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Original Research Article

Awareness about breastfeeding benefits among mothers in maternity and children hospital of Buraidah Qassim region, Saudi Arabia

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ABSTRACT

Background: Breastfeeding is a healthy, safe and economical way of providing proper and wholistic nutrition to the newborn. It reduces incidences of infection in the respiratory, gastrointestinal systems and systemic infections. As will as it deepens the bond between the mother and her child, and also it offers a number of health benefits to the mother. Despite these profound advantages, it remains under-fulfilled and sometimes missed altogether. The aim of the study is to assess the knowledge about breastfeeding benefits among mothers.
Methods: The study involved 397 mothers visiting general pediatrics clinics at Maternity and Children Hospital of Buraidah, Qassim Region, Saudi Arabia from 18 March 2018 to 18 April 2018.
Results: Most of the surveyed women were Saudi (93.5%), (46.1%) university or higher education level. (12.3%) rely on breastfeeding as the only source. (23.9%) were breastfeeding for more than 6 months. Some questions had as high correct answers as (49.2%), while others had as low correct answers as (20.4%), university or higher education level have the highest correct answers (73%). (61%) discussed the benefits of breastfeeding with a doctor and the correct answers were (72%) while (39%) didn't discuss and the correct answers were (65%).
Conclusions: Analysis of the collected material on the surveyed women showed that Saudi women have insufficient knowledge about breastfeeding. Knowledge is improving after discussing with a doctor about breastfeeding benefits. Based on these results we highly recommend increasing the efforts to promote and endorse the benefits of breastfeeding by pediatricians and other health professionals.

Keywords: Breastfeeding, Mothers, Exclusive breastfeeding, Family, Lactation initiation, Breastfeeding benefits, Awareness

INTRODUCTION

Breastfeeding is the ideal source of nourishment in the 1st year of the baby life, it maybe continued to 18 month or more as a primary source of feeding.[1] Several studies noted that both baby and mother benefit from breastfeeding whether in short or long terms.[2,3] It's a healthy, safe and economical way of providing proper and wholistic nutrition to the newborn. Different studies have shown that breast milk is important for physical, neurological, and cognitive development of child that can reduces risks of allergies, infection, and non-communicable diseases during stages of their development.[4-6] As will as it deepens the bond between the mother and her child, and also it offers a number of health benefits to the mother, studies showed that breastfeeding reduce the risk of mothers having ovarian and breast cancers.[4] Despite these profound advantages, it remains under-fulfilled and sometimes missed altogether. This is a common problem worldwide and locally. One of the hypothesized reasons for this is the low level of education of the mothers and a decreased level of

awareness regarding these advantages. This common and mostly preventable issue requires an accurate assessment of the level of awareness towards the benefits of breastfeeding on the health of the mother and the newborn.

METHODS

All eligible mothers will be identified from the clinics. Consent/assents documents will be presented for signatures to those who express their willingness. Data pertaining to mothers demographics, awareness of benefits to the mother and newborn, awareness of risks to mother and newborn shall be collected on a case report form (copy attached). All collected data will be entered into a computerized database using IBM-SPSS and analyzed appropriately.

Sample size and sampling technique

For this prospective, non-interventional, observational, cross-sectional descriptive study, a consecutive sample of all the pediatric patient's mothers who will fulfill the above-mentioned inclusion criteria, visiting pediatrics clinics at Maternity and Children Hospital of Buraidah, Qassim Region, Saudi Arabia from 18 March 2018 to 18 April 2018 shall be taken. According to a conservative estimate, this will be between 300-500 patients.

Inclusion criteria

Pediatric patients Mothers who attend general pediatrics clinics at Maternity and Children Hospital of Buraidah, Qassim Region, Saudi Arabia from 18 March 2018 to 18 April 2018.

Exclusion criteria

Any woman who has never born a child will be excluded.

Ethical considerations

The data thus collected shall be maintained with the P.I. in accordance with the policy on data confidentiality, security, and safety of Maternity and Children Hospital of Buraidah, Qassim Region, Saudi Arabia. No data in any form is retrieved for any purpose without proper approval from appropriate individuals and/or committees/group.

