

CONTRACEPTIVE NEEDS AND PRACTICE OF WOMEN IN THE EXTENDED POST-PARTUM PERIOD IN ADDIS ABABA, ETHIOPIA

Hailegeorgis Awulachew¹, MD; Shiferaw Negash², MD, MSc, Yemisrach Getiye³, BSc, MPH; Lukman Yusuf, MD⁴, Msc, PhD
^{1,2,4} Addis Ababa University- Ethiopia

³Center for International Reproductive Health Training- Ethiopia

ABSTRACT

BACKGROUND: Family planning is the most cost-effective intervention to improve health outcomes in reproductive, maternal and child health. Extended post-partum defined as one-year post-birth period, 95% of low and middle-income countries women want to avoid a pregnancy within the next two years, but 70% are not using contraception.

OBJECTIVE: To determine the magnitude and factors associated with contraceptive needs and practices of women during extended postpartum period in Addis Ababa, Ethiopia.

METHODS: Institution based cross sectional study used. Women in the reproductive age group within their first year after delivery who came to selected health facilities with their infants for immunization or child health clinics were interviewed. Epi-Info version 7 and SPSS version 21 were used for data entry & analysis. Descriptive statistics were used to summarize the data. Bivariate and multi variable logistic regression model were used to see an association between variables.

RESULT: Eight hundred thirty three post-partum mothers were interviewed. Mean age (\pm 1SD) of mothers at their last delivery was 27.3 (\pm 4.5) years. The median number of pregnancy was 2. Regarding reproductive intention, 45.0% of mothers want to space the next pregnancy for more than two years. Among the 92.6% of mothers who wanted to use contraceptive method, 70.9% of them use modern contraceptives which give contraceptive prevalence rate of 65.7% .

CONCLUSION: Reproductive intention, resumption of menses and sexual intercourse, knowledge, discussion with partner, post-partum visit and family planning counseling were found to be factors associated with post-partum family planning practice. Improving the knowledge on long term family planning methods and lactational amenorrhea method should be strengthen.

KEY WORDS: Post-partum family planning, Post-partum contraceptives and family planning in extended post-partum period.

INTRODUCTION

Family planning (FP) is one of the most cost effective and high yield interventions to improve health outcomes in reproductive, maternal and child health. While family planning is important throughout an individual's and couple's reproductive life, postpartum family planning (PPFP) focuses on the prevention of unintended and closely spaced pregnancies¹.

ACCESS-FP defines the extended postpartum period as one full year post-birth². The postpartum period presents a rising risk of unwanted conception. By 7-9 months after birth, most women become exposed to pregnancy but do not want to become pregnant and do not obtain contraceptive protection. Such women have experienced a return of menses, are not abstaining from intercourse and are unprotected from conception³.

Globally, an estimated 287, 000 maternal deaths occurred in 2010. Sub-Saharan Africa accounts for 56%, which is mainly due to complications associated with pregnancy and childbirth⁴. Ethiopian Demographic and health survey (EDHS) 2016 also reported that pregnancy related mortality in Ethiopia is 412⁵. Since 2010, 95% of women in low- and middle-income countries want to avoid pregnancy within the next two years, but 70% are not using contraception⁶.

Pregnancies within the first 12 months after birth are at highest risk of adverse health outcomes to the mother and child. Because of these, spacing pregnancies at least two years apart can avert an estimated 10% of infant deaths and 21% of deaths in children ages 1 to 4 globally⁶.

Post-partum fertility and contraception are not well understood by policy makers, health service providers and women themselves⁷. Postpartum women experience amenorrhea, or the absence of menses, for varying lengths of time and their fertility can return before menses resumes, even when breastfeeding. Postpartum family planning programs also must understand the clinical safety standards applied to different contraceptive methods across the 12 month period following birth, taking the mother's breastfeeding status into special consideration⁶.

There is no recent study done on contraceptive needs and practice of women in the extended postpartum period in Addis Ababa. Therefore, this study intended to identify the needs and practices of contraception among women in the extended postpartum period.

METHODS

Institution based cross sectional study was conducted in public health centers of Addis Ababa from June 15, 2015 to July 31, 2015. Sample size was determined using single population proportion formula with $Z_{\alpha/2}$ at 95% confidence level is 1.96 and margin of error between the sample and the Population is 5%. Since the contraceptive prevalence rate during the EPPP in Addis Ababa is unknown, we use the prevalence of modern contraceptive use and contraceptive needs during extended post-partum period in Bahir Dar, Northern Ethiopia, which is 48.8% and 72.3% respectively. By taking maximum sample size, considering a design effect of 2 for multi stage sampling and considering 10% non-response rate, the final sample size became 845.

