

**Prevalence, Rate and Reasons for Discontinuation of Modern Contraceptives Use among Women Attending Outpatient Clinics at Temeke Regional Referral Hospital, Dar es Salaam**

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**Abstract****Background**

Modern contraceptives use has been the cornerstone towards control of population growth all around the world. In Tanzania there is still a struggle to reach the goals of modern contraceptives use prevalence, and a high percent of unmet need for modern contraceptives. Nevertheless, there is lack of research to show the percent of people who stop using contraceptives, and the reasons for their discontinuation.

**Objective**

To assess the prevalence, rate and reasons for discontinuation of modern contraceptives use among women aged 15 to 49 years.

**Methods**

This was a cross-sectional study conducted at Temeke regional referral hospital, in Dar es Salaam, Tanzania. The study population included women of reproductive age (15-49 years old) attending outpatient medical and surgical clinics. A structured questionnaire was used to conduct face to face interview with 247 participants. Convenience non-probability sampling technique was applied. Data analysis was done using SPSS version 20. A p-value of less than 5% was considered statistically significant. Odds ratio with their 95% confidence interval were used to assess the strength of associations between discontinuation of modern contraceptive use and the exposure variables.

**Results**

The prevalence of discontinuation was 32%, and the rate of discontinuation was 84.8% in less than 5 years from the beginning of contraceptive use. The individual rates of discontinuation were as follows; implants (31.6%), injectable (22.8%), male condoms (20.2%), intra-uterine devices (17.8%) and oral pills (7.6%). There was no evidence of contraceptive failure. The major reasons for discontinuation of use of contraceptive were to get pregnant (40.5%), experiencing side effects (39.2%), and no known reason accounted for 20.3%.

**Conclusion**

The prevalence of modern contraceptive discontinuation is high and the rate in 5 years-time is also very high. A significant proportion of the population stops contraceptives use without significant reasons, and some because of side effects they experience as a result of contraceptives use. This calls for the need to increase awareness of the public on the possible side effects of contraceptives and how to deal with them.

**Keywords:** *Modern contraceptives, Reproductive age, Temeke Hospital, Reproductive health, Outpatient clinic.*

**Introduction**

Modern contraceptive is a product or medical procedure that interferes with reproduction following sexual intercourse (1). It helps in determining desired family size and child spacing, prevents unwanted pregnancies and unnecessary abortions, and some barrier methods like condoms reduce the rate of transmission of HIV and sexually transmitted infections (2–5). High rate of population growth at a rate of 2.9% is one of the challenges facing the health care system in Tanzania. Therefore, implementation of family planning is one of the top health priorities in Tanzania (6–9). Use of modern contraceptives stands a better chance at controlling population growth (3).

While prevalence of use of modern contraceptives is high in high income countries such as northern Europe (77%), Eastern Europe (69%) and northern America (78%), in Sub-Saharan Africa it is as low as 28% (10). The sub-Saharan countries are lagging behind in adopting modern contraception and few who use them tend to discontinue within few years (10). The latest Tanzania Demographic Health Survey done in 2015 - 2016 demonstrated a high fertility rate of 5.2 births per woman, wanted pregnancies 69%, mistimed pregnancies 27%, and unwanted pregnancies 4% (11). So far studies have shown that the percentage of demand satisfied for family planning is 53, the percentage of unmet need is 22-24, and five years follow up showed that 1 in 4 women discontinued the use of modern contraceptives (11).

From the above data it is clear that the government efforts to raise the percentage use of modern contraceptive for effective family planning is unavailing and one of the major hindrances is discontinuation of use. The aim of this study was to find out the prevalence, rate and reasons for discontinuation of modern contraceptive use.

**Methods*****Study design and setting***

The study was a descriptive cross-sectional study, conducted from June to July 2019 at Temeke regional referral hospital which serves the population of Temeke district in Dar es Salaam, Tanzania. The study area was chosen because Dar es Salaam is the city with the highest population in Tanzania and with greater ethnic diversity. Likewise, Temeke district has the highest population among other districts.

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The study population was women of reproductive age (15 – 49 years old), living at Temeke district, and attending outpatient medical and surgical clinics at Temeke regional referral hospital during the study period. Those who had undergone tubal ligation, never used contraception, and mentally ill patients were excluded. The sampling technique applied was the convenience non-probability sampling technique.

