

Barriers for Continuation of Breast Feeding among Primipara Mothers

Hoda Mohammed Ahmed*, Dr/ Omaima Mohamed Esmat**, Dr./ Mervat Mohamed Hassan***

*B.Sc., in Nursing Sciences, 2012

** Professor of Nursing Community, Faculty of Nursing, Ain Shams University.

*** Assistant Professor of Nursing Community, Faculty of Nursing, Ain Shams University. Nursing Community Department, Faculty of Nursing, Ain Shams University.

Abstract

Background: Breastfeeding is the best gift a mother can give to her baby; breast milk is rich in nutrients needed for optimal growth and development, and many barriers cause early cessation of breastfeeding. **Design:** a descriptive study design was used. **Aim:** to assess the barriers of continued breastfeeding among primipara mothers in Al wasta, Beni Suief, Egypt. **Sampling:** A convenient sampling technique was employed to select sample, two hundred and twenty primipara mothers were included in the study. **Tools:** for data collection two tools were used, **the first tool:** a structured interviewing questionnaire to assess socio-demographic characteristics of primipara mothers, and their knowledge and practices regarding breastfeeding, the barriers effects on breastfeeding duration. **Second tool:** Observational checklist for primipara mother's attitude related breastfeeding techniques. **Results:** The mean ages of the samples were 21.26 ± 3.19 years. And 76.0% of them don't work. 79.5% of them had satisfactory total knowledge score level. Only 12.0% of primipara mothers initiate breastfeeding within 1 hour. 37.5% of the samples had un satisfactory total practices score level. About 57.0% of the samples reported the effect of family members to give additional food. There was a significant relation between knowledge and practice; the mothers who had high education were reliable to perform optimal breastfeeding practices. There was a significant correlation between type of delivery and breastfeeding practice where a mother with normal delivery without any problems made optimal breastfeeding practices. **Conclusion:** More than half of mothers had satisfactory knowledge regarding breastfeeding. Suboptimal breastfeeding practices reflect failure in counselling strategies during ante-post natal; the barriers negatively affected on exclusive breastfeeding continuation. There is statistically significant positive correlation between total knowledge and practices. **Recommendation:** Increasing awareness to the importance of breastfeeding during visits to maternal and child health center, follow up, and family support especially for primipara before and after delivery.

Key words: Breastfeeding, Primipara mothers, Barriers of breastfeeding.

Introduction

Primipara mothers (first time to have baby) were more reliable for breastfeeding difficulties due to lack of experiences and knowledge on breastfeeding issues this might be explained by the fact that primiparas faced challenges of discomfort after cesarean section, perception of insufficient human milk, misunderstanding their infant's cry, breast engorgement, and latching on problems at

initiation time. These difficulties and challenges negatively influenced breastfeeding, so they need great support from the family members and training education from the health care providers during ante and post natal visit to overcome these problems (Degefa et al., 2019).

Breast milk is considered rich in nutrients and anti-bodies as it contains the sufficient quantities of essential fats, water, sugar, carbohydrates, proteins, and immunological factors needed for infants to

thrive and resist infection in the formative first year of life. Breast milk is the best gift a mother can give to her baby. Breastfeeding is recognized globally as a vital public health issue with vast health, social and economic implications. Breastfeeding is the act of milk conveyance from the mother to the infant (**Ihudiebube-Splendor et al., 2019**).

Optimal breastfeeding consists of early initiation within an hour of birth, exclusive breastfeeding from birth to 6 months of life and breastfeeding up to 2 years of age or beyond and breastfeeding on demand as the infant want day and night. Breast milk provides natural passive immunization that greatly reduces the risk of an infant developing respiratory infection. Developing countries have the potential to reduce child mortality less than five years by 13 % (**Joseph and Earland., 2019**).

Optimal breastfeeding is the best way of nutrition for the infant and the cornerstone for effective growth and development for children as it provides all needed supplies of energy, nutrients and fluids. Optimal breastfeeding has many benefits to the infant, the mother, the family and the community. Optimal breastfeeding is the most cost effective child survival strategy, as reduce childhood infections such as diarrhea, otitis media and pneumonia (**Pawan and Vishnu, 2015**). In addition, optimal breastfeeding is associated with a reduced risk of overweight or obesity and type 2 diabetes, and improves cognition among children who were exclusively breastfed for up to 6 months. Mothers who optimally breastfeed have a reduced incidence of type 2 diabetes mellitus; breast and ovarian cancers. They are also more likely to have improved birth spacing as delay return of menstruation and fertility after delivery and social-emotional interaction with their babies. At the Community level, good nutrition of children contributes to have an improved human capital through a reduction in expenses on infant formula and increase opportunities for a more sustainable future (**Ahmed et al., 2019**).

The **world health organization** defined exclusive breastfeeding (EBF) as an infant receiving only breast milk without food, drink, and water with the exception of oral rehydration

salt solutions; vitamins, mineral supplements and medications. EBF for 6 months after birth has been predicted to prevent 823,000 deaths in children under 5 years of age annually; by decreasing the risks of infectious disease and malnutrition, the prevalence of EBF for 6 months remains low around the world, only 40% according to UNICEF. Many African mothers breastfeed their infants up to one year but EBF for up to six months is still not commonly practiced. Early introduction of complementary feeding escalates the risk of diarrhea, malnutrition and death. Approximately 22% of infant deaths could be prevented if mothers practiced EBF (**Hitachi et al., 2019**).

