Comprehensive evaluation of joint replacement pre-operative program

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Introduction
Joint replacement is one of the major elective surgeries in the orthopaedic specialty. Joint Replacement Pre-operative Program (JRPP) had been established since 2002. JRPP is a one-stop day service using a multi-disciplinary approach to conduct physical assessment and to provide education about the surgery and rehabilitation. Comprehensive evaluation of this program is essential after the first decade to reflect the effectiveness, strength and weakness of current service.

Objectives
This project aimed to 1. report the number of successful screening for patients’ pre-operative fitness; 2. evaluate knowledge gained by pretest-posttest design; 3. explore the level of understanding and level of helpfulness of JRPP; 3. examine the perceived change of anxiety of patients and their relatives after JRPP; 4. correlate the relationship between the perceived change of anxiety with pre-operative understanding and different socio-demographic data; 5. estimate the number of saved hospital bed days; and 6. calculate the amount of money saved annually.

Methodology
Pretest-posttest design, correlational design and retrospective cohort study design were used. Data was collected by a quiz, three structured questionnaires and clinical management system.

Result
A total of 439 participants were involved for three evaluation studies of this project. Some patients with high blood pressure (7%) or dental problem (5%) were screened successfully. The three most frequent misconceptions were concerning with the drainage system, the anti-emetic drug and the patient-controlled analgesia pump. The participants understood the program for a great extend (4.4/5, SD=0.7) and they found it helpful (4.4/5, SD=0.6). Generally, the participants perceived less anxious (mean=4.7/6, SD = 0.9) after attended JRPP. However, 18% of patients were outlier who reported more anxious after JRPP. Among them, 6 were female and 5 were
illiterate. The better the understanding about surgery, the lesser the anxiety was reported (p<0.01). Annually, 6600 hospital bed days and 23 million could be saved. JRPP had positive outcome for various aspects. However, some patients would be more anxious after JRPP. More accurate assessment and monitoring of the potentially anxious patients after attending similar preoperative program were essential. Further research will focus on the empowerment of patient (Johansson, 2005) after reviewing literatures.