



Occupational Therapy Program on White-coat Hypertension and White-coat Effect in Family Medicine Clinic



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INTRODUCTION:

White-coat hypertension (WCHT) and white-coat effect (WCE) are commonly detected in primary health care setting, some studies reported that this phenomenon may increase long-term cardio-vascular risk. One of the hypothetical causes of increased blood pressure (BP) in clinic setting is due to anxiety reaction, however, currently no specific treatment is provided for those patients in KWC. A new Occupational Therapy (OT) program using relaxation techniques with occupational lifestyle redesign was implemented and aimed to enhance patients' stress coping skills, reflect actual BP in clinical setting and enhance patient with chronic disease management.

OBJECTIVE:

To review the effectiveness of a new pilot OT program in chronic disease management.

METHODOLOGY:

A new OT program was started since Jan 2019 till present. Patients would attend an education group, followed up by two individual consultations. A tailor-made 10-point Likert scale questionnaire was completed for pre- and post- comparison on the knowledge on chronic disease management, and the self-efficacy on the skills application. In the first individual follow up (1st OT FU), relaxation technique was reviewed and practiced, pre- and post- comparison on BP and pulse rate (PR) was measured. In 2nd OT FU, blood pressure was measured by patient to assess the generalization of relaxation technique into routine clinical FU without therapist guided.

Work flow of OT program on WCHT and WCE

Empowerment education talk

- Knowledge on Hypertension and White Coat effect
- Knowledge on proper blood pressure measurement
- Knowledge on stress management, relaxation techniques for WCHT and WCE
- Lifestyle modification for hypertension
- Completed a tailor questionnaire for pre- and post- comparison on the knowledge on chronic disease management, and the self perceived self-efficacy on the skills application

↓ 2-4weeks post education talk

1st OT Individual consultation

- Follow up home program
- Individual counselling on stress management
- Revision and practice on relaxation technique
- Pre- and post- blood BP comparison after relaxation technique practice
- Home program enhancement

↓ 2-4weeks post 1st individual consultation

2nd OT individual consultation

- Routine BP measurement (without therapist guided) for comparison with post relaxation BP in 1st consultation
- Home program reinforcement and generalization

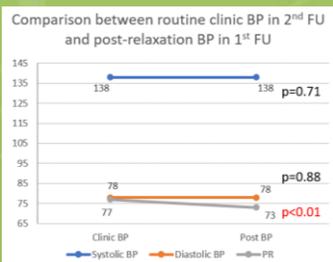
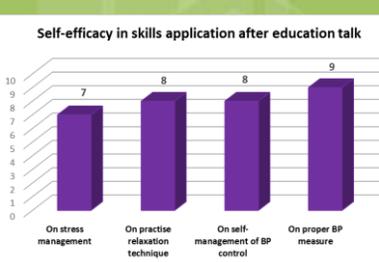
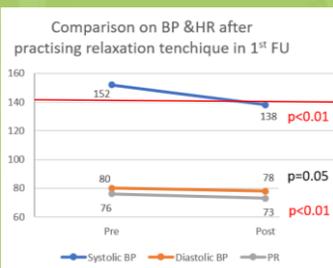
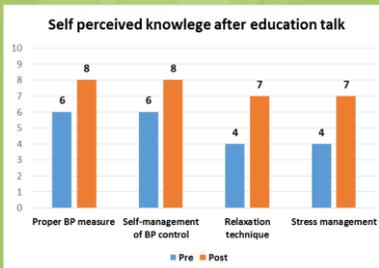


RESULTS:

Total 82 patients (60 female) with mean age 68 years old (SD=10). 79% of patients reported anxiety during clinical FU. For the pre- and post- questionnaire comparison, all 4 areas showed significant improvement ($p < 0.01$). The self-efficacy in applying the knowledge into skills was satisfactory (ranged between 7 to 9).

In 1st OT FU, the mean systolic BP was found significantly reduced by 14 mmHg ($p < 0.01$) after practising relaxation technique, which was within a normal systolic BP level (below 140mmHg).

In 2nd OT FU, the mean BP shown no significant difference between the routine clinical FU and the post relaxation BP in 1st OT FU, which reflected that patients were able to generalize the relaxation technique into daily practice and able to reflect the actual BP in routine clinical setting.



CONCLUSION:

Those positive results showed the new OT program was effective in enhancing patients' stress coping skills and increasing patients' self-efficacy in chronic disease management.