

Project Title:
The Influence of Neighborhood Deprivation on Health Behaviors Among Survivors of Childhood Cancer

Abstract

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Background: Childhood cancer survivors have an increased risk of chronic health conditions, but the reasons behind this are mostly unknown. The neighborhood one lives in can have great influence over health. We aimed to characterize associations between neighborhood deprivation and health behaviors among childhood cancer survivors and to determine if associations between neighborhood deprivation and health behaviors among survivors were independent of markers of individual socioeconomic status (individual SES).

Methods: Participants included 4,259 adult survivors of childhood cancer >5 years since diagnosis enrolled in the St. Jude Lifetime Cohort Study. Information on health behaviors (alcohol consumption, smoking status, diet quality, physical activity level, screen time, and illicit substance/marijuana use) and individual SES was collected by self-reported questionnaire. Neighborhood deprivation was measured using the Area Deprivation Index(ADI) and participants were divided into quintiles ranging from least to most deprived neighborhoods. Multivariable log-binomial regression analyses were used to assess associations between ADI and health behaviors.

Results: Approximately 52% of participants (52.5% male, mean age 33.3[±SD 10.1] years) lived in the two most deprived neighborhood groups (two highest ADI quintiles). The prevalence of smoking, poor diet quality, low physical activity and screen time increased with increasing levels of neighborhood deprivation. After adjusting for individual SES, survivors living in the most deprived neighborhoods (highest ADI quintile) had increased risk of being a current smoker (RR=1.51, 95%CI=1.15-1.98) and having a poor-quality diet (RR=1.58, 95%CI=1.34-1.88), compared to those living in the least deprived neighborhoods. Survivors living in the most derived neighborhoods also had a borderline increased risk of having low physical activity levels (RR =1.15, 95%CI=1.00-1.32).

Conclusions: Neighborhood appears to affect certain health behaviors in survivors. Future studies are required to identify the specific characteristics of neighborhood that influence health behaviors among

childhood cancer survivors as such information may inform development of interventions in this population.

The St. Jude Lifetime Cohort Study was approved by the institutional review board of St. Jude Children's Research Hospital.