Globally about 35 % of infants during their first four months of life are exclusively breastfed. Regarding in Arabic world, exclusive breastfeeding rates increased in the past decades especially in Syria and Egypt; the rates were more than 50%. EBF is common but not universal in very early infancy in Egypt; among infants under two months of age 79 % reported to have received only breast milk, the rate of EBF drop rapidly among older infants 4-5 months of age (**Kandeel et al., 2018**).

Cessation of exclusive breastfeeding occurs as a result of either partially or completely replacing breastfeeding or breast milk feeding with formula milk feeding, or other fluids/foods. Many barriers lead to early caseation of EBF among mothers; as mother perception of low breast milk supply was the most common problem for EBF caseation, lack of experiences and knowledge about breastfeeding process and techniques might make the mother worry and irritable about the ability to produce sufficient milk needed for normal growth and development, also breast problems (nipple soreness, breast engorgement), prim parity, age of the mother, cesarean birth, level of education, return to work were associated with the cessation of exclusive breastfeeding (**Ayton., 2019**).

Community health nurse provide midwifery services as part of community health care to the mothers and newborns, and play an important role in breastfeeding promotion. Breastfeeding education and counseling is important for supporting and promoting EBF

where, BF counseling should be given to all pregnant mothers or have new- born infant mothers. It should be given during ante natal visits and postnatal up to 24 months; BF counseling can take many shapes as face-to face, by telephone, using mass media. BF counseling should anticipate and address important challenges and contexts for breastfeeding; in addition to establishing skills, competencies and confidence among mothers, Common challenges and contexts include returning to work or school; the specific needs of mothers who are obese, adolescent girls, primiparous (first-time mothers), mothers of infants with special needs, e.g. low birth weight or disability; mothers who delivers by caesarean section; breastfeeding in public spaces (WHO., 2018).

Aim of the study

The Aim of this study was to assess the barriers of continued breastfeeding among primipara mothers through:

1. Assessing primipara mothers' knowledge about breast feeding.
2. Assessing practice and attitude of breast feeding among primipara mothers
3. Assessing barriers of breast feeding among primipara mothers
4. Assessing the effect of barriers of breast feeding among primipara mothers on optimal technique for breast feeding.

Research Questions:

1. What is the primipara mother's knowledge about breast feeding?
2. What are the primipara mother's practice and attitude regarding breast feeding?
3. What are the barriers of breast feeding among primipara mothers?
4. Is there a relation between knowledge and practice about breast feeding among primipara mothers with selected sociodemographics variables?
5. Is there a relation between knowledge about breast feeding among primipara mothers with these practice toward breast feeding?
6. Is there a relation between barriers of breast feeding among primipara mothers and optimal technique for breast feeding?

Subjects And Methods

Research Design:

A Descriptive design was utilized for this study.

Setting:

This study was conducted at the selected maternal and child health centers because these health units are outlets for milk, affiliated to the Beni Sueif (Enfast, Elatf, Etwab, Maymoun).

Sampling:

A convenient sampling of 220 primipara mothers was selected. The total number of primipara mothers during the years of 2015-2016 in Maymoun center 1600, Atwab center 1200, Elatf MCH 900, Enfast MCH 700. The investigator selected 5 % from each medical center with the following inclusion criteria:

Inclusion criteria:

- Primipara mothers, (20-30 years).
- Delivered normal labor (no pain or bleeding after labor).
- New born baby with normal vital signs.

Tools and Technique of Data Collection:

Data was collected by using the following tools:

First Tool: A structured inter-viewing Questionnaire sheet composed of two parts (Appendix I)

It was written in sample Arabic language after reviewing the related literature and modified by the researcher which includes the following parts:

A- Socio-demographic characteristics of the studied mothers which include: age, marital status, educational level, maternal occupation, type of family, place of residence, pre-pregnancy body mass index, type of delivery, sex of the baby, infant birth weight, place of delivery.

B- Primipara mothers' Knowledge, practices about BF and barriers to continue breastfeeding which include:

1- Primipara mothers' Knowledge regards breastfeeding: The initiation of the breastfeeding within the first hour after delivery, the benefits of colostrum, the benefits of breastfeeding for the mother and the newborn infants, the importance of exclusive breastfeeding, and the duration of extended breastfeeding.

2- Primipara mothers' practices regards breastfeeding as: The time of initiation breastfeeding, gave pre lacteal feeding before breast milk, there are many types of pre lacteal feeding, gave colostrum, frequency of breastfeeding session, the length of each breastfeeding session, the pattern of feeding the infant, reasons for introducing complementary food within first 6 months.

