Reliability and Validity of a Self-rated Analogue Scale for Global Measure of **Successful Aging**

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Objective: Dimension-specific objective measures are criticized for their limited perspective and failure to endorse subjective perceptions by respondents, but the validity and correlates of a subjective global measure of successful aging (SA) are still not well established. We evaluated the reliability and validity of a self-rated analogue scale of global SA in an elderly Singaporean population. Design: Cross-sectional data analysis using a comprehensive questionnaire survey. Participants and setting: 489 community-dwelling Singaporeans aged 65 years and over. Measurements: Self-rated SA on an analogue scale from 1 (least successful) to 10 (most successful) was analyzed for its relationship to criterion-based measures of five specific dimensions (physical health and function, mental well-being, social engagement, psychological well-being, and spirituality/religiosity), as well as outcome measures (life satisfaction and quality of life). Results: Self-rated SA was significantly correlated to measures of specific dimensions (standardized β from 0.11 to 0.39), most strongly with psychological functioning ($\beta = 0.391$). The five dimension-specific measures together accounted for 16.7% of the variance in self-rated SA. Self-rated SA best predicted life satisfaction ($R^2 = 0.26$) more than any dimension-specific measure (R^2 from 0.05 to 0.17). Self-rated SA, vis-à-vis dimension-specific measures, was related to a different set of correlates, and was notably independent of chronological age, sex, education, socioeconomic status, and medical comorbidity, but was significantly related to ethnicity. Conclusion: The self-rated analogue scale is a sensitive global measure of SA encompassing a spectrum of underlying dimensions and subjective perspectives and its validity is well supported in this study. (Am] Geriatr Psychiatry 2013; ■:■-■)

Key Words: Successful aging, measurement, validity, reliability

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Self-rated Analogue Scale of Successful Aging

 \mathbf{P} opulation ageing is associated with an increasing societal burden of care, especially acutely in Asia and the developing world. Successful aging (SA) is, therefore, an important area of research that is of particular relevance and importance to the design of programs to promote well-being among older people.¹

Diverse approaches in conceptualizing and defining SA have resulted in a number of competing operational models of SA today. The biomedical model embodied by the expanded definition by Rowe and Kahn² focuses on the avoidance of disease and maintenance of physical and cognitive functioning and active life engagement. Sociological models based on the continuity and other theories emphasize social functioning, and view successfully aging individuals^{1,3} as maintaining high levels of social activity, interaction, and participation.¹ Psychological models of SA variously emphasize mastery/growth, positive adaptation, resilience, and the ability to possess and use psychological resources for coping with the challenges of the aging process.^{4–6} There is, however, emerging consensus that SA is a multi-dimensional construct.^{7,8} Furthermore, some authors have argued that positive religiosity/spirituality is a missing element in the SA literature, and should be regarded as integral to SA.⁹

Dimension-specific formulations have been criticized for failing to incorporate subjective perspectives of older adults themselves.^{10,11} Many authors emphasize that it is important to elicit older people's views and perceptions of what it means for them to age well.^{8,12} Research show that many older adults consider themselves to be aging successfully even though the biomedical criteria do not categorize them as such.^{6,13,14} More older adults were rated as "successful agers" by a subjective measurement scale, whereas fewer were rated as successful agers when objectively defined criteria were applied.^{10,15}

A single-item analogue scale is arguably a sensitive tool in measuring subjective global SA.¹ Analogously, a global measure of subjectively rated health has been found in numerous studies to predict mortality independently of disease and disability among elderly persons.¹⁶ Self-rated SA may also be a similarly important and valid measurement construct, but few studies have established the validity of a subjective global measure of SA. In this regard, the choice of external criteria to validate subjective SA measure is also not straightforward. Nevertheless, many studies have regarded life satisfaction and quality of life as outcome indicators and criterion measures of SA.¹⁷

In this study, we examined the construct and criterion validity of a self-rating scale of SA in an aging Singaporean population. Based on the holistic view that SA encompasses a spectrum of underlying dimensions, we hypothesized that subjective self-rating of global SA was correlated to measures of specific dimensions of SA but was a stronger predictor of life satisfaction and quality of life. We examined the correlates of successful aging, and hypothesized that the subjective global measure of SA, vis-à-vis dimension-specific measures, was related to a different set of correlates. Given the subjective perspective of self-rated SA measures, we predicted that it would be independent of age, sex, education, and health status.

METHODS

Participants and Study Design

This study (Singapore Study of Successful Aging) formed part of a second wave population-based study of aging and health (Singapore Longitudinal Aging Studies) that enrolled 2,800 community-dwelling older adults aged 55 years and greater living in the south-central and southwest of Singapore in 2009–2011. Participants were recruited through door-to-door census and completed an extensive range of interviews and physical examinations.

The participants in the Singapore Study of Successful Aging were a subsample (N = 500) of the Singapore Longitudinal Aging Studies cohort who were aged 65 years and greater living in one locality (Bukit Merah) in the south-central region. Eligible participants were Singaporean citizens or permanent residents who were able to give informed consent. Participants too frail or unable to complete the interview, for reasons such as from post-stroke aphasia or profound dementia, were excluded. Respondents who consented to participate in the study represented a response rate of 78.5%. The study was approved by the National University of Singapore institutional review board.

Questions from the Stein Research Institute for SA Questionnaire developed at the University of Download English Version:

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