

Original research article

Cross-sectional study on knowledge, attitude and practice of contraception among breastfeeding mothers at a tertiary care hospital

¹Dr. Kowkuntla Omni, ²Dr. A Viplava, ³Dr. J Devi, ⁴Dr. Gudala Soumya

¹Postgraduate, Department of Obstetrics and Gynaecology, MGMH Petlaburj, Osmania Medical College, Hyderabad, Telangana, India

^{2,3,4}Assistant Professor, Department of Obstetrics and Gynaecology, MGMH Petlaburj, Osmania Medical College, Hyderabad, Telangana, India

Corresponding Author:

Dr. Gudala Soumya

Abstract

Aim and Objectives: To assess the knowledge, attitude, and practices of contraception among breast-feeding mothers. Emphasize on them the benefits of breast-feeding as a contraceptive method. To find out the prevailing contraceptive practices among breast-feeding mothers. To find out which contraceptive method is acceptable to most breast-feeding mothers. To get a positive change in attitude of women regarding contraceptive use.

Methods: The Observational study consisting of 400 post-natal breastfeeding mothers, from January 2021 to October 2022 including the follow up period at Post-natal and post-caesarean wards in Obstetrics and Gynaecology Department in MGMH, Petlaburj.

Results: In the study only 32% mothers practiced one of the modern methods of contraception during breast feeding. 24% mothers used condoms as a contraceptive method 5.75% mothers practiced Copper-T as a contraceptive. whereas oral contraceptives use was third followed by Depo-Provera. Regarding natural methods of contraception, exclusive breast feeding was practiced by all mothers at 1st month and by 12.25% mothers at 10th month. About 99.5% of the study population practiced sexual abstinence as a contraceptive method in 1st month after delivery but the frequency fell to 13% by the end of one year.

Conclusion: The study shows that the knowledge, attitude and practices of contraception among breast feeding mothers is highly inadequate with most mothers still practicing natural methods of contraception such as sexual abstinence. They have a false perception regarding various contraceptive methods and their use. Proper education and counseling of these mothers during antenatal and postnatal period will help in a long way in preventing unwanted pregnancies and its complications.

Keywords: Contraception, breast-feeding mothers, antenatal and postnatal period

Introduction

In a developing country like India, over population is a major concern. Although contraception is widely available, there is poor acceptance of contraceptive methods either due to ignorance or due to fear of complications using them^[1-4]. Other than that, there are other social, cultural, traditional, religious, and financial limitations^[5-6].

Knowledge, attitude, and practices of contraception among lactating mothers is a study carried out to know the prevailing contraceptive awareness among breast-feeding mothers and to educate them regarding various modern methods of contraception which can be used during this time. This study also enabled in reaching out to maximum number of mothers at a time when they are most receptive to contraceptive advice. Thus, on one side where it assesses their knowledge and attitude regarding contraception, on the other side, it also helps in educating regarding proper breast-feeding and its benefits as contraception.

The study focuses on the following: Exclusive breast-feeding for 6 months. Cafeteria approach regarding various contraceptive methods. Explaining the advantages and disadvantages of various modern methods of contraception. Follow up for a period of 1 year. Various studies have been carried out to know the knowledge, attitude and practices of various contraceptive methods used during lactation by the mothers but they are few and far between. Women, who practice exclusive breast-feeding, none ovulate at six weeks; but by nine weeks, 1% does. This proportion increases to 17% at 12 weeks and 36% at 18 weeks.⁶ Thus there is an inherent need to know the knowledge, attitude, and practices regarding various contraceptive methods among breast-feeding mothers.

Materials and Methods

The Observational study consisting of 400 post-natal breastfeeding mothers, from January 2021 to October 2022 including the follow up period at Post-natal and post-caesarean wards in Obstetrics and

Gynaecology Department in MGMH, Petlaburj.

Inclusion Criteria

- Both primipara and multipara.
- Immediate postnatal breastfeeding mothers.

Exclusion Criteria

- Patients wanting permanent methods (Tubectomy/ Vasectomy) as contraception.
- Patients who are not breast-feeding/ breast- feeding contraindicated.
- Patients who underwent tubectomy in present caesarean delivery.

