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Related factors of actual turnover among nurses: a cross-sectional study

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ABSTRACT

Turnover exacerbates the global nursing shortage; the loss of skilled and expert nurses has a negative impact on patient outcomes. The study examined the influence of job satisfaction, work environment, leadership styles, organizational commitment and work-family support on actual turnover among nurses working in the hospital of Indonesia. A cross-sectional survey was carried out in Jakarta, Indonesia. The sample in this study was nurses who leave the jobs from hospital during period of time October 2019 to October 2020. A total of 170 nurses responded to the survey. Nurses reported poor leadership style (2.84±0.82), organization commitment (2.99±0.76), as well as dissatisfaction with organization (2.76±0.80) and leadership support (2.89±0.89). Job satisfaction (p=0.007), work environment (p=0.032), leadership style (p=0.001), organizational commitment (p=0.010), and work-family support (p=0.026) remained statistically significant affected turnover. The findings of this study emphasize the critical role of satisfaction, organizational commitment, work-family support, and leadership style in determining nurse intention to stay and provide employers with a road map for reducing turnover. Future studies may need to understand more deeper regarding the actual turnover experience and its associated factors using longitudinal or qualitative studies.

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1. INTRODUCTION

Nursing shortages are a global problem, especially given the rapid increase in the world's population over the past few decades [1]. Turnover exacerbates the global nursing shortage; the loss of skilled and expert nurses has a negative impact on patient outcomes [2], [3]. As of the end of 2019, Indonesia had 345,508 registered nurses, but their ratio to the population was only 1.8:1,000. This is lower than the current rates in the United States (2020), European countries (2018), and Japan (2015), which are 12.06:1,000, 8,2:1,000, and 10,3:1,000, respectively [4], [5]. The COVID-19 pandemic has made the nurse shortage more acute in recent years, which has contributed to the increased demand for nurses (international council of nurses, 2020). Clinical care, safety, and financial performance are negatively impacted by turnover among nurses [6]–[8].

Nurse turnover is defined as the number of nurses who leave the job or who leave the nursing profession altogether [9]. Nursing turnover rates are largely unknown, as most turnover information is drawn from studies of organization or programme performance. Several studies have been carried out in order to quantify and gain a better comprehending and identify why nurses quit their job [10]. Conducted a systematic review and found that stress, burnout, job dissatisfaction, and commitment were the strongest predictors of turnover. Satisfaction, organizational commitment, job search, and intent all act as mediators between

employees and turnover [11], [12]. The concept of Price's conceptual framework shows that greater job satisfaction and commitment in the workplace lead to more job search and ultimately to less turnover. The term "organizational commitment" refers to the perceived capacity with where an individual identifies with and participates in a specific organization [13]. Organizational commitment, either directly or indirectly, reduces turnover [14], [15] and job search behavior. Previous research has shown that employees' job-related commitments is key drivers of turnover and overall satisfaction.

Nurse managers' leadership styles may have a significant impact on nurse retention [16] suggests that ineffective leadership is a significant factor in nursing staff turnover. Despite this, there is increasing evidence that nursing leadership has an impact on nurse retention rates [17]. The current study shows that transformational and participatory leadership styles and health care intentions are closely interconnected [18]. The transformation-based leadership styles of nurse managers have been linked to an increased work-force intention to stay employed. Indonesia is classified as a lower-middle-income country, that might reveal why little effort has been made to develop nursing leadership capable of providing high-quality patient care. Nurse managers' leadership styles are unclear in Indonesian hospitals, and nurses in the country start complaining about high turnover as a result of ineffective nursing leadership.

Work environments have a significant influence on whether or not employees intend to leave. Frequent night changes, increased demand for high quality and workload have explained the intention of leaving with the resulting turnover [19], [20]. Furthermore, work-family support denotes the cooperation between employers and employees' households [21]. Work-family conflicts can be mitigated and employee retention improved through organizational support [22]. Health care providers' dedication to their organization and their performance on the job can suffer if they feel isolated from the rest of the team [23]. However, the potential variables affecting actual nurse turnover in the Indonesian context may different from that of America and Europe [24] Furthermore, rather than looking at a broad range of important characteristics, most studies focused on the relationship among specified factors and actual turnover. Nurses in an Indonesian hospital were surveyed to determine if their actual turnover rate was affected by factors such as job satisfaction, work environment, leadership styles, organizational commitment, and work-family support.

