New Knowledge, Innovations & Improvements: Research

NK2: Nurses disseminate the organization’s nursing research findings to internal and external audiences.

NK2b: Provide one example, with supporting evidence, of how clinical nurses disseminated to external audiences knowledge obtained through the organization’s nursing research.

Introduction:

The Yvonne L. Munn Center for Nursing Research (Munn Center) was established in 2008 to facilitate nursing research at Massachusetts General Hospital (MGH). The Munn Center employs nurse scientists to conduct research and serve as mentors and consultants to all nurses who wish to conduct research projects. The MGH employs approximately 60 doctorally-prepared nurses and a number of nurses currently enrolled in doctoral programs who work in a variety of roles and settings. These nurses, as well as a growing cadre of regional and national external faculty nurse scientists are affiliated with the Munn Center through the MGH Nursing Doctoral Research Forum. The Forum is a peer community of nurses with doctorates or who are enrolled in doctoral programs, that meets quarterly to share research ideas; receive peer review, support, and topical education; and discuss research funding and dissemination opportunities. Along with the Munn Center nurse scientists, Forum members can serve as research mentors and consultants.

The Munn Center provides funding for nurses to conduct research through the Yvonne L. Munn Doctoral Fellowship Award and the Connell Scholars Program. These awards are given to nurses who are doctoral students and those who have recently completed doctoral study. The Yvonne L. Munn Nursing Research Award (Munn Award) was developed specifically for clinical nurses. Munn awards are competitive annual awards given out during Nursing Research Day held during Nurse Recognition Week and provide clinical nurses with mentoring from a nurse scientist to help develop the application and, if funded, support the project from concept to dissemination.

Nursing research conducted at the MGH is routinely disseminated to a wide variety of internal and external audiences. Internal dissemination opportunities are described in NK 2a. External dissemination occurs through publications in scholarly journals and through a variety of presentation types at local, regional, national, and international conferences.

Clinical nurses who receive Munn Awards are expected to disseminate their findings internally, but they are also carefully mentored to disseminate their research findings to external audiences. The following narrative highlights one example of research, conducted by a Clinical Nurse and Case Manager, Kevin Mary Callans, RN, BSN, titled “Development of a Transition of Care Model for Pediatric Patients with Critical Airway
Example of External Dissemination of Research

Young infants and children with critical airway conditions, hospitalized at MGH in any of its four pediatric units, often require multiple surgeries that result in the use of artificial airway devices, such as tracheostomies, used with and without mechanical ventilation, for ongoing care. It is a period of great uncertainty and emotion for parents who are sometimes devastated by the fact that their child has a tracheostomy. Tracheostomy placement in pediatric patients is also a period of heightened vigilance for nursing staff because it is, in general, a rare event, a reality that is exacerbated by patient placement being per age and developmental need rather than by medical diagnosis. As with all low-volume, high-risk procedures, opportunities for nurses to become familiar with and retain competencies for tracheostomy care are few.

When children’s care is stabilized, they are routinely discharged home with family who must manage the tracheostomies. At the MGH, clinical nurses are responsible for assessing the families’ readiness to learn the necessary skills and assisting families to acquire the skills needed to provide this complex care in the home. Complicating this intricate care and caregiver training is a complex care environment. The MGH adjoins a separate specialty care hospital, Massachusetts Eye and Ear Infirmary (MEEI). Both institutions provide acute care to infants and children with critical airway conditions because they share the Pediatric Ear, Nose, and Throat (ENT) service. All pediatric tracheostomy placement procedures are performed in the specialty operating rooms at the MEEI because Pediatric ENT Surgeons prefer using these facilities. All pediatric patients who receive new tracheostomies are transferred to MGH for immediate postoperative care in the Pediatric Intensive Care Unit (Bigelow 6) or Neonatal Intensive Care Unit (Blake 10). This Pediatric ENT consultant arrangement requires considerable efforts to coordinate care when patients transfer between institutions and care settings because each institution has its own unique staff, policies, procedures, and patient/family education and teaching methods.

