

## Conference Paper

# Analysis Factors Associated with Performance of Nurses in RSUD Kota Depok, 2017

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## Abstract

Nurses are the largest Human Resources (HR) that provide health services in hospital. Hospital nurses have an important role in the implementation of hospital functions to patients, therefore it requires a good performance so patients get the best service in achieving curative and rehabilitative goals. This study was conducted in RSUD Kota Depok between May and June 2017. Variables in this study are: (1) performance; (2) sex; (3) age; (4) education level; (5) years of service; (6) employment status; (7) work units; (8) work motivation; (9) work environment. This study is an analytical research with quantitative approach using cross-sectional study. The sample in this research is all of nurses in RSUD Kota Depok, the number is 79 nurses. Based on the results of this study, variables related to the performance of nurses in RSUD Kota Depok are job motivation ( $P = 0.011$ ), work environment ( $P = 0.000$ ) and work unit ( $P = 0.004$ ), while gender ( $P = 0.113$ ), age ( $P = 1.000$ ), education level ( $P = 0.145$ ), employment status ( $p = 0.823$ ) and years of work ( $p = 0.312$ ) are not related to nurse performance in RSUD Kota Depok 2017. Thus, it is expected that the management of RSUD Kota Depok considers factors related to the performance of nurses studied in this research, so that it is expected to measure the performance of nurses.

**Keywords:** performance, work motivation, work environment, nurse performance, hospitals

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Received: 17 October 2018

Accepted: 5 November 2018

Published: 5 December 2018

Publishing services provided by  
Knowledge E

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Selection and Peer-review under the responsibility of the 2nd ICHA Conference Committee.

## 1. Introduction

Every hospital tries to focus and seriously improve customer or patient satisfaction. The hospital will provide optimal and satisfactory services when supported by quality human resources. The existence of professional and high-quality hospital human resources is very important in facing the demands of higher quality, friendly and capable hospital services to meet the expectations, desires, and needs of a society that gets heavier.

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Nurses are the largest Human Resources (HR) who conduct health services in the form of nursing care in hospitals. The number of nurses in 2013 reached 296,126 people, the largest health personnel recorded by the Ministry of Health. The number of nurses is 40% bigger compared to other health workers [1]. Based on Depok City Health Profile in 2015, it is reported that there are 6,656 health workers who serve in various health service facilities in Depok City and 2,379 of them are nurses. Therefore, increasing the professionalism of nurses is very important as an effort to improve the quality of health services. The services provided by nurses based on biopsychosocial-spiritual approach are services that are carried out for 24 hours and have continuous advantages compared to other services [2].

Nurses currently are needed not only in quantity, but also in quality. Based on *Tribun Pontianak* online newspaper (February 11, 2012), ideally the ratio of the ratio between the number of nurses and patients in Indonesia is 1: 4,000, but the reality is currently one nurse can serve 10,000 patients even more. That means, the burden of nurses in Indonesia is very high. Most nurses in hospitals are required to do work that is not their job. This can have a negative impact on the quality of services provided by nurses to patients [1].

In accordance with regulations stating that every health worker who works in a hospital must work in accordance with professional standards, hospital service standards, applicable operational procedure standards, professional ethics, respect for patient rights and prioritize patient safety (Article 13, Hospital Law, year 2009) [3]. Nurses as part of health workers need to provide nursing care services by paying attention to and following the rules and standards that apply in the hospital. However there are many phenomena in hospitals or other health care facilities where nurses are impatient, rude and angry at both the patient and the patient's family. Negligence in work such as errors in drug administration and treatment is still occurred. This is certainly very contrary to the duties and obligations of a nurse who must provide excellent service to patients.

