

Utility of the Rowland Universal Dementia Assessment Scale (RUDAS) in Detecting Cognitive Impairment Among Older Adults in Tanzania



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Background and Objectives

- Accurate dementia screening tools can facilitate timely referrals, and subsequently improve dementia diagnosis and care
- Although RUDAS is a useful multi-domain screening tool for dementia in multicultural populations, its utility is yet to be established in Tanzania.
- We aimed to assess the feasibility of using RUDAS to detect cognitive impairment among older adults in Tanzania
- Our primary feasibility measure was the area under the receiver operating characteristic (AUROC) curve



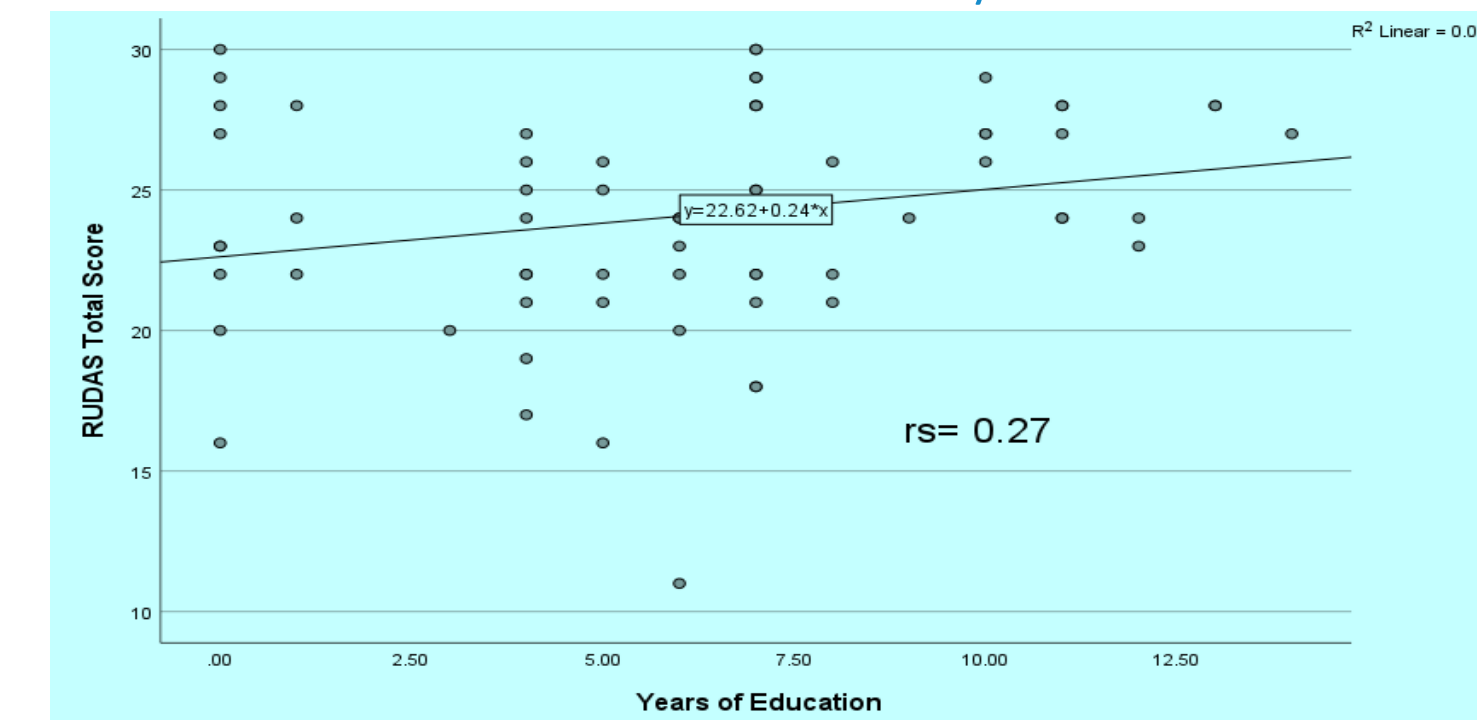
Methods

- This was a pilot study of construct validity involving community residents aged 60+ in the Kilimanjaro region
- The sample was stratified by age, education, socioeconomic status, and sociocultural background
- The RUDAS was forward and back translated into Swahili, and administered as an additional measure alongside a neuropsychological battery, including the Identification of Dementia in Elderly Africans (IDEA) screen
- A pilot AUROC analysis was undertaken with a previously validated cutoff for 'cognitive impairment' of ≤ 9 on the IDEA screen
- RUDAS domain-specific items were compared with scores on previously validated measures of these domains

