

Utilization of Extended Postpartum Family Planning among Post-Delivery Women in Mvomero District, Morogoro-Tanzania

Rogate Phinias Ibrahim

rophinias@mzumbe.ac.tz

Mzumbe University

Harrieth G. Mtae

harrieth.mttae@out.ac.tz

The Open University of Tanzania

ABSTRACT

This study aimed at examining factors associated with the use of Extended Postpartum Family Planning (EPPFP) methods among post delivery women in Mvomero District, Morogoro, Tanzania. Based on cross-sectional design, the data collection activity was conducted on March 2020 to 256 post delivery women who delivered a child between January 1, 2019 and January 31, 2020. Purposive and convenience sampling were used to get respondents of the study. Data were collected using questionnaire. Through SPSS tool, descriptive analyses comprising of Pearson's chi square test was employed to establish association between independent and dependent variables. The prevalence of extended postpartum family planning utilization was 46%, the utilization of EPPFP was significantly associated with awareness of the reason for EPPFP use (P -value=0.013), awareness of EPPFP method (P -value=0.014), awareness of EPPFP side effects (P -value= 0.024), counselling sessions (P -value=0.000), menses resumption (P -value=0.010), duration of sexual activity (P -value=0.011) and history of previous pregnancy (P -value=0.000). Prevalence of EPPFP utilization among post delivery women is still low in Mvomero district. Enhancement of the utilization of EPPFP during the postpartum period needs effective response by stakeholders through provision of family planning education particularly during all maternal and child health contacts.

Keywords: *Extended Post-Partum Family Planning, Post-delivery mothers, Tanzania*

INTRODUCTION

Although a number of efforts have been made by the government of

health facility deliveries from 47% in 2005 to 63% in 2015; and increasing the number of health facility deliveries attended by skilled health workers from 46% in 2005 to 64% in 2015 (UNICEF, 2018), yet the prevalence rate of family planning methods is still 32% (MoHCDGEC, 2017) and EPPFP in Tanzania is 40% (TDHS-MIS, 2016). Studies reveal high unmet need of EPPFP among women in Tanzania evidenced by the findings that the total unmet need from 0-5 months postpartum is 81% and 61% from 6-11 postpartum months (Winfrey & Ross, 2001; USAID, 2014; USAID, 2017).

In Morogoro specifically, in spite of the knowledge of FP being widespread at 100%, only 45.7% of women use PPF methods with unmet need of 16% (TDHS-MIS, 2016). It is known that, provision of EPPFP help to address women's unmet need for EPPFP in the first year after delivery, and in so doing become the best intervention in reducing maternal and infant mortality (Vernon, 2009). Since the number of deliveries attended by skilled health facilities has increased from 819 in 2009 to 4,435 deliveries in 2016 in Morogoro; it is expected that, health care workers would use that opportunity to offer information and knowledge about the use of EPPFP to the post delivery mothers during ANC and PNC period, but that is not mostly done in the facility (Thamini Uhai, 2016).

The DHIS -2, (2019) shows that in Mvomero district, the majority of the pregnant women visit prenatal services and finally deliver in health facilities. The total number of women delivered at health facilities for three consecutive years from 2015 to 2018 were 30,327 while the number of women who used EPPFP from 2015 to 2018 were 1221 which is equal to 4% (DHS-2, 2019). In 2015, a total of 7638 (56%) women delivered at health facility, whereby among them 308 (4.8%) used EPPFP. In 2016, a total of 7010 (50.5%) women delivered at health facility, while only 127 (1.8%) among them used EPPFP. In 2017, a total of 7329 (51.5%) women delivered at health facility, and 344 (4.6%) among them used EPPFP. Furthermore, records show that in 2018, a total of 8350 (57.3%) women delivered at health facility and 442 (5.2%) among them used EPPFP (DHS-2, 2019). The facts presented reveal a very low use of EPPFP when compared to the health facility deliveries in Mvomero district. The low EPPFP uptake necessitated a study on factors associated with utilization of EPPFP among postpartum women in Mvomero District.