The total indicator of service quality in Depok City Hospital includes Bed Occupancy Ratio of 70.41% from the total 71 beds in 2014 (MOH Standard 60–85%), average day number of beds not occupied from having been filled into the Turn Over Interval of 1.49 days (Department of Health Standard is 1–3 days), the average length of patients treated (Average Length of Stay) of 4.48 days (MOH Standard RI 6–9 days), the value of the frequency of use of the bed in one period (Bed Turn Over) is 72.28 times (Standard MOH 40–50 times). Based on the total score of indicators of service quality in Depok City Hospital, several indicators are still below the standard of the Indonesian Ministry

of Health. One of the alternatives that can be done to improve the quality of hospital services is improving the performance of health human resources in hospitals including nurses. Nurses also play an important role in 4 indicators of 10 health service quality indicators in hospitals, namely: (1) level of patient satisfaction in nursing care; (2) nurse satisfaction level; (3) combination of work between professional and non-professional nurses; (4) total hours of nursing care per patient per day [4].

One of the indicators of the quality of health services in hospitals can be seen from the level of patient satisfaction. Based on the results of the preliminary study through interviews with health workers in Depok City Hospital there were several complaints from patients such as late arrival doctors, long queues, and taking old drugs. When a patient complains about the physical environment of the hospital, for example, lack of air conditioning, narrow spaces, lack of seating facilities in the waiting room, and incomplete medical devices. Thus, to improve patient satisfaction it is necessary to improve the quality of hospital services both in terms of quality of health workers and facilities.

## 2. Method

This is a quantitative study using cross sectional method where the independent variables (age, sex, staffing, work motivation and work environment) and dependent variable (nurse performance) are collected in the same period. The activities include data collection and measurement of independent variables (age, gender, employment status, work motivation and work environment) and dependent variable (nurse performance). This study is conducted to see the correlation between the variables. This research was conducted at Depok City Hospital in May to June 2017. The data is collected using questionnaire. Population in this research is 86 nurses at Depok City Hospital with sample 79 nurses. The purpose of this study is to determine the factors associated with the performance of nurses in Depok City Hospital.

## 3. Result

### 3.1. Univariate analysis

### 3.1.1. Nurse performance

The results showed the low-performing respondents as much as 39 respondents (49.4%) and high-performance respondents as much as 40 respondents (50.6%).

### Respondent characteristics

It can be seen that from 79 respondents, there are male nurses (21.5%) and female nurses (62.5%). The number of 25-35 years old nurses are 44 people (55.7%) and 36-49 years old (78.5%) people. There are 63 nurses who have education less than or equal to D3 (diploma degree) (79.7%) and 16 nurse has higher education above diploma degree 6 (20.3%). There are nurses in Depok City Hospital who have working period of 8 years (39.4%) and work period ≥ 8 years (50.6%). There are 25-35 years old (55.7%) nurses and 36-49 years old (78.5%) nurses. The number of civil servant nurses is 63 people (79.7%) and personnel equal to civil servant is 16 people (20.3%). Based on Table 2 it can be seen that from 79 respondents most of the nurses work in Installation of Inpatient & Perinatology, the number is 44 people (55.7%).

TABLE 1: Frequency distribution the performance of nurses in RSUD Depok, 2017.

Performance	Frequency	Percentage (%)
Low	39	49.4
High	40	50.6
<b>Total</b>	<b>79</b>	<b>100</b>

TABLE 2: Frequency distribution the work motivation of nurses in RSUD Depok, 2017.

Work Motivation	Frequency	Percentage(%)
Low	53	67.1
High	26	32.9
<b>Total</b>	<b>79</b>	<b>100</b>

TABLE 3: Frequency distribution of the work environment of nurses in RSUD Depok, 2017.

Work Environment	Frequency	Percentage (%)
Not Good	48	60.8
Good	31	32.9
<b>Total</b>	<b>79</b>	<b>100</b>

TABLE 4: The correlation between the work motivation with the performance of nurses.

Work Motivation	Performance				Total		OR	P-Value
	Low		High		N	%		
	N	%	N	%				
1. Low	32	60.4	21	39.6	53	100	4.136	0.011
2. High	7	26.9	19	73.1	26	100	(1.482–11.546)	
Total	39	49.4	40	50.6	79	100		

TABLE 5: The correlation between the work motivation with the performance of nurses.