2. RESEARCH METHOD

2.1. Research design and sample

A cross-sectional survey was carried out in Jakarta, Indonesia. The study's target population is nurses working in type C hospitals in Jakarta, Indonesia. This hospital provides sub-specialty health services, but it is more limited and relies on referrals from level 1 health facilities such as primary care, private doctors, or polyclinics. A total seven type C hospitals in Jakarta with minimum 100 beds per hospital. We focus on type C hospital because most of nurses work in type C hospitals as an alternative for them to get better jobs in the future by having work experience, especially for young nurses.

The sample in this study was nurses who leave the jobs from hospital during period of time October 2019 to October 2020. The exclusion criteria were nurse who take maternity of sick leave or training nurses. The sample size was calculated using G-Power Software version 3.1.6 with the Z test, α=0.05, the effect size set to 0.15 [25] defined this as a medium effect size), and the power level set to 0.80. Therefore, the sample size was 170. Convenience sampling was used for the recruitment of participants.

Among seven hospitals, only three hospitals were providing permission to conducted the study. A total of 170 nurses responded to the survey (response rate=32.8%), from three type C hospitals. The low response rate might due to the online data collection using Google Forms which might be unfamiliar at the time of data collection.

2.2. Instruments

Demographic data include age, gender, education, marital status, current employment or work status, professional title, and family economic burden. Senior titles include Director Nurse and Assistant Director Nurse, while Intermediate titles include charge nurse and staff nurse. The monetary responsibilities of the family were ranked from most to least onerous. The turnover was divided into two parts, the first being a nurse who had remained or had left his job in the previous period (October 2019 to September 2020). The second half of turnover was determined by determining whether the nurse changed jobs, either by seeking new employment or by remaining unemployed.

The three-item questionnaire was used to assess turnover intent [26]. There are three main reasons why I want out of this organization as soon as possible: i) i have considered leaving; ii) i am actively looking for an alternative to the organization; and iii) i have no intention of staying. There are five options on the scale, from 1 (strongly disagree) to 5 (completely agree) (strongly agree). The aggregate ratings were averaged, with higher ratings indicating a higher turnover probability. The Cronbach's Alpha coefficient in this investigation was 0.81. To measure how happy nurses were in their jobs, we asked them to respond to a single question [27].

The item was assessed on a Likert scale of 1 to 5, with 1 indicating extremely satisfied, 2 indicating satisfied, 3 indicating neutral, 4 indicating dissatisfied, and 5 indicating very dissatisfied. The Cronbach' Alpha in this study was 0.81.

Working environment was assessed using the revised nursing work index (NWI-R) in Bahasa Indonesia [28]. Three dimensions or subscales were identified in this version: the relationships of nurse and physicists (3 items), the management of the unit nurses (13 items) and the management and supporting of hospitals (15 items). Staff nurses scored their agreement with various statements about the practice environment on a 4-point Likert-type scale in their current roles (strongly disagree, disagree, agree, strongly agree). The Cronbach' Alpha in this study was 0.81, which is a good result.

Leadership style was evaluated using the Multifactor Leadership Questionnaire (MLQ-5X) constructed by Bass and Avolio [29] A total of 45 questions were asked, with responses graded on a five-point Likert scale (0=never at all to 4=frequently, if not consistently). The MLQ-5X is the standard tool to evaluate the range of transformative, transactional and passive leadership behaviors. The MLQ-5X is a reliable and valid instrument with a consistently high Cronbach's alpha of >0.90. In this study, the Cronbach' Alpha was 0.84, which is a good result.

Organizational commitment was assessed using the questioner developed by in *Bahasa Indonesia* version. It's a nine-item, one-dimensional survey meant to gauge respondents' loyalty to their current workplace. All items are scored on a 5-point likert scale, with 1 indicating strong disagreement and 5 indicating strong agreement. The Cronbach' Alpha for the current study was 0.87, indicating that the questionnaire had good internal consistency.

The Work-family support scale was used to assess work-family support. The questionnaire is divided into four sections: organizational, leadership, emotional, and instrumental support. The questionnaire was scored using the Likert 5-point scale (1 indicating strong disagreement and 5 indicating strong agreementIf the score goes up; it means you got more help. The overall Cronbach's alpha in this study was 0.86.