Results

A total of 400 postnatal breastfeeding mothers were enrolled in the study. A detailed questionnaire was given to them and their knowledge and attitude assessed according to the answers. After sufficient counselling they were followed for twelve months. Chi-square was used to find the significance of contraceptives practiced. Odds ratio has been used to find the strength of relationship between contraceptive practiced and education, occupation, mode of delivery and gravidity.

Table 1: Age distribution among the mothers

Age groups	Frequency	Percentage
≤20	30	7.5
21-25	230	57.5
26-30	132	33.0
31-35	07	1.75
>35	01	0.25
Total	400	100.0

Table 1 shows age distribution among the mothers. Most of the patients in the study group were in the age group of 21-25 that is 230(57.5%) and least being >35 years that is 1(0.25%) This is consistent with the reproductive age group in which most pregnancies occur.

Table 2: Education status of the mother

Education	Frequency	Percentage
No schooling	38	9.5
1-7 standard	242	60.5
8-10 standard	102	25.5
Pre degree	10	2.5
Degree	06	1.5
post graduate	01	0.25
Professional	01	0.25

Table 2 shows the education status of the mother. In this study most patients were of educational qualification of 1-7 standard constituting 242(60.5%) of the population and least are mothers having education of post graduate and professional constituted 1(0.25%) of the study group.

Table 3: Occupation of the mother

Occupation	Frequency	Percentage
Unskilled	35	8.75
Skilled	05	1.25
Office going	02	0.5
Professional	01	0.25
Housewife	357	89.25

Table 3 shows the occupation of the mother. Most of the mothers taken in the study were housewives 357(89.25%), and least are professional workers 1(0.25%) of the total mothers.

Table 4: Mode of delivery

Mode of delivery	Frequency	Percentage
Normal	270	67.5
Forceps	10	2.5
LSCS	120	30.0

Table 4 shows the mode of delivery. Normal delivery comprised 270(67.5%) of the deliveries, LSCS comprised 120(30%) whereas forceps comprised 10(2.5%) of the total mode of delivery.

Table 5: Gravidity of the mother

Gravidity	Frequency	Percentage
Primi	110	27.5
G2	250	62.5
G3	25	6.25
G4 & More	15	3.75

Table 5 shows Gravidity of the mother. Most of the mothers were G2 constituted 250(62.5%) whereas G4 and more constituted the least 15(3.75%) of the total mothers.

Table 6: Knowledge of contraception among breastfeeding mothers

Question number and questions (N=400)	True	False	Don't know
Exclusive Breastfeeding			
Exclusive breastfeeding feeding means no other substitute other than milk for 6 months	240	80	80
In exclusive breastfeeding, sometimes periods don't start	58	52	290
Can exclusive breastfeeding be used as a contraceptive method	36	72	292
Condoms			
Can condoms be used as a contraceptive method	378	08	14
Cooper-T			
Cu-T is a device placed in uterus	265	15	120
Can Cu-T be used as contraceptive method	330	10	60
Can Cu-T be used in caesarean section	70	150	180

Table 6 shows knowledge of contraception among breastfeeding mothers. About 58 mothers had knowledge that exclusive breast feeding can be used as a contraceptive method. Most of the mothers had knowledge about condoms (378 mothers) and least knowledge was about hormonal implants (5 mothers).

Table 7: Attitude of contraception use among breastfeeding mothers

Question number and questions (N=400)	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Exclusive Breastfeeding					
Exclusive breastfeeding is an unreliable method of contraception	10	17	180	120	73
Night feeding is difficult	16	20	12	178	174
Addition of artificial supplementary feeds decrease the contraceptive effect.	28	48	175	100	49
Condoms					
Condoms is easy to use	182	196	02	12	08
Condoms have a big failure rate	22	122	215	30	11
Copper - T					
Cu-T cause more bleeding	70	290	30	05	05
Cu-T causes pain abdomen	78	205	80	18	19
Coming to hospital only for Cu-T is burden	65	245	45	25	20
Birth Control Pills	20	40	270	45	25
Usual birth control pills causes decrease in milk					
Birth control pills causes bleeding	10	10	360	14	06
Birth control pills causes weight gain	22	36	305	19	18
Daily intake of tablets is difficult to maintain	158	179	50	07	06

