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ORIGINAL RESEARCH

Mothers' Knowledge toward Maintaining Breast Milk Flow During Their High-Risk Neonates Hospitalization.

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ABSTRACT

Background: Breastfeeding is a part of the distinct bio psychosocial system of our species, which evolved over the course of mammalian evolution to enhance the health and survival of both infant and his mother. The act of breastfeeding involves much more than just passing breast milk from mother to children but vital aspect of a baby's upbringing from feeding the mother's breast.

Objectives: The study aims to assessing of mothers' knowledge toward maintaining breast milk flow when their high-risk newborns are in the hospital and find out the relationship between mothers' demographic variables and knowledge.

Methodology: From the 26th September 2022 to 1st July 2023, descriptive research was conducted on mothers with high-risk neonates in Holy Karbala. The research was conducted at three different hospitals: Women's Obstetrics and Gynecology Hospital, Karbala Teaching Hospital for Children, and AL-Husainia General Hospital.

Results: The most of mothers are within the age groups of (20-30) and (above 30) years of old represented (33%), most of them cannot read and writing, the majority of mothers are housewives and resident in urban area, also most mothers with somewhat enough as economic status, and most of them with normal delivery birth. Furthermore, most participants have two to three births. The study shows that mothers have moderate level of knowledge toward maintaining breast milk flow represented (52%).

Conclusion: Parents frequently worry at the end of a preterm infant's hospital stay about whether the baby is ready to be fed by mouth. This only receives significant attention when other major health issues have been resolved or made easier to manage. Because there haven't been many studies on adults born prematurely, many moms are ignorant of the risks of not breastfeeding their high-risk newborns. They are also ignorant of the long-term benefits of breastfeeding for themselves and their children.

Recommendation: Awareness programs for the mothers during pregnancy (before birth) about the success of breastfeeding to know ways to keep her milk flowing for their children. And increasing mothers' knowledge about maintaining and increase milk flow through media programs and educational events in community.

Keywords: knowledge, maintain milk flow, high risk neonate.

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INTRODUCTION

Breastfeeding is a part of the distinct bio psychosocial system of our species, which evolved over the course of mammalian evolution to enhance the health and survival of both infant and his mother. The act of breastfeeding involves much more than just passing breast milk from mother to children but vital aspect of a baby's upbringing from feeding the mother's breast (Rafael et al., 2023). Breast milk is a highly adaptable live food source that is more than just the nutrients it contains because of its dynamic character. Breast milk contains both nutritive and non-nutritive bioactive that collectively and by way of intricate interactions with one another as well as with the biological, social, and psychological states of both mother and infant during breast feeding have a significant impact on healthy infant development and growth (Parul et al., 2021). The WHO recommends that newborns breastfeed exclusively for the first six months of their lives and continue to do so for at least another two years for optimal growth and health. Breast milk not only gives infants vital nutrients but has also been linked to a lower chance of acquiring sudden infant death SID, infections in both respiratory-gastrointestinal tract, and allergy disorders, as well as a lower risk of diabetes, cardiovascular disease, hematologic malignancies, and obesity (Vidanka al., 2021). Human milk lowers both short-term and long-term health risks. human milk supplies all the nourishment and hydration needed for physiologic stability in the immediate postpartum period. Late preterm infants (LPIs) are two to three times more likely than full-term infants to experience hypoglycemia due to maturational difficulties human milk prevents hypoglycemia in newborns and reduces or eliminates the need for formula supplementation (Angela, 2018).

AIMS OF THE STUDY

The study aims to assessing of mothers' knowledge toward maintaining breast milk flow when their high-risk newborns are in the hospital and find out the relationship between mothers' demographic variables and knowledge.

METHODOLOGY

Research Design:

A descriptive study was conducted on mothers have child high risk neonate in Kerbala city from the period of 26th September 2022 to 1st July 2023. The study was carried out in three hospitals includes Women's Obstetrics and Gynecology Hospital, Karbala Teaching Hospital for Children, and AL-Husainia General Hospital.

The Study Instrument:

The questionnaire was developed as an approach of data collection after a review of pertinent literature and studies for study mothers' knowledge and attitudes toward maintaining breast milk flow during hospitalization of their high-risk neonates. The questionnaire is based on the extensive review of related literature and previous studies (Mona, 2019) in addition to the investigator experiences.

Part I: Socio-Demographic characteristic of the mothers:

Characteristics of the studied mothers such as age, level of education, place of residence, economic situation, occupation, type of birth and number of children.

Part II: Mothers Knowledge of Maintaining Breast Milk Flow.

First: This section includes (12) items which present the general knowledge about maintaining breast milk flow.

Second: This section includes (7) items which present the mothers' knowledge about some of the procedures that maintain the flow of breast milk.

Third: This section includes (6) items which present the knowledge of a diet that keeps breast milk flowing. The responses for these questions are rated and scored on (2 level) as know=1, and unknow=0 and the total knowledge's scores of mothers were calculated by adding up the scores for each question in the test.

