

The Mediating Effect of Spirituality between Nurses' Empathy and Elderly Care Performance in the Long Term Care Hospitals

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Purpose: The objective of this study was to identify whether spirituality mediates the relationship between empathy and elderly care performance among Long Term Care (LTC) hospitals nurses in Korea. **Methods:** The data collection was performed July 1st to August 31th, 2018. Participants were 119 nurses from three long-term care hospitals in Korea. Self-reported questionnaires were administered to assess general characteristics, empathy, spirituality and elderly care performance. The data were analyzed using descriptive statistics, t-test, one-way ANOVA, Pearson's correlation coefficients, and three-stage simple and multiple regression analysis as proposed by Baron and Kenny. **Results:** The level of elderly care performance of participants was significantly different based on age ($F=3.92$, $p=.010$) and nurse's position ($t=-2.18$, $p=.031$). Spirituality had a significant mediating effect on the relationship between empathy and elderly care performance ($Z=3.64$, $p<.001$). **Conclusion:** As spirituality completely mediates the relationship between empathy and elderly care performance, it is necessary to develop a nursing education program that applies spirituality and empathy and supports religious activities at an institutional level.

Key Words: Spirituality; Empathy; Long-term care

INTRODUCTION

Population aging has led to a rising prevalence of chronic illnesses and an increased number of elderly patients seeking care at Long-Term Care (LTC) hospitals. South Korea experienced a 1.6-fold upsurge in the number of LTC hospitals from 868 in 2010 to 1,428 in 2016, while in-patients at these hospitals increased approximately 1.47-fold from 229,000 in 2012 to 338,000 in 2016[1]. Patients receiving LTC hospital care find themselves in great need of direct care services, such as assistance in everyday activities, safety, and infection management [2], given that their conditions are mostly characterized by reduced cognitive, behavioral problem and physical functions [3]. In addressing these patients' needs, nurses at LTC hospitals are ideally positioned to fulfil a variety of crucial roles, spanning from providing care to elderly patients with their professional knowledge and skills to managing nursing assistants and providing training on infection management, all of which create a high level of expectations for their performance in elderly care [4].

Elderly care performance refers to "nurses activities of assessing the issues unique to patients aged 65 or above and developing and implementing care plans to resolve them with the aim of maintaining the patients' health condition at its best" [5]. This type of nursing care involves injury prevention, dermatological care, assistance with communication, pain management, medication, nutritional care and so on [5]. Understanding factors associated with LTC hospitals nurses' elderly care performance is crucial, since they perform a wide range of tasks from direct care of elderly patients to management of other care professionals. Existing literature on elderly care performance focused on nurses' demographic characteristics of nurses at geriatric hospitals. For example, a survey of nurses at geriatric hospitals reported that older age, longer clinical ex-

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perience, and higher education level were associated with a more advanced performance in elderly care [6]. There has been limited research to date at Korean LTC hospitals on the factors of elderly care performance among nurses.

Empathy is emerging as an important factor in clinical nursing performance including geriatric care. Different academic disciplines have their own definition of this capacity, but a commonly accepted definition is “understanding, sharing, and creating an internal space to accept the other person, hence helping them to feel understood and not alone” [7]. Adequate provision of geriatric care requires sufficient understanding of this competency. Empathy plays a crucial role in enabling nurses to develop a therapeutic bond with patients and provide high-quality care while simultaneously influencing patients’ attitude [8]. A lack of empathy undermines nurses’ ability to understand patients or establish a bond with them, thereby precluding the provision of a patient-centered care service [9]. No previous studies have explored the issue of empathy among LTC hospital nurses, but a study of nurses at emergency departments reported that those with a higher performance in compassion care experienced lower levels of work-related burnout [10]. By the same token, an adequate demonstration of empathy may enhance LTC hospital nurses’ elderly care performance while reducing burnout and consequently job turnover.

Spirituality constitutes a salient factor determining quality of life and enabling healthy aging [11], and it is also an important concept for healthcare professionals, not least nurses, who manage patients’ health-related issues from a holistic perspective [12]. Spirituality is related to important beliefs and belief systems that examine the reality of life, and these provide humans with a sense of meaning in many life experiences, including suffering from disease [12]. Lee and Park [13]’s study found that nurses who recognized the importance of religion, had extensive experience with end-of-life care, completed a basic educational program that emphasized spiritual care, and reported high satisfaction with their job and life demonstrated a particularly high level of spirituality, and nurses with high spirituality showed positive attitudes in end-of-life care settings [13].

