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## **A project of evaluation the effects of a rheumatoid arthritis self-management program: A randomized controlled trial**

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**Background:** Rheumatoid arthritis (RA) is a persistent systemic disease, and patients will live with the disease longer because the increase of the life expectancy. WHO commented that a crucial goal of treatment for RA is prevention of loss of daily function by patient's self-management (SM) skills. In Taiwan, the treatment of RA is often focused on the biomedical aspects and patient education is mainly through brief and in frequent interactions with the health care system. A comprehensive self-management strategy for patients' day-to-day self-management is limited.

**Aims:** The primary objective is to determine the feasibility and acceptability of the SM for patients with RA especially focus on joint activity and joint protection. The secondary objective is to determine the effectiveness and appropriateness of the program with a focus on physical function and patient reported measurements over a 12 months follow-up.

**Methods:** To achieve the research goal, the three years of this proposal will be divided into two phases. The phase-1 will conduct to develop the program and psychometric test of the instruments and to pilot test the feasibility of the research protocol. Regarding the phase-2 study, the main purpose is to implement the SM intervention for people with RA using experimental design. A medical center in northern Taiwan will be selected as the research setting and the permission to recruit participants will be obtained from the director of the medical center before data collection. Patients who visited the rheumatology departments of the medical center will be eligible for the study. The inclusion criteria show as follows: (1) diagnosed with RA, (2) age of 20 years or over, (3) disease considered by the treating rheumatologist to have been stable for at least 3 months, (4) no surgery planned in the 12 months from study baseline and (5) able to understand and comply with the study treatment. Patients will be excluded if they are suffering from other terminal illnesses, severe dementia or another debilitating psychiatric disorder, living in a long-term care facility and participation in another research protocol. After completion of baseline measurements, patients will be randomly allocated to the intervention or control group using a computerized allocation procedure. The sample size estimation will be based on the Generalized Estimating Equations (GEE) analysis. After analysis, the minimum participants for each group will be 130 persons yield a 15% drop out rate. Control patients received usual care, consisting of regular checkups with the rheumatologists. Patients allocated to the intervention group received the 8-week SM in addition to usual care. The program focuses on joint activity and joint protection SM based on Bandura's self-efficacy theory. The independent variable of the SM intervention is based on four information sources of efficacy expectations include mastery experience, social modeling, social persuasion and physical and emotional states. The strategies using to enhance SM behavior involve education, goal setting and attainment, self-monitoring, home visit and telephones delivered. All participants will follow up for 12 months and the data will be collected in the baseline and 2, 3, 6 and 12 months. The descriptive and inferential statistics with the GEE analysis will be used to evaluate the intervention outcomes such as the Disease Activity Score-28 (DAS-28), arthritis self-efficacy scale, health assessment questionnaire, quality of life measure (SF-36), self-management behaviors and health care utilization. And, in the end of the study, the satisfaction with the self-management will also be evaluated for the experimental group. The results of this project would benefit for RA patients and health care professionals to generate an effective SM model.

### **Biography**

Su-Hui Chen after completing her basic nursing education, she worked for ten years as a staff nurse in a medical center and held joint positions as an Associate Professor at the Chang Gung University of Science and Technology since 2007 in Taiwan. She earned Doctoral degree in nursing at The University of Texas at Austin, USA, in 2007. Her specialty is interesting in gerontology nursing

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