

Aging research in the time of COVID-19: A telephone screen for subjective cognitive concerns in community-dwelling ethnically diverse older adults

Caroline O. Nester¹ | Jacqueline Mogle² | Mindy J. Katz³ | Cuiling Wang³ |
Richard B. Lipton³ | Carol A. Derby³ | Laura Rabin⁴

¹ The Graduate Center and Queens College, City University of New York, New York City, NY, USA

² Pennsylvania State University, University Park, PA, USA

³ Albert Einstein College of Medicine, Bronx, NY, USA

⁴ Brooklyn College - CUNY, Brooklyn, NY, USA

Correspondence

Caroline O. Nester, The Graduate Center and Queens College, City University of New York, New York City, NY, USA
Email: caroline.nester@qc.cuny.edu

Abstract

Background: There is an urgent need for validation of remotely-administered cognitive screens to identify older adults at risk for dementia, to monitor disease progression, and to facilitate follow-up when in-person visits are not feasible. Restrictions on in-person cognitive assessments due to COVID-19 have spurred a growing literature on telephone-based cognitive screening. However, few studies have evaluated the value of telephone-administered screens of subjective cognitive concerns (SCC), an important early marker of dementia-risk.

Method: Einstein Aging Study participants (subsample, $n=455$; $Mean=77.0$; $Myers\ education=15.0$; 64.1% women; 46.4% White) completed the Telephone Screen for Subjective Cognitive Concerns (T-SSCC), a 16-item measure of self-reported memory, language, executive functioning, visuospatial/navigation, concentration, calculation, and mental clarity concerns, as well as the Telephone Montreal Cognitive Assessment (T-MoCA). In-person assessments included the paper-and-pencil Cognitive Change Index (CCI) and comprehensive neuropsychological evaluation. Classification as cognitively normal (CN; $n=288$) or mild cognitive impairment (MCI; $n=153$) was based on Jak/Bondi criteria. Primary analyses included correlations between the objective and subjective screening instruments, and logistic regression to evaluate the association between the T-SSCC and MCI status.

Result: Total endorsement of concerns on the T-SSCC (OR 1.095, CI 1.018-1.178, $p=0.015$) was significantly associated with MCI status. In particular, endorsement of "Do any of these problems interfere with your daily life?" was strongly related to MCI (OR 2.296, CI 1.284-4.108, $p=0.005$). The T-SSCC was moderately correlated with the in-person CCI ($r[114]=0.577$, $p<0.001$). A small but significant relationship was observed between the T-SSCC and T-MoCA ($r[258]=-0.206$, $p<0.001$).

Conclusion: To our knowledge, this is the first study to validate a telephone SCC screen in response to the crucial need for such remotely administered measures. The T-SSCC was significantly associated MCI status; furthermore, specific items related to the impact of cognitive problems in daily life were particularly sensitive to MCI. Such SCC measures are brief, accessible, and well-tolerated and may provide additionally valuable information that enhances remotely-administered cognitive screens.