End-of-life care is an integral part of elderly care performance and a basic skill expected from LTC hospital nurses, given that the majority of elderly patients and those with chronic illnesses spend the last days of their lives at LTC hospitals [14]. Reinforcing spirituality has thus been proposed as a means to enhance the quality of geriatric care, including end-of-life care. Spirituality in LTC hospital nurses influences dying patients’ psychological and

spiritual condition [13], and has thus been suggested as a key variable of nursing performance.

Regarding the relationship among empathy, spirituality and care performance, Kim and Choi [15] showed that the empathy affects spiritual care competence in nursing students, and Kim and Kwon [14] reported that empathy affects elderly care performance. They also reported that spirituality has been shown to have a bearing on spiritual and hospice care performance in nurses at general or LTC hospitals [16,17]. However, there is a paucity of research on the relationship between spirituality and their elderly care performance for LTC hospital nurses’ in Korea. Also, most studies only focused on the relationship between only two of the three variables of empathy, spirituality, and elderly care performance not all variables [14-17] and no research reported the mediating effect of spirituality on the relationship between empathy and elderly care performance.

As such, this study aimed to examine the relationship between LTC hospital nurses’ empathy, spirituality, and elderly care performance and establish the mediating effect of spirituality between empathy and elderly care in Korea. The findings of this study are anticipated to inform the development of care strategies for LTC hospital nurses as they strive to provide high-quality care services for elderly patients.

1. Aim

The objective of this study was to identify whether spirituality mediates the relationship between empathy and elderly care performance among LTC hospital nurses in Korea.

METHODS

1. Study Design

This study used an exploratory cross-sectional correlational survey design to identify the mediating effects of spirituality on the relationship between empathy and elderly care performance in LTC hospitals nurses in Korea.

2. Participants

A total of 132 voluntary participants were recruited from 6 LTC hospitals in K province in Korea. Inclusion criteria for participating nurses were as follows: 1) more than 6 months of experience; 2) employment at an LTC hospital.

The required sample size was calculated as 114, with a

significance level of .05 in multiple regression analysis, a medium effect size of 0.15, power of 80%, and 9 predictors (age, gender, education, religion, nursing experience, nurse position, job satisfaction, empathy, spirituality) using G*Power 3.2. software program (Heinrich Hein University, Dusseldorf, Germany). Considering the calculated result of 114 participants and a 30% dropout rate, a total of 150 questionnaires were distributed, 132 of which were returned. After excluding 13 questionnaires with incomplete responses, a total of 119 questionnaires were included in the analysis.

3. Measures

1) Participants' characteristics

Participant characteristics included age, gender, education, religion, nursing experience, nurse position, and job satisfaction.

2) Empathy

Empathy was assessed using the Interpersonal Reactivity Index (IRI) scale developed by Davis [18], which was translated into Korean by Kang et al. [19]. The use of instrument for this study was approved by the developer. The IRI scale comprises 28 items with four sub-scales including fantasy scale, empathic concern, perspective taking and personal distress. Each item is rated on a 5-point Likert scale ranging from 1 (this sentence doesn't present me well) to 5 (this sentence presents me well) higher scores indicates higher empathy. Cronbach's α of Kang [19]'s study was 0.81. In the current study, the Cronbach's α 's was 0.71

3) Spirituality

Spirituality was assessed using the Spirituality scale for Korean developed by Lee et al. [20]. The use of instrument for this study was approved by the developer. The tool comprises six sub-domains with a total of 30 items including five on transcendence, five on meaning and purpose of life, five on benevolence, five on internal resource, five on spiritual awakening, and five on connectivity. Each item is rated on a 5-point Likert scale ranging from 1 (not correct at all) to 5 (very correct) and higher scores indicates higher spiritual status. Cronbach's α of Lee [20]'s study was 0.93. In the current study, the Cronbach's α 's was 0.95.

4) Elderly care performance

Elderly care performance was assessed using the care performance tool developed by Kim [5]. The tool comprises nine sub-domains with a total of 53 items including five on elderly sleep care, six on elderly daily activity care,

five on elderly nutrition care, seven on elderly elimination care, five on elderly pain care, seven on elderly injury prevention care, six on elderly skin care, six on elderly communication care, and six on elderly medication care. Each item is rated on a 5-point Likert scale ranging from 1 (do not at all) to 5 (always do) and higher scores indicates higher elderly care performance. Cronbach's α of Kim [5]'s study was 0.96. In the current study, the Cronbach's α 's was 0.98.