Table 7 shows the attitude of contraception use among breastfeeding mothers. It was observed that about 10 mothers agree that exclusive breastfeeding is an unreliable method of contraception. About 22 mothers strongly agree that condoms have a big failure rate. About 78 mothers strongly agree that cu-T causes pain in the abdomen, 10 mothers strongly agree that birth control pills cause bleeding and 158 mothers strongly agree that daily intake of tablets is difficult to maintain.

Table 8: Breastfeeding and contraceptive practices

Breastfeeding/ Contraceptive methods	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Feeding practices												
Breast feeding	400	400	399	397	395	391	383	378	368	363	352	337

Artificial feeds	-	12	52	136	200	342	372	388	395	399	400	400
Night feeding	400	400	398	394	392	388	380	300	275	220	186	153
Contraceptive practices												
Exclusive breast feeding	400	395	389	380	376	222	200	162	113	49	-	-
Condoms	-	20	23	35	35	64	67	69	79	88	96	96
Copper-T	-	-	15	15	17	20	22	19	16	16	24	23
Oral contraception	-	-	10	10	06	04	03	03	-	-	-	-
Depot provera	-	-	-	-	07	05	04	04	-	-	-	-
Sexual abstinence	398	389	375	375	362	300	288	269	245	130	85	52

Table 8 shows breastfeeding and contraceptive practices. It was observed that during 12 months of breast feeding, exclusive breastfeeding and sexual abstinence is followed by majority of the mothers as a contraceptive method. As the time progresses 2-12 months of breastfeeding condoms is the common contraceptive method followed by the majority of the mothers, cu-T, oral contraceptive methods are the next common practices. Least number of mothers between least numbers of mothers use injectable contraceptives between 5-8th month of breastfeeding.

Table 9: Contraceptive practices

Contraceptive practices(N=400)	Frequency	Percentage
contraceptive used	128	32.0
contraceptive not used	272	68.0

Table 9 shows contraceptive practices. In the study 32% of postnatal breastfeeding mothers practiced one or more methods of contraception whereas 68% of the mothers did not use any methods of contraception.

Table 10: Association of education with contraceptive practice

Education	Contraceptive practiced No. (%)	Contraceptive not practiced No. (%)	Chi-square	P value
No schooling	05 (3.9)	33 (12.1)	11.56	0.006*
1-7 standard	44 (34.3)	198 (72.7)		
8-10 standard	68 (53.1)	34 (12.5)		
pre degree	04 (3.1)	06 (2.2)		
degree	05 (3.9)	01 (0.36)		
post graduate	01 (0.78)	0 (0)		
professional	01 (0.78)	0 (0)		
total	128 (100.0)	272 (100)		

*p value<0.05 is significant

Table 10 shows association between education and contraceptive practices. It was observed that degree and above education having women are 11.5 times more likely to practice contraceptive methods compared to women educated up to higher secondary and pre degree. This association is statistically significant.

Table 11: Association of occupation with contraceptive practices

Occupation	Contraceptive practiced No. (%)	Contraceptive not practiced No. (%)	Chi-square	P value
Unskilled	12 (9.3)	23 (8.4)	6.35	0.01*
Skilled	03 (2.3)	02 (0.73)		
Office going	02 (1.5)	0 (0)		
Professional	10 (.78)	0 (0)		
House wife	110 (85.9)	247 (90.8)		
total	128 (100.0)	272 (100.0)		

Table 11 shows association of occupation with contraceptive practices. It was observed that office going and professional mothers are 6.35 times more likely to use contraceptive practices compared to other occupations hence it is statistically significant.

