

## Determinants of Nurses' Performance at Regional Hospital

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### Abstract

**Introduction:** Nurse performance plays a vital role in determining the quality of healthcare services and hospital outcomes. Various factors, including education level, work motivation, and the work environment, have been identified as key determinants influencing nurses' ability to deliver optimal nursing care. However, disparities in nurse performance and increasing service demands highlight the need for empirical analysis of these factors within hospital settings.

**Objective:** Nurses are professionals who possess intellectual, technical, interpersonal, and moral abilities, are responsible for, and have the authority to provide nursing care in health services. The purpose of this study was to determine the relationship between education, work motivation, and work environment on nurse performance at RSUD Junjung Besaoh, Bangka Selatan Regency, in 2025.

**Method:** This study used a cross-sectional design with independent variables (education, work motivation, and work environment) and dependent variables (nurse performance). The sample size was 61, and the study period was July 7–13, 2025.

**Result:** The results of the study using the Chi-Square Test were as follows: education p-value 0.000 <0.05, work motivation p-value 0.003 <0.05, and work environment p-value 0.000 <0.05. This indicates a significant relationship between education, work motivation, and the work environment on nurse performance at RSUD Junjung Besaoh, Bangka Selatan Regency in 2025.

**Conclusion:** This study are expected to benefit researchers in broadening their knowledge and insights, and serve as reference material for further research and development in the application of nursing care.

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

## Introduction

Employee performance is a crucial factor for a company. Performance is the manifestation of an employee's work behavior, demonstrated as work achievements in accordance with their role within a company over a specific period of time (Handayani, 2020). Employee performance is the quality and quantity of work achieved by employees. This performance can be measured by establishing performance based on specific assessment standards established by the company. Nurse performance is significantly influenced by several factors, including education level, work motivation, and the work environment. Low levels of nurse education impact nurse performance in providing nursing care. A lack of motivation leads to suboptimal performance, and an unsupportive work environment leads to decreased performance (Maulana, 2019).

Nurse performance is defined as professional work with intellectual, technical, interpersonal, and moral abilities. Nurses are responsible and authorized to carry out nursing care in health services, effectively implementing their authority to achieve their professional duties and achieve the goals of the health organization unit, regardless of circumstances and time. Nursing performance is a series of nursing activities that demonstrate competency and are demonstrated through the effective application of knowledge, skills, and judgment in providing nursing care (Wahyudi, 2019).

The World Health Organization (WHO) estimates that there are an estimated 29 million nurses and 2.2 million midwives worldwide. The WHO estimates a shortage of 4.5 million nurses and 0.31 million midwives by 2030. The global nursing and midwifery workforce density reached 37.7 per 10,000 population in 2022 (WHO, 2023).

Indonesia is among the five countries with the lowest nursing performance. Poor nursing performance has the potential to threaten healthcare user satisfaction and the reputation of hospitals as providers of healthcare services. Based on data from the Indonesian Ministry of Health in 2023, the number of Human Resources for Health (HRH) in hospitals in Indonesia reached 817,145, consisting of 569,714 healthcare workers and 247,431 supporting healthcare workers. The highest proportion of healthcare workers is nurses, at 50.79%. A high proportion of nurses must be in line with competent nurses or those with good performance, as good performance is reflected in the Nursing Care Standards provided to patients. Good nursing performance is a factor in establishing a hospital's image in the community and supporting the achievement of organizational goals. Nurses' performance in providing nursing services must be based on high competency to support the implementation of nursing duties in providing quality nursing care (Ministry of Health, 2023).

Data from RSUD X Bangka Belitung Islands in 2024 recorded 122 nurses working with the D3 Nursing category of 90 people, S1 Nursing as many as 4 people and S1 + Profession as many as 28 people. In 2022 the prevalence of inpatients, outpatients and psychiatric patients who were treated at RSUD X Bangka Belitung Islands was 20,745 patients, in 2023 as many as 28,272 patients and in 2024 as many as 37,011 patients. The following data obtained at RSUD X Bangka Belitung Islands related to nurse performance assessment. Based on existing instruments in the nursing field in September 2024, it stated that the number of nurses providing nursing services was 122 people. Nurse performance data stated that 55 people showed good results, 32 people showed quite good results and 35 people showed less good results (RSUD X Bangka Belitung Islands Medical Records, 2024). Nurse performance is a key determinant of patient satisfaction. Nurse performance in the nursing process represents the application of skills in providing healthcare services to healthcare users. Several factors can

influence nurse performance, including education level, work motivation, and work environment (Mangkunegara, 2017).

