EtD 58. Should early breastfeeding education vs. standard care be used for mothers of preterm infants?

POPULATION:	Preterm infants
INTERVENTION:	Early breastfeeding education
COMPARISON:	Standard care
MAIN OUTCOMES:	**Critical outcomes** Breastmilk supply/volume Fully breastfed or breastmilk feeding at hospital discharge Necrotising enterocolitis Mortality Neurodevelopmental impairment Sepsis: proven or suspected Time to full enteral feeds (<0.5 days) **Important but not critical** Adverse effects Faltering growth/body composition Duration of initial hospital stay Bronchopulmonary dysplasia Retinopathy of prematurity Anaemia of prematurity Cost: cost of intervention, cost of neonatal care and life-long cost **Less important for decision making** Time to full sucking feeds
SETTING:	Neonatal care
PERSPECTIVE:	Clinical guideline recommendation. Patient perspective
BACKGROUND:	Early education and communication about a preterm infant's nutrition plan, feeding methods and growth are essential to enhance parental understanding and engagement in their infant's care. Structured educational programmes for parents have demonstrated significant improvements in breastfeeding initiation and continuation rates, as well as in parents' confidence in supporting their infants' nutritional needs. Group-based early parent education has also been linked to positive developmental outcomes in preterm infants. Such interventions empower parents to actively participate in their infant's care and foster stronger parent-infant bonding, which is crucial in the neonatal care setting. In the NICU, early education provided either prior to or shortly after birth about the importance of breastmilk has been shown to significantly influence parental approaches to feeding. Early breastfeeding education may improve maternal milk supply, exclusive breastfeeding rates adherence to feeding plans and positively impact growth and health outcomes in preterm infants. However, while fortification and nutritional supplements play a critical role in the care of preterm infants, the specific impact of early education on parental understanding and decision-making around these topics remains underexplored. This question explores the evidence on Early feeding education:

	How do early education and communication about a preterm infant's nutrition plan, mode of feeding and growth impact parents' understanding and engagement in their child's care? How does early education (prior to birth or just after) on the importance of breastmilk, fortification, and nutritional supplements influence parents' approach to feeding, breastfeeding practices and overall outcomes for preterm infants?
CONFLICT OF INTERESTS:	None

Assessment

Desirable Effects

How substantial are the desirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Trivial ● Small ○ Moderate ○ Large ○ Varies ○ Don't know	Evidence is based on six RCTs [1-6] two quasi-RCTs [7,8] and three observational/implementation pre- post studies [9-11]. **Breastmilk supply/volume**: RCT: No significant increase in breastmilk volume in education group on Day 7/1 week (MD 56.1 mL higher; 265.4 lower to 377.5 higher); Day 14/2 weeks (MD 46.0 mL higher; 401.6 lower to 493.5 higher); Day 21/3 weeks (MD 247.1 mL higher; 76.1 lower to 570.3 higher) and at week 4 (MD 352.3 mL higher; 256.1 lower to 960.6 higher) [Critical]. **Breastmilk supply/volume**: Quality improvement pre-post studies: One study reported a significant increase in breastmilk volume in the education group in the first and third 24 hours. A second study also reported an increase in breastmilk volume following an education intervention for Day 1, Day 2/3, Day 7 and Day 14 [Critical]. **Fully breastfed or breastmilk feeding at hospital discharge**: RCT: No significant increase in exclusive breastfeeding at discharge/end of study in the education group (324 more per 1,000; 66 fewer to 1,217 more) [Critical]. **Fully breastfed or breastmilk feeding at hospital discharge**: Pre- post-study: Rates of exclusive breastfeeding of preterm newborns increased from 1.8% pre-intervention to 4.1% post-intervention [Critical]. **Understanding and engagement**: RCT: Little or no difference in *Breastfeeding Knowledge Questionnaire* (MD 0.1 points higher; 1.39 lower to 1.59 higher). No significant increase in *Breastfeeding Self-Efficacy Scale* (MD 7.99 points higher; 9.17 lower to 25.16 higher) [Critical]. **Understanding and engagement**: Implementation study/pre- post study: Maternal lactation skills increased from 56.5 +/- 3.5 (n=36) at the preintervention audit to 92.1 +/- 1.9 (n=34) after the intervention ($P < .01$). No change in beliefs or attitudes but significant improvement in practical knowledge and use of breast pump [Critical].	Population information for included evidence [1] USA. RCT. <35 weeks. Antenatal education on benefits of mother's own milk. [2] India. RCT. 28-34 weeks' gestation. Ante/post-natal counselling to improve exclusive breastmilk feeding. [3] Bangladesh. RCT. Low birthweight infants <2500 g. Nutrition education on breastfeeding. [4] Iran. RCT. Babies 34-36 weeks' gestation. Four training sessions focused on breastfeeding patterns based on the Theory of Planned Behaviour. [5] Canada. RCT. Breastmilk expression education and support intervention. Very and extremely preterm infants. [6] Australia. RCT pilot. Education on breast massage and hand expressing. Babies 28-35 weeks' gestation. [7] Iran. Quasi-random study. Exclusive breastfeeding education. Babies 36 -36.6 weeks' gestation, birthweight 2,500-2,999 g. [8] China. Quasi-random study. Online breastfeeding education and support program. Babies <37 weeks'

