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Conference

Exploring Maternal Child Nurses' Decision-Making and Self-Efficacy for Supporting Infant Feeding

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JOHNS HOPKINS NURSING

Disclosure Statement

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Financial Relationships

All individuals involved in the planning and delivery of this activity have no relevant financial relationship(s) with ineligible companies.

Commercial Support

This educational activity has not received any form of commercial support.

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This presentation will not discuss the off-label or investigational use of a drug, biological product, or medical device name.

Background

Breastfeeding impacts maternal and infant outcomes

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- **Infant** lower incidence of:
  - SIDS
  - NEC
  - Overweight
  - Diabetes (Victora et al., 2016)
- **Mother** lower rates of:
  - Breast cancer
  - Ovarian cancer
  - Type 2 diabetes (Victora et al., 2016)

- **Overall Impact:** In U. S., suboptimal breastfeeding has been attributed to:
  - 3,340 excess annual deaths
  - $3.0 billion excess total medical costs (Bartick et al., 2017)

Background

Evidence-based practice impacts breastfeeding

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- **Baby Friendly Hospital Initiative (BFHI)**
  - Defines evidence-based practice in maternity care
  - Promote, protect & support breastfeeding
    - Identified by WHO and UNICEF (1990's)
    - Ten Steps for Successful Breastfeeding
    - International Code for Marketing of Breastmilk Substitutes

- **Hospital practices impact breastfeeding outcomes**
  - If not exposed-13 times more likely to end breastfeeding (DiGirolamo et al., 2008)
- **Variation in breastfeeding supportive practice among nurses exists**
  - Nurses' knowledge and attitudes predicted RN supportive behaviors (Bernaix, 2000)
  - Support impacted by time constraints and past experience (Nelson, 2007)

Research Problem

Why study this issue?

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What is known

- Nursing practice impacts maternal breastfeeding success
- Practice inconsistencies exist
- Nurses' breastfeeding support is impacted by:
  - RN education
  - RN certification
  - Personal experience
  - Shift

What is not known

- Little is known about the range of factors and the relationship among those factors that influence nurses' breastfeeding supportive practices

Purpose

Purpose and questions that guide this research

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Primary Purpose

- To explore the decision-making processes of maternal-child nurses when supporting infant feeding postpartum

Research Questions

- How did nurses describe their decision-making process in supporting mothers who face breastfeeding challenges?
- Was there a difference in decision-making processes between nurses working in a Baby Friendly certified facility and a facility without this certification?
- Was there a difference in decision-making processes between nurses with high self-efficacy scores and nurses with low self-efficacy scores?
- How effectively did the Breastfeeding Support Self-Efficacy Short Form, as adapted for use among fathers, measure staff nurses' self-efficacy with breastfeeding support?

Methodology

Tools

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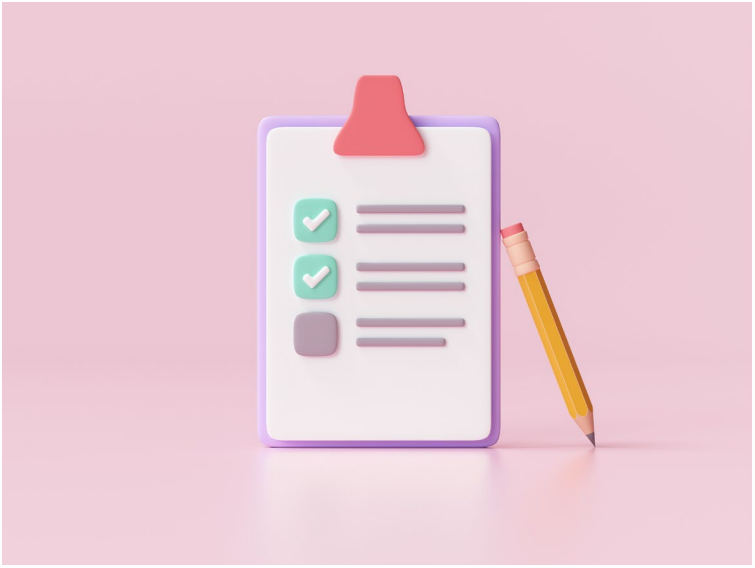
Tools

