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Communication in genomic and precision medicine: Editorial – *PEC Innovation*

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It is with great pleasure that we finalize the special issue on Communication in Genomic and Precision Medicine for *PEC Innovation*. According to the National Human Genomic Research Institute, genomic and precision medicine is the use of genetic information about an individual as part of their clinical care to support diagnosis and/or medical decision-making. Determining and understanding potential health risks based on genetic information can help patients, families, and clinicians to make individualized healthcare decisions that can reduce disease risks, aid in family planning decisions, prevent adverse drug reactions, and make sense of previous medical experiences. This special issue called for and received cutting-edge articles exploring topics such as family health history collection, different types of genetic testing, pharmacogenomics (i.e., the study of how your DNA affects the way you respond to drugs), medical management of genetic risk, patient-clinician communication about hereditary risks, and family screening. The articles presented also represent a variety of fields including oncology, neurology, pharmacology, implementation science, and health communication.

Innovations and applications in genomic medicine are arguably advancing at a faster pace than the research on their implications and implementation, making it an important area of study for public health. Communication about genomic medicine is an expansive topic including conversations related to decision-making about testing (e.g., germline testing, tumor testing, carrier screening), clinical conversations related to reducing disease risks and tailoring care, conversations about family health history, disclosure of test results to family members, and exchanging support to manage complex genomic information and health demands. Much of the research in these areas are inherently innovative, exploring an emerging and ever-changing health context and utilizing new methods, measures, and interventions. However, as many of the articles in this special issue demonstrate, existing frameworks and models can be applied to this innovative field to create resources for patients, families, and clinicians.

In this special issue, we have seen authors answer the call for innovation in genomic and precision medicine communication in a variety of ways. Some studies report on interventions to overcome barriers in family and clinical communication about hereditary disease, including an educational conference for patients [1], decision support tools for pharmacogenomic testing [2] and for parent-child communication about genetic risk [3,4], and digital tools facilitating family communication [5]. Other studies focus on issues of diversity and inclusion by investigating language barriers to family health history collection [6] and Black breast cancer patients' questions about biomarker testing [7]. Other studies report on the validation of novel measures [8], systematic reviews [9], intervention frameworks [11], and positions on practice to enhance patient-centered communication [10] and testing options [12]. While this is not an exhaustive list, it does provide some examples of the innovative work presented in this special issue.

This special issue fills important gaps in our understanding of communication in genomic and precision medicine and identifies new avenues to apply innovative communication resources to improve care. It is important to note that more work is still needed to build on the research presented in this special issue, specifically in the areas of diversity and access to genomic health services, continuity of care post-genetic test result return, and wider translation of precision medicine to individualize care and improve health outcomes. We look forward to how researchers and readers grapple with these future issues and continue to expand on the topics within this special issue.

Finally, we would like to thank the authors for their contributions and give a special thanks to reviewers for this special issue. Reviewers had the special task of refining complex and advanced topics in genomic medicine while ensuring content would translate to non-experts who can also learn from and apply findings. As genomic and precision medicine is a cutting-edge field, so tied to innovation; we hope to continue publishing on these topics in the future.

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