International Journal of Nursing Sciences 5 (2018) 403–408

HOSTED BY

Contents lists available at ScienceDirect

International Journal of Nursing Sciences

journal homepage: http://www.elsevier.com/journals/international-journal-of-nursing-sciences/2352-0132

Original Article

# Organizational commitment and turnover intention among rural nurses in the Philippines: Implications for nursing management

Leodoro J. Labrague [a,*], Denise M. McEnroe – Petitte [b], Konstantinos Tsaras [c], Jonas P. Cruz [d], Paolo C. Colet [e], Donna S. Gloe [f]

[a] Sultan Qaboos University, Muscat, Oman
[b] Kent State University Tuscarawas, USA
[c] Technological Educational Institute of Thessaly, Larissa, Greece
[d] Shaqra University, Saudi Arabia
[e] Nazarbayev University, Kazakhstan
[f] Southwest Baptist University, USA

ARTICLE INFO

*Article history:*
Received 23 September 2017
Received in revised form
28 August 2018
Accepted 3 September 2018
Available online 6 September 2018

*Keywords:*
Hospitals
Rural
Nurses
Organizational commitment
Philippines
Turnover intention

ABSTRACT

*Objectives:* The unrelenting migration trend of Filipino nurses to other countries has threatened the quality of patient care services in the country. This study explored the extent of nurses' organizational commitment and turnover intention in the Philippines. Furthermore, predictors of nurses' organizational commitment and turnover intention were identified.

*Methods:* A cross-sectional research design was adopted for this study. Two hundred nurses from nine rural hospitals in the Central Philippines were asked to participate in the study and 166 nurses responded (an 83% response rate). Two standardized instruments were used: the Organizational Commitment Questionnaire and the Six-item Turnover Intention Inventory Scale.

*Results:* Findings revealed that Philippine nurses were moderately committed ($3.13 \pm 0.24$) to and were undecided ($2.42 \pm 0.67$) whether or not to leave their organization. Nurses' age ($P = 0.006$), gender, ($t = -2.25$, $P = 0.026$), education ($t = 2.38$, $P < 0.001$), rank($t = 4.38$, $P < 0.001$), and work experience ($t = 2.18$, $P = 0.031$) correlated significantly with organizational commitment, while nurses' age ($P = 0.028$) and education ($t = 1.99$, $P = 0.048$) correlated significantly with turnover intention. An inverse relationship was identified between the organizational commitment and turnover intention ($r = -0.22$, $P = 0.005$).

*Conclusion:* The findings of this study highlight the need for formulation and implementation of interventions to promote life-long commitment in nurses and to reduce turnover rates.

© 2018 Chinese Nursing Association. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

## 1. Introduction

Nurses are considered the heart of health care organizations and keeping nurses in the organization remains a challenge for nurse administrators. Therefore, organizational measures must be instituted in order to ensure highly committed and dedicated nursing workforce and promote nurse retention. This is necessary to ensure the continuity of quality patient care and services [1], organizational efficiency, performance, and productivity [2,3].

Organizational commitment is broadly defined as an individual employees' strong emotional linkage to the organization and consists of three dimensions: (1) affective commitment, (employees' emotional connection to the organization); (2) continuance, (perceived costs related to exit from the organization); and (3) normative commitment, (moral duty to stay in the organization) [4]. A myriad of individual factors predicting organizational commitment in nurses have been identified such as age [5], gender [6], academic degree [5], years of work experience [7], and job tenure [7]. In an integrative review conducted by Vagharseyyedin [8], factors contributing to nurses' organizational commitment were integrated and grouped into four (4) main categories: (1) nurses' traits and characteristics, (2) administrative behaviors and styles, (3) discernment of the organizational setting, and (4) characteristics of the job itself and the workplace setting.

A clear link between organizational commitment and job

* Corresponding author.
*E-mail address:* leodoroj@squ.edu.om (L.J. Labrague).
Peer review under responsibility of Chinese Nursing Association.

https://doi.org/10.1016/j.ijnss.2018.09.001
2352-0132/© 2018 Chinese Nursing Association. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

outcomes is well documented in the literature. Higher levels of organizational commitment were contributed to work effectiveness and job engagement in nurses, increased job performance, reduction in burnout [6,9,10], reduction in absenteeism and nurse turnover, and a decrease in work fatigue [11].