	Necrotising enterocolitis (NEC): RCT: There were no events of NEC reported in either group. [Important] **Mortality**: RCT: No significant reduction in mortality in the education group (43 fewer per 1,000; 82 fewer to 87 more) [Important]. **No faltering growth/body composition**: RCT: No significant increase in weight at discharge (MD 179.1 g higher; 65.8 lower to 424.0 higher). Increase in length at 2 months (MD 1.5 cm higher; 1.08 higher to 1.92 higher) [Important]. **Duration of hospital stay**: RCT: No significant effect in duration of hospital stay (MD 0.1 days lower; 3.3 lower to 3.1 higher) [Important]. **Desirable effects for Māori** No additional evidence available	gestation, <2,500 g. [9] China. Preterm infants <37 weeks' gestation. Breastfeeding implementation project. Observational. [10] Kenya. pre/post intervention study. Breast pump education. Preterm and sick infants in special care. [11] India. Quality improvement project to increase mother own milk usage. Mean gestational age 30.3 weeks, mean birthweight 1,176 g.

Outcomes	№ of participants (studies) Follow-up	Certainty of the evidence (GRADE)	Relative effect (95% CI)	Anticipated absolute effects* (95% CI)	
				Risk with control	Risk difference with early education
Breastmilk supply/volume: RCT assessed with: Day 1 (mL)	92 (2 RCTs)	⨁◯◯◯ Very low[a,b,c]	-	The mean breastmilk supply/volume: RCT was **13.2 mL**	MD **8.64 lower** (18.99 lower to 1.72 higher)
Breastmilk supply/volume: RCT assessed with: Day 7/1 week (mL)	272 (4 RCTs)	⨁◯◯◯ Very low[a,b,c,d]	-	The mean breastmilk supply/volume: RCT was **363.28 mL**	MD **56.05 higher** (265.37 lower to 377.46 higher)
Breastmilk supply/volume: RCT assessed with: Day 14/2 weeks (mL)	272 (4 RCTs)	⨁◯◯◯ Very low[a,b,c,d]	-	The mean breastmilk supply/volume: RCT was **624.79 mL**	MD **45.98 higher** (401.58 lower to 493.54 higher)
Breastmilk supply/volume: RCT assessed with: Day 21/3 weeks (mL)	241 (3 RCTs)	⨁◯◯◯ Very low[a,b,c,e]	-	The mean breastmilk supply/volume: RCT was **656.39 mL**	MD **247.13 higher** (76.08 lower to 570.34 higher)
Breastmilk supply/volume: RCT assessed with: Week 4 (mL)	180 (2 RCTs)	⨁◯◯◯ Very low[a,b,c,d]	-	The mean breastmilk supply/volume: RCT was **722.84 mL**	MD **352.27 higher** (256.06 lower to 960.6 higher)
Breastmilk supply/volume: Quality improvement pre-post studies	352 (2 non-randomised studies)	⨁◯◯◯ Very low[f,g]	-	**Breastmilk volume: Study 1** First 24 hours: pre-intervention 0.15 +/-1.17 mL (n=36) vs. post-intervention 5.74 +/- 2.80 mL) (*P*<0.01) Third 24 hours: pre-intervention 5.285 +/-2.29 mL (n=36) vs. post-intervention 19.56 +/- 4.91 mL) (*P*<0.01) **Breastmilk volume: Study 2** Day 1 Baseline phase 1.6 +/- 2.8 mL (n=87) vs. intervention phase 4.0 +/-5.7 mL (n=195) Day 2/3 Baseline phase 24 +/- 43 mL (n=87) vs. intervention phase 29 +/-53 mL (n=195) Day 7 Baseline phase 204 +/- 219 mL (n=87) vs. intervention phase 287 +/-284 mL (n=195) Day 14 Baseline phase 642 +/- 653 mL (n=87) vs. intervention	

