Title: A Literature Review of Hypertension in Thailand

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Abstract

Background: This review focuses on urban and rural parts of central Thailand, north Thailand, east Thailand, west Thailand, south Thailand and northeast of Thailand. A Literature Review of the prevalence, awareness, control of hypertension and risk factors among Thailand patients.

Methods: This literature review was guided by the Joanna Briggs Institute of Australia for Systematic Review and Meta-Analysis. The following databases were search from multiple electronic databases and manual searches of journals were written in English and published in journals from 2005 to 2015, databases were queried using keywords for prevalence, awareness, control of blood pressure (BP) or hypertension (≥140 SBP and or ≥90 DBP) and risk factors among Thailand adults (≥18 years). A total of 62 articles were identified, of which 18 articles were found to be relevant for this study.

Results: Overall there is a prevalence of hypertension in Thailand. Significant differences in hypertension were noted between rural and urban parts of Thailand. Significant differences were also noted in the rural and urban Thailand for awareness about how to control hypertension. The risk factors associated with hypertension among Thailand patients include age, alcohol, smoking and chewing tobacco, BMI, central obesity, consumption of low vegetables/ fruits, high consumption of dietary fat and salt, and sedentary activity.

Conclusion: The rural areas had lesser prevalence of hypertension are compared to urban areas. The differences in hypertension is due to socioeconomic conditions, risk factors and quality of life. The higher prevalence of hypertension in urban areas is leading to a rapid increase in cardiovascular disease risk factors among the urban poor and middle class in Thailand.

Keywords: prevalence, awareness, control hypertension, risk factors, Thailand and Literature Review

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Introduction

Hypertension is truly a global epidemic, being highly prevalent in all communities worldwide. The WHO's study on Aging and Adult Health collected blood pressure information from more than 35,000 people in six middle and low income countries; South Africa, China, Ghana, India, Mexico and Russia(1). Other findings showed that awareness is very low and that once patients are aware, most are treated but control is very poor(2).

Hypertension is also known as high or raised blood pressure. It is a condition in which the blood vessels have persistently high pressure(3). Blood is carried from the heart to all parts of the body in the vessels. Each time the heart beats, it pumps blood into the vessels. Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it is pumped by the heart. The higher the pressure the harder the heart has to pump(2).

For each country the prevalence of hypertension and the proportion of hypertensive individuals whose condition was diagnosed, treated or controlled with medications were estimated(3). As regard Thailand, the economically poor, adults and elderly have difficulty achieving optimal blood pressure control(9). Factors such as deteriorating health, health beliefs and attitudes, low socioeconomic status and low educational background may contribute to poor control of hypertension(10). Thailand implemented the national 30-Baht health insurance policy in June 2001 to provide healthcare coverage including drugs for the uninsured population(12). But hypertension has become one of the most significant public health problems in Thailand.

Aim

To understand and know the prevalence, awareness, control of hypertension and risk factors in specific urban and rural parts of Thailand by systematic review and meta-analysis of studies among Thailand patients.

Methods

We searched specific databases between 1 March 2016 to 30 April 2016 for relevant studies. This literature review was guided by the Joanna Briggs Institute of Australia for Systematic Review and Meta-Analysis. The following databases were searched from multiple electronic databases and manual searched of journals were written in English and published in journals from 2005 to 2015, databases were queried using keywords for prevalence, awareness, control of

blood pressure (BP) or hypertension (≥140 SBP and or ≥90 DBP) and risk factors among Thailand adults (≥18 years). A total of 62 articles were identified, of which 18 articles were found to be relevant for this study.

Results

Overall 62 references were identified in our study from electronic databases and manual searches. After removing 44 duplicates, a total of 18 abstracts were screened by inclusion criteria. For survey studies 7, cross-sectional 5, cohort 4, case control 2. All were included in our review.

The studies reported on the prevalence of hypertension among adult Thai from rural and urban parts of central Thailand, north Thailand, east Thailand, west Thailand, south Thailand and northeast of Thailand. Awareness, treatment, control of blood pressure and risk factors were reported from six regions of Thailand.

Discussion

To the best of our knowledge, this is the most comprehensive systematic review of disease burden, awareness, treatment and control of blood pressure done specifically among rural and urban Thailand. Studies covered north, east, west, south, central and northeast for both urban and rural parts of Thailand, which allowed us to capture and present the significant differences among the six regions of Thailand.

The majority of on prevalence of hypertension were cross-sectional design and studied from rural and urban of Thailand. Rural areas had lesser prevalence of hypertension are compared to urban areas. A few studies reported age-adjusted rates for hypertension among both rural and urban areas. The prevalence of hypertension in urban areas of northeast of Thailand was very high compared with the other five regions.

Increase in hypertension with advancing age was shown by a few studies. We noticed risk factors related to smoking tobacco, higher intake of salty food, alcohol consumption and lifestyle factors. The blood pressure control among both urban and rural parts of Thailand has been poor although there has been more public health policy formulation and more healthcare providers such as physicians and nurses. The reason for low awareness and treatment levels among hypertension patients are lack of knowledge, poor attitude and poor practice of health habits.

Suggestion

More studies to understand and know the prevalence, awareness, control of hypertension and risk factors in specific urban and rural by systematic review and meta-analysis studies among northeast of Thailand patients.

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