Evaluation of outcomes of patients with hypertension after attending community dietetic services via the Risk Assessment and Management Programme (RAMP)

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Introduction
Since 2009, Hospital Authority (HA) has developed a series of pilot programmes on chronic disease management in the community. Risk Assessment and Management Programme (RAMP) for Hypertension was one of these programs that was implemented in 2011 aims at using multidisciplinary approach including diet and exercise therapy to manage hypertension in General Out-patient Clinics (GOPCs) in Kowloon East Cluster.

Objectives
To evaluate effect of frequent dietetic attendance, dietetic-relevant outcomes and patients' satisfaction level in RAMP - Hypertension.

Methodology
It was a before-after study design comparing participants attended physiotherapy sessions but various frequencies in dietetic consultations. Patients’ clinical and behavioral change indicators and satisfaction survey were conducted over a 6-month interval. Participants attended the service in Ngau Tau Kok and Tseung Kwan O Jockey Club GOPCs were recruited. Paired t-test, Wilcoxon signed rank test and McNemar test were used to examine pre- and post-test variance in systolic blood pressure, body weight and behavioral outcomes respectively. Patients satisfaction survey was also conducted.

Result
A total of 131 patients were recruited between 1st December 2011 and 31st July 2012. Fifty seven patients (44%) attended all four dietitians’ consultations and 14 patients attended two dietitians’ consultations (11%). There was no statistically significant trend in percentage changes in body weight comparing different frequencies of dietetic consultations (from 1 to 4 consultations) by Chi-square test. However, participants who attended all dietetic consultations showed significant changes in
mean systolic blood pressure (SBP) from 144mmHg to 136mmHg (p<0.005) from 1st to 4th consultations. There was also significant changes in body weight (BW) from median 70kg to 68kg (p<0.001). While those patients attended two dietitians' consultations only did not show any significant change in mean SBP and median BW from 1st to 2nd consultations. Furthermore, participants who attended all dietetic consultations showed significant changes from 1st to 4th consultations in selected behavioral outcomes including: eating at least two bowls of vegetables, eating at least one serving of low fat dairy product, salt intake within recommendation and regular physical activity (p<0.05). While those patients attended 2 dietetic consultations did not show any significant changes in behavioral outcomes. 81 patients completed satisfaction survey and all of them were satisfied or very satisfied with the service. The study revealed that those attended more dietetic consultations showed more significant improvement in their BW, SBP and behavioural outcomes and this might lead to better blood pressure control. The program was also being positively recognized among the participants.