3- Primipara mothers' barriers effect on breastfeeding duration as: feeling of difficulties or fatigue during BF, perception of insufficient breast milk, return to work or school after delivery, have less knowledge and experiences on breastfeeding, lack of support from family, friends and health providers about exclusive breastfeeding, dissatisfied about the infant's growth and development, presences of nipples soreness, cracked or bleeding, complain of emotional aspects related to breastfeeding for the first time, the effect of family members to give additional food to make your baby bigger.

Scoring system

A correct answer was scored 1, and incorrect answers were scored zero for each area of knowledge, practices or barriers. The scores of the items were summed- up, and total scores were divided by numbers of the items and calculated a mean score. Then, the answers were checked with a model key answer and accordingly, the studied primipara mothers' knowledge and practices, barriers were categorized into two levels:

- Satisfactory knowledge, practices \geq 50%.
- Unsatisfactory knowledge, practices $<$ 50%.
- Low barriers $<$ 50%.
- High barriers \geq 50%.

Second Tool:

An Observational checklist: (Appendix II):

It was cited from breastfeeding national and international standard (Goyal et al., 2011): adopted and modified by the researcher which

include :

An observational checklist aims to assess Primipara mothers' attitudes regarding breastfeeding and the infant latch on during session including as: wash hands and clean breast before feeding, the Infant's body is straight and close to the mother, All infant's body is supported by the mother, Infant's face in front of the breast, Infant's nose opposite to nipple, Infant's mouth is wide and open, Infant's chin should be pressed and touched the breast, Lower lip turned upward, Sucking is rapid then become slow and deep sucks, Hear the sound of swallowing.

Scoring System:

The infant positioning and attachment rates as yes or no on a Likert scale each yes carries a score of one and no carries a score of zero.

- Not comply with the standard ($<$ 60%).
- Comply with the standard (\geq 60%).

Procedure:

An official approval was obtained to carry out the study from manager of the health administrator in Al wasta, Beni Suef. Data collection for this was carried out within a period of ten months, from the first week of March (2018) up to the end of December (2018). The researcher was available in each MCH 2 days/week(Sunday and Monday) at the morning shift 8 am to 2 pm. The data was collected from all primipara mothers in the selected MCH centers in the room of CHW; the researcher introduced herself to all participants and written approval consent was obtained from mothers or (oral in case of illiterate mothers) to participate in the study after explanation of the purpose of the study to each mother, then they were reassured that any information obtained would be confidential and only would be used for the study purpose. The researcher emphasized that the participation of the study is voluntary and anonymity of participants were assured through coding data, After that, to make sure that all questions were clear and understood the way we used, face- to- face interview done where the researcher read the questions and possible answer to all mothers

and mothers filled their response in the questionnaire, some mothers don't read or write so they told their answers to community health workers (Share in collection of data) to fill the questionnaire that was done from 9 am to 10am. The researcher filled mother attitude about breastfeeding and the infant position and attachment that was done from 11 am to 12 pm. The average number 4 to 5 mothers / day during data collection period.

Ethical Considerations:

This study have approval from the health administration in Al waste, Beni Suef, Egypt, in an approval document, purpose, nature and expected outcomes of the study were explained to the study subjects before their inclusion. The study subjects were informed that, the study is harmless and all the gathered data was used for study purpose only. A written or oral consent was obtained from each subject to participate in the study. Anonymity and confidentiality were secured and ensured that they have the right to withdraw from the study.

Statistical Analysis:

Data collected from the studied sample were revised, coded and entered using computer. Recorded data were analyzed using the statistical package for social sciences (SPSS), software version 20. Quantitative data were expressed as mean+- standard deviation. Qualitative data were expressed as frequency and percentage. Chi- square (χ^2) test of significance was used in order to compare proportions between qualitative parameters and Spearman correlation was used to assess the degree of association between two sets of variables.

Level of significance was accepted at P value:

. Non-significant difference > 0.05 .

. Significant < 0.05 .

. High statistical significant difference < 0.001 .

Results

***Table (1):** showed that 73.0% of the primipara mothers from 20<25 yrs old, and 58.5% of them had moderate education level. &

Figures (1): Illustrates that 79.5% of the primipara mothers had satisfactory level of knowledge about breastfeeding issues.

Figure (2): Reveals that distribution of primipara mothers according their total barriers affected on breastfeeding duration as, low barriers (50.5), moderate barriers (34), and high barriers (15.5).

***Table (2):** Shows that there was a significant relation between educational level and breastfeeding knowledge where, the more the educational level increases, the more the proportion of breastfeeding knowledge increases.

***Table (3):** Shows that, there was a significant relation between the primipara mother age and total barriers the mothers where the barriers were higher in mothers with younger age.

***Table (4):** Demonstrates that there was a highly statistical significant difference between mother's knowledge and their total practice, that mothers who had adequate experiences, sufficient information about breastfeeding were more likely to perform exclusive breastfeeding.