The MEEI ENT surgeons’ preferences for the frequency of tracheostomy tube changes and general tracheostomy care varied, as did their expectations of desired family caregiver skills. Compounding the problem was that surgeons in the MEEI discussed the plan of care with the family, but did not include nurses from either MEEI or the MGH, where postoperative care would occur, in the plan of care discussions. Clinical nurses in both institutions were concerned about these communication lapses because they recognized how it caused stress for families and created challenges for nurses to assure continuity of care, particularly related to transfer communication and care planning.

Kevin Mary Callans, RN, BSN, a Clinical Nurse and Case Manager in pediatrics, often interacted with clinical nurses at both MEEI and MGH to arrange continuous care for pediatric patients with critical airway conditions. Callans observed that care for infants and children with tracheostomies was often fragmented, especially when these patients...
received care in both institutions during the same hospitalization. She also noted that length of stay for this patient population was much greater than at benchmark institutions participating in the Global Tracheostomy Collaborative, a pediatric tracheostomy registry based at Boston Children’s Hospital, in which MGH also participates. To improve the transfer of care for children with tracheostomies, their families, and nurses who provide hospital care, Callans designed a research project that included four components: qualitative inquiry consisting of focus groups with family members and clinical nurses from MEEI and MGH, staff education and practice changes for both institutions, parent education, and standardized discharge planning and teaching across MEEI and MGH. The basis for the project was the Consensus Statement on Pediatric Tracheostomies from the American Academy of Otolaryngology-Head and Neck Surgery.

Callans’ research was supported by a 2013 Yvonne L. Munn Nursing Research Award which allowed Callans to receive mentoring from internal and external nurse scientists for the duration of the project. The study was approved by the IRB on May 16, 2013 (attachment NK2b.a) and conducted between July 2013 and December 2014. Callans’ findings demonstrated that the nurses’ teaching role was not limited to skill transfer, but also required an awareness of the current emotional state and needs of the parent caregivers. Family members wanted to be pushed to learn skills to hasten their child’s discharge. Nurses were frustrated by lack of communication across institutions. Families were also frustrated by lack of care coordination and cited that confident nurses produced confident family caregivers. Based on her findings, an interdisciplinary team was convened to standardized tracheostomy care and the related patient/family education which is presented in EP 13EO.

With this continued mentoring, Callans disseminated her results to external audiences through publication of two research papers in professional nursing journals, at a poster session of a regional nursing research organization, and in podium presentations at an international nursing research conference and a local Sigma Theta Tau chapter program between Fall 2014 and January 2017.

The first publication was an analysis of qualitative data focus groups with nurses. This was completed in collaboration with both external expert (Annette McDonough, PhD, CNS; University of Massachusetts – Lowell) and internal expert (Diane Carroll, PhD, RN, FAAN) nurse scientists and published in the journal of Callans’ specialty nursing organization, the Society of Otorhinolaryngology and Head-Neck Nurses.


The second publication reported the main findings from focus groups conducted with family members of children with tracheostomies and appeared in the Journal of Pediatric Nursing. This was a collaborative effort with Callans as the first author, a
nursing colleague (Carolyn Bleiler, MSN, RN) and two internal nurse scientists (Jane Flanagan, PhD, ANP-BC and Diane Carroll, PhD, RN, FAAN).


Callans also disseminated her research in a poster session at the Eastern Nursing Research Society’s annual scientific sessions on April 16, 2015 in Washington, D. C. (attachment NK2b.c). This was a collaborative effort with all of her research mentors (Diane Carroll, PhD, RN, FAAN, Annette McDonough, PhD, CNS, Jane Flanagan, PhD, ANP-BC) and her nursing colleagues (Brenda Miller, RN, MS, Arlene Kelleher, RN, MS, and Carolyn Bleiler, RN, MSN).


On November 2, 2016, Callans gave a podium presentation of her work, “The Transitional Care of a Family Caring for Their Child with a Tracheostomy,” at the International Conference on Nursing Science in Singapore (attachment NK2b.d). Callans was also invited to be the program speaker at Boston College for the Clinical Innovations Dinner Program sponsored by the Alpha Chi Chapter of Sigma Theta Tau. Her presentation, titled “Development of a Transitional Care Model for Pediatric Patients with Critical Airway Conditions Across Institutions,” was delivered on January 25, 2017 (attachment NK2b.e).