Person-Centered Care, Job Stress, and Quality of Life Among Long-Term Care Nursing Staff

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ABSTRACT
Background: Although it has been established that person-centered care is an essential aspect in long-term care facilities, the relationship between person-centered care and job stress among nursing staff and the effect of this relationship on their quality of life are not clear.

Purpose: This study aims to investigate correlations among job stress, quality of life, and person-centered care of nurses as well as factors affecting the person-centered care abilities of nursing staff working at long-term care hospitals.

Methods: Nursing staff (N=183) in three long-term care hospitals in South Korea completed a questionnaire on job stress, quality of life, and person-centered care. Data were analyzed using the SPSS 22.0 program for descriptive statistics, using an independent t-test, a one-way analysis of variance, Pearson’s correlation coefficient, and multiple stepwise regression analyses.

Results: Significant factors found to be associated with person-centered care included the quality of life (r = .411, p < .001) and job stress (r = −.305, p < .001) of the participant. The regression model with job stress and quality of life as predictor variables accounted for 29.2% of the variance in person-centered care.

Conclusions/Implications for Practice: Higher quality of life and lower job stress were found to increase the person-centered care abilities of nurses in long-term care facilities.

Key Words: job stress, long-term care facility, nurse, person-centered care, quality of life.

Introduction
South Korea is one of the world’s most rapidly aging countries. In 2018, 14.3% of the population was aged 65 years or older, with this percentage expected to reach 20.8% in 2026 (Statistics Korea, 2017). This trend has led to an increased need for long-term care (LTC) settings for older adults with physical and/or mental disabilities. To deal with the higher demand for LTC services, South Korea introduced a new social insurance scheme for LTC in July 2008 (Kwon, 2009). As many families are unable to provide appropriate care for older adults affected by disabilities or frailty, the number of LTC facilities in South Korea has increased more than 7 times over a decade, from 203 in 2005 to 1,529 in 2017 (Health Insurance Review & Assessment Service, 2018).

The rapid increase in LTC facilities is causing problems such as poor management at some LTC facilities and inadequate consideration of the human rights of residents (Park & Park, 2018). Older adult residents in LTC facilities are more likely to experience declines in physical and psychosocial health than community-dwelling older adults (Lee et al., 2012). Since the 1990s, person-centered care (PCC) has been practiced widely around the world and has been set as a basic direction for LTC services in the United States and Europe (Koren, 2010). PCC, typically defined as care that is responsive to the well-being of the care recipient, includes significant social interactions; mutual choice; mutual decision making; and acceptance of the care recipient’s preferences, values, and beliefs (Kogan et al., 2016). PCC is a holistic (physical–psychosocial–spiritual) approach to providing care that is respectful and individualized, allowing cooperation of care, and offering choice through a therapeutic connection where persons are empowered to be involved in health determination at whatever level is desired by the individual receiving care (Morgan & Yoder, 2012). Previous studies have reported that PCC increased well-being and reduced agitation in people with dementia after interventions based on meaningful activities and psychosocial interactions (Edvardsson et al., 2014) as well as improved bowel patterns for residents after individualized care management (Palese et al., 2010).

Job stress is defined as a harmful physical and emotional response that occurs at the workplace (Tsai et al., 2009). Nurses in LTC facilities are the primary providers of PCC, as they possess the ability to promote effective teamwork with health practitioners, foster a positive environment in the facility, and support older adults (Mueller et al., 2013). Nurses in LTC facilities face various mental and psychosocial problems such as emotional labor and job stress because

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of changes in roles and workload burden (Kim & Kim, 2017; Mueller et al., 2013). In addition to the nature of the task, nurses experience secondary traumatic stress because of empathy for the pain expressed by patients in the course of their close encounters with death (Kim & Kim, 2017). Nurses at LTC facilities face specific job stressors that influence their job satisfaction and that are not experienced by acute care nurses (Stone & Harahan, 2010). In addition, with regard to the effects of outcomes of PCC on direct care staff, studies have reported that PCC led to decreased job stress and strain as well as increased personal and professional satisfaction (Jeon et al., 2012).

