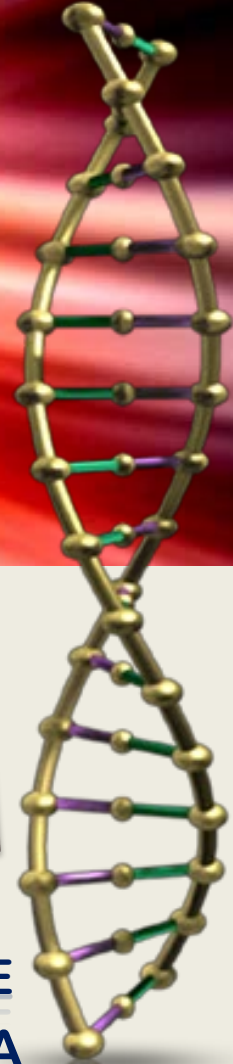


# **New Graduate Post-Licensure BSN Korean Nurses' Self-Efficacy in Genetics/Genomics Competencies: A Phenomenological Study**



**Rachel Choudhury, MSN, MS, RN, CNE**  
**Adjunct Faculty, RN-BSN Program, COHPA**  
**Franklin University, Columbus, OH**

# Introduction



- **Complex care of individuals requiring foundational knowledge and skills in genetics and genomics** (Jenkins, et. al., 2015; Camak, 2016)
- **Support from various professional nursing organizations**
- **New genetics/genomics knowledge and technology have implications in healthcare delivery, utilization, and management** (National Institutes of Health, 2017)

# Study Purpose

**Explore how Korean nurses who recently graduated from a US-based post-licensure BSN program develop and maintain self-efficacy in genetics and genomics competencies for application in nursing practice**



# Theoretical Frameworks

- **Self-efficacy Theory** (Bandura, 1977, 1981)
  - *“Judgment of one’s capacity to accomplish a certain level of performance”*
  - Perceived self-efficacy --- > Competency
  - Internal motivation and personal beliefs
- **Phenomenology** (Moustakas, 1994)
  - Descriptions of lived experiences
  - Understanding perceptions and meanings of experiences





# Methodology

## Sample

- Purposive sampling:
  - 12 nurses from South Korea
- New graduates of US-based online post-licensure BSN program
- Completed program within the last year
- Years in nursing practice:
  - 2 to 13 (mean = 5 yrs)
- Variety of practice settings



# Methodology

## Data Collection and Analysis

- **One-on-one in-person interviews (45-60 mins) using a videoconferencing software**
- **Semi-structured interview: Three phases**
  - **Colaizzi's 7-step method (Moustakas, 1994)**
  - **Transcription and coding using software**
  - **Field notes, bracketing, reflexive journaling**
  - **Member check (7 participants)**



# Findings and Discussion

## Themes

- Did not recognize immediate application/ relevance of genetics/ genomics competencies in their respective nursing practice areas
- Able to describe how they can incorporate genetics/genomics competencies in their practice
- Ethical/legal, cultural, and socio-political considerations
- Need for resources and ongoing education to develop competency and self-efficacy



# Findings and Discussion



- *“I am currently working as a school nurse in a middle school. It is difficult to incorporate genetic technology into practice because schools do not have genetic testing or research equipment, and health textbooks for classes do not contain any information on genetics. I plan to show students how genetics and genomes are related to health, prevention, and screening using online resources and research.”*
- *“I specialize in artificial kidney unit, and in this field genetic and genomics techniques and information are not really much utilized. I have one patient with polycystic kidney disease. As a nurse, I have to provide them with correct and accurate information and educate them. Patients who are already [getting] dialysis for genetic disorders are most concerned that their genetic disorders are passed on to their children's generation.”*

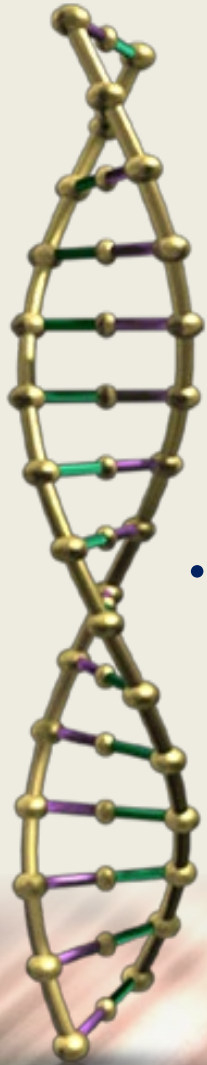


# Findings and Discussion



- *“We collect several symptoms that can predict childhood genetic diseases. There are several issues to consider in applying these practices. In Korea, people tend not to want to let other people know about rare diseases such as genetic diseases. There is also a reluctance to test genes because there is not a high level of awareness of genetic diseases. And because there are limited and expensive medical institutions that can conduct genetic testing, we need to consider giving up testing.”*
- *“There are some issues with practice, specifically cultural factors. While the new genetic technology can offer treatment, patients find it difficult to have information or confidence about new technologies, not traditional ones that have been around for a long time. Especially culturally, Koreans tend to emphasize traditional and group-oriented values.”*

# Findings and Discussion



- *“[Nurses] may not have information on genetic counseling because only initial diagnostic-oriented tests are currently conducted in Korea. My hospital is required to provide education and access to genetics by medical practitioners and provides training in such fields as genetic testing and treatment. While most [nurses] are familiar with patients, they may not be the best people to offer genetic counseling, and most of them are not trained in medical genetics, diagnostic tests, and genetic counseling.”*
- *“There is a lot of data on genetic technology and new things will be developed in the future. Therefore, I must grasp the constant interest in this technology and the new research trends. And by applying genetic technology to several patients, I should be able to apply the results and knowledge that I gain from experience to my nursing practice again.”*

# Conclusions



- **Nursing roles: practitioner, educator, counselor**
- **Self-efficacy development is a complex process**
- **Recommendations**
  - Enhancing development of genetics/genomics competencies with experiences in clinical practice
  - Creating effective educational programming with appropriate learning outcomes and assessments
- **Study Limitations: Study setting and sample**
- **Further research**
  - Impact of technology and genetics/genomics research
  - Patient care outcomes and genetics services

# References



- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Camak, D. J. (2016). Increasing importance of genetics in nursing. *Nurse Education Today*, 44, 86-91.
- Jenkins, J., Calzone, K. A., Caskey, S., Culp, S., Weiner, M., & Badzek, L. (2015). Methods of genomic competency integration in practice. *Journal of Nursing Scholarship*, 47(3), 200-210.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.
- National Institutes of Health (NIH). (2017). *Genomic medicine and health care*. Retrieved from <https://www.genome.gov/27527652/genomic-medicine-and-health-care/>



# Questions/Discussion



**Rachel Choudhury, MSN, MS, RN, CNE**  
**Adjunct Faculty, Nursing [RN-BSN Program]**

College of Health and Public Administration

Franklin University

**951.973.6947**

**[rachel.choudhury@franklin.edu](mailto:rachel.choudhury@franklin.edu)**