



Assessment of Mothers' Knowledge about Breastfeeding Premature Infants in Mosul city

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Abstract:

Background: The first year of life's nutrition lays a crucial foundation for long-term health. The objective of the study to assess mothers' knowledge about breastfeeding premature infants in Mosul city.

Methodology: A descriptive study design was conducted at neonatal care units in Mosul hospitals. Non probability sampling (purposive sample) method was selected for the study, which comprised of 221 mothers from preterm infant mothers. Data were collected through face-to-face interview by constricted questionnaire based on previous studies. The period of the study conducted from the 22 of November 2023 until 20th of March / 2024. Descriptive statistics was used to calculated using SPSS software version 26, One –Sample Chi-Square test, and Wilcoxon test.

Results: the study results showed significant differences, with the observed median reaching (2.45) and the hypothesized median at (2), indicating that most women have good breastfeeding information. suggesting that the majority of women are aware of breastfeeding.

Conclusion: The researchers concluded that there is good knowledge among mothers about breastfeeding their premature infants, and medical and nursing guidance played a major role in improving this knowledge.

Keywords: Knowledge. Premature, Breastfeeding,

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Introduction:

The first year of life's nutrition lays a crucial foundation for long-term health. (Saavedra & Dattilo, 2022) In order to attain optimal growth, development, and health, the World Health Organization (WHO) advises exclusive breastfeeding (BF) for the first six months of an infant's life, followed by BF continuation combined with supplemental feedings. (Ribeiro & Antunes, 2018) For both premature and full-term

newborns to thrive and develop to their full potential, breast milk is essential. (Underwood, 2013) Enough scientific data exists to demonstrate that feeding very preterm infants human milk protects against preterm retinopathy. (Thuileiphy et al., 2022, Allawi & Ahmed, 2023)

Regardless of gestational age, the large percentage of low-birth-weight neonates—those weighing less than 2,500 g—represents a serious health issue and

contributes significantly to newborn morbidity and mortality. It also has detrimental effects on society and medicine. (Gomes et al., 2021)

For babies, premature birth poses a potentially very serious risk, and the rates of morbidity and mortality are inversely correlated with the age of the organic systems, particularly the lungs. (Tsikouras et al., 2021)

There are several causes of preterm birth. The majority of preterm births occur naturally, but some are caused by illnesses like infections or other pregnancy-related issues that call for an early labor induction or Caesarean section. To understand the mechanics and causes of preterm birth, more research is required. Many pregnancies, infections, and long-term illnesses including diabetes and high blood pressure are among the causes; however, frequently no cause is found. Furthermore, there might be a hereditary component. (Vogel et al., 2018)

A lack of knowledge among parents, especially those who had premature babies, led to a lack of awareness regarding the daily needs of their babies after being discharged from the hospital. It is a signal for neonatal nurses to assist moms in learning the necessary abilities to safeguard their infants from any risk after being released from the hospital. The desire of women to manage care activities for their premature newborns, especially breastfeeding, can be realized with support and instruction, which can facilitate the adjustment to parenthood. (Davis-Strauss et al., 2021, Al-Ghurairi et al., 2022)

Neonatal mortality was found to be highly correlated with the educational attainment of mothers. Specifically, moms with secondary or higher education were found to be 27 times less likely to experience the death of their neonate than mothers with lower education. (Mitiku, 2021)

While it is well known that health care providers should support feeding decisions at critical

junctures, a prior study reveals a comparatively low level of prenatal education for mothers regarding the benefits of breastfeeding as an effective intervention for health and development. Assessing mothers' expertise about breastfeeding their premature kids is the goal of this study.