				phase 909 +/-555 mL (n=195)	
Fully breastfed or breastmilk feeding at hospital discharge: RCT	444 (4 RCTs)	⨁◯◯◯ Very low[a,d,h]	**RR 1.89** (0.82 to 4.34)	Study population	
				364 per 1,000	**324 more per 1,000** (66 fewer to 1,217 more)
Fully breastfed or breastmilk feeding at hospital discharge: Pre-post study	70 (1 non-randomised study)	⨁◯◯◯ Very low[a,i,j]	-	Rates of exclusive breastfeeding of premature newborns increased from 1.8% pre-intervention to 4.1% post-intervention.	
Maternal lactation skills: Implementation study	70 (1 non-randomised study)	⨁◯◯◯ Very low[a,i,k]	-	Maternal lactation skills increased from 56.5 +/-3.5 (n=36) at the preintervention audit to 92.1 +/- 1.9 (n=34) after the intervention. The increase was statistically significant (p < .01).	
Breast pump attitudes and beliefs: pre-post study	40 (1 non-randomised study)	⨁◯◯◯ Very low[i,k,l,m]	-	No change in beliefs or attitudes but significant improvement in practical knowledge and use of breast pump Breastmilk pumping beliefs score (Not significant) Pretest 22.7 +/- 2 Post-test 22.5 +/- 1.5 Breastmilk pumping attitude score (Not significant) Pretest 8.5 +/- 0.8 Post-test 8.6+/- 0.7 Practical knowledge (*P*<0.001) Pretest 1.8 +/-0.9 Post-test 4.6 +/- 0.9 Nurses' observations of pump use activities (*P*<0.001) Pretest 0.08 +/- 0.5 Post-test 4.8+/- 0.7	
Breastfeeding Knowledge Questionnaire: RCT	50 (1 RCT)	⨁◯◯◯ Very low[i,k,n,o]	-	The mean breastfeeding Knowledge Questionnaire: RCT was **-1.1 points**	MD **0.1 higher** (1.39 lower to 1.59 higher)
Breastfeeding Self-Efficacy: RCT	150 (2 RCTs)	⨁◯◯◯ Very low[d,h,n]	-	The mean breastfeeding Self-Efficacy: RCT was **23.15 points**	MD **7.99 higher** (9.17 lower to 25.16 higher)
Necrotising enterocolitis: RCT	140 (1 RCT)	⨁◯◯◯ Very low[a,i,k,p]	not estimable- no events	Study population	
				0 per 1,000	**0 fewer per 1,000** (0 fewer to 0 fewer)
Mortality: RCT	140 (1 RCT)	⨁◯◯◯ Very low[a,i,k,o]	**RR 0.57** (0.18 to 1.87)	Study population	
				100 per 1,000	**43 fewer per 1,000** (82 fewer to 87 more)
Neurodevelopmental impairment - not measured	-	-	-	-	-
Sepsis: proven or suspected: RCT assessed with: Culture positive sepsis	140 (1 RCT)	⨁◯◯◯ Very low[a,b,i,k]	**RR 4.00** (0.46 to 34.90)	Study population	
				14 per 1,000	**43 more per 1,000** (8 fewer to 484 more)

