

## ORIGINAL ARTICLE

# Factors related to reemployed nurses' intent to work in Korea

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## Abstract

**Background:** Approximately 8% of nurse positions are expected to be vacant by 2020 in Korea, and the shortage in small-to medium-sized hospitals is more serious in Korea. It has been suggested that efficient use of inactive nurses would help alleviate this problem. Most inactive Korean nurses reported the major reasons for leaving the nursing profession were marriage, pregnancy, and children rearing. A large portion of inactive Korean nurses reported they want to return to work.

**Purpose:** This study was designed to uncover the factors determining recently reemployed nurses' intentions to continue in their current job in Korea.

**Methods:** A descriptive, correlation study design was used. A total of 312 Korean reemployed nurses were surveyed between August 8 and October 30, 2012 using an instrument to measure factors that impact intention to continue in their current job.

**Results:** Findings from a multiple-regression analysis demonstrated that the level of life conflict among reemployed nurses with partners and children was higher than those with neither partner nor children. Older reemployed nurses were statistically unlikely to have life conflict. Reemployed nurses in large hospitals and part-time nurses were more likely to be satisfied with their working environment. Results of multiple ordinary-least-squares regression analysis demonstrated positive statistically significant relationships between "job content" and "intention to continue in their current job," and "working environment" with "intention to continue in their current job".

**Conclusion/implication for practice:** Most reemployed nurses were unlikely to stay in their current positions. In the nursing profession, each nurse's ability to achieve their own growth in affirmative working conditions could be the major factor impacting intent to continue in the nursing profession and in the current nursing position in Korea.

## Key words

Koreans, Reemployed nurses, Retention, Intention to keep current job

## 1 Introduction

In Korea, the demand for competent nurses is increasing with an aging population, enlargement of large hospitals, mandatory placement of school nurses, and activation of home-care nurses<sup>[1]</sup>. However, the rate of nursing turnover was

16.8% in Korea<sup>[2]</sup>, similar to that in other countries such as the United States<sup>[3]</sup>, the U.K.<sup>[4]</sup>, and Canada<sup>[5]</sup>, 14%, 10%, and 20%, respectively. These figures indicate that the shortage of nurses is a major global issue<sup>[6,7]</sup>, which is associated with patient safety<sup>[1]</sup> and the incidence of pressure sores and hospital-acquired infections<sup>[8,9]</sup>.

The international literature has revealed that the main reasons for leaving the nursing workplace include better pay, family responsibilities, poor working conditions, heavy work demands, and professional burnout<sup>[6,10]</sup>. Thus, it is critically important to identify strategies to maintain an optimal nursing workforce in the healthcare environment. Accordingly, it would be helpful to find clues to resolve the problem of the shortage of nurses. The recruitment of unemployed nurses may be an immediate solution to cope with the nursing shortage<sup>[6]</sup>.

Furthermore, little literature identifies factors that impact reemployed nurses' intention to continue in their current jobs in Korea and internationally. Thus, it is important to explore reemployed nurses' intent to stay in the current workplace.

## Background

On a national level in Korea, the number of inactive nurses was estimated at 129,423, about 36.8% of all qualified nurses<sup>[11]</sup>. Furthermore, approximately 8% of nurse positions are expected to be vacant by 2020 in Korea, and the shortage in small- to medium-sized hospitals is more urgent in Korea<sup>[12]</sup>. Efficient use of inactive nurses would help alleviate this problem. A report from the Korean Nurses Association reported that 68% of inactive nurses want to return to work, and 84.6% responded positively to the need for a refresher program to aid in returning to work<sup>[11]</sup>.

Most inactive Korean nurses reported the major reasons for leaving the nursing profession were marriage, pregnancy, and children rearing; as expected, the inactive nurse age was in the 20s and 30s, the typical age range for these life events<sup>[11,13,14]</sup>. Also, in other countries, major reasons to exit were retirement, family responsibilities, and a poor working environment including scheduling conflicts, stress, and paperwork. However, demographic factors, practice characteristics, and geographic characteristics also affected those leaving the nursing profession<sup>[15-19]</sup>. In recent studies, environmental conditions were another major factor in deciding to leave the profession<sup>[20]</sup>.