Data analysis:

The data will use SPSS V. 25 software to manage and analyze the data. Descriptive statistics including number and percentage of frequency, mean and standard deviation and inferential statistics in proportion to the distribution of data will be used in terms of normality. Also, will uses K-S for determining normal distribution of data. Pearson correlation test and analysis of variance and independent sample t-test are used to examine the differences and correlation between variables. Also, if the data are not normal, their nonparametric equations are used: Spearman correlation test, Mann-Whitney test and Kruskal -Wallis test, respectively and use regression analysis for estimating relationship between variables.

The Validity of the Study Instrument:

An expert panel of fifteen (15) in the different fields was supplied to make the instrument more valid.

The Setting of the Study:

The current study was carried out in three hospitals includes Women's Obstetrics and Gynecology Hospital, Karbala Teaching Hospital for Children, and AL-Husainia general hospital.

The Samples of the Study:

purposive sample (non-probability) of (100) mothers who have high risk neonates were chosen from prematurity unit, neonatal intensive care unit, and phototherapy unit.

Inclusion Criteria:

Mothers who have high risk baby under 28 days.

Data Collection Methods:

The moms were given a questionnaire to complete after gaining their consent to participate in the study. This investigation required the creation of this organized questionnaire form. Each piece of data the mothers provided was kept private and just used for this research. Each survey took, on average, 10 to 15 minutes.

RESULTS:

Table (1): Distribution of the participants according to their Characteristics of sociodemographic data

Demographic Characteristics	Subgroup	f.	%
Age group	≤ 20	10	10.0
	20-25	33	**33.0**
	26-30	24	24.0
	> 30	33	**33.0**
	Total	**100**	**100.0**
	Mean ± SD 27.87 ± 5.9.25, Min- Max 17-41 years		
Educational level	Cannot reading and writing	22	**22.0**
	Reading and writing	16	16.0
	Primary schools	19	19.0
	Middle schools	12	12.0
	Secondary schools	10	10.0
	Diploma	7	7.0
	College and above	14	14.0
	Total	**100**	**100.0**
Occupation	Working	17	17.0
	Housewife	74	**74.0**
	Free business	0	0.0
	Student	9	9.0
	Total	**100**	**100.0**
Place of residences	Urban	60	**60.0**
	Rural	40	40.0
	Total	**100**	**100.0**
Economic status	Insufficient	27	27.0
	Barely enough	58	58.0
	sufficient	15	15.0
	Total	**100**	**100.0**
Birth type	Normal delivery	63	**63.0**
	Cesarean birth	37	37.0
	Total	**100**	**100.0**
Number of births	1 birth	31	31.0
	2-3 births	41	**41.0**
	4-5 births	23	23.0
	6-7 birth	5	5.0
	Total	**100**	**100.0**
	Mean ± SD 2.64 ± 1.580, Min- Max 1-7		

Table (1) reveals that the majority of the sample were at age group (20-30) years and (above 30) years of age (33%) respectively. Regarding the educational level, the majority of the study sample cannot read and write (22%), in regard to occupation, the majority of mothers were housewives (74%). Concerning the place of residence, the majority of the study samples were from the urban area (60%). The results also showed that the

economic status was somewhat adequate (58%). According to the birth type, the results showed (63%) of the study sample had normal deliveries, and finally, (41%) of the mothers in the study had (2-3) birth.

Table (2): The knowledge toward maintaining breast milk flow during hospitalization of their high-risk neonates among the three levels for the mothers

Domains	Range		Low	Moderate	High	Total
Domain1	0 - 11	f.	11	57	32	100
		%	11	57	32	100
Domain2	0 - 7	f.	26	54	20	100
		%	26	54	20	100
Domain3	0 - 6	f.	32	36	32	100
		%	32	36	32	100
Overall knowledge	**0 - 24**	**f.**	**17**	**52**	**31**	100
		%	**17**	**52**	**31**	100

The results in table (2) showed the knowledge toward maintaining breast milk flow when their high risk newborns are in the hospital among the three levels, majority of the mothers were moderate in level of education represented (52%).

Table (3): The relationship between mothers' knowledge with their demographic variables

Demographic Characteristics	Subgroup	Knowledge			
		M	SD	Analysis	p. value
Age group	≤ 20	.28	.075	Cc=.549**	.000
	20-25	.50	.165		
	26-30	.58	.206		
	> 30	.73	.252		
Educational level	Cannot reading and writing	.50	.178	F= 8.276	.000
	Reading and writing	.45	.213		
	Primary schools	.54	.207		
	Middle schools	.52	.204		
	Secondary schools	.49	.273		
	Diploma	.97	.038		
	College and above	.75	.199		
Occupation	Working	.89	.164	F= 27.964	.000
	Housewife	.51	.202		
	Student	.48	.179		
Place of residences	Urban	.63	.256	t=2.928	.004
	Rural	.49	.193		
Economic status	Not enough	.44	.169	F= 7.279	.001
	Somewhat enough	.60	.245		
	It is enough	.70	.248		
Birth type	Normal delivery	.60	.254	t=1.700	.092
	Cesarean birth	.52	.212		
Number of births	1 birth	.49	.243	Cc=.278**	.005
	2-3 births	.58	.227		
	4-5 births	.64	.234		
	6-7 birth	.71	.293		

According to the findings in table (3), there is a statistically significant association between knowledge of mothers and their age (P=0.001) as well as a statistically significant link between mothers' knowledge and their birth frequency (P≥0.05). The findings also indicated that there were statistically significant differences between mothers' awareness of their educational level and occupation (P=0.001), as well as between mothers' knowledge of their residence and socioeconomic position (P≥0.05).