- Qualitative
  - Semi-structured interview
- Quantitative
  - Demographic and background survey
  - Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF) adapted for this study for use among nurses (Dennis et al., 2018)
  - Nurses' Support for Breast Feeding Questionnaire (NSBFQ) (Bernaix, 2000)



Methodology

Participants

- Sample (*N*=20)
  - Ten participants from each of two JHHS facilities
  - One with, one without BFHI designation
- Included: regular maternal child RN, with a primary position on the postpartum unit, working 8+hrs/week
- Excluded: Temporary employees, primary position as IBCLC, worked less than 1 year in postpartum nursing, nursing techs, aides, students, or advanced practice nurses
- Recruitment
  - Theoretical sampling
  - Seek diversity of experience, shifts
  - Seek 20-30 participants, until saturation reached
- Human subjects' protection
  - IRB approved

Results

Demographics

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Table 3
Demographic Data

	BFHI Designation			
	Yes		**No**	
Gender				
Female	9		10	
Male	0		0	
Age in years				
20-29	2	(27, 28)	0	
30-39	1	(30)	1	(32)
40-49	2	(47, 48)	5	(42, 44, 45, 47, 49)
50-59	4	(50, 50, 51, 58)	3	(52, 55, 58)
Mean Age	43.2		47.1	
Race				
American Indian/ Alaskan Native	0		0	
Asian	1		2	
Black/ African American	0		4	
Native Hawaiian/Pacific Islander	0		0	
White	8		3	
Ethnicity				
Hispanic/ Latina	0		1	
Not Hispanic/ Latina	9		9	
Years as Maternal-Child RN				
0-5	3	(3. 5. 5)	2	(3, 5)
5-9	1	(9)	2	(7, 9)
10-19	1	(12)	3	(11, 12, 17)
20-29	3	(20, 22. 22)	3	(21, 24, 28)
30+	1	(35)	0	
Mean Years as Maternal-Child RN	14.8		13.7	
Shift				
0700-1900	7		6	
1900-0700	2		4	
Other	0		2	
Entry Level Nursing Degree				
LPN	0		0	
Associate Degree	4		2	
Diploma Degree	0		0	
Bachelor's Degree	4		6	
Master's Degree	1		2	
Highest Degree				
Associate Degree	4		0	
Bachelor's Degree	4		7	
Master's Degree	1		3	
DNP	0		0	
PhD	0		0	
20-hour Education (following BFHI)				
No	0		7	
Yes	9		3	
Lactation Specific CEUs/year				
0	1		1	
1-5	8		6	
6-10	0		2	
11-15	0		0	
>15	0		1	
Certified				
EFM	7		0	
RNC-MNN	4		5	
RNC-Inpatient OB	1		0	
Parent				
No	3		1	
Yes	6		9	
Feeding Method as a Parent				
Exclusive Formula	0		0	
Mostly Formula with some BF/EBM	2		1	
Half Formula / Half BF/EBM	1		2	
Mostly BF/EBM with some Formula	3		2	
Exclusive BF/EBM	1		4	
Time of Weaning*				
Under 6 months	1	(3)	1	(5)
7-12 months	4	(10, 12, 12, 12)	1	(7)
13-23 months	1	(13)	2	(13, 20)
24-35 months	0		2	(24, 24)
36+ months			2	(36, 36)
Mean age weaned	10.3		20.6	
Feeding Method of most family/friends				
Exclusive Formula	0		0	
Mostly Formula with some BF/EBM	2		3	
Half Formula / Half BF/EBM	3		0	
Mostly BF/EBM with some Formula	1		5	
Exclusive BF/EBM	2		1	