A large portion of inactive Korean nurses (68% to 96.2%) reported they want to return to work<sup>[13,14,21]</sup>. The main factors that cause inactive nurses to consider a return to work were flexible working schedules, distance from home, and a satisfactory salary<sup>[13]</sup>. The places inactive nurses want to work are different from study to study, including hospitals, social-welfare centers, public health centers, and long-term-care settings<sup>[13,14]</sup>.

The preferred work schedule and salary were congruent, and inactive nurses in some studies preferred to work with a daytime schedule and strongly expressed unwillingness to work the night shift or three shifts; they wanted to earn between 1,500,000 and 2,000,000 Won per month (about \$1,500 - \$2,000)<sup>[13,14]</sup>. Interestingly, inactive nurses who wanted to return to work in Vermont in the United States supported the findings of an available reentry and orientation program<sup>[19]</sup>. That program evaluated nursing professionalism and confidence in nursing performance after applying the reeducation program used for 80 inactive Korean nurses. Although the Korean Nurses Association initiated a refresher program for inactive nurses in 2007<sup>[22]</sup>, very little research has been conducted on database construction for inactive nurses, impacts of refresher programs, and postmanagement following reemployment in Korea. Only one study, Sung *et al.*<sup>[13]</sup>, evaluated the effects of the reeducation program and reported that inactive nurses who completed a refresher program had more confidence in nursing performance ( $n = 80$ ), but nursing professionalism was not statistically significant. A few studies mentioned that research on reemployed nurses is required. No descriptive studies investigated factors related to reemployed nurses' intention to work in Korea; thus, this study is quite timely.

## 2 The study

### 2.1 Aims

The purpose of this study was to investigate the factors associated with recently reemployed nurses' intention to continue to work in Korea.

### 2.2 Design

A descriptive, correlational study design was used to investigate the factors associated with reemployed nurses' intent to stay in their current job.

### 2.3 Sample and data collection

A total of 312 Korean reemployed nurses were surveyed between August 1 and October 30, 2012. Sample size was justified because a sample size of more than 300 is reasonable for factor analysis <sup>[23]</sup>. The Japanese version of the questionnaire was translated into Korean for Korean nurses and a questionnaire was sent by mail to 500 Korean nurses working in hospitals with over 100 beds, who had returned to work within 2 years. The response rate was 62.4% and nurses completed a total of 312 questionnaires. A written introduction to the study explained the purpose, methods, and voluntary and anonymous nature of participation to potential participants. A self-addressed envelope was enclosed, and return of the questionnaire signified consent.

### 2.4 Instruments

An instrument to measure factors that impact the intention to continue to work in one's job was developed based on the Job Satisfaction Survey by Adachi <sup>[24]</sup> and the Work-Family Conflict Survey by Kanai and Wakabayashi <sup>[25]</sup>, with background questions based on the unique characteristics of Korean culture. A total of 63 items were developed using Likert scales: eight items for the working environment (scoring from 8 to 32), six items for salary (scoring from 6 to 24), nine items for job content (scoring from 9 to 36), 10 items for human relations (scoring from 10 to 40), and 20 items for life conflict (from 20 to 80). The total score was obtained by summing the scores for each subscale. A higher score represented greater satisfaction. In previous research, the validity of this instrument was supported with  $\alpha = 0.83$  to  $0.86$  <sup>[24]</sup>. To reevaluate construct validity of this tool for Korean nurses, in-factor analysis, promax rotation was used. The Kaiser-Meyer-Olkin value was 0.87 and Bartlett's test of sphericity showed statistical significance. Exploratory factor analysis revealed five factors, which accounted for 62.35% of the total variance. Factors were "life conflict" (Cronbach's  $\alpha = 0.881$ ), "salary" ( $\alpha = 0.88$ ), "human relations" ( $\alpha = 0.85$ ), "job content" ( $\alpha = 0.84$ ), and "work environment" ( $\alpha = 0.834$ ). Exploratory factor analysis supported validity of the instruments. Also, Cronbach's  $\alpha$  coefficients verified reliability (internal consistency) ( $\alpha = 0.911$ ). Internal consistency was examined by two raters for 50 nurses before the data collection began. Of 63 items, 59 were in the good ( $K = 0.68$  to  $0.99$ ) range.

### 2.5 Ethical consideration

Approval was obtained from the Institutional Review Board of Ewha Womans University (IRB No. 2012-05-01).

