Family History of Cancer: A Poor Indicator of Risk for Immigrant Patients?

Heather Orom, Michele L. Cofé, Hector M. González, and Willie Underwood, III

INTRODUCTION

- Guidelines recommend earlier and, or more frequent screening for individuals with a family history of breast, ovarian, colorectal, prostate, and skin (melanoma) cancers (Zorob, Anderson, Cefalu, & Sidani, 2001).

- A number of studies have noted that people tend to under-report family history of cancer (FHC) (Murff, Spigel, & Syngal, 2004). However, as few previous studies employed large, nationally representative samples, little is known about whether some demographic groups are more likely to under-report FHC than other groups.

- One sub-population known to face numerous barriers to healthcare, including low rates of cancer screening, is immigrants (e.g., Goel, 2003). Little is known about FHC reporting by immigrants living in the United States. To address this gap, we investigated the likelihood of reporting FHC by immigrants and non-immigrants in a nationally representative sample.

METHOD

Participants:
5,010 respondents to the 2005 Health Information Trends Survey (HINTS). The survey was administered to a nationally representative probability sample of 5,586 households with telephones.

Measures:
- Independent variable: Nativity, whether a respondent was U.S.-born or foreign-born
- Dependent variable: Self-reported family history of cancer (FHC)

Nativity defined as:
- U.S.-born respondents reported FHC 76.7% of the time.
- Foreign-born respondents reported FHC 42.3% of the time.

- Race/Ethnicity:
  - Whites: 50.1%
  - Blacks: 51.3%
  - Asians/Pacific Islanders: 52.4%

- Education:
  - Less than high school: 50.1%
  - High School: 51.3%
  - Some college: 52.4%

RESULTS

Nativity
- 76.7% of U.S.-born respondents and 42.3% of foreign-born respondents reported a FHC.

Do control variables account for the effect of nativity on reporting family history of cancer?
- The nativity effect was attenuated by demographic factors, principally race/ethnicity, but not knowledge factors.

Race/Ethnicity
- Nativity accounted for much of the effect of race/ethnicity on FHC reporting. The differences in the odds of Blacks, Hispanics and Asians/Pacific Islanders reporting FHC compared to Whites was diminished by 4.1%, 100.2%, 112.2%, respectively.

- The adjusted effect of nativity on FHC reporting was significant for all categories of race/ethnicity. Odds ratios for the four groups were: White = 0.58 (0.35-0.96), Black = 0.14 (0.04-0.47), Hispanic = 0.26 (0.14-0.47), and Asian/Pacific Islander = 0.10 (0.02-0.40).

Acculturation and Reporting Family History of Cancer
- None of the indicators of acculturation (comfort with English, years in the U.S., and health care coverage) were significantly associated with FHC reporting by foreign-born respondents.

DISCUSSION

- Foreign-born respondents were about a third as likely to report FHC as U.S.-born respondents.
- Previous research has reported race/ethnicity differences in reporting FHC (Pinsky et al., 2003; Ramsey et al., 2006). We found similar differences but they could be accounted for by nativity and other demographic variables.

- What Might Account for the Association between Nativity and FHC reporting?
  - For immigrants from developing countries, the effects of nativity may be due to lower reported incidence of cancer in their countries of origin (Parkin, Whelan, Ferlay, & Storm, 2005). Lower rates of cancer in developing countries have been attributed to younger age structures, different behavioral and environmental exposures (Jones et al., 2006), and under-diagnosing / under-reporting cancers (Rastogi, Hildesheim, & Sinha, 2004). All three factors may belie genetic propensities for cancer that will emerge once families are established in the United States and are exposed to the same risk factors and surveillance system as U.S.-born individuals.

CONCLUSION

Self-reported FHC may be a poor indicator of genetic risk among immigrant patients. Failing to take this into account could result in systematically under-providing secondary cancer prevention to immigrant patients, and contributing to existing disparities in cancer screening and use of genetic testing (Armstrong et al., 2005; Goel et al., 2003).