WITHDRAWN: Immediate Postpartum Modern Family Planning Utilization and Associated factors among women gave birth public Health facilities, Addis Ababa, Ethiopia

Dereje Bayissa Demissie

derebayu@gmail.com

St. Paul's Hospital Millennium Medical College https://orcid.org/0000-0003-1006-4318

Heran Worku Dadi

PAU: Pan African University

Research

Keywords: Immediate, postpartum, Modern, Family planning, Addis Ababa

Posted Date: May 10th, 2021

DOI: https://doi.org/10.21203/rs.3.rs-479663/v1

EDITORIAL NOTE:

The full text of this preprint has been withdrawn by the authors while they make corrections to the work. Therefore, the authors do not wish this work to be cited as a reference. Questions should be directed to the corresponding author.

Abstract

Introduction: The first 48 hours after a woman has given birth is a crucial period for taking the immediate postpartum contraceptive to prevent unintended pregnancy. However many women do not realize that the time to initiate contraceptive. The postpartum period is a critical period for addressing widespread unmet needs in family planning and for reducing the risks of closely spaced pregnancies.

Objective: The aim of this study was to determine immediate postpartum modern family planning utilization and associated factors among women attending delivery at Public Health Facilities in Addis Ababa.

Methods: A facility based cross-sectional study design was conducted from November to December, 2019. A systematic random sampling technique was used to select the study participants. Data were entered into Epi-data version 4.6.0.0 and analyzed with STATA version 14. Data were mainly analyzed using descriptive statistic and binary logistic regression. For the qualitative study purposive sampling technique was employed, and 7 participants were interviewed. Open coded thematic content analysis was used.

Result: Of the total of 586 participants, 12.97 % with 95% CI: (10.1, 15.5) mothers were used immediate postpartum contraceptive methods, of which implant was the most frequently used method. Current knowledge of IPPFP (AOR=1.79, 95% CI: (1.02, 3.24)), Attitude towards IPPFP (AOR=1.73, 95% CI: (1.05, 2.85)) and counseled at delivery room (AOR=5.85, 95% CI: (2.57, 13.14)) were associated factors for utilizing contraceptive in the immediate postpartum period.

Conclusion: Utilization of immediate postpartum modern family planning was low as compared to previous study done. This study identified that factors associated with utilization of immediate postpartum modern family planning were:- mothers' knowledge, attitude towards postpartum modern family planning and had been counseled at delivery room were identified factors may increases likelihood of immediate postpartum family planning utilization. Therefore, these factors should be emphatically considered during antenatal care and post-partum care program development and training to improve contraceptive utilize during immediate postpartum period.

Plain English Summary

A facility based cross-sectional study design was conducted to determine immediate postpartum modern family planning utilization and associated factors among women attending delivery at Public Health Facilities in Addis Ababa.

This study concluded that the immediate postpartum family planning utilization was low as compared to other studies. It was much behind to the national target for immediate postpartum family planning utilization. This study identified factors increases likelihood of immediate postpartum family planning utilization like: currently knowledge about IPPFP method, favorable attitude towards IPPFP method and

counseling at delivery room were found factors positively predict IPPFP method utilizes. Therefore, these factors should be emphatically considered during antenatal care and post-partum care program development and training to improve contraceptive utilize during immediate postpartum period. Finally this study explored barriers towards immediate postpartum family planning utilization.

Background

Modern family planning method means that a contraceptive method based on scientific knowledge of the process of conception such as pills, injectable , implant ,IUCD, vasectomy, bilateral tuba ligation and locational amenorrhea(1).

Postpartum family planning refers to the prevention of unintended pregnancy or closely spaced pregnancies in the period after recent delivery(2).Unintended and closely spaced birth is a public health concern as they are associated with increased maternal, newborn, and child morbidity and mortality(3).The postnatal period remains as the most critical and yet the most neglected phase in the lives of mothers and babies; most deaths occur during the postnatal period (4).

The immediate postpartum period provides a unique opportunity to meet the reproductive health needs of women particularly the need for family planning after child birth. This is because some women resume ovulation and menstruation as early as 25 days of post-delivery (5, 6).

Globally, Family Planning is recognized as a key life-saving intervention for mothers and their children(7).In sub-Saharan Africa approximately 53% of women (58 million) who wanted to avoid a pregnancy were not using family planning or were using a traditional method (8).

In recent years, there has been increased international recognition of the importance of offering effective contraceptive service to women immediately after child birth (9).Most of modern family planning methods are preferable in the immediate postpartum period, as it does not affect breast milk production (10).

Statement of the problem

Immediate postpartum contraceptive use is initiation and use of contraception from expulsion of placenta to 48 hour of postpartum period(11).

Universally around 75% of births are less than 24 months with an interval of less than 18 months between pregnancies associated with an increased risk of low birth weight and small size at birth(12). Unintended pregnancies particularly among women in developing countries and poor individuals are linked to elevated health problems that resulted in high number of maternal and neonatal deaths(13). In Ethiopia, evidence has been shown that nearly half (47%) of all pregnancies occur within a short birth interval less than two years after the recent birth(14).

