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Assessment of Awareness and Practice of Modern Contraceptive Use among Women Attending Antenatal Clinic in Morogoro Municipality, Tanzania

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Abstract

Background: Contraceptive use has numerous health benefits such as preventing unplanned pregnancies, ensuring optimum spacing between births, reducing maternal and child mortality and improving the lives of women and children in general. This study examines the level of contraceptive use among women in the reproductive age group (15-49 years) in Morogoro Municipality Tanzania.

Method: The study adopted the interviewer-administered questionnaire to collect data from 135 participants selected using a random sampling technique.

Results: Majority of the respondents, 58 (43%) aged between 25 to 34 years, among the respondents, 103 (76.3%) were married, 69 (51.1%) had 1 or 2 children. Knowledge of any methods of contraception was almost universal among the participants. The rate of current use of contraception was high. Majority of participants, 62 (45.9%) had primary level of education. The most preferred modern contraceptive method was injectable hormones.

Conclusion: Our findings show that the rate of contraceptive use was high in the study setting. Many women chose effective modern contraceptive methods. Health education on the various options of modern contraceptives, their side effects and management would be crucial towards expanding the family planning services in the study setting.

Key words: *Contraceptive methods; family planning; modern contraception; Morogoro municipality*

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Introduction

Contraceptive use varies widely around the world, both in terms of total use and the types of method used. Worldwide 63% of married women ages 15 to 49 use a method of family planning; 57% use a modern method. Contraceptive use has numerous health benefits such as preventing unplanned pregnancies, ensuring optimum spacing between births, reducing maternal and child mortality, and improving the lives of women and children in general (Singh, 2017; Chen., *et al*. 2017). Recent estimates show 54 million unplanned pregnancies, 79,000 maternal deaths and 1.2 million childhood mortality which could have been prevented with universal access to effective family planning methods (Singh, 2017; John, 2011). Despite the effort of government and non-governmental agencies to improve access to and use of contraceptive methods in sub-Saharan Africa over the past 3 decades, the studies reported low levels of contraceptive use (Kagashe, 2013).

South Africa, Botswana, and Zimbabwe have successful family planning programs, but other central and southern African countries continue to encounter difficulties to contraceptive prevalence and low fertility. Contraceptive use among women in sub-Saharan Africa has risen from about 5% in 1991 to about 25.1% in 2011. The main factors causing unavailability of family planning information and modern birth control methods in Sub-Saharan Africa are low education level, young age, and living in rural areas (John, 2011). Maternal morbidity and mortality have been noted to be prevalent in sub-Saharan Africa and other resource-poor and underdeveloped nations of the world. Unplanned pregnancy and unsafe abortion are major contributors to these dismal health indices and are themselves direct consequences of failure or nonuse of contraception (John, 2011).

In East Africa the demand for contraception to limit family size has risen sharply, attitudes have become more positive and access is high. Despite considerable variation between countries, it all suggests that contraceptive uptake is likely to increase and fertility is likely to continue falling. One important limitation to this positive scenario is that the pace of increase in contraceptive use has slowed down appreciably, from an annual change of 2.7% age points in the 1990s to 1.45% age points thereafter (John, 2011). In Tanzania the use of modern methods of family planning has only increased from 20% in 2004 to 27% in 2010 (Bill, 2012). Nationwide 25% of married women have an unmet need for family planning and other 16% failed to adopt family planning due to lack of education (Kagashe, 2013).

Maternal deaths in Tanzania are 578 per 100,000, reported 18% of all deaths of women age 15 to 49. Labor complications, pregnancy complications and unsafe abortions were identified as the main cause of maternal death in Tanzania among reproductive women but the use of contraception has decreased maternal death by 43.3%. If awareness and practice of contraceptive use increases there will be significant decrease in maternal death (UN, 2013). In Tanzania estimated population of 138 million people is expected by 2050, if the current fertility rate does not change (Zeba, 2011). Available data states that fertility rate in Tanzania has fallen from 5.7 to 5.4 births per woman in recent years but there have been no significant changes in the country's unmet need for family planning (Bill, 2012).

This study focused on awareness and practice of modern contraceptives use among women of reproductive age in Morogoro municipality, Tanzania so as to seek solutions for problems blocking our health goals and development.

