Student Experiences in the Neonatal Intensive Care Unit: Addendum to Neonatal Physical Therapy Competencies and Clinical Training Models

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Purpose: To describe the appropriate experience for entry-level physical therapist students in the neonatal intensive care unit (NICU). Key Points: Care for infants in the NICU represents a subspecialty within pediatric physical therapy delivered in a very complex environment. Recommendations for designing student educational experiences related to the NICU are provided. Conclusions/Practice Implications: Supervised observation is the appropriate level of NICU experience for physical therapy students. Observation in the NICU cannot be used to demonstrate entry-level clinical competency defined as managing 100% patient caseload in the setting. Additional closely supervised experiences with older, less fragile infants and children in neonatal follow-up clinics and pediatric wards can provide opportunities for entry-level physical therapist students interested in pediatrics to participate in examination and intervention with young children. (Pediatr Phys Ther 2010;22:439–440) Key words: clinical competence, clinical practice guidelines, high-risk infant, neonatal intensive care units, neonatology, physical therapy/education, preterm infant, teaching methods, reference standards/clinical, training models

INTRODUCTION

In 2009 and 2010, a 2-part series addressing clinical practice guidelines for physical therapists (PTs) in the neonatal intensive care unit (NICU) was published in Pediatric Physical Therapy.1,2 Part I offered content on specialized training models, clinical competencies, and a decision-making algorithm, whereas part II focused on NICU practice frameworks and evidence-based practice recommendations. These articles offered a comprehensive overview of the subspecialty competencies required of PTs providing intervention to infants in the highly specialized environment of the NICU. Several clinical training models and 71 clinical proficiencies were identified in part I for consideration by pediatric PTs preparing for neonatal practice. The NICU was identified as an inappropriate practice setting for examination and intervention for physical therapy generalists, physical therapist assistants and aides, and physical therapist students.1 Description and examples of observational, nonhandling NICU clinical experiences for entry-level physical therapy students were not addressed in part I. This addendum provides an overview of supervised observation experiences in the NICU as a component of clinical preparation for students to enter the physical therapy profession and as an orientation for later participation in postprofessional, precepted subspecialty training in neonatal physical therapy.

EDUCATION OF THE ENTRY-LEVEL PHYSICAL THERAPIST STUDENT

Academic faculty members are responsible for securing clinical education sites and placing students at clinical education sites as an
integral component of entry-level education preparation. A detailed description of the practice expectations defining the expected performance of a graduate from an accredited physical therapy education program can be found in *A Normative Model of Physical Therapist Professional Education.*5

In the specialized practice setting of the NICU, entry-level physical therapist students may have opportunities to engage in clinical observation or clinical education experiences that may meet some entry-level performance requirements of the Clinical Performance Instrument.4 The scope and structure of appropriate NICU clinical experiences for entry-level physical therapist students interested in neonatal and pediatric physical therapy are described in the next section.

STUDENT EXPERIENCES IN THE NICU

The following recommendations can be used to guide both clinical instructors and students in designing clinical experiences and in clarifying the limited range of appropriate learning experiences in the NICU.

- With close supervision by a licensed PT with neonatal expertise, entry-level physical therapist students interested in pediatrics may participate in an observational capacity in the NICU without direct handling (examination or intervention) of infants.
- Preparatory review of neonatal physical therapy clinical practice guidelines1,2 and other relevant literature in neonatology is recommended before NICU observations.
- The nonhandling observation should focus on touring the unit and shadowing a licensed PT with experience in the NICU setting. Students are encouraged to observe the following: (1) infants of varying gestational ages, diagnoses, and acuity levels, (2) parent-infant interaction, (3) handling and intervention provided by all members of the healthcare team, and (4) communication among team members. Special attention should be directed to observing the infant's behavioral (physiological, motor, and state) responses to handling and intervention, self-regulation (physiological, motor, and state organization) abilities, communication, and developmental progression. Emphasis for physical therapist students is on exposure to the unique physical and cultural environment, intensive care equipment, medical and developmental care that infants receive in the NICU, physiological and behavioral fragility of the infants, and communication and interaction of the healthcare team with each other and with family members (eg, family and team conferences).
- Observation in the NICU cannot be used to demonstrate entry-level clinical competency defined as managing 100% patient caseload in the setting. Any NICU observational experience must therefore be coupled with another clinical experience for the student to have the necessary opportunities to meet the required caseload for entry-level performance on the Clinical Performance Instrument.4
- Students may observe and participate in closely supervised handling related to physical therapy examination and intervention on pediatric wards and pediatric intensive care units (or equivalent patient care unit) for older infants and young children with medical stability and more advanced neurologic, pulmonary, and vascular maturation than neonates in the NICU or intermediate care settings.
- NICU follow-up clinics should be attended by physical therapist students interested in pediatrics. In this nonacute setting, physical therapist students may have supervised opportunities to handle infants, learn about the range of outcomes of infants after an extended stay in a NICU, gain experience assessing motor development at multiple ages, and assist with parent education and developmental home programs.

CONCLUSION

Supervised, nonhandling exposure of entry-level physical therapist students to the NICU setting will enhance general understanding of this specialized practice environment and facilitate appreciation and preparation for precepted, competency-based training in the subspecialty of neonatal physical therapy following entry-level professional education. For supervised examination and intervention experiences, clinical instructors are advised to explore opportunities for physical therapist student participation in NICU follow-up clinics, pediatric intensive care units, and pediatric wards.

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REFERENCES