Research conducted in Jimma, west Ethiopia, showed that only 53.3% of women used the immediate postpartum family planning method used before discharge from the facilities(15) .variety of literature showed that the factors like marital status ,length of time after delivery , fear of side effect, ante natal care follow up, death of infant ,religion ,and lack of awareness were some of the factor affecting Postpartum family planning use among women in the immediate postpartum period (16, 17).

The prevalence and factor associated with extended postpartum period family planning in Addis Ababa were assessed in (17). But in our situation immediate postpartum modern family planning utilization were not known. So this study assessed the utilization and associated factors in immediate postpartum modern family planning method in public health facility in Addis Ababa.

However there are study conducted on the prevalence and factor associated with extended postpartum period family planning and LARC method in immediate postpartum period in the globe and also in our country Ethiopia there is lack of information about utilization of modern contraceptive method and associated factors of at the immediate postpartum period.

Methods and Materials

Study setting and d Study design

A Health facility based cross sectional study design was conducted, from November to December, 2019. This study was conducted in Addis Ababa, which is the capital city of Ethiopia. According to population projection value for 2019 the city has an estimated population of 7,823,600 the proportion of male counts 3,895,370 and female accounts 3,928,230(37). There are 51 hospitals, out of these 6 hospitals are owned by Addis Ababa city administration health bureau. There are also 98 health centers located in different sub cities. Out of the ten sub cities, two hospital and 34 health centers that currently provide immediate postpartum modern family planning According to annual plan indicators for the 2019/20, the number of reproductive age group 15-49 year is 2,706,966 (34.6%) and the current pregnant women are 63,072 (2.33%) (38).

Sample size and sampling procedure

The sample size was determined using single population proportion formula with the following assumptions. Marginal error (d) of 5%, confidence level of 95% and Zα/2 is the value of the standard normal distribution corresponding to a significant level of alpha (α) of 0.05, which is 1.96, taking 53.2% proportion of immediate postpartum long acting family planning method from previous study conducted in Jimma university medical center, western Ethiopia (15), a design effect (D) of 1.5 and non-response rate of 5%. The sample size total sample size = 603.

A multistage sampling technique was employed in order to select a representative sample of women who gave birth in public health facility in Addis Ababa. The first stage sampling involved a simple random sampling; where 18 currently provided immediate postpartum modern family planning was selected. The

Second stage, the total sample size was proportionally allocated for those selected health facilities based on their average number of delivery in the months. The respondent was selected using systemic random sampling technique by every women who gave birth this facility was recruited as study units in each health facilities until the total sample size for this study is obtained.

Operational definition

Contraception use in Immediate postpartum period: - initiation and use of contraception from expulsion of placenta to 48 hours of postpartum period(2).

Modern contraceptive: - Refers to contraception that are based on scientific knowledge of the process of conception(1).

Data collection Procedure and Quality Assurance

Data were collected through face to face interview method using semi-structured questionnaire and tools adopted from different literatures and pretested questionnaire. The questionnaire was prepared originally in English and then translate in to Amharic and back to English to check for the consistency and flow of the questioners. Four facilitators for data collection (who are Diploma graduated) and two supervisors (degree graduated) were recruited and training on the objective of the study and techniques of data collection for two days were given by the principal investigator. Data were collected after obtained consent from each participant prior to data collection in selected public health facilities.

Statistical Analysis

Data were coded, cleaned and explored to identify outliers, missing values with Epi data version 4.6.0.0. Data was exported to STATA 14 version for final editing and analysis. Frequencies were generated for categorical variables. Table, figure and text were used to present the data. Descriptive statics showed the frequency and percentage of the characteristics. Cross tabulations were computed to examine relationships among the variables. Binary logistic regression model was used to determine the association between dependent and independent variables. Odds ratio at 95% confidence interval was used to measure association. In addition, P-value <0.05 declared that the association was statistically significant.

Finally, to identify the independent effects of explanatory variables on the outcome variable, those independent variables which are found to be significant (P<0.2) by bivariate analysis was entered into multivariable analysis model for controlling confounders. . Hosmer and Lemeshow goodness of fit test was checked that was 8.92 chi-square and 0.25 p-values normality and multi-collinearity testes were applied to select appropriate statistical model and appropriateness of data, respectively.

Result

Socio-demographic characteristics of study participants

A total of 586 mothers who gave birth were interviewed at immediate postpartum period with a response rate of 97%. The result revealed that the mean age of the respondents was 26.4 years (±4.3SD). The majority, 543(92.66%) of the respondents was married and 302(51.54) were house wife. About educational status of the respondents 217(37.03%) had primary education and the median average monthly income of the family was 4000 ETB (Interquartile range 2987.50-5475.25 ETB) (Table 1).