Materials and Methods

Study site

This study was conducted in Morogoro Municipality in Morogoro region between of August 2017 to January 2018. Morogoro Municipality has 5 health facilities namely Sabato Dispensary, Nunge Health Centre, SabaSaba Dispensary, Mafiga Dispensary and Aga Khan Health Centre. The study involved only three health facilities (Nunge Health Centre, Sabasaba Dispensary, and Mafiga Dispensary) out of the five available health facilities. Morogoro Municipality has a population of 315,866, out of these 161,091 (51%) are males and 154,775 (49%) are females. Population of reproductive women aged 15-49 is 64,917 which is 46.4% of the total number of women. Average household size is 4.3; this is according to Population and Housing Census of 2012.

Study design

This was descriptive cross sectional study, which awareness and practice of modern contraceptive among reproductive women was studied at a time. Structured pre-tested questionnaire with key information was used to collect the desired data.

Study Population

Women attending antenatal clinic in the three selected dispensaries were involved in the study.

Sample Size

The sample size in this study was 135 participants. The sample size calculation obtained by Kish and Leslie formula:

$$N = \frac{Z2P\,(100-P)}{\varepsilon^2}$$

Sampling Technique

Simple randomly technique was employed in which three out of the five healthy facilities were selected (Nunge Health Centre, Sabasaba Dispensary and Mafiga Dispensary). Then equal number of participant (45) from each of the three facilities (Nunge Health Centre, Sabasaba Dispensary, Mafiga Dispensary) making a total of 135 participants were selected during antenatal clinic visits in which 15 first participants to come to the clinic everyday were taken for three visits in a particular healthy facility.

Data Collection

The data collected by structured guided questionnaires. The questionnaire prepared in English language and translated into Swahili to maintain the consistency and content of the questionnaire, confidentiality of information, participants 'rights and voluntarily informed consent were secured. The questionnaire involved a total of 25 closed ended questions divided into three parts. The first part accessed socio-demographic information, second part accessed awareness regarding modern contraceptive methods and the third part accessed practice regarding modern contraceptive methods. The participants were asked the questions and their answers filled in the questionnaire by a researcher.

Data analysis

Questionnaires filled with irrelevant information were removed. The data from questionnaires with relevant information were analyzed with Statistical Package for Social Sciences (SPSS version 20).

Inclusion criteria

Women attending antenatal clinic willing to participate in the study.

Exclusion criteria

Women attending antenatal clinic but unwilling to participate in the study.

Ethical consideration

Permission to conduct the study was obtained from research committee of SFUCHAS while permission to use participant at selected health facility was sought from the Morogoro Municipal Medical Officer and the administrative officers of the health facilities involved in the study. Confidentiality; all research documents with information were treated as confidential.

Results

Socio-demographic characteristics of respondents

A total of 135 women, who attended antenatal clinic at Nunge, Sabasaba and Mafiga health facilities, 45 (33.3%) from each facility were included in the study. Among them 47 (34.8%) were aged between 15 to 24 years, 58 (43%) aged between 25 to 34 years, 22 (16.3%) aged between 35 to 44 years, 8 (5.9%) aged between 45 to 54 years. Among respondents, 103 (76.3%) were married, 30 (22.2%) were single and only 2 (1.5%) were divorced.

Out of them, 35 (25.9%) had no any child but currently pregnant, 69 (51.1%) had 1 or 2 children, 24 (17.8%) had 3 to 4 children and 7 (5.2%) had at least 5 children. In religious aspect, 73 (54.1%) were Christian and 62 (45.9%) were Moslems. Education level was assessed where 62 (45.9%) had primary level of education, 54 (40%) had secondary level of education, 9 (6.7%) had college/university level of education while 10 (7.4%) had no formal education.

