

Spring 2015

GENE: Genetic Essentials in Undergraduate Nursing Education

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Recommended Citation

Zobel, Rebecca; Anderson, Denzel; Pritchett, Marshall; Hassen, Elizabeth; Lowe, Tracy; and Eggert, Julia, "GENE: Genetic Essentials in Undergraduate Nursing Education" (2015). *Focus on Creative Inquiry*. 107.
<https://tigerprints.clemson.edu/foci/107>

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Background

- ❖ Due to genetic/genomic advances, knowledge is needed to meet the challenges in healthcare practice
 - Limited information is available regarding:
 - a. Incorporation of genetic content into nursing curricula.
 - b. If improved genetic knowledge results in genetic incorporation into nursing practice.
- ❖ The American Association of Colleges of Nursing revised the following guidelines to include recommendations for the integration of genetics into nursing curricula:
 - *Essentials of Baccalaureate Education for Professional Nursing Practice* (2008)¹
 - *Essentials of Masters Education in Nursing* (2011)²
- ❖ Incorporating genetics into nursing curricula is vital to ensure nurses have a basic understanding of how genetic principles impact patient care and outcomes.

Purpose

- ❖ The purpose of this research was to evaluate the amount of genetic content incorporated into the curricula at various levels within the traditional undergraduate, RN-BSN, and accelerated-2nd degree nursing programs at Clemson University's School of Nursing.

Outcomes

- ❖ Identify individual classes or programs with strong versus limited genetic content within all levels of the nursing curricula.
- ❖ Develop curricula recommendations to ensure that all genetic essentials, guidelines, and competencies (1, 2, 3) are being met within the Clemson University School of Nursing curricula.
- ❖ Ensure that graduates are introduced to current genetic and genomic knowledge that can be applied in the changing healthcare arena.

References:

- 1 American Association of Colleges of Nursing. (2008). *Essentials of baccalaureate education for professional nursing practice* Washington, D. C.: AACN.
- 2 American Association of Colleges of Nursing. (2011). *The essentials of master's education in nursing* Washington, D. C.: AACN.
- 3 American Nurses Association. (2008). *Essentials of genetic and genomic nursing: competencies, curricula guidelines, and outcome indicators* (2nd ed.). Retrieved from <http://www.aacn.nche.edu/education-resources/curriculum-standards>