Table1:-Socio-demographic characteristics of women in the immediate postpartum period in public health facilities, Addis Ababa, Ethiopia, December 2019 (n=586)

Characteristics	Number	Percent (%)
Age in year		
≤19	28	4.78
20–24	163	27.82
25-29	255	43.52
30-34	110	18.77
≥35	30	5.12
Marital status of the respondents		
Single	31	5.29
Married	543	92.66
Divorce/widowed	12	2.05
Educational status of the respondents		
Illiterate	91	15.53
Primary (1-8)	217	37.03
Secondary (9-12)	182	31.06
College and above	96	16.38
Occupational status of the respondents		
Housewife	302	51.54
Government employee	73	12.46
Private employee	170	29.01
Daily laborer	34	5.80
Other*	7	1.19
Income		
≤ 2000Birr	225	38.4
2001-3500	113	19.3
3501-5000	106	18.1
≥5001	142	24.2

Other*=students

Reproductive history related characteristics of study participant

Majority, 341(58.19%) of the respondents ever give birth, were 170(47.78%) of the respondents had a birth spacing of above 36 months followed by ≤ 24 months. About 306 (52.78%) not disused with their partners regarding to family planning method. One fourth 459(78.33%) of respondents were used family planning method before the recent birth, 260(56.64%) were used injectable method followed by implant 115(25.05%) (Table2).

Table 2:-Reproductive history related characteristics of women in the immediate postpartum period in public health facilities, Addis Ababa, Ethiopia, December 2019

Characteristics	Number	Percent (%)
Ever give birth (n=586)		
Yes	340	58
No	246	42
Number of children (n=341)		
1-2	245	72
3-4	89	26.2
5 and above	6	1.8
Birth to birth interval (n=341)		
≤ 24 months	139	40.9
25-35 months	31	9.1
36 and above	170	50
Current mode of delivery		
SVD	546	93.2
C/S	40	6.8
Current birth outcome(n=586)		
Alive	578	98.4
Still birth	8	1.4
Abortion history		
Yes	108	18.43
No	478	81.57
Continued Table2....		
Discuss with partner (n=586)		
Yes	280	47.78
No	306	52.22
Who decide number of children (n=586)		
Husband	58	9.90
Wife	47	8.02
Both	419	71.50
Others*	62	10.58
Ever used family planning method (n=586)		
Yes	459	78.33
No	127	21.67
Method you used previously (n=459)		
Natural Family Planning	11	2.39
Pills	92	20.04

Injectable	230	50.10
Implants	115	25.08
IUCD	9	1.96
Condom	2	0.43

Other* includes Allah/God

Knowledge of the participants on IPPFP method

The majority 419(71.50%) of the respondents heard about IPPFP method during antenatal care from health professionals 365(87.11%) followed by neighbors/ friends/ relatives 42(10.02%). Almost half, 330(56.3%) of the respondents had good knowledge regarding to the immediate postpartum family planning method. Most of the respondents had unfavorable attitude towards immediate postpartum contraceptive method. Most of the respondents believed that culturally not acceptable to use contraceptive method immediately after delivery, because a lot of things happened at this time (Table 3).

Table 3:- knowledge and Attitude of women in the immediate postpartum period on contraceptive in public health facilities, Addis Ababa, Ethiopia, December 2019

Characteristics (n=586)	Number	Percent (%)
Ever heard of IPPFP		
Yes	419	71.50
No	167	28.50
Information get for the first time(n=419)		
Neighbors/husband/mass media	42	10.02
Health professionals	377	89.98
Knowledge of the participants		
Good	330	56.3
Poor	256	43.7
Attitude of the participants		
Favorable	272	46.4
Non Favorable	314	53.6

Utilization of Immediate postpartum family planning method

Utilization of modern contraceptive method among immediate postpartum women was found 12.9 % with 95% CI: (10.1, 15.5). The most commonly used contraceptive was implant 36(47.37%) followed by IUCD 22(28.95%) and exclusive breastfeeding 10(13.16%) (Figure1).

Factors associated with utilization of IPPFP

The result of the study revealed that utilization of immediate postpartum family planning women who had good knowledge were about 2 times(AOR=1.83, 95% CI: 1.01,3.29) more likely utilize immediate postpartum family planning method as compared to those who had poor knowledge on immediate postpartum family planning method.

Mother who had favorable attitude were 1.7 times (AOR=1.74, 95% CI: 1.04, 2.89) more likely utilize immediate postpartum family planning as compare to those who had unfavorable attitude. With regard to counseling about immediate postpartum family planning methods, mother who had counseled at delivery room nearly 6 times (AOR=5.99, 95% CI: 2.64,13.58) more likely utilize immediate postpartum modern family planning method as compared to those who had counseled at ante natal care unit(Table 4).

Table 4:-Factors associated with utilization of immediate postpartum modern family planning method in public health facilities, Addis Ababa, Ethiopia, December, 2019 (n=586)