DISCUSSION

1. Discussion of Distribution of participants by their demographic characteristics of mothers

According to Table (4-1), the major mothers participants in the study from age groups (20-30) years and (above 30) years of old represented (33%) respectively. due to the fact that this age group is regarded as the age of output.

The current study supports the research by Azza et al., (2022) whose show the most (52.3%) of mother in study were aged (20-30) years of old. Regarding the educational level, the most study sample cannot reading and writing represented (22%), These findings agree with Vjihah et al., (2022) in their study who revealed that more than half of participants were uneducated. most mothers were housewives represented (74%). Because most of the mothers participating in the study did not complete their studies. This matches a study performed by Kiran et al., (2020), which found that nearly all mothers housewives (70.3%) represented from all number (N=178) of study sample. According to the place of residences the most the study samples from the urban area represented (60%). because two hospitals were included in the study are in the city. The findings consist with Jasny et al., (2019). Who found the most mother in study 51.6% were from urban areas.

The results also shown that the economic status was somewhat enough represented (58%). Because most mothers of the participants in the study are housewives, there is no financial return for them. According to the birth type the results showed 63% study sample were normal delivery, because caesarean section is not recommended by the medical staff and is conducted for certain cases. The outcomes consistent with Natnael et al., (2023). Who founded that most study sample were vaginal delivery which represented (74.17%). and finally (41%) of study sample have (2-3) births. These finding agree with Mulugeta et al., (2017) whose founded that the (85.5%) of study sample had (1-3) children.

2. Discussion mothers' knowledge toward breast milk flow when their high-risk newborns are in the hospital

The results in table 2 showed that the mothers' knowledge toward maintaining breast milk flow when their high-risk newborns are in the hospital were moderate with mean 0.57 and the higher percentage that showed in the general knowledge about maintaining breast milk flow Because a large percentage of the mothers participating in the study had children, which means they had experience with keeping the milk flowing and the lower percentage that showed in the mothers' knowledge about some of the procedures that maintain the flow of breast milk Because most of the participating mothers are uneducated, and this reflects their lack of knowledge about the important procedures that increase milk flow.

The study supported by Mai et al., (2018), who revealed that a total of 176 mothers have good breastfeeding knowledge, representing 51.2%, 149 mothers have middling knowledge, representing 43.3%, and only 19 mothers have poor knowledge, representing 5.5%. The findings supported by study conducted by Jane et al., (2020) in Kenya that aimed to study support exclusive breastfeeding and reestablish it while the patient remained in the hospital. Who founded that the majority from (20) participants of mothers know the kinds of food they should eat to help increase breast milk flow represented (14%).

3. Discussion The relationship between mothers' knowledge with their demographic variables

According to the results in tables (3), there is a statistically significant link between mothers' knowledge and their age (P=0.001), because older mothers have more aspirations and experiences than younger mothers. As well as a statistically significant correlation between mothers' knowledge and their birth frequency (P≥0.05), Because mothers who have more children deal with breastfeeding more than mothers who do not have children.

The results also showed that there were statistically significant differences in awareness of mothers and their residence and economic position at P≥0.05, as well as statistically significant differences in mothers' knowledge of their occupation and educational level at P=0.001. Contrary to those who did not educate, the differences favored those who earned a bachelor's degree or other diploma. In other words, better preventive behaviors is strongly correlated with higher education. The difference between an educated mother and an ignorant mother is very significant, and the educational level is a significant influence on mothers' willingness to breastfeed.

This aspect needs to be taken into account when enhancing breastfeeding practices. These findings are consistent with Jacqueline et al., (2016) whose found a highly significant statistical relationship between age, level of education, and parity of the mothers with mothers' knowledge toward breast milk production.

CONCLUSION

Parents frequently worry at the end of a preterm infant's hospital stay about whether the baby is ready to be fed by mouth. This only receives significant attention when other major health issues have been resolved or made easier to manage. Because there haven't been many studies on adults born prematurely, many moms are ignorant of the risks of not breastfeeding their high-risk newborns.

They are also ignorant of the long-term benefits of breastfeeding for themselves and their children. A moms age, degree of education, income, place of residence, and economic status, number of children, and type birth all impact her opinions and ideas about successful breastfeeding, techniques to keep their milk flowing, controlling her child's condition at risk, and selecting the ideal manner to feed her child.

RECOMMENDATIONS

Awareness programs for the mothers during pregnancy (before birth) about the success of breastfeeding to know ways to keep your milk flowing for her children. And increasing mothers' knowledge about maintaining and increase milk flow through media programs and educational events in community.

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