

(RESEARCH ARTICLE)



Determinants of contraceptive use among women of reproductive age attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Region, Tanzania

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Open Access Research Journal of Biology and Pharmacy, 2024, 10(02), 105–113

Publication history: Received on 01 February 2024; revised on 18 March 2024; accepted on 21 March 2024

Article DOI: <https://doi.org/10.53022/oarjbp.2024.10.2.0012>

Abstract

Background: Contraception is regarded as an important preventive measure of unintended pregnancies among women. This study aimed to assess the determinants of contraceptive use among women of reproductive age attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Region, Tanzania.

Material and Methods: This was a descriptive cross-sectional study conducted from June 01 to September 30, 2023. A total 310 women at reproductive age were enrolled in this study.

Results: The analysis of 310 women intending to use contraceptive was done. Of these 19.3% were aged between 25 - 29 years; 21.3% the husbands were aged between 30 -34 years. Marital status 92.3% were married. Women education level primary school was 68.4%, husband education level primary school was 72.6%. Women's occupation, government employee 88.7%, husband's occupation, peasant 73.2%. Living in Rural area was 75.0%. Awareness on contraception was 96.0%, knowledge of methods of contraception 97.7%, known methods of contraception pills 51.6%, known reasons for using contraception 83.9%, sources of information about contraception mass media 38.7%. Attitudes toward contraception; 48.4% contraception is beneficial. Ever used contraception; 52.6% used, reason for using contraception .79.0% to prevent unplanned pregnancy, reason for not using contraception, 52.3% embarrassment to buy or ask for them, place to get contraception, 52.9% pharmacy. Used contraceptive methods, 54.8% pills

Conclusion: This study shows that contraceptive use among women of reproductive age attending antenatal clinic at Tumbi Regional Referral Hospital is preferred by women with primary education. Therefore, females should be encouraged to attain education of primary school which is universal education in our country. There is a need for the Government to have good plan, policy and clear strategy for implementation of use of family planning methods.

Keywords: Determinants; Contraceptive; Women; Reproductive age; Tanzania

1. Introduction

Contraception is a pregnancy prevention by inhibiting the normal process of ovulation, fertilization and implantations [1]. Various modern contraceptive methods have been developed including male and female condoms, oral hormonal pills, intrauterine devices (IUD), implants, male and female sterilization (vasectomy and tubal ligation), injectables, vaginal barriers and emergency contraception [2]. Use of modern contraceptive methods allows couples and individual to attain their desired number of children and determine spacing of pregnancies. This helps to reduce maternal deaths and child mortality by preventing unsafe abortions, birth injuries and all other complications that happen due to pregnancy[3]. Effective use of contraceptive methods facilitate reduction of maternal mortality by preventing teenage pregnancies and space birth at specific durations[4]. Evidence has shown that children born within 2 years of spacing interval are two times more likely to die in the first year of life than those born after an interval of at least 2 years [5].

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This poses the risk of unwanted and teen pregnancies and unsafe abortions [6]. The latter is a significant public health concern in many developing countries, with the most recent publication showing global annual incidence estimates that suggest that 25.1 million women had undergone unsafe abortions between 2010 and 2014 [7]. In the general population, the contraception uptake rate has been reported to vary from 19.0% to 34.4% [8]. The correct use of contraception can prevent unintended pregnancies, unsafe abortions and sexually transmitted infections, including HIV [9]. Short and long inter-pregnancy interval (IPI) is associated with adverse pregnancy outcomes such as preterm birth, low birth weight, small for gestation age and perinatal death [10]. To prevent these adverse pregnancy outcomes birth, birth spacing has been considered as an effective intervention. According to Singh and Colleagues [11], to meet the contraceptive needs of 215 million women with unmet need for modern contraception would reduce unintended pregnancies by more than two thirds. In sub-Saharan Africa, research shows how social networks can strengthen positive messages among users; for example, in Cameroon a study found 55% of the sample reported how network partner encouraged use of contraceptive [12]. The 2014 Kenya Demographic and Health Survey report the contraceptive rate (CPR) for Kenya as 58% among married women, and 65% among sexually active unmarried women [13]. In 2016, Uganda had the highest fertility and maternal mortality rate in East Africa [14]. Tanzania is among the countries that has made slow progress towards achieving Millennium Development Goals (MDG) 4 and 5. It has a high unmet need for contraceptives 25% and has high total fertility rate 5.4, high maternal mortality rate (446 per 100,000) and high neonatal mortality rate (25 per 1000) compared with the target of 5% 4.7, 193 per 100,000, and 19 per 1000 by 2015[15]. Therefore, the aim of this study was to assess the determinants of contraceptive use among women of reproductive age attending antenatal clinic at Tumbi Regional Referral Hospital, Coast Regional, Tanzania.

