

The Usefulness of the IDEA screening tool in the Clinics of Mbeya Hospitals in Southern Tanzania

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Background: Dementia is already on the rise in Sub-Saharan Africa, with 2.13 million people affected in 2015, a figure projected to rise to 7.62 million by 2050. There are limited tools to test Dementia in most African settings. There is a grey literature on detecting cognitive decline in the clinics of African settings, including Tanzania. We aimed to evaluate the patterns of cognitive decline reported by the Identification and Dementia in Elderly Africans (IDEA) screening tool in the hospitals of the Southern Highlands of Tanzania.

Methodology: A cross-sectional study was conducted between July and October 2025 among people aged 60 years and above attending different clinics in the two referral hospitals in Mbeya. The IDEA screening questionnaire was set into a Kobo Toolbox, and healthcare providers from the 2 referral hospitals of Mbeya collected data. Analysis was done by STATA version 17. Descriptive statistics and bivariate analysis and adjusted logistic regression for the influence of the diseases on cognitive declines was done.



Figure 1. IDEA screen in Process

Result: The study examined 292 participants, with an average age of 71 years (SD 8 years, minimum 60 years, maximum 104 years), and (159) 54.6% were females. Influence of diseases were reported as HIV (n=43, p<0.001), Neurology (n=25, p=0.799), Hematology (n=22, p=0.002), Oncology (n=24, p=0.696), Cardiology (n=203, p<0.001), Orthopedic (n=81, p<0.001), Urology (n=62, p=0.001), Diabetic 160 (p=0.009), Ophthalmology (n=47, p<0.001), Psychiatric (n=59, p<0.001). The adjusted risks (AOR (95% CI) from the clinics were HIV 4.9 (1.8,13.6), Cardiology 2.7 (1.2, 6.2), Orthopedic 13.3 (6.3, 28.1), Diabetic 3.4 (1.5, 7.2), GOPD 2.1 (1.05, 4.2), Ophthalmology 2.4 (1.1, 5.8), Psychiatric 2.4 (1.1, 5.6).



Figure 1. IDEA screen in Process

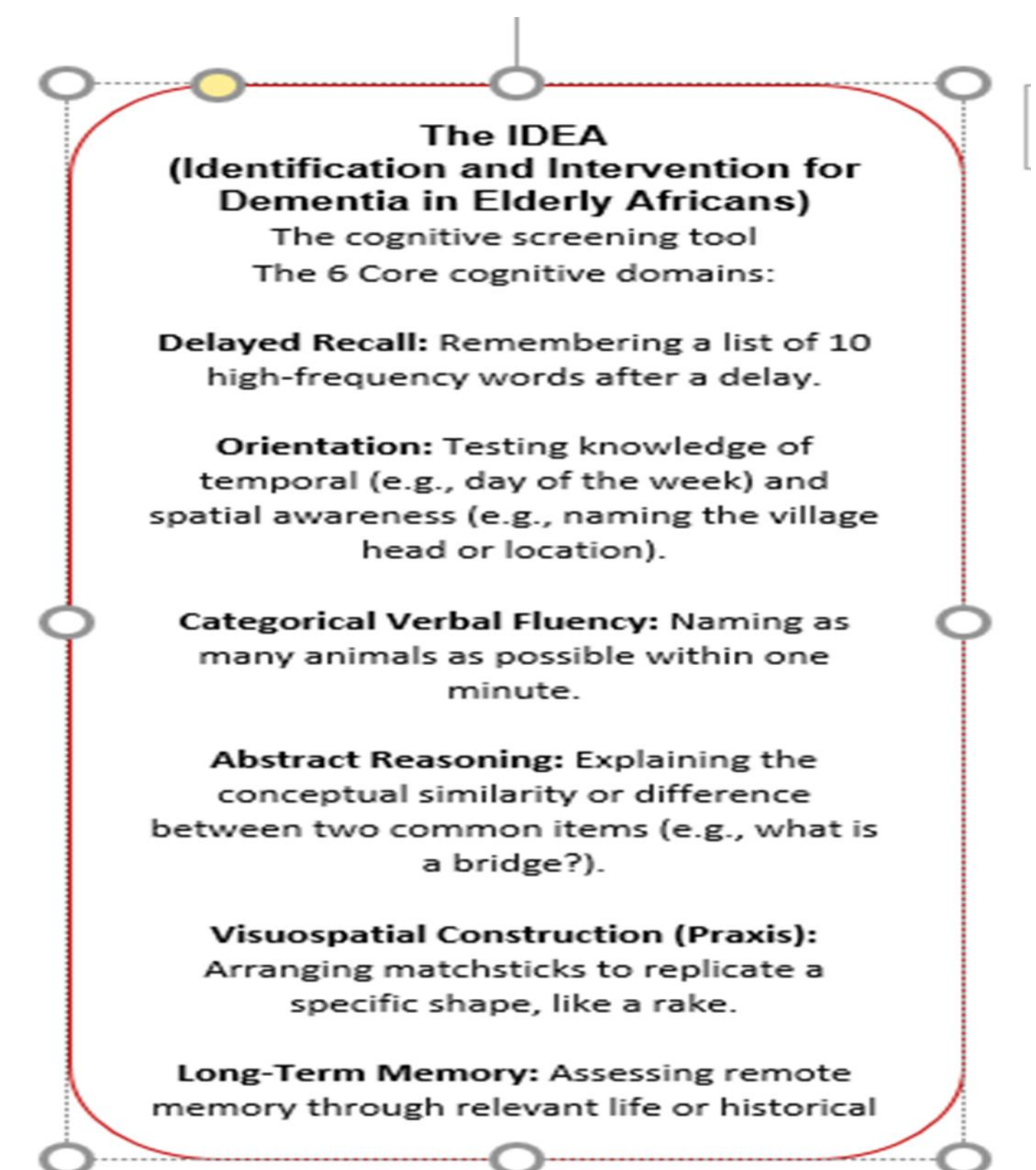


Figure 2. Neuropsychiatric Verification and Visual Validation

Table 1. Multivariate Analysis of the IDEA usefulness in Clinics

Risks from the group of diseases that affect Cognitive Decline	Odds Ratio	Std. Err.	z	p value	[95% Conf. Interval]
HIV	4.95	2.55	3.1	0.002	(1.80,13.61)
Hematology	0.87	0.54	-0.21	0.835	(0.26, 2.95)
Cardiology	2.76	1.15	2.44	0.015	(1.22, 6.25)
Orthopedic	13.36	5.0	6.84	<0.001	(6.35, 28.10)
Urology	0.83	0.39	-0.39	0.7	(0.33, 2.10)
Diabetic	3.40	1.31	3.18	0.001	(1.59, 7.24)
GOPD	2.12	0.75	2.12	0.034	(1.05, 4.25)
Ophthalmology	2.41	1.07	1.99	0.046	(1.01, 5.77)
Psychiatric	2.43	1.028	2.11	0.035	(1.06, 5.57)
cons	0.01	0.009	-7.42	<0.001	(0.006, 0.05)

Conclusion: The cognitive impairment can be detected by the IDEA screening across all hospital clinics, including surgical clinics Orthopedic, Urology, and Ophthalmology in African settings