METHODOLOGY

Study Design and Setting

The study adopted a facility-based cross-sectional survey design to obtain information from 256 post delivery mothers who were within 12 months' post-partum period. This study was conducted in Mvomero district, Morogoro region, Tanzania. Data were collected from four health facilities, two were public owned health facilities and two were private owned health facilities.

Study Population and Sampling Procedure

The study population were all reproductive women aged 15 to 45 years who delivered a baby between January 2019 and January 31, 2020 in Mvomero district. The sampling frame of this study was 737 post delivery women; the sample size was 256 post delivery women whom were determined using the previously published sample size table by Israel (2003). Purposive sampling method was used to select Morogoro region, Mvomero district, the four selected health facilities and the health facility workers while post delivery women were selected using convenience sampling technique.

Data Collection, Processing and Analysis

A structured questionnaire was developed to gather information from respondents. The questionnaire was developed in English and translated into Swahili to aid understanding of respondents and it was pre-tested to ten respondents in order to improve it. The filled questionnaires were reviewed daily throughout the data collection activity, and the collected data were entered into Microsoft excel daily in order to facilitate the process and have confidence on the data, then data were cleaned on the Microsoft spread sheet and transferred to the Statistical Package for Social Science (SPSS) version 20 ready for data analysis. Descriptive statistics which led to creation of frequencies and tables to describe findings. The descriptive statistics was applied to analyze frequency and cross tabulation to explore the association between independent variables and dependent variable. The Pearson chi-square test was used to test association between dependent variable (EPPFP use) and independent variables (socio-demographic factors, knowledge and information factors, fertility and reproductive factors and method related factors).

FINDINGS

Social Demographic Characteristics

The study examined 256 post delivery mothers with a response rate of 100%. Almost three quarter of the respondents, 110 (43%) and 111 (43.4%) were between 15-24 and 25-34 years of age respectively. The mean age of study participants was 26.9 (SD \pm 6.017) and the minimum and maximum age was 18 and 43 respectively. A total of 198(77.3%) respondents were married, both mothers and their husbands 177 (69.8%) and 178(72%) respectively had primary level of education, nearly half of mothers 114(44.5%) were doing small businesses and majority of them 136(53.1%) were Christians. (Table 1)

Knowledge and Information of Post Delivery Mothers

Almost all mothers 249(97.3%) were aware that EPPFP is used to space pregnancy and prevent unwanted pregnancy, majority of respondents 246(96.4%) were aware of the EPPFP method(s). More than half, 162(63.3%) were not aware of the side effects of the EPPFP. Majority of mothers, 160 (67.7%) attended counselling sessions about family planning and almost all mothers, 153 (94.4%) understood the sessions. Nearly half of them, 71(43.8%) attended the counselling session on RCH. More than half, 138(53.9%) of mothers were not current users of EPPFP methods and nearly half of them, 51(43.2%) started using EPPFP on the second month post delivery (Table 1).

Fertility and Reproductive Factors of Post Delivery Mothers

The average post partum duration (in months) of study participants was 4.54 (SD \pm 3.395). Majority of mothers, 174 (71%) had delivered within six months before the study was conducted. 196 (76.6%) of mothers reported that their recent pregnancy was planned and 243 (93.9%) preferred to have birth spacing. The average number of children mothers wished to have in their entire life was 4 (SD \pm 1.597), the minimum was 1 child and maximum was 10 children while the average number of children mothers were currently having was 2 (SD \pm 1.324), the minimum was 1child and maximum was 6 children. A total of 161 (62.9%) respondents wished to have less than six children in their entire life and 201 (78.5%) respondents had currently less than 4 children. Majority of respondents, 213(83.2%) reported that their menses had resumed after their recent birth and almost three quarter reported to have resumed menses within 3 months, the average months were 1.6 (SD \pm 1.262) and maximum was 9 months. Majority of women resumed sexual activity

within 3 months after recent birth, the average months were 2.3 (SD \pm 1.835) and the maximum month was 8. A total of 200 (78.1%) respondents reported to have attended PNC services and more than half, 173 (62.6%) respondents used family planning prior to the recent birth. (Table 1).

