International Journal of Pediatrics and Genetics

Vol. 3 No. 8 (2025)
ISSN: 2995-5483

Nursing Practice Toward Transition Oral Feeding Care

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Abstract: Researchers evaluated neonatal nurses' knowledge, methods, and attitudes towards transitioning preterm infants to oral feeding. Fifty-four nurses who worked in the infants' ward at Al-Amara Hospitals (A-Hakeem Teaching Hospital) in Iraq were evaluated between June and December 2024. The morning shift crew was chosen at randomly a cross-sectional investigation. The trial has been authorized by the hospital's Ethics Commission. According to a literature analysis of prior research on oral feeding transition, tools in the structure of a questionnaire were developed to assess the importance of nursing practice in transitioning oral nutrition care for premature newborns. Nurses' practices are scored and rated as either good (10-18) or poor (0-9). This survey reveals that the age range between 25-29 has the highest number of nurses (33.3%), whilst the age range between 30-34 has the lowest number of nurses (5.6%). According to gender, female nurses outnumber male staff nurses (12 female healthcare professionals to 6 male nurses). In terms of educational level, nurses with a school of nursing accounted for 33.3% of the study group, six nurses had 3-4 years of experience in pediatric nursing, seven nurses had 1-2 years of experience in the NICU, and 44.4% of the study group had no NICU training courses. The study identifies gaps in neonatal nursing expertise and procedures regarding the transition to oral feeding in premature babies. Enhancing baby care and its results necessitates targeted educational interventions and ongoing support to bridge these gaps. The findings indicated that a vast. A large number of nurses lacked adequate knowledge of critical areas such as as oromotor operation, the suck-swallowbreathe everyday life, and nonnutritive sucking. These knowledge gaps could affect what nurses may give. Staff members in intensive care units for newborns should use evidence-based techniques such skin-to-skin care, non-nutritive the field of nursing, test weight, alternate feeding methods, and nipple shields to ease the transition to complete oral eating.

Key words: Preterm Neonates, Oral Feeding, Nurses

Introduction

Every year, more than 15 million premature babies are born worldwide. Prematurity rates are increasing in most nations, with serious long-term effects for kids, families, and society on a whole [1]. Roughly one in each eight premature infants is admitted to the NICU for the first few months, weeks, or even days of life [2]. Recent medical and engineering advances have boosted the life mortality rate for ultra-premature and medically complicated infants [3].

Along with the increasing survival rate of premature babies, a fresh perspective on oral feeding issues for these vulnerable youngsters arises, as does the importance of conquering these challenges [4], [5]. After the physical ailments and serious problems that those neonates face are treated, the battle with oral feeding disorders begins [6].

Vol. 3 No. 8 (2025)
ISSN: 2995-5483

After examining clinical signs and determining potential causes, doctors should develop a plan for assessing and treating clinical difficulties in hospitalized patients. In NICUs, the entire physician team works together to ensure that the newborn can feed safely and spontaneously. The group includes pediatricians, certified nurse practitioners, nursing staff lactating consultants, nutritionists, occupational therapists, and language specialists [7].

Preterm infants endure numerous stressors throughout the prenatal and postpartum periods, which affects their oral feeding capacity. More than 70% of these neonates suffer with mouth feeding advancement [8]. Cumulative stress can affect corticosteroid genes and cortisol responses in response to external stimuli, jeopardizing neurological and cognitive development necessary for effective feeding by mouth abilities (OFS) [8]. Feeding through tubes is done to supply comprehensive newborn nutrients, notwithstanding its recognized hazards and limited influence on eating ability, because it encourages a prolonged stay in the NICU and delays mouth swallowing [9].

Consuming maturation is altered in infants, influencing the formation of various organ architectures and aerodigestive system functions such as respiration and speech. Any impediment to its maturity may hinder the growth of additional oral-motor skills such as babble, language, and speech output. Therefore, early and effective evaluation and treatment in neonates are necessary to reduce the negative functional effects of reflux on aerodigestive performance [9].

Physiologically stable premature newborns are frequently During 32 and 34 weeks of gestation, the baby switched between tube feeding to mouth eating. This upgrade could take weeks, or even days, to complete. A number of variables influence the achievement of this transition, which is characterized as adequate development intake and a certain level of physiological stability: (a) the infant's neurologic and mental development, which involves the ability to feed, arrange oralmotor function, correlate swallowing with breathing in, and maintain pharmacologic stability. (b) the caregiver's competence to collaborate with the baby when feeding, that is, to promptly notice and adapt to the infant's neurological and physiological indications, in order to minimize hormonal de-compensation and recurring stress, and (a) The NICU's policy regarding [10].