2. Materials and method

2.1. Study area and period

This study was conducted at Tumbi Regional Referral Hospital, Kibaha District, Coast Region, Tanzania from June 01 to September 30, 2023.



Figure 1 Coast Region and its 6 districts

The study was conducted to assess determinants of contraceptive use among women of reproductive age attending antenatal clinic at Tumbi, Kibaha district. Kibaha is one of the six administrative districts of Coast Region in Tanzania (Figure 1). The district covers an area of 1,502 km² (580 sq mi). Kibaha District is bordered to the northeast by Kibaha Urban District and the north by Chalinze District. The district is bordered to the southeast by Kisarawe District. On the western side the district is bordered by Morogoro District of Morogoro Region. According to the 2012 census, the district has a total population of 70,209 people.

2.2. Study design

This study was a descriptive cross-sectional study conducted to assess determinants of contraceptive use among women of reproductive age 15-49 years attending antenatal clinic at Tumbi Regional Referral Hospital. Structured pretested questionnaire with key information was used to collect the desired data.

2.3. Study population

The study population consisted of reproductive women attending clinic at Tumbi Referral Hospital.

2.4. Sample size

The sample size in this study was 310 participants. The sample size was obtained by using Kirkwood formula:

$$\begin{aligned} N &= Z^2XP(1-P)/D^2 \\ \text{Absolute error (e)} &= 5\% \\ Z &= 1.96 \\ &= 1.96^2 \times 0.28(1-0.28)/0.05^2 \\ &= 1.0756 \times 0.72/0.0025 \\ &= 0.7744/0.0025 \\ &= 310.0 \end{aligned}$$

N= Sample size

Z= Confidence interval level 95% in this study which is 1.96

P = Proportional of study prevalence (estimated prevalence) 28% 2022

D = Absolute error or precision 0.05 has to be decided by researcher.

2.5. Sampling Technique

Simple randomly technique was employed when participants attending at Tumbi Referral Hospital antenatal clinic were allocated numbers (even and uneven numbers). Participants who had even numbers were involved in the study.

2.6. Data collection

The data collected by structured guided questionnaires. The questionnaire prepared in English and translated into Swahili to maintain the consistency and content of the questionnaire. Confidentiality of information, participant's rights and voluntarily informed consent were secured. The participants were asked the questions and their answers filled in the questionnaire by the researcher.

2.7. Data analysis

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

2.8. Inclusion criteria

Women of reproductive age attending antenatal clinic willing to participate in the study were included.

2.9. Exclusion criteria

Women of reproductive age attending antenatal clinic but unwilling to participate in the study were excluded.

2.10. Ethical clearance

A letter from St. Francis University College of Health and Allied Sciences ethical committee was obtained. The letter submitted to Regional Medical Officer, Coast Region who forwarded the letter to Medical Officer In charge who gave permission to use participants at Tumbi Referral Hospital.

