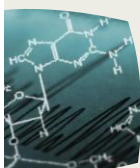


▶ Essential Genetics and Genomic Competencies FOR GRADUATE NURSES
WRITTEN BY ASHLEY CLARK, RN 1



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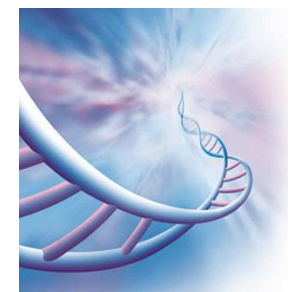
○ ISSUE 4 | ○ VOLUME 2 | ○ YEAR 2010



Competency *focus*

UPDATING THE NURSING COMMUNITY ON THE IMPLEMENTATION OF THE ESSENTIAL NURSING COMPETENCIES AND CURRICULA GUIDELINES IN GENETICS AND GENOMICS.

ISONG has assembled a team to level the Competencies for advanced practice. The consensus process of this initiative is ongoing.



Leveling the Essential Genetic and Genomic Competencies for Graduate Nurses

Genetic and genomic (g/g) competency work is essential to providing quality care, optimal patient well-being, and integrating the entire clinical team to achieve the most therapeutic outcome possible. In 2008, “The Essentials of Genetic and Genomic Nursing: Competencies, Curricular Guidelines, and Outcome Indicators” helped integrate genetics and genomics into the American Association of Colleges of Nursing (AACN) “Essentials of Baccalaureate Education for Professional Nursing Practice”. AACN’s next step was in launching an effort to revise the Master’s Essentials. The Genetic/Genomic Nursing Competency Initiative recognized that the need for the integration of genetic and genomic information in the AACN Master’s Essentials would be facilitated with g/g nursing competencies that were leveled specifically for advanced practice nurses.

Karen Greco, president of the International Society of Nurses in Genetics (ISONG) agreed to lead the effort to build upon the work of the original “Essentials” thereby leveling

the competencies to graduate practice nursing. The crux of this project is to influence the AACN revision of the Master’s Essentials and thereby their accrediting arm the *Commission on Collegiate Nursing Education (CCNE)*

Karen Greco along with Sue Tinley and Diane Seibert make up a steering committee to create those graduate competencies. An advisory board was also put together of key nursing leaders representing a diverse nursing background and community forum, to aid in varying viewpoints and competency focus points.

The creation of graduate competency work came out of much research. Areas of study essential to the creation of these competencies included certification exams for advanced practice nurse roles, current genetic/genomic competency standards from other health professionals (such as physician assistants and social workers), medical school genetic/genomic curriculum, and graduate genetic/genomic nursing competencies from the Centers for Disease Control and Prevention, and the National Coalition for Health Professional Education in Genetics.

The graduate competencies build upon the original “Essentials” document though using different language and adding an advanced skill set to accommodate a graduate nursing role. Agreement on the competencies began formally with the consensus panel, which is made up of 30 members. Consensus has been an iterative process and continues with the solicitation of public comment. With the integration of public comment and a survey sent to all committee members influential to the creation of this document, the determination will be made as to whether final consensus has been reached.

The graduate genetic/genomic competencies are on the cusp of national recognition. The nursing community needs to become informed and knowledgeable as to the requisite skills and information in this document to keep pace with scientific technological advances and medical/nursing research currently underway. These advanced competencies coupled with the core essential competencies will facilitate nurses integrating genetic/genomic knowledge into all levels of practice.

SPOTLIGHT

Nursing Graduate Certificate in Human Clinical Genetics to be offered in New Zealand 2011

Created by "Nick" Nicol of UCOL

A Graduate Certificate in Human Clinical Genetics will be offered online from UCOL's Palmerston North campus. In a recent news release about the opportunity (UCOL, Oct 2010), Professor of Human Genetics Dr Nick Nicol says the new certificate will appeal to registered health care professionals and others in genetic-related disciplines. "The introduction of the

Program reflects a world-wide recognition of the importance of human clinical genetics to the work of health professions."

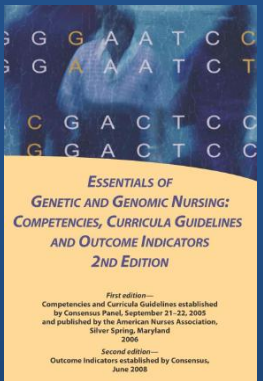
There are four online papers which can be completed either full-time or part-time.

More information about fees and the content of the certificate program is available at:

<http://www.ucol.ac.nz/Programmes/Nursing/200/overview>

This course is needed in New Zealand to reinforce the link between biological science and clinical practice. Dr. Nicol states that "Health care providers themselves need sufficient knowledge to accurately inform their patients and clients on genetic issues."

N.Nicol@ucol.ac.nz



DO YOU NEED A COPY OF THE 2ND EDITION OF THE COMPETENCIES?

DOWNLOAD AT:

<http://www.genome.gov/27527634>

OR EMAIL

CALZONEK@MAIL.NIH.GOV

Publication Update

De Sevo MR. (2010). Genetics and genomics resources for nurses. *J Nurs Edu*, Aug;49(8):470-4.