Characteristics	Use modern IPPFP		COR(95%CI)	AOR (95%)
	Yes (%)	No (%)		
Age in year				
≤19 year	3(0.5)	25(4.3)	0.48(0.10-2.14)	0.61(0.12-3.09)
20-24	17(2.9)	146(24.9)	0.46(0.16-1.29))	0.53(0.17-1.65)
25-29	39(6.7)	216(36.9)	0.72(0.27-1.88)	0.70(0.26-1.90)
30-34	17(2.9)	93(15.9)	0.73(0.26-2.05)	0.69(0.24-1.97)
≥35	6(1)	24(4.1)	1	1
Educational status				
Illiterate	15(2.6)	76(13)	0.91(0.42-1.96)	1.12(0.49-2.55)
Primary	30(5.1)	187(31.9)	0.74(0.38-1.42)	0.99(0.49-1.97)
Secondary	20(3.4)	162(27.6)	0.57(0.28-1.15)	0.67(0.32-1.37)
College and above	17(2.9)	79(13.5)	1	1
Ever give birth				
Yes	53(9)	287(49)	1.38(0.85-2.24)	0.82(0.44-1.86)
No	29(4.9)	217(37)	1	1
Discuss with partner				
Yes	47(8)	233(39.8)	1.56(0.97-2.50)	1.09(0.64-1.54)
No	35(6)	271(46.2)	1	1
Heard about IPPFP				
Yes	68(11.6)	351(59.9)	2.11(1.15-3.88)	1.07(0.53-2.17)
No	14(2.4)	153(26.1)	1	1
Knowledge about IPPFP				
Good Knowledge	63(10.8)	267(45.6)	2.94(1.71-5.06)	**1.83(1.01-3.29)***
Poor Knowledge	19(3.2)	237(40.4)	1	1
Attitude about IPPFP				
Favorable	50(8.5)	222(37.9%)	1.98(1.23-3.19)	**1.74(1.04-2.89)***
Non Favorable	32(5.5)	282(48.1%)	1	1
Counseled at delivery room				
Yes	75(12.8)	302(51.5)	7.1(3.23-15.86)	**5.99(2.64-13.58)*****
No	7(1.2)	202(34.5)	1	1

Keys: *= significant with p<0.05, ***=significant with p<0.001

Discussion

Contraceptive utilization rate of this study during the immediate postpartum period is 12.9 % with 95% CI: (10.1, 15.5). This finding is lower as compared to study conducted in Jimma town, Western Ethiopia (53.2%)(15) and St. Paulo's hospital millennium medical college, Addis Ababa (45.5%) (40). This variation

might be due to socio demographic, awareness difference, temporal difference of the study period and operational definition of the outcome variable include less than one week of delivery as immediate postpartum period.

The quantitative findings suggested that Current knowledge of immediate postpartum modern family planning is significantly associated with the utilization of immediate postpartum modern family planning method, where mothers who had good knowledge were about 2 times more likely to utilize modern contraceptive than their counterparts. The qualitative findings supported this and the majority of the mothers had good knowledge and able to explain IPPFP methods. Comparable finding was obtained qualitative study conducted in Nepal showed that lack of knowledge among mothers as an important barrier to utilize the immediate postpartum family planning method(41).Comparable finding was obtained from the study conducted in Gondar town, North west Ethiopia, showed that the use of modern contraceptive method during postpartum period is significantly associated with current knowledge on the contraceptive (1). And consistent from the study done in Nepal, stepped wedge random trial showed that mother who had good knowledge on postpartum contraceptive were more likely to utilize as compare to counterparts (42). This is explained by the fact that the current knowledge of the mother about the immediate postpartum family planning methods determined the utilization of modern contraceptive method. However there is study that showed knowledge is not significantly associated with the utilization of modern contraceptive method during the postpartum period (14).

Counseled at delivery room is significantly associated with the utilization of immediate postpartum family planning method. Mother who had counseled in delivery room at the immediate postpartum period was nearly 6 times more likely to utilize immediate postpartum contraceptive methods compared to those mothers who had counseled at ANC room. This result is in line with the study conducted in Kebribeyah town, Eastern Ethiopia, showed that postpartum mother who had counseled during delivery time were more likely utilize postpartum contraceptive than their counterparts (43). and the study conducted in Durame town, Southern Ethiopia, community based cross sectional study mothers who were counseled on postpartum contraceptive during delivery time were increase utilization of postpartum contraceptive method than those not counseled(44). This result was also similar with the finding of study conducted in Uttrapradesh town, India, showed that mother those counseled modern contraceptive method during delivery time were increase utilization of modern contraceptive method during the immediate postpartum period (32). And also comparable evidence was also gathered from in depth interview participants, for instance as a 25 years old multipara mother explained" the provider counseled me after delivery, I remember the pain that I face for the last one day and I need to delay the next pregnancy I accepted immediately and I used implant today" (IDI5). This explained by contraceptive counseling in the immediate postpartum period may be the proper time for promotion and provide contraceptive and mother experienced the pain as a result of short birth interval and the importance of having birth spacing for both the mother and new born. This can attributed to the family planning advice received by the mother at a health facility during delivery time.

In this study attitude towards immediate postpartum contraceptive is significantly associated with utilization of immediate postpartum contraceptive. Mothers who had favorable attitude towards IPPFP method are 1.7 times more likely to utilize immediate postpartum modern family planning than their counterparts. The qualitative finding also pointed out attitude barriers deep rooted myths and misconception among the mothers about IPPFP method making difficult for them to utilize the method. This result also similar with the study conducted Kebribeyah town, Eastern Ethiopia showed that mother those who had favorable attitude towards postpartum contraceptive method were 19 times more likely utilize postpartum contraceptive than their counterparts (43). As indicated by some mothers in the in depth interview, change could take time and consistency in providing community awareness could be the most important solution to overcome barriers related to IPPFP method utilize.

Strength and Limitation of the Study

Both qualitative and quantitative methods were used to substantiate the study. The methods improve the research outcomes as qualitative study complement and strengthen the quantitative study.

Limitation of the study

The study is across sectional which can be considered as an inherent design limitation where causal relationship between the independent and dependent variables cannot be established. And program related barriers were not assessed in detail in this study.

