


Factors associated with retention intention of Registered Nurses in Korean nursing homes

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Abstract

Aim: To identify the factors associated with retention intention among Registered Nurses in South Korean nursing homes.

Background: Although nurses are not mandatory personnel, Korean nursing homes employ Registered Nurses.

Introduction: Determining the factors related to Registered Nurses' retention intention is important for their job stability and ensure provision of quality care.

Methods: This mixed-methods study employed a sequential explanatory design. A self-reported questionnaire survey was conducted between May 1 and July 3, 2019, with 155 Registered Nurses providing direct care from 37 nursing homes. In-depth qualitative interviews were conducted with 10 participants from August 1 to September 30, 2019. Data were analyzed using multilevel analysis for quantitative study and thematic analysis for qualitative study.

Results: The participants' average age was 48.48 years. Personal factors related to retention intention were Registered Nurses' role, educational level, and job satisfaction. Institutional factors were ownership, number of beds, and working environment. The qualitative study revealed five themes: "Satisfaction with meaningful relationships," "Potential for professional growth," "Nursing service accompanied by emotional labor," "Poor working environments in nursing homes," and "Unprotected nursing expertise."

Discussion: A nursing home's work environment is related to the Registered Nurses' retention intention. Most Registered Nurses in Korea received low wages, lacked access to career management programs, and experienced emotional labor.

Conclusion: This study highlighted the personal and institutional factors related to retention intention among Registered Nurses in South Korean nursing homes.

Implications for nursing and nursing policy: A law that designates Registered Nurses as an essential nursing home workforce is required. Further, nursing homes should increase the number of Registered Nurses to improve working conditions and thereby job satisfaction. It is also necessary to foster a working environment that facilitates professional development opportunities and job clarity.

KEYWORDS

job satisfaction, mixed methods, nursing homes, Registered Nurses, retention intention, work environment

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INTRODUCTION

South Korea (hereafter “Korea”) has become an aging society; the number of older adults (aged 65 years and above) increased from 10.8% of the total population in 2010 to 15.7% in 2020. If this trend continues, by 2030, 25% of the population will be over 65 years, increasing to 43.9% by 2060 (Korean Statistical Information Service, 2020). This trend is negatively impacting the economy and finance; particularly, geriatric care expenses and burden have increased owing to increased senility caused by diseases such as dementia and stroke (Ministry of Health & Welfare, 2017). In 2008, South Korea established the Long-Term Care Insurance System (LTCIS) to respond to these social changes, stabilize the lives of those aging, and reduce familial burdens (Rhee et al., 2015). Nursing homes serve to reduce the burden of family care while ensuring older adults’ quality of life (Rhee et al., 2015).

However, the Korean Elderly Welfare Act has not designated Registered Nurses (RNs) as essential personnel in nursing homes (National Law Information Center, 2011). Currently, the standard established by the Korean Welfare Act is to assign one RN or certified nursing assistant per 25 older adults in the case of nursing homes with 30 or more residents. In a study of 1425 nursing homes nationwide conducted from 2013 to 2015, about 61% had no RNs (Cho et al., 2020). The number of RNs in Korean nursing homes is also decreasing, from 1632 in 2010 to 1472 in 2018 (Korean Statistical Information Service, 2019). Further, a study analyzing 15 quality indicators and nurse hours per resident day in 45 nursing homes from 2014 to 2017 showed that the direct nursing time by RNs was about 10 minutes (Shin, 2019). Thus, in South Korea, even if the workforce is assigned according to regulations, residents are cared for by non-RNs most of the time.

RNs working in nursing homes are important because they are responsible for older adults’ health, safety, and quality of life. Higher RN hours have a positive effect on reducing pressure ulcers, preventing falls, reducing tube feeding, and improving residents’ activities of daily living (Courvoisier et al., 2018; Shin & Hyun, 2015; Tuinman et al., 2021). Moreover, RNs play an important role in communicating with families and other staff, and engaging in indirect treatment activities such as equipment and drug management (McCloskey et al., 2015). The decrease in the number of RNs in nursing homes poses a threat to older residents’ safety and the quality of care they receive. This adds up to the problems of the high cost of hiring new RNs and reduced nursing services provided to residents.