Work Environment	Performance				Total		OR	P-Value
	Low		High		N	%		
	N	%	N	%				
1. Not Good	34	70.8	14	29.2	48	100	12.629	0.000
2. Good	5	16.1	26	83.9	31	100	(4.032–39.553)	
Total	39	49.4	40	50.6	79	100		

### Work motivation

The results showed that from 79 respondents researched, there are nurses who have low motivation as much as 53 respondents (67.1%) and high motivation as much as 26 respondents (32.9%).

### Work environment

The results showed that from 79 respondents researched, there are nurses who perceived poor work environment by 48 respondents (60.8%) and respondents who perceived good working environment equal to 31 respondents (39.2%).

## 3.2. Bivariate analysis

### 3.2.1. Gender and performance

The results of the analysis of the correlation between gender and the performance of nurses in Depok City Hospital from a total of 39 low-performing respondents obtained by most female nurses as many as 34 respondents (54.8%). Statistical test results

obtained  $P$ -value (0.113)  $>$   $\alpha$  value (0.05) and obtained OR = 0.343 (95% CI = 0.108–1.091). The results of these statistical tests showed that female nurses had an opportunity of 0.343 times to have low performance compared to male nurses,  $P$  (0.113)  $>$   $\alpha$  (0.05) and 95% CI passed the null value so that there was no correlation between sexes with performance of nurses RSUD Depok city in 2017.

### 3.2.2. Age and performance

The result of the analysis of the correlation between age with the performance of nurses in Depok City Hospital from the total of 39 low-performing respondents obtained most of the nurses aged 25–35 years as many as 23 respondents (52.3%). The result of statistical test obtained the value of  $P$  (0.724)  $>$  value of  $\alpha$  (0.05) and obtained value OR = 1.301 (95% CI = 0.534–3.167). The results of the statistical tests showed that nurses aged 25–35 years had 1.301 times the chance to have low performance compared to nurses aged 36–49 years,  $P$ -values (0.724)  $>$   $\alpha$  (0.05) and 95% CI passed the null value so that it showed no correlation between age and the performance of nurses in Depok City Hospital in 2017.

### 3.2.3. Level of education and performance

Result of statistical analysis between level of education with performance of nurse in Depok City Hospital from total of 39 respondents who have low performance obtained most of nurse educated  $\leq$  D3 counted 28 respondents (44.4%). The results of statistical test obtained  $p$ -value (0.145)  $>$  value of  $\alpha$  (0.05) and obtained value OR = 0.364 (95% CI = 0.113–1.113). The results of the statistical test showed that the nurse with education 3 D3 had a 0.364 times chance of having a lower performance than the nurse  $>$  D3,  $P$  (0.724)  $>$   $\alpha$  (0.05) and 95% CI passed the null value so that there is no correlation between age and performance of nurses in Depok City Hospital in 2017.

### 3.2.4. Working performance and performance

The result of the analysis of the correlation between the working period and the performance of the nurses of RSUD Depok City from a total of 39 respondents with low performance obtained most of the nurses with working period of  $<$  8 years that is 22 respondents (56.4%). Statistical test results obtained  $P$ -value (0.312)  $>$   $\alpha$  value (0.05) and obtained OR = 1.751 (95% CI = 0.718–4.267). The results of these statistical

tests showed that nurses with a service period of  $< 8$  years had a chance of 1.751 times having a low performance compared to nurses with a working period of  $\geq 8$  years,  $P$ -values ( $0.312$ )  $> \alpha$  ( $0.05$ ) and 95% CI passed the null value so that it showed there is no correlation between the working period and the performance of nurses in Depok City Hospital in 2017.

### 3.2.5. Staffing status and performance

The results of the analysis of the correlation between education status with the performance of Depok City Hospital nurses from a total of 39 low-performing respondents obtained by most nurses with civil servant status as many as 32 respondents (50.8%). Statistical test results obtained  $P$ -value ( $0.823$ ) and obtained OR = 1.327 (95% CI = 0.440–4.004). The results of these statistical tests showed that nurses with civil servant employment status had a 1.327 times low performance compared to nurses with non-PNS employment status,  $P$ -value ( $0.823$ )  $> \alpha$  ( $0.05$ ) and 95% CI passed the null value so that there is no the correlation between employment status with the performance of nurses RSUD Depok city in 2017.