Turnover intention refers to the employees' voluntary retraction from the organization and profession [12]. There can be many consequential impacts on the organization as turnover may lead to low productivity in nurses [2], poor nursing care [1], and added costs to the organization [13]. Numerous variables, both individual and organizational, have been found to influence nurses' turnover intention. Individual – related variables included: age [3,14], gender [15], and work tenure [16–18]. Organizational variables included: the number of hospital beds [3], insufficient job orientation [3], job stress, the practice environment, inadequate management support [19], a poor workplace environment [20], poor staffing levels [21], the actual place of work [3], and insufficient career opportunities [3]. In a prospective study by Rudman, Gustavsson, & Hultell [22], nurses' decisions to leave their profession were linked with their burnout experience. Other factors included: ineffective relationships with other nurses or staff members including nurse managers, the practice of intimidation and harassment in the workplace, ineffective working relationships with physicians, and a limited leadership support [3,23].

Earlier studies have supported the relationship between organizational commitment and the nurses' desire to leave the organization as well as the profession. For instance, Omar, Mohamed, Majid, Halim, & Johari [24] found the affective dimension of work commitment to be strongly linked to the intention to leave among Malaysian nurses while Al-Hussami, Darawad, Saleh, & Hayajneh [25] identified a strong link between work quality, health perceptions, and normative organizational commitment. Similarly, in one study involving nurses in Korea, higher levels of organizational commitment and job burnout were identified as strong predictors of turnover intentions [26]. In China, nurses who were satisfied and reported a higher degree of job commitment tended to stay in their current position [27].

The Philippines is the world's largest nurse exporter with nearly 90% of Filipino nurses working overseas [28,29]. The Philippine Overseas Employment Administration [30], an agency that monitors deployment of Filipino workers abroad, reported a high number of professional nurses emigrating from 2004 to 2010. Filipino nurses' decision to migrate relates to a myriad of factors such as low incomes, lack of benefits, lack of opportunities and professional growth, high patient-nurse ratios, and poor enforcement of nursing laws [28,31]. This will have negative consequences on the ability to provide effective health care services for this country. The loss of those nurses who have significant amounts of experience and expertise who can mentor new nurses will impact the provision of effective patient care by increasing the workloads in the healthcare facilities leading to a negative impact on the nursing workforce [32].

The Philippine nursing community has identified that many qualified nurses leave the country or their current jobs. This adds considerably to the current nursing shortage and difficulties in managing safe and effective patient care. The situation is even more significant in rural areas where many nurses struggle related to appropriate salaries, heavy workloads, lack of opportunities for professional growth, and a poor work environment [28,32,33]. This is further aggravated by a serious shortage of healthcare workers, nurses in particular, as many nurses prefer to work in urban areas where most healthcare facilities are located and the pay is considerably competitive [33]. All these could adversely affect work performance, work satisfaction, work commitment, and ultimately increases the intention to leave their jobs.

In addition, few research studies have been focused on the reasons for nurse migration and the extensive turnover in the Filipino nurses [31]. Those in nursing management need to study these issues and focus on interventions that can be put into place to assist with nurse retention and decrease of turnover in the various organizations. Therefore, this study is an update of the work completed by Lorenzo et al. [31] and is aimed to explore the following questions: (1) what is the extent of a rural nurses' organizational commitment and turnover intention? (2) Is there a significant association between nurses' characteristics organizational commitment and turnover intention? and (4) is there a significant association between nurses' organizational commitment and nurses' turnover intentions?

## 2. Methods

### 2.1. Research design

This study utilized a cross-sectional approach using two standardized instruments: the Organizational Commitment Questionnaire (OCQ) and the Turnover Intention Inventory Scale (TIIS).

### 2.2. Samples and settings

Stratified random sampling was utilized in this study. Using the Sloven's formula [$(n = N/(1 + Ne^2)$] the minimum estimated sample size was 160 ($n = 283$, $e = 5\%$). During the four months of data collection, 200 nurses from nine hospitals in the rural areas in the Central Philippines were recruited to participate and 166 nurses responded, with a response rate of 83%. The following criteria were used in recruiting respondents: (1) a licensed staff nurse, (2) working in the hospital setting for more than 3 months, (3) and obtained consent to participate in the study. Respondents were approached during their break time and were asked to participate in the study.

### 2.3. Instruments

The questionnaires that used in this study were all authorized.

