

UNIVERSITI TEKNOLOGI MARA

**EVALUATION OF A COMMUNITY-
BASED HYPERTENSION SELF-
MANAGEMENT EDUCATION
(HSME) PROGRAMME IN THE
STATE OF PENANG, MALAYSIA:
A MIXED-METHOD STUDY**

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Thesis submitted in fulfillment
of the requirements for the degree of
Master of Science
(Pharmacy)

Faculty of Pharmacy

November 2017

ABSTRACT

Hypertension poses major healthcare burdens worldwide with 1.56 billion peoples are estimated to have diagnosed with hypertension in 2025. In Malaysia, hypertension affects approximately one in three Malaysians aged 30-year-old and above; most patients have difficulties achieving good blood pressure (BP) control. Managing hypertension is challenging given the chronic nature of the disease management and the multiple daily self-care decisions that need to be made. Low self-efficacy level among the patients could have been the underlying reason for poor daily self-management of hypertension, leading to suboptimal BP control. A structured, group-based hypertension self-management education (HSME) programme could be a potential solution to improve BP control; however, the impact and effective elements of HSME programme in the Malaysian setting remain unknown. Accordingly, the main objectives of this thesis were to evaluate the impact of a structured, group-based HSME programme on the hypertensive patient's clinical and psychosocial outcomes and to explore participants' perception towards the quality and impact of HSME programme. Firstly, a HSME programme was developed, validated and pilot-tested. After that, a pre-post study design was employed to conduct the interventional study (quantitative method). Participants attended a total of 4-weekly (2-hour each session) of the HSME programme. Participant's clinical (i.e. blood pressure, lipids, weight, body mass index, waist circumference, percentage body fat and percentage skeletal muscle) and psychosocial (i.e. medication adherence, hypertension self-care behaviour, motivation, self-efficacy and quality-of-life) outcomes were assessed at baseline, post 1-week and post 2-month of HSME programme. Following the HSME programme, three focus group discussions, involving 19 participants who had attended the 4-weekly intensive HSME programme, were conducted using semi-structured moderator guide (qualitative method). Data were audio recorded, transcribed verbatim and analysed using thematic analysis approach. Forty-five participants consented to join the programme, with 36 (80.0%) attended two or more sessions. Most (68.9%) were female with a mean age of 60 ± 7.72 years old. Post 1-week of intervention, participants were found to have significant improvement in high-density lipoprotein (HDL) cholesterol ($p = 0.001$), day spent on vigorous physical activity ($p=0.007$), motivation ($p = 0.001$) and self-efficacy ($p = 0.005$). At 2-month, participants sustained some of the aforementioned positive outcomes include HDL cholesterol, motivation and self-efficacy with other significant improvement reported in medication adherence ($p = 0.005$) and self-care behaviour ($p = 0.002$). No significant differences were found in other outcomes at all time-points. In the qualitative analysis, most participants agreed that self-management education is crucial in managing hypertension and were satisfied with the HSME programme. Participants reported to have enjoyed the group-based self-management education as support was given among peers and educators of the programme. Furthermore, information on disease management were easy to follow and more detailed compared to their normal routine follow-up with doctor at clinic or hospital. The current study findings suggested that a localised, structured educational programme should be in place to empower hypertensive patients the knowledge and skills in self-managing hypertension, providing them the confidence to sustain daily self-care activities.

ACKNOWLEDGEMENT

Firstly, I wish to thank God for giving me the opportunity to embark on my Master and for completing this challenging journey successfully. My gratitude and thanks go to my excellent supervisor, Dr. Neoh Chin Fen, and my co-supervisors Ms. Wong Yuet Yen and Mr. Lim Seng Hock for their valuable suggestions, advice, comments and concerns by spending time and energy for my thesis. I am very thankful to have supervisors who cared so much about my work, and who responded to my questions and queries punctually.

Special thanks to Retired Teachers Association Balik Pulau, Residents Association Bayan Baru, Penang, Sakti foundation and Penang Family Health Development Association who helped me to find participants for my study. Thanks to all of my participants who kindly gave up their time to participate in my study.

Finally, this thesis is dedicated to my lovely father and mother for their endless love and support. This journey would not have been possible without them.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Hypertension is a key public health problem worldwide given its substantial healthcare and economic burden (Rampal, Azhar, & Rahman, 2008). It is estimated that 4.8 million Malaysians have hypertension (Gaziano, Bitton, Anand, & Weinstein, 2009). The prevalence of hypertension in Malaysia is high; the levels of awareness and blood pressure (BP) control, however, remain low (Rampal et al., 2008). It is mirrored when most patients did not take their antihypertensive medications or change their physical activity and diet after the diagnosis of hypertension (Razatul Shima; Mohd Hairi Farizah; Hazreen Abdul Majid, 2014). Uncontrolled hypertension can lead to many diseases, including congestive heart failure, ischemic heart disease, stroke, end stage renal failure, and peripheral vascular disease (Morris, Murphy, & Clarke, 2013). Similar to other chronic medical conditions, hypertension poses a great challenge to the healthcare delivery system. Hence, a more systematic approach of patient care is required.

Treatment approaches continue to evolve and diversify, and drug treatment alone is insufficient for managing chronic diseases. Traditionally, the terms such as compliance and adherence have been introduced to describe the extent of patients following clinician's advice and drug therapy (Spence & Hurley, 2001). The ever increasing emphasis in patient-oriented care has shifted the focus of chronic disease management to alternative paradigm such as patient empowerment and collaborative care (Bodenheimer, 2002). This is due to the fact that chronic diseases are principally managed by patients out of the clinic settings. Their day-to-day decisions have great impact on health status with risk of complications accrued on patients themselves where healthcare professionals could not share (Bodenheimer, 2002). In developed countries, chronic disease self-management was reported to be effective in improving patients' health behaviour, self-management skills, self-efficacy, and communication between patients and healthcare providers, and thus, leading to better health status (Fu et al., 2003). Furthermore, a programme which involves educational sessions with