*Longest breastfeeding experience

Analysis

QUALitative Analysis

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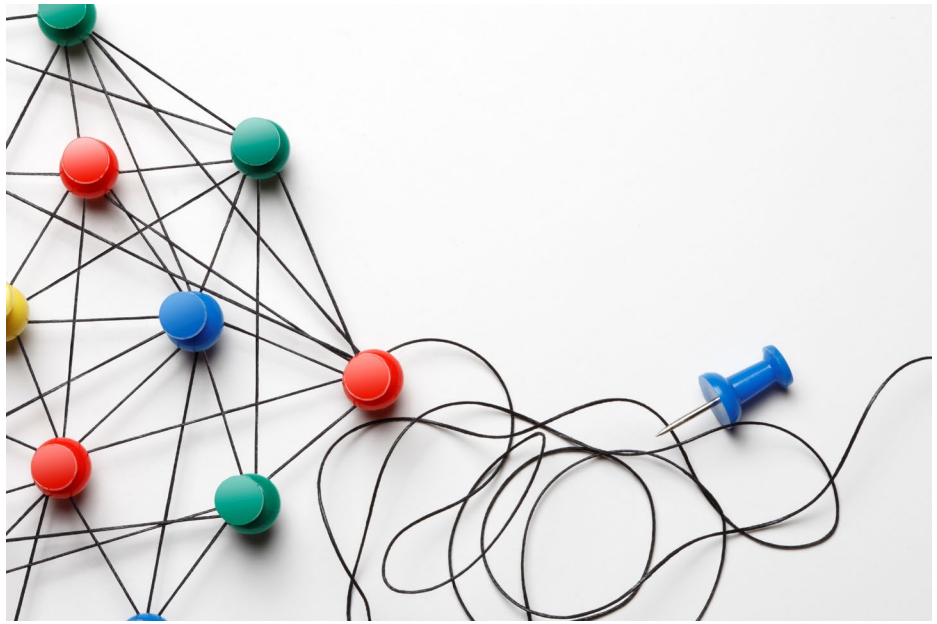
Grounded Theory (Strauss & Corbin, 1998)

- Goal:
  - construct explanatory scheme that relates concepts
  - enables explanation and prediction of events
- Analysis strategies:
  - Open coding
  - Axial coding
  - Selective coding



Analysis

QUANTitative Analysis

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QUANTative analysis

- Goal:
  - Used descriptively
- Analysis strategies:
  - Calculation of individual mean BSES-SF scores
  - Comparison of mean BSES-SF scores by facility, using t-test

Analysis

Mixed methods analysis

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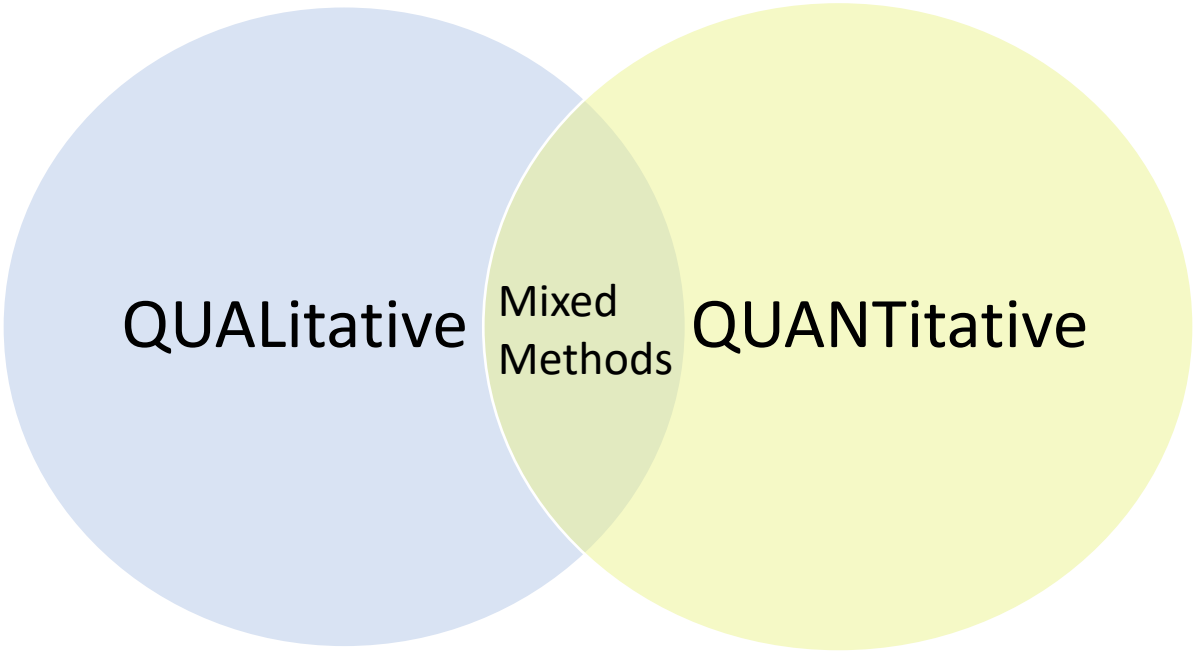
QUALitative with embedded QUANTitative strands

