

The Prevalence of Type D Personality and Correlations between Medication Self-Efficacy and Self-Care Behavior in Patients with Hypertension

Chayanee Wongsuriyanan, Woraphat Ratta-apha and Sucheera Phattharayuttawat

Department of Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand

*Correspondence to: Woraphat Ratta-apha, MD, PhD, Department of Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, 2 Wanglang Road, Bangkoknoi, Bangkok 10700, Thailand. Tel: +66-2-419-4295-8; Fax +66-2-419-4298; E-mail: woraphat.rat@mahidol.ac.th

Abstract

Patients with type D personality are more likely to have non-medication adherence, pessimistic about their ability to cope with illness which lead them to present worse health outcomes. This study aimed to examine the prevalence of type D personality and associations among medication self-efficacy and self-care behaviors in patients with hypertension. 383 hypertensive patients were recruited to complete the Type D-Scale questionnaire, self-efficacy for appropriate medication use scale and self-care behaviors scale for patients with hypertension. The results revealed that 14.6% of patients were classified with type D personality. Type D personality had a negative association with medication self-efficacy and self-care behavior ($r = -0.251$, $r = -0.138$, $p < 0.01$). The finding can be applied to develop health promotion programs for patient with hypertension.

Keyword: type D personality, self-efficacy, self-care behavior, hypertension

Introduction

Hypertension or high blood pressure is a major Non-Communicable Diseases (NCDs) because of its high prevalence and complications. Individual risk factors such as drinking alcohol, smoking, sedentary lifestyle, unhealthy eating and stress are the key factors of the disease. Typically, symptoms of hypertension gradually develop little by little. Absent medical treatment or the realization of the problem by patients with hypertension, the disease can lead to fatal consequences. In 2016, a quarter of Thai population suffered from this disease, and the number of patients appears to be increasing. Hypertension is called a dangerous killer due to its nature, with patients having high blood pressure without any apparent sign. Thus, it is hard for patients to realize that they are in danger. If patients do not appropriately get diagnosis and treatment, it can lead to indirect health risks such as stroke, paraplegia, paralysis and heart attack. Hypertension usually co-develops with others NCDs such as diabetes, coronary heart disease (CHD), renal failure, and obesity which are the leading causes of death in Thailand. Since 2003, the World Health Organization has reported that hypertension is a significant risk factor of cardiovascular heart disease. Hypertension treatment is still inadequately managed, while its benefit has been shown to decrease disease risk and can enhance health (WHO, 2017).

In the past, medication treatment and illness focused on genetics, drugs, nutrition, and exercise, but now psychological factors are also considered to be necessary. Nowadays, hypertension treatment guidelines not only depend on medication but also emphasize a healthier lifestyle. Consistent, positive self-care behavior is a method that has been shown to decrease risk as well as the use of anti-hypertensive drugs. Furthermore, research finds that negative emotions like depression, anxiety, anger or fatigue have associations with cardiovascular heart disease and cause poor prognosis (Frasure-Smith, Lespérance, & Talajic, 1995).

In the last 40 years, health-related personality has been categorized as either type A or type B Personalities. Type A includes traits such as competitiveness, rigidity, time urgency and hostility; while type B

persons are more relaxed, patient, and easy going. These health-related personalities were found by two cardiologists studying coronary heart disease (CHD) patients. They found that type As have higher CHD and hypertension risk than type Bs (Rosenman, Friedman, Straus, & et al., 1964). In 1996, Johan Denollet, a Belgium psychologist, labeled type D personality, which stands for distress (Denollet, 2000). Type D is a combination of 2 traits which are Negative Affectivity (NA) and Social Inhibition (SI). Negative affectivity is defined as the tendency to experience negative emotional states and situations, comprising dysphoria, feelings of tension, and worry. Social inhibition involves the tendency to inhibit the expression of emotions, thoughts and behaviors when it comes to social interaction, due to anticipation of adverse reactions or rejection from others. Type D personality is a consistent personality that is entirely unchangeable. Patients with type D personality are more likely to have non-medication adherence and low quality of life. Besides, worse health outcomes are a significant obstacle to adequate medical treatments. Similarly, type D personality has an association with metabolic syndrome (diabetes, hypertension, dyslipidemia) which is a risk of CHD (Petrowski, Wendt, Wichmann, & Siepmann, 2017), as well as with a higher risk of poor prognosis (Mols, Thong, de Poll-Franse, Roukema, & Denollet, 2012). The prevalence of type D personality in hypertensive patients was double that in non-hypertensive patients (Denollet, 2005; Wu, Song, & Moser, 2015).

At present, there have been many research and survey studies about the prevalence of type D personality in many countries and populations, with findings as follows: From a sample of 3813 subjects among the general population, CHD patients and hypertensive patients in Belgium and the Netherlands, the prevalence of type D personality was found to be 21%, 28%, and 53%, respectively (Denollet, 2005). Metabolic syndrome was found to be more prevalent in persons with a type D personality than in a group without type D personality (13% vs. 6%). Investigating health factors, 18.1% of type D personality patients suffered from hypertension and 12.4% had lipid abnormalities (Mommersteeg, Kupper, & Denollet, 2010). Also, one study reported a 36% prevalence of type D personality in 135 Belgian police officers

Cite this article: Wongsuriyanan C. The Prevalence of Type D Personality and Correlations between Medication Self-Efficacy and Self-Care Behavior in Patients with Hypertension. *Psychology and Education*. (2020) 58(1): 556-560.

and nurses (De Fruyt & Denollet, 2002). On investigating prevalence of type D personality in a community with 3689 subjects in Augsburg, Germany, the prevalence of type D personality was found to be 23.4% in males and 26.9% in female (Hausteiner et al., 2010). In Denmark, a research review to test the validity of Type D Personality Scale-16 found a prevalence of 25% in the general population. A research survey of 1012 healthy subjects in England and Ireland found a prevalence of type D personality of 38.5%. This prevalence was the highest in any previous research in other European countries. Study of type D personality has also been done in Korea and China in Asia. Focusing on developing the Type D Personality Scale-14 Korean Version (DS14), a study showed the prevalence of type D personality at about 27% in 3 groups: healthy controls, coronary heart disease patients, and hypertensive patients without heart disease (Lim et al., 2011). In a China population, a study estimated the prevalence of type D personality and assessed its association with self-efficacy and social support in Chinese patients with type 2 diabetes mellitus. Type D personality was 18.2% of the sample of 532 patients (Shao, Yin, & Wan, 2017).