The World Health Organization defines quality of life as “an individual’s perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns” (WHOQoL Group, 1993). For nurses, the quality of work life contributes to their turnover rate, job satisfaction, stress, organizational cohesion, organizational commitment, motivation, and quality of care (Mohamad, 2012). Different from standard medical and therapeutic nursing care, PCC is designed to improve the quality of care provided to older adults, to understand the personal characteristics of older adults, to expand the care options and autonomy of older adults, and to provide a supportive environment similar to home (Haydon et al., 2018). In addition, increased family satisfaction with LTC facilities has been associated with increased job satisfaction and lower turnover among facility employees (Brownie & Nancarrow, 2013).

Few domestic studies have evaluated the service quality (Kim & An, 2012) or examined the general stress of employees of LTC facilities (Lee & Park, 2013). Thus, little has been reported in the domestic literature on direct relationships among job stress, quality of life, and PCC in LTC settings.

The purpose of this study was to examine the job stress, quality of life, and PCC of nurses in LTC facilities in South Korea and to understand the effects of job stress and quality of life on PCC.

Methods

Design and Sample

This cross-sectional study used a descriptive correlational approach to investigate the correlations among PCC, job stress, and quality of life. One hundred eighty-nine nurses from all positions (nurse director, supervisor, and clinical nurse) working in four LTC facilities in one city in South Korea were enrolled as participants. Valid data from 183 participants were collected and used in analysis.

Measures

Job stress

The instrument used to measure the job stress of participants was a scale used in a previous study (Lee et al., 2007). A 5-point Likert-type scale was used, and four subdimensions were measured. Each subdimension used a set of items to measure job stress, including patients (four items), work (four items), interpersonal relationships (six items), and economic stress (three items). Each item was rated on a scale ranging from 1 = not at all to 5 = very much. The final score for each scale was the mean of the corresponding items, ranging from 1 to 5, with higher scores indicating higher job stress. The Cronbach’s α was .82 in Lee et al. (2007) and was .90 in this study.

Quality of life

Quality of life was measured using the Korean version of the World Health Organization Quality of Life Scale abbreviated version (WHOQOL and WHOQOL-BREF; Min et al., 2000). The WHOQOL and WHOQOL-BREF both contain 26 items in the following categories: overall quality of life and health (two items), physical health (seven items), psychological (six items), social relation (three items), and environment (eight items). Each category was measured using a 5-point Likert-type scale ranging from 1 = not at all to 5 = very much. Questions 3, 4, and 26 were reversed scored. A higher total score indicates a higher quality of life. The Cronbach’s α was .90 in Min et al. (2000) and was .92 in this study.

Person-centered care

The Person-centered Care Assessment Tool was developed by Edvardsson et al. (2010). It consists of three categories encompassing 13 items. The first category consists of seven items related to personalization degree, the second category consists of four items related to organization support, and the third category consists of two items related to environmental accessibility. Each item is rated using a 5-point Likert-type scale ranging from 1 = not at all to 5 = very much. Higher scores indicate higher PCC. At the time of development, Cronbach’s α was .84 (Edvardsson et al., 2010) and was .78 in this study.

Personal information form

A personal information form was used in this study to gather basic demographic data on the age, gender, religion, and level of education of the participants as well as their duration working as a nurse, duration of experience in LTC facilities, and perceived health status. Perceived health status was measured by asking participants to evaluate their own health on a 4-point Likert scale ranging from 1 = extremely good to 4 = extremely bad.

Data Collection and Analysis

The study data were collected between July and August 2018 after receiving written permission from the Board of Ethics. Oral assent was sought after informing potential participants about the purpose of the study and assuring confidentiality of all of the provided data. Participants were given sufficient time (approximately 10–15 minutes) to complete the questionnaire.
One hundred eighty-nine forms were delivered to participants, and 189 forms were collected. Six of the collected forms with outliers in the sample data set were excluded from the final data analysis (Grove & Cipher, 2016). To assess the effect of excluding outliers for normal distribution and homogeneity in the characteristics of participants, we repeated all analyses after including the outliers. The exclusion of the outliers did not change the results. The final sample size (N = 183) adequacy using an F test and G*Power 3 analysis software was estimated based on an alpha level of .05, a medium effect size of 0.15, and a power of 0.90 (Faul et al., 2007). Therefore, the sample size was adequate.