***Table (5):** report that, there was highly statistical significant between mother's knowledge and total barriers.

Table (1) Distribution of socio demographic characteristics of the studied mothers

Socio-Demographic data	Total (n=200)	
	No.	%
Age (years)		
20- <25 years old	146	73.0
25-30 years	54	27.0
Mean±SD	21.26±3.19	
Marital status		
Married	200	100.0
Divorced	0	0.0
Widow	0	0.0
Education level		
Don't read or write	27	13.5
Primary education	56	28.0
Secondary education	63	31.5
Graduate level	54	27.0
Maternal occupation		
Work	48	24.0
Not Work	152	76.0
Type of family		
Nuclear	70	35.0
Extended	130	65.0
Place of residence		
Urban	26	13.0
Rural	174	87.0
Pre-pregnancy Body Mass Index		
Underweight <18	40	20.0
Normal weight 18-25	103	51.5
Over weight 25-30	53	26.5
Obese >30	4	2.0
Mean±SD	23.15±3.47	
Attendance to Anti-Natal Care services		
Yes	197	98.5
No	3	1.5
Take teaching about breastfeeding to mothers		
Yes	188	94.0
No	12	6.0
Sources of information about breastfeeding		
Health worker at health centers	79	39.5
Family members	61	30.5
Friends or Relatives	40	20.0
Mass media	8	4.0
Provided knowledge on breastfeeding during		
Antenatal visits	24	12.0
At delivery place	72	36.0
Post-delivery visits	104	52.0
The first food to the infant should be breast milk		
No	3	1.5
Yes	197	98.5

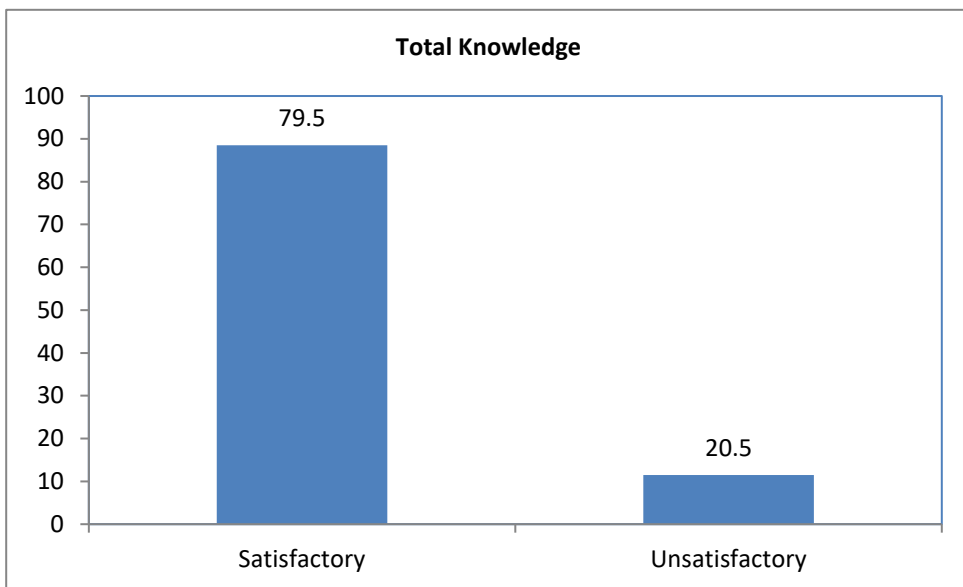


Fig (1): Percentage distribution of mothers according to their total knowledge about breastfeeding.

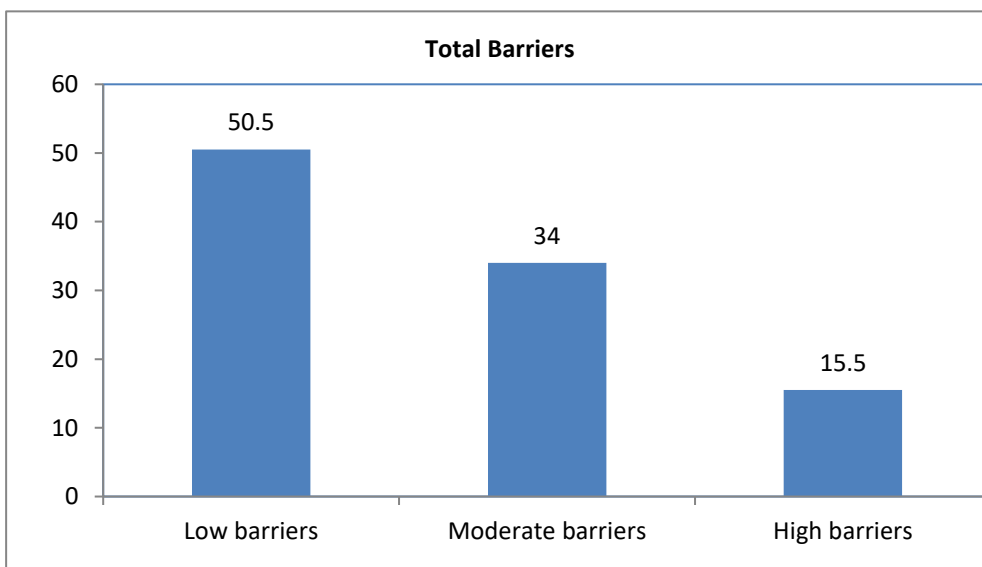


Fig (2): Percentage distribution of mothers according to their total barriers effect on breastfeeding duration.

