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Title: Matchstick Design & Memory: a test of visuo-spatial learning & memory

Objectives: Clinical neuropsychologists are increasingly called upon to undertake cognitive assessment of clients from diverse cultures, with limited educational opportunity. The Matchstick Design & Memory test is intended to provide a culture-fair visual test of learning and memory, that does not depend on writing or drawing skills.

Design/Methods: In study 1, a group of community-dwelling Sylheti-Bengali older-adults were asked to complete the standard format Rey-Osterrieth Complex Figure Test. The scores for the copy, immediate recall, and delayed recall trials were all well-below expected, and many of the participants declined to provide a drawing. In study 2, a group of community-dwelling Sylheti-Bengali older-adults were asked to complete the new Matchstick Design & Memory test. The scores for the copy, immediate recall, and delayed recall trials suggested good reproduction and memory for the design, and all participants engaged with the task. In study 3, preliminary clinical data suggests that Sylheti-Bengali older-adults with a diagnosis of dementia scored well below their community dwelling peers for immediate and delayed recall on the matchsticks test.

Discussion: The Matchstick Design & Memory test appears to be a useful new test of visual learning and memory, that utilises familiar, low-cost materials, and does not depend on writing or drawing skills. Future research on the test's reliability and validity is needed, as well as substantive norms for specific cultural/linguistic groups. The properties of the test may also make it useful for remote administration (e.g., video-based cognitive assessment).