4. Data Collection

The data collection was performed July 1st to August 31st 2018 after the primary investigator (PI)'s University IRB approval. The present study was conducted at 6 of the 120 LTC hospitals located in K province, which granted permission for the researcher to visit. During such visits, the researcher explained the study's purpose, content, and ethical considerations to the manager and the participants, and obtained participants' informed consent before distributing the questionnaires. Participants were asked to complete a set of self-reported questionnaires at a staff lounge which took approximately less than 30 minutes to complete.

5. Ethical Considerations

The current study was approved by the primary investigator's university Institutional Review Board (IRB No. 40525-201806-HR-052-02). The purpose, contents and ethical considerations of the study were explained to participants. When participants were agreed to participate in this study, the written consent was obtained.

6. Data Analysis

Collected data were analyzed using IBM SPSS Statistics 21 (IBM® Corporation, 2012, New York). 1) Descriptive statistics was used to summarize general characteristics of participants and levels of empathy, spirituality and elderly care performance. 2) Differences in empathy, spirituality and elderly care performance according to general characteristics of participants were analyzed using t-tests and one-way ANOVA. A post-hoc test was performed using Scheffé's test. 3) Correlations between empathy, spirituality and elderly care performance were analyzed using Pearson's correlation coefficients. 4) The mediating effects of spirituality on the relationship between empathy and elderly care performance were analyzed using the three-stage simple and multiple regression analysis, as proposed by

Baron and Kenny [21]. The statistical significance of the mediating effect was examined using the Sobel test.

RESULTS

1. Participants' Characteristics and the Level of Empathy, Spirituality, and Elderly Care Performance

Mean age of the 119 nurses who participated in the current study was 39.32 ± 10.16 . Of participants, 90.8% were women, 54.6% were diploma gradated and 52.1% were having religion. Most participants' nursing experiences were more than seven years (70.6%), staff nurses (71.4%), and having moderate job satisfaction (71.4%). The level of empathy, spirituality, and elderly care performance in this study were shown as 3.26 ± 0.32 , 3.25 ± 0.54 , and 3.80 ± 0.57 in order (Table 1).

Table 1. Participants' Characteristics (N=119)

Variables	Categories	n (%) or M \pm SD
Age (year)	< 30	23 (19.3)
	30~39	42 (35.3)
	40~49	30 (25.2)
	≥ 50	24 (20.2)
		39.32 ± 10.16
Gender	Women	108 (90.8)
	Men	11 (9.2)
Education	Diploma gradation	65 (54.6)
	BSN graduation	54 (45.4)
Religion	Yes	62 (52.1)
	No	57 (47.9)
Nursing experiences	< 7 years	35 (29.4)
	≥ 7 years	84 (70.6)
Nurse position	Staff nurse	85 (71.4)
	\geq Charge nurse [†]	34 (28.6)
Job satisfaction	Low	25 (21.0)
	Moderate	85 (71.4)
	High	9 (7.6)
Empathy		3.26 ± 0.32
Spirituality		3.25 ± 0.54
Elderly care performance		3.80 ± 0.57

BSN=Bachelor of science in nursing; [†] Charge nurse, head nurse.

2. The Level of Empathy, Spirituality, and Elderly Care Performance according to the Participants' Characteristics

The level of empathy according to the participants'

characteristics was significantly different based on gender ($t=2.24$, $p=.046$). The level of spirituality according to the participants' characteristics was significantly different based on religion ($t=5.03$, $p<.001$). The level of elderly care performance according to the participants' characteristics was significantly different based on age ($F=3.92$, $p=.010$) and nurse's position ($t=-2.18$, $p=.031$) (Table 2).

3. The Correlation among Empathy, Spirituality and Elderly Care Performance

Elderly care performance had a significant positive correlation with empathy ($r=.36$, $p<.001$) and spirituality ($r=.36$, $p<.001$). Spirituality was positively correlated with empathy ($r=.50$, $p<.001$) (Table 3).