Studies report various factors influencing RN retention in nursing homes including personal (age, career, marital status, family role, proximity to home, personal values), work and environmental (relationship with residents and peers, professional development opportunities, peer collaboration, working hours, resources and autonomy, welfare, salary, leadership), and organizational (facility size, ownership type, location) (Aloisio et al., 2021; Eltaybani et al., 2018; Hunt et al., 2012; Liao et al., 2020; McGilton et al., 2013, 2014;). However, others have indicated that retention program applica-

tion and nursing home managers’ leadership do not influence RNs’ retention intention (Hunt et al., 2012). While there are foreign studies on nurses’ intention to leave or stay on in nursing homes (McGilton et al., 2014; Tummers et al., 2013), research on the retention intention of RNs in South Korean nursing homes is limited. Determining the factors associated with these RNs’ retention intention will improve the quality of nursing and contribute to stabilizing the retention of RNs in nursing homes (Shin & Hyun, 2015).

AIM

This study aimed to investigate the factors associated with the retention intention of RNs in Korean nursing homes. Specifically, it sought to:

1. Describe the personal, work-related, and facility characteristics associated with retention intention.
2. Explore and integrate factors associated with retention intention derived from the quantitative and qualitative data.

METHODS

Design

This study employed a sequential explanatory design methodology. Such a methodology is useful as it aids understanding through quantitative research and enhances the richness of quantitative findings through qualitative research (Creswell & Creswell, 2017).

Sample and setting

The quantitative study included 155 nurses from 37 nursing homes in 10 Korean cities and provinces. Subsequently, we conducted in-depth, one-on-one qualitative interviews with 10 RNs to confirm and supplement the quantitative results.

Participant selection criteria included: (1) working at the current nursing home for more than one month and (2) providing direct nursing care, except in cases where the RN was the nursing home head. To analyze the influence of individual and organizational factors through a multilevel analysis, it is ideal to investigate 30 individuals per institution in 30 institutions. Therefore, the sample size for this study was considered appropriate (Scherbaum & Ferreter, 2009).

Data collection

To enlist nursing homes, the researchers used the LTCIS website. After identifying nursing homes with RNs, the purpose and method of the study were explained to the head of the institution and RNs. The questionnaire was administered

to RNs in individual unmarked envelopes. RNs interested in participating in the interview were also asked to indicate their consent to participate. The interview questions were “What are your dissatisfactions or satisfactions with working as an RN in nursing homes, and why?” and “What would you like to work longer if it were better than the current one?” The interviews were conducted in a quiet place chosen by the participants (dormitory, home, counseling, or program room in the nursing homes); the average interview time was 60 minutes. The interview content was recorded simultaneously with a smartphone and a small recorder, and personal information was encoded and processed in an unidentifiable manner. Data were collected through self-reported questionnaires from May 1 to July 3, 2019, and in-depth interviews were conducted from August 1 to September 30, 2019.

Variables

Retention intention

Cowin's (2002) six-item tool, which measures retention intention, was used to examine the intention to remain in the nursing profession among RNs who were working in nursing homes. It contains two inverse questions and is scored using an eight-point Likert scale (1 = not at all to 8 = very much so); the higher the total score, the higher the retention intention. The reliability of the tool, as measured by Cronbach's α , at the time of development and in this study was 0.97 and 0.915, respectively. The confirmatory factor analysis (CFA), which was performed to assess the validity of each item, revealed factor loading values of 0.537–0.932.

Personal factors

Demographic characteristics

Based on past studies, we collected demographic data on the following: age (years), duration of working as an RN (years), educational level (diploma or above bachelor's), and resilience. The resilience scale for nurses, which was developed for Korean clinical nurses, was used in this study. The Korean nurse resilience measurement tool consists of 30 items across five subdomains: dispositional, relational, situational, philosophical, and professional pattern (Park & Park, 2016). Items are scored on a five-point Likert scale ranging from 1 (not at all) to 5 (strongly agree). At the time of development and in the current study, the overall Cronbach's α and α for each factor was 0.95 and 0.76–0.89 and 0.895 and 0.624–0.913, respectively. The CFA, which was performed to assess the validity of each subdomain, revealed factor loading values of 0.733–0.880.

Work-related characteristics

Information on the following work-related characteristics was collected: working period at the current nursing home (< 12

months, 12–36 months, and ≥ 36 months), role as an RN (manager or staff), work type (shift or non-shift), job security (permanent or temporary), salary level (< 200 million ₩, 200–300 million ₩, and ≥ 300 million ₩), and paid vacation (days per year). For musculoskeletal pain, one item was used to identify the relevant body parts and aspects during work over the past year (yes or no) (Korea Occupational Safety & Health Agency, 2017).

Of the 33 items in the Person-Directed Care Scale, four items pertaining to supportive relationships—which were deemed to be reliable and valid in the Korean version—were used to assess the relationship with the resident (Choi & Lee, 2014). Each item on this scale is scored on a five-point Likert scale ranging from 1 (not at all) to 5 (strongly agree), with higher scores indicating more supportive relationships. The Cronbach's α in Choi and Lee's (2014) study and this study was 0.785 and 0.789, respectively. The CFA, which was performed to assess the validity of each item, revealed factor loading values of 0.597–0.858.

