Research Proposal

The Role of the Neonatal Nurse Practitioner in the Community Hospital

**Principle investigator:** Barbara Snapp, DNP, NNP-BC  
Children’s National Health System  
111 Michigan Avenue, NW  
Washington, DC 20010  
bsnappdnp@gmail.com

**Co-investigator:** Barbara Reyna, PhD, NNP-BC  
University of Virginia  
School of Nursing  
202 Jeanette Lancaster Way  
Charlottesville, VA 22908  
bar4s@virginia.edu

**Purpose:** The purpose of this research project is to identify the neonatal nurse practitioner (NNP) role, responsibilities and practice expectations in the Level I, II, and III newborn care community hospital setting.

**Introduction:** The role of the neonatal nurse practitioner is well established in the neonatal intensive care unit (NICU). The NNP role encompasses a spectrum of advanced practice competencies including managing the care of critically ill and convalescing infants, attending high risk deliveries, discharge planning and parent education. How the NNP practice model is implemented is influenced by the practice setting, service need, billing practices and individual state practice acts. The demand for NNP services has increased as pediatric resident hours in the NICU have been reduced. This demand is also amplified by the growth of community obstetrical services and the subsequent need for neonatal services in the community hospital setting.

**Background:** A systematic literature review using search terms neonatal nurse practitioner, community hospital, and Levels I, II, and III care, yielded articles on the value of nurse practitioners and their ability to deliver safe, effective and cost-conscience care. General nurse practitioner responsibilities such as patient care, delivery room coverage, and discharge planning are described but how these activities are expected to be accomplished and possible barriers to practice are not identified. However, an innovative NNP practice model in a Level 1 postpartum unit was described in order to meet the needs of a busy delivery service. The role was one of consultant, educator and nursing leader; providing critical education and supervision in regards to resuscitation and stabilization of infants.
According to the National Association of Neonatal Nurse Practitioners (NANNP) 2016 Workforce Survey\(^8\) (n=1100), 91% (n=1001) of neonatal nurse practitioners work in Level III or IV neonatal intensive care units, yet the practice model may be very different for a Level IV NNP versus a Level I, II, or III NNP.\(^9\) The Level IV NNP is traditionally supported by attending physicians, house staff, fellows, and/or large multidisciplinary teams due to the complexity of their patients while the Level III NNP may be the sole in-house provider with limited resources.\(^10\) A 2010 study of NNP’s\(^11\) (n=392) reported that 54% (n=211) of their respondents worked in the community hospital setting yet little is known about this particular practice area, the level of experience required for independent practice and the expected responsibilities and required activities.\(^12\) This level of NNP autonomy may be further amplified in the Level II or I care units.\(^13\)

The American Academy of Pediatrics (AAP) has defined the different types or levels of neonatal care\(^14\). A Level I center has the ability to care for healthy term or near term newborns. A Level II center has the ability to care for stable infants 35 plus weeks of gestation with mild transient issues. The Level III center has the ability to care for the full range of gestational ages (22-23 weeks and up) plus critically ill infants but may not be fully staffed with subspecialists. A Level IV center has the ability to surgically repair complex congenital or acquired conditions and has a full range of subspecialists available.

The Level IV neonatal intensive care unit (NICU) may be university associated, a free standing children’s hospital, or a large private institution offering the highest level of care for infants. The Level I, II, and III newborn care centers can be found in urban, suburban and rural communities. As identified by published surveys,\(^4, 5, 6\) a large number of NNP’s are employed in these institutions. They may care for critically ill infants (although less complex than Level IV) but the patient population is often comprised of infants needing shorter term transitional care or premature infants needing NICU support as they grow.

The traditional model of NNP practice has been in the tertiary care level NICU. There is an emerging trend to utilize the NNP in Level I, II and III newborn care centers.\(^4, 7\) Based on the literature, there are gaps in our understanding of NNP practice in the less acute care setting. Opportunities exist to further describe this role and explore the practice boundaries. This survey serves as an initial effort to describe current practice.

**Study Design:** This study is a descriptive, exploratory study design.

**Methods:** A survey of 43 possible questions directed at NNP responsibilities and practice setting will be administered electronically via REDCap; a secure web application used to build online surveys and databases. The survey consists of 39 forced responses of multiple or limited choice questions and yes/no questions plus four questions with branching logic. There is an opportunity to write in comments at the end of the survey. The survey questions were developed from formal round table discussions held with community hospital NNP’s attending the Neonatal Advanced Practice Forum, Washington, DC, in 2012 and 2013 and from a round table discussion with new
NNP’s at the National Association of Neonatal Nurses 33rd Annual Conference in Providence, Rhode Island in 2017 with the PI as moderator at all sessions. The questions were formulated using the NANNP Workforce Survey questions as a template.

Survey participants will be recruited from a listserv of NNP’s, provided free of charge for research purposes, by the National Association of Neonatal Nurses (Chicago, IL). With 1,125 NNP members and estimating approximately 50% work in Level III or less, a 20% response rate should yield 112 completed surveys. If, however, an inadequate number of surveys are returned, a survey invitation will be posted on the Academy of Neonatal Nurses (ANN) and the Association of Woman’s Health, Obstetric, and Neonatal Nurses (AWHONN) website and Facebook pages to solicit more responses.

Consent: No demographic or personal data will be collected. There is no electronic link from the participant to the survey. Participation in the survey will be voluntary. Consent will be implied by completing the survey.

Inclusion criteria: Any NNP who is currently working, or has worked, in a community hospital Level I, II, and III, within the recent 5 years, is invited to participate.

Exclusion criteria: Any NNP working exclusively in a Level IV NICU with no recent (defined as within 5 years) experience working in Level I, II or III care center.

Analysis: Frequency and percentages will be calculated to describe the responsibilities and the practice setting of the NNP in the community hospital setting.

Limitations/Potential Difficulties: This survey will be sent to NNP’s belonging to three national associations. Not all practicing NNP’s are members of one or more of these organizations.

Implications for Research and Practice: A better understanding of the role expectations and responsibilities of the community based NNP will assist with developing staffing guidelines, influence practice models and guide recruitment and retention of NNP’s in the community hospital setting. Understanding current NNP practice in the less acute care units may help identify the degree of autonomy and may suggest the level of experience needed to practice in the Level I, II, and III community hospital.

Results of the survey will be presented in aggregate data and disseminated through professional meetings and publications adding to the existing body of literature on NNP roles and responsibilities.