4. The Mediating Effect of Spirituality on the Relationship between Empathy and Elderly Care Performance

The results of the first stage of the regression analysis examining the mediating effect of spirituality showed that empathy exerted a significant effect on spirituality ($\beta=.49$, $p<.001$). The results of the second stage showed that empathy exerted a significant effect on elderly care performance ($\beta=.31$, $p<.001$). In the third stage, elderly care performance was set as the dependent variable; the mutual effects of empathy and spirituality were controlled by simultaneously entering both into the model. The results showed that spirituality strongly mediated the relationship between empathy and elderly care performance: as the mediating variable, spirituality had a significant effect on the dependent variable, elderly care performance ($\beta=.38$, $p<.001$), while the effect of the independent variable, empathy, on elderly care performance was non-significant ($\beta=.11$, $p=.198$).

Additionally, to examine the significance of the mediating effect of spirituality, the Sobel test was performed. An absolute value of 1.96 or greater in the Sobel test is interpreted to represent a significant mediating effect, as Z-values follow the standard normal distribution. In the present study, the mediating effect in the relationship between empathy and elderly care performance was statistically significant ($Z=3.64$, $p<.001$) (Table 4, Figure 1).

DISCUSSION

In light of the global increasing trend in the number of LTC hospitals, this study explored the mediating effect of spirituality on the relationship between empathy and elderly care performance among LTC hospitals nurses in

Table 2. The Level of Empathy, Spirituality, and Elderly Care Performance according to the Participants' Characteristics

Variables	Categories	Empathy		Spirituality		Elderly care performance	
		M±SD	t or F (p)	M±SD	t or F (p)	M±SD	t or F (p)
Age (year)	< 30 ^a	3.25±0.29	2.10	3.16±0.49	1.45	3.75±0.48	3.92
	30~39 ^b	3.18±0.29	(.104)	3.20±0.54	(.231)	3.75±0.51	(.010)
	40~49 ^c	3.27±0.31		3.21±0.58		3.65±0.66	c < d [†]
	≥ 50 ^d	3.39±0.38		3.45±0.52		4.14±0.52	
Gender	Women	3.29±0.30	2.24	3.27±0.52	1.18	3.81±0.54	0.62
	Men	3.00±0.40	(.046)	3.02±0.68	(.262)	3.70±0.78	(.533)
Education	Diploma gradation	3.22±0.25	-1.52	3.25±0.49	0.12	3.73±0.51	-1.55
	BSN graduation	3.31±0.38	(.130)	3.24±0.60	(.902)	3.89±0.62	(.123)
Religion	Yes	3.30±0.31	1.37	3.47±0.50	5.03	3.82±0.58	0.37
	No	3.22±0.33	(.173)	3.01±0.48	(< .001)	3.78±0.55	(.710)
Nursing experiences	< 7 years	3.18±0.30	-1.66	3.18±0.48	-0.86	3.72±0.54	-0.99
	≥ 7 years	3.29±0.32	(.099)	3.27±0.56	(.389)	3.84±0.57	(.322)
Nurse position	Staff nurse	3.23±0.32	-1.46	3.21±0.56	-1.20	3.73±0.56	-2.18
	≥ Charge nurse [‡]	3.33±0.30	(.147)	3.34±0.48	(.230)	3.98±0.56	(.031)
Job satisfaction	Low	3.20±0.38	0.49	3.06±0.73	1.45	3.92±0.59	0.81
	Moderate	3.27±0.30	(.610)	3.29±0.49	(.256)	3.76±0.54	(.444)
	High	3.28±0.34		3.38±0.34		3.88±0.76	

BSN=Bachelor of science in nursing; [†] Scheffé test; [‡] Charge nurse, head nurse.**Table 3.** The Correlation among Empathy, Spirituality, and Elderly Care Performance

(N=119)

Variables	Empathy	Spirituality	Elderly care performance
	r (p)	r (p)	r (p)
Empathy	1.00		
Spirituality	.50 (< .001)	1.00	
Elderly care performance	.36 (< .001)	.49 (< .001)	1.00

Table 4. The Mediating Effect of Spirituality on the Relationship between Empathy and Elderly Care Performance

(N=119)