Concerns for families and medical care providers. Nonetheless, intensive care for neonates has traditionally prioritized oral intake performance over the quality of the mother-infant feeding connection. Early caregiving experiences have a substantial impact on the baby's psychological, physiological, and cognitive development. Few studies, however, evaluated the efficacy of food consumption in low-risk newborns who are premature within a broad framework that appears at neurobehavioral (e.g., integrity of newborn reflexes, the development of muscles, physical motor adapting, mood regulation, etc.), Technical and relational-emotional components which contribute to an infant's [11].

Methodology

During June to December 2024, 54 nurses working at newborns ward were assessed at Al-Amara Hospitals' (A-Hakeem Teaching Hospital) in Iraq. Morning shift team were selected at random a cross-sectional investigation. The trial was approved by the hospital's Ethics Committee.

According to the literature review of previous studies related to oral feeding transition, the tools in the

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ISSN: 2995-5483

form of a questionnaire prepared to measure the important of Nursing practice toward transition oral feeding care for premature babies. Scoring and rating of nurses practice into good (10-18) & poor (0-9) practice.

Statistical Analysis: The collected data was coded and entered using SPSS version 21.0. For quantitative factors, the data were reported as percentages and frequencies, respectively.

Results

Table 1. Socio-demographic Data of nurses working at pediatric hospitals (N=54).

Items	Groups	Frequency	Percentage
Age	20-24	9	16.7
	25-29	18	33.3
	30-34	3	5.6
	35-39	12	22.2
	≥ 40	12	22.2
	Total	54	100%
Gender	Male	18	33.3
	Female	36	66.7
	Total	54	100%
Level of education	Nursing school	18	33.3
	Nursing diploma	15	27.8
	Nursing bachelor	15	27.8
	Postgraduate	6	11.1
	Total	54	100%
Years of experiences in pediatric nursing	<1	15	27.8
	1-2	12	22.2
	3-4	18	33.3
	≥ 5	9	16.7
	Total	54	100%
Years of experiences in NICU	<1	6	11.1
	1-2	21	38.9
	3-4	18	33.3
	≥ 5	9	16.7
	Total	54	100%
Number of NICU courses	No	24	44.4
	1	21	38.9
	2	9	16.7
	Total	54	100%

Table 1 reveal that age group between 25-29, 18 nurses (33.3) of the study group the highest number while the age group between 30-34 the lower number 3 nurses (5.6%), According to gender female were

more than male nurses (36 female nurses while 18 nurses were male), related to educational level show the nurses with school of nursing were about (1/3) of the study group 33.3% , 18 nurses have years of experiences in pediatric nursing between 3-4 years, 21 nurses have years of experiences in NICU between 1-2 about 38.9 % , and 44.4% of study group have no training courses in NICU.

Table 2. Assessment of nurses practices toward oral feeding transition for premature babies (N=54).

Nursing practice items	Correct		Incorrect		Assess.
	F	%	F	%	
1.Wash hands with rubbing alcohol or soap and water for 15 seconds	54	100	0	0.00	Good
2.Wash hands after finishing feeding	54	100	0	0.00	Good
3.Preparing the baby for feeding	39	72.2	15	27.8	Good
4.Preparing the tools required for feeding	45	83.3	9	16.7	Good
5.Provides nutrition according to the schedule in the patient's charts	27	50.0	27	50.0	Poor
6.The child's position with the child's head to the nurse's right	36	66.7	18	33.3	Good
7.Examine the child's sucking and swallowing reflexes	45	83.3	9	16.7	Good
8.Measure breathing rate	54	100	0	0.0	Good
9.Measure pulse rate (heart rate)	54	100	0	0.0	Good
10.Measuring oxygen rate	36	66.7	18	33.3	Good
11.Bowel sound examination	24	4.5	30	55.5	Poor
12.Measuring the infant's weight and calculating the gain	36	66.7	18	33.3	Good
13.Place the infant on the mother, skin to skin	18	33.3	36		Poor
14.Place the mother's nipple or other stimulant on the infant's mouth	27	50.0	27	50.0	Poor
15.Giving non-oral feeding for 10 minutes	42	77.8	12	22.2	Good
16.Start breastfeeding once	24	4.5	30	55.5	Poor
17.Try again the next 3 hours if the baby does not respond to the first feeding	18	33.3	36	66.7	Poor
18.Repeat the process every 3 hours	24	4.5	30	55.5	Poor
19.Continue sucking the baby during breast feeding and stop when the baby stops sucking	48	88.9	6	11.1	Good
20.Daily assessment of growth such as weight	36	66.7	6	33.3	Good

Table 2 show that all items of nursing practice have good procedure except (5,11,13, 14, 16, 17 &18) items have poor practice.