In this study, the Korean version of the work–life balance measurement tool, which was developed based on 990 office workers, was used. The work–life balance tool consists of 29 items across four subdomains: work–growth balance, work–leisure balance, overall work–life evaluation, and work–family balance (Kim & Park, 2008). Each item is rated on a seven-point Likert scale ranging from 1 (not at all) to 7 (strongly agree). The higher the total score, the better the work–life balance. In Choi and Lee's (2014) study and the current study, Cronbach's α for the overall tool and each factor was 0.785 and 0.676–0.847 and 0.789 and 0.749–0.903, respectively. The CFA, which was performed to assess the validity of each subdomain, revealed factor loading values of 0.543–0.824.

To assess job satisfaction, five items, which were developed in Korean to measure general job satisfaction for the Korea Labor Panel Survey were used. Each item is rated on a five-point Likert scale ranging from 1 (not at all) to 5 (strongly agree), with higher scores indicating higher job satisfaction (Park & Hwang, 2017). Cronbach's α was 0.925 in Park and Hwang's (2017) study and 0.883 in this study. The CFA, which was performed to assess the validity of each item, revealed factor loading values of 0.633–0.852.

The Maslach Burnout Inventory (MBI), developed by Maslach et al. (1981), was used to measure burnout. The copyright for this tool was purchased from Mind Garden Inc. For the Korean version, Kang and Kim's (2012) tool, which was developed to evaluate burnout in Korean hospital nurses, was used. Of the 22 items in the MBI, nine items were used to measure burnout in this study. The burnout instrument consists of a seven-point Likert scale: never (0 points), a few times a year (1 point), once a month (2 points), a few times a month (3 points), once a week (4 points), a few times a week (5 points), and every day (6 points) (Maslach et al., 1981). At the time of development, Cronbach's α was 0.90, and in Kang and Kim's study (2012), Cronbach's α was 0.91. In this study, Cronbach's α was 0.898. The CFA, which was performed to assess



the validity of each item, revealed factor loading values of 0.542–0.832.

Facility factors

The characteristics of each facility were also examined to identify the factors associated with retention intention, including size (large, medium, small), ownership (public, corporate, private), and number of beds (< 100, 100–200, ≥200). Further, a work environment tool developed for Korean nursing homes was used. This tool consists of 27 items across five subdomains: participation in nursing home affairs; well-defined scope of practice; nurse managers' ability, leadership, and support of nurses; staff and resource adequacy; and communication and coordination. Each item is rated on a four-point Likert scale: strongly agree (4 points), somewhat agree (3 points), disagree at all (2 points), and not at all (1 point). The domain values calculated for each individual are aggregated at the institutional level. The average and median values of each domain were changed to 0 if the average value was less than the median value, and changed to 1 if the average value was greater than or equal to the median value. A domain score of 0–1 indicates a poor nursing work environment, 2–3 indicates a mixed environment, and 4–5 indicates a good environment. In Cho et al.'s (2019) study, the overall Cronbach's α was 0.93, while α for each subdomain ranged from 0.77 to 0.88. In this study, Cronbach's α was 0.921 and α for each subdomain was 0.713–0.879. The CFA, which was performed to assess the validity of each subdomain, revealed factor loading values of 0.537–0.823.

Data analysis

The questionnaire data were analyzed using PASW SPSS WIN 24.0 for descriptive statistics, independent t tests, and ANOVA. The STATA 13.1 program (StataCorp LP, College Station, TX, USA) was used for CFA and multilevel regression analysis. A two-level regression analysis was conducted: a model containing only constants without independent variables (null model), a model containing only individual-level predictors (model 1), and an institution-level predictor containing individual-level predictors (model 2).

The qualitative analysis was conducted according to the six steps of thematic analysis (Braun & Clarke, 2006). First, two independent researchers read the original data several times and marked important terms related to retention intention. Second, words and sentences that represented key ideas were coded separately. Third, the topics were organized by combining codes with similar meanings to make meaningful statements. The subjects identified in the fourth stage were considered suitable as factors influencing the retention intention of nursing home RNs. In the fifth stage, the subjects were clearly defined and named. Finally, a report was

prepared by organizing the research results with the final analysis.

Rigor and trustworthiness

To improve rigor, we collaborated with other qualitative researchers throughout the analysis and interpretation process. Furthermore, we tried to maintain rigor in terms of true value, applicability, neutrality, and consistency (Lincoln & Guba, 1985).