3. Results

3.1. Socio-demographic characteristic of participants at Tumbi Regional Referral Hospital.

A total of 310 reproductive age women participated in this study. Out of these 50 (16.1%) aged 15 -19 years, 58 (18.7%) aged 20 -24 years, 60 (19.3%) aged 25 -29 years, 52 (16.7%) aged 30 -34 years, 40 (13.0%) aged 35 -39 years, 30 (9.7%) aged 40 -44 years, 20 (6.5%) aged 45 -49 years. Husband 10 (3.2%) aged 17 -19 years, 20 (6.5%) aged 20 -24 years, 52(16.8%) aged 25 -29 years, 66 (21.3%) aged 30- 34 years, 64 (20.6%) aged 35 -39 years, 50 (16.1%) aged 40-44 years, 48 (15.5%) aged 45 - 49 years. Marital status; single 24 (7.7%) married 286 (92.3%). Women education level; Not educated 74 (23.9%), primary school 212 (68.4%), secondary school 23 (7.4%) higher education 1 (0.3%). Husband education level ; Not educated 49 (15.8%) , primary school 225 (72.6%) , secondary school 23 (7.4%) , higher education 13 (4.2%). Women's occupation; peasant 35 (11.3%), government employee 275 (88.7%), husband's occupation; peasant 227 (73.2%), government employee 83(26.8%). Place of residence of contraceptive reproductive age women who participated in the study, 77 (25.0%) were in urban area, 233 (75.0%) were in rural area as shown in Table 1.

Table 1 Socio- demographic characteristic of participants of Tumbi Regional Referral Hospital

Variables	Frequency	Percentage %
Age (in years) women		
15- 19 years	50	16.1
20-24 years	58	18.7
25-29 years	60	19.3
30-34 years	52	16.7
35-39 years	40	13.0
40-44 years	30	9.7
45 -49 years	20	6.5
Age (in years) husband		
17-19	10	3.2
20-24	20	6.5
25-29	52	16.8
30-34	66	21.3
35-39	64	20.6
40-44	50	16.1
45-49	48	15.5
Marital status	Frequency	Percentage %
Single	24	7.7
Married	286	92.3
Women education level		
Not educated	74	23.9
Primary school	212	68.4
Secondary school	23	7.4
Higher education	1	0.3
Husband education level		
Not educated	49	15.8

Primary school	225	72.6
Secondary school	23	7.4
Higher education	13	4.2
Occupational of women		
Peasant	35	11.3
Employed	275	88.7
Occupational of husband		
Peasant	227	73.2
Employed	83	26.8
Residence		
Urban	77	25.0
Rural	233	75.0

3.2. Knowledge of contraceptive methods among reproductive women attending antenatal clinic at Tumbi Regional Referral Hospital.

A total of 298 (96.0%) participants knew contraception health, 12 (4.0%) were not aware of contraceptive reproductive health education. Knowledge of methods of contraception; 303 (97.7%) had good knowledge of contraception, 7 (2.3%) had poor knowledge of contraception. Known methods of contraception; pill 160 (51.6%), condom 61 (19.7%), injectable 50 (16.1%), natural methods 20 (6.5%), implants 10 (3.2%), loop 4 (1.3%), tubal ligation 3 (1.0%), vasectomy 2 (0.6%). Known reasons for using contraception; 260 (83.9%) prevention of unwanted pregnancy, 40 (12.9%) prevention of sexually infections, 10 (3.2%) means of family planning. Source of information about contraception; 120 (38.7%) got information from media, 100 (32.3%) from friends, 90 (29.0%) from health re providers as shown in Table 2.

