

Clinician and Non-Clinical Staff Perceptions of the Regional Perinatal Intensive Care Center Environment: A Qualitative Exploration

> Marissa Roberts, MPH, CHES Health Educator Consultant Office of Children's Medical Services Research Excellence Initiative Cohort 4 28 February 2019

AGENDA





- Introduction
- Literature Review
- Research Aims
- Methodology
- Preliminary Results
 & Limitations
- Next Steps
- Questions

INTRODUCTION



- Infant mortality (IM) : Death of a live birth baby before his/her first birthday. Leading risk factors for infant mortality (CDC, 2018):
 - Congenital malformations
 - Low birthweight
 - o Prematurity
 - Sudden Infant Death Syndrome (SIDS)
 - Maternal complications
 - o Injuries
- The neonatal (birth 28 days) and post-neonatal periods (29-364 days) are used to differentiate the timeframe for the occurrence of infant mortality; approximately two-thirds of babies die during the neonatal phase (Jacob et al., 2015).
- In 1998, IM in Florida was 7.2 per 1,000 live births. In 2017, the Florida infant mortality rate was 6.1 per 1,000 live births (FL Health Charts, 2018). The decrease in IM overtime:
 - Perinatal & Post-natal technological advancements and care at Neonatal Intensive Care Unit

INTRODUCTION



Neonatal Levels of Care (AAP, 2012):

LEVEL 1

LEVEL 2

LEVEL 3

Basic Care

- Perform neonatal resuscitation
- Evaluate and provide routine postnatal care
- Care for preterm infants at 35 to 37 weeks' gestation who are stable
- Stabilize newborn infants who are less than 35 weeks of gestation or who are ill, until transferred

- Specialty Care
 - Reserved for stable or moderately ill newborn infants who are born at ≥32 weeks' gestation or VLBW at birth with problems expected to resolve rapidly
 - Provide assisted ventilation on an interim basis
 - Must have equipment (portable x-ray machine) and personnel (RT) available
 - Referral to higher level of care for subspecialty intervention

- Subspecialty Care for Critically Ill Newborns
 - Provide sustained life support
 - Infants who are born at <32 weeks' gestation VLBW, or have medical or surgical conditions
 - Available personnel (neonatologists) and advanced equipment nutrition and pharmacy support with pediatric expertise, social services, and pastoral care
 - Pediatric medical subspecialists /surgical specialists readily accessible

 Most complex and critically ill

LEVEL 4

- Pediatric surgical subspecialists
- Located within an institution that provides surgical repair for congenital conditions
- Facilitate transport and provide outreach education

INTRODUCTION



- Regional Perinatal Intensive Care Centers (RPICC) which are level III hospital units designated by the Florida Department of Health, intended to provide a full range of health services to women and newborns declared financially and medically eligible (Florida Legislature 2018).
 - authority of sections 383.15 through 383.21 of the Florida statutes
 - Chapter 64C-6 of the Florida Administrative Code (FDOH 2010)
- Responsibility has been delegated to Children's Medical Services Managed Care Plan to administer RPICC contracts for their Medicaid population. There are currently 11 Regional Perinatal Intensive Care Centers statewide.

LITERATURE REVIEW



- Parents' perspectives of the NICU environment:
 - Anxiety, depression, fatigue; feeling overwhelmed and traumatized (Treherne et al., 2017)
 - Concerned over not knowing their infant and his/her needs (Hobbs et al., 2017)
 - Barriers to achieving parent-child emotional need gratification(Treherne et al., 2017):
 - × Physical separation
 - × Limited visitation
 - × Lack of accommodations
- NICU nurses can aid in parent-child bonding:
 - Making parents feel like part of the team, nurses acting as a supportive shadow, and nurses knowing the baby just as well as the parents (Treherne et al., 2017)
 - Information sharing between parents and NICU nurses on recognizing infant cues, as well as parental autonomy in assisting with the establishment of a care plan (Aita & Snider, 2003)
- Improving care for the 300,000 newborns needing NICU treatment:
 - Consistent communication and collaboration between a multidisciplinary team (Aita & Snider, 2003; Jacob et al., 2015; Mendel, 2016)
 - Compassion towards and communicating honestly with parents (Boss et al., 2013; Mendel, 2016)



LITERATURE REVIEW



Support available to NICU clinicians and staff is concerning and an understudied area.

- Critical for neonatal staff to receive the same emotional (Mendel, 2016)
- Neonatal nurses act as the primary care provider 24 hours a day (Lake et al., 2015)
 - × Bond
 - Nurses feel extreme anguish (Mendel, 2016)
 - Emotional/moral distress linked to burnout and attrition (Henrich et al., 2016)
- Solutions :
 - Debriefing sessions, especially after the immediate demise of a newborn (Mendel, 2016),
 - Better nurse staffing and practice environments
 - × Better patient outcomes (Lake et al., 2015).