- Goal to explore relationships between nurses' decision-making and
  - Self-efficacy
  - BFHI designation status of employer
- Analysis strategies:
  - Compare decision-making processes of lowest & highest BSES-SF scorers
  - Compare decision-making by facility



Rigor

Qualitative analysis

- Trustworthiness
  - Audiotaped interviews transcribed
  - Reflexive journaling
  - Field notes
  - Peer debriefing
  - Member-checking
  - Thick, vivid descriptions
  - Memos
  - Space triangulation

Quantitative analysis:

- BSES-SF reliability among nurses, Cronbach's $\alpha = .95$

Results

Quantitative, BSES-SF, adapted

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Quantitative results:

- Nurses at facility with BFHI designation scored lower (*M* = 4.01, SE = .18) on the BSES-SF than nurses at facility without BFHI designation (*M* = 4.5, SE = .15). This difference, -2.19, CI [-1.00, -.02) was significant *t*(17) = -2.192, *p* = .02 with a medium-sized effect, *d* = .51.

- Use of the BSES-SF performed well with high reliability among nurses, Cronbach's α = .95. Since testing of the tool for this study was done with a small sample of nurses (*n*=19), it would be useful to re-test with a larger sample.

Results

Qualitative

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Qualitative results

- Over 340 codes within 35 categories initially identified
- Refined to 6 categories, 22 subcategories, 93 codes
    - Assess
    - RN understanding of the situation
    - Maternal understanding of the situation
    - Plan
    - Intervention/Implement
    - Evaluate
- Situational-Interactive Clinical Decision-Making process model
    - Dynamic, non-linear model

Grounded Theory for Qualitative Analysis

Theorizing a process for nurses' decision-making

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"*Theorizing* is the act of **constructing** (we emphasize this verb as well) from data an explanatory scheme that systematically integrates various concepts through statements of relationship. A theory does more than provide understanding or paint a vivid picture. It enables users to explain and predict events, thereby providing guides to action." (Strauss & Corbin, 1998, p. 25)

Situational-Interactive Model of Decision-Making

Assessment

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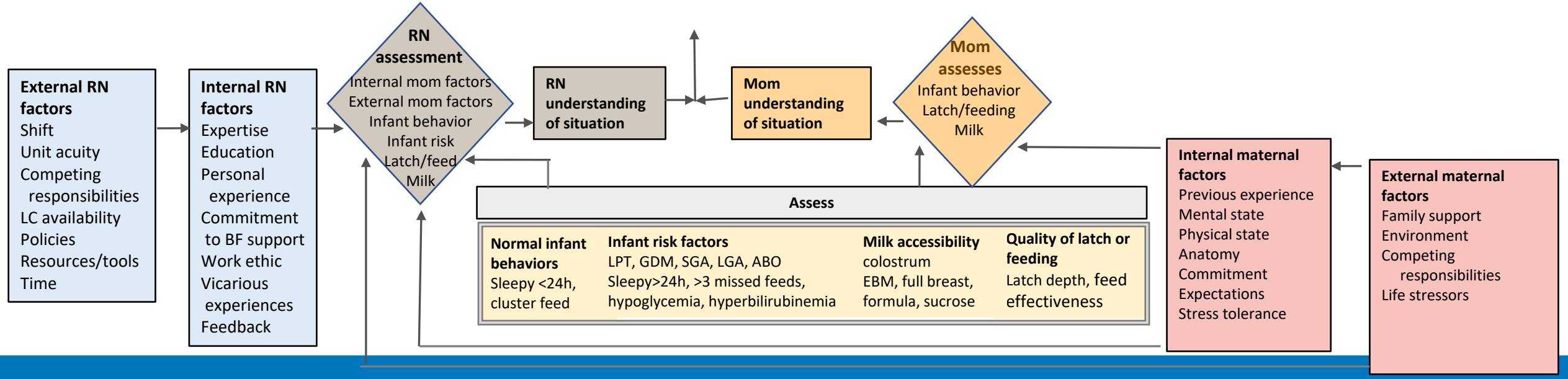