From total sub cities in Addis Ababa, three were chosen by simple random sampling method. Out of each selected sub city, 30% of health centers were selected. The number of study participants were allocated proportionally based on patient flow one month prior to data collection. According to EDHS 2016 report, 80.9% of women age 15-49 giving birth in the two years before the survey had no post-natal checkup and 16.5 of them had post-natal check-up within two days of delivery. Therefore, the ideal place to found post-natal mother is while they came for immunization and child health clinic since 89% of children received all basic vaccinations in Addis Ababa (EDHS 2016). According to EDHS 2016, in Addis Ababa 93.1% of children aged 12-23 months received measles and 89.2% had completed all the basic vaccinations⁽⁵⁾. Women in the reproductive age group who are within the first year after delivery and came to selected health facilities during the time of data collection were taken as a study population whereas women with less than six weeks postpartum, with seriously ill infants and those who came from outside of Addis Ababa were excluded.

Data were collected using structured questionnaire. The dependent variable is contraceptive need and practice during the extended postpartum period and the independent variables are socio-demographic characteristics, Reproductive characteristics, Client related factors and health facilities related factors.

Data were coded, checked and entered using Epi-Info version 7.0 and exported to SPSS Version 21.0. The data categorized and summarized with descriptive statistics to describe the study population in relation to relevant variables. Cross tabulation was also performed to

see the distribution of different variables in relation to outcome variable. Bivariate logistic regression analysis with the help of odds ratio along with their 95% confidence interval was used to assess the degree of association between dependent and independent variables and test significance of the association. Those variables which had association with significance level of p-value of <0.2 were entered into multivariate logistic regression model to identify the important determinants by controlling possible confounding effects.

Ethical clearance was obtained from Research Ethics Committee (REC) of School of Medicine in Addis Ababa University. Following the endorsement by the REC, Addis Ababa health bureau was informed about the objectives of the study and then written permission from Addis Ababa health bureau was presented to respective health facilities. Informed verbal/ written consent was obtained from each selected postpartum woman to confirm willingness. Each woman was informed about the purpose of the study and the right of the women not to participate in the study. Also affirm that they are free to withdraw consent and to discontinue participation without any form of prejudice. There was no any serious harm to the participants. Furthermore, confidentiality was assured during data collection, analysis and dissemination of result.

RESULT

A total of 833 women who are within the first year after delivery were interviewed making the response rate 98.6%. The mean age (\pm 1SD) of the study participants at their last delivery was 27.3 (\pm 4.5) years. Seven hundred forty-three (89.2%) were married, 587 (70.5%)

were Orthodox Christians and 417 (50.1%) were housewives.

The median number of previous pregnancy (gravidity) was two (range 1-7). Of total participants, 192 (23.0%) of mothers had previous history of abortion and 28 (3.4%) had previous history of stillbirth. From 484 mothers who had more than one pregnancy, 136 (28.1%) delivered within two years of their previous delivery. From all respondents, 104 (12.5%) of their current birth were unwanted or mistimed. Out of which, 64 (61.5%) did not use any form of contraceptive. Regarding reproductive intention of the study subjects, 375 of 833 women (45.0%) want to space the next pregnancy for more than two years. Of the total respondents; 789 (94.7%) started breast-feeding immediately after delivery, 467 (56.1%) of them resumed their menses within 12 weeks and 543 (90.7%) started sexual intercourse within 12 weeks.

Among the total study participants, 809 (97.1%) had at least one antenatal care (ANC) visit for the index pregnancy. Eight hundred thirteen had contact with health care provider in the post-partum period at least once prior to the interview time, the commonest reason being child immunization (78.8%), followed by post-partum care (59.7%). Of 821 mothers who delivered in health institutions, 80% of them were counseled for post-partum family planning. From the total respondents, 801 (96.2%) know at least one type of contraceptive methods. Of those, most of them know injectable, pill and intrauterine contraceptive device (IUCD) respectively. Considering the standard criteria to be fulfilled for lactational amenorrhea method (LAM), less

than half (45.5%) of 387 mothers who heard about LAM stated it correctly.

Seven hundred seven (84.9%) mothers among the total respondents discussed with their partners about use of FP and 771 (92.6%) mothers wanted to use FP method in their EPPP. Out of these, 547 (70.9%) women use modern FP methods which give contraceptive prevalence rates (CPR) 65.7%. Two hundred nine (38.2%) use injectable, followed by 174(31.8%) implant.

Of the total contraceptive users, 515 (94.1%) started using FP within 12 weeks of post-partum followed by 13-24 weeks. In relation to resumption of menses 259 (47.3%) started using before their menses resume. Specially, injectable was used by 41.9 % of women who wanted to limit.