The OCQ [4] was used to examine nurses' commitment to the health care organization. The questionnaire is a 23-item scale which is categorized into three distinct dimensions (affective, continuance, and normative) and was developed primarily to analyze the employees' magnitude of perceived connection and attachment to the organization. In accomplishing the questionnaire, respondents rated each OCQ items using a 5-point likert scale which ranged from 1 (strongly disagree) to 5 (strongly agree). The composite score was categorized into three points: low organizational commitment (1.00–2.33), moderate organizational commitment (2.34–3.66) and high OC (3.67–5.00). The OCQ showed a high internal consistency, with a statistical value of 0.82–0.91 (Cronbach's $\alpha$) as previously reported [34]. In the current study, the Cronbach's $\alpha$ coefficient for the entire instrument was 0.91. Cronbach's $\alpha$ for the three (3) OCQ dimensions ranged from 0.89 to 0.92.

The TIIS [35] was used to examine turnover intention among nurses. The scale is 6-item scales which elicit nurses' intent to quit or vacate their current job because their efforts are not valued. Sample items are: 'I will probably not stay with this organization for much longer', and 'I sometimes put in less effort in my work than I know I can'. The respondents accomplished the questionnaire by reporting the extent of their agreement on each TIIS items using a 5-point Likert scale which ranged from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's $\alpha$ of the TIIS was 0.92 as reported by the original authors [34]. In the current study, the Cronbach's $\alpha$ was 0.88.

### 2.4. Data collection process

The Health and Ethics Committee of Samar State University approved the study protocol. Permissions to conduct the study were granted by each of the hospital's Chief Nurse. Prior to the questionnaire distribution, the researchers explained the nature, risk, and benefits of the study. Additionally, consents were obtained from individual respondents prior to data collection. To ensure anonymity of the respondents, code numbers were assigned on each questionnaire instead of real names. The researchers personally administered the questionnaires to the respondents during their free time. Data gathering took place during the months of September 2015 to December 2015.

### 2.5. Data analysis

Statistical Package for the Social Sciences (SPSS) version 22 (SPSS Inc., Chicago, IL, USA) were used to analyze the data collected. Descriptive statistical tools such as the percentage, weighted means, and standard deviations were used to describe the responses of the respondents. Inferential statistics such as stepwise multiple linear regressions and Pearson r coefficient correlations were used to identify correlations between selected variables. To compare selected variables, one way analysis of variance (ANOVA) and independent *t*-test were used.

## 3. Results

Out of one 166 nurses who participated in this study, the majority of the respondents were female ($n = 131$, 78.9%), within the age bracket of 20–29 years old ($n = 112$, 67.4%), and with a baccalaureate degree ($n = 159$, 95.8%). Table 1 shows the completed profile of the respondents. Based on the total scores, the mean scores for the OCQ was $3.13 \pm 0.24$. Ranking the OCQ subscales revealed "affective commitment" as the highest rated subscale ($3.33 \pm 0.44$), while "continuance commitment" ($2.82 \pm 0.48$) was the lowest rated subscale. The total mean score for the TIIS were 2.42out of a possible mean score of 5 and fell under the category 'neutral or undecided' (Table 2).

Table 3 displays the association between nurse characteristics, organizational commitment, and turnover intention. Independent *t*-test analysis showed significantly higher organizational commitment mean scores in female nurses ($t = -2.25$, $P = 0.026$), nurses' with master's degree ($t = -2.38$, $P = 0.019$), nurses with more than 5 years of work experience ($t = 2.18$, $P = 0.031$) and those with managerial positions ($t = 4.38$, $P < 0.001$). Results of the ANOVA indicated a significant difference in organizational commitment scores according to the nurses' age. Nurses with ages greater than 40 years had significantly higher organizational commitment mean scores when compared to nurses with ages that range from 20 to 29 years ($P = 0.006$). With regards to turnover intention, independent *t*-test revealed higher TIIS scores in nurses with a baccalaureate degree ($t = 1.99$, $P = 0.048$) and with ages that ranged from 20 to 29 years ($P = 0.007$) and 30–39 years ($P = 0.028$).

Pearson product moment correlation was utilized to determine whether a significant relationship exists between the two variables (organizational commitment and turnover intention). The analysis revealed an inverse correlation between the two variables ($r = -0.22$, $P = 0.005$).