Table 12: Association of contraceptive practices with mode of delivery

Mode of delivery	Contraceptive practiced No. (%)	Contraceptive not practiced No. (%)	Chi- square	P value
normal	93 (72.6)	177 (65.07)	2.32	0.31
forceps	03 (32.3)	07 (2.5)		
LSCS	32 (25.0)	88 (32.3)		
total	128 (100.0)	272 (100.0)		

Table 12 shows association of mode of delivery with contraceptive practices. It was observed that the majority of mothers who had normal delivery practiced contraceptive methods compared to forceps and

LSCS delivery but it is not statistically significant.

Table 13: Association of Gravidity with contraceptive practices

Gravidity	Contraceptive practiced No. (%)	Contraceptive not practiced No. (%)	Chi-square	P value
Primi	72 (56.2)	38 (13.9)	7.32	0.01*
G2	39 (30.4)	211 (77.5)		
G3	12 (9.3)	13 (4.7)		
G4 and more	05 (3.9)	10 (3.6)		
Total	128 (100.0)	272 (100.0)		

*p value <0.05 is significant

Table 13 shows association of Gravidity with contraceptive practices. It was observed that as gravidity increases the contraceptive use among mothers is decreased. Primi mothers are 7.32 times more likely to use contraceptives compared to multipara and it is statistically significant.

Table 14: Association of knowledge with contraceptive practices

Knowledge about contraceptives	Good knowledge	Contraceptive practiced	Poor knowledge	Contraceptive practiced after counselling
exclusive breastfeeding means no other substitute other than the milk for six months	240	92	160	36
In exclusive breastfeeding, sometimes periods does not start.	58	17	342	111
can exclusive breastfeeding used as contraceptive method	36	7	364	121
can condoms be used as a contraceptive method	378	121	22	07
Cu-T is a device which is placed in the uterus	265	80	135	48
Can Cu-T be used as a contraceptive method.	330	113	70	15
Can cu-T be used in Caesarean section.	30	19	370	109
can birth control pills, be used as contraceptive method	82	29	318	99
Is birth control pills used during breastfeeding same as other contraceptive pills.	80	36	320	92
Can hormonal injections be used as contraceptive method	103	42	297	85
These injections have to be given every three months	90	41	310	87
Can periodic abstinence be used as a contraceptive method.	280	78	120	50
Can coitus interruption be used as a contraceptive method.	30	17	370	13
Can hormonal implants be used as a contraceptive method	05	02	395	03
Periodic check up during the use of contraceptive is necessary.	280	118	120	10

Table 14 shows association of knowledge with contraceptive practices. It was observed that mothers who had good knowledge about exclusive breastfeeding as a contraceptive method 7 mothers practiced contraception and 121 mothers practiced after counselling. Among mothers who had good knowledge about condoms as contraception, 121 mothers practiced contraception and 7 mothers practiced after counselling. Mothers who had good knowledge about Cu-T as a contraceptive method 113 mothers practiced contraception and 15 mothers practiced after counselling.

Discussion

Most of the patients in the study group were of the age group 21-30 years with 57.5% being in the age group 21-25 and 33% being in age group 26-30 years. Less than equal to 20 years constituted 7.50% and others such as 31-35 years and >35 years constituted 1.75% and 0.25% respectively of the total. This is in consistence with the reproductive age group in which most pregnancies occur. The ages of subjects were similar in a similar study conducted by Krishendu *et al.*, with the highest number of subjects belonging to the reproductive age group [7].

The education status of the mother: In this study most, patients were in educational qualification of 1-7 standard constituting 242 (60.5%) of the population. 8-10 standard and no schooling constituted 102 (25.5%) and 38 (9.5%) respectively, whereas pre degree and degree constituted 10 (2.5%) and 6 (1.5%) of the total. Also, mothers having education of post graduate and professional constituted 1 (0.25%) of the study group. It was observed that degree and above education having women are 11.5 times more likely to practice contraceptive methods compared to women educated up to higher secondary and pre degree. This association is statistically significant. This is in consistence with other studies where the highest rates of contraceptive use were recorded among women with some formal education; 25% of the women in union with a primary or higher education were using a family planning method (Kent M M. *et al.*) [8]. Use of contraception was strongly related education, to being lowest among women with little or formal education (Monteith RS. *et al.*).

