RESUMPTION OF POSTPARTUM SEXUAL INTERCOURSE AND USE OF MODERN CONTRACEPTIVE AMONG IN-UNION WOMEN IN ADDIS ABABA: CROSS SECTIONAL STUDY

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ABSTRACT

BACKGROUND: Data on postpartum sexual resumption is limited in Ethiopia.

OBJECTIVE: To determine the timing of postpartum sexual resumption, use of modern contraceptive and sexual morbidity associated with resumption among in -union women in Addis Ababa.

METHODS:

A facility based cross-sectional study was conducted from March 24 - August 04, 2014 at ten health centres of Addis Ababa involving 424 postpartum in–union women. Data were collected at 14th weeks of postpartum. The SPSS version 16.0 was used for data entry and analysis. Descriptive statics were done to determine the timing of sexual resumption, postpartum sexual morbidity and proportion of contraceptive use. Logistic regression analysis was fitted and odds ratios with 95% CI were computed to identify factors associated with contraceptive use while sexual resumption.

RESULT: More than three quarters (78.3%) resumed sexual intercourse within 14 weeks of postpartum. The mean and median time of sexual resumption was 6.4 weeks (±2.3) and 6 weeks respectively. Among those resumed sexual intercourse, three fourths (76.2%) were used modern contraceptives. The odds of contraceptive use while resuming sexual intercourse was determined by whether the index pregnancy was planned or not and resumption of menses. One fourth (26.15%) of women who resumed sexual intercourse had postpartum sexual morbidity and only 15% of them had sought medical care. Only 11% of the participants had ever been advised about postpartum sexual activity by a health care provider.

CONCLUSIONS: High number of postpartum women resumed sexual intercourse despite one in ten women resumed without contraceptive use. It was also a associated with high postpartum sexual morbidity, low health seeking behavior and low postpartum sexuality counseling practice by health care providers. Strategies need to be developed to address the identified problems.

KEY WORDS: postpartum, Sexual resumption, Contraceptive use, Ethiopia

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INTRODUCTION

Sexual practice during the postpartum period is an important element that has been identified in women's healthcare. World Health Organization (WHO) has outlined guidelines focusing the importance of counseling about postpartum resumption of sexual intercourse[1]. Postpartum sexual abstinence is a common practice by various communities worldwide with varying duration[2]. Approximately half of women by 5 - 6 weeks postpartum; 90% at third months postpartum; and at six months postpartum most women have resumed sexual intercourse[3-5].

Women's interest in avoiding pregnancy, especially in the first year postpartum, is well documented[6, 7]. Analysis of 27 countries demographic and health survey (DHS) found that only 3% of postpartum women wanted a baby within two years[7]. In Ethiopia only 5% of women during the 12-month postpartum period desire another birth within two years[8].

Although, the prevalence of contraceptive use during this period is limited[6-8], resulting to unintended pregnancies and unwanted childbearing[9]. Many postpartum women feel that they are protected from a subsequent pregnancy either because they are breastfeeding, amenorrheic or women's concerns during postpartum period focus on the newborn and its wellbeing[10]. However, in accordance with the WHO Medical Eligibility Criteria for Contraceptive Use, within the first month postpartum, women should be offered contraceptives[11].

Majority of mothers in the first three months after delivery usually experienced postpartum sexual morbidities like dyspareunia, lack of vaginal lubrication, difficulty in achieving orgasm, vaginal loosening, loss of sexual desire and bleeding or irritation after sexual intercourse[12, 13].

Postpartum sexual concerns also lack professional recognition, with health care providers focusing exclusively on the infant's wellbeing and women's contraceptive use. Many physicians and postnatal care workers are still lacking the knowledge and clinical skill to relay information about postpartum sexuality to their clients[13-15]. This is also true in Ethiopia. Reports on the sexual activity of women after childbirth in Ethiopia are scarce. Moreover, all of the authors and their colleagues, while practicing obstetrics in the study area had always difficulty in informing postpartum women about their sexuality based on the evidence of local data. So, this study was conducted to determine timing of postpartum women's resumption of sexual intercourse, postpartum sexual morbidity associated resumption and contraceptive use among in-union women in Addis Ababa, central Ethiopia.