RN-Patient Situational-Interactive Decision-Making Matrix

Comparison of Decision-Making components

1. Balance of RN clinical expertise with patient perspective
2. Weighing the options
3. Approach to conflict
4. Nature of relationship
5. Key communication elements
6. Advantages
7. Disadvantages

Connective

1. Balances mother's perspective & RN expertise
2. Considers risks/benefits of proposed option as well as an alternative
3. Uses focused push-back ; strategically challenges ideas
4. Task oriented relationship
5. Listen to understand the problem, reassure mother with relevant data
6. Quick, balances perspectives with expertise
7. May overlook some viable options

Collaborative

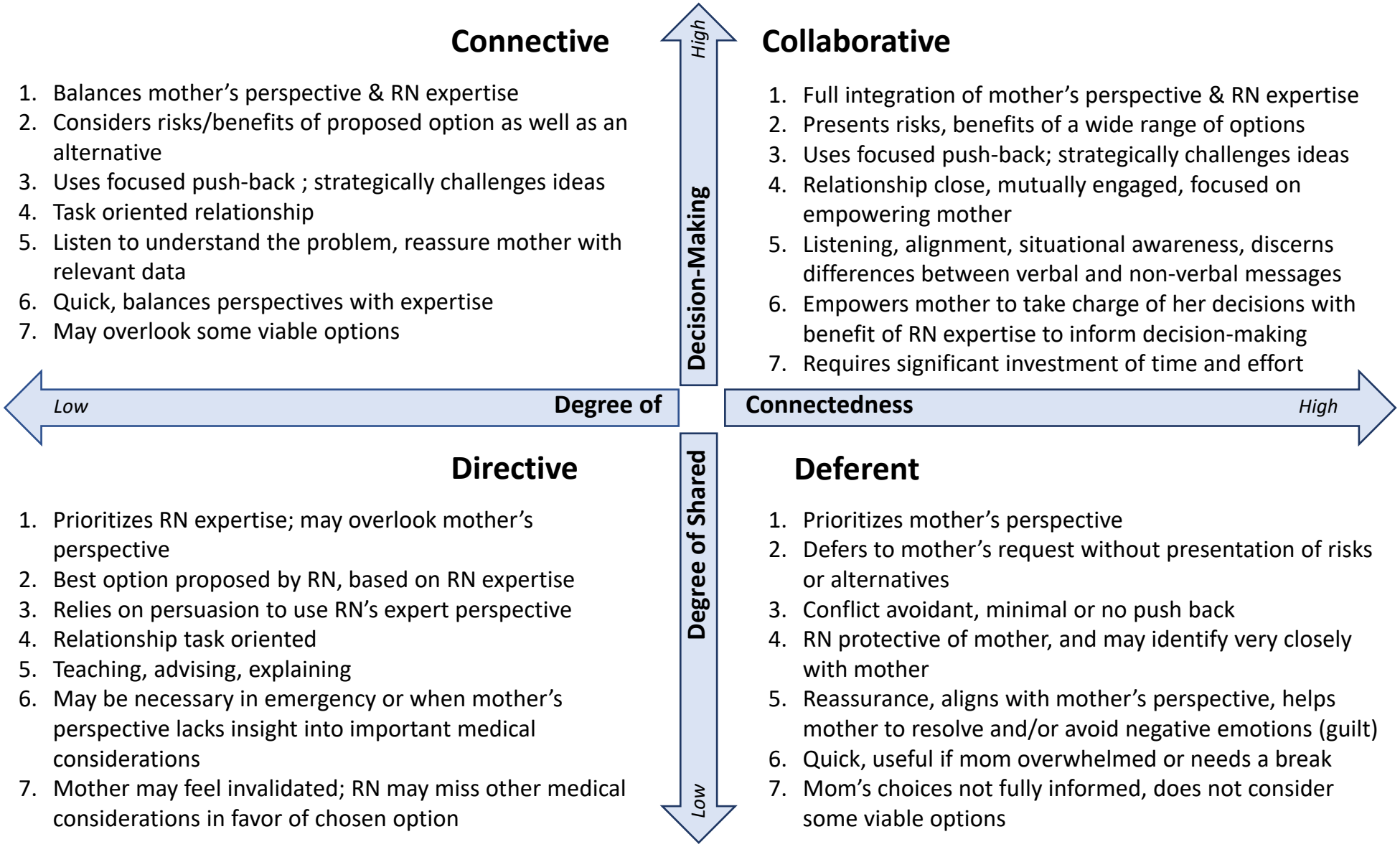
1. Full integration of mother's perspective & RN expertise
2. Presents risks, benefits of a wide range of options
3. Uses focused push-back; strategically challenges ideas
4. Relationship close, mutually engaged, focused on empowering mother
5. Listening, alignment, situational awareness, discerns differences between verbal and non-verbal messages
6. Empowers mother to take charge of her decisions with benefit of RN expertise to inform decision-making
7. Requires significant investment of time and effort