Statistical considerations

Dataset will be prepared using IBM-SPPS for Windows Version 20. After performing QA of the dataset, descriptive statistics will be calculated. Outcome analysis will be performed in the light of the identified risk factors. Chi-Square tests along with Fisher's Exact Test would be used to find the relationship between dependent variables and the factors. Bi-variate analysis of the continuous data will be done using Student’s t-test for parametric distributions and relevant non-parametric tests for non-normal data sets. Multivariable binary logistic regression analysis will be performed if the sample size permitted a feasible fit of the model.

RESULTS

Data statistical analysis

Personal information

The following table shows the participants' distribution according to personal information.

Table 1: Distribution of the sample study to the demographic data.

Variable				
Age	Mean ± Std. deviation	32.70±7.104		
		Frequency	**Percentage (%)**	**P value**
Nationality	Saudi	371	93.5	0.000
	Non Saudi	26	6.5	
Education level	Illiterate	24	6.0	0.000
	Elementary	20	5.0	
	Middle school	43	10.8	
	High school	127	32.0	
	University or more	183	46.1	
Total		397	100.0	

Table 1 shows that the mean age of participants' is 32.7 with a standard deviation of 7.104.

93.5% of them were Saudi, while 6.5% of them were non-Saudi. And their distribution according to education level, 6% of them illiterate, 5% elementary, 10.8 middle school, 32% high school, and 46% university or higher.

Information about the child (children)

The following table shows the participants' distribution according to Information about the child (children).

Table 2 shows that 38.5% of families have one or two children, 32% of families have 3-4 children, 24% have 5-

7 children, while 6% have more than 7 children. 42.8% of children are aged (2-3) years, 23% of children are aged (3-4) years, and 35% of children are aged (4-5) years. 49% of children are males, while 51% are females. 12.3% of mothers rely on breastfeeding, 21.2% of mothers rely on formula milk, while 66.5% of mothers rely on breastfeeding and formula milk together. 12.1% of mothers breastfeed less than a month, 16.6% breastfeed their children from (2-3) months, 19.9% breastfeed their children (4-6) months, 3.8% breastfeed their children from (7-9) months and 3.5% breastfeed their children (10-12) months, while 23.9% of mothers breastfeed their children more than 12 months. 37.5% of mothers stop breastfeeding their babies because inadequate breast milk, 12.6% because of their preoccupation with work, 7.3% because of mother or child's health problems. 13.9% because of the refusal of the child, and 18.1% of them stop breastfeeding their children for other reasons. 1.8% of mothers breastfeed formula milk for 1-3 months, 1.8% of mothers breastfeed ready milk for 4-6 months, 0.5% of mothers breastfeed ready milk for 7-9 months, 2.3% of mothers breastfeed ready milk for 10-12 months, while the vast majority (83.4%) of mothers breastfeed ready milk for more than 12 months.

Table 2: Shows the participants' distribution according to Information about the child (children).

		Frequency	Percentage (%)	P value
Number of children	1-2	153	38.5	0.000
	3-4	125	31.5	
	5-7	97	24.4	
	More than 7	22	5.5	
Child age in years	2 to less than 3	170	42.8	0.000
	3 to less than 4	90	22.7	
	4 to 5	137	34.5	
Child gender	Male	195	49.1	0.725
	Female	202	50.9	
Type of feeding	Breastfeeding	49	12.3	0.000
	Formula	84	21.2	
	Breastfeeding and formula	264	66.5	
Breastfeeding duration	No breastfeeding	80	20.2	0.000
	Less than one month	48	12.1	
	One to three months	66	16.6	
	Four to six months	79	19.9	
	Seven to nine months	15	3.8	
	Ten to 12 months	14	3.5	
	More than 12 months	95	23.9	
Quitting reason	Inadequate breast milk	149	37.5	0.000
	Busy due to work	50	12.6	
	Due to mother or child's health problems	29	7.3	
	Child refusal	55	13.9	
	Other reasons	72	18.1	
	Didn’t quit	42	10.6	
Formula feeding duration	No formula feeding	40	10.1	0.000
	Less than one month	1	.3	
	One to three months	7	1.8	
	Four to six months	7	1.8	
	Seven to nine months	2	.5	
	Ten to 12 months	9	2.3	
	More than 12 months	331	83.4	
Total		397	100.0	

Information about breastfeeding

The following table shows the participants' distribution according to Information about breastfeeding.