The 286 mothers who did not use FP methods mentioned different reasons. One hundred two (35.7%) mothers stated that currently their husbands are not with them or have infrequent intercourse. Among 286 women who are not using contraception at time of interview, 136 (47.6%) had a need to space the next pregnancy and 70 (24.5%) want to limit their number of children. The total unmet need for family planning is 16.3%; 11% for spacing and 5.3% for limiting.

According to bivariate analysis socio demographic characteristics, like marital status and religion were significantly associated with FP practice in the EPPP. Married women use PFP 2.5 times than single women (p-value <0.01; COR 2.5; 95% CI (1.42-4.42)). Catholic women in the EPPP are 76% less likely to utilize FP compared to orthodox women (p-value <0.05; COR 0.24; 95% CI (0.07-0.82)). Those mothers who want to

space or limit their family size tend to practice one method of family planning 3.5 times higher than those mothers who want another pregnancy within two years' period (p-value <0.001; COR 3.5; 95% CI (1.7-7.25) and p-value <0.001; COR 3.5; 95% CI (1.67-7.52) for spacing and limiting respectively).

Resumption of menses increases the utilization of PPF 4.3 times (p-value <0.01; COR 4.33; 95% CI (3.19-5.89)). And women who resume of sexual intercourse use PPF method by 7.7-fold compared with mothers who did not resume sexual intercourse (p value <0.001; COR 7.7; 95% CI (5.47-10.71)). Initiation of breast feeding is found to be another factor that increases post-partum family planning utilization 2.4 times (P-value < 0.05; COR 2.41; 95 % CI (1.31-4.45)).

Women who know at least one method of PPF are 6.2 times likely to practice (p-value <0.001; COR 6.2; 95% CI (2.74-13.92)). Women who had no discussion with their partner about FP 85% less likely to practice PPF (p-value <0.001; COR 0.15; 95%CI (0.1-0.23)).

From health service utilization; ANC and post-natal visit increase the use of PPF by 4 and 3 times (p-value 0.002, COR 4, 95%CI (1.69-9.45) and p-value <0.05; COR 3;95%CI (1.19-7.3)) respectively. Family planning counseling also increases the use of PPF by 1.6 (p-value <0.05; COR 1.6; 95%CI (1.14-2.29)).

After controlling confounders in multivariate logistic regression, reproductive intention, resumption of menses and sexual intercourse, knowledge about PPF methods, discussion with partner, post-partum visit and family planning counseling were factors that are associated with PPF practice. Women who want to

space their next pregnancy for at least two years and those who want to limit their family size were 4.7 and 10.5 times likely to use PPF (p-value <0.001; AOR 4.7; 95% CI (1.9-11.4) and P-value <0.001; AOR 10.5; 95% CI (4.0-27.6)) respectively. Resumption of menses and sexual intercourse increase PPF utilization by 5.6 and 5.2 fold (p-value <0.001; AOR 5.6; 955 CI (3.7-8.3) and P-value <0.001; AOR 5.2; 95% CI (3.37-8.02)) respectively.

Knowing at least one method of PPF is another determinant factor for its practice, in which it increases by 18.4 fold (P value <0.001; AOR 18.4; 95% CI (5.1-66.2)). But not discussing with partner about PPF is a hindering factor for their PPF utilization. Women who did not discuss with their partners were 80% less likely to use PPF method (p-value <0.001; AOR 0.2; 95% CI (0.11-0.36)).

The other two important factors that showed association with PPF practice were related with health care service. Women who had a visit in a health facility during the post-partum period for post-natal care, child immunization, growth monitoring, chronic illness follow up and emergency service were 5.9 times likely to use PPF method (p-value <0.001; AOR 5.9; 95% CI (1.68- 20.34)). Similarly, women who were counseled about FP 2.2 times likely to practice PPF compared with women who were not counseled (p-value <0.001; AOR 2.2; 95% CI (1.33-3.51)).

DISCUSSION

This study found that contraceptive prevalence rate during EPPP is 65.7%. This result is higher than a study done in Gondar which was 48.4%⁸. This might

be due to the difference in the study setting. The most common contraceptive used was injectable (38.2%); and long acting methods account for 43.5 % of users. The utilization of long acting methods is much higher than the study done in Gondar (3.4%)⁸ and Nigeria (7.6%)⁹. This difference could be due to the setting difference between the studies and better adoption of long term methods in Addis Ababa.

In this study, women who want to space and limit their number of children are more likely to use PPF. Which is supported by a research done in south east Nigeria on prevalence and determinants of unmet need for family planning¹⁰.

From women who wanted to limit, only 29% of them are using long term contraceptive methods. This may be due to their knowledge as seen on their knowledge of contraceptive method which can be used in the EPPP where short term methods were mentioned more frequently than the long-term methods. This is also supported by EDHS 2016 finding on knowledge of contraceptive methods in which majority of women knew pills and injectable¹⁵. A study done in Pakistan also showed that 82% of women using contraception in the EPPP used short term methods¹¹. This could be due to lack of obtaining reasonable information about the available options of contraception.