SUBJECTS AND METHODS

A facility based cross-sectional study was conducted from March 24 to August 04, 2014 at ten health centres in Addis Ababa, the capital city of Ethiopia. The study population were all in-union women who gave birth and came to the selected ten health centres for immunization of their babies at 14th week postpartum period during the study period. Fourteen weeks of postpartum period were selected as it is the 3rd Ethiopia paediatrics immunization (EPI) schedule and easy to access all postpartum women[16].

The sample size was calculated by considering the assumptions for single population

proportion formula: the proportion (P) =50%, anticipated proportion of in-union women who resume sexual intercourse within 14 weeks of postpartum as there is no previous study in the study area, Z = standard normal distribution value at 95% confidence level of Za/2 = 1.96, 5% of absolute precision, and 10% non-response rate. Hence, the total sample size was 422. However, there were 445 in-union women during the study period in the selected health centers that fulfilled the inclusion criteria and therefore, all were included. Out of ten sub-cities of Addis Ababa, one health center was selected from each sub-city randomly using a lottery method. The total sample size was proportionally allocated to each health center depending on the weekly immunization rate as it indirectly told us the number of postpartum women. Only in-union women, at least 18 years of age and who were in their 14th weeks of the postpartum period were included in the study.

The independent variables were socio-demographic factors, reproductive and obstetric factors and behavioral characteristics of the participants. The dependent variables were time to resume sexual intercourse, contraceptive use during sexual resumption and its determinants; and postpartum sexual morbidity associated with resumption.

Resumption of sexual intercourse was defined as having the first penetrative vaginal sexual intercourse after childbirth. In-union women, in this study, means those women living together with their partner during the study period

Pre-tested and semi-structured questionnaires using face-to-face interview by caregivers were used for data collection. Postpartum sexual morbidities were assessed using Brief Sexual Symptoms Checklist for Women (BSSC-W) [17]. Pre-testing was undertaken on 24 postpartum women attending immunization clinics at 14th weeks in other Health Centers. Appropriate modifications were carried out accordingly. Data were collected by ten clinical nurses (one in each health center) supervised by the investigators. All the data collectors were from other health institutions. A two days comprehensive training was given to data collectors. The questionnaire was first prepared in English and then translated into Amharic (the local language), and back into English to ensure consistency. The Amharic version was used to collect the data. Then, the questionnaires were coded and entered in to Statistical Package for the Social Sciences (SPSS) windows version 16 for further analysis. Data were summarized and presented using descriptive statistics. Bivariate and multivariate logistic regression analyses were performed to test associations. Variables having p value ≤ 0.2 in the bivariate analyses were entered into a multivariate logistic regression model to control confounding. Odds ratio with their 95% confidence intervals (CI) were computed to identify the presence and strength of association, and statistical significance was declared if $p < 0.05$.

Ethical clearance was obtained from Addis Ababa University (AAU) Medical faculty (MF), department of obstetrics and Gynecology ethical clearance committee, and AAU MF institution review board (IRB). Permission also was obtained from the Addis Ababa city ad-

ministration Health bureau and medical directors/ matron of each health centers. The study participants were informed about the purpose of the study and data collections were conducted after getting written informed consent. The privacy of the participants was secured by interviewing them in private room after they completed their infant immunization.

RESULT

Out of 445 in-union women approached during the study period, 424 of them were gave informed consent making the response rate of 95.3%. Two third of the participants (60%) were in the age group of 26-35 years. The mean age of the participants was 28.5 years (±4.9) while the youngest and the oldest age was 18 and 45 years respectively. The husband was the main source of income for the family for two thirds (62%) of the participants (Table 1).

Fifty-three percent of the participants were their first birth. The proportion of unplanned pregnancy and antenatal care (ANC) booking during the index pregnancy were 17.2% and 97.9 % respectively. Three out of four women (77.8%) gave birth vaginally

(Table 2).