Step	Variables	B	β	t	p	Adj. R ²	F (p)
1	Age (< 30)	-0.15	-.11	-1.04	.296	0.23	8.42 (< .001)
	Age (30~39)	-0.07	-.06	-0.55	.583		
	Age (40~49)	-0.14	-.11	-1.09	.274		
	Nurse position (Staff nurse)	-0.03	-.02	-0.33	.738		
	Empathy	0.83	.49	5.97	< .001		
2	Age (< 30)	-0.21	-.15	-1.36	.176	0.17	6.14 (< .001)
	Age (30~39)	-0.23	-.19	-1.67	.096		
	Age (40~49)	-0.42	-.32	-2.96	.004		
	Nurse position (Staff nurse)	-0.20	-.16	-1.77	.079		
	Empathy	0.54	.31	3.59	< .001		
3	Age (< 30)	-0.15	-.10	-1.03	.301	0.28	8.84 (< .001)
	Age (30~39)	-0.20	-.17	-1.57	.117		
	Age (40~49)	-0.36	-.27	-2.72	.007		
	Nurse position (Staff nurse)	-0.18	-.15	-1.76	.080		
	Empathy	0.21	.11	1.29	.198		
	Spirituality	0.40	.38	4.21	< .001		
Sobel test: Z=3.64, p< .001							

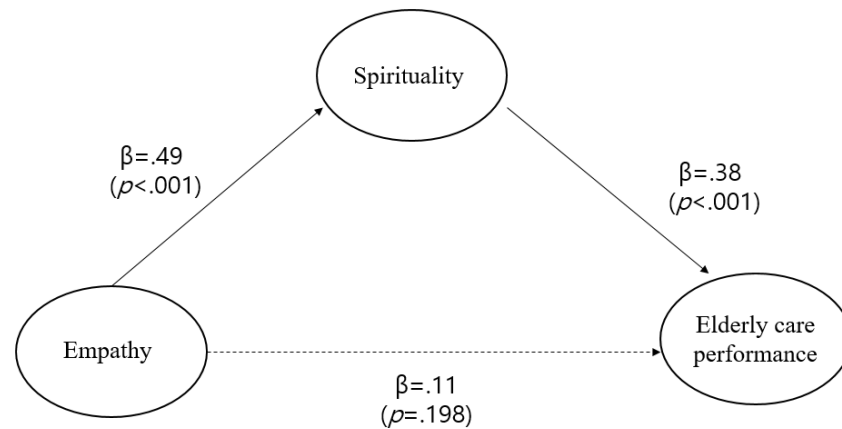


Figure 1. The Mediating effect of spirituality on the relationship between empathy and elderly care performance.

Korea.

In the present study, LTC hospital nurses' empathy score was 3.26 out of 5, consistent with the results of Jeong [22], who found an average empathy score of 3.31 in general hospital nurses using the same measurement tool. Previous studies reported that more than 39.3% of patients at Korean LTC hospitals in 2012 spent more than 180 days under hospital care [3], with the majority of them presenting symptoms of delirium and depression [3]. This suggests that, besides understanding these patients' physical symptoms accurately to provide adequate care for their condition, nurses need to build their capacity to empathize with their psychological conditions.

Empathy is important in nurses because it helps patients to feel understood and not alone, allowing them to accept themselves as valuable [7,8]. Nurses' empathy can increase the curative effect of and patients' satisfaction with nursing services by forming a positive trust relationship. Thus, empathy is considered an important part of nursing performances in foreign countries, which provide educational programs with empathy training to improve care performance [23], whereas programs to improve the empathy of nurses in Korea are insufficient. Since empathy is a result of attentive listening, emotional support, and specific related activities [24], there should be education on practical empathetic expressions and supplementary educational programs on behavior correction for nurses in LTC.

In terms of the differences in empathy according to the characteristics of the participants, we observed a higher empathy among female nurses, consistent with the findings of Kliszcz et al.[25] that female nurses and doctors demonstrated a higher capacity to empathize with patients. Currently, the nursing workforce of Korean LTC hospitals consists mostly of women, but the number of male

nurses is rising continuously both within Korea and in other countries such as the U.S. Given this, fostering appropriate empathy in the growing number of male nurses at LTC hospitals appears to be an increasingly important concern. Gender differences should be taken into account when developing and implementing programs on building empathy, since male and female nurses may possess different degrees and perception of this capacity [26].

Most patients at LTC hospitals suffer from chronic or degenerative diseases [13,14]; the ability to empathize with these patients is of particular importance [8], as they require long-term nursing care and nurses need to develop a long-lasting bond with family caregivers as well. In this sense, LTC hospitals nurses need to develop the ability to empathize not only with patients' health problems requiring professional attention but also with various situations that may arise from their conditions.