Self-efficacy, a well-known psychological measure, is considered useful as a medication self-care behavior reinforcer. A personal belief that one can motivate oneself and can prolong control of desired behavior has a significant role in how a person changes from a risky to healthy behavior. Not educating about medication self-efficacy is like not informing of about in health risks which can easily lead to dangerous controllable behaviors such as smoking, drinking or unhealthy eating. Medication self-efficacy plays a vital role in an association between type D personality, medication adherence, and self-care behavior (Wu et al., 2015). These are necessary for individual's capacity to produce desired effects in any circumstances. Chronic disease patients who have high self-efficacy exhibited more self-care behavior and medication adherence. Self-efficacy is a personal trait that is changeable and can be learned, so its level varies among people (Hathaitip Tuntatead, 2014).

Every patient has their own personality type. When it comes to a health-care situation, type D patients may be seen as hopeless patients; for example, they struggle with negative thoughts, pessimistic about their ability to cope with illness and believe that it will be long-lasting. Due to limited past studies of type D personality in Thailand, this study utilized the Siriraj primary care unit to study the prevalence of type D personality in patients with hypertension. Further, the correlations of self-efficacy, self-care behavior and type D personality are observed in this study.

The present study hypothesized that 1) the level of medication self-efficacy and self-care behavior in type D personality patients and non-type D group are different, and 2) there are relationships between medication self-efficacy, self-care behavior and type D personality.

Method and materials

Participants

Participants in this study were patients with hypertension in a primary care unit. The sample size was 383 subjects which selected by the inclusion criteria: 1) must have diagnosed hypertension for at least six months before participation in the study, 2) have taken anti-hypertension medicine and have been in a program for hypertension treatment for at least six months, 3) have to take anti-hypertension medicine and mediate self-care behaviors by themselves, 4) must obtain self-care literacy from physicians or health care officers.

Measures

The instrument used in this research composed of 4 parts;

Part 1: The socio-demographic data of 6 questions include gender, age, status, illness duration, and other health conditions.

Part 2: The Type D-Scale (DS14), Thai Edition used to measure type D personality. The DS14 consisted of 14 questions; 7 questions of Negative Affectivity (NA), and 7 questions of Social Inhibition (SI). This instrument is a 5-point rating scale questionnaire from 0-4 points. Possible scores ranged from 0-28 with a cut-off point of 10 in both sub-scales. Subjects with a score of 10 or above were considered to have type D personality. For reliability, the Cronbach's alpha score is 0.768.

Part 3: The Self-efficacy for Appropriate Medication Use Scale Thai Version was used to measure medication self-efficacy. This instrument is a 3-point rating scale questionnaire, consisting of 13 questions. Total score can range from 13-39. The value of Cronbach's alpha was 0.90 (Polsook, Aungsuroch, Thanasilp, & R Duffy, 2014).

Part 4: The self-care behavior in patients with hypertension measurement was used to measure self-care behavior. There are 20 questions about nine aspects of self-care activities that restricted the level of sodium in food taken, restriction of fatty foods, weight control, physical activities, relaxation techniques, adequacy of sleep, medication adherence, avoiding alcoholic drinks, keeping away from smoking. The Cronbach's alpha coefficient of reliability of this instrument is 0.77 (Peamnoon, 2009).

Data Analyses

Statistical analysis: descriptive statistics were used to characterize demographic data in all participants; frequency, percentage, mean, and standard deviation. To test the hypotheses, t-test, and Pearson's correlation coefficient were used to analysis. A p-value of less than 0.05 was considered statistically significant. All statistical analyses were performed using the Statistic Package for the Social Science (SPSS) program.

This study had been approved by the Institutional Review Board. All participants were informed and provided written consents before entering the study.

Results

Demographic data

Participants were 383 patients with hypertension, 127 males and 256 females, age 39 to 99 years old (mean age 67.55, SD. ± 8.47). Nearly half of the sample (44.9%) was in the range of 60-69 years old. Most participants were married (80.2%) followed by single (16.7%) and divorced (3.1%). One hundred and thirty-eight (36%) of participants have been in a treatment for hypertension for less than five years, whereas two hundred and forty-five (64.0%) have suffered from hypertension for more than five years. Besides, one hundred and thirty-five (35.2%) have no co-morbid diseases (diabetes, dyslipidemia, coronary disease, stroke, cancer, etc.) (Table 1)

The Prevalence of Type D Personality

According to a standard cut-point at 10 in both components, results from the type D personality Scale-14 Thai Version are shown in Table 1. Fifty-six participants or 14.6% were categorized as having type D personality while the rest were in the non-type D personality group.

The data were classified with two sub-scales showed one hundred and one participants (26.4%) were in negative affectivity group, whereas one hundred and eighteen participants (30.8%) were categorized having only the social inhibition trait.

Thank you for using www.freepdfconvert.com service!

Only two pages are converted. Please Sign Up to convert all pages.

<https://www.freepdfconvert.com/membership>