Description of Psychosocial Measures Utilised

1. Psychological distress was assessed using the Kessler-10 (K10), a 10-item instrument intended to yield a global measure of non-specific psychological distress and refers to the level of anxiety and depressive symptoms a person may have experienced in the most recent four-week period (Kessler et al., 2002). Scoring is based on a range of 10-50, with 10-15 indicating low or no risk of psychological distress, 16-21 indicating moderate risk of psychological distress, 21-29 indicating a high risk of psychological distress, and 30-50 indicating a very high risk of psychological distress. The internal consistency of the K10 was assessed in 10,641 adults in an Australian population health survey and yielded a Cronbach’s alpha of 0.92 (Kessler et al., 2002). A publicly available, Chinese translation of the K10 was used in the present study (Transcultural Mental Health Centre).

2. Quality of life was assessed using the Chinese version of the World Health Organization Quality of Life - BREF (WHOQOL-BREF; The WHOQOL Group, 1998) instrument, a 26-item abbreviated version of the WHOQOL-100 questionnaire (Power, Bullinger, & Harper, 1999). The WHOQOL-BREF (Chinese) measures the following four broad domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environment (8 items). All items were rated on a 5 point Likert scale and the time range was specified as the previous four weeks. The four domain scores denote an individual’s perception of quality of life in each particular domain and scores are scaled in a positive direction (i.e. higher scores denote higher quality of life). The internal consistency of the Chinese version of the WHOQOL-BREF was assessed with 1052 adult community residents in a major metropolitan city in southern China, and produced a Cronbach’s alpha of 0.89 (Xia, Li, Hau, Liu, & Lu, 2012).

3. Diabetes self-care activities were assessed using the revised SDSCA measure (Toobert et al., 2000). The revised SDSCA is a valid and reliable 11-item tool that measures levels of self-management across different components of the DM regimen over the previous seven days. The five aspects of the DM regimen that were assessed
included diet (4 items), exercise (2 items), blood glucose testing (2 items), foot care (2 items) and smoking (1 item). Using a continuous scale ranging from 0–7, the numerical scoring of items was based on the number of days of the week that the behaviour was performed (except smoking item). The item scores were then averaged, resulting in an overall score for each self-care activity. A higher score indicates a higher level of performance. The SDSCA in the present study was translated and adapted to suit the Chinese population.

4. Diabetes management self-efficacy was assessed using the Chinese version of the Diabetes Management Self-Efficacy Scale (C-DMSES). The C-DMSES is a 20 item scale that is used to assess an individual’s efficacy-expectations towards diabetes self-care activities. All items were rated on an 11 point Likert scale anchored with ‘Cannot do at all’ (0), ‘Maybe yes/maybe no’ (5) and ‘Certainly can do’ (10). Responses are summed to produce a single score for self-efficacy. Possible scores range from 0 to 200, with higher scores indicating greater levels of self-efficacy. The internal consistency of the C-DMSES was assessed in 230 adults with T2DM in a diabetic outpatient clinic in Taiwan, and produced a Cronbach’s alpha of 0.93 for all items (Wu et al., 2008).