

Awareness of Genetic Testing for High-Risk Cancer Among Different Racial Groups in the United States

Onigbogi OO, Erinne OC***

*University of Texas Health Science Center Houston, School of Public Health, Houston TX.

**University of Texas Health Science Center Houston, School of Public Health, Brownsville TX.

Background: Genetic testing for high-risk cancer can provide information on personal risk of developing cancer, as well as diagnosis, prognosis and treatment once cancer has been detected.

Methods: Data for this study were obtained from the Health Information National Trends (HINTS 5, Cycle 4), conducted among U.S. adults (age ≥ 18 years) from February 24 to June 20, 2020. An equal probability sample of addresses were stratified, and an adult was selected from each household. Data analysis was conducted 3,865 respondents who completed the survey. The primary outcome was awareness of genetic testing for high-risk cancer (GTHC). We used weighted multivariable logistic regression to determine the awareness of genetic testing for high-risk cancer, adjusting for age, gender, race/ethnicity, education, household income, general health status and history of cancer.

Results: We found a significant association between race/ethnicity and awareness of GTHC. Non-Hispanic Black and Hispanic respondents were less likely to be aware GTHC, compared to White respondents (Non-Hispanic Black: aOR=0.53; 95%CI: 0.32–0.87. Hispanic: aOR=0.58; 95%CI: 0.36–0.95). The awareness of ancestry testing was also significantly associated with awareness of GTHC (aOR=5.62; 95%CI: 2.95–10.72). Female respondents were more likely to be aware of GTHC compared to males (aOR=1.92; 95%CI: 1.37-2.68), and relative to respondents 50-64 years, those 35-49 years were more likely to be aware of GTHC (aOR=1.92; 95%CI: 1.37-2.68).

Conclusion: This cross-sectional study showed less awareness of genetic testing for high-risk cancer among non-Hispanic Black and Hispanic groups, highlighting the need for more health education among minority racial groups.

Keywords: Cancer morbidity; Diagnosis; Ethnicity; Genetic testing; Race; Screening.