Table (2): Relation between total knowledge of the studied sample and their socio demographic characteristics

Socio-Demographic data	Total Knowledge				Chi-square test	
	Satisfactory (n=159)		Unsatisfactory (n=41)		x ²	p-value
	No.	%	No.	%		
Age (years)						
20- <25 years old	118	74.2%	28	68.3%	0.318	0.573
25-30 years	41	25.8%	13	31.7%		
Education level					7.494	0.017*
don't read or write	12	7.5%	15	36.6%		
Primary education	41	25.8%	15	36.6%		
Secondary education	55	34.6%	8	19.5%		
Graduate level	51	32.1%	3	7.3%		
Maternal occupation					1.357	0.244
Work	41	25.8%	7	17.1%		
Non	118	74.2%	34	82.9%		
Type of family					5.745	0.038*
Nuclear	48	30.2%	22	53.7%		
Extended	111	69.8%	19	46.3%		
Place of residence					3.008	0.083
Urban	24	15.1%	2	4.9%		
Rural	135	84.9%	39	95.1%		
Type of delivery					16.806	<0.001**
Normal vaginal delivery	84	52.8%	7	17.1%		
Caesarean suction	75	47.2%	34	82.9%		
Prepregnancy BMI					2.490	0.477
Underweight <18	33	20.8%	7	17.1%		
Normal weight 18-25	81	50.9%	22	53.7%		
Over weight 25-30	43	27.0%	10	24.4%		
Obese >30	2	1.3%	2	4.9%		
Post -delivery complication					5.588	0.028*
Present	22	13.8%	22	53.7%		
Not present	137	86.2%	19	46.3%		
Postpartum depression					4.240	0.048*
Yes	136	85.5%	41	100.0%		
No	23	14.5%	0	0.0%		
Attendance to ante-natal care services					0.308	0.579
Yes	157	98.7%	40	97.6%		
No	2	1.3%	1	2.4%		
Home visit by community health worker postdelivery					4.133	0.047*
Within 40 days	85	53.5%	15	36.6%		
After 40 days	21	13.2%	9	22.0%		
Not visited	53	33.3%	17	41.5%		
Gave information or teaching about breastfeeding					0.159	0.690
Yes	150	94.3%	38	92.7%		
No	9	5.7%	3	7.3%		

P-Value <0.05 NS; * P-Value <0.05 S; ** P-Value <0.001 HS

Table (3): Relation between total barriers on breastfeeding and their socio demographic characteristics of the studied sample.

Socio-Demographic data	Level of Barriers						Chi-square test	
	Low barriers (n=101)		Moderate barriers (n=68)		High barriers (n=31)		x ²	p-value
	No.	%	No.	%	No.	%		
Age (years)								
20- <25 years old	78	77.2%	49	72.1%	19	61.3%	3.103	0.212
25-30 years	23	22.8%	19	27.9%	12	38.7%		
Education level								
Don't read or write	1	1.0%	12	17.6%	14	45.2%	12.906	0.017*
Primary education	27	26.7%	17	25.0%	12	38.7%		
Secondary education	33	32.7%	27	39.7%	3	9.7%		
Graduate level	40	39.6%	12	17.6%	2	6.5%		
Maternal occupation								
Work	24	23.8%	17	25.0%	7	22.6%	0.075	0.963
Non	77	76.2%	51	75.0%	24	77.4%		
Type of family								
Nuclear	29	28.7%	30	44.1%	11	35.5%	9.008	0.013*
Joint	72	71.3%	38	55.9%	20	64.5%		
Place of residence								
Urban	14	13.9%	9	13.2%	3	9.7%	0.372	0.830
Rural	87	86.1%	59	86.8%	28	90.3%		
Type of delivery								
Normal vaginal delivery	48	47.5%	33	48.5%	10	32.3%	2.611	0.271
Caesarean suction	53	52.5%	35	51.5%	21	67.7%		
Prepregnancy BMI								
Underweight <18	19	18.8%	21	30.9%	0	0.0%	14.277	0.022*
Normal weight 18-25	54	53.5%	38	55.9%	11	35.5%		
Over weight 25-30	28	27.7%	9	13.2%	16	51.6%		
Obese >30	0	0.0%	0	0.0%	4	12.9%		
Postdelivery complication								
Present	23	22.8%	14	20.6%	7	22.6%	0.120	0.942
Not present	78	77.2%	54	79.4%	24	77.4%		
Postpartum depression								
Yes	87	86.1%	61	89.7%	29	93.5%	1.427	0.490
No	14	13.9%	7	10.3%	2	6.5%		
Attendance to ANC services								
Yes	99	98.0%	67	98.5%	31	100.0%	0.630	0.730
No	2	2.0%	1	1.5%	0	0.0%		
Home visit by community health worker postdelivery								
Within 40 days	79	78.2%	19	27.9%	2	6.5%	12.509	0.034*
After 40 days	10	9.9%	13	19.1%	7	22.6%		
Not visited	17	16.8%	31	45.6%	22	71.0%		
Gave information or teaching about breastfeeding								
Yes	94	93.1%	65	95.6%	29	93.5%	0.470	0.790
No	7	6.9%	3	4.4%	2	6.5%		