Time to full enteral feeds - not measured	-	-	-	-	-
Adverse effects - not measured	-	-	-	-	-
Faltering growth/body composition: RCT assessed with: Weight at discharge (g)	313 (2 RCTs)	⨁◯◯◯ Very low[a,b,d]	-	The mean faltering growth/body composition: RCT was **2442.5 g**	MD **179.11 higher** (65.76 lower to 423.97 higher)
Faltering growth/body composition: RCT assessed with: Length: 2 months (cm)	184 (1 RCT)	⨁◯◯◯ Very low[a,i,k]	-	The mean faltering growth/body composition: RCT was **48.7 cm**	MD **1.5 higher** (1.08 higher to 1.92 higher)
Duration of hospital stay: RCT assessed with: Days	240 (3 RCTs)	⨁⨁◯◯ Low[a,o]	-	The mean duration of hospital stay: RCT was not calculated	MD **0.1 lower** (3.3 lower to 3.11 higher)
Bronchopulmonary dysplasia - not measured	-	-	-	-	-
Retinopathy of prematurity - not measured	-	-	-	-	-
Retinopathy of prematurity - not measured	-	-	-	-	-
Cost: cost of intervention, cost of neonatal care and life-long cost - not measured	-	-	-	-	-
Time to full sucking feeds (<0.5 days) - not measured	-	-	-	-	-

a. Downgraded one level for concerns for risk of bias
b. Downgraded three levels for imprecision as extremely wide confidence intervals that cross the line of no effect
c. Downgraded one level as funnel plots suggest publication bias
d. Downgraded two levels for inconsistency with I2>80%
e. Downgraded one level for inconsistency as I2 >50% and <80%
f. Downgraded two levels for risk of bias as these are uncontrolled studies
g. Downgraded one level for imprecision due to wide variation in the data
h. Downgraded two levels for imprecision with very wide confidence intervals crossing the line of no effect
i. Downgraded one level for inconsistency as evidence only reported in a single study
j. Downgraded one level as unable to judge imprecision
k. Downgraded one level as evidence is based on a single study
l. Downgraded two level for risk of bias as uncontrolled study, confounding variables not investigated including number of sessions and milk volume
m. Downgraded one level for indirectness as study included sick term infants as well as preterm infants.
n. Downgraded two levels for concerns for risk of bias
o. Downgraded one level for imprecision due to wide confidence intervals crossing the line of no effect
p. Downgraded two levels for imprecisiondue to very low event rate

Undesirable Effects

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
● Trivial ○ Small	**Breastmilk supply/volume**: RCT: No significant effect in milk volume in education group on Day 1 (MD 8.64 mL lower; 18.99 lower to 1.72 higher) [Critical].	