A structured questionnaire was used to interview 247 participants. The questionnaire was comprised of closed and open-ended questions. It was developed in English and translated in Swahili language. Face to face interviews were conducted with patients using the structured questionnaire. The interview was conducted in Swahili language. Each interview took about 20-30 minutes.

The registration book was used to identify patients who met the inclusion criteria, and they were called to a station aside. During the interview questions were asked clearly and in orderly manner in order to get the correct information we needed. Every questionnaire was reviewed thoroughly after filling to make sure there are no mistakes or skipped questions. Interviews were conducted according to the flow of the patients arriving at the hospital clinics, and therefore, interviews continued until the target sample size was reached.

***Data analysis***

The obtained data was entered into, cleaned and analyzed by using SPSS version 20. Quantitative variables were summarized by measure of dispersion (range, variance and standard deviation), and measure of central tendency (mean, median and mode).

Dependent variables were discontinuation of use of modern contraceptives, and failure of contraception. Independent Variables were method of contraception, cost of contraceptives, partner's support on contraceptive use, sources of contraceptives, duration of use of contraceptives, and side effects of contraceptive use. A p-value of less than 5% was considered statistically significant. Odds ratio with their 95% confidence interval were used to assess the strength of associations between discontinuation of modern contraceptive use and the exposure variables.

***Ethical Considerations***

We received permission from KCMUCo research and ethical department who gave us the introduction letter which helped us get the consent from the District Medical Officer (DMO), and medical officer in charge at Temeke regional referral hospital. After our introduction

each of the participants got an explanation on the purpose of the study and were asked to sign a consent form. For those who couldn't read and write, we read it to them and if those who agreed were asked to put a thumb print of the consent form. The interview was conducted in a side station to maintain privacy of the information given by the participants.

## Results

Most of the participants were between the ages of 25-34 years (59.5%). Majority of them engaged in small scale business (61.5%) with a moderate monthly income of 50,000-300,000 Tanzanian shillings (70.9%). Most of them have attended primary education (53.8 %), and 70.9% were married. 55.5% of the participants had households with number of people less or equal to 5 and 40.9% lived in houses with 3 rooms. The social demographic characteristics of the participants are presented in Table 1.

**Table 1: Social Demographic Characteristics.**

Variable	Frequency(n)	Percentage (%)
<b>Age</b>		
15-24	26	10.5
25-34	147	59.5
35-44	51	20.6
45-49	23	9.3
<b>Religion</b>		
Christian	103	41.7
Islam	144	58.3
Hindu	0	0
<b>Current occupation</b>		
Employed	52	21
Businesswoman	152	61.5
Small scale farmer	3	1.2
No job	40	16.3
<b>Monthly family income</b>		
<50,000	47	19
50,000-300,000	175	70.9
>300,000	25	10.1
<b>Level of education</b>		
No formal education	8	3.2
Primary education	133	53.8
Ordinary secondary education	83	33.6

Advanced secondary education	5	2
University education	18	7.3
<b>Marital status</b>		
Married	175	70.9
Single	49	19.8
Co-habiting	18	7.3
Widowed	3	1.2
Divorced	2	0.8
<b>People older than 18 years living in the household</b>		
≤5	241	97.6
>5	6	2.4
<b>Household size including children</b>		
≤5	137	55.5
>5	110	44.5
<b>Number of rooms</b>		
1	11	4.5
2	42	17
3	101	40.9
>3	93	37.7

All 247 participants enrolled in our study had used contraceptives, and 79 of them had discontinued the use of modern contraceptives. So, the prevalence of discontinuation in our study was 32%. (Prevalence = number of people who discontinued/total number of participants)