Conclusion

This study concluded that the immediate postpartum family planning utilization was low as compared to other studies. It was much behind to the national target for immediate postpartum family planning utilization. This study identified factors increases likelihood of immediate postpartum family planning utilization like: currently knowledge about IPPFP method, favorable attitude towards IPPFP method and counseling at delivery room were found factors positively predict IPPFP method utilizes. Therefore, these factors should be emphatically considered during antenatal care and post-partum care program development and training to improve contraceptive utilize during immediate postpartum period.

Finally this study explored barriers towards immediate postpartum family planning utilization.

Recommendation

- Health service providers should promote contraceptive utilization counseling during delivery time and at all level of contact.
- Health care providers at all levels should provide information, education, counseling and communication for mothers about the available immediate postpartum family planning services, where and when to get them and its importance for delaying next pregnancy.

- Health extension workers should be trained in providing immediate postpartum family planning services at community level.
- Should give sensitization training for health care providers on immediate postpartum family planning services through contraception education to utilize postpartum family planning method and to bring behavioral change or attitude change as long term solution.
- Health bureau should coordinate awareness creation campaigns on immediate postpartum family planning services provision to increases mothers knowledge and favorable attitude towards postpartum family planning utilization.
- Policy makers and health planners need to consider and plan for the implications of increased immediate postpartum family planning utilization by creating awareness in the community and motivate pregnant mother to postpartum family planning utilization.
- The researcher should investigate health service provider's related factors that hinder immediate postpartum modern family planning method utilization through qualitative study in the study area.

Declarations

Ethical consideration

The study protocol was approved by Ethical Review Board of St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia (AuR-2020), and was obtained from Addis Ababa public Health research and Emergency Management Directorate an official letter was submitted to the relevant and concerned bodies before starting the study. Written Informed consent and Assent consent for adolescent mothers was obtained from all study participants. Each respondent was informed about the objective of the study and in order to ensure privacy, the participants were assured that they had full right to participate or withdraw from the study. Permission for audio recording was also obtained from participants.

Availability of data and materials: Datasets used in the current study are available from the corresponding author upon reasonable request.

Competing interests: Authors declared that they have no competing interest

Funding: Funding for this study was obtained from Ambo University. The university had no role in the design of the study and collection, analysis, and interpretation of data.

Authors' contributions

All authors made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; gave final approval of the version to be published; and agree to be accountable for all aspects of the work.

Acknowledgments

Our appreciation goes also to City Government of Addis Ababa Health Bureau, all individual who participated in this study and data collectors for their important contribution to the study.

Finally, we would like to express my gratitude to all participants who volunteered participated in the study.

References

1.Berta M, Feleke A, Abate T, Worku T, Gebrecherkos TJEjohs. Utilization and associated factors of modern contraceptives during extended postpartum period amongwomenwhogavebirthinthelast12monthsinGondarTown,northwestEthiopia .2018;28(2):p20716.**DOI:** 10.4314/ejhs.v28i2.12

2.Organization WH. Programming strategies for postpartum family planning. 2013.

3.Kozuki N, Walker NJBph. Exploring the association between short/long preceding birth intervals and child mortality: using reference birth interval children of the same mother as comparison. 2013;13(3):S6.BMC Public Health 13, S6 (2013). https://doi.org/10.1186/1471-2458-13-S3-S6

4.Organization WH. WHO recommendations on postnatal care of the mother and newborn: World Health Organization; 2014.

5.Pasha O, Goudar SS, Patel A, Garces A, Esamai F, Chomba E, et al. Postpartum contraceptive use and unmet need for family planning in five low-income countries. 2015;12(2):S11.Reprod Health 12, S11 (2015). https://doi.org/10.1186/1742-4755-12-S2-S11

6.Jackson E, Glasier A. Return of ovulation and menses in postpartum nonlactating women: a systematic review. Obstetrics & Gynecology. 2011;117(3):657-62. Obstetrics & Gynecology: March 2011 - Volume 117 - Issue 3 - p 657-662 doi: 10.1097/AOG.0b013e31820ce18c

7.Organization WH. Postnatal care of the mother and newborn. . Geneva: World Health organization. 2014.

8.N W. Motherhood in childhood: Facing the challenge of adolescent pregnancy. State of world population. New York: United Nations population fund 2013.

9.Kozuki N, Lee A, Silveira M, Victora C, Adair L, Humphrey J, et al. child health epidemiology reference Group small-forgestational-age-preterm birth working group 2013. The association of birth intervals with small-for-gestational-age, preterm, and neonatal and infant mortality: a meta-analysis. Biomed Central Public Health.BMC Public Health 13, S3 (2013). https://doi.org/10.1186/1471-2458-13-S3-S3

10.Organization WHOJWH. Medical eligibility criteria for contraceptive use. Geneva: WHO; 2015.