2.3. Data collection and ethical considerations

The ethical review committee of affiliated university was approved the procedures of this study (2554/Sket/Ka-Dept/RE/STIKIM/X/2020). Researchers obtained the data of nurses who left their jobs from the human resource development. The researchers contacted potential participants throughout media social and explain the purpose of this study and procedure. Participants in the research projects were assured their anonymity and the privacy of their data, and their participation was entirely voluntary. When nurse declined to participate in the survey, they could freely choose not to respond without penalty. Return of the questionnaire was considered as agreement to participate. Participants responded to the study questionnaire via a google form created by the researchers. The survey was saved on google drive with security, and replies were automatically uploaded and duplicate accounts were blocked. They could complete questionnaires using a home computer or in the hospital.

2.4. Data analysis

Turnover-related factors were analyzed using descriptive statistics and binomial probit regression. Binomial probit is a non-linear regression method that can be used instead of logistic regression. To estimate the nonlinear model, we scale the coefficient values to generate the partial effects that account for the independent variables influencing factors on turnover. The statistical package for the social sciences was used to analyze the data (version 20.0).

3. RESULTS

Most respondents were female (86.4%), married (63.5%), vocational education (70.6%). They had a mean age of 30.04 years (SD=5.29 years). Generations X (57.1%) and Y 56 (32.9%) were the dominant age groups; 1% were baby boomers. About 72.9% respondents were permanent nurse and 60% junior nurses. Most of family economic burden were heavy (50%) in Table 1.

Out of the total sample, nurses reported moderate job satisfaction (3.05±1.12) and good working environment (3.12±1.36). Nurses reported poor leadership style (2.84±0.82) and organization commitment (2.99±0.76). Nurses reported dissatisfaction with organization support (2.76±0.80) and leadership support (2.89±0.89) in Table 2.

Table 1. Descriptions of nurse demographic characteristics (n=170)

Demographics	n (%)	Demographics	n (%)
Age, Mean±SD	30.04±5.29	Employment	
Gender		Contract nurse	46 (27.1)
Male	23 (13.5)	Permanent nurse	124 (72.9)
Female	147 (86.4)	Professional title	
Marital status		Junior	102 (60.0)
Single	42 (24.7)	Intermediate	47 (27.6)
Married	108 (63.5)	Senior	21 (12.4)
Divorced/widowed	20 (11.8)	Family economic burden	
Education		Heavy	85 (50.0)
Vocational education	120 (70.6)	A little	67 (39.4)
Bachelor	50 (29.4)	None	18 (10.6)

Table 2. Descriptive statistics for measurement scales (n=170)

Variables	Item average	Range
Intention to stay	2.11±0.34	1-5
Job satisfaction	3.05±1.17	1-5
Working environment	3.12±1.36	1-4
Leadership style	2.84±0.82	0-4
Organizational commitment	2.99±0.76	1-5
Work-family support	2.99±0.59	1-5
Organizational support	2.76±0.80	1-5
Leadership support	2.89±0.89	1-5
Emotional support	3.21±0.54	1-5
Instrumental support	3.11±0.62	1-5

This study reports the partial effect (PE) at the mean for continues data. While for categorical data, PE reported if the value change from 0 to 1. For example, PE for job satisfaction is-0.015 in Table 3. This means that for every unit decrease in job satisfaction, the probability of turnover increases by 0.015. When intent to stay was removed from the equation to see if any variable performed indirectly on turnover via the intension, job satisfaction (p=0.007), work environment (p=0.032), leadership style (p=0.001), organizational commitment (p=0.010), and work-family support (p=0.026) remained statistically significant (without other adjustments in variable significance).

Table 3. Related factors of actual turnover among nurses (n=170)

Demographics	Turnover Estimates		
	Coefficient (CI)	p-value	Partial effects
Constant	-1.890 (-8.23-5.87)	0.511	
Age categories (Generation X)			
Generation Y	0.214 (-0.110-0.582)	0.157	0.016
Baby Boomers	0.160 (-0.256-0.431)	0.356	0.023
Gender (Male)	-0.157 (-0.732-0.224)	0.557	-0.020
Not married (Married)	-0.188 (-0.487-0.211)	0.149	-0.003
Education (Vocational education)	-0.063 (-0.168-0.042)	0.241	-0.011
Employment (Contract nurse)	-0.021 (-0.232-0.191)	0.849	-0.003
Professional title (Junior)			
Intermediate	-0.010 (-0.025-0.168)	0.347	-0.007
Senior	-0.175 (-0.131-0.262)	0.087	-0.023
Family economic burden (none)			
Heavy	0.153 (-0.177-0.479)	0.849	0.012
A little	-0.110 (-0.421-0.243)	0.238	-0.003
Intention to stay	-0.206 (-0.645-0.015)	0.001	-0.015
Job Satisfaction	-0.168 (-0.064-0.009)	0.007	-0.015
Work stress	0.132 (0.015-0.287)	0.032	0.021
Leadership style	-0.334 (-0.645-0.311)	0.001	-0.066
Organizational commitment	-0.485 (-0.720-0.191)	0.010	-0.053
Work-family support	-0.364 (-0.683-0.279)	0.026	-0.058