○ Moderate ○ Large ○ Varies ○ Don't know	**Sepsis**: RCT: No significant increase in culture-proven sepsis in the education group (43 more per 1,000; 8 fewer to 484 more) [Important]. **Undesirable effects for Māori** No additional evidence available	

Certainty of evidence

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
● Very low ○ Low ○ Moderate ○ High ○ No included studies	Low to very low certainty evidence overall. **Certainty of evidence for Māori** - No additional evidence available	

Outcomes	Importance	Certainty of the evidence (GRADE)
Breastmilk supply/volume: RCT assessed with: Day 1 (mL)	CRITICAL	⨁◯◯◯ Very low[a]
Breastmilk supply/volume: RCT assessed with: Day 7/1 week (mL)	CRITICAL	⨁◯◯◯ Very low
Breastmilk supply/volume: RCT assessed with: Day 14/2 weeks (mL)	CRITICAL	⨁◯◯◯ Very low
Breastmilk supply/volume: RCT assessed with: Day 21/3 weeks (mL)	CRITICAL	⨁◯◯◯ Very low
Breastmilk supply/volume: RCT assessed with: Week 4 (mL)	CRITICAL	⨁◯◯◯ Very low
Breastmilk supply/volume: Quality improvement pre-post studies	CRITICAL	⨁◯◯◯ Very low
Fully breastfed or breastmilk feeding at hospital discharge: RCT	CRITICAL	⨁◯◯◯ Very low
Fully breastfed or breastmilk feeding at hospital discharge: Pre-post study	CRITICAL	⨁◯◯◯ Very low
Maternal lactation skills: Implementation study	CRITICAL	⨁◯◯◯ Very low

Breast pump attitudes and beliefs: pre-post study	CRITICAL	⨁◯◯◯ Very low
Breastfeeding Knowledge Questionnaire: RCT	CRITICAL	⨁◯◯◯ Very low
Breastfeeding Self-Efficacy: RCT	CRITICAL	⨁◯◯◯ Very low
Necrotising enterocolitis: RCT	CRITICAL	⨁◯◯◯ Very low
Mortality: RCT	CRITICAL	⨁◯◯◯ Very low
Neurodevelopmental impairment - not measured	CRITICAL	-
Sepsis: proven or suspected: RCT assessed with: Culture positive sepsis	CRITICAL	⨁◯◯◯ Very lo
Time to full enteral feeds - not measured	CRITICAL	-
Adverse effects - not measured	IMPORTANT	-
Faltering growth/body composition: RCT assessed with: Weight at discharge (g)	IMPORTANT	⨁◯◯◯ Very low
Faltering growth/body composition: RCT assessed with: Length: 2 months (cm)	IMPORTANT	⨁◯◯◯ Very low
Duration of hospital stay: RCT assessed with: Days	IMPORTANT	⨁⨁◯◯ Low
Bronchopulmonary dysplasia - not measured	IMPORTANT	-
Retinopathy of prematurity - not measured	IMPORTANT	-
Retinopathy of prematurity - not measured	IMPORTANT	-
Cost: cost of intervention, cost of neonatal care and life-long cost - not measured	IMPORTANT	-
Time to full sucking feeds (<0.5 days) - not measured	NOT IMPORTANT	-

Values

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS

○ Important uncertainty or variability ● Possibly important uncertainty or variability ○ Probably no important uncertainty or variability ○ No important uncertainty or variability	Some people may not value the breastfeeding outcomes if they want to bottle-feed their infant. **Values for Māori** No additional evidence available.	

Balance of effects

Does the balance between desirable and undesirable effects favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favours the comparison ○ Probably favours the comparison ● Does not favour either the intervention or the comparison ○ Probably favours the intervention ○ Favours the intervention ○ Varies ○ Don't know	**Early education vs. no education on breastfeeding - very low certainty evidence** Uncertain effect on breastmilk volume, fully breastfed or breastmilk feeding at hospital discharge, understanding and engagement, NEC, mortality and sepsis. **Balance of effects for Māori** No additional evidence	There is a lot of heterogeneity between the studies, primarily due to the type of intervention, duration of intervention and gestational age of infants. Studies rarely took into account confounding variables such as when expressing started and how many times a day women expressed.