### 2.6 Data analysis

Multiple-regression analysis was used to examine the relationships between demographic variables and dependent variables. Ordinary least squares (OLS) regression was used to investigate the factors associated with the recently reemployed nurses' intention to work in Korea. A logarithmic transformation was performed to adhere to OLS normality assumptions because there was concern about skewness. SAS 9.3 was used for the analyses, with statistical significance set at 5%. Both listwise deletion and mean substitution were used for the missing data.

**Table 1.** Demographic characteristic of participants

| Variable                           | Value                                | n   | %     |
|------------------------------------|--------------------------------------|-----|-------|
| Age (years)                        | 20-29                                | 26  | 8.2   |
|                                    | 30-39                                | 132 | 42.3  |
|                                    | 40-49                                | 107 | 34.5  |
|                                    | 50-59                                | 40  | 12.7  |
|                                    | 60-69                                | 5   | 1.8   |
|                                    | Missing                              | 2   | 0.5   |
| Partner                            | Yes                                  | 286 | 91.8  |
|                                    | No                                   | 26  | 8.2   |
| Children                           | Yes                                  | 287 | 91.9  |
|                                    | No                                   | 25  | 8.1   |
| Family members to be cared for     | Yes                                  | 22  | 7.3   |
|                                    | No                                   | 288 | 92.2  |
|                                    | Missing                              | 2   | 0.5   |
| Hospitals size (number of beds)    | 100-199                              | 99  | 31.8  |
|                                    | 200-299                              | 137 | 44.1  |
|                                    | 300 and over                         | 68  | 21.8  |
|                                    | Missing                              | 8   | 2.3   |
| Working unit                       | General ward                         | 169 | 54.16 |
|                                    | Outpatient clinic                    | 75  | 24.04 |
|                                    | Special Ward (ER, ICU, OR)           | 18  | 5.76  |
|                                    | Others                               | 50  | 16.04 |
| Years of experience in current job | Less than 1 year                     | 112 | 35.9  |
|                                    | From 1 year to 3 years               | 88  | 28.2  |
|                                    | From 3 years to Less than 5 years    | 32  | 10.3  |
|                                    | More than 5 years                    | 80  | 25.6  |
| Time period for leaving            | Less than 1 year                     | 99  | 31.7  |
|                                    | More than 1 year Less than 5 years   | 109 | 35    |
|                                    | More than 5 years Less than 10 years | 54  | 17.3  |
|                                    | More than 10 years                   | 43  | 13.8  |
|                                    | Missing                              | 7   | 2.2   |
| Working status                     | Full- time work                      | 126 | 40.5  |
|                                    | Part-time work                       | 183 | 58.6  |
|                                    | Missing                              | 3   | 0.9   |

### 3 Results

#### 3.1 General characteristics of the study sample

The general characteristics of participants are summarized in Table 1. Participants were 312 Korean returning nurses with few missing values in the answers to the questionnaire. The mean age of participants was 36 years ( $SD = 8.5$ ) and 42.3% between 30 and 39 years of age. Most participants (91.8%) cared for partners and children, and very few cared for other family members (7.3%); more than half worked part time. Participants' inactive period was quite short: 31.7% had left a job less than a year previously, and 23.1% had left more than 1 year but less than 3 years previously. Of participants, 58.6% reported working part time; the most common work areas were inpatient wards (54.2%) and outpatient clinics (24.0%).

**Table 2.** Reasons for leaving latest nursing profession (N = 312)

| Variable  | <i>n</i> | %    |
|---|----------|------|
| Relocation  | 65       | 20.8 |
| Problems balancing family and career responsibilities | 52       | 16.7 |
| Dissatisfaction about salary                          | 42       | 13.5 |
| Interests in other professions                        | 41       | 13.1 |
| Lack of satisfying colleague relationships            | 38       | 12.2 |
| Job dissatisfaction about nursing profession          | 35       | 11.2 |
| Dissatisfaction about working hours                   | 32       | 10.3 |
| Health reasons  | 26       | 8.3  |
| Lack of vacation                                      | 25       | 8.0  |
| Other   | 5        | 7.2  |
| Night shift   | 17       | 5.4  |
| Family issue (taking care of parents)                 | 10       | 3.2  |
| Expiration of job contract                            | 8        | 2.6  |
| Education   | 6        | 1.9  |

A respondent could give more than one response.