Methodology:

A descriptive study design was conducted at neonatal care units in Mosul hospitals to determine the mother's knowledge regarding breastfeeding to preterm infant. Five government hospitals were selected to the study: Ibn Al-Atheer Teaching Hospital, Al-Khansaa Teaching Hospital, Mosul General Hospital, Al-Batool teaching hospital, and Al-Salam Teaching Hospital. Non probability sampling (purposive sample) method was selected for the study, which comprised of 221 mothers from preterm infant mothers. The exclusion criteria include the full, and post term infant mothers, preterm mothers out of neonatal care units, mothers for previous preterm infant. Data were collected through face-to-face interview by constricted questionnaire based on previous studies, the tool consist of two parts, part one includes demographic variables, and the second part consist of (11 items) to assess the mother's knowledge about preterm breast feeding. Mothers' response on three options: correct answer takes (3), don't know (2), and incorrect answer (1). The period of the study conducted from the 22 of November 2023 until 20th of March / 2024. Descriptive statistics was used to calculated using SPSS software version 26, One – Sample Chi-Square test, and Wilcoxon test.

Results:**Table (1): Distribution of the study sample according to their demographic variables.**

Demographic information	Categories	Number	Percentage
Mother s Age group	Less than 20	47	21.3%
	20_30 Years	120	54.3%
	31_40Years	48	21.7%
	More than 40	6	2.7%
Marital status	Separate	14	6.3%
	Not separate	207	93.7%
Mother occupation	House wife	190	86%
	Employee	31	14%
residence	Rural	96	43.4%
	Urban	125	56.6%
Educational Level	Don't read and write	18	8.1%
	Read and write	26	11.8%
	Primary	78	35.3%
	Secondary	58	26.2%
	University	41	18.6%
Number of children	First child	62	28.0%
	2-3 child	89	40.3%
	4-7 child	70	31.7%
Type of birth	Normal delivery	87	39.4%
	Caesarean birth	134	60.6%
Where to receive prenatal care	Health care center	39	17.6%
	Private center	123	55.7%
	Both centers	59	26.7%
received information about early care after discharge	Yes	54	24.4%
	No	176	75.6%

Table (2): Distribution of the study sample according to their information about breastfeeding.

Type of information	The answer	No.	%	One –Sample Chi-Square test
				P-value
A premature baby can stay for two hours without the need to breastfeed	Yes	103	46.6%	0.000
	Don’t know	37	16.7%	
	No	81	36.7%	
Breast milk is digested and absorbed faster than formula milk You should wake your baby up for breastfeeding every 1.5-2 hours	Yes	174	78.7%	0.000
	Don’t know	28	12.7%	
	No	19	8.6%	
Colostrum should be given to the baby even if he is in the incubator	Yes	189	85.5%	0.000
	Don’t know	15	6.8%	
	No	17	7.7%	
Colostrum has many benefits for the immune system of newborns	Yes	181	81.9%	0.000
	Don’t know	29	13.1%	
	No	11	5.0%	
Most newborns can continue to be breastfed without the need for artificial feeding	Yes	179	81%	0.000
	Don’t know	22	10%	
	No	20	9%	
Premature babies who are breastfed may need iron and vitamin supplements	Yes	107	48.4%	0.000
	Don’t know	73	33%	
	No	41	18.6%	
Breastfeeding helps prevent infections	Yes	192	86.9%	0.000
	Don’t know	18	8.1%	
	No	11	5%	
A newborn remains in a semi-ergonomic position for 20 to 30 minutes after feeding	Yes	166	75.1%	0.000
	Don’t know	19	8.6%	
	No	36	16.3%	
Most newborn breastfeeding sessions last 20 to 45 minutes	Yes	156	70.6%	0.000
	Don’t know	18	8.1%	
	No	47	21.3%	
The baby should be breastfed when he cries	Yes	50	75.1%	0.000
	Don’t know	5	2.3%	
	No	166	22.6%	
Total				
Observed Median	Hypothetical Median		One-Sample Wilcoxon Signed Rank Test	P-value
2.45	2		23152	0.000

Discussion:

The study results showed that the (54.3%) of the mothers age 20 – 30 years, and (21.3%) of them are below 20 years, while the most of them not separate (93.7%), and more than three quarter of mothers were housewife (86%) and (14%) employee, and the study found that (56.6%) of mothers living in urban areas but (34.4%) of mothers living in rural area, farther more the result indicated that (35.3%) of the mothers have primary level education while (8.1%) don't read write, The table shows that (28%) of the women had this as their first birth, while (40.2%) had (2-3) children, and that the majority of women gave birth to their premature babies by caesarean section (60.6%). More than half of the mothers received prenatal care in private health centers.

