



An Interprofessional Approach for Genomics in Nursing Care

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Introduction

There is an immediate need for nurses to better understand the role Genomics plays in patient care.

Nursing faculty struggle to incorporate Genomics with an already full curriculum. Faculty also lack the expertise to educate students on Genomics.

It is assumed that nurses have the basic competencies required, yet there is a dearth of evidence to support this.

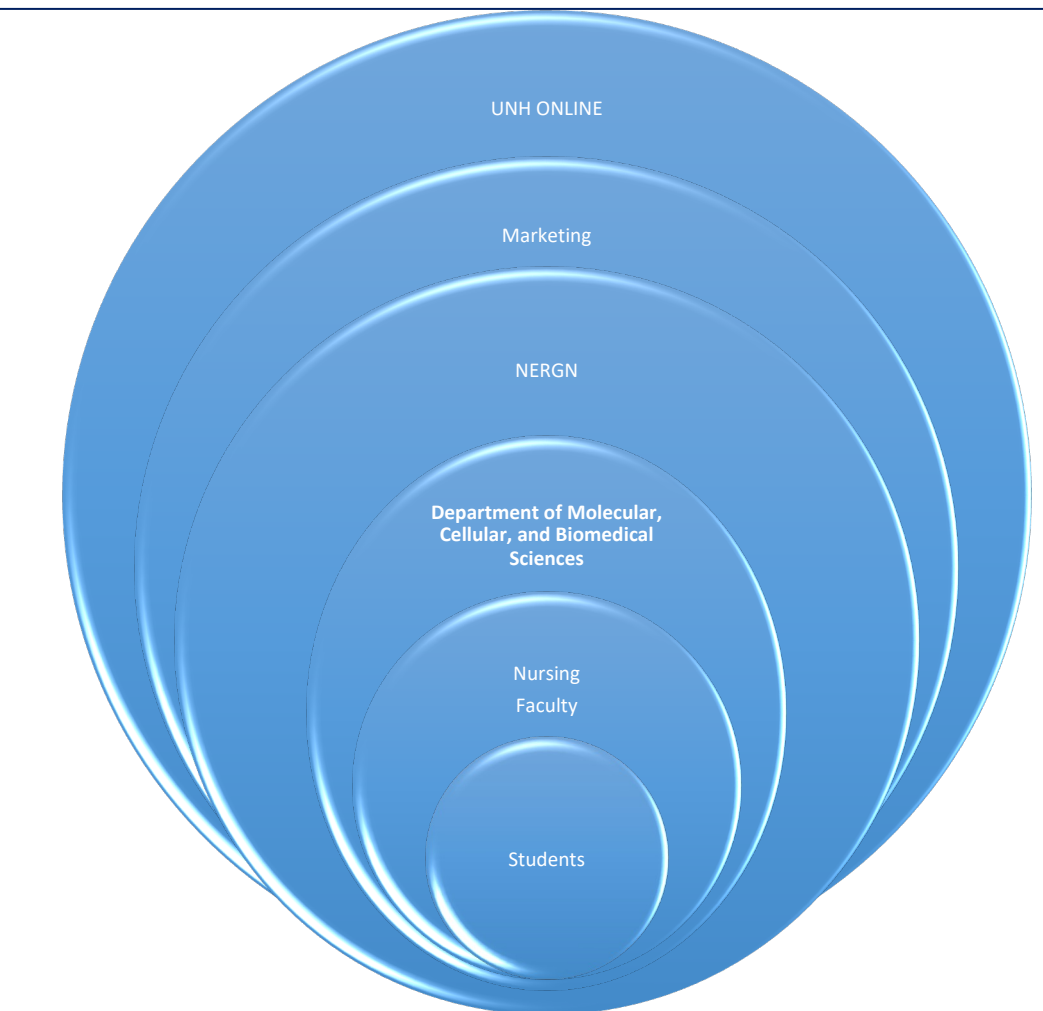
Direct to consumer genetics testing is readily available. Patients are becoming well versed in genomics and the effects of the environment on one's health.

Rationale

Genomics-informed nursing is a complex field that encompasses all areas of health care, e.g., diabetes mellitus, cardiac diseases, cerebrovascular diseases, oncology, neurology, pediatrics, pharmacology, and pain management. It is therefore extremely relevant to all nurses, regardless of their field of practice (Wright, Zhao, Birks, & Mills, 2019).

- To improve nurses' ability to integrate genomics into daily nursing practice, it is essential to raise their genomic literacy (Calzone et al., 2018a).
- The 2022 American Association of Colleges of Nursing's (AACN) New Essentials briefly discusses genomics and genetics competencies for nursing education.