The most common reasons for leaving their previous nursing position were family issues related to caring for other family members (children and aged parents) and relocation. Details are presented in Table 2. When answering the intent to stay at work in their current job, considerably more than three quarters (about 81%) answered they do not have the intention to continue in their job (see Table 3). Approximately 81.6% answered they do not achieve balance between work and family life, and most respondents (64.0%) were not satisfied with their current lifestyle. About half of respondents answered they cannot use leave when they want (see Table 3).

Of respondents, 72.8% answered they did not have a nursing refresher course. About 46.8% of respondents sometimes take refresher classes in their current job (see Table 4).

#### 3.2 Relationship between demographics and intention to continue in the current job

The results of the multiple-regression analysis demonstrated that the level of life conflict among reemployed nurses with partners and children was higher than for those without partners ( $r = -0.277$ ) or children ( $r = -0.21$ ; see Table 5), which

means that reemployed nurses indicated having greater life conflict than those without partners or children. Older reemployed nurses were statistically negatively related to life conflict ( $r = -0.012$ ), which means that older reemployed nurses indicated having less life conflict than younger nurses. Reemployed nurses in large hospitals (more than 300 beds;  $r = 0.025$ ) and part-time nurses ( $r = 0.056$ ) were more likely to be satisfied with their working environment.

**Table 3.** Intention to continue in their current job and related factors

| Variable                                       | Value         | <i>n</i> | %    |
|--|---------------|----------|------|
| Intent to stay in current job                  | Not at all    | 138      | 43.2 |
|  | Not likely    | 121      | 37.8 |
|  | Probably      | 27       | 8.4  |
|  | Definitely    | 16       | 5.0  |
| Availability of vacation in current job        | Not at all    | 156      | 50.0 |
|  | Not likely    | 91       | 29.2 |
|  | Probably      | 43       | 13.8 |
|  | Definitely    | 21       | 6.7  |
|  | Missing       | 1        | 0.3  |
| Balance between work and family in current job | Not likely    | 212      | 67.9 |
|  | Probably      | 52       | 16.7 |
|  | Not at all    | 43       | 13.8 |
|  | Definitely    | 4        | 1.3  |
| Overall satisfaction about current lifestyle   | Missing       | 1        | 0.3  |
|  | Not likely    | 196      | 62.8 |
|  | Probably      | 63       | 20.2 |
|  | Not at all    | 37       | 11.9 |
|  | Definitely    | 14       | 4.5  |
| Plan for advanced degrees                      | Missing       | 2        | 0.6  |
|  | No            | 122      | 39.1 |
|  | Yes           | 111      | 35.6 |
|  | I do not know | 77       | 24.7 |
|  | Missing       | 2        | 0.6  |

A respondent could give more than 1 response.

### 3.3 Factors related to the intention to continue in their current job

The results of the multiple OLS regression analysis demonstrated a positive statistically significant relationship between “job content” ( $r = 0.064$ ) and “intention to continue in their current job” and between “working environment” ( $r = 0.037$ ) and “intention to continue in their current job,” accounting for 20.5% of the total variation (see Table 6). Although these two correlational values are small, this result suggests that “job content” is an important factor in intention to continue in their current job. Specifically, job content includes interest in work, growth through work, being proud of one’s working status, suitability of work for each person, being respectful of work, feeling fruitfulness through work, and receiving commendation at work. “Working environment” was also related to the “intention to continue in their current job”.

Working environment included considering workers’ interests and fairness of promotion, struggle to reduce complaints of workers, cooperation among departments, considering workers’ opinions to be important, announcing organizational policy to workers, promotion possibilities, possibility of making a career plan, organizational support, and benefits. However, no statistically significant relationship existed among “family responsibility,” “salary,” “human relations,” and the “intention to continue in their current job”.