The characteristics, job stress, quality of life, and PCC were analyzed using descriptive analysis. Cronbach’s α reliability analyses were conducted for job stress, quality of life, and PCC among LTC nursing staff. The correlations between job stress, quality of life, and PCC were analyzed using correlation analyses and multiple stepwise regression analyses. On the basis of a general assumption used with linear regression models, a normal distribution of the residuals was assumed in this study (Kutner et al., 2005). All of the analyses were carried out using SPSS Version 23 (IBM Inc., Armonk, NY, USA), and the significance level was set to .05.

**Ethical Considerations**

Permission in writing was granted by the institutions where the study was conducted. In addition, ethical approval was received from the Gyeongsang National University Research Board of Ethics (Approval No. GIRB-A18-Y-0032) in South Korea. Participants were informed that all of the data would be treated as confidential and that only the researchers would have access to these data.

**Results**

The results of the descriptive statistics showing the differences in the mean values of PCC by participant characteristics are shown in Table 1. Nearly all (93.4%) of the participants were female. The mean age was 43.00 years (SD = 10.08), ranging from 22 to 69 years, and 30.6% were between 40 and 49 years old. Three quarters (74.9%) were married, 64.5% held a junior college degree, and 63.9% self-affiliated with a religion. The mean career duration for the participants was 11.84 (SD = 7.91) years, whereas the mean duration of LTC facility experience was 4.45 (SD = 3.52) years. Most participants (82.5%) were clinical nurses, and 56.3% self-identified as “healthy.”

The descriptive statistics for job stress, quality of life, and PCC are shown in Table 2. The mean values were 2.73 (SD = 0.56) for job stress, 3.21 (SD = 0.63) for patient-related stress, 2.70 (SD = 0.67) for work-related stress, 2.48 (SD = 0.67) for interpersonal relationship stress, and 2.64 (SD = 0.77) for economic stress. The mean values were 3.48 (SD = 0.42) for quality of life, 3.44 (SD = 0.59) for overall quality of life and health, 3.52 (SD = 0.50) for the physical health category, 3.48 (SD = 0.51) for the psychological category, 3.43 (SD = 0.54) for the social relation category, and 3.48 (SD = 0.44) for the environment category. The mean values were 3.36 (SD = 0.41) for PCC, 3.26 (SD = 0.50) for extent of personalized care, 3.46 (SD = 0.67) for organizational support, and 3.50 (SD = 0.59) for environmental support.

The results for job stress, quality of life, and PCC analyzed by analysis of variance and Scheffé post hoc verification are shown in Table 3. Gender (t = −2.37, p = .019) and duration working in LTC facilities (F = 3.17, p = .026) were respectively shown to significantly impact job stress. Age

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### Table 1

| Characteristic | n  | %   | Range |
|----------------|----|-----|-------|
| Gender         |    |     |       |
| Female         | 171| 93.4|       |
| Male           | 12 | 6.6 |       |
| Age (years; M and SD) | 43.00 | 10.08 | 22–69 |
| ≤ 29           | 25 | 13.6|       |
| 30–39          | 42 | 23.0|       |
| 40–49          | 56 | 30.6|       |
| ≥ 50           | 60 | 32.8|       |
| Spouse         |    |     |       |
| No             | 46 | 25.1|       |
| Yes            | 137| 74.9|       |
| Education      |    |     |       |
| Jr college degree | 118 | 66.4|       |
| BSN            | 65 | 35.5|       |
| Religion       |    |     |       |
| No             | 66 | 36.1|       |
| Yes            | 117| 63.9|       |
| Duration working as a nurse (years; M and SD) | 11.84 | 7.91 | 0.4–42.0 |
| < 5            | 40 | 21.9|       |
| 5–9            | 33 | 18.0|       |
| 10–14          | 41 | 22.4|       |
| 15–19          | 37 | 20.2|       |
| ≥ 20           | 32 | 17.5|       |
| Duration of experience in LTC facilities (years; M and SD) | 4.45 | 3.52 | 0.3–17.0 |
| < 2            | 47 | 25.7|       |
| 2–4            | 59 | 32.2|       |
| 5–9            | 52 | 28.4|       |
| ≥ 10           | 25 | 13.7|       |
| Position       |    |     |       |
| Clinical nurse | 151| 82.5|       |
| Manager/Supervisor | 32 | 17.5|       |
| Perceived health status |       |       |       |
| Bad            | 4  | 2.2 |       |
| Average        | 54 | 29.5|       |
| Good           | 103| 56.3|       |
| Extremely good | 22 | 12.0|       |

