Translation and Validation of an Insulin Treatment Appraisal Scale in Hong Kong Primary Care Patients

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Introduction
Patients with type II diabetes mellitus (DM) often delay the initiation or titration of insulin treatment because of psychological factors. This phenomenon has been termed psychological insulin resistance (PIR). The Insulin Treatment Appraisal Scale (ITAS) is a 20-item questionnaire for assessing PIR. The previous Chinese version of the ITAS (C-ITAS) was found to have a translation issue.

Objectives
This study aimed to translate and validate the questionnaire, which will facilitate research and assist in clinical counselling.

Methodology
The C-ITAS was modified to the C-ITAS-HK according to the published guidelines on the translation of trans-cultural research. In total, 328 DM patients participating in follow-up investigations in 10 different publicly funded primary care outpatient clinics were recruited to self-administer the C-ITAS-HK. The demographic data were reported, and the clinical data (e.g., presence of DM complications) were obtained from case records. The C-ITAS-HK underwent a psychometric analysis in which Cronbach's alpha was determined, a factor analysis was performed, and the test-retest reliability was obtained.

Result
The factor analysis supported a 2-factor structure with good internal consistency (entire scale=0.846, negative subscale=0.882; and positive subscale=0.619). The correlation coefficients for the test-retest reliability for all items were positive, and the coefficients for the entire scale, negative subscale and positive subscale were 0.871, 0.782, and 0.692, respectively. Conclusions: The C-ITAS-HK appears to be a valid tool for measuring and assessing PIR during the primary care of the DM population of Hong Kong.