

Impact of maternal employment on breastfeeding during 1st 6 months among mothers in Benha and October 6 university hospitals

O.M.Wassef¹, A.S.Abdo¹, R.S.Eldesouky¹, N.A.Eidaross² and M.S.Shalan¹

¹Public health and Community, Dept., Faculty of Medicine, Benha Univ., Benha, Egypt

²Demonstrator of Community, Dept., Faculty of Medicine, October 6 Univ., October 6, Egypt

E-mail: nona2nona_333@yahoo.com

Abstract

Background Maternal employment, particularly during the first 6 months after birth of an infant, has been identified in a number of studies as an important barrier to the continuation of breastfeeding to 6 months) Compelling evidence highlights the protective effect of breastfeeding for children and mothers, such as fewer infections, improved cognitive development , lower rates of child obesity , lower risk of postpartum depression , and lower rates of breast and ovarian cancer for the mother Aim Assess the relationship between mother's state of employment (working or not) and identify the relationship between characteristics of mother's employment on breast-feeding practice among mothers in Benha and October 6 university hospitals Subjects and methods Outpatient mothers in clinics of gynecology and pediatrics in childbearing period and have children of less than one year old (working and not working) the sample size was five hundred mothers, three hundred and eighty-four were working and one hundred and sixteen were not working. Conclusion Less than half of mothers (44.5%) practiced on demand breastfeeding, 96.6% gave pacifiers, most of them (73.4%) didn't express their breast milk during work hours, there was a decrease in breastfeeding times/day among most of the working mothers also 87.5% of them reported that there was increase in their infant morbidities.

Key words: Exclusive Breast Feeding, Mothers employment, childhood morbidities.

1. Introduction

The number of employed females in Egypt increased from 25963000 in the fourth quarter of 2017 to 26092000 in the first quarter of 2018. Labor force for female in Egypt was reported at 23.07 % in 2017, according to the World Bank collection of development indicators. [1] Compelling evidence highlights the protective effect of breastfeeding for children and mothers, such as fewer infections, improved cognitive development , lower rates of child obesity , lower risk of postpartum depression , and lower rates of breast and ovarian cancer for the mother[2]. Therefore, the World Health Organization (WHO) recommends exclusive breast feeding for six months, with supplemental breast feeding continuing for two years and beyond [3]. Maternal employment, particularly during the first 6 months after birth of an infant, has been identified in a number of studies as an important barrier to the continuation of breastfeeding to 6 months[4].

2. The Aim

to find if there is a real impact of maternal employment on breast feeding among mothers in Benha and October 6 university hospitals, also assess the relationship between mother's state of employment (working or not) and identify the relationship between characteristics of mother's employment on breast-feeding practice.

3. Subjects and Methods

It a comparative cross sectional study was conducted at Benha and October 6 University hospitals in outpatient clinics of gynecology and pediatrics for mothers in childbearing period and have children of less than one year old (working and not working) while mothers with systematic disease (cardiac, renal, hepatic pulmonary) which prevent them from breastfeeding were excluded The sample size was 500 mothers, 384 were working and 116 were not working. The tool of this study was an interview questionnaire adopted from [5].

It was modified by two academic professors and an assistant professor who assessed its content and construction validity.

The collected data were tabulated and analyzed using the Statistical Package for Social Science (SPSS 20.0). Categorical data were expressed as number and percentage. Suitable tests of significance were calculated. Comparison between groups was done using the Chi-square test or Fisher's exact test when it was appropriate. Odds ratio and 95% confidence interval were calculated. Comparison between breast feeding practices before and after return to work among working mothers was done using McNemar test. The accepted level of significance in this work was 0.05 (p < 0.05).

4. Results

Table (1) frequency distribution of socio-demographic characteristics among studied groups

Socio-demographic characteristic		Total (n=500)
Age\year	<20	22 (4.4%)
	20:<25	139 (27.8%)
	25:<30	140 (28%)
	30:<35	131 (26.2%)
	35:<40	68 (13.6%)
Residence	Rural	151 (30.2%)
	Urban	349 (69.8%)
Education	University	323 (64.6%)
	2 nd ry school	111(22.2%)
	Preparatory	25 (5%)
Social class	Primary	16 (3.2%)
	Illiterate	25 (5%)
	Low	39 (7.8%)
	Middle	352 (70.4%)
Working state	High	109 (21.8%)
	working	384 (76.8%)
	Not working	116 (23.2%)

Table (2) Frequencies of breast feeding characteristics among studied population (n=500)

Breast feeding characteristics		N.	%
Know the mean of exclusive breast feeding	Yes	253	50.6%
	No	247	49.4%
Source of this knowledge(n=253)	Doctor	73	14.6%
	Mother	65	13%
	Internet	60	12%
	Friend	19	3.8%
	Work	4	0.8%
Time of initiation after delivery	Study	32	6.4%
	≤1h	112	22.4%
	>1h	388	77.6%
On demand	Yes	281	56.2%
	No	219	43.8%
Giving pacifiers	Yes	433	86.6%
	No	67	13.4%
Times \day	5-8	447	89.4%
	9-12	53	10.6%
	Initiation of complementary feeding		
Initiation of complementary feeding	At 4 month	288	57.6%
	4-< 6	99	19.8%
	≥6	113	22.6%