Note: BSN = bachelor of science in nursing; LTC = long-term care.
Job Stress, Quality of Life, and Person-Centered Care of Participants \( (N = 183) \)

| Variable                     | Mean  | SD   | Min  | Max |
|------------------------------|-------|------|------|-----|
| Job stress                   | 2.73  | 0.56 | 1.24 | 4.29|
| Stress related to patients   | 3.21  | 0.63 | 1.75 | 4.75|
| Stress related to work       | 2.70  | 0.67 | 1.00 | 4.50|
| Interpersonal relationship stress | 2.48  | 0.67 | 1.00 | 4.50|
| Economic stress              | 2.64  | 0.77 | 1.00 | 5.00|
| WHOOQOL-BREF                 | 3.48  | 0.42 | 2.38 | 4.88|
| Overall quality of life and health | 3.44  | 0.59 | 2.00 | 5.00|
| Physical health category     | 3.52  | 0.50 | 2.43 | 5.00|
| Psychological category       | 3.48  | 0.51 | 2.17 | 4.83|
| Social relation category     | 3.43  | 0.54 | 2.33 | 5.00|
| Environment category         | 3.48  | 0.44 | 1.75 | 4.88|
| P-CAT                        | 3.36  | 0.41 | 2.38 | 4.38|
| Extent of personalizing care | 3.26  | 0.50 | 2.00 | 4.71|
| Organizational support       | 3.46  | 0.67 | 1.50 | 5.00|
| Environmental support        | 3.50  | 0.59 | 2.00 | 5.00|
| Total score                  | 40.33 | 5.07 | 29.00| 56.00|

| Note: WHOOQOL and WHOOQOL-BREF = World Health Organization Quality of Life Scale Abbreviated Version; P-CAT = Person-centered Care Assessment Tool; Min = minimum; Max = maximum. |

The correlations among job stress, quality of life, and PCC were studied using correlation analysis, with results (Table 4) indicating PCC as positively correlated with quality of life \( (r = .411, p < .001) \) and negatively correlated with job stress \( (r = -.305, p < .001) \).

A test of the assumptions used in the regression analysis showed that all of the assumptions coincided with the required assumptions of the regression equations. First, no multicollinearity problems were identified (Durbin–Watson value = 1.947, tolerance limit = 0.91–0.97, variance inflation factor = 1.03–1.10). Second, the stepwise multiple regression analyses of quality of life and job stress were conducted using demographic variables, including duration working as a nurse, age, religion, and spouse, to identify the key factors affecting the quality of PCC provided by participants.

The analyses showed that the prediction model for PCC was significant \( (F = 16.72, p < .001) \). The value of the adjusted \( R^2 \) was .292, which corresponds to an explanatory power of 29.2%. The factors that were found to impact significantly on PCC included quality of life (\( \beta = .33 \)), job stress (\( \beta = -.21 \)), duration working as a nurse (\( \beta = -.18 \)), age (\( \beta = -.16 \)), religion (\( \beta = .16 \)), and spouse (\( \beta = -.15 \); Table 5).

Discussion

The purpose of this study was to examine the job stress, quality of life, and PCC of nurses in LTC facilities in Korea, with results intended to provide basic data for implementing or improving PCC at LTC facilities in Korea.

In 2014, 21 older adult patients were killed in a fire accident at an LTC facility in Korea (Sagong & Lee, 2016), which brought the deteriorating quality of service at LTC facilities in the country to widespread public attention. The residential older adult care industry is facing serious difficulties in terms of maintaining and attracting a competent and stable workforce owing to the negative social image of LTCs and the unexpected shortage of personnel in this sector (Vernooij-Dassen et al., 2009). Nurses play an important role in planning and providing patient care in LTC facilities and act as healthcare professionals who are directly involved in patient health outcomes and safety (Kang, 2015).

The results of this study show that patient-related stress was high among the participants, with a score of 3.21 for job stress. Nurses who work in LTCs require high levels of patience and attention to deal with medical disputes, poor working conditions, and low compensation and to provide safe and quality nursing care to prevent falls and safety accidents (Kim & Kim, 2016; Kim & Han, 2018). In addition, lack of regular doctor support increases the job stress of nurses because of the need to make important health and care-related decisions that affect the health and life of residents (Kennedy, 2005; Kim & Kim, 2017). Another stressor is the high number of residents with cognitive impairments who may direct physical and verbal abuse toward staff or other residents (Woodhead et al., 2016). In situations marked by the sudden deterioration of a resident’s health, caregivers often direct their complaints about treatment and care to nurses. Furthermore, nurses experience considerable job stress because of the difficulties they face in building understanding and trust (Kim & Kim, 2016).

