

Development of Indigenous frailty scale in geriatric population: A mixed method study

Abstract:

Frailty is a multidomain geriatric syndrome characterised by reduced physiological reserve and increased vulnerability to adverse outcomes such as falls, disability, hospitalisation, dependency, and death. In India, the burden of frailty is rising alongside population ageing, yet currently available frailty instruments are largely derived from Western settings and may fail to reflect the sociocultural, familial, environmental, and health-system factors that shape ageing in Indian communities. This study aims to develop and validate an indigenous frailty scale for older adults in India that reflects locally relevant physical, psychological, cognitive, social, and contextual dimensions of frailty. A sequential mixed-method study will be conducted in Pune, Maharashtra. In the qualitative phase, in-depth interviews, key-informant interviews, and focus group discussions will be carried out with older adults, caregivers, geriatricians, gerontologists, counsellors, nutritionists, physiotherapists, and old-age home representatives to identify culturally meaningful indicators of frailty, dependency, resilience, and care needs. Themes generated from qualitative analysis, along with evidence from published frailty tools, will be used to create an initial item pool. The draft scale will then undergo expert review, cognitive appraisal, and pilot testing. In the quantitative phase, the pre-final tool will be validated in a cross-sectional survey of 501 adults aged 60 years and above recruited through stratified sampling from hospitals, old age homes, and community settings. Psychometric testing will include internal consistency, test-retest reliability, exploratory and confirmatory factor analysis, criterion validity using EuroQol-5D, and known-groups validity. The study is expected to generate a valid, reliable, and culturally relevant frailty assessment scale for Indian older adults, with potential application in geriatric screening, epidemiological research, early risk identification, and policy planning for equitable elderly care.