Dodson CH, Lewallen LP. (2010). Nursing students' perceived knowledge and attitude towards genetics. *Nurse Educ Today*. Jul 31. [Epub ahead of print]

Rew L, Kaur M, McMillan A, Mackert M, Bonevac D. (2010). Systematic review of psychosocial benefits and harms of genetic testing. *Issues Ment Health Nurs*. Oct;31(10):631-45.

Faculty Champion Realization Meeting September 27, 2010

Fall is now upon us and once again the Faculty Champions gathered together on the NIH Campus to present the strides they took to influence the amount and/or quality of the genetic/genomic content in their curriculums.

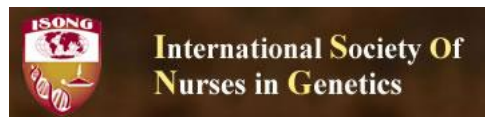
Champions contributed to the implementation of genetic and genomic content in the undergraduate curriculum in a variety of ways. The approach heard most frequently involved the use of a survey (such as Marcia Van Riper's tool) to assess their faculty knowledge and current genetic/genomic content already infused in nursing curriculum. The data mostly spoke to limited genetic/genomic education with a minimal to moderate knowledge base amongst faculty members.

To tackle the feat of getting faculty members up to speed and integrating genetic/genomic content into all nursing undergraduate courses, Champions built task forces, created faculty resource websites, developed and dispersed monthly newsletters, and identified key stakeholders in their institutions who could support the provision of time and financial resources to make this endeavor a reality.

The work of the Faculty Champions serves as a model to other schools trying to gain momentum within their environment to integrate genetics and genomics into the nursing curriculum.

INTERNATIONAL SOCIETY OF NURSES IN GENETICS ANNUAL CONFERENCE

24th Annual ISONG Conference
Hilton Montreal Bonaventure Hotel
Montreal, Quebec Canada
Pre-Conference: October 8, 2011
Conference: October 9-11, 2011



AMERICAN SOCIETY OF HUMAN GENETICS (ASHG) ANNUAL CONFERENCE

60TH ANNUAL MEETING
Walter E. Washington Convention Center
WASHINGTON, DC
CONFERENCE: NOVEMBER 2-6, 2010



GENOMICS AND PUBLIC HEALTH ANNUAL CONFERENCE

4TH NATIONAL CONFERENCE
USING GENOMIC INFORMATION TO IMPROVE HEALTH NOW AND IN THE FUTURE
BETHESDA NORTH MARRIOTT HOTEL AND CONFERENCE CENTER
BETHESDA, MD
CONFERENCE: DECEMBER 8-10, 2010



SACGHS

The secretary's advisory committee on genetics, health, and society (SACGHS) held its final meeting October 5-6, 2010. After ten years of work, the SACGHS has tackled all the issue areas as defined by its charter: clinical, public health, ethical, economic, legal, and societal implications of the genetic/genomic integration of technologies in health care and public health. They have also focused on gaps in research including the assessment of data collection, patent policy and licensing of technological work, availability of technologies, and the effect these technologies have on education, employment, insurance, and law.

SACGHS has issued numerous reports and provided much advice to the Secretary of Health and Human Services which will prove useful for the next decade to build upon with the integration of genetics in individualized health care and public health.

To access any of the documents produced by SACGHS: http://oba.od.nih.gov/SACGHS/sacghs_home.html

Journal of Nursing Scholarship Education Series

The Journal of Nursing Scholarship (JNS) will publish over the next year (2011) a series on genetic and genomic nursing education. The purpose of the series is to highlight the relevance and importance of genetics and genomics for nurse educators and nursing education worldwide by providing:

- An overview of international nursing regulations and competencies;
- Outline strategies for nurse educators to integrate genetics and genomics into nursing education;
- Models for integrating genetics and genomics into nursing education; and
- Summarizing genetics and genomics resources for nurse educators.

The introductory editorial *Bridging the Gap Between Genome Research and Clinical Care: Nurse Educators are Key* and the first manuscript *Genetics/Genomics and Nursing Education* will be published in the first issue of 2011.

JNS is a well read, peer-reviewed, respected journal which circulates among 103 countries and focuses on the health of people throughout the world on a global scale. It is the official journal of the international honor society, Sigma Theta Tau.

The authors of the articles are putting the final touches on the last four articles, *Genetics/Genomics Competencies and Nursing Regulation; Preparing Faculty to Integrate Genetics and Genomics into Nursing Education Programs, Integrating Genetics and Genomics Into Undergraduate Nursing Education: and Genetics and Genomics Resources for Faculty.*

This series promises to be an excellent resource for educators trying to integrate genetics and genomics in nursing programs around the globe.

http://www.nursingsociety.org/Publications/Journals/Pages/JNS_main.aspx



Educational Highlight

The Summer Genetics Institute



The National Institute for Nursing Research sponsors a one month intensive educational training program on the National Institutes of Health (NIH) campus in Bethesda, Maryland every summer. The summer genetics institute (SGI) lays the foundation for a unique experience performing bench research in molecular genetics combined with a clinical practice approach. Individuals interested in increasing their research capability within the practice of genetics are encouraged to apply. The program offers lecture and hands-on laboratory training on site, and at the culmination of the program students will receive eight hours of graduate-level college credits from the Foundation for Advanced Education in the Sciences.