During the study period, nine out of ten (90.1%) participants were breast feeding either exclusively or mixed type. Mensus had resumed for 55% of the participants. Out of the total participants, more than three quarters (78.3%) had resumed sexual intercourse within 14 weeks of postpartum period. The mean and median time of sexual resumption was 6.4 weeks (±2.3) and six weeks respectively.

Table 1. Socio-demographic characteristics of study participants at the selected ten health centers of Addis Ababa, Central Ethiopia, March 24 to August 04, 2014. N=424

Variables	No	%	Remark
Age in years			Mean =28.5(±4.86)
18-25	129	30.4	
26-35	254	59.9	
>35	41	9.7	
Religion			
Orthodox Christian	275	64.9	
Muslim	87	20.5	
Protestant Christian	51	12	
Catholic Christian	11	2.6	
Ethnicity			
Amhara	196	46.2	
Oromo	86	20.3	
Tigre	53	12.5	
Gurage	72	17	
Others	17	4	
Marital status			
Legally married	363	85.6	
Not legally married	61	14.4	
Duration of living together with partner			Mean :4.2 (±3.48)
≤1 year	71	16.7	
2-4 years	221	52.1	
≥5 years	132	31.1	
Educational status of participant			
No formal education	48	11.3	
Primary school (1-8)	120	28.3	
Secondary school (9-12)	147	34.7	
Above secondary school	173	40.8	
Occupation			
House wife	188	44.3	
Civil servant	65	15.3	
Private/self employed	163	38.4	
Student	8	1.9	
Main source of family income			
Husband	263	62	
Wife	21	5	
Husband and wife	140	33	
Secondary school (9-12)	147	34.7	
Above secondary school	173	40.8	
Occupation			
House wife	188	44.3	

***Sidama, Silte**

Table 2. Reproductive and obstetrics characteristics of study participants at selected ten health centers of Addis Ababa, Central Ethiopia, March 24 to August 04, 2014. N=424

Variables	No.	%	Remark
Parity			Mean :1.86
Primiparous (para 1)	225	53.1	
Multiparous (≥2)	199	46.9	
Nature of index pregnancy			
Planned	351	82.8	
Unplanned	73	17.2	
Number of index pregnancy			
Singleton	413	97.4	
Twin	11	2.6	
ANC booking			
Yes	415	97.9	
No	9	2.1	
Place of delivery			
Health center	181	42.7	
Government hospital	183	43.2	
Profitable private hospital/clinics	60	14.2	
Mode of delivery			
Vaginal without episiotomy/tear	167	39.4	
Vaginal with episiotomy/tear	147	34.7	
Instrumental*	16	3.8	
Emergency Cesarean section	36	8.5	
Elective Cesarean section	58	13.7	
Obstetric complication during index pregnancy			
Hemorrhage (APH & PPH)	28	6.6	
Hypertensive disorders	13	3.1	
Premature rupture of membranes	22	5.2	
Not at all	361	85.1	

***Forceps and vacuumed delivery**

The earliest period of sexual resumption was within a week of birth. Almost three quarters (73.4%) of them resumed within the puerperium (≤ 6 weeks) and 16.5% of them within 4 weeks of delivery (Figure 1).

Out of those who resumed sexual intercourse (n=332), three fourths (76.2%) were used modern contraceptives. Depo-Provera was the most common type (39.4%) of modern contraceptives used by the postpartum women. Moreover, the mean time of sexual resumption was affected only by the mode of delivery, with the earliest and latest being for elective Cesarean Section (CS) and instrumental delivery respectively [vaginal delivery without episiotomy, 6.05 (±2.18); vaginal delivery with episiotomy/tear 6.79(±2.18); instrumental delivery 7.5 (±2.78); elective CS 5.58 (±1.12) and emergency CS 6.62 (±2.28); p-value (0.015).

