EVALUATION OF COGNITIVE FUNCTION AMONG PATIENTS RECEIVING TREATMENT FOR ALCOHOL DEPENDENCY IN WESTERN SYDNEY LOCAL HEALTH DISTRICT

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Introduction and Aims: Harmful use of alcohol has been shown to cause structural and functional changes in areas of the brain involved in executive function and memory. The present study aims to characterise a cohort of alcohol dependent patients for evidence of cognitive impairment to inform the design for optimal model of care.
Design and Methods: Patients aged 18 to 65 receiving treatment for alcohol dependence, with at least 7-day abstinence, were screened with the Montreal Cognitive Assessment (MoCA) and designated as impaired if scored < 26. Patients with dependence on substances other than alcohol, acute intoxication, withdrawal symptoms, history of Wernicke-Korsakoff's syndrome, Alzheimer's disease, recent traumatic brain injury, brain tumour, strokes or pregnancy were excluded. Based on the above criteria, 20 out of the 65 participants were excluded. The Grubbs' test was applied to remove 6 outliers, leaving a total of 39 participants in the data set. **Results:** Of the 39 participants, the majority were men (n=33, 84.6%) compared to women (n=6, 15.4%) aged 45.6 and 54.5 years respectively. Just under half (48%) were tobacco smokers. The average quantity of alcohol consumed per week was 12.5 ± 3.6 units for the whole group while the average length of abstinence from alcohol was 17.1 ± 9.8 days. Over half (59%) of the participants were cognitively impaired, in men and women equally (Table 1). Subscores showed that the delayed recall, attention, abstraction, language and visuospatial domains were most impaired. Orientation was the only domain where the cognitively impaired and unimpaired groups had similar performance. MoCA score was not associated with age, quantity of alcohol consumed per week or average length of abstinence on regression analysis. **Discussion**: A significant proportion of patients was found to have cognitive impairment, suggesting a need for system wide screening and a shift in paradigm of care. Testing for orientation without screening with MoCA would have failed to detect cognitive impairment in this cohort.

Table 1.

	Total	Male	Female	P Value
Total MoCA score				
≥26/30	27.4±1.4 (n = 16)	27.3±1.4 (n = 13)	27.7±1.5 (n = 3)	0.73
<26/30	21.6±2.9 (n = 23)	21.4±3.0 (n = 20)	23.0±2.0 (n = 3)	0.30
Mean sub score				
Visuospatial (5)	3.4±1.2	3.3±1.2	4.2±1.0	0.08
Naming (5)	3.0±0.2	3.0±0.2	3.0±0.0	0.32
Attention (6)	5.0±1.3	5.0±1.4	5.0±1.3	0.96
Language (3)	2.1±.8	2.0±0.9	2.3±0.5	0.27
Abstraction (2)	1.6±0.7	1.6±0.7	2.0±0.6	0.18
Delayed recall (5)	2.7±1.6	2.6±1.6	3.2±1.0	0.25
Orientation (6)	5.8±0.5	5.8±0.4	5.5±0.8	0.36