Ethical considerations

This study was conducted after obtaining approval from the Yonsei University Health System Research Ethics Committee (Y-2019-0032). Written informed consent was obtained from all participants after explaining the study purpose, contents, and confidentiality.

RESULTS

Quantitative arm

General characteristics of RNs and nursing homes

The sample comprised 96 staff RNs and 59 manager RNs. The average age was 48.48 years, with the managers being about three years older than staff RNs ($t = 2.11, p = 0.036$). Managers had also worked as RNs for about 15 years longer ($t = -3.08, p = 0.002$). As for the educational level, 66% of staff RNs had diplomas, while 63% of managers had a Bachelor of Science in Nursing (BSN) or higher ($F = 10.73, p = 0.001$). At the current facility, there were about 30% more managers at 36 months or more ($F = 11.35, p = 0.003$), but about 40% more staff RNs in shift work ($F = 28.98, p < 0.001$). Moreover, most managers were permanent workers (96.6%), and those with a monthly salary of 3 million ₩ or more were found to be about 25% higher than those of staff RNs ($F = 13.53, p < 0.001$). Managers' annual paid vacation was about three days longer than that of staff RNs ($t = -3.85, p < 0.001$).

However, the prevalence of work-related musculoskeletal pain was approximately 70% in both groups, and it was not statistically significant. Furthermore, there were no differences in resilience, supportive relationships with residents, work-life balance, job satisfaction, burnout and retention intention.

Of the 37 nursing homes, 78.4% were located in small ($n = 17$) and medium cities ($n = 12$), 65% were owned by corporations, and 68% had fewer than 100 beds; the average number of residents cared for by each RN was 39.3 (standard deviation = 27.8). Additionally, 35.1% of nursing homes were perceived to have a good work environment for RNs (Table 1).

TABLE 1 General characteristics of the Registered Nurses ($N = 155$) and nursing homes ($N = 37$)

	Total <i>n</i> (%) or Mean \pm SD	Staff RN ($n = 96$) <i>n</i> (%) or Mean \pm SD	Manager RN ($n = 59$) <i>n</i> (%) or Mean \pm SD	Differences	
				<i>t</i> / <i>F</i>	<i>p</i>
Demographic characteristics					
Age (years)	48.48 \pm 9.47	47.33 \pm 10.51	50.34 \pm 7.18	-2.11	0.036
< 40	26 (16.38)	23 (24.0)	3 (5.1)		
40–50	50 (32.3)	29 (30.2)	21 (35.6)		
51–60	61 (39.4)	31 (32.3)	20 (50.8)		
≥ 60	18 (11.6)	13 (13.5)	5 (8.5)		
Period as RN (years)	17.52 \pm 9.09	15.62 \pm 9.15	30.15 \pm 8.41	-3.08	0.002
Educational level				10.73	0.001
Diploma	85 (54.8)	63 (65.6)	22 (37.3)		
\geq BSN	70 (45.2)	33 (34.4)	37 (62.7)		
Resilience	121.99 \pm 15.14	120.33 \pm 14.37	124.64 \pm 16.05	-1.71	0.089
Work-related characteristics					
Working period at current facility (months) ($n = 153$)				11.35	0.003
< 12	33 (21.3)	26 (27.1)	7 (11.9)		
12–36	37 (23.9)	27 (28.1)	10 (16.9)		
≥ 36	83 (53.5)	41 (42.7)	42 (71.2)		
Work type ($n = 154$)				28.98	<0.001
Non-shift	79 (51.0)	32 (33.3)	47 (79.7)		
Shift	75 (48.4)	63 (62.6)	12 (20.3)		
Job security				13.95	<0.001
Permanent	125 (80.6)	68 (70.8)	57 (96.6)		
Temporary	30 (19.4)	28 (29.2)	2 (3.4)		
Salary (10 000 \dot{w})				13.53	0.001
< 200 ^a	9 (5.8)	8 (27.1)	1 (1.7)		
200–300 ^b	109 (70.3)	74 (77.1)	35 (59.3)		
$\geq 300^c$	37 (23.9)	14 (14.6)	23 (39.0)		
Paid vacation (days per year)	15.83 \pm 4.58	14.71 \pm 4.96	17.55 \pm 3.30	-3.85	<0.001
Musculoskeletal pain ($n = 151$)				0.00	>0.999
Yes	108 (72.0)	67 (69.8)	42 (71.2)		
No	43 (28.0)	26 (27.1)	17 (28.8)		
Supportive relationships with residents	13.45 \pm 2.65	13.25 \pm 2.51	13.76 \pm 2.86		
Work–life balance	126.47 \pm 27.58	127.55 \pm 17.95	124.66 \pm 27.11	0.62	0.536
Job satisfaction	19.22 \pm 3.01	18.93 \pm 3.04	19.69 \pm 2.92	-1.55	0.123
Burnout	17.93 \pm 10.25	17.61 \pm 9.68	18.43 \pm 11.18	-0.48	0.634
Retention intention	37.36 \pm 8.38	36.60 \pm 8.56	38.59 \pm 8.00	-1.44	0.152
Facility characteristics					
Location (city)					
Large	8 (21.6)				
Medium	12 (32.4)				
Small	17 (45.9)				