The study results indicated that the use of the One-Sample Chi-Square test, whether or not there are significant differences between the assignment with [(correct), (I do not know), and (incorrect)] regarding mothers' information about breastfeeding. The One-Sample Wilcoxon Signed Rank Test was used to compare the observed median and the hypothetical median for mothers' information about breastfeeding. Results showed significant differences, with the observed median

reaching (2.45) and the hypothesized median at (2), indicating that most women have good breastfeeding information. suggesting that the majority of women are aware of breastfeeding.

Its because healthcare systems provide prenatal and postnatal care that includes education on breastfeeding. Doctors, nurses, lactation consultants, and other healthcare professionals play a crucial role in providing information and guidance to expectant and new mothers. And this indicates success of continuous breastfeeding support and follow-up with the mothers after discharge. This results consistent with study conducted by Batamuriza, (Batamuriza, 2019) explore the postnatal mothers' knowledge and practices of essential newborn care in Kayonza district and mention that the breastfeeding knowledge of 84.66 interpreted as good knowledge while 15.34 as poor knowledge. The proportion of breastfeeding is generally good 84.66%.

The researchers concluded that there is good knowledge among mothers about breastfeeding their premature infants, and medical and nursing guidance played a major role in improving this knowledge.

References:

1. Al-Ghurairi, S. A. R. H., Younis, N. M., & Ahmed, M. M. (2022). Prevalence of weight gain among students of Mosul University, Iraq during quarantine 2020. *Rawal Medical Journal*, 47(3).
2. Allawi, R. H. H., & Ahmed, M. M. (2023). Assessment of Nurse's Knowledge Towards Diabetic Ketoacidosis among children in Mosul City/Iraq. *Rawal Medical Journal*, 48(2).
3. Batamuriza, M. (2019). *Exploring the postnatal mother's knowledge and practice of essential newborn care in Kayonza district-Rwanda*. University of Rwanda.
4. Davis-Strauss, S. L., Johnson, E., & Lubbe, W. (2021). Information and support needs of parents with premature infants: an integrative review. *Journal of Early Intervention*, 43(3), 199–220.
5. Gomes, M. P., Saráty, S. B., Pereira, A. A., Parente, A. T., Santana, M. E. de, Cruz, M. de N. da S., & Figueira, A. D. M. (2021). Mothers' knowledge of premature newborn care and application of Kangaroo Mother Care at home. *Revista Brasileira de Enfermagem*, 74, e20200717.
6. Mitiku, H. D. (2021). Neonatal mortality and associated factors in Ethiopia: a cross-sectional population-based study. *BMC Women's Health*, 21, 1–9.
7. Ribeiro, J. R., & Antunes, H. (2018). *World Health Organization (WHO) Recommends Exclusive Breastfeeding in the First Six Months of Life*.
8. Saavedra, J. M., & Dattilo, A. M. (2022). Nutrition in the first 1000 days of life: society's greatest opportunity. In *Early nutrition and long-term health* (pp. 3–25). Elsevier.
9. Thuileiphy, T., Joshi, P., Dolma, Y., Chandra, P., Manisha, N. K., & Murry, L. L. (2022). Knowledge, practice and attitudes towards breastfeeding among mothers of infants with retinopathy of prematurity (ROP). *Journal of Neonatal Nursing*, 28(5), 361–364.

10. Tsikouras, P., Bothou, A., Gerede, A., Apostolou, I., Gaitatzi, F., Deuteraiou, D., Chalkidou, A., Anthoulaki, X., Michalopoulos, S., & Dragoutsos, G. (2021). Premature Birth, Management, Complication. *Global Women's Health*.
11. Underwood, M. A. (2013). Human milk for the premature infant. *Pediatric Clinics*, 60(1), 189–207.
12. Vogel, J. P., Chawanpaiboon, S., Moller, A.-B., Watananirun, K., Bonet, M., & Lumbiganon, P. (2018). The global epidemiology of preterm birth. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 52, 3–12.