

Diabetes Health Profile-18 is Reliable, Valid and Sensitive in Singapore

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Abstract

Introduction: The Diabetes Health Profile-18 (DHP-18) measures diabetes-related psychological well-being in patients with type 2 diabetes mellitus (T2DM). It includes 3 subscales: psychological distress (PD), barriers to activity and disinhibited eating. The psychometric properties of the DHP have not been evaluated in Asia. The aim of this study was to determine the psychometric properties of the DHP in multiethnic Singapore. **Materials and Methods:** Patients between the ages of 18 to 65 diagnosed with diabetes (either type 1 or type 2) for at least 1 year were recruited from a diabetes outpatient clinic in a tertiary hospital. They completed a set of self-administered questionnaires including sociodemographic information and the DHP. Validity of the DHP was evaluated using confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). Reliability was assessed with internal consistency and sensitivity was determined by effect size, associated with detecting a statistically significant and clinically important difference between various patient subgroups. **Results:** A total of 204 patients with mean age 45.4 (11.9) years, comprising 64% males and 50% Chinese, 27% Indian and 12% Malay were studied. In CFA, model fit was poor. Forced 3-factor EFA supported the original 3-factor structure of the DHP. Convergent and discriminant validity was demonstrated (100% scaling success). DHP was sensitive across majority of social demographic, clinical and social-functioning determinants (i.e., effect size >0.3). Cronbach's alpha exceeded 0.70 for all subscales. Ceiling effects were negligible but large floor effects were seen for the PD subscale (23%). **Conclusion:** The DHP is valid, reliable and sensitive for measuring well-being in Asian patients with T2DM.

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