



Service Priorities and Programmes Electronic Presentations

Convention ID: 257

Submitting author: Dr Lap Kin CHIANG

Post title: Resident, Kwong Wah Hospital, KWC

Effects of home blood pressure monitoring on blood pressure control and self-management for hypertensive patients with suboptimal control in primary care setting

Chiang LK, Ng Lorna

Family Medicine and General Outpatient Department, Kwong Wah Hospital, Hong Kong

Keywords:

hypertension

home blood pressure monitoring

Introduction

Hypertension (HT) and its related cardiovascular complications are the major cause of mortality and morbidity worldwide. Home blood pressure monitoring (HBPM)S can lead to better blood pressure (BP) control, better adherence to treatment, and patients become more actively involved in the management of their own BP problem.

Objectives

1. To enhance hypertensive patients' self-management knowledge, techniques and self-efficacy; 2. To promote home (self) blood pressure monitoring; 3. To achieve better hypertension control.

Methodology

Hypertensive patients with suboptimal BP control was defined as clinic systolic BP (SBP) > 140 or diastolic BP (DBP) > 90 mmHg. In addition to optimization of medical treatment according to standardized management, all patients were motivated to enroll in the HBPM program, which included self-BP management workshop, patient BP machine checking and BP machine loan scheme. Clinic and home BPs, chronic disease self-management efficacy and behavior were assessed at baseline, 3-months and 6-months post HMBP program. Regular HBPM was defined as measurement of home BP readings three times or more per week.

Result

37 (51.4%) female and 35 (48.6%) male patient, with mean age 58.5 (SD 8.8) years old completed the assessment. Their mean (SD) body mass index (BMI) was 26.7 (4.1) kg/m², and 33.3% had comorbidity of hyperlipidaemia while 27.8% had diabetes mellitus. At baseline, the mean (SD) clinic BP and home BP were 143.3 (9.4) / 88.8 (8.4) mmHg and 132.3 (13.4)/79.1 (7.1) mmHg respectively. The clinic BP decreased to 136.3 (14.4)/84.4 (9.2) mmHg ($p < 0.001 / < 0.001$) at 3-months and 134.1 (12.9)/76.9 (8.1) mmHg ($p < 0.001 / < 0.001$) at 6-months follow up, while the home BP decreased to 125.7 (12.7)/76.1 (7.1) mmHg ($p < 0.001 / < 0.001$) and 127.7 (14.4)/76.5 (8.0) mmHg ($p = 0.004 / < 0.001$) respectively. Proportion of patients practicing regular

home BP monitoring was increased from 55.6% at baseline to 73.6% at 3-months ($p=0.007$) and to 70.8% at 6-months ($p=0.071$). Patient Activation Measure (PAM) level 4, i.e. maintaining self-management behavior over time was increased from 15.3% to 23.6% at 3-months and maintained at 6-months, however, the increment did not achieve statistical significance. On the other hand, Self-efficacy for Managing Chronic Disease (SEM-CD) score at 3-months and 6-months also did not show statistically significant increment. In conclusion, HBPM has produced significant reduction in both clinic and home blood pressures at 3-months and 6-months. Chronic disease self-management efficacy and behavior are improved but do not achieve significant improvement at 3- and 6-months follow up.