Similarly, research conducted by Atmalia et al. (2023) stated that based on the results of hypothesis testing using the t-test, the calculated t-value for the Work Environment variable (X1) was 3.229 with a significance value of 0.002, so the significance value was  $<0.05$ . This means that there is a positive and significant influence individually between the Work Environment (X1) on nurse performance (Y). Thus, the research hypothesis that there is a significant influence of the Work Environment (X1) on nurse performance (Y) can be accepted. Therefore, the better the work environment in a hospital, the better the nurse's performance. The Minister of Health's Regulation states that the hospital environment, both indoors and outdoors, must receive lighting with sufficient intensity based on its function. At Yarsi Hospital, lighting is already available in every room, but there are some rooms where the lighting does not function properly, for example, there are windows that cannot be opened, so only opening the curtains to get light.

Based on the results of an initial survey conducted on January 30, 2025 at the X Regional General Hospital of the Bangka Belitung Islands, from 5 nurses, it showed that there were 4 people (80%) who had a D3 Nursing education and 1 person (20%) had a Nurse education. The questionnaire given via Google Form regarding work motivation was that there were 3 people (60%) who were not motivated to work due to incentives (salary/income) such as late disbursement of service fees, overtime services (night shifts) and referral services provided to nurses and lack of training to support the respondents' careers. The questionnaire given via Google Form regarding the work environment was that there were 3 people (60%) who complained about the workplace having minimal lighting at night, stuffy when the patients were full because 1 (one) room had 6 (six) beds that did not meet room standards and lack of air circulation. In addition, there were several nurses' complaints regarding the availability of minimal medical support equipment such as the number of tensiometers, thermometers, oximeters. The limited total care patient care room in the ICU also greatly affected the respondents' performance. Therefore, researchers are interested in conducting research on the influence of education level, work motivation and work environment on nurse performance.

## **Objective**

The purpose of this study was to determine the relationship between education, work motivation, and work environment on nurse performance at RSUD Junjung Besaoh, Bangka Selatan Regency, in 2025.

## **Method**

This study employed a quantitative analytic design with a cross-sectional approach. The study was conducted at Junjung Besaoh Regional General Hospital, South Bangka Regency, from July 7 to July 13, 2025. The independent variables in this study were education level, work motivation, and work environment, while the dependent variable was nurse performance.

The study population consisted of all nurses working at Junjung Besaoh Regional General Hospital. A total of 61 nurses were selected as respondents using a total sampling technique, considering that the population size was relatively small and met the inclusion criteria. The inclusion criteria were nurses who were actively working during the study period

and willing to participate, while nurses on leave or not on duty during data collection were excluded.

Data were collected using structured questionnaires that had been adapted from previous studies and adjusted to the research objectives. The questionnaire on nurse performance measured aspects of nursing care implementation, responsibility, and compliance with nursing standards. Work motivation was assessed based on intrinsic and extrinsic motivation indicators, while the work environment questionnaire covered physical and non-physical aspects of the workplace. Education level was categorized into vocational and professional education.

Data analysis was carried out using univariate and bivariate analysis. Univariate analysis was conducted to describe the characteristics of respondents and each research variable in the form of frequency and percentage distributions. Bivariate analysis was performed using the Chi-Square test to determine the relationship between education level, work motivation, and work environment with nurse performance. The strength of the association was measured using the Prevalence Odds Ratio (POR) with a 95% confidence interval. A p-value of less than 0.05 was considered statistically significant.

