Functional Cognition in Individuals Experiencing Homelessness: A Relationship With Well-Being

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Individuals experiencing homelessness (IEH) exhibit high frequencies of conditions associated with cognitive impairment (CI), such as mental illness and substance abuse. CI is known to be a risk factor and perpetuator of homelessness as it can affect occupational participation and performance skills, causing loss of work, social connections, and ability to live independently. It is hypothesized that wellbeing, a state of complete mental, social and physical health, is impacted by CI. Previously, cognition has been assessed for IEH with instruments largely designed to only diagnose severe CI and few studies evaluate cognition through performance of daily activities or investigate its impact on wellbeing. Thus, this study used performance-based testing to assess the prevalence of CI within a sample of IEH and identify support needs for occupational participation and wellbeing. A descriptive cross-sectional study was conducted at a homeless services agency. Participants were recruited using a convenience sampling method of adults from the agency with a history of homelessness, the ability to understand English and pass a capacity to consent. Participants completed a two-hour assessment battery including a demographic form, the Patient-Reported Outcomes Measurement Information System (PROMIS) Global Health scale, the Activity Card Sort-Advancing Inclusive Participation Short Form (ACS-AIP-SF), the National Institute of Health Toolbox Cognitive Battery (NIHTB-CB), and the Executive Function Performance Test (EFPT). Descriptive statistics and Kendall's Tao-b were performed using the Statistical Package for the Social Sciences software. 18 IEH completed all assessment measures (N = 19). Participants' (n = 19) mean scores for NIHTB-CB Crystallized Cognition Composite and Fluid Cognition Composite were 42.79 (SD = 9.22) and 36 (SD = 11.46), respectively, and total task scores on the EFPT (n = 18) were substantial (M = 9.72, SD = 7.65). As indicated by the EFPT, 78% (n = 14) of participants had a possible awareness problem, 89% (n = 16) had difficulty with sequencing, and 50% (n = 9) had difficulty with organization. A significant correlation existed between EFPT total scores and a desire to engage in work/education occupations (Tb = -.378, p = .043). There were correlations between quality-of-life self-ratings, mental health self-ratings (Tb = .003, p = .595), organization (Tb = .018, p = -.476), sequencing (Tb = -.434, p = .027), EFPT total task scores (Tb = -.416, p = .029), and Crystalized Cognition (Tb = .403, p = .029). NIHTB-CB and ACS-AIP-SF (n = 19) demonstrated a correlation between Crystalized Cognition Composite and a desire to engage in work/education occupations (Tb = .378, p = .035). Participants demonstrated crystallized cognitive abilities within normal limits, however, deficits in fluid cognition were found. Furthermore, participants required substantial assistance to complete executive functioning tasks. IEH who self-rated a higher QoL demonstrated fewer difficulties with awareness, sequencing and organization and required fewer cues to complete functional cognition tasks. Crystalized cognition measures correlated with community independence participation and desire to engage in work/education on the ACS-AIP-SF. As crystalized cognition increased, participation and desire to participate increased. As functional cognitive deficits increased, the desire to engage in work/education decreased. Mental illness influences participation and desired participation in social, leisure/rest, community independence, and work/education occupations. Occupational therapists have the ability to address the unmet cognitive support needs of IEH through targeted interventions and advocacy to improve participation, wellbeing and executive functioning.

References

Backer, T. E., & Howard, E. A. (2007). Cognitive impairments and the prevention of homelessness: Research and practice review. *The Journal of Primary Prevention, 28*(3–4), 375–388. https://doi.org/10.1007/s10935-007-0100-1

Depp, C. A., Vella, L., Orff, H. J., & Twamley, E. W. (2015). A quantitative review of cognitive functioning in homeless adults. *The Journal of Nervous and Mental Disease, 203*(2), 126–131. https://doi.org/10.1097/NMD.0000000000000248

Stone, B., Dowling, S., & Cameron, A. (2019). Cognitive impairment and homelessness: A scoping review. *Health & Social Care in the Community, 27*(4), e125–e142. https://doi.org/10.1111/hsc.12682