Study findings have shown that physical health has the greatest impact on the quality of life of nurses in LTC facilities. Residents in these facilities require help for incontinence and mobility-related care and for many aspects of basic care (Pekkarinen et al., 2004). A study of nurses in Mangalore, India, found that the environmental domain had the most significant impact on the quality of life (Abraham & D’silva, 2013). Nurse managers in LTC facilities should assess the principal stressors in their facilities and develop strategies to help staff effectively cope with these stressors and improve their quality of work and life.

The average score for PCC in this study of 40.33 is similar to that of a study that used the same tool to evaluate nurses in another LTC facility (Park & Park, 2018) and somewhat lower than those of studies conducted in other countries, for example, 48.8 points in Sweden (Sjögren et al., 2012) and 47 points in Spain (Martínez et al., 2016). The significant difference in PCC scores between studies done in South Korea and those done elsewhere is attributed to the early recognition of human rights issues and of the concept of PCC in many Western countries.
countries (Park & Park, 2018). In South Korea, the concept of PCC has not been established yet and related research has not been conducted (Sagong & Lee, 2016). Recently, PCC has become an important approach to providing care in all areas of nursing (Haydon et al., 2018). Cultural change efforts in LTC facilities have the potential to be an effective strategy for improving the quality of life of residents in institutionalized settings.

The results indicate that the female participants had a higher mean level of job stress than the male participants. LTC facilities require nursing staff to provide extensive physical care to reduce the difficulty in independent daily living caused by the development of physical disabilities and chronic diseases in old age (Kim & Kim, 2017). Moreover, cognitive impairment in patients with dementia causes violent behavior (Kim & Kim, 2016), which may also add to the job stress experienced by nursing staff and lead to higher levels of stress in female nurses than male nurses. In addition, participants who had worked in LTC facilities for less than 5–10 years reported a higher mean level of job stress than those who had

| Characteristic                | Job Stress | Quality of Life | Person-Centered Care |
|------------------------------|------------|-----------------|-----------------------|
| Gender                       |            |                 |                       |
| Female                       | 2.76       | 0.54            | 3.48                  | 0.43                  | 3.36              | 0.41                | -2.37 | .019 | -0.09 | .927 | -0.28 | .779 |
| Male                         | 2.37       | 0.68            | 3.47                  | 0.32                  | 3.33              | 0.40                |
| Age (years)                  |            |                 |                       |
| ≤ 29                         | 2.57       | 0.57            | 3.44                  | 0.38                  | 3.46              | 0.39                |
| 30–39                        | 2.78       | 0.57            | 3.33                  | 0.41                  | 3.20              | 0.30                |
| 40–49                        | 2.70       | 0.54            | 3.55                  | 0.44                  | 3.42              | 0.41                |
| > 50                         | 2.80       | 0.55            | 3.53                  | 0.41                  | 3.38              | 0.46                |
| Spouse                       |            |                 |                       |
| No                           | 2.65       | 0.55            | 3.46                  | 0.34                  | 3.48              | 0.38                |
| Yes                          | 2.76       | 0.56            | 3.49                  | 0.44                  | 3.32              | 0.42                |
| Education                    |            |                 |                       |
| Vocational college           | 2.74       | 0.53            | 3.42                  | 0.42                  | 3.31              | 0.39                |
| BSN                          | 2.72       | 0.61            | 3.58                  | 0.39                  | 3.45              | 0.44                |
| Religion                     |            |                 |                       |
| No                           | 2.69       | 0.64            | 3.46                  | 0.40                  | 3.27              | 0.37                |
| Yes                          | 2.75       | 0.51            | 3.49                  | 0.43                  | 0                | 0                   |
| Duration working as a nurse (years) |     |                 |                       |
| < 5                          | 2.61       | 0.55            | 3.51                  | 0.41                  | 3.46              | 0.38                |
| 5–9                          | 2.80       | 0.53            | 3.43                  | 0.37                  | 3.32              | 0.34                |
| 10–14                        | 2.86       | 0.56            | 3.49                  | 0.49                  | 3.32              | 0.46                |
| 15–19                        | 2.77       | 0.51            | 3.46                  | 0.40                  | 3.21              | 0.41                |
| ≥ 20                         | 2.60       | 0.62            | 3.49                  | 0.41                  | 3.50              | 0.41                |
| Duration of experience in LTC facilities (years) |     |                 |                       |
| < 2                          | 2.53       | 0.57            | 3.58                  | 0.36                  | 3.45              | 0.38                |
| 2–4                          | 2.78       | 0.51            | 3.48                  | 0.44                  | 3.37              | 0.45                |
| 5–9                          | 2.85       | 0.58            | 3.42                  | 0.42                  | 3.24              | 0.40                |
| ≥ 10                         | 2.73       | 0.51            | 3.42                  | 0.46                  | 3.42              | 0.36                |
| Position                     |            |                 |                       |
| Clinical nurse               | 2.71       | 0.56            | 3.46                  | 0.42                  | 3.35              | 0.41                |
| Manager/supervisor           | 2.81       | 0.54            | 3.55                  | 0.41                  | 3.39              | 0.44                |
| Perceived health status      |            |                 |                       |
| Bad/average                  | 2.79       | 0.55            | 3.30                  | 0.36                  | 3.22              | 0.36                |
| Good                         | 2.71       | 0.55            | 3.49                  | 0.39                  | 3.41              | 0.41                |
| Extremely good               | 2.68       | 0.60            | 3.87                  | 0.43                  | 3.50              | 0.48                |