The mean spirituality score in this study was 3.25 out of the 5, congruent with the scores of 3.4 for doctors and 3.6 for nurses in the study on spirituality of doctors and nurses in general hospitals by Kim [12]. The mean spirituality of the nurses in LTC hospitals found by this study was higher than that of medical doctors or nurses in general hospitals as reported by Kim [12]. As the patients in LTC hospitals undergo long-term hospitalization and tend to be incurable due to chronic diseases, spirituality is important to ensure holistic care [27]. In particular, there are efforts to make spiritual care a mandatory standard for medical services, as spirituality is an important factor in the professional competence of LTC nurses.

In terms of the differences of spirituality according to the characteristics of participants found in this study, nurses having religion had a higher degree of spirituality, congruent with existing research findings that religion and spirituality are associated with each other [12,13]. Spirituality

tuality is indeed closely tied with religion, since spirituality entails religious well-being (in relation to one's relationship with God) and existential well-being (indicating one's satisfaction with life)[12,13]. However, the current practical approaches to spirituality for nurses leave much room for improvement, as there is no robust continuing education program aimed at promoting a spiritually healthy mindset among nurses, and spiritual health is largely dismissed as nurses' private matters. Our findings indicate that spirituality is associated with elderly care performance in LTC hospital nurses. We thus recommend endeavors toward the efficient management of nurses' spiritual health so that they can better cope in LTC hospital settings. In addition, as the patients in LTC hospitals often reside in the hospitals until they die, it is necessary [13] for nurses to focus on caring not only for their own spirituality but also that of the patients to ensure multi-dimensional nursing comprising physical, mental, and spiritual care.

This study found an elderly care performance score of 3.80 out of 5, greater than the score of 3.07 found by Kim [5] for nurses in general hospitals. This is an expected outcome, since LTC hospitals nurses almost exclusively deal with elderly patients and thus have a high awareness of elderly care as well as a high level of performance in this care setting [28], whereas nurses at general hospitals attend to various types of patients, from younger adults to elderly people, and may therefore have less awareness of elderly care and a lower level of elderly care performance. In examining the differences in elderly care performance by the characteristics of the participants, nurses aged 50 or older and with a title of charge staff nurse or higher demonstrated higher performance of elderly care in this study, while Kim [5] found that married nurses showed higher elderly care performance than did unmarried nurses. The measuring tool of elderly care performance in this study addresses various nursing tasks required in geriatric care settings, including injury prevention, communication, and medication of which communication may not be easy to be adequately performed by younger or less experienced nurses. This partly explains the association between higher elderly care performance and age in this study. Because existing education programs for nurses at LTC hospitals in Korea include only geriatric assessment, nutrition, use of restraints, fall prevention, and urinary incontinence [29], professional education including effective communication skills and safe nursing practices for elderly care performance is needed, particularly for young nurses or those with a short nursing career.

We demonstrated that spirituality has a full mediating

effect on the relationship between empathy and elderly care performance. In other words, when empathy increases, spirituality also increases and indirectly influences elderly care performance. Accordingly, because spirituality plays a strong mediating role in the relationship between empathy and elderly care performance, nursing education programs that can improve nurses' empathy with a focus on spirituality are needed to support a high level of elderly care performance. Also, since there have been few studies of the correlations among empathy, spirituality, and elderly care performance, it is hard to directly compare the results of this study with others. However, Seo and Sung [16] reported that spirituality and deathbed experiences affect the nursing performance of hospice nurses, and Sung [17] reported that spiritual well-being and clinical career affect the nursing performance of nurses working at general hospitals, showing that spirituality is a significant influencing factor on nursing performance, similar to the results of this study. Since spirituality affects nursing performance, it is important to assist nurses to recognize its full mediating effect and also provide training for empathy skills which affects spirituality.

However, this study is significant as it additionally confirmed a mediating effect of spirituality, and in particular identified the elderly care performance of the nurses working at the LTC hospitals. Recently, many recent studies report empathy as an important nursing skill and a key concept that should be implemented in clinical environments [8]. Through the process of introspection - which involves self-recognition, understanding, and empathy - one's spirituality can also be improved. Empathy is necessary to improve one's spirituality, but self-empathy - which is to embrace one's imperfection and to open one's heart - needs to precede it to improve one's empathy [30]. With improved self-empathy, nurses can exhibit improved communication skills with the patients, eventually leading to a better clinical environment and more efficient nursing service. Thus, nurses who have both empathy and spirituality can improve their elderly care performance. Since empathy and spirituality are necessary to improve nursing performance, systematic efforts to provide meditation time for the nurses to introspect and operate spiritual programs based on spiritual recognition are necessary.