Table 1: Social-Demographic, Knowledge and Reproductive Characteristics of Post-Delivery Mothers in Mvomero District, (N=256)

Variable	Frequency	Percent
Social demographic characteristics		
Age		
15-24	110	43.0
25-34	111	43.4
35-44	35	13.7
Marital status		
Married	198	77.3
Not married	58	22.7
Education level of a maternal mother		
No formal education		
Primary	2	.8
Secondary	177	69.1
Tertiary	61	23.8
Spouse's Education level		
No formal education	2	.8
Primary	178	72.4
Secondary	50	20.3
Tertiary	16	6.5
Religion		
Christian	136	53.1
Muslim	120	46.9
Occupation of client		
Employed,	32	12.5
Small business,	114	44.5
Farming,	62	24.2
Housewife	48	18.8
Knowledge and Information of Post Delivery Mothers		
Awareness of the reason for EPPFP use		
No		
Yes	7	2.7
	249	97.3
Awareness of EPPFP method		
No	9	3.5
Yes	246	96.5
Awareness of EPPFP side effects		
No	162	63.3
Yes	94	36.7
Attending FP counselling session		
No	96	37.3
Yes	160	67.7
Place of counselling session		
RCH	71	43.8
During admission	37	22.8
During delivery	26	16.0
During hospital discharge	28	17.3

Understanding counselling session		
No		
Yes	9	5.6
	153	94.4
Current use of EPPFP method		
No	138	53.9
Yes	118	46.1
Start time of EPPFP use (Months)		
1 st		
2 nd	25	21.2
3 rd	51	43.2
4 th	38	32.2
5 th	3	2.5
	1	.8
Fertility and Reproductive Factors of Post Delivery Mothers		
Post partum duration (Months)		
≤6	174	71.0
>6	71	29.0
Planned birth		
No	60	23.4
Yes	196	76.6
Prefer birth spacing		
No	13	5.1
Yes	243	93.9
Number of children wish to have		
≤4	161	62.9
>4	95	37.1
Number of children having		
≤4	201	78.5
>4	55	21.5
Menses resumption		
No	43	16.8
Yes	213	83.2
Duration of menses resumption		
≤3	207	93.7
>3	14	6.3
Resumed sexual activity (months)		
Not yet	20	7.8
≤3	182	71.1
>3	54	21.1
PNC visit		
No	56	21.9
Yes	200	78.1
History of previous use of FP		
No	83	32.4
Yes	173	62.6

Source: Field data (2020)

Factors Associated with the Utilization of EPPFP

Results showed variables explicitly awareness of the reason for EPPFP use, awareness of EPPFP method, awareness of EPPFP side effects, attending FP counselling session, the menses resumption, duration of return to sexual activity and history of previous pregnancy were significantly associated with women use of EPPFP with p-value of 0.013, 0.014, 0.024, 0.000, 0.010, 0.011 and 0.000 respectively (Table 2).

Table 2: Factors Associated with the Utilization of EPPFP among Post Delivery Mothers in Mvomero District(N=256)

Variable	Non use	Use EPPFP	Total Frequency	P-Value
Awareness of the reason for EPPFP use				
No	7	0	7	0.013
Yes	131	118	249	
Awareness of EPPFP method				
No	9	0	9	0.014
Yes	129	118	247	
Awareness of EPPFP side effects				
No	96	66	162	0.024
Yes	42	52	94	
Attending FP counselling session				
No	68	28	96	0.000
Yes	70	90	160	
Menses resumption				
No	29	14	43	0.010
Yes	109	104	213	
Resumed sexual activity (months)				
Not yet	17	3	20	0.011
≤3	91	91	182	
>3	30	24	54	
History of previous use of FP				
No	58	25	83	0.000
Yes	80	93	173	