Note. BSN = bachelor of science in nursing; LTC = long-term care.
worked in LTC facilities for less than 2 years. According to the National Statistical Office (Statistics Korea, 2019), the highest number of married women in their early 30s and the first birth after 2.12 years have started married. Hence, nurses with less than 5–10 years of LTC facility work experience were identified as having both high job stress and high parenting stress. In light of the above, the reason why the quality of life of 40–49 years is higher than that of 30–39 years is that the burden of raising a child is reduced.

The general characteristics of age, spouse, education, religion, duration working as a nurse, and perceived health status were all found to impact significantly on PCC. In particular, it has been shown that the relatively high-quality PCC and strong ambitions of nurses at the beginning of their professional aged-care career diminish significantly after working in this career for a long period (Zimmerman et al., 2005). In addition, a study by Kim and Kwon (2017) of 194 nurses in an LTC hospital showed a significantly higher level of geriatric nursing practice among older and married nurses. Therefore, it is possible to improve the quality of provided PCC by establishing a work environment in which married nurses may work without interruption and by providing education that improves the professionalism of old nurses with less clinical experience. In this study, perceived health status was found to relate positively with quality of life and PCC. Kim and Gu (2015), who targeted 243 nurses working in LTC hospitals, found a significantly higher level of nursing competence in nurses with good health statuses. Furthermore, in Lin et al. (2014), a moderately negative, significant correlation was found between job stress and self-perceived health status. Providing space and time for regular physical activity, hobbies, and other recreational diversions may help promote a working environment that enhances work–life balance that helps reduce physical fatigue and job stress. Reducing fatigue facilitates a better perceived health status, thereby enhancing a nurse’s ability to provide PCC.

The results of the correlation analysis indicate a positive correlation between PCC and quality of life and a negative correlation between PCC and job stress. Stress management is important because it affects the quality of care and patient satisfaction provided by nurses working in LTC facilities (Aiken et al., 2002; Kim & Kim, 2016). Moreover, physical health affects quality of life, so improving the nursing work environment promotes better PCC (Park & Park, 2018).

Thus, positively influencing PCC by developing and applying a program that improves the nursing working environment is necessary. Staff in LTC settings are required to express a wide variety of emotions during their interactions with patients (Harrad & Sulla, 2018). Ciarrochi and Scott (2006) wrote that those with high levels of emotional intelligence are better able to deal with environmental demands and workplace stress.