4. DISCUSSION

The results of this study show that dissatisfaction with one's job is a major contributor to turnover rates among Indonesian nurses. Several studies [30]–[33] show that dissatisfaction with one's employment has a negative influence on turnover, and that the work environment mediates the relationship between job satisfaction and employee turnover. These results agree with Boyle's retention [34] and another research [35].

More attention on boosting nurses' job happiness is recommended for nurse administrators to reduce nurses' intention to leave the profession. More nurses could be trained, salaries could be raised to help ease the financial strain, working conditions could be improved, and the professional title promotion system might be reformed to boost employees' enthusiasm for their work. The results of this study are consistent with those of others in showing that nurses have a modest level of organizational commitment, which is significantly connected adversely with turnover. Nurses' manager needs to design an intervention that focus on providing additional support to nurses in order to promote an increased likelihood of initiative and retention in the workplace.

This finding indicates that transformational leadership styles are associated with a reduction in turnover. This finding is in line with the findings of [36], who revealed a link between transformational leadership and turnover [10]. Concluded that transformational styles of nursing supervisors contribute to the creation of a positive hospital environment and increase the intention of nurses to remain at their jobs. The finding indicates that the higher the number of employees in their existing workplaces, the more transformative leadership styles are implemented in a health care facility. To improve nurse retention, nursing leaders must cultivate more transformational leadership style, which include responding to client needs on the spot, made better, and adjusting to new strategies, among other things. Furthermore, this study found that the nurse's work-family support was inadequate. This research suggests that insufficient organizational support is a major contributor to employee turnover. Nurses' perception of work performance and dedication are influenced by quality leadership [37]. In this research, findings show that providing more support to nurses, such as increasing their workforce or roles in hospital management, will help to reduce turnover.

The nurse's perception of work-family support was found to be unsatisfactory in this study. Work-family support was found to be inversely related to increased turnover. Employees are leaving because they don't feel supported by the company, which is consistent with past research showing that such support can have a significant impact on work-family issues. It is important that leaders demonstrate high levels of support for nurses, because this will positively influence nurses' understandings of the significance of their work and thus enhance their commitment to the organization. In this study, nurses' organizational commitment was modest and strongly negatively connected with turnover, which is consistent with prior findings [38]. Individuals who are supported and shown how to succeed are more likely to strive for their organization and remain employed. Additional organizational support, such as enhancing nurse workforce, optimizing nurse positions in hospital management and helping employees return to full professional life, should indeed be established.

The study has several limitations. Causality relationships cannot be interpreted given a cross-sectional design. Further, the instruments utilized in this research were modified to better suit the conditions in Indonesia, but have not been used extensively before. Third, sample size and convenience sampling may impose constraints on the generalizability of findings. Additionally, nurses practice variables were not taken into consideration for analysis, which constrained comprehension of Indonesian nurses' turnover. In order to identify the causes of turnover, future studies should include longitudinal data and indicators that are indicative of Indonesian nursing.

5. CONCLUSION

Employers can influence employee turnover to some extent but not eliminate it altogether because it is an inevitable byproduct of every workforce over time. This study provides a roadmap for companies to reduce turnover among nurses by highlighting the importance of factors like job satisfaction, organizational commitment, work environment, work-family support, and leadership style. Due to the complexity of turnover issues, there is no one-size-fits-all solution for reducing turnover; numerous interventions arise. The attention to the important problems of nurses which improve satisfaction and commitment to the organization is likely to lead in more nurses staying, as well as overall lower turnover. An employer's goal should be to stop someone from wanting to leave the hospital before they actually make that decision. Research into non-avoidable turnover predictors may aid in the refinement of nurse turnover models and enable for even more specific targeting of changes in the work environment. Future studies may need to understand more deeper regarding the actual turnover experience and its associated factors using longitudinal or qualitative studies.

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