Nurse perspectives of NICU distress:

- Concerns about other provider's care
- Teaching vs. optimal care
- Lack of end-of-life conversations
- Pain management
- Too little care provided
- Inconsistent care plans
- Poor communication
- End-of-life decision making
- o Interactions/conflict with families
- Recommendations for patient care ignored
- Lack of resources/lack of support from management

RESEARCH AIMS



Obtain viewpoint of Regional Perinatal Intensive Care Center staff.

- Obtain insight on ways the NICU environment can be improved.
- Assess what supports are in place to alleviate emotional and moral distress among staff.
- Highlight any major differences between centers and clinical role for quality improvement purposes.

METHODOLOGY



• Design:

- Non-experimental qualitative research
 - ×Protocol
- Data Collection & Analysis:
 - o Clinicians and staff at 11 RPICCs
 - o RPICC contract manager/liaisons Gatekeeper
 - Staff more receptive to participation if someone they are partial to notifies them
 - Semi-structured open-ended questions Survey Monkey

×NVIVO 12 Plus

Review existing resources to determine Infant Mortality Rates (IMR)

Staff Perspective of Regional Perinatal Intensive Care Center Environments

- 33 Respondents (Clinical 28/ Non-clinical 5)
 - Sacred Heart Health System (21)
 - Broward Health Medical System (1)
 - Jackson Memorial (3)
 - ×Winnie Palmer (1)
 - John Hopkins All Children (6)
 - ×UF Health Jacksonville (1)

Averaged 12 minutes









RESULTS/LIMITATIONS



- Supports available to NICU clinicians/staff:
 - Minimal/None/Unsure (All children & Sacred Heart)
 - Peer-to-peer support (open door policy), debriefings for code situations (direct care meeting & drill downs), chaplains (pastor care) available upon request, and an annual celebration (Sacred Heart)
 - Debriefings which include chaplains and psychologist and bereavement course (All children)
 - Comfort Care/Pastor Care team & EAP support groups (Jackson Memorial)
 - Support from leadership/physicians, chaplain & social worker access, routine & critical debriefings, and duty relief duties (Winner Palmer)
 - o Chaplain (UF Health)
 - Thank you cards, flowers, balloons, candy to show they appreciation of service (Broward Health)
- Limitations
 - Qualitative Rigor
 - Resource limited
 - Unaware of liaison dissemination process

NEXT STEPS



Engage additional RPICCs

Thematic Analysis

Compute (IMR)

Publish Results

REFERENCES



- Aita, M., & Snider, L. (2003). The art of developmental care in the NICU: a concept analysis. Journal of advanced nursing, 41(3), p.223-232.
- American Academy of Pediatrics (AAP). (2012). Levels of neonatal care: committee on fetus and newborn. Pediatrics, 130(3), 587-597. Retrieved from: http://pediatrics.aappublications.org/content/130/3/587
- Boss, R. D., Urban, A., Barnett, M. D., & Arnold, R. M. (2013). Neonatal critical care communication (NC3): training NICU physicians and nurse practitioners. *Journal of Perinatology*, 33(8), 642-646. doi:10.1038/jp.2013.22
- Centers for Disease Control & Prevention (CDC). (2018). Reproductive health: infant mortality. Retrieved from: <u>https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm</u>
- Florida Department of Health (FDOH). (2010). Children's Medical Services Network: Regional Perinatal Intensive Care Centers Handbook. Retrieved from: http://www.floridahealth.gov/AlternateSites/CMS-Kids/providers/documents/rpicc_handbook.pdf
- Florida Legislature. (2018) Chapter 383: Maternal and Infant Health Care. Retrieved from: <u>http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0300-0399/0383/0383.html</u>
- Henrich, N.J., Dodek, P.M., Alden, L., Keenan, M.D., Reynolds, S., & Rodney, P. (2016). Causes of moral distress in the intensive care unit: a qualitative study. *Journal of Critical Care*, 35, p. 57-62.
- Hobbs, J. E., Tschudy, M. M., Hussey-Gardner, B., Jennings, J. M., & Boss, R. D. (2017). "I don't know what I was expecting": home visits by neonatology fellows for infants discharged from the NICU. Birth (Berkeley, Calif.), 44(4), p.331-336.
- Jacob, J., Kamitsuka, M., Clark, R.H., Kelleher, A.S., & Spitzer, A.R. (2015). Etiologies of nicu deaths. Pediatrics, 135(1), p. e59-65.
- Lake, E. T., Staiger, D., Horbar, J., Kenny, M. J., Patrick, T., Rogowski, J. A. (2015). Disparities in perinatal quality outcomes for very low birth weight infants in neonatal intensive care. Health Services Research, 50(2), p.374-397.
- Mendel, T.R. (2016). The use of neonatal palliative care: reducing moral distress in nicu nurses. Journal of Neonatal Nursing, 20(6), p. 290-293.
- Treherne, S.C., Feeley, N., Charbonneau, & L., Axelin, A. (2017). Parents' perspectives of closeness and separation with their preterm infants in the NICU. Journal of Obstetric, Gynecologic & Neonatal Nursing, 46(5), p.737-747.

THANK YOU FOR YOUR ATTENTION!