**Table 2: Modern contraceptive use**

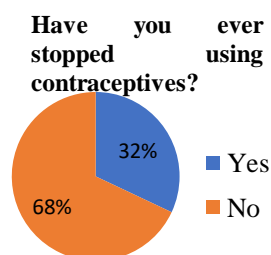
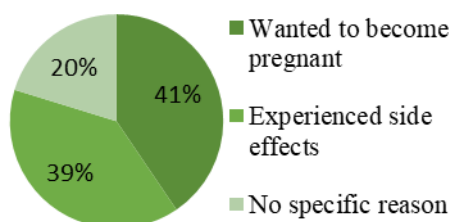
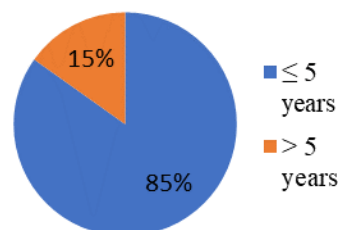
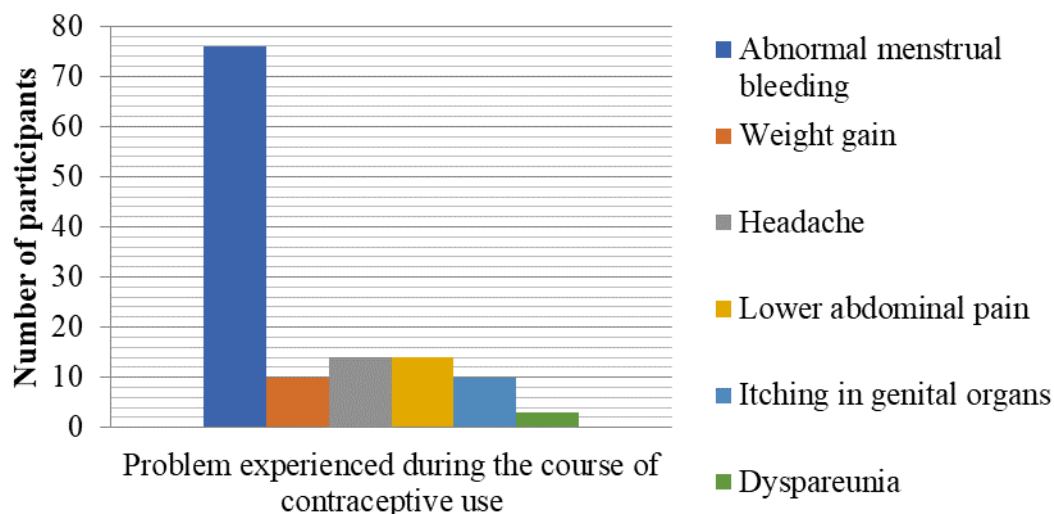
Variable	Frequency(n)	Percentage (%)
<b>Have you or your partner ever used any modern contraceptive method?</b>		
Yes	247	100
No	0	0
<b>Type of method used</b>		
Male condom	57	23.1
Female condom	0	0
Implants	64	25.9
Diaphragm	0	0
Oral pills	21	8.5
Injectable	65	26.3
Intra-uterine device	40	16.2

<b>Does your partner know?</b>		
Yes	156	63.2
No	91	36.8
<b>Does your partner support you?</b>		
Yes	141	89.2
No	17	10.8
<b>Where did you get the service?</b>		
Government health facility	169	68.4
Private health facility	2	0.8
Pharmacy	22	8.9
Commercial shop	54	21.9
<b>Did you pay for the service?</b>		
Yes	77	31.2
No	171	68.8
<b>How did you pay?</b>		
Cash	76	98.7
Insurance	1	1.3
<b>If cash how much did you pay?</b>		
<5000	71	93.4
5000-10000	5	6.6
>10000	0	0
<b>Have you ever got pregnant while still using the method?</b>		
Yes	0	0
No	247	100

All 247 participants enrolled in the study had a history of modern contraceptive use. 79 of them had discontinued the use of modern contraceptives, 67 of them within 5 years. Participants who discontinued had many reasons. Most of them wanted to get pregnant (40.5%), followed by those who discontinued because they developed side effects (39.2%), and lastly those who just decided to stop with no specific reason (20.3%).

Among all 247 participants we interviewed, none of them got pregnant while using the contraceptive method; so for this study the rate of failure was zero percent.

125 out of 247 participants experienced side effects during the course of modern contraceptive use. The most pronounced side effect was abnormal menstrual bleeding (60.8%), followed by headache (11.2), and lower abdominal pain (11.2).