Normal delivery comprised 67.5% of the deliveries. In this group both preterm as well as term deliveries were included. Caesarean delivery constituted 30% whereas Forceps delivery comprised 2.5% of the

total mode of delivery.

G2 constituted 250 (62.5%), primis constituted 110 (27.5%), G3 constituted 25 (6.25%) whereas G4 and more constituted 15(3.75%) of the total mothers. Thus, we see that most of the mothers going in for temporary method of contraception constituted primipara and G2 whereas mothers having more than 3 children usually go for permanent method of contraception, mostly tubectomy 60% of mothers knew that exclusive breast feeding means no other substitute other than milk for first six months whereas 20% did not know about exclusive breast feeding. In the first group are the mothers who have received antenatal and postnatal counseling about advantages of exclusive breast feeding. Also, most of the multiparous women knew about exclusive breast feeding and most of the primiparous mothers were unaware about it. Again, it may be due to counseling given during previous childbirth. In another study conducted by Halderman and Nelson *et al.*, found that 8% of women who said that they planned to breastfeed never started, and, by 6 weeks postpartum, 24% of women discontinued breastfeeding. Of those who were continuing, 65% were supplementing. In our study 14.5% of mothers knew that during exclusive breast feeding sometimes there is a delay in the onset of menstruation. Most of the mothers in this group were multiparous mothers who based on their previous experience knew about the menstrual delay. 13% mothers disagreed about the delay in the onset of menstruation after delivery and constituted mainly of both multipara who based on their previous knowledge were answering accordingly and primipara who have not received any information about this and thought that menstruation returns after delivery. Another 72.5% mothers didn't know about the menstrual changes.

9% of the mothers in the study had the knowledge that exclusive breast feeding can be used as a contraceptive. This contrasts with other studies- Udigwe GO *et al.* ^[9] and Vural B *et al.* ^[10] where 52% and 25.68% mothers respectively had the knowledge that exclusive breast feeding can be used as a contraceptive. Most of the mothers didn't know that exclusive breast feeding can be used as a contraceptive method and another 18% thought that Exclusive breast feeding cannot be used as a contraceptive and 73% didn't know. These groups constituted mothers of all educational level and signifies the lack of proper antenatal counselling which could be important in a developing country like India. In another study done by Vural B *et al.* ^[10], nearly fifty-two per cent of women were not aware of the contraceptive property of breastfeeding, 48.16%, did not know the importance of frequency and duration of suckling on fertility reducing effect of lactation.

In our study about more than half of the mothers knew about at least one modern contraceptive method. The most known contraceptive method was condom and about 94.5% mothers agreed that it can be used as a contraceptive method during breast feeding. This is similar to other studies done to know the knowledge of contraception among mothers- 60.8% of the couples possessed some knowledge about at least one modern method of contraception (Sharma V, Sharma A. *et al.*) ^[11]. 66.3% knew of at least one contraceptive and the leading known contraceptive was oral contraceptives (Odai I.*et al.*) ^[12] More than 90% of women interviewed knew of modern contraceptive methods (Shane B. *et al.* 75) 91% of the mothers had knowledge of at least one contraceptive method. Oral contraception was the most familiar method in rural Egypt, followed by the IUD (Khalifa AM *et al.*) ^[13] About half of the mothers (66,25%) knew that Copper-T is placed in the uterus. This group comprised mostly mothers of high educational qualification or multipara who have previously used Copper-T as a contraceptive. 3.75% mothers thought that it should not be used during breast feeding because of fear of unknown side effects and show a lack of counselling given to these mothers and their low educational level. 30% mothers did not know about its use and comprised mainly primipara mothers. 37.5% mothers thought that Copper-T should not be used in Caesarean delivery as there is an increased chance of perforation. Only 17.5% mothers knew that Copper-T can be used safely in Caesarean deliveries and that chance of perforation is very low.

