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Provision of Maternal Breastmilk in the Neonatal Intensive Care Unit: A Grounded Theory Analysis

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Background

- Despite the demonstrated importance of providing hospitalized extremely preterm (EP, < 32 weeks gestation) very low birth weight (VLBW, < 1500 grams) infants with mother's own milk (MOM), a low percentage of neonates are discharged receiving MOM.
- How parents choose to nourish their infant may have life-long implications.
- Few studies have explored influential factors on provision of breastmilk directly from a maternal perspective.

Purpose

The purpose of this study was to explore the experience of mothers of EP VLBW infants and related breastmilk provision in the NICU to develop a general theory of maternal breastmilk provision.

Research Questions

- 1) What factors influence a mother's decision regarding the provision of breastmilk with a hospitalized infant in the NICU?
- 2) At what time frames within hospitalization are these factors shown to have the most influence on maternal breastmilk provision?
- 3) In what ways do these factors interact with each other to impact the final maternal selected feeding method?

Methods

- Grounded theory approach was used for this study: identification of emerging concepts, theoretical sampling, constant comparison, substantive and methodological memos.
- Participants were recruited through convenience sampling (n=20) and purposive sampling (n=10) from a large Midwestern NICU for a total of 30 participants.
- Open-ended structured interviews were conducted with the participants in-person and over the phone.
 - 20 interviewed at one time point after sustaining a low supply of milk
 - 10 interviewed longitudinally throughout their infant's hospitalization
- Data were managed using Dedoose, a web-based data management and analysis platform.
- Interviews were coded by five independent researchers and any discrepancies were resolved collectively.
- Core constructs were identified in relation to maternal breastmilk provision for EP VLBW infants.

Sample Demographics (N=30)

- **Maternal Age:** 21 – 25 years old (30%, n=10)
- **Race/Ethnicity:** Black (61%, n=20)
- **Reason for Delivery:** Premature rupture of membranes (33%, n=11) hypertension/preeclampsia (33%, n=11)
- **Birth Mode:** Cesarean section (70%, n=23)
- **Marital Status:** Living with father of the baby (36%, n=12)
- **No Exclusive MOM throughout hospitalization:** (83%, n=25)
- **No MOM at discharge:** (73%, n=22)

Results

Influential Factors in the Provision of Maternal Breastmilk

Core Constructs
Total Number of Codes (N=1,167)

