

# A STUDY ON EFFECT OF EDUCATIONAL PROGRAM FOR NATIONAL CERTIFICATION TEST FOR PROFESSIONAL CAREGIVER ON TRAINEES

Young-Sun Park<sup>1</sup> and Young-Ju Jee<sup>2\*</sup>

<sup>1</sup>Associate Professor, College of Nursing, Kyungbok University, Korea

<sup>2</sup>Assistant Professor, Department of Nursing, Kyungnam University, Korea

<sup>1</sup>yspark@kbu.ac.kr, <sup>2</sup>jeeyoungju@kyungnam.ac.kr

**Abstract—** This is one group pretest-posttest study to investigate the effect of educational program for professional caregiver on the trainees' geriatric nursing self-efficacy, performance range of geriatric nursing, learning achievement, and dementia attitude. The subjects were 43 trainees enrolled in caregiver education center of K University located in Gyeonggi-do. A total of 240 hours composed of 80 hours for theory, demonstration, and practice, respectively, were administered. The increases in mean scores of geriatric nursing self-efficacy and performance range of geriatric nursing were not statistical significant while those of learning achievement and dementia attitude were improved statistically significantly, suggesting that the contents of educational program for professional caregiver should be improved in terms of geriatric nursing self-efficacy and geriatric nursing performance.

**Keywords—** Professional Caregiver, Geriatric Self-Efficacy, Geriatric Nursing Performance, Dementia Attitude

## 1. INTRODUCTION

Korea implemented the Korean Elderly Long-Term Care Insurance System in 2008 and introduced a professional caregiver system that uses medical care benefits as compensation to secure the human resources necessary for the system. The professional caregiver qualifications are granted to those who, after completing a prescribed curriculum at a nursing care education institution that satisfies the criteria for the installation reporting determined by the city or province governors, passed the national certification test [1]. The professional caregiver, under the Elderly Long-Term Care Insurance System Act, provides meals, bathing, housekeeping, and nursing services to the elderlies at home or institution who have difficulty in daily life due to geriatric diseases such as dementia and stroke [2]. They provide direct physical, psychological, psychosocial, and emotional social care services to the elderlies, thus may have direct or indirect effect on the elderlies [3].

Since the national certification for professional caregiver is currently issued without restriction of education level or age of the applicants, it is necessary, for the education and training processes to play the proper role, to ensure that they provide curriculum that develops sufficient abilities and qualities of the trainees required in performing the relevant tasks. According to a previous study surveyed nursing agency operators and managers, nursing care workers, related officials, and experts, although many caregivers were nurtured through the caregiver training program, many of them have poor basic care

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Received: April 29, 2020

Reviewed: July 7, 2020

Accepted: July 20, 2020

\* Corresponding Author



skills due to factors such as the educational system that lacks link with the field, various problems of educational institutions that prioritize economic profits and lack of a supervision system for such problems, and deviations between educational institutions [4].

It necessitates the evaluation of the effectiveness of education program for professional caregiver measured by the improvement level of the trainees' behavior and capacity [4]. Since the knowledge of and attitude toward elderly are very important factor in caregiving. The provision of fundamental data that can be used to adjust the content or level of training of caregiver education and to develop and amend the questions of the national certification test are likely to be a useful assist in providing better care for the elderly by producing more quality workforce.

The self-efficacy is defined as the perceived level of one's ability to organize and execute the course of action required for the performance of a specific task and refers to the strength of situational and specific confidence [5].

The learning self-efficacy, a judgment that makes learners learn and perform new knowledge and skills in a new context, is a decision about one's ability to organize and carry out actions necessary to perform learning tasks. It can be used to determine the learning contents are successfully acquired and is one of the factors enhancing the learning abilities by motivating one to perform a given task efficiently and effectively [6]. The geriatric nursing self-efficacy is one's confidence and capacity to decide and perform the role required in solving the problems of elderlies and has effects on operation and application of educational program for professional caregiver. The previous studies found that the self-efficacy in the clinical practice had effect on the self-directionality and satisfaction and thus that the students with higher self-efficacy were more likely to be satisfied with education due to derive to achieve goal by active and positive experiences. These mean that the self-efficacy has effects on the later work of the trainees [7].

The attitude toward dementia refers to emotional attitude meaning the positive or negative emotion to the situations accompanied by the disease of dementia itself, and behavioral attitude meaning the overall behavioral tendency toward the situation formed by dementia [8]. It was found that those who have more positive attitude toward elderly with dementia are likely to show higher level of caregiving thus improve the quality of life of patients with dementia [9,10]. The positive attitude toward dementia has also effects on the outcome of treatment, delay the entrance to the institution, and relieve the burden of career for the caring [11].

