time of the survey. About 5.5 percent of the respondents were using injectable method while another 5.2 percent were on the pill. Three women (1.1 percent) were using condom while only one woman had had tubal ligation.

**Table 3: Proportion of women using modern FP methods (N=271)**

Types of modern FP methods	Frequency	%
Pill	14	5.2
Injectable	15	5.5
Condom	3	1.1
Tubal ligation	1	0.4
<b>Total</b>	<b>33</b>	<b>12.2</b>

#### *Prevalence of modern contraceptive use by socio-demographic characteristics*

When the use of the various modern FP methods was examined in relation to the socio-demographic attributes of the study population, findings (Table 4) revealed that the highest proportions of women using the methods were among respondents aged 35 years and above (16.4 percent); ever married (12.5 percent); Catholic religion followers (23.9 percent); had completed primary education (15.7 percent) and women whose occupation was other than peasantry (15.4 percent). Even though the contraceptive use behaviour tended to increase with advancing age of the respondents, this association was however not statistically significant (chi square for trend = 0.92,  $p = 0.337$ ). Neither the marital status

of the women nor their occupation or educational levels had significant influence on their modern FP use behaviour. On the other hand, religious denomination appeared to have a statistically significant association with the contraceptive use behaviour whereby women in the Catholic membership were more likely to report use of the methods (chi square = 19.37,  $p = 0.000$ ).

**Table 4: Association between use of modern FP methods and social-demographic characteristics**

<b>Use of modern FP methods</b>			
Characteristic	No. in group	No. using	%
<b>Age:</b>			
15-24	67	7	10.4
25-34	149	17	11.4
35 +	55	9	16.4
<i>Chi Square for trend = 0.92, <math>p = 0.337</math></i>			
<b>Marital status:</b>			
Single	15	1	6.7
Ever married	256	32	12.5
<i>Chi Square = 0.45, <math>p = 0.502</math></i>			
<b>Religion:</b>			
Traditional religion	134	5	3.7
Catholic	71	17	23.9
Protestant/Moslem	66	11	16.7
<i>Chi Square = 19.37, <math>p = 0.000</math></i>			
<b>Education level:</b>			
No formal education	51	5	9.8
Primary: incomplete	59	3	5.1
Primary: complete	153	24	15.7
Secondary	8	1	12.5
<i>Chi Square = 4.81, <math>p = 0.186</math></i>			
<b>Occupation:</b>			
Peasant	258	31	12.0
Others	13	2	15.4
<i>Chi Square = 0.13, <math>p = 0.717</math></i>			

#### *Use of modern FP methods in relation to non-socio-demographic characteristics*

Analysis of the association between non-socio-demographic characteristics of the respondents and use of modern FP methods is shown in Table 5. More than half of the women (56.5 percent) had low level of knowledge of the methods. Furthermore, use rate of the methods ranged from 6.5-25.5 percent among women with low and high levels of knowledge respectively. Additional analysis revealed a statistically significant trend between use of the methods and level of knowledge of the methods (chi square for trend = 13.06,  $p = 0.000$ ). The study furthermore explored the extent to which spouses discussed issues related to modern FP amongst them and whether the discussion was associated with using the methods. A quarter of women who reported to discuss with their partners about FP issues used the methods as opposed to three percent of their colleagues who did not engage in such discussions. This relationship between

spousal communication and use behaviour of modern FP methods was statistically significant (chi square = 29.35,  $p = 0.000$ ).

Further analysis indicated that 15.3 percent of respondents who had five or more children used modern FP methods whereas only 9.3 percent of women who had less number of children used the methods. Nonetheless, the association between use behaviour and the number of children a woman had was not statistically significant (chi square = 2.26,  $p = 0.133$ ). In addition the survey also examined whether the walking distance to the modern FP service delivery points had any significant influence on the use of the methods. Findings demonstrated that 14.7 percent of women residing less than an hour's walk used the methods compared to 11.3 percent and 7.8 percent of their colleagues whose walking distance was 1-2 hours or more. Even though the findings suggest a higher use rate of the methods among women residing closer to the facilities, the association was however not statistically significant (chi square for trend = 2.00,  $p = 0.157$ ).