Table 2 Knowledge of contraceptive methods among reproductive women attending antenatal clinic at Tumbi Regional Referral Hospital

Awareness on Contraception health	Frequency	Percentage %
Aware	298	96.01
Not aware	12	4.0
Knowledge of methods of contraception	Frequency	Percentage %
Good	303	97.7
Poor	7	2.3
Known method of contraception	Frequency	Percentage %
Pill	160	51.6
Condom	61	19.7
Injectable contraception	50	16.1
Natural method	20	6.5
Implants	10	3.2
Loop	4	1.3
Tubal ligation	3	1.0
Vasectomy	2	0.6
Known reasons for using contraception	Frequency	Percentage %

Prevention of unwanted pregnancy	260	83.9
Prevention of sexual infection	40	12.9
Means of family planning	10	3.2
Sources of information About contraception	Frequency	Percentage %
Media	120	38.7
Friends	100	32.3
Health care providers	90	29.0

3.3. Attitudes of participants toward the use of contraception among women attending antenatal clinic at Tumbi Regional Referral Hospital

A total of 150 (48.4%) of the participants attitudes toward contraception was beneficial, 50 (16.1%) tend to reduce sex drive, while 30 (9.7%) of the participants said condoms can slip off during sexual intercourse, 45 (14.5%) was more desirable to use contraception than to have an abortion, 35 (11.3 %) will use contraceptive in future as shown in Table 3.

Table 3 Attitudes of participants toward the use of contraception

Altitude toward contraception	Frequency	Percentage %
Contraception is beneficial	150	48.4
Contraception reduces sexual drive	50	16.1
Condom can slip off during sexual intercourse	30	9.7
Contraception better than abortion	45	14.5
Will use contraception in future	35	11.3

3.4. Practice of participant among reproductive women attending antenatal clinic at Tumbi Regional Referral Hospital

Table 4 Practice of participants among reproductive women attending antenatal clinic at Tumbi Regional Referral Hospital

Ever used contraception	Frequency	Percentage %
Used	163	52.6
Not used	147	47.4
Reason for using Contraception	Frequency	Percentage %
To prevent unplanned pregnancy	245	79.0
To prevent sexual transmitted infections	25	8.1
For family planning	30	9.7
Others	10	3.2
Reason for not using Contraception	Frequency	Percentage %
Reduce sexual pleasure	40	12.9
Causes of cancer	30	9.6
Causes weight gain	15	4.8
Not readily available	8	2.6
My husband disapproves	25	8.1

I fear its side effects	20	6.5
Lacking enough knowledge how to use	10	3.2
Embarrassed to buy / ask for them	162	52.3
Places to get Contraception	Frequency	Percentage %
Pharmacy	164	52.9
Nearby government health care facility	50	16.1
Private health facility	30	9.7
Others facility/ sources	66	21.3
Used contraceptive methods	Frequency	Percentage %
Pills	170	54.8
Condoms	100	32.3
Injectable contraceptive	20	6.5
Norplants	15	4.8
Other methods	5	1.6
Ever used emergency Contraception	Frequency	Percentage %
Used	117	37.7
Not used	193	62.3
Reasons for not using emergency contraception	Frequency	Percentage %
No knowledge of emergency contraception	195	62.9
On other contraception	70	22.6
Fear of side effect	45	14.5

A total of 163 (52.6%) used contraception, 147 (47.4%) not used contraception. Reason for using contraception; 245 (79.0%) to prevent unplanned pregnancy, 25 (8.1%) to prevent sexually transmitted infections, 30 (9.7%) for family planning, 10 (3.2%) others. Reasons for not using contraception; 40 (12.9%) reduce sexual pleasure, 30 (9.6%) causes cancer, 15 (4.8%) causes weight gain, 8 (2.6%) not readily available, 25 (8.1%) my husband disapproves, 20 (6.5%) fear its side effects, 10 (3.2%) lacking enough knowledge on how to use, 162 (52.3%) embarrassed to buy them. Places to get contraception; 164 (52.9%) pharmacy, 50 (16.1%) nearby government health care facilities, 30 (9.7%) private health facilities, 66 (21.3%) other facilities / sources. Used contraceptive methods; 170 (54.8%) pills, 100 (32.3%) condoms, 20 (6.5%) injectable contraceptive, 15 (4.8%) norplants, 5 (1.6%) other methods. Ever used emergency contraception; 117 (37.7%) used, 193 (62.3%) not used. Reasons for not using emergency contraception; 195 (62.9%) no knowledge of emergency contraception, 70 (22.6%) on other contraception, 45 (14.5%) fear of side effects as shown Table 4.