Directive

1. Prioritizes RN expertise; may overlook mother's perspective
2. Best option proposed by RN, based on RN expertise
3. Relies on persuasion to use RN's expert perspective
4. Relationship task oriented
5. Teaching, advising, explaining
6. May be necessary in emergency or when mother's perspective lacks insight into important medical considerations
7. Mother may feel invalidated; RN may miss other medical considerations in favor of chosen option

Deferent

1. Prioritizes mother's perspective
2. Defers to mother's request without presentation of risks or alternatives
3. Conflict avoidant, minimal or no push back
4. RN protective of mother, and may identify very closely with mother
5. Reassurance, aligns with mother's perspective, helps mother to resolve and/or avoid negative emotions (guilt)
6. Quick, useful if mom overwhelmed or needs a break
7. Mom's choices not fully informed, does not consider some viable options



Situational-Interactive Model of Decision-Making

Implement / Intervention

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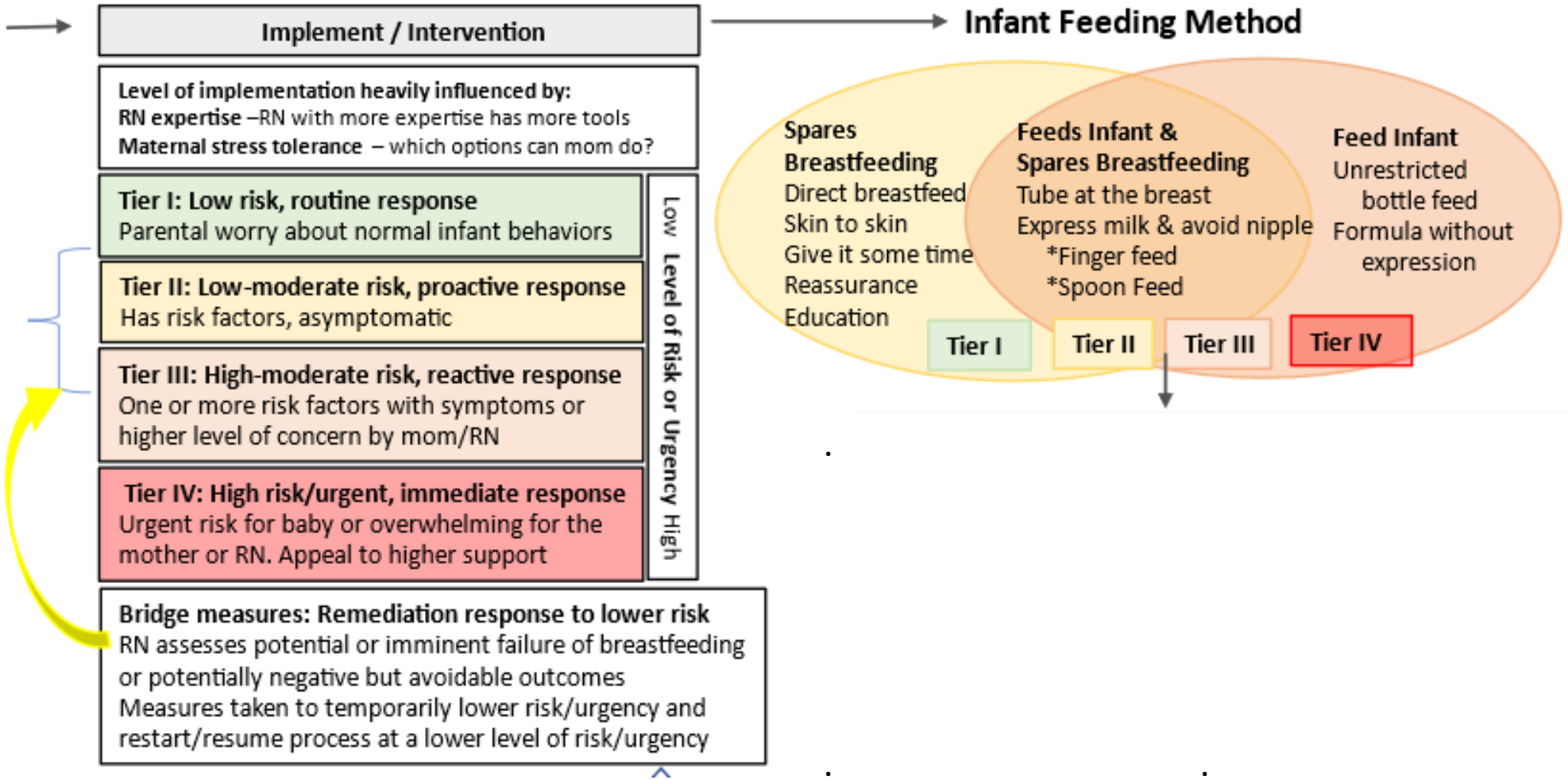

Situational-Interactive Model of Decision-Making

Evaluate

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Evaluate
Evaluation process factors **Cognitive appraisal** from RN expertise (experience + skill) **Affective appraisal** from physiological & affective reactions
RN cognitive appraisal of interventions **Tier I: Simple** - Single outcome measure, current focus **Tier II: Complex** - 2+ related outcome measures, current focus **Tier III: Complex, Proactive** - Multiple or complex related & unrelated outcomes, Current and future focus
RN affective appraisal of interventions Feedback – especially from patient Emotions elicited become Internalized => Internal RN Factor

Clinical Decision-Making about Breastfeeding Support: A Situational-Interactive Model

3/27/23

Plan

RN-Patient Decision-Making: Situational Interactive Matrix

Decision-Making components

1. Balance of RN clinical expertise with patient perspective
2. Weighing the options
3. Approach to conflict
4. Nature of relationship
5. Key communication elements
6. Advantages
7. Disadvantages

Connective
1. Balances mother's perspective & RN expertise
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Degree of Connectedness: Low — High
Degree of Shared Decision-Making: High — Low

Implement / Intervention

Level of implementation heavily influenced by:
RN expertise –RN with more expertise has more tools
Maternal stress tolerance – which options can mom do?

