Commentary

Geriatric mental health in India is receiving growing attention due to the need of increased health care services for the diagnosis and management of dementia or other cognitive impairments. Prevalence rate of dementia in India is reported in the range from 1.4% to 10.6%.[1] Early detection of cognitive impairment in elderly population is crucial for timely intervention. Worldwide mini-mental state examination (MMSE) or Folstein test is a brief 30-point questionnaire and is most commonly used to screen for cognitive impairment. It assesses arithmetic, memory and orientation by simple questions like the time and place, repeating lists of words, serial subtraction, language use and comprehension, and basic motor skills.[2]

Any score greater than or equal to 25 points (out of 30) is effectively normal (intact). Below this score, indicates severe (≤9 points), moderate (10-20 points) or mild (21-24 points) cognitive impairment.[3] Low to very low scores correlate closely with the presence of dementia, although other mental or physical disorders can also lead to low scores. For example, a patient may be physically unable to hear or read instructions properly, or may have a motor deficit that affects writing and drawing skills. Correction for education and age are also available for raw score.[4]

Due to socio-cultural diversities, the use of original MMSE is impractical in majority of Indian population such as in rural or tribal areas where inhabitants are largely illiterate and understand only local languages. Hence developing culturally relevant assessment instruments or modifying existing tests is necessary. Increasing geriatric population of India has provided impetus to modify the subtests used in English version to suit to the local population. Subsequently Hindi, Kashmiri and Dogri versions of MMSE[5-7] have been developed and now of our great use. Recently Bharmouri version of MMSE (BMSE) is being developed by modifying the English version of MMSE and the pretesting and pilot testing for cognitive screening in Bharmour tribal areas of Chamba district in Himachal Pradesh of north India.[8]

This is an interesting paper. It highlights the relevance of cultural influence on neuropsychological tests. Authors have determined the relevance of current MMSE items for the intended population and modified items those were not culturally, linguistically or educationally appropriate, through a two-stage process including a pre-pilot and pilot phase. The final version was field-tested for face validity in an age-stratified non-demented sample of Bharmouri elderly. The modifications included the attention subtest requiring abstract mental arithmetic skills and reading, writing and drawing items. For further ease, authors have also tabulated the retained as well as modified items in BMSE compared to original English MMSE. Thus a meaningful and culturally relevant cognitive test is prepared by sensitive modifications in the existing test that required reading and writing.

By minimizing the language, education and cultural biases, this tool will be a better cognitive assessment tool for Bharmouri elderly people. It will also provide impetus for developing other culturally relevant MMSE versions for different geographical populations. This tool should be further tested in a larger population of demented vs. non-demented and illiterate vs. literate elderly subjects. Relevant corrections for education and age should also be assessed, as done by a earlier study.[4]

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