Moving the needle in intervention research: the need for more nurse researchers

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The world continues to need answers to the many health issues and crises that face us in healthcare. The need for evidence-based interventions, treatments, and programs that resonate with communities and that can be implemented with diverse populations has never been greater. Doctorally-prepared faculty, scientists, and clinicians in nursing, and those from a wide array of health disciplines, can be key to developing, testing, and implementing evidence-based interventions. The challenge is that intervention studies in nursing, which are developed and driven by rigorous science and conducted by nurses prepared to lead research teams, remain limited. In fact, moving research results into practice settings after this rigorous development and testing of interventions takes, on average, fifteen years (Kahn et al., 2021). The evidence to improve population health outcomes, increase safety, and decrease costs is still often limited to descriptive studies that continue to dominate the research conducted in the nursing scientific field. Those in the discipline must be prepared, and strongly encouraged and mentored, to move more quickly. The process of progressing from qualitative research to descriptive and predictive research, important for determining what variables influence outcomes, must then move toward experimental studies focused on determining what interventions are efficacious in improving health-related outcomes. Too often, nurses conducting research have been reticent to “make the jump” from preparatory descriptive work to intervention science. The public and healthcare communities cannot wait, and nurses must be empowered to bring forth the change needed through intervention development.

Intervention studies remain the best approach in research by which conclusions can be drawn about cause-and-effect relationships between an intervention or treatment and outcomes (Melnyk and Morrison-Beedy, 2019). The randomized controlled trial (RCT) remains the gold standard research design for testing and assessing impact on outcomes in research. In this design, we assign study participants randomly to intervention conditions (e.g., the classic control group vs. intervention group comparison). Ultimately, we want to know if the intervention (whether it is one that is education focused, a clinical program, a treatment, or other strategy) leads to a significant difference between groups. Truly, we want to know if, under research conditions this intervention improves health outcomes. We need more nurses contributing to high-level evidence (i.e., Level II evidence in many published evidence pyramids), rather than lower-level evidence through descriptive work if we are to “move the needle” towards translating research into practice (see Levels of Evidence in Melnyk and Fineout-Overholt, 2019).

In addition to encouraging, supporting, and preparing nurse scientists to bravely move forward with intervention development and testing, we need to consider where these research leaders are coming from. Where is our pool of future nurse scientists? Unfortunately, how we build the pipeline of nurse scientists is rarely recognized or well understood. These research leaders often come from our ever-shrinking pool of nurse faculty. We must recognize that a single faculty in nursing may impact, both directly and indirectly through their students, almost 1,350,000 patients. Beyond the direct and indirect impact on patient care, this pipeline includes the doctorally-prepared scientists who will be the intervention developers, testers, and implementers of our future (Morrison-Beedy, 2018). In turn, many of these faculty will also lead in both entrepreneurial and intrapreneurial innovations, which again improve health outcomes and truly make life better (Yashin-Shaw and Morrison-Beedy, 2022).

While we try to address the targeted question of how we move more nurses forward in the level of evidence pipeline so that a greater proportion of nursing science focuses on intervention development and rigorous RCT testing, we must also consider two issues. With a broader lens, we must ask our profession two questions. First, how do we make nursing faculty positions the “go to” option for our profession? Certainly how we empower, prepare, and support those who choose this role will be essential to building the pipeline of faculty. Second, how can we successfully address the relatively small and flat enrollment in PhD programs for nurses? We must consider how to build PhD programs that meet the learning needs of the next generation while maintaining an active cadre of research mentors and educators.
The need for nurses prepared for clinical care roles, advanced practice nurses, and educators will not cease. However, side-by-side with building the next generation there is an ongoing need to develop evidence-based practices produced through intervention research conducted by nurses with expertise and clear understanding of the complex, inter-related factors that impact individuals, families, and communities from that nursing lens. PhD students and early-career faculty must not be discouraged from conducting intervention research when sufficient descriptive and predictive studies exist – nursing science must move forward. For those nurse faculty and leaders currently conducting research, we need you to be brave and forward-thinking. Move beyond descriptive or low-level evidence generation to the higher-level evidence so urgently needed to guide practice. Establishing inter-professional teams and close collaborations with clinically-expert nurses in order to move clinical questions into intervention research is also key to the rapid translation of intervention research findings into practice settings. Now is not the time for nursing to hesitate, but rather to boldly go where the need lies in intervention science.

References