11.Organization WH. Family planning/contraception fact sheet. Geneva: World Health Organization; 2016.www.who.int/ about/fact sheet/2016

12.Rutstein SO. Further evidence of the effects of preceding birth intervals on neonatal infant and under-five-years mortality and nutritional status in developing countries: Evidence from the Demographic and Health Surveys. 2008. https://doi.org/10.1016/j.ijgo.2004.11.012

13.Sedgh G, Singh S, Hussain RJSifp. Intended and unintended pregnancies worldwide in 2012 and recent trends. 2014;45(3):p301-14.https://doi.org/10.1111/j.1728-4465.2014.00393.x

14.Abraha TH, Teferra AS, Gelagay AAJE, health. Postpartum modern contraceptive use in northern Ethiopia: prevalence and associated factors. 2017;p39. Epidemiol Health. 2017 Mar 20;39:e2017012. doi: 10.4178/epih.e2017012. PMID: 28330336; PMCID: PMC5434225.

15.Arero W, Teka W, Jarso HJO, Gynecology. Prevalence, and Pattern of Larc Use in Immediate Postpartum Period at Jimma University Medical Center, Ethiopia [18f]. 2018;131:68S.Obstetrics & Gynecology: May 2018 - Volume 131 - Issue - p 68S

doi: 10.1097/01.AOG.0000533328.55352.1b

16.Kaydor VK, Adeoye IA, Olowolafe TA, Adekunle AOJNPMJ. Barriers to acceptance of post-partum family planning among women in Montserrado County, Liberia. 2018;25(3):p143.

17.Gebremedhin AY, Kebede Y, Gelagay AA, Habitu YAJC, medicine r. Family planning use and its associated factors among women in the extended postpartum period in Addis Ababa, Ethiopia. 2018;3(1):1.Contracept Reprod Med 3, 1 (2018). https://doi.org/10.1186/s40834-017-0054-5

18.Eliason S, Baiden F, Quansah-Asare G, Graham-Hayfron Y, Bonsu D, Phillips J, et al. Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. 2013;10(1):34.

19. EDHS EDJKir. Health Survey. 2016.

20.Tegegn M, Arefaynie M, Tiruye TYJC, medicine r. Unmet need for modern contraceptives and associated factors among women in the extended postpartum period in Dessie town, Ethiopia. 2017;2(1):21.Contracept Reprod Med 2, 21 (2017). https://doi.org/10.1186/s40834-017-0048-3

21.Gaffield ME, Egan S, Temmerman MJGHS, Practice. It's about time: WHO and partners release programming strategies for postpartum family planning. 2014;2(1):p4-9.

22.MacQuarrie K. Unmet need for family planning among young women: levels and trends. 2014.

23.Mumah JN, Machiyama K, Mutua M, Kabiru CW, Cleland JJSifp. Contraceptive adoption, discontinuation, and switching among postpartum women in Nairobi's urban slums. 2015;46(4):p369-86.

24.Averbach S, Kakaire O, Kayiga H, Lester F, Sokoloff A, Byamugisha J, et al. Immediate versus delayed postpartum use of levonorgestrel contraceptive implants:arandomizedcontrolledtrialinUganda.2017;217(5):p568.

https://doi.org/10.1016/j.ajog.2017.06.005Get

25.Mengesha ZB, Worku AG, Feleke SAJBp, childbirth. Contraceptive adoption in the extended postpartum period is low in Northwest Ethiopia. 2015;15(1):p160.

BMC Pregnancy Childbirth 15, 160 (2015). https://doi.org/10.1186/s12884-015-0598-9

26.Abate M, Oljira L, Demena M. Uptake of Intrauterine Contraceptive Device and Associated Factors among Women during Immediate Termination of Pregnancy in Harar Public Health Facilities, Eastern Ethiopia: Haramaya University; 2018.

27.Islam AZ, Mondal MNI, Khatun ML, Rahman MM, Islam MR, Mostofa MG, et al. Prevalence and determinants of contraceptive use among employed and unemployed women in Bangladesh. International Journal of MCH and AIDS. 2016;5(2):p92.

28.Abera Y, Mengesha ZB, Tessema GAJBwsh. Postpartum contraceptive use in Gondar town, Northwest Ethiopia: a community based cross-sectional study. 2015;15(1):19.BMCWomen'sHealth15,19 (2015). https://doi.org/10.1186/s12905-015-0178-1

29.Cowman W, Hardy-Fairbanks AJ, Endres J, Stockdale CKJPiO, Gynecology. A select issue in the postpartum period: contraception. 2013;3(2):p1-15.

30.Sushila K, Sanjaya S, Kumari M. A Comparative Study of Postpartum Intrauterine Contraceptive Device Acceptance between Primiparous and Multiparous Women in a Tertiary Care Centre. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2016;5:2304-6.

31.Lori JR, Chuey M, Munro-Kramer ML, Ofosu-Darkwah H, Adanu RMJRh. Increasing postpartum family planning uptake through group antenatal care: a longitudinal prospective cohort design. 2018;15(1):p208.

32.Achyut P, Mishra A, Montana L, Sengupta R, Calhoun LM, Nanda PJJFPRHC. Integration of family planning with maternal health services: an opportunity to increase postpartum modern contraceptive use in urban Uttar Pradesh, India. 2016;42(2):p107-15.http://dx.doi.org/10.1136/jfprhc-2015-101271

33.Boucar M, Saley Z, Hill K. Using collaborative improvement to enhance postpartum family planning in Niger. Bethesda, MD: University Research Co., LLC (URC); 2016.

