The chronicle of a nurses journey to translate new science into practice: Genetics & genomics

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Genomics is "personalized healthcare" in action. Understanding genomics is essential for all clinical nurses and nurse leaders. However, most nurses have limited knowledge of genetics/genomics, how it translates into their practice or the Essentials of Genetic and Genomic Nursing Competencies. Genomic competencies include family history assessment, understanding targeted therapies, and assessing variability in patients' responses to medications based upon genomic profiles. Perspectives of the nurse champion will be offered and the various strategies that were implemented for introducing genomics to clinical nurses in a 300-bed mid-Atlantic pediatric Magnet® health care system, which employs approximately 2000 nurses. This institution was selected to participate in "Method for Introducing New Competencies (MINC)" study. A transformative nursing practice approach was established with collaboration amongst targeted leadership champions in administration, nursing, genetics and experts in the community. A multi-modality communication/education program was developed based on Everett Rogers's Diffusion of Innovations Theory. Genomic competencies were selected with an emphasis on genomic relevancy aligned with the Centers for Disease Control Public Health Genomics, themes and specialty specific diseases as a framework. The approach culminated into a pervasive knowledge-based strategy that incorporated interactive continuing education offerings, advanced practice nurse-led rounds, interprofessional collaboration, and family history tools. Educational advertising juggernaut campaigns with tag-lined genomic messages were used to intensify interest, awareness and relevancy. Program outcome achievements were increased awareness, knowledge and translation into practice. Outcomes were measured using baseline and post-project statistics from the Genetics and Genomics in Nursing Practice Survey and evaluation of individual hospital educational offerings and action plans. Learner satisfaction scores following each educational offering were consistently greater than 85%. The achievements of the interventions translated into practice through the collaboration with the genetic molecular biologists and genetic counselors that lead to expanded genetic testing and support capabilities in the health care system, development of guidelines for nurse initiated genetic referrals, and the adoption of a Family History Tool into practice. The goal of sharing these experiences, barriers, successes, and recommendations of this healthcare systems approach is to aid others introduce "new (genomic) knowledge" because the future is now. The author will present the challenges, successes, and recommendations for introducing genetic/genomic education to clinical nurses in the workforce and approach for nursing leadership. The purpose of this presentation is to analyze clinical examples of how the principles of genetic based care guide nursing practice. Provide examples of methods to educate nurses and disseminate information related to the evolving science of genetic and genomic to nurses in clinical practice.

Biography

Beth Harkness is carrying over a decade of experience providing clinical care and disease management to the pediatric and adult cystic fibrosis population at Children’s National, Washington, DC, which encompasses genetic testing and newborn screening for diagnosis and treatment of cystic fibrosis, caused to be a single-gene defects due to inherited or spontaneous mutations. In 2009, she conceptualized and implemented a program for the advancement of Genetic/Genomic awareness and education for the 2,000 nurses employed by Children’s National Health System that lead to participation in national wide genetic/genomic education grant in 2012-2013, MINC Study. This work continues today with The National Institute of Health (NIH).

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