**Table 1**
Nurses' characteristics ($n = 166$).

| Characteristics | *n*(%) |
|---|---|
| Gender | |
| Male | 35 (21.1) |
| Female | 131 (78.9) |
| Age(years) | |
| 20–29 | 112 (67.4) |
| 30–39 | 27 (16.3) |
| ≥40 | 27 (16.3) |
| Education | |
| Baccalaureate | 159 (95.8) |
| Master's degree | 7 (4.2) |
| Monthly Income (US Dollar) | |
| < 100 | 122 (73.5) |
| ≥ 100 | 44 (26.5) |
| Work Experience(years) | |
| 1–5 | 112 (67.5) |
| > 5 | 54 (32.6) |
| Rank | |
| Staff Nurse Position | 141 (84.9) |
| Managerial Position | 25 (15.1) |
| Hospital Category | |
| Public | 122 (73.5) |
| Private | 44 (26.5) |
| Hospital Level | |
| Primary | 15 (9.0) |
| Secondary | 125 (75.3) |
| Tertiary | 26 (15.7) |
| Hospital bed capacity | |
| 25 | 36 (21.7) |
| 50 | 37 (22.3) |
| 75 | 32 (19.3) |
| 100 and above | 61 (36.7) |
| Plan to leave the current organization | |
| Yes | 93 (56.0) |
| No | 73 (44.0) |

## 4. Discussion

### 4.1. Organizational commitment and its associated factors

Organizational commitment is an important management element that determines nurses' work performance, productivity, and impact of organizational effectiveness [6,9,10]. In this current study, nurses perceived "moderate commitment", with higher scores observed in the "affective commitment subscale." This suggested that the study's nurses have strong emotional attachment to their organization and to the work that they do. The OCQ mean score in the current study is significantly low compared to other studies conducted in India [36] and Canada [37], but higher when compared to other Asian countries such as China [38] and Malaysia [39]. This may be due to cultural variations across different countries in terms of organizational commitment perceptions and the diversity of assessment scales used in different studies.

Several nurse demographics have been mentioned to influence organizational commitment such as age, gender, academic degree, years of work experience, and job tenure [5–7]. In the present study, nurses' rank, gender (being female), education (having master's degree), age (greater than 40 years), and work experience (greater than 5 years of work experience) were associated with increased organizational commitment.

In the current study, nurses who held higher positions (nurse manager position) had significantly higher organizational commitment scores than those who were staff nurses. In the Philippines, nurses who occupied higher positions receive comparably higher wages and adequate compensation, greater career opportunities, and have greater involvement in decision making as compared to those nurses who hold staff nurse positions [31,33]. These factors are known to increase work commitment in nurses [36]. Such commitment and job satisfaction were also explained by Sikorska-Simmons [40] and Laschinger, Finegan, & Shamian [41] as a product of higher involvement in decision making when a nurse assumed a higher level position in an

**Table 2**
Responses on the turnover intention inventory scale (TIIS).

| TIIS Items | *Mean ± SD* |
|---|---|
| I will probably not stay with this organization for much longer | 2.92 ± 1.01 |
| Lately, I have taken an interest in job offers in the newspaper | 2.80 ± 1.17 |
| I often think about quitting | 2.58 ± 1.03 |
| I sometimes put in less effort in my work than I know I can | 2.30 ± 0.90 |
| Sometimes I postpone important duties for an unlimited period of time | 2.20 ± 0.87 |
| I do not work hard in my job | 1.72 ± 0.76 |
| TIIS Mean Score | 2.42 ± 0.67 |