(Continues)

TABLE 1 (Continued)

	Total <i>n</i> (%) or Mean ± SD	Staff RN (<i>n</i> = 96) <i>n</i> (%) or Mean ± SD	Manager RN (<i>n</i> = 59) <i>n</i> (%) or Mean ± SD	Differences	
				<i>t</i> / <i>F</i>	<i>p</i>
Ownership					
Public	7 (18.9)				
Corporate	24 (64.9)				
Private	6 (16.2)				
Number of beds	106.22 ± 66.97				
<100	25 (67.6)				
100–200	6 (16.2)				
≥200	6 (16.2)				
Number of residents cared for by each RN	39.33 ± 27.77				
Work environment					
Better	13 (35.1)				
Mixed	11 (29.7)				
Poor	13 (35.1)				

RN: registered nurse; BSN: Bachelor of Science in Nursing.

Factors associated with retention intention

The personal factors that influenced retention intention were educational level, role as RN, and job satisfaction. Retention intention was higher in the group with a BSN or above ($\beta = 3.63, p = 0.014$), and the intention of managers was lower than that of staff nurses ($\beta = -4.17, p = 0.013$). The higher the job satisfaction, the higher the retention intention ($\beta = 1.89, p < 0.001$). However, there was no statistical significance by work type (non-shift vs. shift) ($\beta = -2.85, p = 0.126$). Additionally, the facility factors that influenced RNs' retention intention were ownership, number of beds, and work environment. In terms of ownership, nurses working in private nursing homes had lower retention intention than those in public nursing homes ($\beta = -8.72, p = 0.026$); the greater the number of beds, the lower the retention intention ($\beta = -0.32, p = 0.005$). Furthermore, those working in a good ($\beta = 7.43, p = 0.004$) or mixed environment ($\beta = 9.75, p < 0.001$) had higher retention intention than their counterparts (Table 2).

Qualitative component

In-depth interviews were conducted with 10 RNs from six nursing homes who participated in the quantitative study. Participants were 35–67 years old. Regarding educational background, there were two nurses with diplomas, six with bachelor's degrees, and two with master's degrees. There were eight permanent employees and two temporary workers; three were non-shift employees, and seven worked two or three shifts. Five were staff nurses and five were managers. There were four cases in which the perceived work environment was considered good, five in which it was mixed, and one in which it was poor. The duration spent working at the nursing

homes ranged from three months to 18 years, including four workers with over 10 years. The average retention intention score was 15 to 48 points, and six nurses had a higher score than the average of 37.

Theme 1: Satisfaction with meaningful relationships

As nurses spent considerable time with residents and their families, family-like intimacy developed. Participants sometimes felt like they were being healed by the older adults, and even when they wanted to quit, they gained strength from these meaningful relationships. Additionally, nurses received support and strength from their colleagues.

Theme 2: Potential for professional growth

Participants emphasized the importance of judging situations where nurses could apply their autonomy, based on their expertise, in nursing homes where other healthcare providers did not reside. Furthermore, they engaged in various tasks, including drug and facility management, communication with other medical staff, and handling unexpected emergencies. The RNs, although not obligated, tried to improve their knowledge by organizing their own conferences.

Theme 3: Nursing service accompanied by emotional labor

Some participants experienced emotional difficulties during communication with residents and their families. Residents' behavioral and psychological symptoms of dementia caused burnout and physical exhaustion in participants as they took over a considerable portion of the responsibility from families. They felt sorry for residents when they were exhausted and could not offer their best care.

Theme 4: Poor working environments

Most participants were concerned about the high number of residents compared with the number of RNs. Short-handed, RNs worried about providing the best care because they did not have enough time. Participants stressed that more nurses are needed to provide person-centered care.