Collaborative Model



Methodology

The Department of Nursing at the University of New Hampshire in collaboration with the New England Regional Genetics Network (NERGN), developed an online educational offering geared towards the practicing nurse. This introductory course will be the gateway to further course development within the Department of Nursing.

- A series of meetings from June to November to develop program, content, and deployment
- Key stakeholders included: Dept of Nursing, UNH Online, NERGN, Dept. Molecular, Cellular, and Biomedical Sciences

Curriculum

Training Modules

- Module 1- Review of Basic Genomics
- Module 2 – Risk Assessment and Interpretation
- Module 3 – Genetic Education Counseling, Testing, and Results Interpretation
- Module 4 – Clinical Management
- Module 5 – Ethical, Legal and Social Implications
- Module 6 – Research Translation
- Module 7 – Professional Role and Leadership

**Asynchronous, self-paced online micro-credential

Course Goals

1. Improve genetic/genomic literacy among doctoral level nurses/nursing students.
2. Introduce the genetic basis of disease, health risk assessment, epigenetics, and personalized health care with an emphasis on the associated ethical implications of genetic and genomic advancements
3. Identify opportunities to apply genomic medicine into research, teaching and clinical practice
4. Prepare doctoral level nurses to assimilate state of the science genetics and related ethical issues into their research, teaching, and clinical practice with a focus on underrepresented minority groups.

Conclusion

While the overall goal is to increase nurses' knowledge of genomics care for patients, the collaboration with other disciplines whose focus is Genomics as a science was extremely helpful in the development of the program. Further development of a credit bearing program of study will be the next step in advancing nursing practice in genomics care.

A subsequent certificate program is in development and grant funding is being investigated.

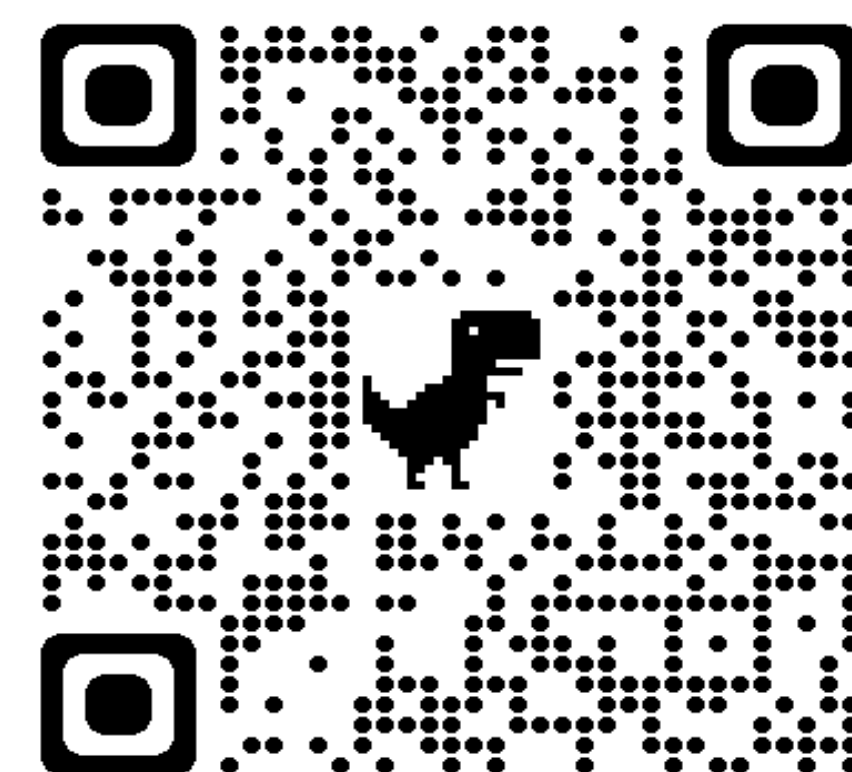
Future presentations at NHNPA in spring 2024

Data

Participants will be encouraged to complete the the Genomic Nursing Concept Inventory (GNCI © Ward 2011) as a primer to the training.

All DNP students and faculty will be asked to complete the Genomic Nursing Concept Inventory (GNCI © Ward 2011).

References



Contact Information



Acknowledgements

A special thank you to our colleagues at NERGN and COLSA for collaborating on this important project

Thank you to Eta Iota at-Large Chapter of Sigma Theta Tau for supporting this quality improvement project.