Variables	Frequency	Percent
Women attended (n = 135)		
Nunge/Uhuru	45	33.3
Sabasaba	45	33.3
Mafiga	45	33.3
Age distribution (n = 135)		
15-24	47	34.8
25-34	58	43
35-44	22	16.3
45-54	8	5.9
Marital status (n=135)		
Married	103	76.3
Single	30	22.2
divorced	2	1.5
Number of children (n = 135)		
< 1	35	25.9
1-2	69	51.1
3-4	24	17.8
≥ 5	7	5.2
Religion (n = 135)		
Christians	73	54.1
Moslems	62	45.9
others	o	0
Education level (n = 135)		
Primary	62	45.9
Secondary	54	40
Collage/university	9	6.7
No formal education	10	7.4

Table 1: *Socio-demographic characteristics of respondents.*

Awareness of modern contraceptives methods

In this study the majority of the participants were aware of modern contraceptive methods, 121 (89.6%) respondents were aware of modern contraceptive methods, and 14 (10.4%) were not aware. The sources of information for modern contraceptive methods, 77 (63.6%) was school/institution/health facility, 27 (22.3%) from media, 7(5.8%) from magazine/books, 4 (3.3%) from conferences/seminars and 6 (5%) from friends/relatives/parents/partners. Participants were asked to mention modern contraceptive methods they know, 34 (28.1%) mentioned oral contraceptives (OCP), injectable hormone and intrauterine devices (IUCD), 24 (19.8%) mentioned OCP, condoms, IUCD, sub dermal implants, 16 (13.2%) mentioned OCP, sub dermal implants, injectable hormone and IUCD, and 10 (8.3%) mentioned OCP and injectable hormones.

Variables	Frequency	Percent
Awareness (n = 135)		
Aware	121	89.6
Not aware	14	10.4
Sources of information (n = 121)		
Media	27	22.3
Magazine/books	7	5.8
School/institution/health facility	77	63.6
Conferences/seminars	4	3.3
Friends/relatives/parents/partners	6	5
Modern contraceptives known (n=121)		
OCP	2	1.7
OCP, condoms, and IUCD	4	3.3
OCP, condoms, sub dermal implants, and sub dermal implants	3	2.5
OCP, Sub dermal implants	10	8.3
OCP, sub dermal implants, injectable hormone and IUCD	16	13.2
Injectable hormone and IUCD	2	1.7
OCP, injectable hormone and IUCD	34	28.1
OCP and IUCD	3	2.5
OCP, IUCD and sub dermal implants	5	4.1
All methods of modern contraceptive	2	1.7
Condoms	2	1.7
OCP and condoms	4	3.3
OCP and injectable hormones	10	8.3
OCP, condoms, IUCD, subdermal implants	24	19.8

Table 2: *Awareness of respondents on modern contraceptive methods.*

Family planning practice among women in Morogoro municipality

Eliciting information on use of modern contraceptive methods, 74 (61.2%) reported to have ever used the modern contraceptive methods, and 47 (38.8%) reported to have never used the modern contraceptive methods. Participants who reported to have used modern contraceptive methods were asked to mention types of contraceptive methods they used, 24 (32.4%) used injectable hormones, 17 (23%) used subdermal implants, 17 (23%) used condom, 14 (18.9%) used oral contraceptive (OCP), and 2 (2.7%) used intrauterine device (IUCD).

When asked why they use modern contraceptive methods, 35 (47.3%) responded they needed to space childbearing, 36 (48.6%) needed to limit family size, and 3 (4.1%) influence from partners. Participants who had never used any contraceptive method were asked why they never use, the majority responded they fear side effects of the contraceptive methods, others responded it is related with infertility, while few responded it is the influence of partners and few had no specific reason.

Variables	Frequency	Percent
If ever used contraceptives (n=121)		
Yes	74	61.2
No	47	38.8
Method ever used (n=74)		
OCP	14	18.9
Condoms	17	23
Injectable hormones	24	32.4
Subdermal implants	17	23
IUCD	2	2.7
Reason of the method used (n=74)		
Less cost	5	6.8
Fear of side effects from other methods	13	17.6
Easy availability	40	54.1
Influence from counter partner	4	5.4
Method they know	10	13.5
Had no specific reason	2	2.7
Reason for contraception (n=74)		
Space childbearing	35	47.3
Limit family	36	48.6
Influence from partner	3	4.1
Views on contraception for those never used (n = 47)		
Related to cancer	1	2.1
Related with infertility	3	6.4
Have a lot of side effects	41	87.2
Had no views	2	4.3

Table 3: *Practice on modern contraceptive methods among women attending antenatal clinic in Morogoro municipality.*

Discussion

This study examined the use of modern contraceptive methods among childbearing women in Morogoro municipality, Tanzania. The study also examined the determinants of contraceptive use, and reasons for non-use. Socio-demographic variables are among important factors influencing individual's decision on contraception and fertility (Burke and Ambasa- Shisanya, 2011). In this study the results indicated that the majority of study participants (43%) aged between 25-34 years, while substantial proportion of respondents (35%) aged between15-24. Since marriage/childbearing in Africa starts early (Duze and Mohamed, 2006), this observation indicates sizeable number of study participants were in age in which they could already have several children and hence could need modern contraceptives for child limiting.

