

Cognitive and Occupational Status of Young Adult Survivors of Leukemia/Lymphoma Prior to Transition to Adult-Centered Care



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BACKGROUND

Contemporary treatments for pediatric acute lymphoblastic leukemia (ALL) and non-Hodgkin's lymphoma (NHL) have improved survival rates while decreasing significant neurodevelopmental morbidity; however, they continue to confer risk of long-term cognitive sequelae.¹ In particular, slow processing speed and executive dysfunction can persist into adulthood.² Neurocognitive deficits have been found to interfere with academic achievement and, consequently, the transition to postsecondary education and employment.^{3,4} Therefore, **the objective of this study was to describe the frequency and severity of cognitive concerns of ALL/NHL survivors who are about to transfer to adult-centered care in relation to their occupational status and school service utilization.**

METHODS

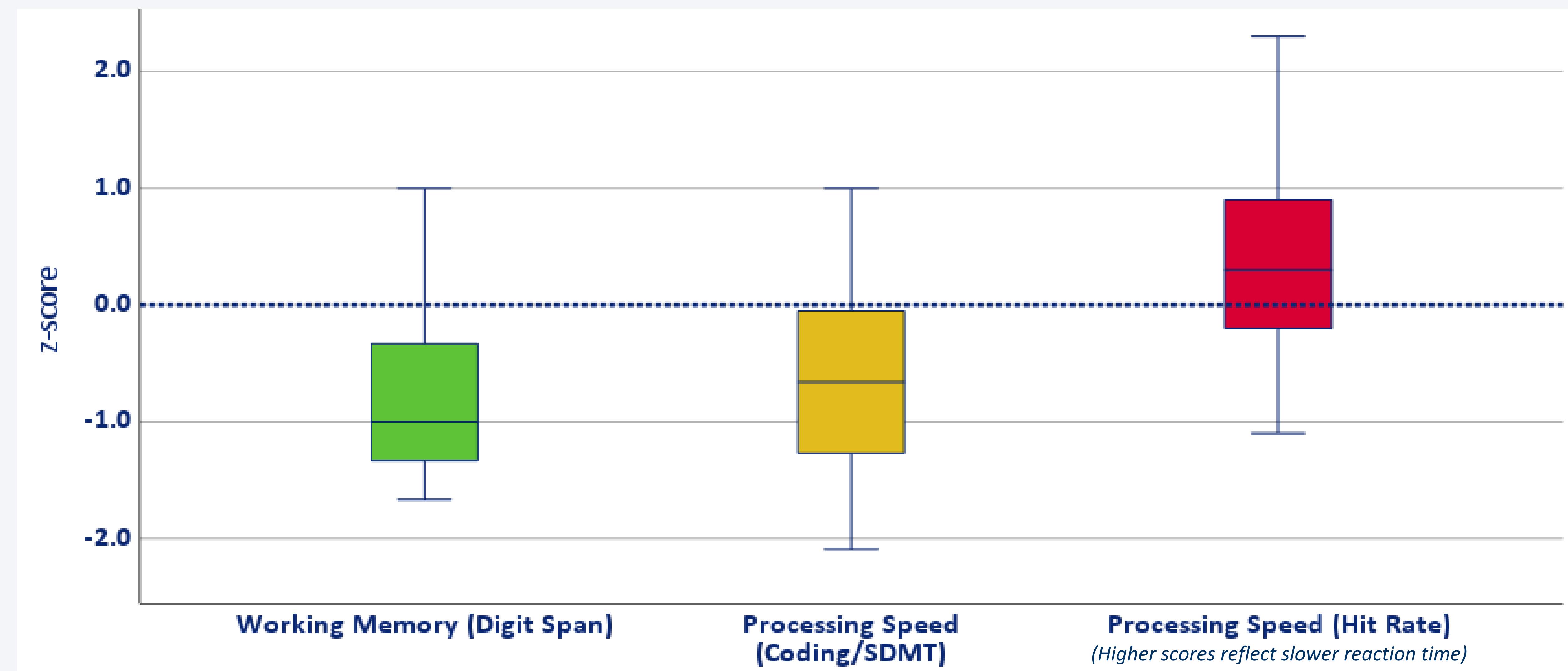
Participants: Thirty-eight young adult (range: 18-21 years; $\bar{x}=19.5$ years), primarily Latino, survivors of ALL/NHL referred for neuropsychological consultation/evaluation by their medical team.

Measures: Domains assessed included working memory (*Wechsler Adult Intelligence Scale–Fourth Edition [WAIS-IV]*) Digit Span [DS])⁵, processing speed (*Symbol Digit Modalities Test [SDMT]*⁶/ *WAIS-IV Coding*), and sustained attention (*Conners Continuous Performance Test–Third Edition [CPT-3]*).⁷ Occupational status was determined by interview.

Statistical Analysis: Sample differences with published norms were determined by a series of one sample z-tests. Analyses were run using SPSS 27.⁸

RESULTS

Survivors exhibited lower working memory (DS $z=-4.44$, $p=.00001$) and processing speed (Coding/SDMT Written $z=-3.82$, $p=.00014$; CPT-3 Hit Reaction Time $z=2.57$, $p=.01$) compared to normative expectations:



Nearly 90% of the sample was in school and/or working at the time of evaluation. Of those in higher education (74%), **over 35% performed at least one standard deviation below the mean across DS and SDMT/Coding** (over twice as frequent as the normative population), **though less than 15% were receiving accommodations.**

CONCLUSIONS

Despite increased risk of working memory and processing speed deficits, the majority of our sample was in school and/or working at the time of evaluation. While this confirms the resiliency of young adult survivors of ALL/NHL⁹, their need for supportive services that address cognitive barriers may be under-recognized. Although neuropsychological services are identified as standard of care in pediatric cancer populations¹⁰, many survivors lose access to specialty follow-up (including neuro-psychological monitoring) once they transition out of child-centered care.¹¹ This study highlights the importance of continued neuropsychological monitoring and consultation in this age group to best support survivors during that transition.

REFERENCES