Source: Field data, (2020)

DISCUSSION

Women's exposure to family planning knowledge and information, increases the demand for FP methods and gradually causing behavior change; it is crucial that they be exposed to FP education on every health facility contact. Actually, women attendance to counselling sessions showed significant association with the EPPFP utilization in the current

study. This was also found in the study done in Kebribeyah Town, Somali Region, Eastern Ethiopia by Nigussie et al. (2016) which found that women who received family planning counselling during delivery were more likely to use the contraceptives during postpartum period than their counter parts. In point of fact, FP counselling provides a woman with adequate knowledge on various FP issues which enable her to make an informed decision concerning her maternal and child health. Health facility workers during the interview reported that, women were going to the health facility with their EPPFP choices in heads; this indicates inadequate knowledge concerning FP issues and thus calls upon stakeholders to make strategies on how family planning education particularly during postpartum period can be publicly provided to the community.

Moreover, the study found women who were aware of the reasons for EPPFP services like pregnancy prevention and spacing were also utilizing EPPFP method. Similarly, the study done in Liberia by Kaydor et al. (2019) concerning Barriers to acceptance of post-partum family planning among women in Liberia, found that women who were aware of the PPF were four times likely to use contraceptives on their postpartum period. Essentially, it was very important to understand whether women knew the reason for using EPPFP methods because having known the reason for such service to her, increases the demand for it, thus this again, calls upon healthcare workers to create awareness of EPPFP at every contact of care to increase demand for EPPFP among women.

Furthermore, awareness of women on side effects of EPPFP methods showed significant association to EPPFP utilization. Women who were not aware of the side effects of EPPFP methods, were found to be using EPPFP compared to their counterparts. This result was consistent to the study done by Kaydor et al. (2018) in Liberia, where they found fear of side effects was among the barrier to acceptance of PPF methods. The reason for the fear of side effects, might be inadequacy knowledge of family planning, because the current study showed majority of women who reported to have attended the FP counselling session (assumed to have relatively adequate FP knowledge) were also using EPPFP.

Awareness of EPPFP methods showed significant association with EPPFP utilization and the most known FP methods were injections, pills and implants. This result was related to the study of 2018 done by

Gebremedhin and his fellow in Ethiopia concerning Family planning use and its associated factors among women in the extended postpartum period where they found majority of women had awareness on PPF methods and the most known and preferred method was Injectable. The same results were found in Tanzania by USAID (2014) and Mtae (2018) in a study conducted in Mvomero that the most known and preferred method is Injectables (32%) and 28% respectively. The possible reason might be not only that injectables are easy to take and maintain privacy to the woman's partner but also its availability and accessibility.

The study indicates prevalence of extended postpartum family planning method (EPPFP) utilization to be moderately low (46%). This result is quiet higher than the study of 2018 by Towriss & Timæus from Eastern African countries which reported the prevalence of 37.3% and 26.6% for Urban and Rural Tanzania respectively. This increase might be due to exposure to family planning education to post delivery mothers as the matter of fact all nurses interviewed testified to provide FP counselling to women before and during delivery.

Women whose menses returned were more likely to use EPPFP, as a result majority of woman who used EPPFP started after menses resumption. This result was consistent to studies conducted by (Gebremedhin et al. 2018) and (Gejo, Anshebo, & Dinsa, 2019). The possible reason for this similarity might be due to the higher risk of getting pregnancy that women have immediately after menses resumed and this triggers them to use EPPFP methods. Borda and Winfrey, (2010) did an analysis from 17 countries on the postpartum fertility and contraception, and they found Tanzania as one among countries where women felt low risk of getting pregnancy before returned to their menses and subsequently started thinking of taking contraceptives after menses resumption, the percentage of women who used contraceptive after menses returned was two times than their counterparts.