P-Value <0.05 NS; * P-Value <0.05 S

Table (4): Relation between mother's satisfied and dissatisfied regarding total knowledge and their total practice

Total Practice	Total Knowledge				Total		Chi-square test	
	Satisfactory		Unsatisfactory		No.	%	x2	p-value
	No.	%	No.	%				
Satisfactory	114	71.7%	11	26.8%	125	62.5%	26.116	<0.001**
Unsatisfactory	45	28.3%	30	73.2%	75	37.5%		
Total	159	100.0%	41	100.0%	200	100.0%		

Table (5): Relation between mother's satisfied and dissatisfied regarding total knowledge and their total barriers

Total of Barriers	Total Knowledge				Total		Chi-square test	
	Satisfactory		Unsatisfactory		No.	%	x2	p-value
	No.	%	No.	%				
Low barriers	93	58.5%	8	19.5%	101	50.5%	81.799	<0.001**
Moderate barriers	60	37.7%	8	19.5%	68	34.0%		
High barriers	6	3.8%	25	61.0%	31	15.5%		
Total	159	100.0%	41	100.0%	200	100.0%		

Discussion

Regarding socio demographic characteristics of the study subjects, the current study results revealed that, nearly three quarters of mothers their age was from 20 < 25years, nearly one third of them had secondary education, more than three quarter of them were house's wives, more than two thirds of them live in rural areas with extended family, more than half of them delivered by caesarean section. This findings was in the same line with (Hassan., 2017, Egypt) who revealed that, in a study on self-care practices among primipara mothers during postpartum period in Egypt and found that nearly two third of mothers age ranged from 20-24years and the majority of mothers were married. Also in accordance with (Ali.,2018, Egypt) who studied knowledge and practices of mothers attending to family health centers in Alexandria about care of their newborn babies who found that the majority of mothers were house's wives.

Regarding total Knowledge of primipara mothers about breastfeeding the present study results illustrated that more than three quarters of primipara mothers had satisfactory level of knowledge. this findings were in accordance with (Rahman et al.,2019, Bangladesh) who studied Reasons for formula

feeding among rural Bangladeshi mothers: A qualitative exploration and found that majority of the mothers appeared to have good knowledge about exclusive breastfeeding up to 6 months, colostrum feeding, initiation of breastfeeding within an hour, benefits of breastfeeding and continuation of breastfeeding for long period. Also (El Mougy et al.,2018, Saudi Arabia) who studied knowledge, attitude and practice of breastfeeding among working and non-working mothers in Saudi Arabia and found that more than three quarter of mother breast milk is better than artificial feeding. Moreover these findings agree with (Abdullah.2016, Egypt) who studied, Growth Patterns and Health Status of Exclusively and Non-Exclusively Breast-Fed Infants during First Six Months and found that, in Egypt most women breastfed their infants for long periods.

Regarding total practices of primipara mothers toward breastfeeding the current study results revealed that, more than three quarter of primipara mothers didn't initiate breastfeeding within an hour after delivery this result was in accordance with (F.Ahmed et al.,2014, Egypt) who studied trends in breastfeeding and weaning practices in upper Egypt and found that more than half of mothers initiate breastfeeding within days. Also the present study demonstrated that more than half

of primipara mothers gave prelacteal feeding before breastfeeding, This result was in accordance with (El-Gilany et al.,2014, Egypt)who studied newborn first feed and prelacteal feeds in Mansoura, Egypt and found that more than half of mothers gave prelacteal feeds as the first food to the new born infant.

Regarding the barriers to breastfeeding among primipara mothers the current study results revealed that more than one third of primipara mothers thought that their breast milk is insufficient and did not meet the infant needs.This result with agree with (Hassan et al.,2019, Sudan) who studied Assessment of Bottle-Feeding Practices in Kassala, Eastern Sudan: A Community-Based Study, and found that about one third of mothers gave bottle feeding as their breast milk is insufficient. Also the current study revealed that more than three quarters of primipara mothers complain of postpartum emotional aspects related to breastfeeding for the first time and caring for the newborn baby. this result was in accordance with (Elwelely et al.,2018, Egypt) who studied problems facing newly breastfeeding mothers and the plan of nursing action and found that more than three fourth of mothers exposed to postpartum stress related to first time breastfeeding their infants after delivery.

The relation between socio-demographic characteristics and knowledge of studied sample there was a statistically significant difference between education level and knowledge level, which meant mothers with higher educational level reported higher satisfactory knowledge on breastfeeding. This result in accordance with (Xiang et al.,2019, United States) who studied breastfeeding persistence at 6 months: trends and disparities from 2008 to 2015 and found that with increasing education level the proportion of breastfeeding knowledge increasing.

The relation between total practices of studied sample and their socio- demographic characteristics the current study indicated that mothers' age had positive significant relation with practices level which meant mothers acquired experiences about breastfeeding practices by increasing their age. This result

disagreed with (Mostafa., 2015, Egypt) who studied Breastfeeding Practices and Infant Development during the First Six Months of Life, New Cairo City and showed that there was no significant effect of mother age on breastfeeding practices.