Table 3. Overall of nurses practices toward oral feeding transition practice.

Overall of nurses practices	F	Percentage	Chi. & Sig.
Poor	16	29.63	X= 7.143
Good	38	70.37	p= 0.028
Total	54	100	

Table 3 show that three quarter of nurses have good nursing practice (70.37%).

Discussion

The statement describes a demographic trend in a study about nursing practices related to transitioning infants to oral feeding. The data indicates that nurses in the 25-29 age group (33.3%) represented the largest portion of the study group, while the 30-34 age group (5.6%) had the fewest participants. This finding suggests that the study group included a higher proportion of nurses in the younger end of the professional spectrum. It's important to note that this is a descriptive statistic and doesn't imply any causal relationship between age and practice. Further analysis would be needed to understand the implications of this distribution on the study's findings and to potentially explore factors influencing participation rates across different age groups. The findings here are congruent with previous studies by Girgin and Gözen [12], whose found considerable gaps in NICU nurses' knowledge, practice, and opinions on transitioning premature infants to oral feedings. Right now The study revealed that many nurses lacked vital understanding about this transition. Specifically, a substantial proportion of nurses were unaware of oromotor functioning, the suck-swallow-breathe rhythm, and nonnutritive swallowing. In addition, many nurses were unaware of hormone fluctuations and disease severity. fortunately, 59.7% of nurses showed satisfactory acquaintance with feeding techniques. These knowledge gaps may impede neonatal nurses' capacity to provide proper care and assistance during the critical-to-oral-feeding conversion for preterm infants. Successful leadership of to ensure optimal care and successful oral feeding for premature babies, it's crucial to have extensive knowledge and abilities in essential areas [13]. In the current study, more than 66.7% of the nurses were female, and 33.3% held nursing school degrees. Level of education: This conclusion was consistent with Pratiwi et al. reported that over fifty percent of the staff nurses had a nursing degree diploma [14]. Furthermore, Fathi et al. [15], who investigated the "effect of olfactory and sensory stimulation on neonatal neonates' feeding progression and smelling away feeding tube results" study findings, discovered that the majority of nurses held a BSN. Previous research findings challenged Naz, Afzal, and Mukhtar's claim that less than 6% of nurses have a BSN degree. This finding may be related to the NICU being a vital working environment that needs more qualified nurses and the BSN degree being essential for nurses in order to provide enhanced nursing intervention for preterm infants [16]. Years of experiences in pediatric nursing about 3-4 recorded that 33.3% of nurses demonstrated good knowledge levels, whereas post-implementation, over two-thirds exhibited good knowledge. Similarly, Beissel *et al.* found that more than 3 Years of experiences in pediatric nursing sufficient knowledge and had adequate practices concerning oral motor stimulation [17]. Another study by Naz, Afzal & Mukhtar who studied "Effect of Education Interventions on Newborn Nurses Practice Regarding Oral Motor Activation on Early Transitions from

Tube to Mouth Feed in Prematurely born Infants" observed more than 3 Years of experiences in pediatric nursing sufficient knowledge a change in neonatal nurses' pre-and post-test scores from incompetent to competent concerning oral motor stimulation and the transition of preterm infants to oral feeding [16]. The available studies aim at assessing nurses' behaviors when transferring preterm infants to oral feeding. These studies reveal major gaps in nurses' understanding and practices about this procedure. The emphasis is on evaluating performance in terms of knowledge, behaviour, and attitudes. This examination is critical for enhancing preterm newborn care and enabling a smooth transition to mouth feeding, which benefits their health and performance [18].

Conclusion

The study found a significant relationship between nurses' practice and good care of preterm infants' oral feeding. It also identified gaps in neonatal caregivers' practice and engagement with preterm infants' oral feeding adjustments, and identified areas where quality care improvement, focused educational interventions, and ongoing support are needed to address these gaps. Some nurses lacked sufficient expertise in important areas, including oral motor activity, common sucking, swallowing, and breathing techniques, and non-nutritive sucking. This lack of information may limit what healthcare workers can provide.

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