

Final Grant Recipient Report, the Honor Society of Nursing, Sigma Theta Tau International

By Sharon Placella, DNP, RN, CNS-BC, NPP

Implementing a Brief Mindfulness Based Stress Reduction Self-Care Intervention into the Nursing Curriculum

Abstract

Background: High levels of stress experienced by nursing students continue to be identified in the literature. This emphasizes the need for stress management in nursing education to prevent dysfunctional coping and poor health behaviors. Present literature suggests that Mindfulness Based Stress Reduction (MBSR) has been effective for stress management; but no research has evaluated a brief MBSR self-care intervention for American nursing students in the nursing curriculum.

Purpose: The purpose of this study is to implement a brief MBSR self-care intervention during nursing education and evaluate its effectiveness in decreasing stress and dysfunctional health behaviors.

Theoretical Framework: Utilizing Orem's Self-Care Theoretical Framework it is essential to the self-care process to have knowledge and skills required for health care needs and health promotion. Orem's Theoretical Self-Care Framework indicates that individuals must be taught specific skills to develop self-care knowledge and then apply it.

Method: This research design is a random control trial with 170 undergraduate nursing students enrolled in a required three hour psychosocial nursing class at a private downstate New York baccalaureate college. One-half of the psychosocial classes randomly selected were the experimental (MBSR Self-Care Intervention) group and the other one-half of the classes were the control group. Demographics and comparisons between groups (experimental and control) and mean scores on the Perceived Stress Scale 14 and the General Health Questionnaire 28 were analyzed using ANCOVA.

Results: Both the experimental and the control groups demonstrated decreased scores on the Perceived Stress Scale 14 and the General Health Questionnaire 28 however there was no statistical significance between the groups.

Conclusions / Implications: Incorporating stress management combined with self-care strategies during nursing education can decrease nursing students stress levels and dysfunctional health behaviors.

Implementing a Brief Mindfulness Based Stress Reduction Self-Care Intervention into the Nursing Curriculum

Purpose/ Aim

High levels of stress experienced by nursing students continue to be identified in the literature. This emphasizes the need for stress management in nursing education to prevent dysfunctional coping and poor health behaviors. Present literature suggests that Mindfulness Based Stress Reduction (MBSR) has been effective for stress management; but no research has evaluated a brief MBSR self-care intervention for American nursing students in the nursing curriculum. The purpose of this study is to implement a brief self-care MBSR intervention during nursing education and evaluate its effectiveness in decreasing stress and dysfunctional health behaviors. Nursing students will identify stress and stress management strategies to promote a healthier lifestyle after participating in the self-care MBSR intervention. Implications for nursing practice include the incorporation of self-care strategies combined with MBSR during the course of nursing education.

Theoretical Framework

Orem's Self-Care Theoretical Framework was used for this study. Orem defines self-care as a process that includes "activities that individuals personally initiate and perform on their own behalf in maintaining life, health, and well-being" (Orem, 1991). Utilizing Orem's Self-Care Framework essential criteria for the self-care process include having knowledge and skills required for health care needs, being motivated to carry out self-care practices, valuing health, and believing that new health behaviors will reduce vulnerability to developing illness (Orem, 1995). Orem's Self-Care Framework is composed of three related theories emphasizing self-care, self-care deficit, and nursing systems. (Orem, 1995). Callaghan suggests that self-care involves the judgment of one's ability for self-care that is consistent with the conceptualization of self-care self-efficacy. Self-care self-efficacy involves judgment of one's ability to perform self-care behaviors. This capability of self-care operations involves the actual performance of self-care behaviors. These behaviors are learned and can be directed towards the performance of specific behaviors that can lead to the promotion of health. These learned behaviors can be conceptualized as health-promoting self-care behaviors (Callaghan, 2003). Orem's Theoretical Self-Care Framework indicates that individuals must be taught specific skills to develop self-care knowledge, and then apply it (Orem, 2001).