## Result

Table 1. The Relationship between Education and Nurse Performance

Education	Nurse Performance						p-value	POR (CI 95%)
	Good		Poor		Total			
	n	%	n	%	n	%		
Professional	17	63.0	10	37.0	27	100	0.004	5.525
Vocational	8	23.5	26	76.5	34	100		(1.816-
Total	25	41.0	36	59.0	61	100		16.810)

Table 1 shows that good nurse performance was more common among nurses with professional education (17 nurses (63%) compared to those with vocational education). Meanwhile, poor nurse performance was more common among nurses with vocational education (26 nurses (76.5%) compared to those with professional education. The significant value in the Chi-Square Test was  $0.004 < 0.05$ . This indicates that there is a significant relationship between education and nurse performance. The Prevalence Odds Ratio value was 5.525 (95% Confidence Interval = 1.816-16.810), which means that respondents with vocational education had a 5.525 times greater risk of receiving a poor performance assessment.

Table 2. The Relationship between Work Motivation and Nurse Performance

Work Motivation	Nurse Performance						p-value	POR (CI 95%)
	Good		Poor		Total			
	N	%	n	%	n	%		
Good	17	70.8	7	29.2	24	100	0	8.804
Poor	8	21.6	29	78.4	37	100		(2.711-
Total	25	41.0	36	59.0	61	100		28.589)

Table 2 shows that good nurse performance was more common among nurses with good work motivation (17 nurses (70.8%) compared to those with poor work motivation. Meanwhile, poor nurse performance was more common among nurses with poor work motivation (29 nurses (78.4%) compared to those with good work motivation. The Chi-Square Test showed a significance value of  $0.000 < 0.05$ . This indicates a significant relationship between work motivation and nurse performance. The prevalence odds ratio was 8.804 (95% confidence interval = 2.711-28.589), meaning that respondents with poor work motivation were 8.804 times more likely to receive a poor performance appraisal.

Relationship between Work Environment and Nurse Performance								
Work Environment	Nurse Performance						p-value	POR (CI 95%)
	Good		Poor		Total			
	n	%	n	%	n	%		
Good	16	59.3	11	40.7	27	100	0.018	4.040 (1.370-11.916)
Poor	9	26.5	25	73.5	34	100		
Total	25	41.0	36	59.0	61	100		

Table 3 shows that good nurse performance was more common among nurses with a good work environment (16 nurses (59.3%) compared to those with a poor work environment. Meanwhile, poor nurse performance was more common among nurses with a poor work environment (25 nurses (73.5%) compared to those with a good work environment. The significant value in the Chi-Square Test was  $0.018 < 0.05$ . This indicates that there is a significant relationship between the work environment and nurse performance. The Prevalence Odds Ratio value was 4.040 (95% Confidence Interval = 1.370-11.916), which means that respondents with a less than ideal work environment were 4.040 times more likely to receive a less than ideal assessment.

## Discussion

The higher a nurse's education, the higher their performance. Low or incomplete education can impact low awareness and responsibility in carrying out their duties. Education has a direct and significant impact on nurse performance. The higher a nurse's education, the higher their performance. Low or incomplete education can impact low awareness and responsibility in carrying out their duties (Mangkunegara, 2017).

The research results indicate a significant relationship between education and nurse performance. The prevalence odds ratio (PR) was 5.525 (95% confidence interval = 1.816-16.810), meaning respondents with vocational education were 5.525 times more likely to receive a poor performance appraisal.

The researchers hypothesize that education significantly influences the nurse performance system. Education has a positive and significant impact on nurse performance. The higher a person's education, the better their performance generally. This is because education provides broader knowledge, skills, and understanding, enabling nurses to work more effectively and efficiently. Nurses with vocational education need to improve their education level by continuing their studies back to the professional level.

According to the researcher's assumption, an uncomfortable work environment will significantly impact nurse performance. An uncondusive work environment such as a lack of medical equipment so that in case of an urgent matter arises, the lack of lighting in the room area will result in work being disrupted, and the large number of dysfunctional medical equipment available in the room will significantly impact nurse performance, thus affecting nurses in providing care services to clients.

### **Conclusion**

There is a significant relationship between education, work motivation, and the work environment with nurse performance at Junjung Besaoh Regional Hospital, South Bangka Regency.

### **Acknowledgement**

Not applicable.

### **Conflict of Interest**

No declare.

### **Ethical consideration**

Research Ethics Commitee Advent Hosptal Bandar Lampung number : 116/EP-RSABL/VIII/2025.

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