TABLE 2 Factors affecting retention intention

Parameter	Categories	Model 0 Null model		Model 1 Individual level		Model 2 Institutional level		
		β	p	β	p	β	p	
Fixed effect	Intercept	37.23	<0.001	-3.20	0.726	10.12	0.539	
Personal factor	Role of manager RN (ref: staff RN)			-3.05	0.052	-4.17	0.013	
	RN experience years			-0.01	0.412	-0.01	0.252	
	Educational level over BSN (ref: diploma)			1.69	0.201	3.63	0.014	
	Working period at current facility (ref: < 12 months)							
	12–36 months			2.34	0.237	3.61	0.100	
	≥ 36 months			2.67	0.216	2.32	0.294	
	Working type shift (ref: non-shift)			-4.44	0.006	-2.85	.126	
	Job security temporary (ref: permanent)			0.89	.652	3.87	.138	
	Salary (ref: 2,000,000)							
	2 000 000–3 000 000			3.85	.342	5.19	.217	
	$\geq 3 000 000$			5.77	.174	7.12	.099	
	Paid vacation days per year			0.03	.859	0.36	.115	
	Musculoskeletal pain: Yes (ref: no)			1.03	.435	-0.69	.642	
	Resilience level			0.04	.414	-0.01	.945	
	Supportive relationships with residents			0.06	0.8003	-0.14	.593	
	Work–life balance			0.03	.345	0.04	.196	
	Job satisfaction			1.39	<.001	1.89	<.001	
	Burnout			0.05	.959	0.15	.110	
	Facility factors	Location (ref: small city)						
		Large city					-0.73	.808
Medium city						3.17	.236	
Number of beds						-0.32	.005	
Ownership (ref: public)								
Corporate						3.06	.280	
Private						-8.72	.026	
Number of residents cared for by RN						0.04	.315	
Work environment (ref: poor)								
Better						7.43	.004	
Mixed					9.75	<.001		
Random effect	Level 1, δ^2	61.49		36.96		34.10		
	Level 2, $\mu_0(\tau)$	9.59		5.71		4.68e-22		
	χ^2	4.03		3.79		0.00		
	P	0.022		0.026		1.00		
	ICC (%)	13.5		13.4		1.37e-23		

BSN: Bachelor of Science in Nursing; ICC: intraclass coefficient; RN: registered nurse. [Correction added on 26 April 2022, after first online publication: The alignment of the β and p values for categories “Working type shift (ref: non-shift)”, “Job security temporary (ref: permanent)”, “Paid vacation days per year” to “Burnout”, “Number of beds” and “Number of residents cared for by RN” have been adjusted to appear correctly under the “Model 1 Individual level” and “Model 2 Institutional level” columns. The second in the second column onwards for the Parameter “Random effect” have also been shifted one space and the third in the second column onwards two spaces to the right in this version.]

Additionally, because of the inaccurate division of duties, participants were sometimes assigned another RN's duties. The salaries of RNs were lower than of those in other health occupations, and there was no scope for career development. Some nurses stated that responsibilities and tasks were added to promotions, that the job content was no different from that of staff nurses, and that there was no compensation for extra duties.

Theme 5: *Unprotected nursing expertise*

Unlike RNs working in hospitals, RNs experienced identity confusion as nursing home experts owing to unclear duties. The differences in duties between RNs and nursing assistants were not clearly defined, and most tasks that nurses performed were also performed by nursing assistants. Moreover, an important role of RNs is to determine residents' care plans



and communicate with families. However, in nursing homes with an insufficient numbers of RNs, other professionals are in charge of this task. In most cases, the director of the nursing home does not include RNs in such tasks. Therefore, the participants were confused about the work requirements at the facility, and sometimes their professional autonomy was limited (Table 3).

Quantitative and qualitative integration

Through the quantitative analysis conducted in this study, RNs' working environment, type of ownership, and the number of beds were identified to be important factors that influence RN's retention intention. Although the generalizability of this study's findings is limited, it is worth noting that, in Korea, the working environment differs based on the ownership and size of nursing homes. This is supported by Themes 3, 4, and 5 in the qualitative study. RNs recognize that they are involved in the operation of the facility, and that the heads of nursing homes value RNs' work and that the work environment is good when they are supported. However, there is also a perception that the work environment is not suitable due to the lack of RNs, low salaries, and the lack of promotions and reward systems.

In addition, this result is supported by the fact that the retention intention of manager RNs is lower than that of staff RNs, as identified through a multilevel analysis. Generally, higher positions are recognized as good; however, this may not be the case if the work environment is poor. When working conditions are unfavorable, RNs are forced to perform a variety of tasks in a variety of working conditions—such as a small number of RNs performing a variety of tasks without any clear scope for execution. This is particularly supported by Themes 4 and 5, which show that nursing homes have different resources, systems, varying numbers of RNs, and unclear responsibilities.