Furthermore studies have shown individuals married have positive attitudes towards contraceptives and are more inclined to use contraceptives (Duze and Mohamed, 2006). The present study shows that 76.3% of total respondents were married. The study indicates good literacy level for the study population, hence more likely possessing good ability to understand message in health promotion materials (i.e., posters, brochures), including those involving family planning. In this study about 46% of sampled individuals had primary education, and 47% had at least secondary education. Previous studies have reported that women with education have the ability to understand the importance of using contraceptives (Mgabo., *et al*. 2010).

Religious affiliation by most of the respondents was Christian accounting for more than half (54%) of total respondents, the rest were Moslem accounting 46% of respondents. To some extent reflecting existence variations in religious ideology in a study population, hence possibly differences in beliefs and practices towards modern contraceptives (Burke and Ambasa – Shisanya, 2011). The results in the present study shows that most of the respondents (51%) had one to two children, with 23% having more than three children and 26% not having the child, but all are currently pregnant. This observation reflects preference for higher number of children. Preference for higher number of children by African families has been reported in other parts of Africa (Avidime., *et al*. 2010).

Good knowledge and positive attitudes towards an intervention or a new practice by a target group are among the key determinants for adoption (Mathe., *et al*. 2011). In this regard, this study was also interested on ascertaining knowledge of women attending antenatal clinic on modern contraceptives. When participants were asked if they are aware of modern contraceptives, the majority (90%) indicated to be aware of the methods and 95% knew at least three methods. The most commonly known methods were OCP, injectable hormones and IUCD accounting 28% altogether followed by OCP, condoms, IUCD, and subdermal implants accounting 20% altogether. This observation support earlier findings in other parts of Tanzania and Africa in which it was noted that most women were aware of modern contraceptives despite low adoption rate (Mathe., *et al*. 2011).

Main source of information on modern contraceptives were school/institution/health facilities accounting for about 64% followed by media accounting for 22%, less were from friends/relatives/parents/partners 5%. Study participant who have never used modern contraceptives were asked to indicate their views. Results showed that majority of the respondents 87% viewed modern contraceptives as having a lot of side effects, fewer about 9% viewed modern contraceptives as either they cause infertility or cancer. The negative attitudes towards modern contraceptive use has been observed in previous studies in many parts of Africa (Burke and Ambasa-Shisanya, 2011).

This study also wanted to know status of contraceptive use in a study population. Findings revealed that more than half (61%) of sampled women were aware of modern contraceptives. The most used method being injectable hormones (32%) followed by condoms (23%) and subdermal implants (23%). Criteria for the choice of the method were mainly easy availability of the chosen method and fear of side effects from other methods 54% and 18% of the respondents, respectively. The main reason for use of modern contraceptives for the majority of the respondents were to limit the family size 49% followed by need to space child bearing 47%.

Previous studies have indicated women prefer injection method as it is long term acting and it is not easy to be detected by a husband (secrecy) in case he does not approve modern contraceptives (Kebede, 2006). The time this study was carried out a proportion of women attending antenatal clinic and ever used contraceptives were about 55%. This figure is not too far from national target of 60% (URT 2010) indicating more effort is needed to increase modern contraceptives use population.

Conclusion

Knowledge of modern contraceptives is high in this study. Substantial proportion of women had positive attitude towards modern contraceptives, resulting to increased modern contraceptive use in the study population, though negative attitudes of fear of side effects of modern contraceptives relating to cancer and infertility could be a limitation. Regarding modern contraceptive prevalence rate, there

is improvement compared to the past national average however efforts are needed to reach national target. The government has made efforts in promoting modern contraceptives and use services available in health facilities.

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