The SGI is free of cost, though attendees are required to pay for lodging, food, and transportation. Any graduate student, faculty member, or clinician who is a citizen or permanent US resident interested in forming programs of research in nursing genetics are encouraged to apply.

SGI Program Objectives

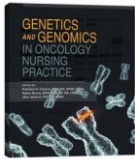
- Increase knowledge in molecular genetics for use in research, teaching, and clinical practice.
- Gain ability to use molecular genetics methods for biobehavioral research.
- Evaluate families with genetic problems and make appropriate referrals to genetic and community resources.
- Analyze strategies used for genomic-based therapies and trends in molecular therapeutics.
- Identify the strengths, weaknesses, and applications of genetic tests and inaccuracies that can be introduced during the testing period.
- Analyze ethical and legal issues related to genetic testing and genetic counseling and implications for practice and research.

Contact Information

Summer Genetics Institute
Division of Intramural Research, National Institute of Nursing Research
National Institutes of Health
10 Center Drive, MSC-1506, Suite 2-1339
Bethesda, Maryland 20892-1506
Email: ninrsgi@mail.nih.gov

Application Information

<http://www.ninr.nih.gov/Training/SGI>



Kathleen Calzone, Agnes Masny, and Jean Jenkins have partnered once again in their latest publication; *Genetics and Genomics in Oncology Nursing Practice*. The oncology-centered scope of genetic/genomic nursing begins with a didactic framework to educate health care professionals on how to gather and comprehend a basic genetic risk

assessment. An understanding of cancer biology and the clinical applications of genetic study make this a must-have for any health care professional regardless of specialty area. Burgeoning themes in today's health care system, such as pharmacogenomics, target therapies, multicultural observations, and nurse credentialing in cancer genetics frame the second half of this book. Lastly the authors conclude with ethical, legal, and social implications of genetic/genomic testing, direct-to-consumer marketing, and genetic education.

Available from the Oncology Nursing Society:

<http://esource.ons.org/ProductDetails.aspx?sku=INPU0585>

Resource Reminder
Genetic/Genomic Competency
Center for Education (G2C2)
<http://www.g-2-c-2.com>

GAPPNet

<http://www.sph.umich.edu/gappnet/>

Genomic Applications in Practice and Prevention Network (GAPPNet™) aims to accelerate and streamline effective and responsible use of validated and useful genomic knowledge and applications, such as genetic tests, technologies, and family history, into clinical and public health practice.

GAPP Knowledge Base (GAPP KB) a web-based resource program providing the public with information on genetic testing, genomic applications, and a streamlined database of reviews and recommendations on genomic research implications and practice.

GAPP Finder another web-based resource database for the public on genomic applications. One can search using a specific disease, gene, drug, or type of genetic disorder

Genomic Applications using specific tools to identify and avert common, infectious, and environmentally stimulated diseases and aid in the promotion of health in individuals with genetic conditions, birth defects, and developmental disabilities. The three main foci include, genetic and genomic tests, family health history, and genomic technologies.

Institute of Medicine Genetic & Genomic Technologies Report:

In March 2010 the IOM met to discuss translating genomic-based research into health care. Many attendees from various disciplines were in attendance bringing a wealth of information and concerns regarding specific clinical specialties. Three case examples led the roundtable discussion: Lynch syndrome and colon cancer, pharmacogenomic testing for warfarin dosing, and genomic profiling. The crux of the discussion centered on individualized care based on a genetic approach to care. That being, an individual's genetic disposition to a number of disease processes, chronic health issues, and the likelihood of an environmental change affecting one's genetic predisposition. The value of genetic and genomic technologies are evident for all health disciplines and the IOM published a report on August 23, 2010 charging the health care community with increased use of genetic/genomic technologies to create a more individualized comprehensive approach to care.

<http://www.iom.edu/Reports/2010/The-Value-of-Genetic-and-Genomic-Technologies.aspx>

Evaluation of Genomic Applications in Practice and Prevention (EGAPP): Implementation and Evaluation of a Model Approach

The EGAPP project began in 2004 under the auspices of the CDC Office of Public Health. The goal was to create and evaluate a systematic, evidence-based process for assessing genetic testing materials, functions, and other applications of genomic technology from the point of research to the clinical arena, to public health practice.

EGAPP aims:

- recommendations on implementation of genetic tests from professional organizations and advisory committees
- knowledge and experience gained from existing processes for evaluation and appraisal, previous CDC initiatives, and the international health technology assessment experience.

Botkin, J. (2010). Outcomes of interest in evidence-based evaluations of genetic tests. *Genetics in Medicine*, 12 (4), 228-235.

Teutsch, S.M., et al. (2009). The evaluation of genomic applications in practice and preventions (EGAPP) initiative: methods of the EGAPP working group. *Genetics in Medicine*, 11(1), 3-15.