Eating behavior and BMI in adolescent survivors of brain tumor and acute lymphoblastic leukemia.


Abstract

OBJECTIVES: Elevated body mass index (BMI) has been reported in pediatric cancer survivors. It is unclear whether this is related to altered energy intake (via disordered eating), decreased energy expenditure (via limited exercise), or treatment-related direct/indirect changes. The aims of this study are to describe the occurrence of overweight and obesity, exercise frequency, and the extent of disordered eating patterns in this sample of survivors, and to examine relationships among BMI, eating patterns, exercise frequency, and demographic and disease and treatment-related variables to identify those survivors most at risk for overweight/obesity.

METHODS: This cross-sectional study recruited 98 cancer survivors (50 acute lymphoblastic leukemia [ALL], 48 brain tumor [BT]), aged 12 to 17 years and ≥12 months posttreatment from a large pediatric oncology hospital. Survivors completed health behavior measures assessing disordered eating patterns and physical activity. Clinical variables were obtained through medical record review. Univariate analyses were conducted to make comparisons on health behaviors by diagnosis, gender, treatment history, and BMI category.

RESULTS: Fifty-two percent of ALL survivors and 41.7% of BT survivors were classified as overweight/obese. Overweight/obesity status was associated with higher cognitive restraint (odds ratio = 1.0; 95% confidence interval = 1.0-1.1). Only 12% of ALL survivors and 8.3% of BT survivors met Centers for Disease Control and Prevention guidelines for physical activity. Males reported more physical activity, t(96) = 2.2, P < .05.

CONCLUSIONS: Overweight/obese survivors may attempt to purposefully restrict their food intake and rely less on physiological cues to regulate consumption. Survivors should be screened at follow-up for weight-related concerns.

KEYWORDS: BMI, disordered eating, health behaviors, physical activity

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