

CANCER PREVENTION AND SCREENING PRACTICES OF SIBLINGS OF CHILDHOOD CANCER SURVIVORS: A REPORT FROM THE CHILDHOOD CANCER SURVIVOR STUDY

David Buchbinder¹, Ann C. Mertens², Lonnie K. Zeltzer³, Wendy Leisenring⁴, Pam Goodman⁴, E. Anne Lown⁵, Melissa A. Alderfer⁶, Christopher Recklitis⁷, Kevin Oeffinger⁸, Gregory T. Armstrong⁹, Melissa M. Hudson¹⁰, Leslie L. Robison⁹, Jacqueline Casillas³

¹ Department of Pediatrics and Division of Hematology at Children's Hospital of Orange County, Orange, California; ² Department of Pediatrics, Emory University School of Medicine, Atlanta, Georgia; ³ Department of Pediatrics, Division of Hematology-Oncology, and Division of Cancer Prevention and Control Research, David Geffen School of Medicine at University of California at Los Angeles (UCLA) and UCLA Jonsson Comprehensive Cancer Center, Los Angeles, California; ⁴ Cancer Prevention Program at Fred Hutchinson Cancer Research Center, Seattle, Washington; ⁵ Alcohol Research Group, Emeryville, California; ⁶ Division of Oncology, The Children's Hospital of Philadelphia and Department of Pediatrics, Perelman School of Medicine, The University of Pennsylvania, Philadelphia, Pennsylvania; ⁷ Perini Family Survivors' Center, Dana-Farber Cancer Institute, Boston, Massachusetts; ⁸ Memorial Sloan-Kettering Cancer Center, New York, New York; ⁹ Department of Epidemiology and Cancer Control, St. Jude Children's Research Hospital, Memphis, Tennessee; ¹⁰ Department of Oncology, St. Jude Children's Research Hospital, Memphis, Tennessee.

ABSTRACT

Objective: To compare the skin cancer prevention practices and breast/cervical cancer screening practices of adult siblings of childhood cancer survivors with the general population and to identify modifying factors for these practices.

Methods: Cross-sectional, self-report data from 2,861 adult siblings of 5+ year survivors of childhood cancer were analyzed. An age, sex and race/ethnicity-matched sample (n=5,915) from the Behavioral Risk Factor Surveillance System served as the comparison population. Sociodemographic and cancer-related data reported by the siblings and their familial cancer survivors were explored as modifying factors for sibling prevention/screening practices through multivariable logistic regression.

Results: Compared to controls, siblings were more likely to practice skin cancer prevention behaviors: protective clothing use (OR 3.07, 95% 2.60-3.64), shade use (OR 2.20, 95% 1.97-2.46), sunscreen use (OR 1.30, 95% 1.17-1.43), and hat use (OR 1.83, 95% 1.64-2.04). No differences were noted for breast/cervical cancer screening practices (mammography and Pap testing). Older age at time of study was associated with greater skin and breast/cervical cancer prevention/screening behaviors: sunscreen use (OR 1.33, 95% 1.02-1.75), protective clothing use (OR 1.55, 95% 1.12-2.12), hat use (OR 1.53, 95% 1.10-2.13), shade use (OR 1.57, 95% 1.24-2.00), mammography (OR 2.72, 95% 1.60-4.77), and Pap testing (OR 4.16, 95% CI 2.79-6.35). Being older than the cancer survivor was associated with greater skin and cervical cancer prevention behaviors: sunscreen use (OR 1.24, 95% 1.01-1.52), hat use (OR 1.33, 95% 1.07-1.67), and Pap testing (OR 1.68, 95% 1.05-2.73). Survivor diagnosis, treatment intensity, and survivor complications (adverse health, chronic health conditions, second cancers) were not consistently associated with sibling behaviors.

Conclusions: Siblings of childhood cancer survivors report greater skin cancer prevention practices when compared with controls; however, no differences were noted for breast/cervical cancer prevention practices. Research should be directed at understanding the impact of the childhood cancer experience on sibling health behaviors.