However, high job satisfaction was correlated with retention intention, which is supported by Theme 1: RNs' meaningful relationships with the residents, their families, and other colleagues increased their job satisfaction. Moreover, a higher level of education was positively correlated with RNs' retention intention; this is supported by Theme 2, representing RNs' efforts to develop themselves professionally into experts, in which high educational level was an important factor.

DISCUSSION

This study aimed to identify the factors associated with the retention intention of RNs in nursing homes in Korea. Considering that there are more than 3000 nursing homes nationwide and fewer than 1400 RNs servicing them, the participation of the 155 RNs in this study (more than 10% of RNs in nursing homes nationwide) is key. Our study has significant implications regarding the effects of personal and institutional factors on retention intentions for nursing home RNs.

RNs' retention intention was confirmed at 37 points out of a possible 48 (average: 6.22). It is difficult to make an accurate comparison because no prior studies have examined retention intention among nursing home RNs using the same tools. However, in an Australian study of 161 nurses with hospital and healthcare experience in the first five years after graduation, RNs' average five-year retention intention was 6.76 out of 8 (Mills et al., 2017), higher than in the current results. Thus, Korean nursing home RNs' retention intention is not higher than that of overseas RNs.

Institutional factors such as nursing work environment, ownership, and number of beds were associated with job satisfaction and retention intention. A good work environment is generally evaluated in terms of wages and working hours, and includes concepts such as job satisfaction, work-life balance, job autonomy, and personal development (Leitão et al., 2019; Nappo, 2019). Moreover, a good working environment is one with a well-defined scope of practice and that offers adequate support and resources (Cho et al., 2019). When RNs' working environment is good, they generally do not experience exhaustion and dissatisfaction, and remain longer with the organization while maintaining their autonomy (McGilton et al., 2014; Nantsupawat et al., 2017). The poor working conditions in Korean nursing homes revealed through the interviews included low wages and no promotions or career management programs. Further, RNs experienced emotional labor by taking on various tasks owing to the lack of an exact scope of practice.

However, the RNs highlighted that nursing homes are a great place to hone their professionalism. Since institutional factors cannot be changed by individual efforts, a systematic policy is required. Improving the working environment for RNs, such as setting up a career development system, will not only increase their specialization but also improve service quality. The most significant problem is the continuously decreasing number of practicing RNs. As the Korean law allows nursing homes to have one RN or certified nursing assistant per 25 residents, most nursing homes employ certified nursing assistants instead of RNs. Since there are limited number of RNs, they sometimes have to work as both managers as well as front line providers, enduring many burdens. Therefore, RNs who act as managers have a lower retention intention than staff nurses. Further, the lack of RNs in nursing homes has resulted in little quality care time provided by the RNs. A study reported that RNs in nursing homes in Korea did not affect the physical and cognitive functions of older adults, unlike other studies (Cho et al., 2020). There is limited time to improve the health and quality of life of residents, and data show that most residents do not receive nursing care by RNs.

The United States has been emphasizing the importance of the RN workforce since the 1990s, and in 2001, the Centers for Medicare and Medicaid Services established a minimum of 0.75 RN hours per resident day (Harrington et al., 2020). Sweden is also emphasizing the importance of RNs by recognizing the growing need for elder care as the older adult population grows, and the lack of RNs to meet these needs poses a serious threat to older adults and their safety (Carlson et al., 2014).

