

國立臺北護理學院九十六學年度博士班招生

護 理 系 博 士 班
研 究 法 試 題

注 意	1.本試題共有三頁。 2.請用 <u>中文或英文</u> 作答。 3.請標明題號依序於答案卷上作答。
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- I . You are going to survey nurses’ responses toward a new nursing intervention on patient care. Please describe 5 to 10 steps for this process, and describe the three main issues you concern. (15 %)
- II . After finishing the data collection process, please describe 5 to 10 steps for the data analysis procedure, and describe the three main issues. (15 %)
- III . Dr. King is going to study “the use of relaxation skills to reduce pain on patients with chronic pain.” (25 %)
- (a) In this study, write down **two types of measures** King can consider to collect data on the variable “pain”?
- (b) Further discuss **the strength and weakness of the two types of measures** you Suggested on (a).
- IV . Please answer following questions related to reliability. (10 %)
- (a) What is inter-rater reliability?
- (b) Discuss one possible factor that will affect the inter-rater reliability and how the researcher can improve it.
- V . Please read the design section in a research paper entitled of “The Effects of Yoga on Hypertensive Persons in Thailand” and answer the following questions:
- (a) Identify the research design. (5 %)
- (b) Describe the threats to design validity. (10 %)
- (c) Summarizing the quality of the design. (10 %)
- (d) How might this design have been approve? (10 %)

The Effects of Yoga on Hypertensive Persons in Thailand.

Abstract

To determine the effectiveness of a yoga program on blood pressure and stress, a group of hypertensive patients in Thailand were studied, with the experimental group showing significantly decreased mean stress scores and blood pressure, heart rate, and body mass index levels compared with the control group. Further studies are suggested to determine the effects of yoga on hypertension in Thailand.

The purpose of the study was to determine the effect of an 8-week program of yoga pranayama and yoga asana on stress, body mass index (BMI), heart rate (HR), and BP among Thai people with hypertension. Yoga pranayama is a program of deep breathing and relaxation; *asana* (defined as posture; *asana's* literal definition is seat) is the pose that participants take when practicing yoga.

STUDY FRAMEWORK

The conceptual framework for this study used 2 divergent theories: (1) by Selye, which explained the phenomenon of stress and (2) by Monro et al, which explained yoga practice as a method of stress reduction. Concepts from both theories define stress and examine the physiologic response of the body to stressors and the ability of yoga to ameliorate the effects of stress, thereby reducing hypertension.

DESIGN

The quasi-experimental study was conducted in Songkhla Province, Southern Thailand. The 8-week pranayama and asana yoga program included health information and group support in learning yogic principles and stress reduction techniques. The experimental group, practicing 3 times a week for 8 consecutive weeks, had routine outpatient care; for convenience, 2 temporary yoga training centers were established in the community outside of the hospital. The experimental group used yoga training cassettes and received demonstrations by a trained research assistant. Each session was approximately 63 minutes long.

The control group received routine outpatient care by hospital healthcare personnel, including general education about hypertension, but did not practice yoga routines or have stress reduction technique education.

Outcome measures for the study were systolic blood pressure (SBP), diastolic blood pressure (DBP), BMI, and HR. Demographic data forms at the clinic determined average patient age, gender, and medical history.

Study sample

The target population was identified as having a diagnosis of hypertension (BP > 140/90 mmHg) and not currently taking antihypertensive medications. Participants were recruited (July–November 2003) through purposive sampling from the hospital mobile clinic for health promotion program and the primary care unit in the province. The initial sample consisted of 61 participants; however, at study completion, 7 participants (11%) were dropped. Five participants (experimental group) stopped practicing yoga before program completion due to lack of time and inability to get to the yoga centers. Two control group participants were dropped because one began taking prescribed antihypertensive drugs and another moved out of the province.

The average age of participants (35 women; 19 men) in the experimental group was 56.7 years and in the control group was 56.2 years. Independent *t* test showed that age ranges did not differ significantly across groups. Nearly one half of participants attained an education level of bachelor's degree or higher (40.7%). Only a small number of participants smoked and used alcohol regularly. More than one half of participants (59.3%) stated irregular exercise. Many participants (55.6%) had only recently been diagnosed with hypertension. No significant differences were found between the groups in education levels, smoking habits, alcohol use, exercise habits, and whether first or previously diagnosed as having hypertension.

Instruments

The Stress Assessment Questionnaire (SAQ), modified from the Stress of Symptom Inventory (SOS) proposed by Thammakoon, was used with permission to determine stress levels. Physiologic data, including BP, HR, and body weight, were taken from the patient's medical record. Each experimental group participant kept a Yoga Practice Record Form to indicate he or she followed the study protocol.

METHODS

The yoga program used booklets based on yogic principles and a cassette tape of yoga guidance to instruct experimental group participants about hypertension and stress management. The protocol was to practice the yoga program 3 times a week for 8 consecutive weeks. The cassette tape was modified with permission by the researcher using *Yoga for Health*, which contained practice guidance for pranayama, deep relaxation, and 14 yoga asana postures (bow, cobra, corpse, crocodile, fish, head-to-knee, joint exercise, lotus, mountain, thunderbolt, twisting, wheel, yoga mudra, and yoni mudra).

The control group received typical outpatient teaching about hypertension, including diet and exercise. The control group did not attend yoga sessions and did not receive the yoga instruction booklet or tape.

Data collection

Participants were randomly assigned to ensure homogeneity between experimental and control groups. Participants were matched using Zeller's minimized randomization to control key variables affecting stress and BP, including age, gender, education level, smoking and alcohol use, and exercise habits. No significant differences were found with demographic data and other key variables among participants in the experimental and control groups.

To ensure consistency of yoga practice, key confounding factors were identified that might affect stress and BP of study participants, including emotional or physical stress crisis, smoking and alcohol use, and excessive salt consumption. These factors were documented in both groups at the beginning and throughout the study. Participants with any confounding factors or those experiencing changes in confounding factors during the study were dropped.

Demographic information was collected prior to the intervention, and stress levels were assessed before and after program intervention. Blood pressure, HR, and body weight were recorded in the experimental group before the intervention and on the last day of yoga practice every 2 weeks after the initiation of the yoga practice protocol. For the control group, BP, HR, and body weight were measured every 2 weeks at the same time of the day until program completion. At the completion of the 8-week yoga program, participants in the control group received the yoga practice booklets, and both groups received yoga practice cassettes.

Statistics

Study results were analyzed using SPSS. A repeated-measures analysis of variance (ANOVA) initially tested differences in the means of BP, HR, and BMI and then again every 2 weeks until the end of the 8-week protocol within each group and between the control group and the experimental group.

McCaffrey, R., Ruknui, P., Hatthakit, U., & Kasetsomboon, P. (2005). The Effects of Yoga on Hypertensive Persons in Thailand. *Holistic Nursing Practice, 19*(4), 173-180.