**Table 3**
Association between nurse characteristics, organizational commitment, and turnover intention.

| Characteristics | | Organizational Commitment | | | Turnover Intention | | |
|---|---|---|---|---|---|---|---|
| | | *Mean ± SD* | Statistical test | *P* | *Mean ± SD* | Statistical test | *P* |
| Gender | Male | 3.05 ± 0.29 | $t = 2.25$ | 0.026 | 2.32 ± 0.72 | $t = 0.93$ | 0.353 |
| | Female | 3.15 ± 0.22 | | | 2.44 ± 0.66 | | |
| Age (years) | 20–29 | 3.09 ± 0.23 | $F = 5.22$[a] | 0.006 | 2.48 ± 0.61 | $F = 5.14$[b] | 0.007 |
| | 30–39 | 3.18 ± 0.23 | | | 2.52 ± 0.82 | | |
| | ≥40 | 3.24 ± 0.27 | | | 2.05 ± 0.65 | | |
| Educational level | BS | 3.12 ± 0.24 | $t = 2.38$ | 0.019 | 2.44 ± 0.65 | $t = 1.99$ | 0.048 |
| | MA/MS | 3.33 ± 0.19 | | | 1.93 ± 0.96 | | |
| Monthly Income (US Dollar) | <100 | 3.12 ± 0.23 | $t = 0.83$ | 0.406 | 2.45 ± 0.66 | $t = 0.93$ | 0.354 |
| | ≥100 | 3.15 ± 0.26 | | | 2.34 ± 0.70 | | |
| Rank | Staff nurse position | 3.09 ± 0.22 | $t = 4.38$ | <0.001 | 2.42 ± 0.66 | $t = 0.14$ | 0.887 |
| | Managerial position | 3.31 ± 0.25 | | | 2.40 ± 0.72 | | |
| Work experience (years) | 1–5 | 3.10 ± 0.24 | $t = 2.18$ | 0.031 | 2.49 ± 0.66 | $t = 1.86$ | 0.064 |
| | >5 | 3.18 ± 0.23 | | | 2.29 ± 0.68 | | |
| Hospital category | Public | 3.11 ± 0.25 | $t = 1.13$ | 0.261 | 2.41 ± 0.70 | $t = 0.25$ | 0.803 |
| | Private | 3.16 ± 0.20 | | | 2.44 ± 0.59 | | |
| Hospital level | Primary | 3.19 ± 0.18 | $F = 0.69$ | 0.504 | 2.34 ± 0.54 | $F = 0.41$ | 0.667 |
| | Secondary | 3.11 ± 0.25 | | | 2.41 ± 0.71 | | |
| | Tertiary | 3.14 ± 0.21 | | | 2.52 ± 0.56 | | |
| Hospital bed capacity | 25 | 3.12 ± 0.20 | $F = 0.57$ | 0.633 | 2.42 ± 0.71 | $F = 0.41$ | 0.746 |
| | 50 | 3.08 ± 0.27 | | | 2.40 ± 0.72 | | |
| | 75 | 3.15 ± 0.20 | | | 2.53 ± 0.59 | | |
| | 100 and above | 3.14 ± 0.26 | | | 2.37 ± 0.66 | | |

*Note*: [a]Post Hoc Tests (Bonferroni): ≥40 years old vs 20–29 years old ($P = 0.009$).
[b]Post Hoc Tests (Bonferroni): 20–29 years old vs ≥ 40 years old ($P = 0.007$) & 30–39 years old vs ≥ 40 years old ($P = 0.028$).

organization. Higher organizational commitment in nurses with master's degree may be explained by the fact that nurses who have more education usually occupied positions of higher status and were more involved in decision-making in the organization.

In agreement with the assumptions by Allen & Meyer [4] where commitment in an individual progress over time as a product of self-reinforcement, the current study showed that experienced nurses tended to report higher organizational commitment compared with those young nurses and nurses with fewer years of work experience. This result coincides with the previous studies highlighting a clear and positive connection between work experience and work commitment [38]. Certainly, these findings call for a greater need of management interventions to retain these groups of nurses.

According to Meadus & Twomey [42], the nursing profession requires life-long commitment and dedication, characteristics that are dominant among females; thus they may have more commitment to their careers. In the current study, there is a positive and significant link between organizational commitment and female nurses reporting higher levels of work commitment. This finding supported the previous work of Mrayyan and Al Faouri [43] where female nurses' were reported to be more committed to work than their male counterparts. However, when interpreting the results, caution should be exercised as the number of specific gender participants may inappropriately represent the findings.

### 4.2. Turnover intention and its associated factors

Nurses in the current study were 'undecided' whether or not to leave their organization with more than 50% of nurses ($n = 93$) reporting an intention to leave. This finding corroborates with previous studies demonstrating a moderate level of turnover intention of nurses [19,44,45]. Studies conducted in Asia also yielded similar results. For instance, Lee et al. [7] found turnover intention at a moderate level which is comparable to this study.

Previous studies conducted using the cross-sectional and longitudinal designs identified nurses' age and an academic degree as important factors in explaining turnover intention among nurses [16,18]. In the current study, nurses who were less than 40 years old and those with a baccalaureate degree had a higher turnover intention when compared with younger nurses and those with master's degree. An explanation to this may be that younger nurses having much shorter stay in the workplace may have not invested emotionally to the organization as compared to older and experienced nurses. Additionally, new and younger nurses are faced with many issues such as low pay and salaries, significant workloads, lack of appropriate staffing levels, and the inability to strive for advancement in the profession where they consider leaving. These factors, when not satisfied, may decrease work motivation, satisfaction, work commitment, and eventually drive them to leave their organization [39]. Furthermore, nurses who had a baccalaureate degree had a higher turnover intention than those nurses

with a master's degree. Again, low salaries and a lack of professional development opportunities along with massive workloads could explain these findings. In addition, the local situations in most rural hospitals in which baccalaureate nurses are exposed to dismal working conditions and limited career opportunities contributes to turnover decision-making employment [31,46,47].