Maternal Psychosocial Experiences

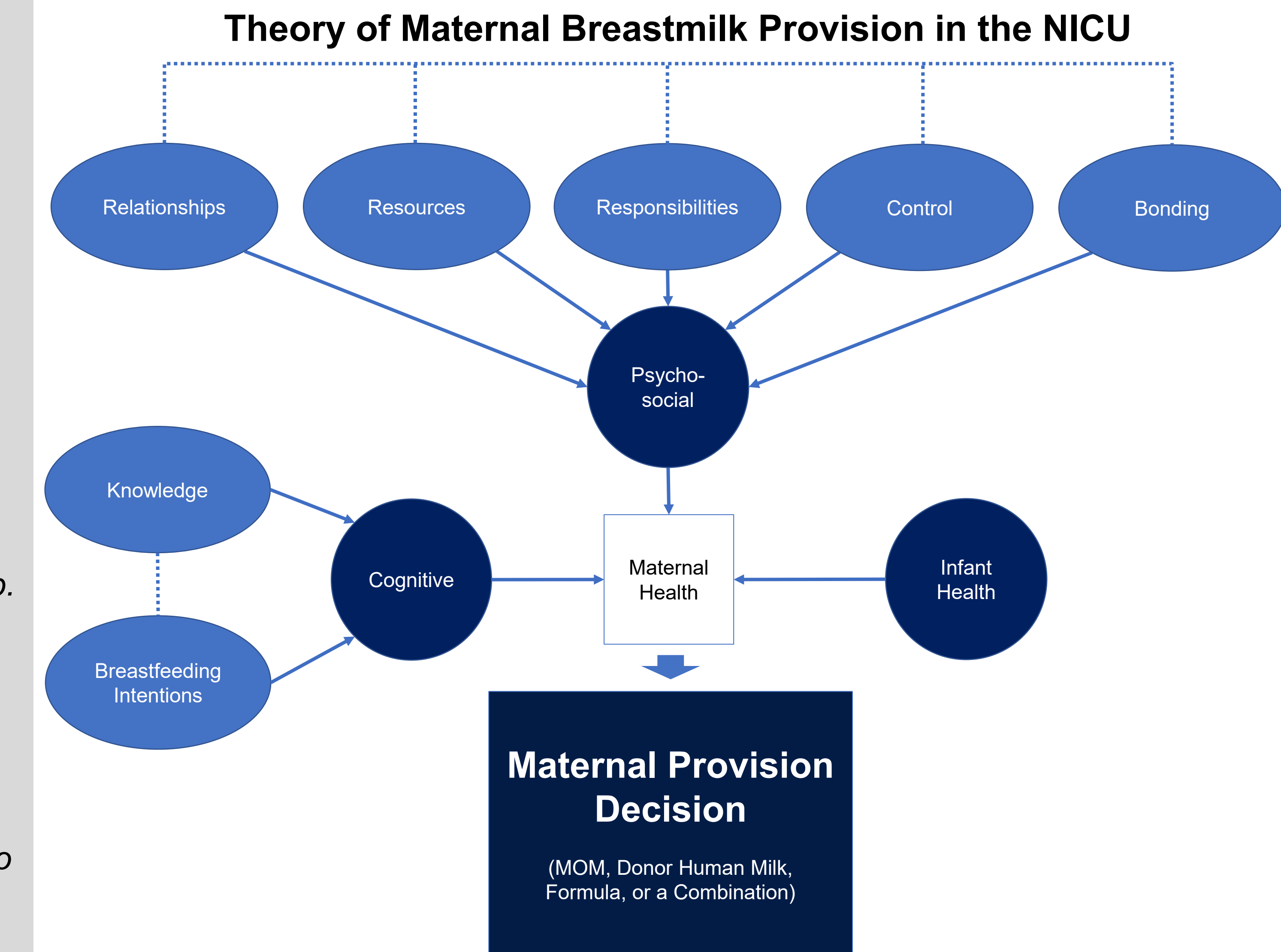
- **Bonding** (n=85)
 - **Negative:** "Since I haven't been able to hold 'em, it just doesn't seem real yet."
 - **Positive:** "When I talk to him, I can tell that he hears me 'cause—even though he can't see me, he only sees little shadows, he follows my voice."
- **Relationships** (n=386)
 - **Negative:** "My mom didn't breastfeed and my grandmother didn't breastfeed. . . They kind of aren't supportive about it. They're just like, 'Eh, whatever.'"
 - **Positive:** "Now he reminds me, 'Did you pump?'"
- **Resources** (n=13)
 - **Negative:** ". . .because at first, I didn't have the pump. I just rented it yesterday. . . The thing that they have for the hospital and the one that I had at home, it wasn't the same."
 - **Positive:** ". . .they said they could prescribe me something for the milk."
- **Responsibilities** (n=18)
 - **Negative:** "It's hard to split up my time with my kids to go back to work. Then I'm here and then I'm going home, . . ."
 - **Positive:** None
- **Control** (n=71)
 - **Negative:** "He doesn't have an option. I feel like I have to."
 - **Positive:** "Would you like to give consent over the phone for us to start her on a donor milk?" I'm like, 'Yeah,' I said, 'cuz I wanna breastfeed her,' and he was like, 'Okay.'"

Maternal Cognitive Experiences

- **Knowledge** (n=298)
 - **Negative:** "I've never heard of donor milk. Even being out with family, friends or even the media."
 - **Positive:** "I looked up things. I even talked to a lactation specialist . . ."
- **Breastfeeding Intentions** (n=95)
 - **Negative:** "No, actually I didn't think I was going to breastfeed . . ."
 - **Positive:** "Well, I always figured that's why God put the milk in your breast . . . I figured if I just breastfeed him for the first year, get him through that, then he'll probably be okay.."

Infant Health (n=201)

- **Negative:** "They kept her off of it for a couple of hours, then put her back on, took her off, and now they have her back on it. She looked like she was just struggling so hard to breathe."
- **Positive:** "He's gaining weight and showing them that he's able to maintain what y'all have in the NG tube. He can eat himself."



Mediator: Maternal Health (n=649)

- **Negative:** "I feel like I've never been this depressed ever, ever."
- **Positive:** "It started working then, a whole lot came out, I'm like oh my gosh, this is a lot of milk coming . . ."

Limitations

- Data retrieved from a single hospital location
- Hospital setting's unusually high support for lactating mothers

Conclusions

General conclusions are pending, as they will be primarily derived from code co-occurrence findings and a chronological understanding of the themes.

Nursing Implications

Nurses should implement evidence-based interventions related to these themes to support breastfeeding mothers of EP VLBW infants (i.e. early lactation support, increased education, and care for maternal emotions).

Acknowledgements

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