

Physical determinants of physical activity in children who have completed treatment for acute lymphoblastic leukemia (ALL).

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Introduction: Physical activity (PA) levels in children who have completed treatment for ALL have been shown to be lower than their healthy peers. As a result, obesity and related health concerns have been shown to be a long-term side effect of cancer treatment. Motor performance and physical function have been shown to be lower in these children, and have been proposed to be related to their PA. **Purpose:** To determine if motor performance and physical function are associated with PA in children who have completed treatment for ALL. **Methods:** PA was measured using the Physical Activity Questionnaire for Older Children (PAQ-C); motor performance was measured using the Bruininks-Oseretsky Test of Motor Proficiency, Second Edition, Short Form (BOT-2 SF); and physical function was measured using the Six-Minute Walk Test (6MWT). **Results:** Twelve participants were recruited. PAQ-C scores were not related to standard scores from the BOT-2 SF (Spearman's rho, r_s : 0.376, p : 0.228) and 6-minute walk distance (r_s : -0.311, p : 0.326). PA in 7/12 participants were comparable to healthy children. Only 1/12 participants performed below average in motor performance, and 11/12 participants walked fewer distances compared with published data from healthy children in the 6MWT (mean SDS: -1.62). **Conclusion:** PA was not associated with motor performance or physical function. Physical function was poorer compared with healthy children in almost all of the participants. Healthcare professionals can focus on improving physical function to potentially improve PA levels. PA may be more related to psychosocial factors, such as self-efficacy or parental influences.