The results suggest that there needs to be a more focused approach by hospital administrators and their attention to those working in the nursing profession so as to assist with decreasing turnover of the nurses and continuality of the delivery of safe and effective nursing care. This may include development of an effective staffing plan, formulation and implementation of professional education programs, providing of adequate organizational support, and the provision of a positive working environment. Other measures may include review and revision of salary and pay policies, and formulation of career planning activities. Hsu, Chiang, Chang, Huang, & Chen [48] found a fair reward system is an effective incentive to increase satisfaction and commitment especially in experienced nurses. Therefore, enhancing the reward system in nurses may be helpful to reduce turnover intention. Previous studies suggested that nursing administrators could possibly assist in the area of nurse turnover by reviewing of policies and procedures related to improvement of the work environment and staff moral/satisfaction, adjusting of pay scales, and facilitating of appropriate staff promotions [49,50].

Consistent with previous research, this study' authors found an inverse relationship between organizational commitment and turnover intention in nurses. This seemed to suggest that highly committed nurses tend to be satisfied and contented with their jobs and would want to stay longer in their positions. The finding is consistent with previous studies [51,52]. For instance, Yasmin & Marzuki [51] and Sato et al. [52] found the affective and normative domains of work commitment as highly influential to nurses intention to leave their organization. Organizational commitment in nurses maybe enhanced by improving nurses' work environment through adequate staffing levels, enhancing hospital resources, providing of good patient-nurse ratios, offering of career opportunities, and having open forums for staff-administration communication.

### 4.3. Limitations of the study

Although this study is one of the earliest studies exploring organizational commitment and TIIS among Filipino nurses, it has a few limitations that need to be addressed and carefully considered when generalizing the findings. This study was conducted only in one region in the Philippines excluding nurses from other regions which could have affected the results and generalization of the findings. An additional limitation was the utilization of a self − report scales which might have limited the actual responses of the respondents. It may have been beneficial to have incorporated a longitudinal research design considering the nature of the variables being studied.

## 5. Conclusion

To the best of the study's researchers, this is one of the earliest studies ascertaining the extent of and factors associated with organizational commitment and turnover intention in a group of nurses in the Philippines. Therefore this study contributes to the growing literature on organizational commitment and turnover intention among nurses in a Philippine context. It can be inferred in this study that nurses were moderately committed to the organization and were undecided whether or not to leave their organization. Nurses' age, gender, education, rank, and work experience correlated significantly with organizational commitment, while nurses' age and education correlated significantly with turnover intention. Furthermore, nurses' organizational commitment correlated negatively with turnover intention. These findings may provide useful insights for policy makers, hospital administrators, and nursing administrators in the Philippines by formulating and implementing empirically tested interventions that would improve nurses' commitment and promote retention.

## Acknowledgment

The authors would like extent its gratitude to all nurses who contributed in the study.

## Conflict of interest

None declared.

## Funding

This study was not funded.

## Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.ijnss.2018.09.001.

