An Innovative Approach to Teaching Genetics to Graduate Nursing Students Using Interprofessional Teaching Modalities

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Disclosure

- Dorothy S. Lee, PhD, RN, ANP-BC, FNP-BC, CME, Saginaw Valley State University reports no conflict of interest and no sponsorship or commercial support.

- Sharon Panepucci, MSN, RNC-OB, CHSE, CLC, Saginaw Valley State University reports no conflict of interest and no sponsorship or commercial support.
Learner Objectives

- Describe how to incorporate current and emerging genetic/genomic evidence into the Masters’ Curriculum to promulgate a meaningful, interactive, and motivating approach to graduate level learning.

- Explore design and implementation of interprofessional simulations, concept mapping, and panel discussions to increase confidence, critical thinking and clinical decision making in graduate nursing students
How can faculty ensure that graduate nursing clinicians have the necessary genetic knowledge to apply genetics/genomics in a clinical setting?
Theoretical Framework

- NLN/Jeffries Simulation Framework
- Phenomenology
- Situated Cognition
Focus Interprofessional Team

Family Nurse Practitioner

Biology Professor

Simulation Educators
Development

- Weekly Meetings and Timeline
- Simulation Modality
- Design Characteristics
- Technology requirements
- Outcomes
Simulation & Education Modalities

- Standardized Patients
- High Fidelity Manikin
- Digital Imaging
- Cancer Survivor Panel
- Freeze Frame & Cued Discussion Points
- Process-based Participant
Simulated Learning Experiences

- Down Syndrome Simulation
- Sickle Cell Simulation
- Huntington Simulation
- Breast Cancer Panel
Kirkpatrick’s Four-Level Training Evaluation Model

- Reaction
  - Student Feedback
  - Simulation Debriefing
  - Reflection Assignments
- Learning
  - Concept Maps
- Behavior
- Results
Student Feedback

- “The concept maps allowed us to feel the investment of the sim character’s viewpoint.”
- “The debriefing after the cancer panel was very powerful & emotional. The panelists gave us a valuable glimpse into their journeys, I learned a lot.”
- “The simulations complemented the genetics info well”.
- “Having sim be interactive was helpful in making connections and further my understanding.”
- “Sims were helpful and provided another method of learning.”
- “Enjoyed lab sims esp. br ca panel good to have hands on involvement and learn about genetic applications too.”
Future Recommendation

- Add graduate students from other disciplines (e.g. Social Work, Occupational Therapy, Medical Laboratory Science)
- Qualitative data collection in the form of focus groups, to be conducted after clinical and prior to graduation regarding application of genetic knowledge in clinical setting.
- Incorporation of telemedicine as an additional modality of education and practice.
References