This study has a few limitations. Our findings are difficult to generalize, since we only included nurses at LTC hospitals within a limited geographical area. Additionally, because a self-report questionnaire was used to measure the research variables, there is the possibility of common method variance according to individual characteristics; because an exploratory cross-sectional correlational

survey design was used, the study's results cannot make causal implications. Future research must explore the causal relationships of empathy and spirituality on increase and decrease in elderly care performance using a longitudinal design. Finally, we also could not control for all the exogenous variables that affect elderly care performance.

Nonetheless, this study represents a significant contribution to community nursing research as the first endeavor to explore the relationship of empathy and spirituality, two key nurse qualities with increasing importance in recent years, with nurses' performance in geriatric care settings in Korea.

Going forward, in light of the present findings, we call for efforts to train LTC hospitals nurses' empathy and develop their spirituality to improve their elderly care performance. We also look forward to future research aiming to identify other factors of elderly care performance, including work environment and management at hospitals, along with empathy and spirituality.

CONCLUSION

The current study identified that the spirituality plays a strong mediating role in the relationship between empathy and elderly care performance. There is a need to provide nursing education programs that can improve nurses' empathy with a focus on spirituality to ensure a high level of elderly care performance. To improve nursing performance, programs to enhance both spirituality and empathy of the nurses - including introspection, improving the relationship with others, and understanding the meaning of life - need to be established.

REFERENCES

1. Health Insurance Review & Assessment Service. The number of long-term care hospitals [Internet]. Daejeon: Statistics Korea. 2012 [cited February 19, 2019] Available from: http://kosis.kr/common/meta_onedepth.jsp?vwcd=MT_OTITLE&listid=354_MT_DTITLE
2. Sleet DA, Moffett DB, Stevens J. CDC's research portfolio in older adult fall prevention: A review of progress, 1985-2005, and future research directions. *Journal of Safety Research*. 2008; 39(3):259-267. <https://doi.org/10.1016/j.jsr.2008.05.003>
3. Jeon B, Kim H, Kwon S. Patient and hospital characteristics of long-stay admissions in long-term care hospitals in Korea. *Health Policy and Management*. 2016;26(1):39-50.
4. Vahey D, Aiken L, Sloane D, Clarke S, Vargas D. Nurse burn-out and patient satisfaction. *Medical Care*. 2004;42(2):II57-II66. <https://doi.org/10.1097/01.mlr.0000109126.50398.5a>
5. Kim HE. Nurses' knowledge and attitude of the elderly, and performance on elderly care [master's thesis]. [Busan]: Catholic University of Pusan; 2009. 77 p.
6. Kwon Y, Lee HY, Hwang SS. A study on the knowledge, attitude and nursing practice of the nurses-towards the elderly in geriatric hospitals. *Journal of the Korea Academia-Industrial cooperation Society*. 2013;14(11):5785-5791. <https://doi.org/10.5762/KAIS.2013.14.11.5785>
7. Cunico L, Sartori R, Marognoli O, Meneghini AM. Developing empathy in nursing students: A cohort longitudinal study. *Journal of Clinical Nursing*. 2012;21(13-14):2016-2025. <https://doi.org/10.1111/j.1365-2702.2012.04105.x>
8. Dewar B, Nolan M. Caring about caring: Developing a model to implement compassionate relationship centred care in an older people care setting. *International Journal of Nursing Studies*. 2013;50(9):1247-1258. <https://doi.org/10.1016/j.ijnurstu.2013.01.008>
9. Griffiths J, Speed S, Horne M, Keeley P. A caring professional attitude: What service users and carers seek in graduate nurses and the challenge for educators. *Nurse Education Today*. 2012; 32(2):121-127. <https://doi.org/10.1016/j.nedt.2011.06.005>
10. McKnight-Chelius R. The relationships among emergency nurses' perceptions of nurse empathy, compassion fatigue, compassion satisfaction, and emergency patients' perception of nurse empathy. 1st ed. Pennsylvania: Widener University; 2017. 198 p.
11. Youm HU, Cheung SD, Seo WS, Koo BH, Bai DS. The relationship of spiritual well-being and anxiety, depression and quality of life in active old age. *Yeungnam University Journal of Medicine*. 2005;22(1):27-42.
12. Kim SN. Spirituality among physicians and nurses in metropolitan cities. *Journal of Korean Academy of Psychiatric and Mental Health Nursing*. 2010;19(2):143-153. <https://doi.org/10.12934/jkpmhn.2010.19.2.143>
13. Lee KJ, Park YS. Nurses' spirituality and attitude toward terminal care in geriatric hospital. *Journal of Digital Convergence*. 2015;13(12):347-357. <https://doi.org/10.14400/JDC.2015.13.12.347>
14. Kim YK, Kwon S. Effects of empathy and attitude in caring for elders by nurses in geriatric nursing practice in long-term care hospitals. *Journal of Korean Gerontological Nursing*. 2017;19(3): 203-213. <https://doi.org/10.17079/jkgn.2017.19.3.203>
15. Kim J, Choi S. Influence of self-esteem, empathy and existential well-being on spiritual care competence in nursing students. *Journal of Korean Academy of Fundamentals of Nursing*. 2015;22(3):328-337. <https://doi.org/10.7739/jkafn.2015.22.3.328>
16. Seo YS, Sung KW. Influence of nurses' spirituality on hospice nursing intervention in long-term care facilities. *Journal of*