Only 31.75% mothers agreed that oral contraceptive pills can be used during breast feeding, 35% disagreed of its use because of unknown side effects on lactation. 78.75% women thought that oral contraceptive pills used before pregnancy and that used during breast feeding are the same and were unaware of use of Progestin-Only Pill during lactation and. This shows a lack of proper counselling given to these mothers. Only 31.25% mothers knew about the difference in the tablets used before pregnancy and that used during breast feeding and mostly comprised of mothers of high education and multiparous women.

About 57.5% mothers did not know about injectable contraceptives- Depo-Provera and mostly comprised of primipara. Only 25.75% women knew that Depo-Provera can be used during breast feeding, only 22.5% women knew the correct 3-monthly interval of intake of these injections, which show a very low level of knowledge among breast feeding mothers about injectable contraceptives.

In natural methods of contraception, sexual abstinence was the most used contraceptive method; 99.5% in 1st month to 13% at 12th month. In another study done by Dehne KL. *et al.* ^[14] depicted significant diversity in durations of individual postpartum sexual abstinence and varied between 40 days to 3 years, with shorter durations associated with stricter adherence to Islamic belief. Only 7.5% mothers thought that coitus-interruptus can be used as a contraceptive method and shows the difficulty in using this method by most couples as a contraceptive.

Only 1.25% mother knew about other modern method of contraception such as Implants and was seen in mothers having high education and good occupational status.

Regarding periodic check-up, half of the mothers (70%) thought that periodic check-up during the use of any contraceptive is necessary. 6.75% mothers agreed that breast feeding is an unreliable method of contraception, 45% were uncertain and 48.25% of them thought it to be a reliable method of contraception. This may be due to cultural constraints where most of the women after delivery practice sexual abstinence and fear to use any modern method of contraception. In a study done by Monteith R S *et al.*, among Indians the major reason given for non-use of contraceptives unrelated to pregnancy was lack of knowledge of contraception or where to obtain family planning services. Among Ladinos, the most frequently mentioned reason was fear of contraception or fear of side effects. The methods of choice for nonusers desiring to use a method were oral contraceptives (27%), sterilization (18%) and injectable (14%).

88% mothers feel that breast feeding the baby in the night is not difficult and feels that breast feeding is much easier than use of other methods of feeding. 9% women who feel breast feeding to be difficult, most of them were working women.

94.5% mothers felt that condoms are easy to use but 36% of them did not know that it has got a high failure rate.

According to 90% mothers Copper-T causes increased bleeding and 70.75% women thought that Copper-T causes pain abdomen. 77.5% mothers felt that coming to hospital only for Copper-T insertion is a burden.

Regarding the use of oral contraceptive pills, 15% mothers felt that the commonly used combined oral contraceptive pills causes decrease in the quantity of milk, but most of the mothers who felt it are the ones who wanted to use natural method of contraception such as sexual abstinence or exclusive breast feeding.

All the patients were followed up every month for a period of 12 months to know which contraceptive method they followed. Breast feeding was seen almost in all mothers up to 3 months. This may be due to the study itself which includes only mothers who are breast feeding and a lower margin of 3 months was taken arbitrarily. After 7 months the percentage of women who were breast feeding decreased slowly and to the end of 12 months when 84.25% women were breast feeding. Regarding addition of supplementary feeds, it increased from 6 months from 85.5% to the end of 12 months when all mothers have started artificial feeds other than breast feeding (100%).

Regarding contraceptive practices, exclusive breast feeding was seen during the first six months with 100% women practicing it during the first month to 55.5% who were using it in the 6th month. After six months the number of women using it decreased with almost none after tenth month.

29.75% mothers in the study were practicing one of the modern methods of contraception by end of 12 months. In other studies, done by Vural B *et al.* [10] more than fifty-three per cent of women were using one of the modern contraceptive methods, in Khalifa AM *et al.* [13] 35% mothers used contraception and in Sharma V *et al.* [7] only 19% of them were using a modern method of family planning. Contraception practiced at 4 months in the study was 15%, that in Udigwe GO *et al.* [9] 33% and in Duong D *et al.* [6] 17%. At 6 months 23.25% of the mothers were using one modern method of contraception whereas in Duong D *et al.* [15] 43% of them were using the contraceptive. At 1 year the contraceptive practice in the study group was 29.75%.