34.Tafere TE, Afework MF, Yalew AWJC, medicine r. Counseling on family planning during ANC service increases the likelihood of postpartum family planning use in Bahir Dar City Administration, Northwest Ethiopia: a prospective follow up study. 2018;3(1):28.Contracept Reprod Med 3, 28 (2018). https://doi.org/10.1186/s40834-018-0081-x

35.Solanke BL. Factors influencing contraceptive use and non-use among women of advanced reproductive age in Nigeria. Journal of Health, Population and Nutrition. 2017;36(1):1.

36.Ochako R, Mbondo M, Aloo S, Kaimenyi S, Thompson R, Temmerman M, et al. Barriers to modern contraceptive methods uptake among young women in Kenya: a qualitative study. BMC Public health. 2015;15(1):p118.

37.Demographic E. Health Survey: Addis Ababa. Ethiopia and Calverton, Maryland, USA: central statistics agency and ORC macro. 2011.

38.Breaue AAH. 2019.

39.Tefera L, Abera M, Fikru C, Tesfaye DJoq. Utilization of Immediate Post-Partum Intra Uterine Contraceptive Device and Associated Factors: A Facility based Cross Sectional Study among Mothers Delivered at Public Health Facilities of Sidama Zone, South Ethiopia. J Preg Child Health 4: 326. doi: 10.4172/2376-127X. 1000326 Page 2 of 8 J Preg Child Health, an open access journal issn: 2376-127x volume 4• issue 3• 1000326. 2017;121(39.0):16-24.

40.Belay L, Birara M. Factors Affecting Long-Term And Permanent Contraceptive Uptake Among Immediate Post-Partum Mothers At Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia: A Cross-Sectional Study. Ethiopian Journal Of Reproductive Health. 2018;10(2):p11-15.

41.Thapa K, Dhital R, Rajbhandari S, Acharya S, Mishra S, Pokhrel SM, et al. Factors affecting the behavior outcomes on post-partum intrauterine contraceptive device uptake and continuation in Nepal: a qualitative study. BMC pregnancy and childbirth. 2019;19(1):p148.

42.Pradhan E, Canning D, Shah IH, Puri M, Pearson E, Thapa K, et al. Integrating postpartum contraceptive counseling and IUD insertion services into maternity care in Nepal: results from stepped-wedge randomized controlled trial. Reproductive health. 2019;16(1):p69.

43.Nigussie A, Girma D, Tura G. Postpartum family planning utilization and associated factors among women who gave birth in the past 12 months, Kebribeyah Town, Somali Region, Eastern Ethiopia. J Women's Health Care. 2016;5(340):2167-0420.1000340.DOI:10.4172/2167-0420.1000340

44.Tamrie YE, Hanna EG, Argaw MD. Determinants of long acting reversible contraception method use among mothers in extended postpartum period, Durame Town, Southern Ethiopia: a cross sectional community based survey. Health. 2015;7(10):p13-15.

