

ABSTRACT

Aims: The nature of the relationship between moderate alcohol consumption and cognitive functioning has attracted a considerable amount of attention overtime. However, the pattern of the relationship remains uncertain. Some studies have reported a beneficial relationship between moderate alcohol consumption and cognitive functioning especially in the elderly population, while other studies have noted different cognitive outcomes based on gender in moderate alcohol consumers. With the advent of neuropsychological test use in health care practice in Zambia, it is imperative to assess the possible influences of moderate alcohol consumption.

Methods: A cross-sectional study was carried out to investigate the relationship between moderate alcohol consumption and cognitive functioning. A sample of 324 participants was recruited, comprising 157 (48.5%) males and 167 (51.5%) females. There were 87 (26.9%) moderate alcohol consumers and 237 (73.1%) non-drinkers; with an age range of between 20 and 65 years. All the participants were conversant with the English language, and their level of educational attainment was between 5 and 19 years of schooling. Clinical Officers identified the HIV negative prospective participants who upon giving informed consent to taking part in the study, were evaluated on their cognitive functioning by means of the Zambia Neurobehavioural Test Battery.

Results: Based on self-reported alcohol consumption and cognitive functioning as measured by means of the Zambia Neurobehavioural Test Battery, it appears that the male moderate drinkers, performed better on a test of inhibition (Stroop Colour and Word test), t-score $M=52.78$; $SD=8.4$ than the non- drinking males, $M=48$; $SD=10.2$. On the other hand, it seems that the female drinking participants performed less well $M=47.36$; $SD=8.2$ when compared to the non-drinking females $M=50.68$; $SD=9.2$ in the area of verbal episodic memory.

Conclusion: Results obtained from this study seem to imply that in general there are minimal differences between moderate alcohol consumers and non-drinkers. While statistically, males performed better on inhibitory functioning and females performed worse on tests of visual episodic memory, these differences observed are minimal and are not clinically significant. Further observation is recommended especially with regard to the seemingly negative outcome observed in females.

Dedication

To my mother Ms. Anne Nalwamba, you are truly a woman of substance.

I am blessed to have been raised by such a remarkable woman.

Thank you.

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List of abbreviations

ADL	-Activities of Daily Living Scale
BDI	-Beck Depressive Inventory
CTT	-Colour Trails Test
DEC	-The Drug Enforcement Commission
DSM-IV	-Diagnostic and Statistical Manual of Mental Disorders
HIV	-Human Immunodeficiency Virus
ICD-9	-International Classification of Diseases
TMT	-Trail Making Test
PASAT	-Paced Auditory Serial Addition Test
QPO	-Quantity Per Occasion
VCT	-Voluntary Counseling and Testing
WAIS-III	-Wechsler Adult Scale
WCST	-Wisconsin Card Sorting Test
WHO	-World Health Organisation
WMS-III	-Wechsler Memory Scale
WRAT	-Wide Range Achievement Test
ZAT	-Zambia Achievement Test