Regarding the practice of condoms during breast feeding it was seen to increase at sixth month and was 16% in the study group. In other studies, done by Vural B *et al.* [10], Duong D *et al.* [15] and Zheng J. *et al.* [7] 16.48%, 25% and 7% respectively used condoms as contraceptive. Copper-T use started at third month with 3.75% using at 3rd month to 12th month when about 5.75% mothers were using it as a contraceptive. Copper-T was the second most used modern contraceptive in the study. In the study done by Vural B *et al.* [10], Kent M M. *et al.* [8] and others about 30- 32% mothers were using Cu-T as a contraceptive.

Oral contraceptive use was third most used contraceptive in our study. In a study done by Zheng J. *et al.* [7] 5% used oral contraceptive pill whereas in another study done by Abu Ahmed A *et al.* [16] 6.9% were using oral contraceptives. Depo-Provera use was seen in between 5th to 8th month of the study with only few patients (1.75% at 5th month to 1% at 8th month) using them. In a study done by Adinma JI. *et al.* [17] 14.3% used Injectables.

Most of the couples in the study were using traditional methods such as sexual abstinence as a contraceptive with 99.5% using it at 1st month to 13% using it at 12th month. It may be due to cultures and tradition where sexual abstinence is used for some time following the delivery. In other studies, the results were Vural B. *et al.* [10] 23.86%, Sharma V. *et al.* [11] 11.2%, Duong D., *et al.* [15] 14%, Zheng J. *et al.* [18] 12% and Adinma JI. *et al.* [17] 28.4%.

Thus, the number of patients who used contraceptive methods during breast feeding was 32% and the most common contraceptive method used was Sexual abstinence, with condoms, Copper-T and oral contraceptives use coming next to it. Only a few patients used Depot-Provera.

Table 15: Comparison with similar studies elsewhere

	Study et al.	Vural et al.	Udigwe et al.	Odai et al.	Sharma et al.	Shane et al.	Khalifa et al.	Duong et al.	Abu et al.	Kent et al.	Zheng et al.
EBF as contraceptive	60	25.68	52	-	-	-	-	-	-	-	-
Practice of 1 contraceptive	32	53	-	-	19	55	35	-	-	-	-
Practice at 4 months	15	-	33	-	-	-	-	17	-	-	-
Practice at 6 months	23.25	-	-	-	-	-	-	43	-	-	-
Practice at 1 year	29.75	-	-	-	-	-	-	60	-	-	-
Practice of IUD	6	30.15	64	-	-	-	-	57	60.8	32	-
Practice of OCP	2.5	-	-	49	-	-	24	-	6.9	52	5
Practice of Condom	24	16.48	-	-	-	-	-	25	-	-	7
Practice of Traditional methods (12th month)	13	23.86	-	-	11.2	-	-	14	-	28.4	12
Practice of Depot	1.75	-	-	-	-	-	-	-	-	14.3	-

Conclusion

Contraceptive methods are practiced by the breast-feeding mothers who are in the age group of 21-30 years (87.5% in the study) having an educational qualification of 1-7 standard. It was observed that degree and above education having women are 11.5 times more likely to practice contraceptive methods compared to women educated up to higher secondary and pre degree. This association is statistically significant. Contraceptive use also depends on the occupation and parity of the mother. In our study office going and professional mothers used more (6.35 times) contraceptives. Also, most mothers who used these contraceptive methods were primipara (70%).

Knowledge regarding various contraceptive methods depended on previous antenatal counseling on contraception and also on their educational level. Condoms and Copper-T were the most known contraceptives (94.5% and 82.5% mothers respectively knew that condoms and Copper-T can be used as a contraceptive method). Knowledge of Depo-Provera as a contraceptive was 25.75% whereas only 1.25% mothers knew about Implants.