A recent study (Chang, 2019) reported that many nursing personnel in LTC settings had experienced that PCC begins with sharing the history and personal stories of older adults. As storytelling may be applied both in older-adult care and

| Variable                        | Job Stress | Quality of Life | Person-Centered Care |
|---------------------------------|------------|-----------------|----------------------|
| Job stress                      | 1          |                 |                      |
| Quality of life                 | -.230, p = .005 | 1              |                      |
| Person-centered care            | -.305, p < .001 | .411, p < .001 | 1                    |

Table 4
Correlation Between Job Stress, Quality of Life, and Person-Centered Care (N = 183)

| Independent Variable                  | B     | SE   | β     | t    | p    |
|--------------------------------------|-------|------|-------|------|------|
| Constant                             | 2.77  | .31  | .33   | 9.05 | < .001|
| Quality of life                       | 0.32  | .06  | .33   | 4.98 | < .001|
| Job stress                            | -0.16 | .05  | -.21  | -3.27| .002 |
| Duration working as a nurse (< 5 years) |       |      |       |      |      |
| 15–19 years                          | -0.19 | .07  | -.18  | -2.82| .004 |
| Age (< 30 years)                     |       |      |       |      |      |
| 30–39 years                          | -0.16 | .06  | -.16  | -2.50| .005 |
| Religion (yes)                       | 0.13  | .05  | .16   | 2.47 | .015 |
| Spouse (yes)                         | -0.14 | .06  | -.15  | -2.33| .021 |

Note. Adjusted $R^2 = .292$, $F = 16.72$, $p < .001$. 

Table 5
Multiple Regression Analysis of Person-Centered Care With the Variables (N = 183)
nursing caregiver settings (Chang, 2019; Chang et al., 2018), storytelling also positively affects job stress management and the quality of relationships, which are at the core of PCC. Storytelling is cost-effective, is not dependent on being literate, and requires only the imagination and understanding of the cognitive structures in the target community (Haigh & Hardy, 2011).

On the basis of the results of stepwise multiple regression analysis, quality of life, job stress, duration working as a nurse, age, religion, and spouse together explained 29.2% of PCC. In other words, spouse, religion, age (30–39 years), and duration working as a nurse (less than 15–20 years) have affected PCC. In a study constituting 1,339 care professionals in 56 elderly nursing homes in Spain, organizational climate and employee emotional exhaustion were found to correlate positively with PCC (Martínez et al., 2016). A study conducted in South Korea yielded similar results, with PCC found to correlate positively with the nursing work environment (Park & Park, 2018). PCC not only increases the job satisfaction of employees but also enhances self-esteem and care-related satisfaction, increases professionalism, and reduces job stress (Brownie & Nancarrow, 2013). Thus, there is a need to develop organizational models based on a person-centered philosophy of care, flexible management principles, and support for nursing staff to enhance job satisfaction and employee retention. This should enable a shift of focus from the tasks and routines in LTC toward facilitating PCC at the individual, organizational, and environmental levels of care provision. Therefore, this study provides several suggestions for gerontological implementation and policymaking, especially for institutional caregiving in South Korea.

**Methodological Issues and Study Limitations**

There are several limitations to this study. First, in South Korea, although the necessity and importance of PCC is emphasized, the study of PCC in a domestic context remains very limited. Therefore, it is necessary to repeatedly investigate all relevant aspects of PCC. Second, job stress, quality of life, and PCC were all self-reported in this study. More-objective measurements should be employed in future studies.

**Conclusions**

This study examined the effects of job stress and quality of life on PCC in the context of nurses working in LTC facilities. The correlation analysis models showed that PCC decreased as stress increased and that PCC increased as quality of life increased. This finding enhances the scholarly understanding of the stressors perceived by nurses working in LTC facilities and may facilitate the development of interventions that increase quality of life and create healthier environments in LTC facilities. To improve the quality of PCC provided in LTC facilities, intervention programs should be developed to reduce job stress and improve the quality of life of nurses.

**Acknowledgments**

This research was supported by a National Research Foundation of Korea grant funded by the Korea government (No. 2018R1C1B6007828). We would like to thank all of the participants in this study.

**Author Contributions**

Study conception and design: HKC
Data collection: All authors
Data analysis and interpretation: HKC, HJB
Drafting of the article: All authors
Critical revision of the article: All authors

Cite this article as:
Chang, H. K., Gil, C., Kim, H., & Bea, H. (2020). Person-centered care, job stress, and quality of life among long-term care nursing staff. The Journal of Nursing Research, 28(5). e114. https://doi.org/10.1097/jnr.0000000000000398

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