Research Design and Sample

This research design is a random control trial with 170 nursing students at a private downstate New York baccalaureate college. In this prospective study of undergraduate sophomore nursing students enrolled in a required three hour psychosocial nursing class were invited to participate. One-half of the classes randomly selected were the experimental (Self-Care Intervention) group and the other one-half of the classes were the control group. Approval was obtained from the Institutional Review Board, Committee on Research Involving Human Subjects. All participants completed a brief demographic data sheet. A pretest and posttest was administered to evaluate perceived stress using The Perceived Stress Scale and to evaluate health promoting behaviors using The General Health Questionnaire 28.

Instruments

The Demographic Questionnaire. The demographic questionnaire gathered data on age, gender, race, years of college, number of work hours, and children.

The Perceived Stress Scale 14. The Perceived Stress Scale (PSS) is a 14 item self-report scale that measures the degree to which situations are perceived as stressful. Participants are asked to rate on a five-point scale how often they have felt or thought a certain way, ranging from never (0) to very often (4). The perceived Stress Scale has been validated for use with college students. Internal consistency coefficients for the PSS range from .84 to .86, and test-retest reliability is .85 (Cohen et al., 1997, 1983).

The General Health Questionnaire 28. The General Health Questionnaire 28 (GHQ 28) is divided into four scales measuring anxiety, depression, somatic symptoms as well as social functioning. Each item has four response options, ranging from "Not at all" to "Much more than usual". The General Health Questionnaire 28 has been used extensively and validated in health care as well as identifying stress levels in nursing students (Goldberg 1991, Jones & Johnston 1997, 2000, Deary et al., 2003).

Data Analysis

Data were analyzed using SPSS version 22. Descriptive statistics were used to analyze the characteristics of the sample and examine the distribution of data and frequency of scores on the Perceived Stress Scale 14 and the General Health Questionnaire 28. Comparisons between groups (experimental and control) and mean scores on the PSS 14 and the GHQ 28 were analyzed using ANCOVA. Cronbach's alpha for Perceived Stress Scale 14 was 0.747. Cronbach's alpha for General Health Questionnaire 28 was 0.891.

Procedure

Approval was obtained from the Institutional Review Board, Committee on Human Subjects. Students were informed the purpose of this study is to investigate the psychosocial and health needs of nursing students. Confidentiality and voluntary participation were reinforced. Informed consent, demographic and two data collection questionnaires; The Perceived Stress Scale and The General Health Questionnaire 28 were obtained from all participants. One-half of the psychosocial classes randomly selected were the experimental (Self-Care MBSR Intervention) group consisting of 96 participants and the other one-half of the classes were the control group (received no intervention) consisting of 74 participants. The researcher did not recruit any students from her courses as participants. Initially planned, two sessions were to be devoted to the intervention for a total of six hours at the beginning of the semester. Session one planned to explain the purpose of the study, obtaining the consent form, demographic, and the pretest data collection questionnaires. Session two was planned to be the actual didactic and experiential intervention. Unfortunately due to several snow days occurring at the beginning of the semester made lecture time very precious, therefore one session (one and one-half hours) had to incorporate what was initially planned for two sessions for the intervention portion. At the end of the semester the Perceived Stress Scale and the General Health Questionnaire as the posttest was completed.

Self-Care MBSR Intervention

The Self-Care MBSR intervention is a didactic and experiential workshop given to the experimental group. The interventions' goal incorporated stress management with health promotion strategies. The initial didactic phase presented research on nursing students being at greater risk for developing dysfunctional coping and poor health behaviors and the role that stress plays. The next phase explained the health consequences of both psychological and physical stress. The last phase based on Orem's Theoretical Self-Care Model and Mindfulness-Based-Stress-Reduction (Kabat-Zinn, 1991) taught specific stress management strategies based on evidenced based practice. These strategies included mindfulness meditation, visualization, guided imagery, affirmations, healthy nutrition and exercise (Thorton, 2007, Shirey, 2007, Billingsley et al., 2007). Exposing nursing students to MBSR strategies in this experiential workshop during nursing education can facilitate stress management and healthier lifestyles.