- Korean Gerontological Nursing. 2012;14(1):12-20.
17. Sung MH. Effects of spiritual well-being on spiritual nursing intervention. *Asian Oncology Nursing*. 2009;9(1):15-22.
 18. Davis MH. Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*. 1983;44(1):113-126.
<https://doi.org/10.1037/0022-3514.44.1.113>
 19. Kang I, Kee SW, Kim SE, Jeong BS, Hwang JH, Song JE, et al. Reliability and validity of the Korean-version of interpersonal reactivity Index. *Journal of Korean Neuropsychiatric Association*. 2009;48(5):352-358.
 20. Lee KY, Kim CH, Kim DW. Development of the spirituality scale. *Korean Journal Counseling and Psychotherapy*. 2003;15(4):711-728.
 21. Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 1986;51(6):1173-1182.
<https://doi.org/10.1037//0022-3514.51.6.1173>
 22. Jeong HS. The effect of empathy on the job stress among nurses. *Journal of the Korea Academia-Industrial cooperation Society*. 2015;16(6):3911-3918.
<https://doi.org/10.5762/KAIS.2015.16.6.3911>
 23. Brunero S, Lamont S, Coates M. A review of empathy education in nursing. *Nursing Inquiry*. 2010;17(1):65-74.
<https://doi.org/10.1111/j.1440-1800.2009.00482.x>
 24. Kong BH. Art of caring in nursing. *Philosophy of Medicine*. 2007;3(1):97-116.
 25. Kliszcz J, Nowicka-Sauer K, Trzeciak B, Nowak P, Sadowska A. Empathy in health care providers-validation study of the polish version of the Jefferson scale of empathy. *Advances in Medical Sciences*. 2006;51:219-225.
 26. Lee KJ, Kim M. The relationship of gender role conflict and job satisfaction upon organizational commitment in male nurses. *Korean Journal of Adult Nursing*. 2014;26(1):46-57.
<https://doi.org/10.7475/kjan.2014.26.1.46>
 27. Connelly R, Light K. Exploring the "new" frontier of spirituality in health care: Identifying the dangers. *Journal of Religion and Health*. 2003;42(1):35-46.
<https://doi.org/10.1023/A:1022212727599>
 28. Kwon Y, Lee HY, Hwang SS. A study on the knowledge, attitude and nursing practice of the nurses-towards the elderly in geriatric hospitals. *Journal of the Korea Academia-Industrial cooperation Society*. 2013;14(11):5785-5791.
<https://doi.org/10.5762/KAIS.2013.14.11.5785>
 29. Choi KB. The effect of elderly nursing care education programs on nurses knowledge, attitudes and nursing performance toward the elderly. *The Journal of Korean Academic Society of Nursing Education*. 2012;18(3):522-532.
 30. Cobb MR, Puchalski CM, Rumbold B. *Oxford textbook of spirituality in healthcare*. 1st ed. New York: Oxford University Press; 2012. 500 p.