**Table 5 Association between use of modern FP methods and non social-demographic characteristics**

Characteristic	Use of modern FP methods		
	Total (N)	Yes	%
<b>Level of knowledge of modern FP methods</b>			
High	47	12	25.5
Moderate	71	11	15.5
Low	153	10	6.5
<i>Chi square for trend = 13.06, <math>p = 0.000</math></i>			
<b>Spouse communication on modern FP issues</b>			
Yes	112	28	25.0
No	159	5	3.1
<i>Chi square = 29.35, <math>p = 0.000</math></i>			
<b>Number of children</b>			
Up to 4	140	13	9.3
5 and above	131	20	15.3
<i>Chi square = 2.26, <math>p = 0.133</math></i>			
<b>Walking time to service delivery points</b>			
Less than an hour	136	20	14.7
1-2 hours	71	8	11.3
More than 2 hours	64	5	7.8
<i>Chi square for trend = 2.00, <math>p = 0.157</math></i>			

## Discussion

Findings revealed that majority of women of reproductive age in Shinyanga rural district were aware of at least one method of modern FP and that the most widely known methods were the pill (81.2 percent) followed by the injectable (76.8 percent). These findings are consistent with observations in the recent nationwide survey (5) which showed that almost all respondents surveyed knew of at least one method of contraception, with nine out of every ten women having heard about the pill and the injectables.

Regarding the most preferred modern method of FP, the injectable method ranked highest (69.3 percent) followed by the pill (24.7 percent). This inclination also featured

prominently with respect to the methods currently used by the respondents. However, the use rate of the methods among the surveyed women was only 12.2 percent despite their high level of awareness of the methods. Out of the 33 respondents who were using modern methods of FP, 15 (45.5 percent) of them were using injectables while 14 (42.4 percent) others were on the pill. This implies that the hormonal contraceptives were the most popular while the use of condoms and other barrier methods for FP was low, in spite of a heavy burden of STDs and a high prevalence of HIV seropositivity in many countries in the region, including Tanzania. Such a situation has profound implications for individuals, services, programmes and policies.

The level of education plays an important role in the use of modern FP methods. It has been observed in Nigeria that contraceptive use was best predicted by level of education (6-7). Similarly, studies elsewhere have shown that education has strong influence in the acceptance of modern FP methods (8-11). In the current study, the proportion of women using the modern FP methods tended to increase with increasing level of education although the association was not statistically significant.

Use of modern FP methods was highest among women in the age 35 years and above. This could be attributed to the fact that the younger ones, though highly sexually active, desire to bear children and are not yet ready to use contraceptives. Comparable observations have been made elsewhere (12), with a startup of acceptance of modern contraceptive methods being more in women of thirty years and above. Similar to observations in a related survey in Ghana (13), the association between age of respondents and use of the modern FP methods in this survey was not statistically significant. These findings therefore imply that the age of the woman alone cannot predict the trend of use of modern FP methods among particular age groups.

Religion has been documented to be the most controversial factor influencing use of modern FP methods. The Roman Catholic Church for example, advocates abstinence or use of natural methods for FP, as the use of modern methods is against the religious beliefs (14). Surprisingly, in the Shinyanga study, there was a strong statistical association between use of the modern FP methods and the religion of the respondents ( $p = 0.000$ ), with the highest likelihood of using the methods being among women in the Catholic denomination. It has been documented, however, that the role of religion in FP varies even among followers of the same religion in different settings (7, 15).

Spouse discussion and agreement in the use of modern FP methods are important psychological backing to women which might influence their final decision. Men's support or opposition to their partners' practice of FP has a strong impact on using the methods in many parts of the world. As such, studies on factors related to contraception use have noted discussion of FP among partners to be the most important determinant of accepting modern FP methods. In the current study, spousal communication was significantly associated with the use of the modern methods. Similar

observations have been made in Ghana (13) where a higher partner communication was also found to have an association with high modern contraceptive use.

Findings from this survey further revealed that women who lived closer to the facilities tended to use modern FP methods more than their colleagues who had to walk for an hour or more. However, this association was not statistically significant (chi square for trend = 2.00,  $p = 0.157$ ) although distance to the service delivery points was expected to influence more the use rate of the methods. Such observations are nonetheless comparable to what has been documented in Nigeria (7). In this current study the findings may be attributed to the fact that majority of the women in the study area were peasants, most likely busy in their farms and therefore taking their time off to walk to the facilities especially when not sick might not be a priority.

## Conclusion

Findings showed a high awareness of modern FP methods among women of childbearing age in a rural setting although the levels of knowledge of the methods and the use rate were low. The most important determinants of using the methods were observed to be level of knowledge of the methods, religious affiliation and discussion of FP issues among partners. It is therefore imperative for reproductive health programmes to intensify efforts in improving women's knowledge of modern FP methods and encourage partner communication in order to raise contraceptive prevalence rate. Further studies are necessary to identify other potential factors facilitating use of modern FP methods among rural women.

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