Resources required

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Large costs ○ Moderate costs ● Negligible costs and savings ○ Moderate savings ○ Large savings ○ Varies ○ Don't know	Cost of staff to provide education Breast pumps, if required	

Certainty of evidence of required resources

What is the certainty of the evidence of resource requirements (costs)?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low	A formal assessment of the certainty of evidence of the cost	

○ Low ○ Moderate ○ High ● No included studies	was not undertaken. **Certainty of evidence of required resources for Māori** No additional evidence available	

Cost effectiveness

Does the cost-effectiveness of the intervention favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favours the comparison ○ Probably favours the comparison ○ Does not favour either the intervention or the comparison ○ Probably favours the intervention ○ Favours the intervention ○ Varies ● No included studies	No economic studies were identified to address the cost-effectiveness of the intervention or the comparison. **Cost effectiveness for Māori** No evidence available.	

Equity

What would be the impact on health equity?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Reduced ○ Probably reduced ○ Probably no impact ● Probably increased ○ Increased ○ Varies ○ Don't know	**Equity for Māori** Wahine Māori caring for preterm pēpi often face systemic barriers that limit early involvement in feeding decisions and breastfeeding support. Education provided before or shortly after birth about the importance of breastmilk and fortification can improve understanding and increase engagement. However, without culturally grounded and timely communication, whānau Māori may feel excluded from their pēpi's nutrition plan. Colonisation continues to impact trust in healthcare and access to consistent support. Equity-focused education that honours mātauranga Māori and includes whānau in all aspects of care can support stronger breastfeeding outcomes and build confidence in navigating complex neonatal environments. **Equity for Pacific families** Pacific families value strong familial roles in infant care but often experience communication gaps in neonatal settings. Without early and culturally appropriate education about nutrition and feeding practices, parents may struggle to advocate for the use of breastmilk or understand the reasons behind fortification. While	

	some Pacific pēpi show high rates of transition to mother's own milk, many still receive early formula due to a lack of support or access to resources. Equity means delivering consistent information in accessible ways and ensuring staff are trained to engage Pacific families with respect and cultural understanding throughout the infant's care journey. **Equity for underrepresented groups** Families from migrant backgrounds, lower-income communities or rural areas may face logistical and language barriers that limit their access to early education about preterm nutrition. Parents may feel unprepared to participate in feeding decisions, leading to reduced confidence and suboptimal breastfeeding outcomes. Without equitable access to interpreters, transport, digital tools or culturally relevant materials, their ability to engage is significantly reduced. Early education that is individualised, accessible and inclusive of diverse family needs can improve feeding practices and health outcomes. Promoting equity means not only offering information, but ensuring families are supported to understand and act on it effectively.	

Acceptability

Is the intervention acceptable to key interest-holders?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ● Probably yes ○ Yes ○ Varies ○ Don't know	No evidence **Acceptability for Māori** No evidence	**Acceptability for Māori** More acceptable if the education was based on Te Ao Māori values and kaupapa Māori development.

Feasibility

Is the intervention feasible to implement?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ● Probably yes ○ Yes ○ Varies ○ Don't know	No evidence **Feasibility for Māori** No evidence available	

Summary of judgements

	JUDGEMENT						
DESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large		Varies	Don't know
CERTAINTY OF EVIDENCE	**Very low**	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	**Possibly important uncertainty or variability**	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favours the comparison	Probably favours the comparison	**Does not favour either the intervention or the comparison**	Probably favours the intervention	Favours the intervention	Varies	Don't know
RESOURCES REQUIRED	Large costs	Moderate costs	**Negligible costs and savings**	Moderate savings	Large savings	Varies	Don't know
CERTAINTY OF EVIDENCE OF REQUIRED RESOURCES	Very low	Low	Moderate	High			**No included studies**
COST EFFECTIVENESS	Favours the comparison	Probably favours the comparison	Does not favour either the intervention or the comparison	Probably favours the intervention	Favours the intervention	Varies	**No included studies**
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased	Varies	Don't know
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	**Probably yes**	Yes		Varies	Don't know