The mean age (±SD) of the participants was 28.5 years (±4.9) and 60 % of them were between 26-35 years which is similar to 2011 EDHS of Addis Ababa City 28.2 years (±5.3) and 62.3% between 25-34 years[8]. Moreover, 46.9% of our participants gave birth 2 - 4 times and 22.2% of them gave birth by CS which is similar to the 2011 EDHS report of 50.8% and 24.4% respectively[8]. This may indicate that though the study was done at institution level, it may possible that Addis Ababa city administration is

representative.

In a breast-feeding woman, lactation can serve as a contraception for up to six months, but only if it is only exclusively breast feeding and mensus is not returned[18]. However, in our study 55% of the participant's mensus had resumed within the 14th postpartum weeks. This

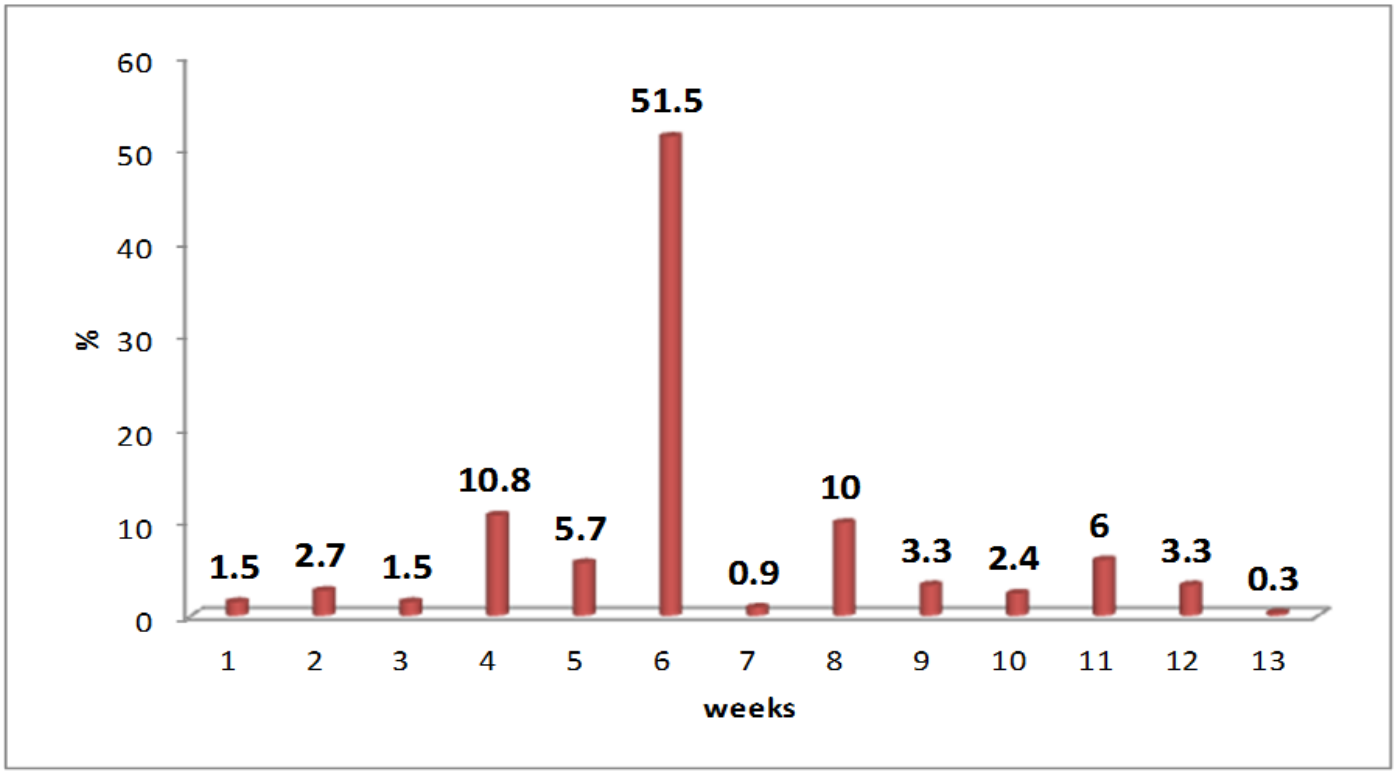

Figure *1*: Timing of postpartum sexual resumption of the study participants in the selected ten health centers of Addis Ababa, Central Ethiopia, March 2014, n=332

could be due to limited proportion of exclusive breast -feeding rate in the study area.

