Suitability of a Screening Scale for High-Need Older Adults in the Community

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Purpose: Timely identification of community-dwelling older adults with high needs and corresponding care needs is of urgency in aging societies worldwide. The High-need Community-dwelling Older Adults Screening Scale (HCOASS) has been developed, but the lack of cut-off point hampered the use of the instrument in practice. The aim of this study was to develop the cut-off point and to examine the validity and reliability of the HCOASS.

Methods: 818 community-dwelling older adults were assessed for risk of having high needs with the HCOASS. Construct validity of the HCOASS was evaluated by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The internal consistency reliability was established by calculating the Kuder-Richardson Formula 20 (KR-20). The intraclass correlation coefficient (ICC) with 95% CI between two administrations of the HCOASS was estimated for the purpose of test-retest reliability. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were computed. Receiver operating characteristic (ROC) analysis was used to identify the cut-off point and accuracy was determined from the area under the ROC curve (AUC).

Results: Both the EFA and CFA results were satisfactory, resulting in a finalized version of HCOASS containing 18 items assessing five domains. The HCOASS demonstrated acceptable internal consistency reliability (KR-20 $\alpha = 0.75$) and excellent test-retest reliability (ICC = 0.94, 95% CI: 0.91-0.97). The predictive power of the HCOASS was excellent (AUC = 0.90, 95% CI: 0.84-0.95). A cut-off score of 5 and above predicted older adults with high needs with 95% sensitivity, 70% specificity, 64% PPV, and 96% NPV.

Conclusion: Early identification of older adults who have high needs is essential for planning integrated interventions. The HCOASS demonstrated an excellent reliability and construct validity for routine use. It is brief and user-friendly and has the potential for contributing to detecting older adults with high needs in the community. The HCOASS opens up further possibilities for research and clinical use, as its brief nature may lead to wide-scale adoption by global researchers, community health professionals, and social workers.

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Keywords:
Community older adults, Diagnostic accuracy and Instrument psychometric testing
Abstract Summary:
This presentation introduces the suitability of a brief and user-friendly screening scale to identify high-need older adults in the community for global nurse practitioners/researchers who work with community older adults. The reliability, validity, and diagnostic accuracy of the screening instrument will be presented.

References:

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