In Table 3, 61% of mothers discussed the benefits and information of breastfeeding, while 39% did not. 92.4% of mothers believe that the best nutrition for a child is breastfeeding. 82.6% of the mothers believe that the best time to start breastfeeding is immediately after delivery.

20.4% of the mothers believe that the number of times a child breastfeeds during the first month is 8 or more. 75.8% of mothers believe that colostrum is beneficial for the child. 52.9% of mothers believe breastfeeding should last for at least two years. 73.3% of mothers believe that breastfeeding reduces breast cancer. 94.2% of mothers believe that breastfeeding strengthens the child's immunity. 73.4% of mothers believe that breastfeeding reduces the child's diarrhea and respiratory tract infection. 71.5% of mothers believe that breastfeeding helps to reduce the weight of the mother. 46.3% of mothers believe that hormones are not the components of breast milk. 80.4% of mothers believe that the benefits of breast milk: facilitate digestion; reduce infection, rich in food sources.

Table 3: Shows the participants' distribution according to information about breastfeeding.

		Frequency	Percentage (%)	P value
Have you discussed breastfeeding benefits with your doctor	Yes	242	61.0	0.000
	No	155	39.0	
Best nutrition for the baby is	Breastfeeding	367	92.4	0.000
	Formula milk	8	2.0	
	Others	9	2.3	
	I don't know	13	3.3	
The best time to start breastfeeding is	Immediately after delivery	328	82.6	0.000
	After one day	33	8.3	
	After two days	13	3.3	
	After three days	14	3.5	
	I don't know	9	2.3	
Number of feedings in the first month	Four to seven feedings	104	26.2	0.000
	Eight or more feedings	81	20.4	
	When needed	156	39.3	
	I don't know	56	14.1	
Is colostrum beneficial for the baby	Yes	301	75.8	0.000
	No	8	2.0	
	May harm the baby	9	2.3	
	I don't know	79	19.9	
Recommended breastfeeding duration	Two months	11	2.8	0.248
	Four months	4	1.0	
	Six months	48	12.1	
	One year	98	24.7	
	Two years or more	210	52.9	
	I don't know	26	6.5	
Breastfeeding decreases the mother risk of	Hypertension	14	3.5	0.000
	Anemia	6	1.5	
	Breast cancer	291	73.3	
	I don't know	86	21.7	
Does breastfeeding improve child immunity	Yes	374	94.2	0.000
	No	1	.3	
	I don't know	22	5.5	
Breastfeeding decreases the child risk of	Diarrhea	40	10.1	0.000
	Respiratory tract infection	15	3.8	
	Both	292	73.6	
	I don't know	50	12.6	
Breastfeeding decreases the weight of the mother	Yes	284	71.5	0.000
	No	31	7.8	
	I don't know	82	20.7	
Which of the following is not a component of breast milk	Protein	35	8.8	0.146
	Lipid	111	28.0	
	Hormones	184	46.3	
	Immunological factors	39	9.8	
	I don't know	28	7.1	

Continued.

		Frequency	Percentage (%)	P value
Benefits of breastfeeding	Easily digested	27	6.8	0.000
	Decreases the risk of infection	10	2.5	
	Rich in nutritional elements	11	2.8	
	All	319	80.4	
	I don't know	30	7.6	
Total		397	100.0	

Table 4: Result of the first hypothesis test.