Figures

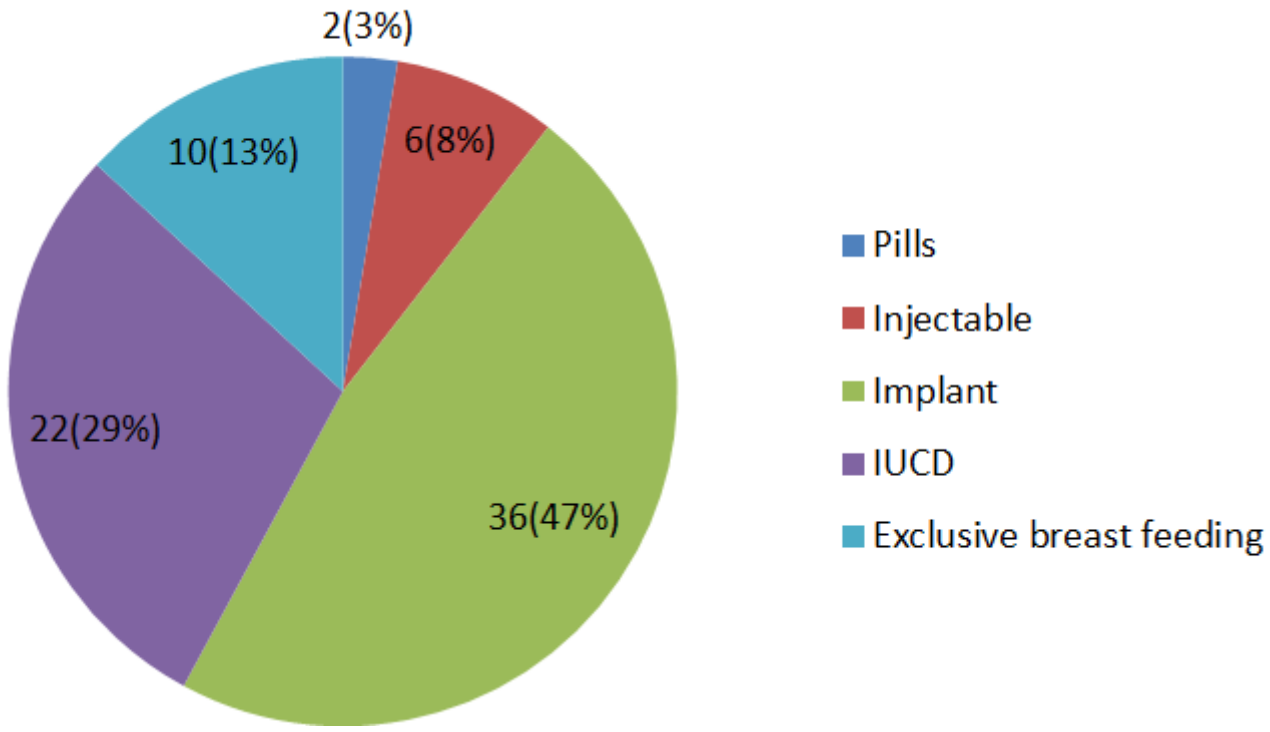

Figure 1

Distribution of modern family planning methods used in the immediate postpartum period among mothers delivered in public health facilities, Addis Ababa, Ethiopia, December 2019 (n=76). The major reasons for not using modern contraceptive method at immediate postpartum period. The mothers report that lack of awareness 107(20.9%), husband disapproval 90(17.9%) and fear of side effect 81 (15.9%) (Figure 2).

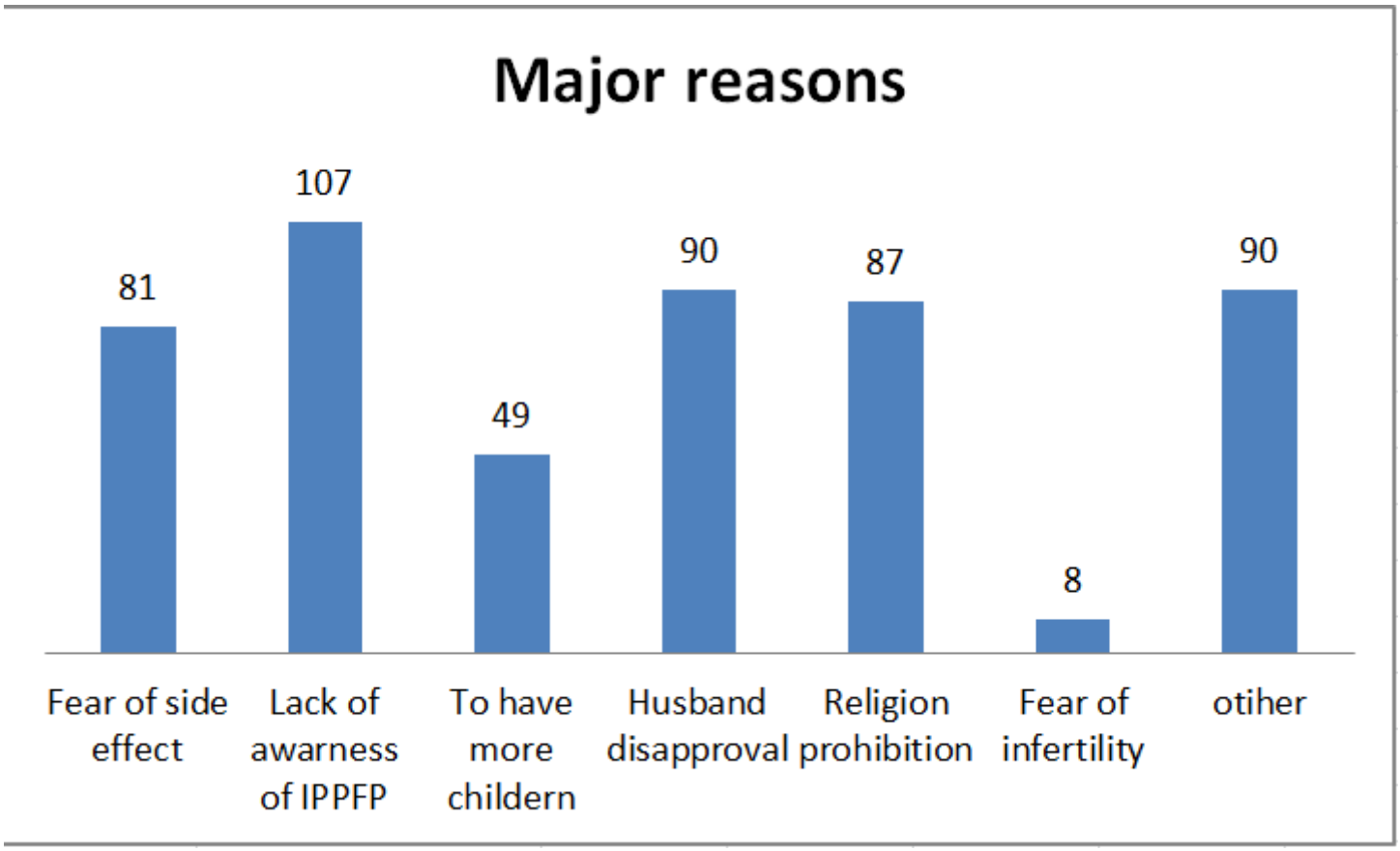

Figure 2

Major reasons for not using immediate postpartum modern family planning in public health facilities Addis Ababa, Ethiopia, December, 2019.(Other include;- Delayed until 45 days, not counseled at delivery room and counseling time is not comfortable to me)