Table (3) Frequencies of practices after return to work among working mothers(384)

Breast feeding practices		N.	%
Initiation of complementary feeding	At 4 month	284	74%
	4-<6	69	18%
	≥6	31	8.1
On demand	Yes	171	44.5%
	No	213	55.5%
Pacifiers	Yes	371	96.6%
	No	13	3.4%
Rooming in	Yes	384	100%
	No	0	0%
Breast milk expression	Yes	102	26.6%
	No	282	73.4%

Decrease in breastfeeding times/day	Yes	328	85.4%
	No	56	14.6%
Increased infant morbidities	Yes	336	87.5%
	No	48	12.5%
Child care giver	Father	44	11.5%
	Family member	211	54.9%
	House maid	18	4.7%
	Nursery	111	28.9%
Thinking in a leave	Yes	200	52.1%
	No	184	47.9%
Duration of intended leave (n=200)	1 year	57	14.8%
	2 year	143	37.2%

Table (4) relation between work and breast-feeding practices

Breast feeding characteristics		Work status		X ² test	P value	OR(95%CI)
		Yes (n=384)	No (n=116)			
Know the mean of exclusive breast feeding	Yes(n=253)	212(55.2%)	41(35.3%)	14.06	.000	2.25(1.46-3.46)
	No(n=247)	172 (44.8%)	75(64.7%)			
Time of initiation	<1h(n=112)	89(23.2%)	23(19.8%)	0.575	0.448	1.22(0.729-2.04)
	≥1h(n=388)	295(76.8%)	93(80.2%)			
On demand	Yes (n=281)	171(44.5%)	110(94.8%)	91.5	.000	0.044(.019-0.102)
	No(n=219)	213(55.5%)	6(5.2%)			
Pacifiers	Yes (n=433)	371(96.6%)	62(53.4%)	134.04	.000	24.85(12.81-48.21)
	No (n=67)	13(3.4%)	54(46.6%)			
Times /day	5-8 (n=447)	356(92.7%)	91(78.4%)	19.11	.000	3.49(1.94-6.27)
	9-12 (n=53)	28(7.3%)	25(21.6%)			
Initiation of complementary feeding	At 4 month(n=288)	284(74%)	4(3.4%)	234.25	.000	
	4-<6 (n=99)	69(18%)	30(25.9%)			
	≥ 6(n=113)	31(8.1%)	82(70.7%)			

Table (5) Comparison between on demand breast feeding practice before and after return to work among working group(n=384)

On demand breast feeding			before work return		Test	p
			Yes (370)	No (14)		
After work return	Yes	N.(171)	171	0	Mc Nemar test	.000
			46.2%	0%		
	No	N.(213)	199	14		
			53.7%	100%		

Table (6) comparison between Giving pacifiers before and after return to work(n=384)

Giving pacifiers			Before work return		Test	p
			Yes (95)	No (289)		
After work return	yes	Count (371)	95	276	Mc Nemar test	.000
			25.6%	95.5%		
	No	Count (13)	0	13		
			0%	100%		

Twenty eight percent of the surveyed mothers ranged from 25 to <30 years old, 69.8% were from urban places. Those with university education represent 64.6%. It is noticed that the majority of the mothers (70.4%) belong to a middle social class. It showed that 76.8% of mothers were working.

More than half of the surveyed mothers (50.6%) knew the mean of exclusive breast feeding and the source of this knowledge in 14.6% of them was the doctor. It was noticed that the majority (77.6%) have initiated their breast feeding after more than 1 hour after delivery and more than half of mothers (56.2%)

practiced on demand breastfeeding. The majority of mothers (86.6%) gave pacifiers. Regarding frequency of daily breast feeding, the majority of mothers (89.4%) fed their children 5-8 times/day. More than half of mothers (57.6%) have initiated complementary feeding at the age 4 month. The majority of the working surveyed mothers (74%) have initiated complementary feeding at 4 months. Less than half of them (44.5%) practiced on demand breastfeeding, 96.6% gave pacifiers, most of them (73.4%) didn't express their breast milk during work hours. All mothers practiced rooming in (100%). It was obvious that there was a decrease in breastfeeding times/day among most of the working mothers (85.4%), also 87.5% of them reported that there was increase in their infant morbidities. The majority of childcare giver (54.9%) were family member. Nearly half of them (52.1%) thought in a child leave for a duration of 2 years in about one third of them (37.2%). There was statistical significant association between work status and breast-feeding characteristics(know the meaning of exclusive breastfeeding, on demand, giving pacifiers , times of breastfeeding \ day (p value = .000)(OR 2.25, 0.044, 24.85, 3.49)respectively and initiation of complementary feeding (p value = .000) There was statistically significant difference between on demand breast feeding practice before and after return to work (P=.000) as less than half of working mothers (46.2%) who practiced on demand breast feeding before return to work can maintain this practice after their work return. There was statistically significant difference between giving pacifiers before and after return to work (P=.000). As 95.5% of those who did not give pacifiers before work return gave pacifiers to their infants after their work return.

