Application of the Chinese (HK) Iconographical Falls Efficacy Scale-Short Version (Icon-FES-S) in Local Elderly Population

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Introduction
Research has shown that concern about falling in older people can have a negative impact on an individual's physical and psychosocial well-being. The Iconographical Falls Efficacy Scale (Icon-FES) uses pictures provide an environmental context to a wide range of ADL, which has the additional benefit to assess concern about falling more reliably in older people with hearing and speech deficits.

Objectives
This study examines the psychometric properties of the Chinese (HK) Icon-FES-S in a group of community-dwelling older people.

Methodology
A standard forward-backward translation procedure was adopted to produce the Chinese (HK) Icon-FES-S. To evaluate the relevancy, representativeness, and translation quality, an expert panel review and a pilot study were performed. The 10-item Chinese (HK) Icon-FES-S in conjunction with the gold standard 7-item Falls Efficacy Scale International (Short-FES-I Ch) were administered to 89 community-dwelling older people recruited from the Integrated Discharge Support Program (IDSP) in Tuen Mun Hospital (TMH) and Tuen Mun Neighbourhood Elderly Center (NEC). All participants were assessed for cognitive function (MMSE), ADL (MBI) and IADL performance (Lawton scale), depressive symptoms (GDS) as well as balance and mobility function (SPPB). The Chinese Icon-FES-S and Short-FES-I Ch were repeated in one-week interval.

Result
Mean age was 76.2 years and 71% (N=63) was women. 43% (N=38) reported one or more falls in the previous year. The Chinese Icon-FES-S was shown to have high internal consistency (Cronbach’s $\alpha=0.924$) and excellent test–retest reliability (ICC=0.9). Construct validity was supported by its relation with Short-FES-I Ch ($r=0.811$, $p<0.001$) and its ability to discriminate between groups relating to demographics and fall risk factors. Scores were significantly higher in women ($p$ value=0.036) and those with fall history ($p$ value $\leq 0.001$). Scores were also significantly correlated with poor balance and mobility ($r=-0.609$, $p<0.001$), higher depression scores ($r=0.487$, $p<0.001$) and lower IADL performance ($r=-0.648$, $p<0.001$).

Findings from this preliminary study suggest the Chinese (HK) Icon-FES-S is a reliable and valid measure for concern about falling among local community-dwelling Chinese older population. Further studies are in place to investigate its applicability to older in-patients with high fall risk.