### 3.2.6. Work unit and performance

The results of the analysis of the correlation between work units and the performance of nurses in Depok City Hospital from a total of 39 low-performing respondents obtained by most nurses working in Inpatient & Perinatology Installation as many as 29 respondents (43.8%). The results of statistical tests obtained  $P$ -value ( $0.004$ )  $< \alpha$  value ( $0.05$ ), it can be concluded that there is a significant correlation between work units and the performance of nurses in Depok City Hospital in 2017.

### 3.2.7. Work motivation and performance

The results of the analysis of the correlation between work motivation and the performance of Depok City Hospital nurses from a total of 39 low-performing respondents obtained by most nurses had low motivation, namely 32 respondents (60.4%). Statistical test results obtained  $P$ -value ( $0.011$ ) and obtained OR = 4.136 (95% CI = 1.482–11.546). The results of these statistical tests showed that nurses who had low work motivation had a 4.136 times lower chance of performance than nurses who had high work motivation,  $P$ -values ( $0.011$ )  $< \alpha$  ( $0.05$ ) and 95% CI did not pass the null value

so that it showed there is a significant correlation between work motivation and the performance of nurses in Depok City Hospital in 2017. In line with Ma'wah research (2015), according to the results of statistical analysis it was found that there was a significant correlation between work motivation and nurse performance [5].

## 4. Discussion

### 4.1. Gender and performance

In line with the research of Ade Ira Zahriany Nasution (2009), according to the results of the analysis it was found that there was no significant correlation between gender and nurse performance ( $p = 0.298$ ) [6]. According to Robbins (2003) in Asmuji (2010), there is no difference between women and men in terms of problem solving, analytical skills, and competitive encouragement. In addition, female and male nurses have the same responsibility in providing quality nursing services [7]. There is no difference in the treatment or differentiation of workload between women and men [7].

Certain types of work need to pay attention to gender by job type in job. But it is different with nurses, female nurses or men alike have the same tasks and goals, namely to carry out nursing care and provide the best service to patients/clients based on Nursing Care Standards. Besides, there is no division of nurse tasks based on gender, therefore there is no correlation between the performance of nurses with gender.

### 4.2. Age and performance

This result is in line with Ratanto, Mustikasari, Kuntari (2013) research which states that there is no correlation between age and nurse performance ( $p = 0,116$ ;  $\alpha = 0.05$ ) [8]. Besides that, Hasibuan (2003) argues that young employees have strong, dynamic, creative physical, but are quickly bored, irresponsible, tend to be absent and turn over high [9]. Conversely, employees who are older in age have less physical condition, but are resilient, have big responsibilities, and have a low turnover. Thus, between young employees and older employees have their respective advantages and disadvantages.

Age of nurses in Depok City Hospital does not show a significant distance difference. They can blend in performing their job duties as well as in social life. So they have a working character that is not too contrasting between individuals with each other.



### 4.3. Level of education and performance

This results is in line with the opinion Royani (2010), that education is an indirect factor that affects the performance of individuals [10]. However, Pramithasari (2016) said that the higher the level of education, the more a person learns to face and do tasks in such a way that he will be trained to be responsible for his obligations, then will give a positive response to the high workload so that things do not happen for example, such as work stress [11].

### 4.4. Working performance and performance

This results is in line with the research of Nasution (2009), which states that there is no significant correlation between the length of work and the performance of nurses in the completeness of medical records ( $p = 0.588$ ) [6]. According to Widjayanti (2011) quoted by Pramithasari (2016) said that for a nurse, skills are important things to have [11]. Skills are not only in the technical field but the activities of nursing care documentation. The longer the period of work of a nurse, is expected to increase their performance in performing nursing care as well [11]. This is based on the longer work, the more experience gained during work and the higher level of dexterity due to being accustomed to doing the work.