	N	Mean	Std. deviation	F-test	Sig
Illiterate	24	0.66	0.156	3.147	0.014
Elementary	20	0.64	0.229		
Middle school	43	0.69	0.153		
High school	127	0.66	0.189		
University or more	183	0.73	0.176		

Table 5: Result of the second hypothesis test.

	N	Mean	Std. deviation	F-test	Sig
1-2	153	0.70	0.165	1.841	0.139
3-4	125	0.66	0.198		
5-7	97	0.72	0.190		
More than 7	22	0.71	0.145		

Table 6: Result of the first hypothesis test.

	N	Mean	Std. deviation	T-test	Sig
Yes	242	0.72	0.166	3.493	0.001
No	155	0.65	0.197		

Test hypotheses

Hypotheses 1

"There is a significant difference at 0.05 level in the extent of mothers' awareness of breastfeeding due to educational level".

Through the Table 4 it is clear that the analysis of variance test result (ANOVA) indicate that there is a statistically significant difference in the extent of mothers' awareness of breastfeeding due to educational level.

Hypotheses 2

"There is a significant difference at 0.05 level in the extent of mothers' awareness of breastfeeding due to the number of children".

Through the Table 5 it is clear that the analysis of variance test result (ANOVA) indicate that there is no statistically significant difference in the extent of mothers' awareness of breastfeeding due to the number of children.

Hypotheses 3

"There is a significant difference at 0.05 level in the extent of mothers' awareness of breastfeeding due to discussing the competent doctor".

Through the Table 6 it is clear that the analysis of variance test result (ANOVA) indicate that there is a statistically significant difference in the extent of mothers' awareness of breastfeeding due to discussing the competent doctor.

DISCUSSION

Studies over the years have proven many benefits of breastfeeding to the mother and child health, however, its prevalence is nowadays not optimal.[7] In USA studies shows that (65.1%) of children had ever been breastfed, (27%) were receiving some breast milk, exclusive breastfeeding were (7.9%).[8] While in our study mothers who rely on formula only were (21.2%), both breastfeeding and formula (66.5%), while exclusive breastfeeding were (12.3%) Table 2. In Saudi Arabia study was done in Riyadh, only (37.5%) of the mothers practiced exclusive breastfeeding for 6 months. (31.9%)

of them continued breastfeeding until 9–12 months, and (23%) continued until 18–24 months.[9] While in our study exclusive breastfeeding were (12.3%), (19.9%) uses breastfeeding as a source of nutrition for 6 months, (3.5%) until 10-12 month and (23.9%) were more than 12 months Table 2. Regarding to the breastfeeding knowledge assessment, "Does breastfeeding protects the mother from ovarian and breast cancer?" a survey question to evaluate Malaysian women awareness about breastfeeding, (31.8%) of the answers were I don't know.[10] In our study a similar question "Breastfeeding decrease the mother risk of?" one of the answers is breast cancer, mothers who answered I don't know were (21.7%), while the wrong answers to this question were (5%) Table 3, another question "Does breastfeeding protects the infant from diarrhea?" (16.4%) chose I don't know.[10] While in this study a similar question was mentioned and (12.6%) answered don't know Table 3, on the other hand, the most prevalent barrier in initiating of breastfeeding or quitting reason is working (66.7%).[10] While in our survey the most prevalent barrier is inadequate breast milk (37.5%) Table 2. Furthermore, we found that education level Table 4 and discussing with a doctor Table 6 has a relation with increase awareness, while number of children has no relation Table 5. A social media campaign study in Saudi Arabia was done to measure and improve the awareness of breastfeeding, the results show that a combination of professional breastfeeding support, public health education programs through social media could be an effective tool in improving breastfeeding in Saudi Arabia.[11]

CONCLUSION

From this study, analysis of the collected material on the surveyed women showed that Saudi women have insufficient knowledge about breastfeeding benefits. Knowledge is improving after discussing with a doctor about breastfeeding benefits Table 6. Based on these results we highly recommend increasing the efforts to promote and endorse the benefits of breastfeeding by pediatricians and other health professionals.

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