**Table 4.** Summary regarding reeducation courses (N = 312)

| Variable   | Value                                   | n   | %    |
|--|---|-----|------|
| Experience of reeducation courses before returning to work | No                                      | 227 | 72.8 |
|  | Yes                                     | 83  | 26.6 |
|  | Missing                                 | 2   | 0.6  |
| Reeducation class contents before returning to work        | Injection                               | 53  | 17.0 |
|  | Fluid system, CPR                       | 37  | 11.9 |
|  | Job Ethics                              | 34  | 10.9 |
|  | Emergency management                    | 26  | 8.3  |
|  | Electric charting                       | 26  | 8.3  |
|  | Patient and family management           | 24  | 7.7  |
|  | Assisting in activities of daily living | 34  | 7.4  |
|  | Patient’s personal information          | 21  | 6.7  |
|  | Sometimes                               | 146 | 46.8 |
| Taking reeducation courses in current job                  | Not at all                              | 57  | 18.3 |
|  | Always                                  | 54  | 17.3 |
|  | Rarely                                  | 52  | 16.7 |
|  | Missing                                 | 99  | 3.0  |

A respondent could give more than 1 response.

**Table 5.** Relationship between demographic variables and intention to continue in their current job

|                                    | Job content |         | Work environment |         | Life conflict |         | Human relations |         | Salary |         |
|------------------------------------|-------------|---------|------------------|---------|---------------|---------|-----------------|---------|--------|---------|
|                                    | Coeff.      | p-value | Coeff.           | p-value | Coeff.        | p-value | Coeff.          | p-value | Coeff. | p-value |
| Partner                            | -0.034      | 0.37    | -0.051           | 0.33    | -0.277        | 0.00    | -0.031          | 0.28    | -0.135 | 0.10    |
| Children                           | -0.004      | 0.89    | -0.040           | 0.38    | -0.210        | 0.00    | 0.021           | 0.34    | 0.064  | 0.22    |
| Family members to be cared         | -0.015      | 0.54    | -0.024           | 0.42    | -0.072        | 0.07    | -0.003          | 0.91    | 0.010  | 0.80    |
| Hospital size                      | 0.010       | 0.38    | 0.025            | 0.02    | -0.008        | 0.61    | -0.002          | 0.78    | 0.014  | 0.40    |
| Age (in years)                     | 0.000       | 0.89    | 0.001            | 0.67    | -0.012        | 0.00    | 0.001           | 0.58    | 0.005  | 0.12    |
| Years of experience in current job | 0.000       | 0.90    | -0.003           | 0.17    | 0.004         | 0.27    | -0.002          | 0.29    | -0.007 | 0.05    |
| Time period for leaving            | 0.009       | 0.17    | 0.001            | 0.87    | 0.009         | 0.40    | 0.003           | 0.62    | 0.002  | 0.85    |
| Working status                     | -0.006      | 0.78    | 0.056            | 0.05    | -0.054        | 0.09    | -0.003          | 0.90    | -0.002 | 0.96    |
| Number of observations             | 262         |         | 262              |         | 262           |         | 262             |         | 262    |         |
| R <sup>2</sup>                     | 0.019       |         | 0.062            |         | 0.253         |         | 0.013           |         | 0.040  |         |

**Table 6.** Ordinary least squares regression

| Independent variable | Dependent variable = q24 |         | Dependent variable = log(q24) |         |
|----------------------|--------------------------|---------|-------------------------------|---------|
|                      | Coefficient              | p-value | Coefficient                   | p-value |
| Job-content          | 0.064                    | 0.00    | 0.023                         | 0.00    |
| Work-environment     | 0.037                    | 0.02    | 0.013                         | 0.04    |
| Life-conflict        | 0.003                    | 0.42    | 0.002                         | 0.27    |
| Human-relations      | -0.001                   | 0.93    | -0.001                        | 0.92    |
| Salary               | 0.007                    | 0.58    | 0.003                         | 0.58    |
| No. observations     | 312                      |         | 312                           |         |
| R <sup>2</sup>       | 0.205                    |         | 0.165                         |         |

## 4 Discussion

The study findings demonstrated that 81% reported a preference not to stay in their current job, implying most participants were likely to leave their current positions looking for a challenge with new responsibilities. Although the major reasons for leaving respondents' previous nursing position were family issues, in this study, only two factors – “job content” and “work environment” – had a statistically significant relationship with the “intention to continue in their current job”. “Job content” refers to the interests and suitability of work, self-growth, promotions through work, feeling respected and fruitful, and organizational support to accomplish these goals. These results were similar to findings from previous studies. Langan et al. [6] explained reasons for nurses' intent to leave or return as personal motivators, although a lack of motivators failed to serve as the main reasons for nurses' intent to leave. Also, Lin et al. [7] reported that nurses' intent to stay was significantly correlated to positive manager support, peer support, unit support, and decreased workload in their workplace.

