

Identifying Factors Underlying the Decision for Genetic Carrier Screening Among Women in Montgomery County

Scholarly Project Final Report

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Abstract

Despite health benefits and notable clinical utility of Genetic Carrier Screening (GCS), GCS has not been utilized in most nations due to moral and ethical controversy among the public. Previous studies have demonstrated patients' ethnicity, socio-demographic (age, education) and economic factors were associated with the patient's intention to undergo GCS for sickle cell trait screening. This study investigates the socioeconomic and demographic factors that may have impacted the decision to choose GCS among 468 OB-GYN female patients in Montgomery County, OH. We hypothesize that patients with higher education (some college and beyond) and private insurance are more willing to undergo GCS. In regards to the demographic factors, older patients are more willing to go through GCS, and patients with religious beliefs are less likely to undergo GCS. We used data that was collected from 468 OB-GYN female patients in Montgomery County, OH via a descriptive self-administered survey composed of questions that include patient demographics (age, ethnicity, and religious preferences), socioeconomic (highest level of education and type of health insurance), opinions on GCS (positive or negative attitudes towards GCS, desire to undergo GCS, etc.) The independent variables of interest include socioeconomic factors such as highest level of education and type of health insurance and demographic factors such as patients' age and religious affiliation. Then a retrospective quantitative analysis (Chi-Square test) was conducted using IBM version 24.0 Statistical Package for the Social Sciences software (SPSS) with a p-value of 0.05. We found there was no difference in the desire to undergo GCS related to age, type of insurance, or highest level of education. However, when only "currently pregnant" women were examined, those with at least some college were less likely to desire to undergo GCS compared to women with high school as their highest level of education. We also found that women who reported having a religious affiliation were less likely to desire GCS than women reporting no religious affiliation. Furthermore, women with fewer pregnancies and fewer living children are more likely to desire GCS. Awareness of the association between religious belief and desire to undergo GCS can help physicians prepare for conversations with patients about GCS. Our findings indicate that there is an association between patients' socioeconomic and demographic factors their desire to undergo GCS. Understanding the influence of other factors on the desire for GCS is important not only to reconcile the gap between benefits and patient use of GCS but also to build stronger patient-physician rapport.