

Perceptions of Physicians on Dementia Assessment Tools used in Ghana.

Sandra Enyonam Adimah^{1*}, Owusu-Mensah Richard², Yu Par Kin¹, Takeo Fujiwara¹

¹Institute of Science Tokyo, ²Mayo Clinic, USA

[Introduction]

Dementia is an incurable disease and a leading cause of deaths globally with an alarming estimated exponential increase in prevalence. (Harrison, 2019) Dementia is an umbrella term for several disorders including memory, thinking, behavior, and the ability to perform activities of daily living. Dementia comes in different forms, however Alzheimer's disease account for 50-60% of dementia cases. Growing evidence points an increase in dementia prevalence in low and middle-income countries, where longevity and life expectancy are projected to increase. Dementia requires intellectual ability for proper diagnosis (Prince et al., 2016). Cognitive assessment tools which serve adjunct diagnostic tool are used to identify individuals suspected to have symptoms of dementia. There many validated cognitive assessment tools. One of the assessment tools is the Mini-Mental State Examination (MMSE), which has become the best known and the most often used screening tool for providing an overall measure of cognitive impairment in clinical, research and community settings (Arevalo-Rodriguez, 2019). The mini mental state exam which has 11-question and measure five areas of cognitive function including, orientation, registration, attention and calculation, recall, and language, with maximum score of 30. A score of 23 or lower is indicative of cognitive impairment. Currently, in Ghana, there is scanty data regarding specific dementia assessment tools and standardized protocols which outline specific steps to follow during the assessment, ensuring consistency and reliability in the evaluation process. This phenomenon has a great potential public health threat and could compound the burden of dementia prevalence in Ghana. Since disease management is incumbent on early detection and accurate diagnosis, this study aimed to understand and analyze physicians' perceptions on dementia assessment tools and protocols used in Ghana, and to determine lapses and barriers in the assessment of dementia tools.

[Methods]

A total of 20 primary care physicians were invited to participate in the study through purposive sampling and snowballing technique. Out of the 20 invited primary care physicians, 12 were interviewed using self-developed semi-structured self-developed questionnaire via zoom. The study included Primary Care Physicians in Ghana with one-year minimum experience and who were willing to participate and excluded Primary Care Physicians with less than one-year experience, Specialists who carried out primary care practitioner roles in exceptional circumstances and those who were not willing to participate in the study. Thematic analysis was used in generating themes from the responses of participant in accordance to Braun et al, which involves extensive reading and familiarizing oneself with the data, identifying and creating common themes or pattern, analyzing, and reporting on themes within the data (Braun, 2006). To ensure validity and reliability, data was collected by selecting participants that accurately reflected the characteristics of the target population. Participants own words were used in the write up and this contributed to the rigor of the research. Interviews were transcribed into written form in order to familiarize with the data and to conduct a thematic analysis. This study was approved

by the Tokyo Medical and Dental University Review Board (approval number: M2024-005).

[Conflict of Interest]

Authors declare no conflict of interest.

[Results]

Twelve (12) Primary care physicians were interviewed. Three primary themes emerged from the discussion: knowledge on dementia assessment tools, perceptions about existing tools, and opportunity for improvement. Primary care physicians indicated that the Mini-Mental State Examination (MMSE) was the primary assessment tool they utilized. However, they faced challenges due to a lack of resources and infrastructure, which hindered the effective use of this tool. Additionally, they perceived the MMSE as not being disease-specific, along with other challenges and limitations.

[Discussion]

Findings from this study provide insights for prioritizing dementia assessment tools. Primary Care Physicians prioritized organic diseases over cognitive impairment largely due to the difficulty in their assessment. Often the perceived ineffectiveness of the available tools resulted in misdiagnosis. Hence, there is a need for the development of an assessment tool tailored to the Ghanaian cultural context and specific dementia type, also increasing training and continuing education for primary care practitioners in Ghana.

[Reference]

- Arevalo-Rodriguez, I., Smailagic, N., Roqué I Figuls, M., Ciapponi, A., Sanchez-Perez, E., Giannakou, A., Pedraza, O. L., Bonfill Cosp, X., & Cullum, S. (2015). Mini-Mental State Examination (MMSE) for the detection of Alzheimer's disease and other dementias in people with mild cognitive impairment (MCI). *The Cochrane Database of Systematic Reviews*, 2015(3), CD010783.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. 10.191/1478088706qp063oa
- Harrison, K. L., Hunt, L. J., Ritchie, C. S., & Yaffe, K. (2019). Dying with Dementia: Under recognized and stigmatized. *Journal of the American Geriatrics Society*, 67(8), 1548-1551.
- Prince, M., Comas-Herrera, A., Knapp, M., Guerchet, M., & Karagiannidou, M. (2016). *World Alzheimer report 2016: Improving healthcare for people living with dementia: Coverage, quality and costs now and in the future*. Alzheimer's disease International (ADI). London, UK.