Moreover, women who had history of FP use on previous pregnancy were also found to be utilizing EPPFP than those who had no history of FP use on previous pregnancy. This result is related to the result found in Addis Ababa-Ethiopia by Gebremedhin et al. 2018 that women who had history of FP use on the previous pregnancy were two times likely to use contraceptives in their postpartum period.

Duration of return to sexual activity also showed statistically significant association with EPPFP utilization in the current study. This might be due to the fact that women who resumed to sexual activity have great fear of getting unexpected pregnancy at anytime. This result was parallel to the study done by Gejo et al. (2019) concerning postpartum modern contraceptive use and associated factors in Hossana town where they found positive relationship between contraceptive use and resumed sexual activity. Among 17 countries including Tanzania where sexual activity was delayed postpartum, shorter birth interval was relatively rare (Borda & Winfrey, 2010). In Tanzania, during the second half of the first year postpartum is when the risk of pregnancy peaks (USAID, 2014). This might be due to the fact that women in the first six months post delivery their sexual desire is low while on the second half of first year postpartum their sexual desire is high.

CONCLUSION AND RECOMMENDATION

The findings of the study found that, the prevalence of EPPFP utilization was still low (46%) in Mvomero district, Morogoro-Tanzania. The utilization of EPPFP was significantly associated with awareness of the reasons for EPPFP use, awareness of EPPFP method, awareness of EPPFP side effects, receiving FP counselling sessions, menses resumption, and duration of return to sexual activity and history of previous pregnancy. In order to increase the demand and need for EPPFP service during postpartum period, healthcare workers should provide effective family planning counselling from the time a woman starts to attend ANC, during delivery and during PNC visits. This education exposes them to the family planning issues, guarantee better understanding of family planning and consequently women make informed decision on the EPPFP method during the postpartum period.

REFERENCES

- Blaze, C., Prata, N. (2016). Postpartum family planning: current evidence on successful interventions. *Open access peer-reviewed scientific and medical journals*, 53—67.
- Borda, M., Winfrey, W. (2010). *Postpartum fertility and contraception: An analysis of findings from 17 countries*. USA: Jhpiego.
- Bwazi, C. (2014). Utilization of Postpartum Family Planning Services between Six and Twelve Months of Delivery at Ntchisi District Hospital, Malawi. *Scientific Research journal*, 1724-1737.

- DHS-2. (2019). *The report of FP, ANC, Health facilities deliveries of Mvomero District for the year 2015, 2016, 2017 and 2018*. Morogoro.
- Dickinson. (2011). Socio-economic status and malaria outcomes in Mvomero District. 6-7.
- Gaffield, M. E. (2014). Postpartum Women Need Family Planning, Too. *Glob Health :Science and Practice*, 4-9.
- Gebremedhin, Kebede, Galagay, Habitu. (2018). Family planning use and its associated factors among women in the extended postpartum period in Addis Ababa, Ethiopia. *Contraception and Reproductive Medicine*, 40834-017-0054-5.
- Gejo, N. G., Anshebo, A. A., Dinsa, L. H. (2019). Postpartum modern contraceptive use and associated factors in Hossana town.
- Israel, G. D. (2003). Determining sample size. 2-3.
- Jalang'o, R., (2017). Determinants of contraceptive use among postpartum women in a county hospital in rural Kenya. *BMC Public Health*.
- Jamie, H. M. (2018, July 8). *psychcentral.com*. Retrieved January 12, 2019, from *Psychcentral.com/blog/understanding-research-methodology*: <https://psychcentral.com>
- Kabagenyi, G., Rutaremwa, A. (2015). *Postpartum family planning utilization in Burundi and Rwanda: A comparative analysis of population based cross-sectional data*. Addis Ababa.
- Kaydor, V. (2018). Barriers to acceptance of post-partum family planning among women in Montserrado County. *Niger Postgrad Med J*, 25, 143-8. Retrieved 10 22, 2019, from <http://www.npmj.org>
- Keogh, S. (2015). Postpartum Contraception in Northern Tanzania: Patterns of Use, Relationship to Antenatal Intentions, and Impact of Antenatal Counseling. *Ncbi*.
- Kothari, Garg, G. (2014). *Research Methodology: Methods and Techniques*. New Delhi: New Age International.
- Mengesha (2015). Contraceptive adoption in the extended postpartum period is low in Northwest Ethiopia. *BMC Pregnancy & Childbirth*, 1-6.
- MoHCDGEC. (2016). *The National Road Map Strategic Plan to Improve Reproductive, Maternal, Newborn, Child & Adolescent health in Tanzania (2016 - 2020) One Plan II*. Dar es salaam: MoHCDGEC.
- MoHCDGEC. (2017). *National Family Planning Procedure Manual*. Dar es salaam: MoHCDGEC.
- Mtae, H.G, (2018). Fertility Preferences in Tanzania. *Assessment of Determinants of Couples' Decisions on Fertility Preferences in*