Teaching mindful meditation involved focusing on the breath, bringing attention to thoughts nonjudgmentally. As thoughts arise we can label them and release them inviting relaxation (Kabat-Zinn, 1991). Visualization and guided imagery were taught as tools to manage any stress-producing situation like exams or clinical performance. Affirmations were discussed as positive statements that students can create and repeat to change negative thoughts and feelings into positive thoughts and feelings. Students were provided with plastic bracelets and had an opportunity to create their own affirmation bracelet. Other health promotion strategies such as healthy nutrition and exercise were reinforced.

Findings

Sample

The sample consisted of 170 undergraduate nursing students enrolled in psychosocial nursing class with 84% female and 16% male. The experimental (Self-Care MBSR Intervention) group consisted of 96 participants and the control group consisted of 74 participants. The students represented were Caucasian, African-American, Asian, Indian and other. The students ranged in age from 20 to 45, with 84% in the 20 to 25 age range. The majority of the students 54% had one to two years of college education. Most students 75% worked part time and 25% did not work at all. The majority of students 94% were single and 6% were married. Most students 93% did not have children and 7% had one to three children. Characteristics of the studied sample are shown in table 1.

ANCOVA analyzed comparisons between groups (experimental and control) and mean scores on the Perceived Stress Scale 14 and General Health Questionnaire 28. Results are shown in the ANCOVA table 2 and table 3. Both the experimental and the control groups demonstrated decreased scores on the Perceived Stress Scale 14 and the General Health Questionnaire 28 however there was no statistical significance between the groups. Results suggest that incorporating stress management with self-care strategies during nursing education can decrease nursing students stress levels and dysfunctional health behaviors.

Recommendations

Implications for nursing practice include the incorporation of MBSR and self-care strategies during the course of nursing education. It is recommended that these strategies be taught to students before taking care of others. Further research is suggested for longitudinal data about the benefits of MBSR self-care strategies applied throughout the nursing program. It is suggested that future studies utilize a larger sample size and perhaps include more schools of nursing. Further research may include implementing additional interventions. Healthy Campus 2020 derived from Healthy People 2020 have identified new public health concerns impacting college students in the United States. These new concerns are stress, anxiety, sleep difficulties, cold/ flu / sore throat, and work (ACHA, 2010). The implementation of a MBSR self-care intervention can impact these new concerns.

Testimonial

Receiving the grant has facilitated my research process by giving me the opportunity to apply it to nursing practice by attending evidenced based conferences expanding my knowledge base. It strengthened my sense of responsibility and accountability in disseminating my work. Having the grant in an academic setting provided networking and support.

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Table 1: Demographic and characteristics of the studied sample. Data represented as N and %.

		N	%
GENDER			
	MALE	27	16
	FEMALE	142	84
AGE			
	20-25	141	83.4
	26-30	16	9.5
	31-35	8	4.7
	36+	4	2.4
RACE			
	CAUCASIAN	115	68.5
	AFRICAN-AMERICAN	20	11.9
	ASIAN	8	4.8
	INDIAN	8	4.8
	OTHER	17	10.1
MARITAL STATUS			
	SINGLE	157	93.5
	MARRIED	11	6.5
YEARS OF COLLEGE			
	1-2 YEARS	91	53.8
	3-4 YEARS	34	20.1
	4-5 YEARS	12	7.1
	5+ YEARS	32	18.9
STUDENT STATUS			
	FULL TIME	161	95.3
	PART TIME	7	4.1
HOURS AT WORK			
	5-10 HRS	34	20.2
	10-20 HRS	63	37.5
	20+ HRS	30	17.9
CHILDREN			
	0		92.9
	1		4.7
	2		1.2
	3+		1.2

Table 2

Analysis of Covariance General Health Questionnaire

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Pretest	2626.95	1	2626.95	23.48**	.15
Group	62.75	1	62.75	.56	.00
Error	14656.93	131	111.88		

**p < 0.001

Table 3

Analysis of Covariance Perceived Stress Scale

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Pretest	2665.53	1	2665.53	64.17**	.34
Group	19.17	1	19.17	.46	.01
Error	5275.21	127	41.54		

**p < 0.001

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