The geriatric nursing performance is one that performed in the clinical field for caring and an interaction by providing actual help for solving health problem, inconvenience, personal hygienic issues of elderlies [12]. This provides quality caring as well as is helpful in treating disease. The capacity to practice care is important for the professional caregivers caring elderlies directly [12]. Comparing to the time when the license was issued for those who completed the program, it is important to investigate the effect of the educational program after introducing test on the efficacy toward elderly, dementia attitude, practice of the trainees.

The purpose of this study was, therefore, to contribute to determine the effectiveness of the national certification test and revise and complement the test by investigating the level of dementia attitude and behavior of educational program trainees for the test.

## **2. METHOD**

### **2.1. DESIGN**

This one group pretest-posttest study investigated the effect of educational program for professional caregiver on the trainees' geriatric nursing self-efficacy, geriatric nursing performance, learning achievement, and dementia attitude.

## 2.2. SUBJECTS

The subjects were 43 trainees enrolled in caregiver education center of K University, an institute designated as caregiver education, located in Gyeonggi-do. The enrollers of this institution from Mar. to Dec., 2019 were 57 and, among them, 14 were excluded due to personal reason or incomplete questionnaire. They were informed of the purpose of study before participation and the informed consents were obtained.

## 2.3. PROGRAM ADMINISTRATION

Curriculum was implemented based on textbooks republished in 2019 according to the course standards specified by the Ministry of Health and Welfare. A total of 240 hours composed of 80 hours for theory, demonstration, and practice, respectively, were administered. Theory and demonstration courses were provided for eight weeks, five days a week, four hours a day. The clinical practice was provided for two weeks, five days a week, eight hours a day.

## 2.4. INSTRUMENTS

**2.4.1. GENERAL CHARACTERISTICS OF SUBJECTS:** The general characteristics of subjects included sex, age, education level, monthly income, current vocation, and motivation for joining program.

**2.4.2. GERIATRIC NURSING SELF-EFFICACY:** The geriatric nursing self-efficacy was measured using the Inventory of Geriatric Nursing Self Efficacy (IGNSE) used in 2011 Survey on Dementia Elderly [13]. IGNEs is for measuring the self-efficacy of caregivers caring for elderlies and the items measure the confidence of professional caregivers in challenging situation. This self-report questionnaire composed of nine items are answered on seven-point liker scale from 1 (no confidence) to 7 (strong confidence).

**2.4.3. GERIATRIC NURSING PERFORMANCE:** This instrument developed by Choi [14] and revised by Kim [15] measures nursing practice in terms of mental, physical, and psychological aspects of elderlies. 16 items are answered on four-point likert scale from 1 (never) to 4 (always) and higher scores represent more positive practice. The developer reported the Cronbach's  $\alpha$  of this instrument as 0.87[14].

**2.4.4. LEARNING ACHIEVEMENT:** The learning achievement was measured using items developed by an instructor with experience of nine years in caregiver education center and validated by four nursing faculties. The items were 35 ones about theory and 45 ones about practices with the difficulties of national certification test and each item gave one point.

**2.4.5. DEMENTIA ATTITUDE:** This instrument measuring the attitudes toward dementia was developed by O'Connor & McFadden [16], translated by Kim [13], and adjusted for the purpose of this study. A total of 20 items measuring dementia knowledge or social comfort were answered on seven-point likert scale from one (no confidence) to seven (strong confidence). The higher score represents more positive attitude toward dementia and the developer reported its Cronbach's  $\alpha$  as 0.83-0.85.

## 2.5. DATA COLLECTION & ANALYSIS

**2.5.1. ETHICAL CONSIDERATION:** The subjects were trainees enrolled in caregiver education center of K University from Mar. to Dec., 2019. For the purpose of ethical consideration, they were informed of the purpose of study thoroughly before

participation. The researchers also explained that the collected data would be used only for this study, that the confidentiality would be kept rigidly, and that the subjects would be allowed to withstand their consent at any time. The informed consents were obtained and the questionnaire surveys were performed before and after education.

**2.5.2 ANALYSIS:** Data were analysed using SPSS version 21.0 for Window. The general characteristics of subjects were analyzed using descriptive statistics (real number, percentage, mean, and standard deviation) and the effects of education program on geriatric nursing, self-efficacy, performance range of geriatric nursing, achievements, dementia attitudes were tested using paired t-test.