Tier I: Low risk, routine response
Parental worry about normal infant behaviors

Tier II: Low-moderate risk, proactive response
Has risk factors, asymptomatic

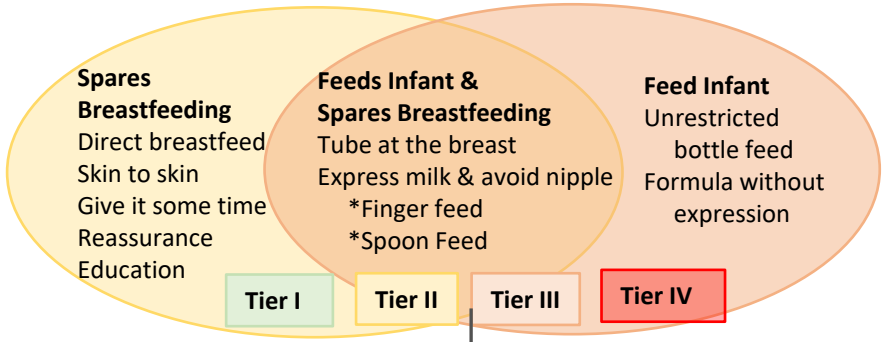
Tier III: High-moderate risk, reactive response
One or more risk factors with symptoms or higher level of concern by mom/RN

Tier IV: High risk/urgent, immediate response
Urgent risk for baby or overwhelming for the mother or RN. Appeal to higher support

Level of Risk or Urgency: Low — High

Bridge measures: Remediation response to lower risk
RN assesses potential or imminent failure of breastfeeding or potentially negative but avoidable outcomes
Measures taken to temporarily lower risk/urgency and restart/resume process at a lower level of risk/urgency

Infant Feeding Method



Evaluate

Evaluation process factors
Cognitive appraisal from RN expertise (experience + skill)
Affective appraisal from physiological & affective reactions

RN cognitive appraisal of interventions
Tier I: Simple - Single outcome measure, current focus
Tier II: Complex - 2+ related outcome measures, current focus
Tier III: Complex, Proactive - Multiple or complex related & unrelated outcomes, Current and future focus

RN affective appraisal of interventions
Feedback – especially from patient
Emotions elicited become Internalized => Internal RN Factor

External RN factors
Shift
Unit acuity
Competing responsibilities
LC availability
Policies
Resources/tools
Time

Internal RN factors
Expertise
Education
Personal experience
Commitment to BF support
Work ethic
Vicarious experiences
Feedback

RN assessment
Internal mom factors
External mom factors
Infant behavior
Infant risk
Latch/feed
Milk

RN understanding of situation

Mom understanding of situation

Mom assesses
Infant behavior
Latch/feeding
Milk

Internal maternal factors
Previous experience
Mental state
Physical state
Anatomy
Commitment
Expectations
Stress tolerance

External maternal factors
Family support
Environment
Competing responsibilities
Life stressors

Assess

Normal infant behaviors
Sleepy <24h, cluster feed

Infant risk factors
LPT, GDM, SGA, LGA, ABO
Sleepy>24h, >3 missed feeds, hypoglycemia, hyperbilirubinemia

Milk accessibility
colostrum
EBM, full breast, formula, sucrose

Quality of latch or feeding
Latch depth, feed effectiveness

Results

Mixed Methods

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Mixed methods results:

- Group differences were observed based on BFHI status
  - Use of policy
  - Tools used
- Individual differences were observed between high and low scorers on BSES-SF
  - Emotions
  - Responses to challenging situations
  - Internalization of feedback
  - Personal experiences

Key Recommendations

Clinical, Educational, and Research Recommendations

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- Clinical
  - Promote awareness of underlying factors to consider when choosing a feeding method
- Education
  - Incorporation of reflexive appraisal of personal breastfeeding experiences into professional development and breastfeeding education
- Research
  - Quantify the impact of variables identified in this study on nurses' decision-making
  - Quantify the relationship between elements of self-efficacy and nurses' decision-making
  - Explore the feasibility and impact of using donor milk as a bridge measure among full-term well infants needing a 'bridge' measure
  - Investigate modifiable variables that influence maternal stress

References

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Questions?