Regarding relation between primipara mother's barriers to breastfeeding and socio demographic characteristic. The present study revealed that there was a statistically significant difference between type of family and barriers to continuation breastfeeding, for example mothers lived in nuclear family reported early stopping of breastfeeding. This result agree with (Mohite et al.,2019, India) who studied Prevalence and determinants of cessation of exclusive breastfeeding among primi-para rural Indian mothers and found that nuclear family structure had significant impact on early caseation of exclusive breastfeeding because in nuclear family there were poor breastfeeding support, lack of emotional support especially in first time mother and less experiences about caring of new born infants that reasons might be a barrier to continuation breastfeeding.

Regarding relation between primipara mothers' knowledge and practices.The current study indicated that total knowledge had a high statistical significant positive relation with total practices that proved that mothers who had adequate experiences, sufficient information about breastfeeding benefits and exclusive breastfeeding were more likely to perform exclusive breastfeeding and follow correct breastfeeding techniques. This result was in accordance with(Senghore et al.,2018, The Gambia) who studied Predictors of exclusive breastfeeding knowledge and intention to or practice of exclusive breastfeeding among antenatal and postnatal women receiving routine care: a cross-sectional study and reported that mothers with sufficient knowledge on EBF were more likely than others mothers with insufficient knowledge on EBF to practices EBF and long duration of breastfeeding.

Regarding relation between primiparamother's attitude and knowledge.The current study showed that total knowledge had statistical significant positive correlation with total attitude regarding

breastfeeding. This result agree with (Ahmed et al.,2011, Egypt) who studied Breastfeeding knowledge and attitudes among Egyptian baccalaureate students and found that there was a significant relationship between the students' knowledge and attitudes scores.

Conclusion

Depended on the results of the current study, it was concluded that:

- The results of this study emphasized on primipara mother's socio demographic characteristic, knowledge, practices, attitudes, barriers for the continuation of breastfeeding, the relation between knowledge and practices, and the relation between barriers and breastfeeding techniques. These results revealed primipara mothers had good satisfactory level of knowledge and different level of practices.

- Suboptimal breastfeeding practices reflect failure in counseling strategies from health care professionals during antenatal visits and post-delivery follow up regarding awareness and support of breastfeeding attitudes for the newly mothers.

- This study has found that maternal physical problems, lack of family support, less experiences, perception of insufficient milk supply and emotional factors related to breastfed for the first time were the most common barriers to the continuation of breastfeeding among primipara.

- This study reported that there were significant correlation between socio demographic characteristics, knowledge and practices regarding breastfeeding.

- The current study reported that total knowledge had highly statistically significant and positive relation with total practices that proved that mothers who had adequate experiences and information about breastfeeding issues were more likely to perform proper breastfeeding practices.

- The present study indicated that the barriers of breastfeeding negatively affected the EBF and optimal breastfeeding techniques and continuation of breastfeeding.

Recommendation

Based on the results of the present study, following recommendations are suggested:

- 1- Counseling program for primipara mothers about breastfeeding benefits for both mother and infant, early initiation of breast milk and importance of colostrum during mothers' classes at MCH.

- 2- It is recommended to exclusively breastfeed infants for the first 6 months, then starts complementary food and continues breastfeeding until the age of two years.

- 3- Primipara mothers have usually less experiences and knowledge about breastfeeding, so effective counseling and teaching strategies are needed to complete the gaps of knowledge

- 4- Health education session for primipara mothers regarding follow up visits during pre and post natal periods are recommended to provide social and emotional support and remove any barriers to initiate or continue breastfeeding.

For further studies in this topic:

- 1- Further studies on improving primipara mothers' knowledge, practice, attitude and right technique regarding breastfeeding.

- 2- Further research should be conducted to identify common barriers for breastfeeding continuation among primipara mothers in Egypt.

- 3- Development for maternal centers and private hospitals to be baby friendly hospitals initiative and perform ten steps of successful breastfeeding.

References

Abdullah, MS (2016): Growth Patterns and Health Status of Exclusively and Non-Exclusively Breast-Fed Infants during First Six Months. Master thesis, pediatric nursing, faculty of nursing, Cairo University J. Cairo Univ; 84(3): 47-57.