TABLE 3 Results of the in-depth interviews

1. Satisfaction with meaningful relationships	<ul style="list-style-type: none"> • Formation of intimacy in relationships with older adults • Interaction and recognition between families of residents and nurses • Deepening of close peer relationships • Stability to work for a long period as a nurse 	<ul style="list-style-type: none"> • “The path the old man walked is the path we will walk.” (H) • “Sometimes I feel like an actual family member when I take care of the older adults. I feel like they are my mother and father...” (D) • “While caring for the older adults, I realized that I was being healed.” (J) • “When my family comes and encourages me, I am strengthened again.” (J) • “It is great to work with my old, nurse colleagues again.” (A) • “Since things here are not constantly changing, I can continue working here until I retire.” (C)
2. Potential for professional growth	<ul style="list-style-type: none"> • Increased opportunities to demonstrate nursing professionalism • Spontaneous learning for practical use 	<ul style="list-style-type: none"> • “I am most satisfied with having autonomy while working as a nurse.” (E) • “Nowadays, it is becoming more important than before to provide accurate information to residents’ families.” (E) • “In our case, nurses come together to hold meetings and try to determine the best practices for residents. Recently, aroma oral care has been applied, and bad breath in older adults has decreased.” (J)
3. Nursing service accompanied by emotional labor	<ul style="list-style-type: none"> • Simultaneous tasks • Conflict caused by the involvement of families of residents • Burnout due to residents 	<ul style="list-style-type: none"> • “Nursing homes are as busy as hospitals... When I work, I work like [I am] in a war... While dressing bedsores, a guardian arrived, and a call came from another department... At that moment, the old man walking down the corridor seemed like he was about to fall down soon...” (E) • “Sometimes families of residents are admitted here and ask for hospital-like treatment—this is the most difficult.” (D) • “Sometimes I feel stressed by rude family members of residents, and I really want to quit.” (G)
4. Poor working environments for nurses	<ul style="list-style-type: none"> • Severe dearth of RNs vs the number of residents • Importance of nurses and nursing depends on the head of the nursing homes • Low wages regardless of occupation • Promotion and reward system do not help career development 	<ul style="list-style-type: none"> • “I sometimes feel exhausted when older adults with dementia are aggressive.” (F) • “Actually, there should be 25 older adults per working hour, but the law is weird... It does not take into consideration the fact that the nurses work on a shift basis. Each institution has a ratio of 1:25 but considering off-duty nurses, there are times when there are no nurses.” (D) • “In my opinion, if a nurse is in charge of 40 or more... there is far too much work involved in taking care of older adults.” (G)***“I feel that there are too few nurses.” (E) • “I think it is important to have facility managers who value nurses” (I) • “We are professionals, but the salary is too low. It is approximately at the same level as that of a care worker.” (A) • “There is no reward for being a manager. I do not want to be a manager because there are so many things to do.” (B)
5. Unprotected nursing expertise	<ul style="list-style-type: none"> • Identity confusion caused by a mix of nurses and non-professionals • Limitation of autonomy by organizational structure • Neglected rights of nursing home nurses 	<ul style="list-style-type: none"> • “The facility seems to think a nurse and nursing assistant are the same. We do not think so...” (C) • “There is a difference between a nurse assistant and a nurse; however, they do the same work here. Therefore, it is hard for me to tell the difference...” (J) • “When the secretary general is a social worker, there are situations where their understanding of nursing-related work is insufficient. Sometimes I need to get permission from them to carry out my duties.” (B) • “The number of nurses is small... too few to protect rights and interests.” (E) • “Since the social worker is in charge of the nursing aspect, they sometimes make the decisions regarding when to stop medications.” (B)



Moreover, several countries, including the United States, Canada, England, Germany, Norway, and Sweden, have designated RNs as an essential workforce for nursing homes (Harrington et al., 2012). Therefore, considering that it has been 10 years since the LTCIS began in Korea, we believe it is necessary to consider designating RNs as an essential workforce.

The qualitative data revealed that RNs were satisfied with meaningful relationships with residents, their families, and colleagues. This is consistent with previous studies indicating that meaningful relationships affect retention intention (Aloisio et al., 2021; Eltaybani et al., 2018; Liao et al., 2020; McGilton et al., 2013). However, in the quantitative results, job satisfaction, but not relationship with residents, was a significant factor in retention intention. Therefore, further research is needed to elucidate the association between relationships with residents and job satisfaction.

Despite its strength, this study had certain limitations. First, the participating nursing homes and nurses do not represent the entire geriatric care system and all RNs. Likewise, the participants in the in-depth interviews do not represent all RNs in the study. Therefore, the findings should be interpreted with caution. Second, the structure, funds, and workforce of Korean nursing homes, which were included in this study, may be different compared with those of nursing homes in other countries. Therefore, caution must be exercised when comparing this study's findings to the situation in other countries. Third, while we identified the factors associated with retention intention, specific effects such as the interactions and mediating effects among other factors were not identified. Additionally, the study did not include variables such as residents' health status and certain nursing home characteristics. Nevertheless, the use of a mixed method to describe the retention intentions of RNs currently working in Korean nursing homes is a strength.

CONCLUSION

This study highlighted the personal and institutional factors related to retention intention among RNs in nursing homes in Korea.

Implications for nursing and nursing policy

It is essential for Korea to pass a law designating RNs as an essential nursing home workforce. Korean nursing homes should increase the number of RNs not only to provide quality nursing care to residents but also to improve RNs' job satisfaction. It is also necessary to foster a work environment that enables professional development and offers job clarity.

AUTHOR CONTRIBUTIONS

DM conceived and designed the study and performed the data analysis. EC, GK, KL, JY, HK, MC, and DM participated in the interpretation of analyses, and all authors developed the manuscript. All authors have read the final manuscript.

CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

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