Abstract

Title: Assessing Psychometric Qualities of the Groningen Frailty Indicator

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Introduction. Early diagnosis of frailty, a common geriatric condition, is imperative for proactive primary care. The Groningen Frailty Indicator (GFI) was developed in the Netherlands to assess frailty. However, its validity in other ethno-cultural backgrounds has not been established. This study evaluated the reliability and construct validity of the GFI among older Malaysians residing in aged care facilities.

Methods. A cross-sectional study design was employed. Older people (>65 years; n=203) residing in aged care facilities and who met the inclusion criteria participated in an interviewer-administered comprehensive assessment. The Comprehensive Assessment Form incorporated the GFI, the Older People's Quality of Life questionnaire (OPQOL-35), the Hospital Anxiety and Depression Scale (HADS), and the Katz Index of Independence in Activities of Daily Living tool (Katz ADL).

Results. The GFI was a reliable instrument to assess frailty (Cronbach's alpha = 0.807) and produced statistically significant scores for subgroups (known group validity). As hypothesized, the total GFI scores significantly differed between subgroups: higher GFI scores were obtained among female participants (23.0%); participants between 75 and 84 years (25.5%); single participants (42.4%); and those who were married, with (18.8%) and without children (41.3%). A strong negative correlation between total GFI scores and the Katz scores (r_s (203) = -0.614, p=0.001), and total GFI scores and the total OPQOL scores (r_s (203) = -0.431, p=0.001) were observed. A positive correlation was observed between total GFI scores and the HADS score (r_s (203) = 0.281, p=0.001). These confirm the construct validity of the GFI. The participants were largely females (62.1%), and had a mean age of 76.9 ± 7.8 years. Their average GFI score was 6.53 ± 3.75.

Conclusion. This study supports the reliability and validity of the GFI and offers an insight into the characteristics of Malaysian elderly people residing in aged care facilities.