Results

- 75 (of the 131 eligible) older adults with a median (IQR) age of 73 (58–96) years consented to the RUDAS test
- Those who consented to the RUDAS were more literate ($p=0.04$) and less frail ($p\leq 0.001$)
- The RUDAS memory task correlated with the CERAD word list memory task, while the Visuoconstructive task correlated with the Stick design test

The RUDAS total score correlated with years of education



Conclusion

- RUDAS had good sensitivity and low specificity in distinguishing cognitively normal adults from those with cognitive impairment
- Blinded case-control study using expertly diagnosed participants can provide more insights into the utility of RUDAS in this population

Next steps (Pilot Application)

- Focus on the cultural adaptation of the Brain Health Assessment tool (BHA) of the Tablet-based Cognitive Assessment Tools (TABCAT) and creation of regression-based norms for adults in Tanzania

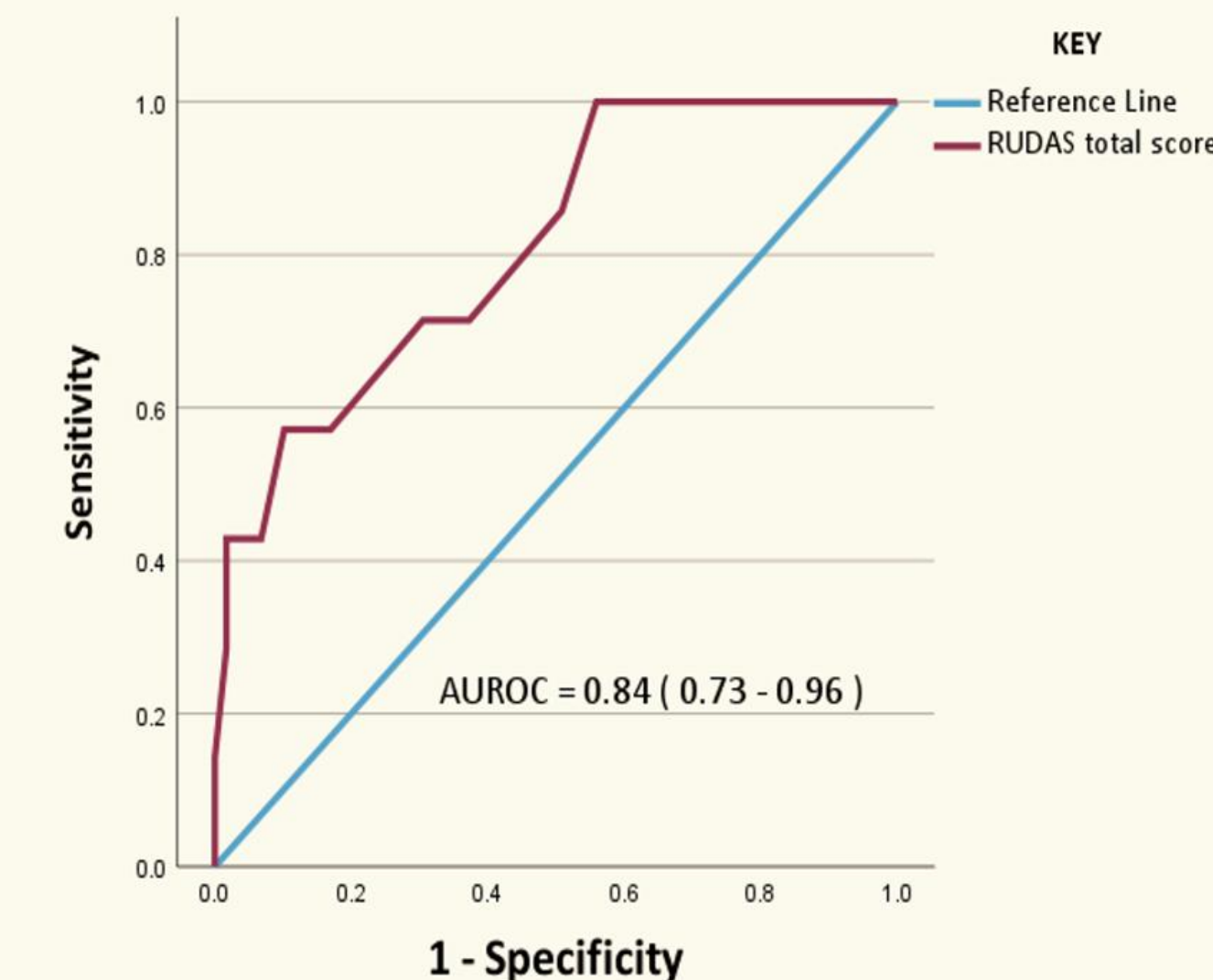


Figure 1. Sensitivity and specificity at score of 24.5 were 91.7%, and 46.3%