Women who knew at least one method of contraceptive method which can be used in the EPPP are more likely to use it. This is due to the fact that if they knew the method of contraception the tendency to practice it is better than those who have no idea on what they can use or who believe that none of the modern contracep-

tives can be taken in the EPPP.

Regarding resumption of menses, 423 (77%) of cycling women used PPF. This shows significant association between resumption of menses and PPF practice. Women who resumed sexual intercourse are also high likely to practice PPF. This is comparable to the findings of the studies done in Gondar and analysis of 17 countries by USAID and ACCESS^{7, 8}. This might be due to the women might not feel that they are at risk of pregnancy unless menses resume or resumed intercourse irrespective of their post-partum period and status and type of breast feeding.

Women who had post-partum visit to health institutions were more likely to start using FP in the EPPP. This finding is similar with the study done in Gondar which showed nearly two-fold increase in utilization of FP among women had a post-partum visit in comparison to those who had no visit. This may be because of increased probability of receiving counseling on FP at different service delivery points in the health institution⁸. In conjunction with this, woman who received post-partum FP counseling are more likely to practice modern contraceptives as it raises their awareness.

Women who have no discussion with their partner are less likely to initiate PPF methods. This could be due to lack of perception of the risk of pregnancy, lack of supportive input from partners or even the fact that the partner might not be around makes the women to feel as there is no risk for pregnancy.

Among respondents who did not use contraception, the commonest reason mentioned was that their husbands are not around or have infrequent sexual inter-

course. This finding is also reported by a community based study done in Gondar⁸. This may lead to the women underestimating their risk of having pregnancy when they are involved in sexual intercourse, which could end up with unplanned and mistimed pregnancy.

The factor that negatively affected the practice of contraception in the EPPP is not having discussion with their partner about FP. The major reasons for not using contraceptive were fear of side effect, lack of knowledge and being on breast feeding for the previous child. The main strength of this study is, it is a facility based study in settings where most mothers came for immunization and child health clinic services.

CONCLUSION

Different factors were found to be positively and nega-

tively associated with contraceptive practice in the EPPP. Factors that increased contraceptive utilization in the EPPP are future reproductive intention, resumption of menses and sexual intercourse, knowledge of one method of contraceptive method which can be used in the EPPP, having post-partum visit and obtaining counseling on PFP.

Optimal counseling on FP at all contact points with pregnant as well as women in the EPPP and increase the awareness of mothers on criteria to use LAM, use of FP methods and the risk of closely spaced pregnancy can improve utilization of FP in EPPP.

COMPETING INTEREST: The authors declare that they have no competing interest.

Corresponding Author:

Hailegeorgis Awulachew¹, MD,
Addis Ababa University- Ethiopia

Email:

REFERENCES

1. WHO. programmatic strategies for Post partum family planning. 2013.
2. ACCESS-FP, USAID. Family planning needs during extended postpartum period in Ethiopia. 2005.
3. John A. Ross and William J. Winfrey. Contraceptive use, intention to use & unmet need during the extended postpartum period; *International family planning perspectives*. 2001. 27(1):20-27.
4. WHO, UNICEF, UNFPA and The World Bank. Trends in Maternal Mortality: 1990-2010. 2012.
5. Mary Eluned Gaffielda, Shannon Eganb and Marleen Temmermana. Its about time: WHO and partners release programmatic strategies for post partum family planning. *Global Health Science and Practice*. 2014. 2(1): 4-9.
6. Maria Borda and william Winfrey. Postpartum Fertility and Contraception: An analysis of findings from 17 countries. March, 2010.
7. Central Statistics agency and ICF international. Ethiopian Demographic and health survey 2011. March 2012.
8. Yeshiwas Abera, Zelalem Birhanu Mengesha and Gizachew Assefa Teema. Postpartum contraceptive use in Gondar town, Northwest Ethiopia: a community based cross sectional study. *Biomed central*, 2015. 15(19).
9. Ambrose Aknlo, Adeleke Bisiriyu and Olapeju Esimai. Influence of use of maternal health care on post partum contraception in Nigeria. USAID, Feb 2013. 92.
10. Anthony O. Lgwegbe, Joseph O. Ugboaja and Emmanuel N. Monago. Prevalence and determinants of unmet need for family planning in Nnewi, south-east Nigeria. *International Journal of Medicine and Medical Sciences*. August, 2009, 1(8):325-329.
11. Syedsaman Naz and Arshad Mahmood. Uptake of Contraception following childbirth: An Opportunity to Address High Unmet Need in Pakistan. 2008-09.