The “working environment” in this study usually focused on the psychosocial environment including fairness in promotions, organizational efforts to resolve workers' complaints, cooperation among departments, announcing organizational policy to workers, and benefits. These results imply that proper strategies could increase nurse retention rate in healthcare organizations. This outcome was similar to that of previous studies, indicating that nurses in poor practice environments showed a higher rate of turnover intent than those in better practice environments [7, 26, 27]. Also, Patrician et al. [20] reported that nurses working in unfavorable working environments were three times more likely to leave their job. These findings imply that nursing managers need to prioritize establishing affirming environments for nurses with knowledge of unsatisfactory environment factors. Similarly, Taiwanese nurses pointed to such reasons for quitting jobs as unsatisfactory nursing work environment including workload and quality of care, both of which they perceived as worse than 3 years ago [7].

Consistent with previous research, this study reported that salary issues were not a statistically significant factor for retaining reemployed nurses. Williams *et al.* [10] reported that 44% of 428 inactive nurses replied their salary was not as significant an issue as other factors in returning to work. Healthcare providers have tried a variety of contrivances to attract nurses, including huge sign-on bonuses. Although higher salaries and good benefits have attracted reemployed nurses and filled nursing vacancies, many may be temporary solutions. However, unexpectedly, family responsibility proved to be the most dominant factor for reemployed nurses' intent to leave or stay; family issues were the primary motivation in making decisions.

According to study results, 58.6% of all participants had part-time positions, in line with research findings that inactive nurses preferred part-time or flexible-employment arrangements [6, 10]. Thus, nurse executives should consider options for

part-time, self-scheduling, and split shifts as alternative time arrangements to return inactive RNs to the workforce <sup>[10]</sup>. Furthermore, refresher programs for inactive nurses are critical. Mark and Gupta <sup>[28]</sup> reported that a high anxiety level and low self-esteem are endemic when nurses return to work. Therefore, refresher programs can provide updated knowledge and skills necessary for inactive nurses to adapt to a rapidly changing and challenging healthcare environment. In addition to knowledge and skills, nursing-professional self-efficacy is an important factor for those reentering the nursing profession <sup>[21]</sup>.

Considering that 89.1% of participants were employed in small- or medium-sized hospitals with fewer than 400 beds, it can be a good strategy to use inactive nurses as a solution to the shortage of nursing staff in those hospitals. Quite surprisingly, 72.8% of participants did not take a refresher course. As reported in previous research <sup>[13]</sup>, confidence in nursing performance improved after the application of a refresher program. This suggests that the Korean government and relevant associations should make all possible efforts to promote reeducation in nursing-recruitment counseling centers, similar to those currently administered in six provinces with Korean government support. Also, the policy for nurses' work-family balance should address how to promote flexible workplaces such as part-time and alternative-shift scheduling and to foster workplace harmony as a national concern.

The proportion of hospitals offering flexible workplaces in Korea was low among Organization for Economic Cooperation and Development countries in 2008 <sup>[29]</sup>. Institutional support should be provided for inactive nurses not to be pressured or overwhelmed when returning to their workplace <sup>[30]</sup> because nursing tasks often accompany physical and emotional stress and burden <sup>[31]</sup>. It would be helpful to allow inactive nurses to organize flexible schedules, such as working part time, thereby attracting more nurses to be reemployed, as well as reducing their stress level. Nurse managers and administrators should keep in mind factors related to results from this study, which would add to maintaining a stable nursing staff .

## 5 Limitations of the study

The results from this study were limited to the percentage of actual participants (62.4%), which may have resulted in selection bias; the 37.6% who declined to take part in this research (37.6%) might have identified more factors of intent to stay. Also, written self-reports were likely to engender errors, depending on respondents' willingness and sincerity. Additional research should apply both quantitative and qualitative methodologies. Finally, generalizability of study results may be limited owing to convenience sampling of participants; these samples were obtained from healthcare organizations.