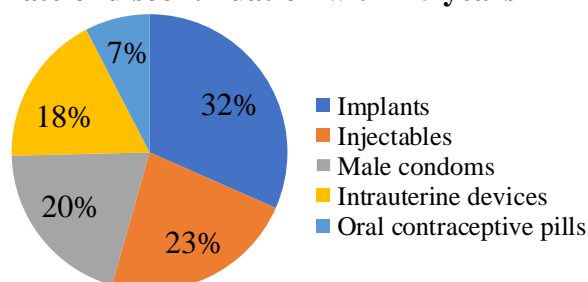
**Figure 1.1****Reason for stopping****Figure 1.2****Duration of use before stopping****Figure 1.3****Figure 2. Problems experienced during the course of contraceptive use**

The rate of discontinuation was (84.8%) within five years of starting to use the contraceptive method, and the rate of discontinuation among specific methods of contraception differs,



with implants leading at 31.6%, followed by injectable at 22.8%, male condoms (20.2%), intrauterine device (17.8%) and lastly oral pills (7.6%).

**Rate of discontinuation within 5 years**



**Figure 3. Rate of discontinuation within 5 years**

## Discussion

This study showed the prevalence of discontinuation of modern contraceptive use to be 32% at a rate of 84.8%. The main reasons for discontinuation of use are the need to get pregnant and experiencing side effects, while non-specific reasons such as getting tired of using the methods contribute a small fraction. The prevalence of modern contraceptive failure among the study participants was not a contributing factor for discontinuation. Partner awareness (62.2%) and support, proved to positively contribute to modern contraceptive use by either increasing the purchasing power (11.7%) or by just giving moral support, acceptance of use and reminders of use from their partners (88.3%). On the other hand, we saw some participants receiving no support at all from their partners, but nevertheless this did not affect their use of a contraceptive method (36.8%). Government hospitals play a major role in encouraging the use modern contraceptives by providing free services (68.4%).

In this study the prevalence of the discontinuation of modern contraceptive use among women aged 15-49 years was (32%). The prevalence is slightly lower (27.1%) in Humero town, Northern Ethiopia (4) and higher (38.4%) in Bangladeshi (12). The prevalence in this setting may reflect the true picture since it hasn't varied much from other studies conducted in under-developed world, and which share the same causative factors; wanting to get pregnant and side effects of the methods.

The study shows 84.8% rate of discontinuation of modern contraceptive use. The rate of discontinuation among individual methods of contraception differs with implants leading at 31.6%, followed by injectables at 22.8%, male condoms (20.2%), intrauterine devices

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(17.8%), and lastly oral pills at 7.6%. In another study done in urban Senegal the rate of discontinuation was 34.7% with the highest being that of condoms (62.9%) followed by injectables at 32.7% (13).

From this study, reasons mentioned by participants which caused the discontinuation of modern contraceptive use were mainly wanting to get pregnant (40.5%), methods use problems (39.2%) and some other reasons (20.3%), such as getting tired of using contraception methods or getting comfortable with their partners. In the study done in urban Senegal, the most common reasons for discontinuation were reduced need (45.6%), method problems (30.1%) and becoming pregnant while using (10.0%) (13). The reasons for discontinuation clearly describe the rate for discontinuation since most of the people were bothered by the side effects which explains the non-compliance compared to those with a reduced need.

In this study, male partner awareness (63.2%) is shown to positively have effect on the modern contraceptive use since 11.7% bought the contraceptive and 88.3% morally supported their partners by either cooperating or reminding them to use despite. In an Ethiopian study male partner support was 68.5%; men played a role in payment for the contraceptives (66.6%) or transportation of their women to the clinic (64.9%) (14). A slightly lower prevalence in this study done in Ethiopia may be due to the nature of the study participants who are considered inferior to their partners and therefore affecting their transparency.

**Conclusion**

The prevalence of discontinuation of modern contraceptive use is high at a very high rate within 5 years-period, with the biggest reason for discontinuation of use being wanting to become pregnant and the side effects of contraceptives. There was no failure of any contraceptive method among our study participants, and none became pregnant whilst using the contraceptive method. There is a positive effect of partner's awareness on the use of modern contraceptives.

**Recommendations**

Provision of proper contraceptive knowledge to all reproductive aged individuals by the health care providers, so as to reduce the rate of objections and rejections especially from the male partners. Free health care services by government health facilities on modern

contraceptives should be publicized to the community by the health care providers in order to increase public awareness.

**Authors' contributions**

NLM was involved in all stages of this work, HM, CM and MN were involved in proposal development, data collection and analysis and writing the final report, ESR was involved in data analysis and preparing the manuscript for publication

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