The 2011 EDHS data showed that the median duration of exclusive breast feeding was one month in the study area. The other possible problem may lie in the fact that use of hormonal methods of contraceptive, particularly oral contraceptives, may induce bleeding that mimics menses.

Evidence from the present study showed that more than three quarters 78.3 % (±4.1) and 73.4 % of women had resumed sexual intercourse within 14 weeks and puerperium respectively. This finding is higher than previous reports of most developing countries. A similar study done in Nigeria found that 67.6% and 3.5% resumed within 14 weeks and puerperium respectively[19].

Another study in western Nigeria, Sagamu found that 65% and 20 % resumed within three months of delivery and within puerperium respectively[20]. A similar study in India found that 28.3% and 74.3% resumed within 6 and 12 weeks[21]. A study done in Kampala, Uganda[22] only half (49.3%); Sarawak, Malaysia[23] only 37.4 % and in Iran[24] only 47 % had resumed within Puerperium. It is also higher than reports of 35% in Thailand[25], 52.1% in china[26], 47% in Germany [27], but lower than 89% and 90% from the UK and USA respectively[12, 28].

The mean time to resumption of coitus was 6.42 weeks (±2.28), also earlier than other studies; Uganda 7.87 (±4.9)[22], Nigeria 8.2 (±2.9) [19], Malaysia 7.2 (±3.6)[23], Iran 8.1(±3.9)[24] and Turkey 7.06 weeks[29]. The relatively high rate of early resumption in our

Table 3: Postpartum sexual resumption and contraceptive use of the participant at the selected ten health centers of Addis Ababa, Central Ethiopia, March 24 to August 04, 2014.

Variables	No.	(%)
Infant feeding status		
Breast feeding	382	90.1
Formula feeding	42	9.9
Return of menses		
Yes	233	55
No	191	45
Do you resume sexual intercourse after delivery?		
Yes	332	78.3
No	92	21.7
When did you resume intercourse in weeks N= 332	Mean :6.42(±2.28), Median: 6	
During puerperium (≤6)	245	73.8
After puerperium (>6)	87	26.2
Use of modern contraceptive	N= 332	
Yes	254	76.2
No	79	23.8
Type of contraceptive used	N=254	
Pills	42	16.5
Depo-Provera	100	39.4
Implant	44	17.3
IUD	63	24.8
Condom	5	2
Sexual problem during resumption N=332		
Genital tear	11	3.3
Vaginal bleeding	9	2.7
Vaginal discharge	16	4.82
Lack of desire	26	7.83
Arousal problem	10	3
Dryness	3	0.9
Pain	12	3.6
Not at all	245	73.85
Did you seek medical advice for sexual problem? N=87		
Yes	13	14.9
No	74	85.1
Ever advised n about postpartum sexual activity: 424		
Yes	49	11.6
No	375	88.4
Any problem due to not resumption of intercourse: N=92		
Conflict with partner	16	17.4
Get stressed	17	18.5
Nothing happened	59	64.1

study may be attributable to the study participants being in-union women unlike other studies like Nigerian where the main reason for non-resumption was unavailability of a partner[19, 20]. Moreover, there were differences in postpartum periods where different studies were carried out. The other possible explanation for the difference is due to diverse cultural and religious practices and sexual attitudes of women in different parts of the world.

