Genetic Service Delivery Models

Exploring approaches to care for families with hereditary cancer risk

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BACKGROUND: Providing timely access to quality genetic counseling is becoming necessary as the awareness and availability of high-risk screening and genetic testing increase. The results of genetic testing directly influence treatment decisions and recommendations for cancer screening and prevention. Evolving service delivery models of genetic counseling can lessen patient and system barriers to comprehensive genetic care.

OBJECTIVES: The aim of this article is to note known barriers to accessing genetic care, review strategies and delivery models to enhance access to the genetic counseling process, and discuss how oncology nurses can play a supportive role in facilitating the genetic counseling process.

METHODS: A review of the literature was conducted using PubMed, CINAHL®, and Ovid.

FINDINGS: Alternative service delivery models can increase the accessibility of genetic counseling services to at-risk populations. Additional research is needed to identify the models that can balance improved access to care with effective counseling.

KEYWORDS
genetic counseling; service delivery models; telegenetics; hereditary cancer syndromes

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GENETIC TESTING IS BECOMING INCREASINGLY COMPLEX with the emergence of multigene panel testing, which is continually expanding and replacing testing for single genes or syndromes. This increasing complexity requires more counseling time and expertise in the pretest phase, as well as in the interpretation and explanation of results and the creation of a plan for cancer prevention and early detection in the post-test phase (Katz et al., 2018). An ever-growing need exists to find innovative means to provide comprehensive genetic care to patients and families at risk in a timely and effective manner, particularly when genetic testing is directly influencing care decisions, such as risk-reducing surgery. This article will discuss the increasing need for comprehensive genetic care services across the cancer care continuum, identify patient and system barriers to accessing care, present information about various service delivery models, and describe the role of the oncology nurse in the provision of comprehensive cancer genetic care services.

Methods

The authors performed a search of PubMed, CINAHL®, and Ovid. Keywords used included *service delivery models*, *genetic counseling*, *telegenetics*, *genetics*, *barriers*, *access*, and *hereditary cancer*. Quantitative, qualitative, and mixed-methods articles, systematic reviews, and position papers containing patient perspectives of genetic counseling, service delivery models, and issues that would prevent patients from being referred for genetic counseling were included. Additional inclusion criteria were articles published in English, in peer-reviewed journals, and from January 2015 to January 2018. Exclusion criteria were articles that focused on prenatal genetic testing.

Findings

Patient Identification

The delivery of genetic assessment and counseling begins with the identification of patients and families at risk for developing cancer because of hereditary susceptibility. Figure 1 outlines the key indicators of hereditary risk that merit further evaluation by a credentialed genetics professional. Credentialed genetics professionals include physicians with subspecialty training in genetics, certified master's-prepared genetics counselors, and nurses with a Master of Science in Nursing degree