## 6 Conclusions

The retention of competent reemployed nurses is crucial to improve the quality of healthcare for Korean patients. Study findings demonstrated that reemployed nurses can achieve growth in affirming working conditions, which is a major factor impacting intent to continue in one's current nursing position. Consistent with previous studies, this study showed that unless comprehensive factors are resolved, reemployed-nurse retention will deteriorate and quality of care for patients will be threatened. The results of the study suggest urgent policy changes: workplace conditions should be improved to retain reemployed nurses. From the perspective of a global nursing shortage, the need exists to focus on how to effectively use available nursing staff worldwide. Use of inactive nurses was suggested as one solution to ease the nursing shortage <sup>[6, 32]</sup>. Because access to inactive nurses may be challenging, due to address changes, for example, appropriate management of registries of inactive nurses is suggested <sup>[33]</sup>.

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## References

- [1] Kim MA, You SJ, Kim MJ, Kim ES. A survey of nursing activities in small and medium-size hospitals: reasons for turnover. *J Korean Clin Nurs Res*. 2009; 15: 149-165.
- [2] Hospital Nurses Association. A survey for assigned nurse staff in hospital (2012 Project Report) [Internet]. 2013 [cited 2013 July 23]. Available from: <http://www.khna.or.kr/>
- [3] Morris G. Workforce survey results for nursing staff, midwives and health visitors. Review body for nursing and other health professions [Internet]. 2006 [cited 2013 April 20]. Available from: <http://www.officialdocuments.gov.uk/document/cm67/6752/6752.pdf>
- [4] Nursing Solutions. 2009 national healthcare RN retention report [Internet]. 2009 [cited 2012 September 27]. Available from: <http://www.nsinursingsolutions.com/Files/assets/library/retentioninstitute/NationalHealthcareRNRetentionReport2009.pdf>
- [5] Clancy J. Canadian National Union of Public and General Employees president's commentary: dignity denied: long-term care and Canada's elderly [Internet]. 2008 [cited 2013 July 2]. Available from: <http://www.nupge.ca/presidentscommentary/n05fe08e.htm>
- [6] Langan JC, Tadych RA, Kao CC. Exploring incentives for RNs to return to practice: a partial solution to the nursing shortage. *J Prof Nurs*. 2007; 23: 13-20. <http://dx.doi.org/10.1016/j.profnurs.2006.07.002>
- [7] Lin SY, Chiang HY, Chen IL. Comparing nurses' intent to leave or stay: differences of practice environment perceptions. *Nurs Health Sci*. 2011; 13: 463-467. <http://dx.doi.org/10.1111/j.1442-2018.2011.00640.x>
- [8] Castle NG, Engberg J. Staff turnover and quality of care in nursing homes. *Med Care*. 2005; 43: 616-626. <http://dx.doi.org/10.1097/01.mlr.0000163661.67170.b9>
- [9] Zimmerman S, Gruber-Baldini AL, Hebel JR, Sloane PD, Magaziner J. Nursing home facility risk factors for infection and hospitalization: importance of registered nurse turnover, administration, and social factors. *J Am Geriatr Soc*. 2002; 50: 1987-1995. <http://dx.doi.org/10.1046/j.1532-5415.2002.50610.x>
- [10] Williams KA, Stotts RC, Jacob SR, Stegaur CC, Roussel L, Carter D. Inactive nurses: a source for alleviating the nursing shortage? *J Nurs Manage*. 2006; 36: 205-210.
- [11] Chu Y. Analysis of status in active and inactive nurses according to field. Seoul, Korea: Korean Research Institute for Nursing Policy, Korean Nurses Association [Internet]. 2006 [cited 2012 May 17]. Available from: <http://ww.koreanurse.or.kr>
- [12] Chung JS, Cha YN, Kim KK, Park SY. The development and management of a reentry program for inactive registered nurses. *J Korean Acad Nurs Edu* 2008; 14: 232-243. <http://dx.doi.org/10.5977/JKASNE.2008.14.2.232>
- [13] Sung MS, Jang JH, Kang K. The effects of a reeducation program for inactive nurses. *Women's Health*. 2010; 11: 1-20.
- [14] Yang YO. Status and intent of reemployment of nurses at retirement who lived in Gimhae. PhD thesis. Kaya University, Goryeong-gun, Korea. 2009.
- [15] Borkowski N, Amann R, Song SH, Weiss C. Nurses' intent to leave the profession: issues related to gender, ethnicity, and educational level. *Health Care Manage Rev*. 2007; 32: 160-167. <http://dx.doi.org/10.1097/01.HMR.0000267793.47803.41>
- [16] Brewer CS, Kovner CT, Greene W, Cheng Y. Predictors of RNs' intent to work and work decisions 1 year later in a U.S. national sample. *Int J Nurs Stud*. 2009; 46: 940-956. <http://dx.doi.org/10.1016/j.ijnurstu.2008.02.003>
- [17] Kovner CT, Brewer CS, Ying C, Djukic M. Work attitudes of older RNs. *Policy Polit Nurs Pract*. 2007; 8: 107-119. <http://dx.doi.org/10.1177/1527154407304505>
- [18] McCarthy G, Tyrrell MP, Lehane E. Intention to "leave" or "stay" in nursing. *J Nurs Manage*. 2007; 15: 248-255. <http://dx.doi.org/10.1111/j.1365-2834.2007.00648.x>
- [19] McIntosh B, Palumbo MV, Rambur B. Does a "shadow workforce" of inactive nurses exist? *Nurs Econ*. 2006; 24: 231-237. PMID:17131614.
- [20] Patrician PA, Shang J, Lake ET. Organizational determinants of work outcomes and quality care ratings among army medical department registered nurses. *Res Nurs Health*. 2010; 33: 99-110. PMID:20151409
- [21] Han MR, Choi SM. Effects of a refresher program for inactive nurses on nursing professionalism and nursing clinical self-efficacy. *J Korean Acad Nurs Adm*. 2011; 17: 44-53. <http://dx.doi.org/10.1111/jkana.2011.17.1.44>
- [22] Byeon YS, Kim M. Re-employment experience of nurses who have left the profession. *J Korean Acad Nurs*. 2008; 38: 768-778. <http://dx.doi.org/10.4040/jkan.2008.38.5.768>
- [23] Tabachnick BG, Fidell LS. Using multivariate statistics. Boston: Pearson Education; 2007.
- [24] Adachi T. Job satisfaction of sales people: a covariance structure analysis of the motivational process. *Shinrigaku Kenkyu*. 1998; 69: 223-228. PMID:9807767 <http://dx.doi.org/10.4992/jjpsy.69.223>
- [25] Kanai A, Wakabayashi M. Work-family conflict for part-time female workers. *Assoc Industrial/Organizational Psychol J*. 1998; 11: 107-122.