- Ahmed, A. & El Guindy, SR (2011):** Breastfeeding Knowledge and Attitudes among Egyptian Baccalaureate Students. *International Nursing Review*. 58: 372- 378.
- Ahmed, AE. & Salih, OA (2019):** Determinants of the Early Initiation of Breastfeeding in the Kingdom of Saudi Arabia. *International Breastfeeding Journal*; 14 (13): 1-13.
- Ali, SG. El Karim, E (2018):** Knowledge and Practices of Mothers Attending Family Health Centers in Alexandria about Care of their Newborn Babies. Master thesis, public health sciences. In public Health Nursing. Union of Egyptian Universities: p.117.
- Ayton, JE. Tesch, L. Hansen, E (2019):** Women's Experiences of Ceasing to Breastfeed: Australian qualitative Study. *BMJ Open*; 9(5): e026234.
- Degefa, N. Tariku, B. Bancha, T. Amana, G. Hajo, A. Kusse, Y. Zerihun, E. & Aschalew, Z (2019):** Breast Feeding Practice: Positioning and Attachment during Breast Feeding among Lactating Mothers Visiting Health Facility in Areka Town, Southern Ethiopia *International Journal of Pediatrics*; 15: 1-6.
- El Mougny, AM. Matter, MK. Shalaby, NM. El-Regal, ME. Abu Ali, WH. Aldossary, SS. El Sherbeny, EE. & El-Saed, A (2018):** Knowledge, Attitude and Practice of Breastfeeding among Working and Non-working Mothers in Saudi Arabia. *Egyptian Journal of occupational medicine*; 42(1): 133-150.
- El-Gilany, A. & Abdel-Hady, DM (2014):** Newborn First Feed and Prolactal Feeds in Mansoura, Egypt. *Biomed Research International Journal*; 14: 1-7.
- Elwelely, MZ. & Mansour, F (2018):** Problems Facing Newly Breastfeeding Mothers and The Plan of Nursing Action. *IOSR Journal of Nursing and Health Science*; 7(1): 12-19.
- F. Ahmed, G. Matter, M. Fahmy, W. & Al Hadedy, L (2014):** Trends in Breastfeeding and Weaning Practices in Upper Egypt. *Med J, Cairo Univ*; 82(2): 45-52.
- Goyal, RC. Banginwar, AS. Ziyu, F. Towerir, AA (2011):** Breastfeeding Practices: Positioning, Attachment (latch-on) and Effective Sucking- A hospital-based study in Libya. *Journal of Family and Community Medicine*; 18(2): 74-79.
- Hassan DMM (2017):** Self-care practices among primipara mothers during postpartum period, 2017, Master Thesis in maternal and gynecological nursing, Clinical Instructor- Elgomhoria Technical Institute of Nursing, Faculty of nursing, Ain Shams University.
- Hassan, AA. Taha, Z. Abdulla, MA. Ali, AA & Adam, I (2019):** Assessment of Bottle-Feeding Practices in Kassala, Eastern Sudan: A Community-Based Study. *Open Access Maced J Med Sci*; 7(4): 651-656.
- Hitachi, M. Honda, S. Kaneko, S. Kamiya, Y (2019):** Correlates of Exclusive Breastfeeding Practices in Rural and Urban Niger: A Community-based Cross-sectional Study. *Inter-national Breastfeeding Journal*; 14: 32.
- Hudiebube-splendor, CN. Okafor, CB. Anarado, AN. Jisieike-Onuigbo, NN. Chinweuba, AU. Nwaneri, AC. Arinze, JC. & Chikeme, PC (2019):** Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among Primiparous Women in Enugu South-East, Nigeria. *Journal of Pregnancy*; 2019: 1-8.
- Joseph, FL. Earland, J (2019):** A qualitative Exploration of the Sociocultural Determinants of Exclusive Breastfeeding Practices among Rural Mothers, North West Nigeria. *International Breastfeeding Journal*; 14: 1-6.
- Kandeel, WA. Rabah, TM. Zeid, DA. El-Din, EM. Metwally, AM. Shaalan, A. El Atreby, LA. Shaaban, SY (2018):** Determinants of Exclusive Breastfeeding in a Sample of Egyptian Infants. *Open Access Macedonian Journal of Medical Sciences*; 6(10): 1818.

- Mohite, RV. Kshirsagar, VY. & Mohite, VR (2019):** Prevalence and Determinants of Cessation of Exclusive Breastfeeding among Primi-para Rural Indian Mothers. *Int J Community Med Public Health*; 6(1): 314-319.
- Mostafa, AMM (2015):** Breastfeeding Practices and Infant Development during the First Six Months of Life, New Cairo, Submitted for Partial Fulfillment of Master Degree in Family Medicine, Faculty of Medicine Ain Shams University.
- Pawan, A. & Vishnu, K (2015):** The Effect of Mother's Educational Status on Early Initiation of Breastfeeding further Analysis of Three Consecutive Nepal Demographic and Health Surveys. *PMC Public Health*; 15: 1069.
- Rahman, A. & Akter, F (2019):** Reasons for Formula Feeding among Rural Bangladeshi Mothers: A qualitative exploration. *PLoS One*; 14(2): e0211761.
- Senghore, T. Omotosho, TA. Ceasay, O. & Williams, DCH (2018):** Predictors of Exclusive Breastfeeding Knowledge and Intention to or Practice of Exclusive Breastfeeding among Antenatal and Postnatal Women Receiving Routine Care: A cross-sectional study. *Int Breastfeed J*; 13(1): 1-8.
- World Health Organization (2018):** Implementation Guidance: Protecting, Promoting and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services: The Revised Baby-friendly Hospital Initiative.
- Xiang, AH. Chow, T. Mora-Marquez, J. Martinez, MP. Wang, X. Yu, W. Panganiban, MB. Richter, PM. & Schneider, DI (2019):** Breastfeeding Persistence at 6 months: Trends and Disparities from 2008 to 2015. *The Journal of Pediatrics*; 12: 55.