Evaluation of Family and Community Social Network Characteristics Among High-Risk Family Members to Improve Cancer-Related Health Behaviors

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OBJECTIVES: To evaluate the effects of social network characteristics of individuals with a family history of cancer on the use of cancer-related services (e.g., screening, genetic counseling/testing).

SAMPLE & SETTING: 170 family members of individuals with the most common hereditary or familial cancers.

METHODS & VARIABLES: Data collection occurred between March and September 2021 using an online survey.

RESULTS: Having strong within–immediate family relationships and family members who underwent more screening procedures was associated with increased breast cancer screening, and having more family members with cancer was associated with colorectal cancer screening. Having a large family, having family members who underwent screening for more cancers, and having strong social cohesion among families were associated with an increased rate of genetic testing.

IMPLICATIONS FOR NURSING: Nurses working with families affected by cancer should focus on strategies to strengthen relationships among family members to improve knowledge of cancer screening and available genetic services.

KEYWORDS family history of cancer; cancer-related health behaviors; social networks; cancer risk

***ONF, 50*(6), 735–751.**

DOI 10.1188/23.ONF.735-751

Cancer is the second leading cause of death in the United States after cardiovascular disease, and it is expected to exceed cardiovascular disease as the leading cause of death within the next decade (American Cancer Society [ACS], 2023a). The best strategies in cancer control are the management of known risk factors, protective measures against these factors, and early detection when cancer may have a higher potential for successful treatment (Elmore et al., 2021; Rebbeck et al., 2018). Numerous factors are known to increase cancer risk, including potentially modifiable (e.g., tobacco use, excess body weight) and nonmodifiable (e.g., age, inherited genetic variants) factors. Although an inherited risk is associated with only a small proportion of cancers, a family history of cancer is a significant nonmodifiable risk factor, particularly for breast, ovarian, and colorectal cancers (ACS, 2023a). A family history of cancer is not synonymous with hereditary cancer; however, it may reflect the inheritance of genetic variations that increase risk in concert with similar exposures to behavioral and environmental factors among family members (ACS, 2023a; Bertoni et al., 2019; Bostean et al., 2013).

Screening guidelines for breast or colorectal cancer recommend tailored screening and lifestyle recommendations for high-risk individuals to maximize the reduction of cancer incidence, morbidity, and mortality (Kolb et al., 2020; National Comprehensive Cancer Network [NCCN], 2021, 2023b; Smith et al., 2019). For instance, women at high risk for breast and ovarian cancer have options such as risk-reducing agents (e.g., tamoxifen, raloxifene) and risk-reducing