- [26] Aiken LH, Clarke SP, Sloane DM, Lake ET, Cheney T. Effects of hospital care environment on patient mortality and nurse outcomes. *J Nurs Adm.* 2008; 38: 223-229. <http://dx.doi.org/10.1097/01.NNA.0000312773.42352.d7>
- [27] Tervo-Heikkinen T, Patanen P, Aalto P, Vehvilaninen-Julkunen K. Nurses' work environment and nursing outcomes: a survey study among Finnish university hospital registered nurses. *Int J Nurs Pract.* 2008; 14: 357-365. <http://dx.doi.org/10.1111/j.1440-172X.2008.00707.x>
- [28] Mark S, Gupta J. Reentry into clinical practice: challenges and strategies. *JAMA.* 2002; 288: 1091-1096. <http://dx.doi.org/10.1001/jama.288.9.1091>
- [29] Ministry of Gender Equality and Family. The study on strategies to introduce and encourage flexible workplace arrangements in companies[Internet]. 2010[cited 2013 July 30]. <http://www.kefplaza.com/labor/down.jsp?idx=9706&fileId=9387>
- [30] Myers G, Bushnell K. Inactive nurses: making a comeback. *Nurs Manage.* 2007; 38(8): 16, 19.
- [31] Nakata Y, Miyazaki S. Non-working nurses in Japan: estimated size and its age-cohort characteristics. *J Clin Nurs.* 2008; 17: 3306-3316. <http://dx.doi.org/10.1111/j.1365-2702.2008.02656.x>
- [32] Black L, Spetz J, Harrington C. Nurses working outside of nursing: societal trend or workplace crisis? *Policy Polit Nurs Pract* 2008; 9: 143-157. <http://dx.doi.org/10.1177/1527154408319288>
- [33] Fothergill A, Palumbo MV, Rambur B, Reinier K, McIntosh B. The volunteer potential of inactive nurses for disaster preparedness. *Public Health Nurs.* 2005; 22: 414-421. <http://dx.doi.org/10.1111/j.0737-1209.2005.220506.x>