New Graduate Post-Licensure BSN Korean Nurses' Self-Efficacy in Genetics/Genomics Competencies: A Phenomenological Study

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**Purpose:** Genetics in nursing practice has moved beyond the study of genes and heredity and now includes genomics, which considers both genetic and environmental causes of diseases across the lifespan. This shift in nursing practice has potential implications for new graduate nurses to have the foundation in genetic and genomic knowledge and skills (Camak, 2016; Jenkins, et. al., 2015). Several organizations have provided support for incorporation of the principles of human genetics into nursing education and practice: The American Nurses Association (ANA, 2009); The American Association of Colleges of Nursing (2008); The National Coalition for Health Professional Education in Genetics (NCHPEG, 2007); and The International Society of Nurses in Genetics (2006). Although nursing education acknowledges that baccalaureate-prepared nurses have the essential competencies in genetics and genomics, researchers have not explored factors that may influence these nurses’ abilities to develop genetics and genomics self-efficacy in the practice setting. Furthermore, research studies have not described the phenomenon that explains how new graduates of post-licensure baccalaureate nursing programs develop and maintain self-efficacy in genetics and genomics competencies in their current nursing practice. This research study was conducted to explore how new graduate baccalaureate-prepared Korean nurses develop and maintain self-efficacy in genetics and genomics competencies for application in nursing practice.

**Methods:** The study was conducted using a descriptive phenomenological qualitative design based on the four-step process described by Moustakas (1994) to elicit the perception of the lived experiences of the participants while emphasizing the richness, breadth, and depth of those experiences. Study participants were new graduates of a post-licensure baccalaureate education program and were currently practicing nurses in South Korea. One-on-one semi-structured interviews with nine participants allowed the researcher to explore the meaning of individual experiences, as well as gain insight and understanding of the phenomenon in question from all of the study participants’ perspectives. The researcher used an interview guide to ensure consistency in the questions asked, thereby allowing the researcher to collect similar types of data from all participants of the study. For data analysis, Colaizzi’s seven-step method was chosen, as it requires validation of the results with the study participants (i.e., member checking), thereby lending data analysis to higher rigor (Sanders, 2003). NVivo 12 software was used to help organize data and assist with the thematic analysis.

**Results:** Study findings from the thematic analysis are presented, using exemplar narratives to support the themes identified by the researcher. Findings from this study supported the key roles of nurses in assessing and identifying genetic-related conditions, as well as providing patient education and counseling pertaining to genetics/genomics care. The complexity of knowledge acquisition, transfer, and translation of genetics/genomics science to healthcare practice settings were apparent, primarily attributed to multidisciplinary viewpoints. Based on the findings, implications for enhancing clinical [learning] experiences, continuing education needs, and resources are discussed. Limitations of the study are presented.
Conclusion: Findings from this study can be used by clinical nurse educators and administrators to establish models for educational programming, experience-based learning, and competency assessment that support ongoing development of genetics and genomics self-efficacy in clinical nurses from various practice areas. Findings from the study can provide a framework for academic and clinical nurse educators to create relevant learning outcomes and performance-based assessments for evaluation of genetics and genomic competencies which are imperative in the practice arena. Finally, Markens (2017) discussed the potential impact of genetics/genomics medicine and technologies on further increasing the existing health disparities. Additional studies are warranted to address the gaps that exist in genetics/genomics nursing practice, including that of the impact on patient care outcomes with consideration for cost-benefit and cost-effective measures.

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Keywords:
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References:

**Abstract Summary:**
Discussion of findings from a phenomenological qualitative research study that explored how new graduate post-licensure baccalaureate-prepared Korean nurses develop and maintain self-efficacy in genetics and genomics competencies for application in their nursing practice areas.

**Content Outline:**
I. Purpose of Study
- Explore how new graduate baccalaureate-prepared Korean nurses develop and maintain self-efficacy in genetics and genomics competencies for application in their respective nursing practice areas.
- Identify themes of most common learning resources and experiences in clinical nursing practice that support development of self-efficacy in genetics/genomics competencies
II. Problem Background & Significance
- Nursing competency in genetics/genomics care can impact health care delivery and quality of patient outcomes (*National Institutes of Health, 2017*)
- Nurses are not demonstrating required competencies (Calzone et al., 2016; Camak, 2016)
- Impact of genetics/genomics nursing competencies have not been examined from a global/international perspective, specifically in international students who are obtaining baccalaureate education in U.S.-based nursing programs
- Findings from the study can provide nursing educators and administrators from both academic and clinical practice settings additional insight into effective strategies to develop self-efficacy in genetics/genomics nursing competencies from a global health perspective
III. Theoretical Framework
- Bandura’s Self-Efficacy Model (Bandura, 1977)
IV. Methodology
- Research Design: Qualitative, Phenomenology
- Setting: U.S.-based online post-licensure nursing program in Midwest and South Korean clinical nursing practice areas
- Population & Sample: Purposive sampling of Korean nurses who graduated from the identified post-licensure baccalaureate nursing program and currently practicing in South Korea
- Data Collection: One-on-one semi-structured interviews
- Data Analysis: Colaizzi’s (1978) seven-step method and NVivo12
V. Findings & Conclusions
- Thematic analysis of findings and narrative exemplars
- Implications of findings
  1. Enhancing clinical [learning] experiences and resources
  2. Continuing education needs and resources
- Limitations of the study
VI. Nursing Implications & Further Research Recommendations
Impact on patient health outcomes
Impact on cost benefit and cost-effective related measures of patient care outcomes

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Author Summary: Rachel Choudhury is a faculty at Franklin University’s online post-licensure program, where she teaches the genetics/genomics nursing course. She presented at the 2018 Sigma International Nursing Research Congress on the genetic/genomic nursing competencies of Korean students enrolled in a U.S.-based post-licensure nursing program. She participated in the 2012 NIH/NHGRI Genomics Research Program and has served as a content expert panel member with the ANCC’s genetics nursing certification portfolio project.