Commencement of postpartum sexual intercourse may also herald a greater risk of unintended pregnancies. In our study the only determinants of contraceptive use were the return of menses and whether the index pregnancy is planned or not. This is worrisome, as postpartum women have a risk of getting pregnant even before the onset of menstruation and 10% of the participants resumed sexual intercourse without using contraceptives. This might be explained by the fact that ammenhorric women would underestimate the risk of pregnancy by assuming that amenorrhea could guarantee protection against pregnancy. However, the finding is better than a Nigerian study result (19.1%) [19], other results were Malaysia (44%)[23], Kenya (46%)[30], Rwanda (50.4%)[31], India (36.3%)[21], and Northern Ethiopia (20.7%)[32].

Sexual morbidities appear to be common on initiation of postpartum sexual intercourse[15, 33]. In this study, one quarter (26%) had at least one sexual problem on resumption. Similar morbidity was also reported in Uganda (22.2%)[22] and Gambia (27%)[34]. Higher sexual morbidity than this study was also noted in Nigeria (63%)[19], China (71%)[26] and Britain

Table 4. Binary and multiple logistic regression analysis of contraceptive use before postpartum sexual resumption within 14weeks of postpartum period at selected ten health centers of Addis Ababa, Central Ethiopia, March 24 to August 04, 2014. N=332

Variables	Contraceptive use		OR(95%CI)	
	Yes	No	COR	AOR
Age				
18-25	81	17	2.50(1.02-6.12)	1.10(0.37-3.27)
26-35	151	51	1.55(0.70-3.44)	0.86(0.33-2.26)
>35	21	11	1	1
Place of delivery				
Health center	125	29	1.67(0.77-3.64)	1.54(0.57-4.15)
Government hospital	97	38	0.99(0.46-2.12)	1.22(0.49-3.09)
profitable private hospitals/clinics	31	12	1	1
Pregnancy type				
Planned	221	59	2.34(1.25-4.39)	2.65(1.19-5.92)
Unplanned	32	20	1	1
Infant feeding				
Breast feeding	232	68	1.79(0.82-3.89)	1.15(0.47-2.80)
Formula feeding	21	11	1	1
Marital status				
Legally married	216	73	0.48(0.20-1.18)	1.15(0.47-2.80)
Not legally married	37	6		1
Mode of delivery				
Vaginal delivery without episiotomy	96	38	1.07(0.52-2.22)	0.97(0.39-2.41)
Vaginal delivery with episiotomy/tear	101	19	2.26(1.02-4.99)	1.74(0.69-4.43)
Instrumental delivery	6	6	0.42(0.12-1.55)	0.43(0.10-1.82)
Elective CS	17	2	3.61(0.73-17.74)	5.04(0.89-28.70)
Emergency CS	33	14	1	1
Status of mensus				
Resumed	168	34	2.62(1.56-4.38)	2.84(1.58-5.13)
Not resumed	85	45	1	1
ANC booking				
Yes	250	76	3.29(0.65-16.64)	1.36(0.17-11.05)
No	3	3	1	1
Educational status				
No formal education	32	8	0.94(0.37-2.41)	0.94(0.23-3.76)
primary school	82	22	0.88(0.43-1.79)	1.48(0.56-3.91)
secondary school	67	32	0.49(0.25-0.97)	0.57(0.25-1.31)
Above secondary school	72	17	1	1
Religion				
Orthodox Christian	141	57	1.06(0.27-4.24)	0.75(0.14-4.02)
Muslim	66	14	2.02(0.46-8.79)	1.84(0.31-11.01)
Protestant Christian	39	5	3.34 (0.65-17.27)	2.79(0.42-18.59)
Catholic Christian	7	3	1	1

83% [35]. However; only 15% of the study participants had sought medical care. This is also true in many other studies that noted that many women (up to 25%) with postpartum health problems did not consult a health professional [36, 37]. This could be due to women's mistaken ideas about sex and/ or the perception that all postpartum sexual problems will resolve on their own[38].

This study found that only 11% of the participants were ever advised by their health care providers about postpartum sexuality. A study done in Britain found that only 18% of postpartum women at a London teaching hospital had received information about changes in postpartum sexual function [12]. The lack of counseling may reflect poor health care provider knowledge regarding the many factors affecting postpartum sexual changes.

