

## **NRI-07 A new model of health identified through qualitative and quantitative analysis of the Chinese Arthritis Impact Measurement Scales 2. Cultural issues in the translation and validation of health status measures**

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**Introduction:** The purpose of this study was to examine the underlying concepts of health identified from factor analysis of a recently validated Chinese Arthritis Impact Measurement Scales 2 (CAIMS2) and qualitative data collected by the Delphi technique.

**Methods:** An expert panel (rheumatologists, physicians, allied health professionals and patients) was invited to derive the constructs of the culturally relevant health model. They were also asked to identify items in the CAIMS2 which were most valued as measurement of impact of arthritis. A principal-component analysis was performed on these responses to identify the major components of health. Item analysis was performed to select items that could most effectively evaluate each factor of health status affected by arthritis from the CAIMS2. Cronbach's alpha was used to evaluate internal consistency of scales of each item of the CAIMS2 using data from the previous validation study (n = 242). Intra-class correlation (ICC) was used to analyze the test-retest reliability. The psychometric properties of the items selected through qualitative research and quantitative analysis were compared so that the items with best face validity as well as empirical validity and reliability were chosen for the short form.

**Results:** The expert panel had identified the following components of health: physical, psychological/mental, spiritual, free from disease, free from pain, well-being, no restriction on activities of one's choice, social capabilities, enjoy work, sleep and positive thinking as health components. 4 components of health were derived from factor analysis accounting for 68.4% of the variance: 1) physical, 2) upper limb function, 3) psychological and 4) self-care. This model was different from the 5 factor model (physical, symptom, effect, social interaction, role) of the original AIMS2. 22 items were selected to make up the CAIMS2 – short form. This achieves a 61% reduction in length of the CAIMS2. Reliability of scales was satisfactory (Cronbach alpha range: 0.6096 to 0.9109). Test re-test reliability of the four domains were physical: ICC = 0.9473, upper limb function: ICC = 0.7327, psychological: ICC = 0.7875 and self-care: ICC = 0.6955. Difference in the scores of CAIMS2 and CAIMS2 – short form were less than 10%.

**Conclusion:** Physical, psychological and functional needs are important for arthritis patients. However, variable perceptions of health exist among different ethnic groups. Cautions should be taken to ensure construct and content validity in cross cultural health status study.

## **NRI-08 A randomised controlled study on the rehabilitation of rheumatoid arthritis patients with the use of psychological and occupational therapy**

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**Purpose:** To evaluate the efficacy of combined psychological treatment and occupational therapy (PSYOT) in improving the psychological well-being, functional status and decrease of pain of patients with rheumatoid arthritis (RA) in comparison with educational information group (ED) and control group (CR).

**Method:** 49 RA patients recruited from the out-patient clinic of Queen Mary Hospital were randomly assigned into three groups: PSYOT (n=19); ED (n=14); CR (n=16). Patients in PSYOT group participated in six intensive practical training sessions in stress management and coping skills, relaxation training, use of protective orthosis, joint protection and energy conservation technique. Patients in ED group received educational information on the understanding of RA, joint protection and energy conservation technique. Patients in the CR group received routine medical treatment as the other groups for the period studied. Measures of psychological well-being, anxiety and tension levels, pain level and functional status were obtained at the baseline and at the post-treatment (at the completion of the training programme).

**Results:** Patients in the PSYOT group showed significant reduction in both anxiety and pain levels after completing the programme (p = 0.002; p = 0.05 respectively). Measures in psychological well being and hand & finger function of this group also improved. Patients in ED group also showed a significant reduction in anxiety level (p = 0.05) and an improvement in hand & finger function as compared to patients in the CR group. Patients reported that they were more able to manage their problems in activities of daily living after receiving combined psychological treatment and occupational therapy.

**Conclusion:** This study supported that a combined PSYOT intervention is more effective than pure education and routine medical treatment for the rehabilitation of people with RA, particularly in managing pain, anxiety and functional daily activities.