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**Title:** SOCIAL OUTCOMES AMONG ADOLESCENT LONG-TERM SURVIVORS OF WILMS TUMOR: A REPORT FROM THE CHILDHOOD CANCER SURVIVOR STUDY

**Background/Objectives:** To identify social problems among adolescent long-term survivors of Wilms tumor (WT) and determine whether treatment exposures, chronic health conditions, or psychological concerns relate to peer interaction frequency/quality.

**Design/Methods:** Parent-reports from the Childhood Cancer Survivor Study (CCSS) were analyzed for 666 survivors of WT diagnosed between 1970-1999 (Median[range] age at diagnosis=2.59[0.01-11.18] years; time since diagnosis=12.56[5.62-17.44] years; age at survey=15.42[12.00-17.97] years) and 698 siblings of survivors from the overall CCSS cohort (15.49[12.01-18.00] years). Survivors were compared to siblings on frequency and quality of parent-reported peer interactions on the Behavior Problem Inventory (BPI) adjusting for race and household income. Survivors' therapeutic exposures, chronic medical conditions (CTCAE v4.03), and psychological outcomes from the BPI were examined via multinomial logistic regression adjusting for sex, race, household income, and age at diagnosis to calculate adjusted Relative Risk (aRR) and 95% confidence intervals (CI).

**Results:** Compared to siblings, fewer survivors were reported to have zero or one friend (10.10% vs. 7.21%,  $p=0.04$ ); however, survivors were rated as having greater difficulties getting along with friends ( $p<0.0001$ ). Survivors with anxiety/depression (aRR=5.27, 95% CI 2.34-11.90), headstrong behavior (aRR=3.74, CI 1.80-7.74), attention problems (aRR=3.28, CI 1.56-6.91), or social withdrawal (aRR=8.35, CI 3.91-17.85) had fewer friends compared to survivors without these problems. Survivors with antisocial behavior (aRR=0.31, CI 0.14-0.67), anxiety/depression (aRR=0.41, CI 0.20-0.83), headstrong behavior (aRR=0.36, CI 0.20-0.67), attention problems (aRR=0.44, CI 0.25-0.80), or social withdrawal (aRR=0.12, CI 0.05-0.30) were described as more difficulty getting along with friends compared to survivors without problems. Treatment exposures (e.g., chemotherapy, radiation) and endocrine and cardiovascular problems did not impact number of friends, time spent with friends, or survivors' ability to get along with friends.

**Conclusions:** Despite multiple friendships, relationship quality for adolescent survivors of WT appears worse than for siblings. Adolescent survivors require support to develop socialization skills to enhance their relationship quality.