The strength of the study included only in-union women so that the effects of being single or unmarried on the resumption of postpartum sexual intercourse were avoided. As well, the study was conducted at 14 weeks postpartum so that it avoids recall bias by the participants. On the other hand, there were limitations of the study. These were the study mainly focuses on the time of sexual resumption rather than the degree of sexual function. Similarly, the study mainly focuses on the timing of postpartum penetrative vaginal intercourse.

CONCLUSION AND RECOMMENDATION

High number of postpartum women resumed sexual intercourse despite significant of them resumed without contraceptive use. It was also a associated with high sexual morbidity, low health seeking behavior and low postpartum sexuality counseling practice by health care providers. Postpartum sexuality needs to be discussed before discharge and strategies need to be developed to address the identified problems.

CONFLICT OF INTEREST:

None of the authors of the above manuscript has declared any conflict of interest.

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REFERENCES

1. WHO. Postpartum Care of the Mother and Newborn: A Practical Guide. Geneva: World Health Organization. 1998.
2. Von Sydow K. Sexuality during pregnancy and after childbirth: a metacontent analysis of 59 studies. J Psychosom Res 1999; 47:27–49.
3. Rogers RG, Borders N, Leeman LM, Albers LL. Does spontaneous genital tract trauma impact postpartum sexual function? J Midwifery Womens Health 2009; 54:98 –103.
4. Brubaker L, Handa VL, Bradley CS, Connolly A, Moalli P, Brown MB, et al. Sexual function 6 months after first delivery. ObstetGynecol2008; 111:1040–4.
5. Connolly A, Thorp J, Pahel L. Effects of pregnancy and childbirth on postpartum sexual function: a longitudinal prospective study. Int Urogynecol J Pelvic Floor Dysfunct 2005; 16: 263-7
6. Borda MR, Winfrey W, McKaig C. Return to sexual activity and modern family planning use in the extended postpartum period: An analysis of findings from seventeen countries. Afr J Reprod Health. 2010; 14:72-9.
7. Moore Z, Pfitzer A, Gubin R, Charurat E, Elliott L, Croft T. Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low and middle-income countries. Contraception. 2015;92(1):31–39. Doi:10.1016/j. contraception.2015.03.007
8. Central Statistical Agency [Ethiopia] and ORC Macro: Ethiopia Demographic and Health Survey preliminary report 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro. 2011.
9. WHO & USAID. Africa's Health in 2010. Repositioning Family Planning: Guidelines for Advocacy Action, 2008
10. Darroch JE, Sedgh G, Ball H. Contraceptive Technologies: Responding to Women's Needs New York: Guttmacher Institute; 2011
11. WHO. Medical eligibility criteria for contraceptive use. World Health Organization, 2015.
12. Barrett G, Pendry E, Peacock J, Victor C, Thakar R, Manyonda I. Women's sexual health after childbirth. BJOG 2000; 107:186–95.
13. Abdool Z, Thakar R, Sultan AH. Postpartum female sexual function. Eur J Obstet Gynecol Reprod Biol 2009; 145:133-7

14. Reamy K, White SE. Sexuality in pregnancy and peurperium: A review. ObstetGynecolSurv1985; 40:1

15. Leeman LM, Rogers RG. Sex after childbirth: Postpartum sexual function. ObstetGynecol2012; 119:647-55

16. WHO. Expanded Program on Immunisation (EPI). 2004

17. Hatzichristou D, Rosen RC, Derogatis LR, et al. Recommendations for the clinical evaluation of men and women with sexual dysfunction. J Sex Med. 2010;7 (1):337–348

18. Speroff L, Mishell DR, Jr. the postpartum visit: it is time for a change in order to optimally initiate contraception. Contraception 2008; 78: 90-8

19. Anzaku and Mikah: Postpartum sexual and contraceptive practices among women in Jos. Annals of Medical and Health Sciences Research | Mar-Apr 2014 | Vol 4 | Issue 2 |