## References

[1] North N, Leung W, Ashton T, Rasmussen E, Hughes F, Finlayson M. Nurse turnover in New Zealand: costs and relationships with staffing practices and patient outcomes. J Nurs Manag 2013;21(3):419–28.
[2] North N, Hayes LJ, O'Brien-Pallas L, Duffield CM, Shamian J, Buchan J, et al. Nurse turnover: a literature review–an update. Int J Nurs Stud 2012;49:887–905.
[3] Lee Y, Lee M, Bernstein K. Effect of workplace bullying and job stress on turnover intention in hospital nurses. J Korean Acad Psychiatr Ment Health Nurs 2013;22(2):77–87.
[4] Meyer JP, Allen NJ. A three-component conceptualization of organizational commitment. Hum Manage Dev Rev 1991;1(1):61–89.
[5] Jafari S, Afshin T, Jafari K, Barzegar M. Evaluation of organizational commitment among nurses in intensive care units. J Nurs Midwifery Scib 2015;2(3):38–43.
[6] Sepahvand F, Atashzadeh-Shoorideh F, Parvizy S, Tafreshi MZ. The relationship between some demographic characteristics and organizational commitment of nurses working in the Social Security Hospital of Khorramabad. Electron Physician 2017;9(6):4503–9.
[7] Lee H, Lim Y, Jung HY, Shin YW. Turnover intention of graduate nurses in South Korea. Jpn J Nurs Sci 2012;9(1):63–75.
[8] Vagharseyyedin SA. An integrative review of literature on determinants of nurses' organizational commitment. Iran J Nurs Midwifery Res 2016;21(2):107–17.
[9] Cao J, Hamori M. The impact of management development practices on organizational commitment. Hum Resour Manag 2016;55(3):499–517.
[10] Zhou J, Plaisent M, Zheng L, Bernard P. Psychological contract, organizational commitment and work satisfaction: survey of researchers in Chinese state-owned engineering research institutions. Open J Soc Sci 2014;2(9):217–25.
[11] Li A, Early SF, Mahrer NE, Klaristenfeld JL, Gold JI. Group cohesion and organizational commitment: protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. J Prof Nurs 2014;30(1):89–99.
[12] Tett RP, Meyer JP. Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. Person Psychol 1993;46(2):259–93.
[13] Roche MR, Duffield CM, Dimitrelis S, Frew B. Leadership skills for nursing unit managers to decrease intention to leave. Nurs Res Rev 2015;5:57–64.
[14] Heinen MM, van Achterberg T, Schwendimann R, Zander B, Matthews A, Kózka M, et al. Nurses' intention to leave their profession: a cross sectional observational study in 10 European countries. Int J Nurs Stud 2013;50(2):174–84.
[15] Al Momani M. Factors influencing public hospital nurses' intentions to leave their current employment in Jordan. Int J Community Med Public Health 2017;4(6):1847–53.
[16] AbubakarR A, Chauhan A, Kura KM. Relationship between perceived organizational politics, organizational trust, human resource management practices and turnover intention among Nigerian nurses. Manage Sci Let 2014;4(9):

