

## ORIGINAL ARTICLE

# Translation, adaptation and pilot testing of the Pictorial Fit-Frail Scale (PFFS) for use in Malaysia – The PFFS-Malay version (PFFS-M)

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## Abstract

**Background:** Frailty is an important health issue in an aging population; it is a state of vulnerability that renders the elderly susceptible to adverse health outcomes, including disability, hospitalization, long-term care admission and death. Early frailty stages are recognizable through screening and are reversible with targeted interventions. To date, however, there is no screening tool for use in Malaysia. The English Pictorial Fit-Frail Scale (PFFS) is a visual tool that assesses a person's fitness-frailty level in 14 health domains, with higher scores indicating higher frailty.

**Objective:** The aim was to translate and adapt the English PFFS for use in Malaysian clinical settings.

**Methods:** The original English PFFS underwent forward and backward-translation by two bilingual translators to and from the Malay language. A finalized version, the PFFS-Malay (PFFS-M), was formed after expert reviewers' consensus and was pilot tested with 20 patients, 20 caregivers, 16 healthcare assistants, 17 nurses and 22 doctors. Score agreement between patients and their caregivers and among healthcare professionals were assessed. All participants rated their understanding of the scale using the feasibility survey forms.

**Results:** A total of 95 participants were included. There were high percentages of scoring agreements among all participants on the scale (66.7% to 98.9%). Overall feedback from all respondents were positive and supported the face validity of the PFFS-M.

**Conclusion:** The PFFS-M reflects an accurate translation for the Malaysian population. The scale is usable and feasible and has face validity. Reliability and predictive validity assessments of the PFFS-M are currently underway.

## Background

Of the current global population, about 461 million people are aged 65 years and older, and this statistic is estimated to increase to 2 billion by 2050.<sup>1</sup> In Malaysia, the elderly, defined as those who are 60 years and above, have increased from 5.7% of the total population in 1980 to 6.2% in 2000.<sup>2</sup> Further, it is projected that, by 2040, the Malaysian population aged 60 years and above will increase to 17.6% of the projected population of 40 million.<sup>3</sup> Population aging, as noted both in Malaysia and worldwide, is attributable to successful global improvements in healthcare, reduced mortality, improved socioeconomic and education status, and declining fertility rates.<sup>4</sup> However, as the average age of a population climbs, there will be a greater need to manage geriatric conditions; Malaysia must therefore develop and capitalize upon effective healthcare

models to treat aging-related issues such as frailty, thus providing older citizens with improved odds of aging healthfully.

Frailty is a state of vulnerability that is associated with increased risk of poor health outcomes such as falls, disability, long-term care and death.<sup>5-7</sup> Frailty can be recognized early when screening strategies are in place to allow for targeted interventions focused on addressing risk factors and reversing frailty.<sup>6</sup> Early detection of frailty, followed by timely intervention in primary care, has the potential to improve wellbeing among the elderly. Several studies have reported the effectiveness of frailty screening and subsequent, effective general practice care in preventing functional decline.<sup>8,9</sup> A stepwise identification of older persons at risk of adverse outcomes, followed by the provision of longitudinal personalized