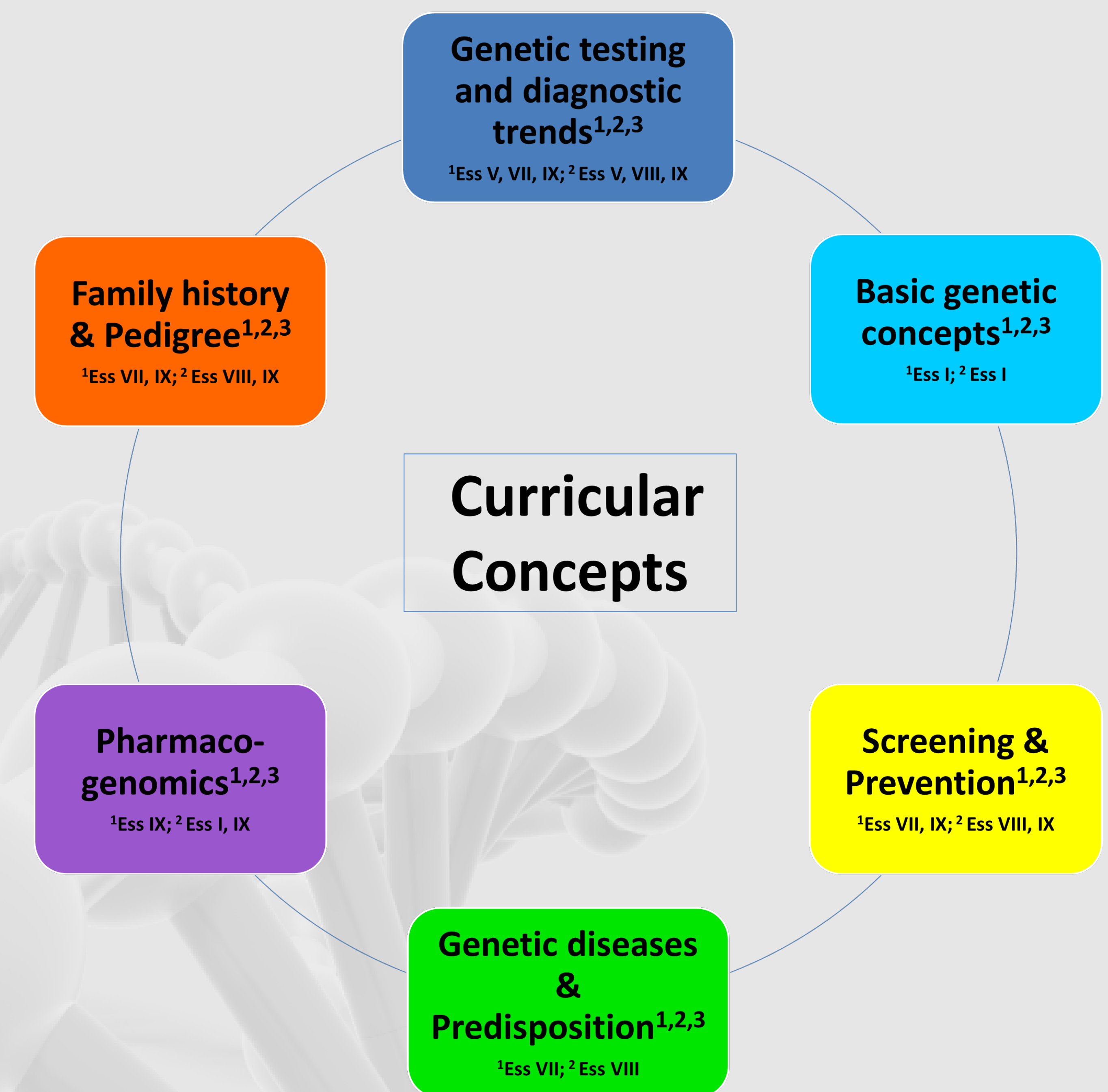
Methods

- ❖ Syllabi Analysis:
 - All nursing syllabi reviewed for traditional undergraduate, RN-BSN, and accelerated-2nd degree programs.
 - Total syllabus word count was conducted for genetic key words. Course calendars were included in count.
 - Genetic Sample Keywords:
 - Genetics/Genomics
 - Hereditary
 - Inheritance patterns
 - Alleles, Genes, or Traits
 - DNA and/or Chromosomes
 - Genogram/Pedigree
 - Pharmacogenetics/Pharmacogenomics
 - Genotype/Phenotype
 - Total word count compared to genetic word count
- ❖ Text/Lab book review:
 - Review for the genetic content in chapters and/or pages that are assigned in the syllabi and course calendars.
 - Identify the sources of genetic content in the assigned areas of the required textbooks/lab manuals.
 - Explore unassigned areas of the books for all available genetic content.

Results

Course Materials	# Evaluated	# which contained Genetic content
Syllabi/Course Calendars and Referenced Textbook Pages	29	3
Full Textbooks	25	21

Assessment Concepts



Discussion

- ❖ Syllabi, calendars, and their referenced textbook pages lacked genetic related objectives and content.
- ❖ Whole textbooks include genetic and genomic content.
- ❖ Conclusion:
 - Provide recommendations to the School of Nursing for further inclusion of genetic objectives to acknowledge any genetic content being taught in each course.

Study Limitations:

- ❖ Syllabi and textbooks were examined by five students at Clemson University, thus human error is possible.
- ❖ Class PowerPoints, created by the course instructors, were not considered in the course materials. These may contain genetic information even though genetic content is not specifically mentioned in the syllabi and/or the associated textbook pages.