Type of recommendation

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	**Conditional recommendation for the intervention**	Strong recommendation for the intervention
○	○	○	●	○

References

1. Parker, L.; Bendixen, M.; Sullivan, S.; Cacho, N.; Mueller, M. Antepartum breast pump education for mothers and their support person: effect on time to first expression and lactation outcomes—a randomized controlled pilot study. *Breastfeed. Med.* **2022**, *17* 437-445, doi:10.1089/bfm.2021.0275.
2. Sujata, S.; Das, K.; Mukhopadhyay, K.; Kaur, S.; Rohilla, M. Effect of antenatal and postnatal individualized counseling of mothers on exclusive human milk feeding in preterm infants during hospital stay and at discharge: A randomized controlled trial. *J. Neonatal Nurs.* **2022**, *28*, 31-36, doi:10.1016/j.jnn.2021.03.003.
3. Thakur, S.K.; Roy, S.K.; Paul, K.; Khanam, M.; Khatun, W.; Sarker, D. Effect of nutrition education on exclusive breastfeeding for nutritional outcome of low birth weight babies. *Eur. J. Clin. Nutr.* **2012**, *66*, 376-381, doi:10.1038/ejcn.2011.182.
4. Okhovat, S.; Janighorban, M.; Kazemi, A. Impact of theory of planned behavior based intervention on breastfeeding patterns of the mothers with preterm infants: a randomized trial. *BMC Public Health* **2024**, *24*, 2643, doi:10.1186/s12889-024-20059-x.
5. Heon, M.; Goulet, C.; Garofalo, C.; Nuyt, A.M.; Levy, E. An Intervention to Promote Breast Milk Production in Mothers of Preterm Infants. *West. J. Nurs. Res.* **2016**, *38*, 529-552, doi:10.1177/0193945914557501.
6. Anderson, L.A.; Kildea, S.; Lee, N.; Kynoch, K.; Gao, Y. A comparison of the timing of hand expressing of human milk with breast massage to standard care for mothers of preterm infants: An exploratory pilot using a randomized controlled design. *J. Hum. Lact.* **2023**, *39*, 226-235, doi:10.1177/08903344221088789.
7. Kerami, A.; Azizi, M.; Salehi, A.; Momeni, H.; Khalili, M.; Mahmoudi, M. Comparison of the effect of breastfeeding education on the self-efficacy of primiparous mothers with control group. *Neuroquantology* **2019**, 10.48047/nq.2019.17.01.1957, 129-134, doi:10.48047/nq.2019.17.01.1957.
8. Zhang, J.; Li, Y.; Zhu, L.; Shang, Y.; Yan, Q. The effectiveness of online breastfeeding education and support program on mothers of preterm infants: A quasi-experimental study. *Midwifery* **2024**, *130*, 103924, doi:10.1016/j.midw.2024.103924.
9. Yu, G.; Liu, F.; Zhao, Y.; Kong, Y.; Wei, H. Promoting breastfeeding and lactation among mothers of premature newborns in a hospital in China. *Nurs. Womens Health* **2021**, *25* 21-29, doi:10.1016/j.nwh.2020.11.005. .
10. Friend, D.; Chertok, I. Evaluation of an educational intervention to promote breast pump use among women with infants in a special care nursery in Kenya. *Public Health Nurs.* **2009**, *10.1111/j.1525-1446.2009.00788.x.*, 339-345, doi:10.1111/j.1525-1446.2009.00788.x.
11. Kulkarni, D.; Murki, S.; Pawale, D.; Kiran, S.; Sharma, D.; Verdhelli, V.; Oleti, T.; Raggala, Y. Quality improvement initiative to improve mother's own milk usage till hospital discharge in very low birth weight infants from a tertiary care NICU. *J. Perinatol.* **2020**, 10.1038/s41372-020-0707-0, 1273-1281, doi:10.1038/s41372-020-0707-0.

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