4. Discussion

This study was aimed to assess contraceptive use among of women reproductive age attending antenatal clinic in Tumbi Regional Referral Hospital, Coast Region, Tanzania. It was observed that 19.3 % were between 25 -29 years. While husband 21.3% were between 30-34 years. The media was the main source of information on contraception for most of the participants in this study, this is contrary to finding in another study in Northwest Nigeria, [16]. However, this agrees to findings in Anambra State in South West Nigeria where the mass media was the main source of information on contraception [17]. A similar finding was reported in Rwanda [18]. Media such as TV, radio and new papers remain a powerful tool to reach a large number of women and provide information regarding modern contraceptives. This study also revealed that contraceptive use was higher among women who wanted planned pregnancies [19]. The limitations of family planning programs is due to gender differences during health service use; for example, providers being female, men do not feel welcoming or comfortable, and a lack of trust for providers and not being assured of their confidentiality during discussions about family planning, this results in men not participating at all [20]. However, campaigns about family planning often target women [21]. Therefore, men's positive or negative attitudes determines women's decision

making to use contraceptive [22]. Gender attitudes are important in couples decisions about acceptance and use of contraceptives. Since men remain major decision makers in contraceptive use, they should be adequately involved in population issues to increase their understanding hence support for contraceptive use [23]. This study shows that 72.6% husband's education level was primary school. The study found that the number of husbands with primary education was on a higher side. Therefore, there is a need of husbands to have higher education level which can have significant positive contribution on modern contraceptive use. However, this is contrary to a study done in Ethiopia which found no significant contribution of husband's education level on modern contraceptive use [24]. Therefore, education of men could be an important factor to focus on in order to further increase contraceptive use. This study showed 51.6% pills and 19.7% condoms as the frequently used methods of contraception. In this study 48.4% the participants show attitudes toward using contraceptives to be beneficial. A study in Columbia [29], showed that oral contraception an impact of increased sexual drive. In this study 52.9% the participants prefer to procure contraception from local pharmacies than health care facilities due to complicated procedures.

5. Conclusion

In this study revealed that the use of contraceptives among married women should be encouraged and intensified. Contraceptive nonusers were very low. Thus, public health interventions particularly that could increase information dissemination regarding contraceptives among the communities and enhance community level contraceptive utilization rate are urgently required at the national level to address potential hindering factors and to improve the rate of contraceptive utilization.

Recommendation

Program interventions, including health behavior education and family planning services and counseling, are needed for some categories of the population, including poor, adolescents, illiterate and young married women. Strengthening community- based and school -based family planning programs are strategies to maintain young women's contraceptive use and to advance it further. It is mandatory to continue education of the young population, as education is one of the major factors contributing to increasing contraceptive use among young people in Tanzania.

Compliance with ethical standards

Acknowledgments

I wish to thank the management of St. Francis University College of Health and Allied Sciences for the support to this study. Also, I thank the Regional Medical Officer, Coast Region, Medical Officer in charge Tumbi Regional Referral Hospital, Antenatal clinic staff for their support in this study and all women attending antenatal clinic who participated in this study.

Statement of ethical approval

In this study no animal was used but human were used. The only study tool used to collect data was questionnaire. However, ethical clearance was obtained from the respective authorities to conduct the study. The research committee of St. Francis University College of Health and Allied Sciences, Regional Medical Officers, Coast Region, Medical Officer in charge Tumbi Regional Referral Hospital gave permission the study to be conducted.

Statement of informed consent

Written informed consent was obtained from all antenatal contraceptive women who consented to the study, records were coded and participant's names were not used. All the information collected remained confidential and was used for purposes of the study only. Participation was voluntary and no incentives were given.

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