The more experience gained during carrying out duties as a nurse, the more knowledge gained so that it will add a plus in a nurse to her nursing science.

### 4.5. Staffing status and performance

The results of this study are in line with the research of Muhammad (2013) showing that there is no significant difference between the performance of civil servant nurses and non-civil servants in the inpatient rooms of Indramayu District Hospital [12]. Whereas when viewed from the motivational factors that can affect performance, civil servant nurses have greater motivation than non-civil servants where the difference is based on the stability of status, type of work, salary, benefits, health insurance, workload and services. So naturally the performance of civil servant nurses is better than non-PNS nurses [12] (Saefulloh, 2012 in Jaya, 2017).

Based on the results of these studies and previous studies show that between nurses civil servants and non-civil servants have no difference in performing the task.

This is because both civil servant and non-civil servant nurses must have high performance in improving the services provided to clients/patients and uphold the mandate of the profession they run.

#### **4.6. Work unit and performance**

The nurses who were in the Outpatient Installation unit were mostly high-performing nurses (69.2%), nurses in the Inpatient and Perinatology Installation units, mostly low-performing nurses (43.8%), and nurses who were in the Emergency Installation Unit. Emergency (ED) and Operating Room (OK) most high-performing nurses (72.7%). This is because each nurse's work unit has different tasks, so it has different work load. The duties of different nurses in each work unit also affect the performance of a nurse. Nurses who are in the Emergency Department (IGD) and Operating Room (OK) are required to have a more deft performance and work attitude because of the nature of ED services which are emergency and time response to prevent pain, disability, even death, so that nurses are Emergency Installation (ED) is better trained in handling patients in emergency situations.

#### **4.7. Work motivation and performance**

Based on the results of these studies and previous research can be concluded that the motivation of work can affect a person's performance in carrying out its duties. This can be understood because motivation is a person's drive to achieve a goal. Where the goal is based on a need, for example the urge to achieve high performance in order to get a good wage to meet daily needs.

#### **4.8. Working environment and performance**

The work environment is one of the factors that can affect a person's performance in carrying out his duties. According to Simamora (2012), a work situation that includes the physical environment or social environment that guarantees will affect work comfort [4]. A sense of comfort will affect the spirit and quality of nurses in the implementation of nursing care. High spirit and good nursing quality in the implementation of keperawatn care, will improve job performance/performance of nurses that will affect the improvement of hospital service quality.

The results are in line with research conducted by Ghofar and Azzuhri (2012), which shows that there is a direct influence between work environment variables on the performance of nurses [13]. The results also show that the better the level of the work environment, the better the nurse's performance will be.

From various research results and opinions mentioned earlier, it can be concluded that the work environment has an influence on one's performance. This is because the work environment coexists directly with someone while carrying out work tasks. A good work environment will provide a sense of comfort, safety and good concentration so as to improve the performance they have. While the bad work environment will cause a sense of discomfort and lack of spirit when carrying out the job tasks that will reduce a person's performance.

## 5. Conclusion

Based on the results of the analysis it can be concluded that description of the level of performance of nurses shows that most nurses in Depok City Hospital have high performance (50.6%). Based on the characteristics of respondents including gender, age, level of education, years of service, employment status, and work units. It was obtained an overview of the majority of respondents are female (78.5%), aged 25-35 years (55.7%), with final education less than or equal to diploma (79.7%), with a working period of  $\geq 8$  years (50.6%), civil servant (79.7%), and in the Inpatient and Perinatology Installation unit (55.7%).

The description of nurses work motivation and work environment found that most nurses have low work motivation as many as 53 people (67.1%) and most nurses perceive a bad work environment as many as 48 people (60.8%). The results showed that there is a significant correlation between the work unit, work motivation, and work environment with the performance of nurses in the Depok City General Hospital in 2017. Based on the results of the study there was no significant correlation between gender, age and employment status, level of education, and period of service with the performance of nurses in the Depok City General Hospital in 2017.

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