### 3. RESULTS

#### 3.1. GENERAL AND DEMENTIA-RELATED CHARACTERISTICS OF SUBJECTS

Most of subjects were female (n=41; 95.3% vs n=2; 4.7%). The most frequent age group was those in their 50-60's (n=14; 32.6%) and followed by 40 years old and younger (n=11; 25.6%), 40-50 years old (n=10; 23.3%), and 60 years old and older (n=8; 18.6%). Most of them used less than two million Won per month as living expense. Those without experience of caregiving (n=35; 81.4%) were more those with such experience. The most common motivation for education was license (n=27; 62.8%) and followed by 'job', 'recreation', 'economic aid', and 'recommendation by others'(Table I).

Table I. Characteristics of Subjects (n=43)

Characteristics	Category	Frequency (%)
Sex	Female	41(95.3)
	Male	2(4.7)
Age	40 years old and younger	11(25.6)
	40-50 years old	10(23.3)
	50-60 years old	14(32.6)
	60 years old and older	8(18.6)
Education Level	Middle school graduation	5(11.6)
	High school graduation	33(76.7)
	College graduation	3(7.0)
	University graduation	2(4.7)
Monthly Income	< 1 million Won	17(39.5)
	1-2 million Won	9(20.9)
	2-3 million Won	7(16.3)
	<3 million Won	4(9.3)
Religion	Catholic	6(14.0)
	Christian	10(23.3)
	Buddhist	6(14.0)
	No religion	18(41.9)
	Others	3(7.0)
Experience of Caregiving	Yes	8(18.6)
	No	35(81.4)

Current Job	Caregiver	0(0.0)
	Nursing assistant	0(0.0)
	Social worker	0(0.0)
	Nurse	0(0.0)
	Unemployed	20(46.5)
	Others	23(53.5)
Motivation for Education	License	27(62.8)
	Job	6(14.0)
	Economic aid	2(4.7)
	Recreation	3(7.0)
	Recommendation by others	1(2.3)
	Others	4(9.3)

### 3.2. EFFECT OF EDUCATION PROGRAM

The changes in mean scores of IGNES measuring geriatric nursing self-efficacy ( $p=.319$ ,  $t= -1.01$ ;  $p=.438$ ,  $t= -.78$ ) and geriatric nursing performance were not statistically significant. The changes in mean scores of achievement (theory:  $t=-10.03$ ,  $p<.001$ ; demonstration;  $t=-5.14$ ,  $p<.001$ ) and DAS measuring attitude toward dementia ( $t=-2.79$ ,  $p=.008$ ) were statistically significant (Table II).

Table II. Characteristics of Subjects (n=43)

Variable	Category	Pretest (M±SD)	Posttest (M±SD)	t	p
Geriatric Nursing Self-Efficacy	IGNSE	4.28 ± 1.17	4.40 ± 1.17	-1.01	.319
Geriatric Nursing Performance		3.52 ± 0.39	3.56 ± 0.48	-.78	.438
Achievement	Theory	20.14 ± 5.34	29.07 ± 5.34	-10.03	<.001
	Demonstration	27.58 ± 4.18	32.53 ± 5.95	-5.14	<.001
Dementia Attitude	DAS	4.12 ± 0.53	4.32 ± 0.44	-2.79	.008

### 4. CONCLUSION

The professional caregivers provide physical and household support services for the elderly who have difficulty in daily life due to geriatric diseases such as dementia and hypertension and have been judged by the National Health Insurance Service as eligible for long-term care. The certification is issued to those who have received prescribed education at the institutions designated as a caregiver education organization nursing care provider and have passed the national test, regardless of educational background and age. This study was conducted to provide basic data for the development and revision of the educational program for national certification test for professional caregiver by verifying the effect of the program on trainees.

It was found, in this study, that there was no significant difference between self-efficacy of trainees before and after completing education program. This may be due to the fact that the program was focused on education for preparation for certification test and failed in providing indirect education for practical application. This also may be partly due to the fact that the training period was too short to improve self-efficacy, a personal judgment that one is able to perform given task successfully in a certain situation.

The geriatric nursing performance refers to activities to identify and solve the unique nursing problems of the elderly, and the results of this study is inconsistent with the previous reports that the dementia attitude and knowledge about the elderly are correlated

positively with the performance range of geriatric nursing [12,17]. The causes include the absence of experience in utilizing knowledge related to the elderly by trainees, education focused only on certification test and a short program period.

It is suggested, therefore, that a careful reviews of education contents and the application is necessary in education program for professional caregiver.

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