5. Discussion

This study illustrated that 28% of the surveyed mothers ranged from 25 to <30 years old. Those with university education represent 64.6%. It showed that 76.8% of mothers were working.

It was supported by a study that stated that most (76.1%) of the participants were more than 30 years of age, (71.7%) had college or higher degrees, (74.3%) were working. [6]This study illustrated that 50.6% of the participants knew the mean of exclusive breast feeding. This was inconsistent with a study that was conducted on Ethiopia on employed and unemployed mothers and compared exclusive breastfeeding among both groups. It showed most of participants (93.6%) know the meaning of exclusive breast feeding. This variation can be explained by variation in educational level of participants. [7] The main source of participants' knowledge about exclusive breast feeding in this study was the doctors (14.6 %), followed by their mothers (13%), while the least common source is the work (0.8%) This was supported by a study that found that more than half of studied mothers had their knowledge about exclusive breast feeding is from health institutes (62.7%), while the least common

source is from school, family, neighborhoods (8%). [7] It was noticed that the majority of participants (77.6%) have initiated their breast feeding after more than 1 hour after delivery.

Also, a study stated that mothers who initiated breastfeeding within the first hour of birth formed 67% of the total number of mother-infant pair. [8]This study showed that more than half of mothers (56.2%) practiced on demand breastfeeding. This came in accordance with a study , that stated that two thirds of mothers (66.6 %) breastfed their infants on demand. [7]This study showed that the majority of mothers (86.6%) gave pacifiers to their infants .This was more than that stated by the study was conducted in Qatar where only 16.2% of mothers gave pacifier for infants it could be explained by variation in social class and culture. [9]This study showed that the majority of mothers (89.4%) fed their children 5-8 times/day. Which was less than stated by a study was conducted in Ghana who found that the mean number of breastfeeding frequency per day was 11 ± 2.7 and the median breastfeeding frequency per day was 13.5, the variation may be due to variation in culture and social class. [8]This study showed that more than half of mothers (57.6%) have initiated complementary feeding at the age 4 month .This was supported by a study that found that Exclusive breastfeeding was reported only by 26.4 % of mothers, while 50.2 % gave additional cow milk to their infant prior to six months of age. [7]This study showed that most of employed mothers (73.4%) don't express their breast milk during work hours .This agree with a study that showed that (95.6%) don't express their breast milk at work. [10]This study showed that all mothers practice rooming in .

This was inconsistent with a study was conducted in Qatar that showed that only 43.9% of mothers practice rooming in. [9]This can be explained by variation of culture and social class between different countries. This study showed that there was a statistical significant association between work status and knowing the meaning of exclusive breastfeeding. p value=.000 OR=2.25(1.46-3.46) 55.2% of working mothers know the mean of exclusive breast feeding, while 64.7% of non-working mother didn't know the mean of exclusive breast feeding. A study found that most of the respondents, 96.3 % of employed and 91% of unemployed mothers had knowledge about Exclusive Breast Feeding respectively. Almost all mothers, 99.1% of employed and 92.6% of unemployed mothers had knowledge about recommended duration of Exclusive Breast Feeding respectively. Few of the mothers, 1.5% of employed and 9% of unemployed had an opinion of infants should breast feed exclusively for <6 months respectively. Overall, Majority of the respondents 89.4% employed and 53.5% unemployed were knowledgeable about Exclusive Breast Feeding respectively. [11]This study revealed that the working mother is less prone to EBF. This study reveals that the majority of the working surveyed mothers (74%) have initiated complementary feeding at 4 months (stopped

EBF at 4 months). While 70.7% of not working mothers initiate complementary feeding \geq 6 months. This agree with a study that showed that those mothers who were unemployed were twenty-six times more likely to practice EBF compared to those employed mothers. [12]. This study showed that the majority of childcare giver (54.9%) were family member. This was supported by a study that stated that the majority (61 %) used family members to provide childcare and just over one-third had a paid domestic helper. [13]

6. Conclusion

The majority of the working surveyed mothers (74%) have initiated complementary feeding at 4 months. Less than half of them (44.5%) practiced on demand breastfeeding, 96.6% gave pacifiers, most of them (73.4%) didn't express their breast milk during work hours. It was obvious that there was a decrease in breastfeeding times/day among most of the working mothers also 87.5% of them reported that there was increase in their infant morbidities. There was statistical significant association between work status and breast-feeding characteristics (know the meaning of exclusive breastfeeding, on demand, giving pacifiers, times of breastfeeding \ day and initiation of complementary feeding), there was statistically significant difference between on demand breast feeding practice and before and giving pacifiers after return to work.

7. Recommendations

Educate mothers during antenatal care visits and through social media about the importance of starting breastfeeding as early as possible within half hour after delivery and about exclusive breastfeeding at least for the first 6 months of the infant's life, also encourage mothers to practice on demand breastfeeding.

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