Most of the breast-feeding mothers used natural family planning methods such as sexual abstinence during breast feeding (99.5% at 1st month and 13% at 12th month). Practice of contraception was low in the study group (32%) and the most commonly used contraception was condom (24% at 12th month) and Copper-T (6% at 1 year). Depo-Provera was practiced by 1.75% of the mothers; oral contraceptives were used by 2.5% mothers whereas none of the mothers used Implants. The study shows that the knowledge, attitude and practices of contraception among breast feeding mothers is highly inadequate with most mothers still practicing natural methods of contraception such as sexual abstinence. They have a false perception regarding various contraceptive methods and their use. Proper education and counseling of these mothers during antenatal and postnatal period will help in a long way in preventing unwanted pregnancies and its complications.

Funding source

None

Conflict of interest

None

References

- Lodewijck E, *et al.* Attitudes towards contraception and some reasons for discontinuation. *Contracept Fertil Sex.* 1987 Nov;15(11):1025-30.
- Gilliam ML, Warden M, Goldstein C, Tapia B. Concerns about contraceptive side effects among young Latinas: a focus-group approach. *Contraception* Oct. 2004;70(4):299-305.
- Castle S. Factors influencing young Malians reluctance to use hormonal contraceptives. *Stud Fam Plann.* 2003;34(3):186-99.
- Orji EO, Onwudiegwu U. Prevalence and determinants of contraceptive practice in a defined Nigerian population. *J Obstet Gynaecol Sep.* 2002;22(5):540-3.
- Phimmasone K, Oudom M, Fauveau V, Godin I, Pholsena P. Socio-cultural and economic determinants of contraceptive use in the Lao People's Democratic Republic. *Asia Pac Popul J Jun.* 1994;9(2):3-24.
- Petrick TJ. Ethics and the reproductive process. *Ginecol Obstet Mex Apr- May.* 1990;58(1):35-8.
- Krishnendu M, Devaki G. Knowledge, attitude and practice towards Breastfeeding among lactating mothers in rural areas of Thrissur District of Kerala. India: A Cross-Sectional [study]. *Biomed pharmacol J.* 2017, 102.
- Kent MM. Survey report: Liberia. *Popul Today.* 1987;15 (11):5.
- Udigwe GO, Udigwe BI, Ji I, *et al.* Contraceptive practice in a teaching hospital in south-east Nigeria. *J Obstet Gynaecol May.* 2002;22(3):308-11.
- Vural B, Vural F, Erk A, Karabacak O. Knowledge on lactational amenorrhoea and contraception in

- Kocaeli, Turkey. *East Afr Med J* Jul. 1999;76(7):385-9.
11. Sharma V, Sharma A. Family planning practices among tribal of South Rajasthan, India. *J Res Educ Indian Med* Oct-Dec. 1991;10(4):5-9. PMID 12346802.
 12. Odai I *et al.* 'Integrated Family Planning, Nutrition, and Parasite-Control Project in Ghana: a baseline survey report' *Integration* Oct. 1990;25:25-36.
 13. Khalifa AM, Helmy haa, El-khorazaty MN, Way AA, *et al* The results of the Egyptian Contraceptive Prevalence Survey in rural Egypt *Contraception* Mar. 1980;23(1):356-9.
 14. Dehne KL. Knowledge of, attitudes towards, and practices relating to child- spacing methods in northern Burkina Faso. *J Health Popul Nutr* Mar. 2003;21(1):55-66.
 15. Duong DV, Lee AH, Binns CW. Contraception within six-month postpartum in rural Vietnam: implications on family planning and maternity services. *Eur J Contracept Reprod Health Care*. 2005;10(2):111-8.
 16. Abu Ahmed A, Tabenkin H, Steinmetz D, *et al.* 'Knowledge and attitudes among women in the Arab village regarding contraception and family planning and the reasons for having numerous children' *Contraception* Dec. 2003;142(12):822-5, 879, 878.
 17. Adinma JI, Agbai AO, Nwosu BO. Contraceptive choices among Nigerian women attending an antenatal clinic. *Adv Contracept* Jul. 1998;14(2):131-45. doi:10.1023/a:1006590717562, PMID 9820931.
 18. Zheng J. Survey report: Pakistan. *Popul Today* Oct. 1991;19(10):5.