Kishapu and Mvomero District, Tanzania. Wander's beck, South Africa,3631

- Nigussie, A., Girma, D., Tura, G. (2016). Postpartum Family Planning Utilization and Associated Factors among Women who Gave Birth in the Past 12 Months, Kebribeyah Town, Somali Region,Eastern Ethiopia. *Journal of Women's Health Care*.
- Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T. (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC Public Health*.
- Rutstein, S. (2000). Birth intervals in developing countries:Actual and preferred presentation. *U. S. Agency for International Development*.
- Sileo. (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *Int J Public Health*, 987–997.
- Singh, M. (2015). Awareness and acceptance of contraception in post-partum women. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 690-695.
- TDHS-MIS. (2016). *Tanzania Demographic Health Survey and Malaria Indicator Survey, 2015-2016*. Dar es Salaam.
- Thamini Uhai. (2016). *Tanzania Maternal Health Program*. Dar es Salaam.
- UN-DESA. (2018). *UN Report on Disability and Sustainable Development Goals*. Retrieved 10 22, 2019, from <https://www.un.org/development/desa/disabilities/envision2030.html>
- UNICEF. (2018). *Tanzania - Maternal & child health - The situation*. Dar-es-salaam: UNICEF Tanzania.
- USAID. (2014). *Family Planning Needs during the First Two Years Postpartum in Tanzania*. Washington DC: USA.
- USAID. (2017). Postpartum contraceptives; Family planning methods and Child spacing after childbirth. Retrieved 10 7, 2019, from https://www.globalhealthlearning.org/sites/default/files/page-files/ACCESSFP_ppcontraceptionPPT2.pdf
- Vernon, R. (2009). Meeting the Family Planning Needs of Postpartum Women. *JSTOR*, 40(3), 235-245. Retrieved 10 8, 2019, from <https://www.jstor.org/stable/25593963>
- WHO. (2013, August 6). *Bulletin of the World Health Organization - Measuring maternal health: focus on maternal morbidity*. Retrieved

- from Bulletin of the World Health Organization 2013;91:794-796. doi:: <https://www.who.int>
- WHO. (2014, June 5). *Bulletin of the World Health Organization-Success factors for reducing maternal and child mortality*. Retrieved from Bulletin of the World Health Organization 2014;92:533-544. doi:: <https://www.who.int/bulletin/volumes/92/7/14-138131/en/>
- WHO. (2019, December 12). *Reproductive health family_planning - unmet_need_fp*. Retrieved from who.int: <https://www.who.int>
- Winfrey, Ross. (2001). Contraceptive Use, Intention to Use and Unmet Need during the Extended Postpartum Period. *International Family Planning Perspectives*, 20-26.