2031–48.
[17] Bruyneel L, Thoelen T, Adriaenssens J, Sermeus W. Emergency room nurses' pathway to turnover intention: a moderated serial mediation analysis. J Adv Nurs 2017;73(4):930–42.
[18] Takase M, Teraoka S, Kousuke Y. Investigating the adequacy of the Competence Turnover Intention Model: how does nursing competence affect nurses' turnover intention? J Clin Nurs 2015;24(5–6):805–16.
[19] Liang HY, Tang FI, Wang TF, Lin KC, Yu S. Nurse characteristics, leadership, safety climate, emotional labour and intention to stay for nurses: a structural equation modelling approach. J Adv Nurs 2016;72(12):3068–80.
[20] Tummers LG, Groeneveld SM, Lankhaar M. Why do nurses intend to leave their organization? A large scale analysis in long term care. J Adv Nurs 2013;69(12):2826–38.
[21] Al Hamwan M, Mat NB, Al Muala I. The impact of organizational factors on nurses turnover intention behavior at public hospitals in Jordan: how does leadership, career advancement and pay-level influence the turnover intention behavior among nurses. J Manag Sustain 2015;5(2):154–61.
[22] Rudman A, Gustavsson P, Hultell D. A prospective study of nurses' intentions to leave the profession during their first five years of practice in Sweden. Int J Nurs Stud 2014;51(4):612–24.
[23] Hayward D, Bungay V, Wolf AC, McDonald V. A qualitative study of experienced nurses' voluntary turnover: learning from their perspectives. J Clin Nurs 2016;25(9–10):1336–45.
[24] Omar K, Mohamed M, Majid A, Halim A, Johari H. Organizational commitment and intention to leave among nurses: the mediating role of moral obligation. Int J Manag Stud 2012;19(2):31–46.
[25] Al Hussami M, Darawad M, Saleh A, Hayajneh FA. Predicting nurses' turnover intentions by demographic characteristics, perception of health, quality of work attitudes. Int J Nurs Pract 2014;20(1):79–88.
[26] Han SS, Han JW, An YS, Lim SH. Effects of role stress on nurses' turnover intentions: the mediating effects of organizational commitment and burnout. Jpn J Nurs Sci 2015;12(4):287–96.
[27] Wang L, Tao H, Ellenbecker CH, Liu X. Job satisfaction, occupational commitment and intent to stay among Chinese nurses: a cross-sectional questionnaire survey. J Adv Nurs 2012;68(3):539–49.
[28] Labrague LJ, McEnroe-Petitte DM, Gloe D, Tsaras K, Arteche DL, Maldia F. Organizational politics, nurses' stress, burnout levels, turnover intention and job satisfaction. Int Nurs Rev 2017;64(1):109–16.
[29] Littlejohn L, Campbell J, Collins-McNeil J. Comparative analysis of nursing shortage. Int J Nurs 2012;1(1):22–7.
[30] Philippine Overseas Employment Administration. Philippine overseas employment administration overseas employment statistics. Manila, Philippines: Philippine Overseas Employment Administration; 2010. accessed, http://www.poea.gov.ph/html/statistics.html. [Accessed 3 September 2016].
[31] Castro-Palaganas E, Spitzer DL, Kabamalan MM, Sanchez MC, Caricativo R, Runnels V, et al. An examination of the causes, consequences, and policy responses to the migration of highly trained health personnel from the Philippines: the high cost of living/leaving—a mixed method study. Hum Resour Health 2017;15(1):25.
[32] Pring C, Roco I. The volunteer phenomenon of nurses in the Philippines. Asian J Health 2012;2(1):95–110.
[33] World Health Organization & Department of Health. Health service delivery profile: Philippines 2012. Manila: World Health Organization; 2012. Western Pacific Region, Philippines Office, http://www.wpro.who.int/health_services/service_delivery_profile_philippines.pdf. [Accessed 25 August 2018].
[34] Lee SP, Chitpakdee B, Chontawan R. Factors predicting organizational commitment among nurses in state hospitals, Malaysia. Int Med J Malaysia 2011;10(2):21–8.
[35] Farrell D, Rusbult CE. Exploring the exit, voice, loyalty and neglect typology: the influence of job satisfaction, quality of alternatives, and investment size. Empl Responsib Rights J 1992;5(3):201–18.
[36] Sakthivel D, Jayakrishnan J. Work life balance and Organizational commitment for Nurses. Asian J Bus Manag Sci 2012;2(5):1–6.
[37] De Cicco J, Laschinger H. Perceptions of empowerment and respect: effect on nurses' organizational commitment in nursing homes. J Gerontol Nurs 2006;32(5):49–56.
[38] Lu KY, Chang LC, Wu HL. Relationships between professional commitment, job satisfaction, and work stress in public health nurses in Taiwan. J Prof Nurs 2007;23(2):110–6.
[39] Twibell R, St Pierre J, Johnson D, Barton D, Davis C, Kidd M, et al. Tripping over the welcome mat: why new nurses don't stay and what the evidence says we can do about it. Am Nurse Today 2012;7(6):357–65.
[40] Sikorska-Simmons E. Predictors of organizational commitment among staff in assisted living. Gerontol 2005;45(2):196–205.
[41] Allen NJ, Meyer JP. Organizational commitment: evidence of career stage effects? J Bus Res 1993;26(1):49–61.
[42] Meadus RJ, Twomey JC. Men in nursing: making the right choice. Can Nurse 2007;103(2):13–6.
[43] Mrayyan MT, Al Faouri I. Predictors of career commitment and job performance of Jordanian nurses. J Nurs Manag 2008;16:246–56.
[44] Abu Alrub RF, Al Ghamdi MG. The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. J Nurs Manag 2012;20(5):668–78.
[45] Arslan Yurumezoglu H, Kocaman G. Predictors of nurses' intentions to leave the organisation and the profession in Turkey. J Nurs Manag 2016;24(2):235–43.
[46] Labrague LJ, Gloe DS, McEnroe-Petitte DM, Tsaras K, Colet PC. Factors influencing turnover intention among registered nurses in Samar Philippines. Appl Nurs Res 2018;39:200–6.
[47] Labrague L J, McEnroe-Petitte DM, Leocadio M, Van Bogaert PV, Tsaras K. Perceptions of organizational support and its impact on nurses' job outcomes. Nurs Forum. Advanced Online Publication. doi:10.1111/nuf.12260.
[48] Hsu CP, Chiang CY, Chang CW, Huang HC, Chen CC. Enhancing the commitment of nurses to the organization by means of trust and monetary reward. J Nurs Manag 2015;23(5):567–76.
[49] Marcus K, Quimson G, Short SD. Source country perceptions, experiences, and recommendations regarding health workforce migration: a case study from the Philippines. Hum Resour Health 2014;12:62.
[50] Rosales RA, Labrague LJ, Rosales GL. Nurses' job satisfaction and burnout: is there a connection? Int J Adv Nurs Stud 2013;2:1–10.
[51] Yasmin K, Marzuki NA. Impact of organizational commitment on intention to quit among psychiatric nurses: evidence from Pakistan. Int J Learn Dev 2015;5(4):89–102.
[52] Sato Y, Hayashida N, Orita M, Urata H, Shinkawa T, Fukushima Y, et al. Factors associated with nurses' intention to leave their jobs after the Fukushima Daiichi Nuclear Power Plant accident. PLoS One 2015;10(3). e0122389.