Service Priorities and Programmes

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Pilot study to detect the difference on patient's blood pressure readings measured with or without presence of health care staff in GOPC.

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2. Measured with or without presence of health care staff
3. GOPC

Introduction

Blood pressure (BP) measurement is an important clinical parameter for diagnosis, monitoring and management of hypertension. It was well noted that the accuracy of BP readings measured in the clinic is affected by a number of factors, e.g. patient's physical and psychological status, clinic environment. The presence of health care staff was suggested to be one of the factors causing falsely high BP reading in some research studies. Thus the authors would like to carry out this study to detect any difference of BP measurement for patients with or without presence of health care staff.

Objectives

To find out the difference of BP readings with or without presence of health staff. To look for areas of improvement in BP control in Kowloon West Cluster GOPC from patients' self reported questionnaire

Methodology

By convenient sample, patients were invited for the study when they attended 3 GOPC of KWC (i.e. Cheung Sha Wan, West Kowloon & Robert Black GOPC) and found to have BP reading 140/90mmHg. They would have their BP rechecked either by clinic staff or by themselves using self-helped machine. It was followed by self-reported questionnaires. Outcome measures were categorized as: (1) compare the difference of BP readings between the 2 modes of BP measurement, (2) health related parameters such as drug and use of home BP machine compliance and (3) perception level to different types of BP measuring device.

Result

From Oct 2012 to Jan 2013, 506 patients were recruited with 54 % females and 95% ranged from 50 year old onwards. More than 12% patients did not take anti-hypertensive medications as prescribed due to out of stock (47%), forgetfulness (28%), intolerate to anti-hypertensive medications (6%) & perceived no need

anti-hypertensive medications due to normal BP readings (4%). From the self-reported questionnaire, 29%, 24%, 15% & 12% of them suffered from insomnia, pain, feeling stress and emotional problems respectively. Only 41.5% patients took rest for at least 15 mins before BP taking. Despite 56% of patients purchased BP machine for home monitoring, more than half of them (52% patients) did not use it due to no time (29%), no need (22%), forget (12.6%), more trust clinic's machine (10.6%), their machine not accurate (6.6%) and don't know how to use (6%). For perception part, higher confidence, perceived more accurate and less stress were rated on using clinic's machine including the self helped type, which all lead to low utilization in home BP machine. Among the 506 patients with BP rechecked in the clinic, 49.6% were rechecked by health care staff using clinic machine, and 4.44% (P=0.0000, paired t-test) and 2.64% (0.0003) reduction in mean systolic & diastolic BP respectively were found. On the contrary, 3.1% (P=0.0000) reduction in mean systolic BP while 4% (P=0.0000) increase in mean diastolic BP reading were found in self helped group. It was postulated that the first time of using self helped machine might induce anxiety and stress resulting in the limitation of the study. Conclusions: Though the study could not prove the absence of health care professional can reduce BP reading. Moreover, based on the other study findings, we plan to replicate the study in 1-2 years later when patients became more familiar with the use of self helped machine. Meanwhile, we need to plan strategies to improve the knowledge deficit and rectify the misconception on using home BP monitoring.