20. Sule-Odu AO, Fakoya TA, Oluwole FA, Ogundahunsi OA, Olowu AO, Olanrewaju DM, et al. Postpartum sexual abstinence and breastfeeding pattern in Sagamu, Nigeria. Afr J Reprod Health 2008; 12:96-100

21. ShipraKunwar, Mohammad. M. A. Faridi, Shivani Singh, Fatima Zahra, ZeashanAlizaidi. Pattern and determinants of breast feeding and contraceptive practices among mothers within six months postpartum.BioScience Trends. 2010; 4(4):186-189. (INDIA)

22. Odar E, Wandabwa J, Kiondo P. Sexual practices of women within six months of childbirth in Mulago hospital, Uganda. Afr Health Sci2003; 3:117-23

23. RadziahM, Shamsuddin K, Jamsiah M, Normi M, MohdZahari TH, AT Nur Syimah AT, et al Early resumption of sexual intercourse and its determinants among postpartum Iban mothers. Int J ReprodContraceptObstet Gynecol. 2013 Jun;2(2):124-129

24. Shirvani M.A, Nesami M.B, Bavand M. Maternal sexuality after child birth among iranian women. Pakistan Journal of Biological Sciences. 13(8): 385-389, 2010. ISSN 1028-8880

25. Woranitat W, Taneepanichskul S. Sexual function during the postpartum period. J Med Assoc Thai 2007;90(9):1744-8

26. Huan-yingWANG, Xiao-yang XU, Zhen-wei YAO, Qin ZHOU. Impact of Delivery types on Women's Postpartum Sexual Health Reproduction & Contraception (2003) 14 (4):237~242

27. Buhling KJ, Schmidt S, Robinson JN, Klapp C, Siebert G, Dudenhausen JW. Rate of dyspareunia after delivery in primiparae according to mode of delivery. Eur J ObstetGynecolReprodBiol2006; 124:42-6

28. Brubaker L, Handa VL, Bradley CS, Connolly A, Moalli P, Brown MB, et al. Sexual function 6 months after first delivery. ObstetGynecol2008; 111:1040-4

29. Acele EÖ, Karaçam Z. Sexual problems in women during the first postpartum year and related conditions. J ClinNurs2012; 21:929-37

30. Ndugwa R, Cleland J, Madise N, Fotso J, Zulu E. Menstrual pattern, sexual behaviors, and contraceptive use among postpartum women in Nairobi urban slums. J Urban Health. 2011;88: S341–355.

31. Aurellie B, Elizabeth E, Ngabo F, Wesson J, Chen M. Getting to 70%: barriers to modern contraceptive use for women in Rwanda. Int J Gynecol Obstet. 2013;11–15.

32. Abera Y, Mengesha ZB, Tessema GA. Postpartum contraceptive use in Gondar town, Northwest Ethiopia: a community based cross-sectional study. BMC Women's Health 2015, 15:19 DOI 10.1186/s12905-015-0178-1

33. Abdool Z, Thakar R, Sultan AH. Postpartum female sexual function. Eur J ObstetGynecolReprodBiol2009; 145:133-7

34. Walraven G, Scherf C, West B, Ekpo G, Paine K, Coleman R, et al. The burden of reproductive-organ disease in rural women in The Gambia, West Africa. Lancet 2001; 357:1161-7.

35. Barrett G, Pendry E, Peacock J, Victor CR. Sexual function after childbirth: Women's experiences, persistent morbidity and lack of professional recognition. Br J ObstetGynaecol1998; 105:242-4.

36. Glazener CM, Abdalla M, Stroud P, Naji S, Templeton A, Russell IT. Postnatal maternal morbidity: Extent, causes, prevention and treatment. Br J ObstetGynecol1995; 102:282- 7.

37. MacArthur C, Lewis M, Knox EG. Health after childbirth. Br J ObstetGynaecol1991; 98:1193-5.

38. Glazener CM. Sexual function after childbirth: women's experiences, persistent morbidity and lack of professional recognition. Br J ObstetGynaecol, 1997, 104(3): 330˜5