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Developing Genomics Literacy in Nursing Practice Across Maryland

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Abstract

The field of genetics and genomics is revolutionizing how human health and disease are conceptualized, diagnosed, and managed. Maryland hosts world-class health institutions leading many of these important health care advances, requiring a competent and confident nursing workforce. Current evidence indicates that today's nursing workforce lacks sufficient resources, knowledge, and skills in genetics and genomics. Nurses need to integrate these core concepts into their practices to lead changes that advance health in personalized health care and well-being. Thus, it is imperative that nurses be prepared at both the pre-licensure and graduate level to deliver competent genomic health care. However, the lack of nursing school faculty trained in genetics and genomics, as well as a dearth of robust continuing education opportunities in this area for nurses, is a major barrier.

Our team received funding from the Nurse Support Program II for a one-year planning grant aimed at building statewide nursing engagement in developing genomic educational resources to increase student and practicing nurses' skills in providing genomic health care. Through this planning grant, we have developed an academic–practice partnership with the Johns Hopkins McKusick-Nathans Department of Genetic Medicine, and we have developed a genetics and genomics community of practice (CoP) for nurses. The Nursing Genetics and Genomics CoP has student and faculty representation from eight Maryland schools of nursing. Considering the intrinsically interprofessional nature of genetics and genomics, the CoP also includes practicing nurses from a variety of specialties and representatives from medicine, pharmacy, and the genetic counseling fields. The community meets monthly, has an active listserv and Google group, and includes more than 50 members. The CoP has two active subcommittees currently developing genetics and genomics exemplar curriculum content that will be made available to all schools of nursing throughout Maryland. Another key component of the planning grant is the “Conversations in Genetics” webinar series successfully launched in October 2020. When we conceived the project, we were planning a one-day conference. Given the COVID-19 pandemic, we pivoted this to a monthly webinar series, which was fortuitous since it will have a broader educational reach and impact. We expect to have engaged and educated more than 400 participants on genetics and genomics topics that are germane to nursing practice by the end of the grant period. These sessions are aimed at increasing knowledge and providing real-world discussion of genetics and genomics in nursing practice and provide skills and resources nurses

in the workforce can use. Review of the webinar participants' background shows a diverse group consisting of nursing students, faculty at all levels, and practicing and retired nurses. Moreover, participants have attended multiple monthly sessions. Overall, it is clear that nurses in Maryland are eager to learn more about the field of genetics and genomics and its application in clinical practice as well as how to best integrate this content into nursing curricula at all levels.