



Motivation as a factor affecting nurse performance in Regional General Hospitals: A factors analysis[☆]



Ni Putu Ika Novita Gunawan^{a,b}, Rr. Tutik Sri Hariyati^{a,*}, Dewi Gayatri^a

^a Faculty of Nursing, Universitas Indonesia, Depok, West Java, Indonesia

^b Jakarta Life Sciences Clinic, Jakarta, Indonesia

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Abstract

Objective: Nurse performance is vital to quality patient care outcomes. Improvements in patient safety can be achieved by improving nurse performance. The purpose of this study is to analyze the factor affecting the performance of nurses working in Hospitals.

Method: The study design using a cross-sectional approach was conducted on 200 nurses. The study participants selected using stratification random sampling method. The data were collected using structured questionnaires filled by nurses and conducted multivariable logistic regression analysis.

Result: This research shows that factors related to the performance of nurses are work motivation, nurse's perception of the application of team method, length of work and education level ($p < 0.05$).

Conclusion: The hospital management needs to improve the motivation of nurses by holding regular meetings to improve interpersonal relationships and giving stimulus for nurses career program so that nurses will be motivated to improve their competence and will affect the performance of nurses.

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Introduction

The nursing system is an important starting point for improving the quality of nursing staff.¹ Quality of service is closely

related to the performance of nurses where the better the performance of nurses will improve the quality of nursing care.² Several studies related to the performance of nurses have been carried out. The phenomenon shows that there are still many client complaints about unsatisfactory service. Setiawati's research states that nurses who have good performance and who have not have the same proportion (50%).³ The phenomenon is inseparable from the factors that affect the performance of nurses.

Individual performance is influenced by individual and organizational factors. Individual factors consist of

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* Corresponding author.

E-mail address: tutik@ui.ac.id (Rr.T.S. Hariyati).

personality, abilities and skills, length of work, age, gender, and motivation. While the organizational factors consist of organizational structure, job design, supervision and control,⁴ one of the organizational factories how management design a method of service provided to the patient which is a method of assignment applied in a nursing service.

The purpose of this study was to analyze the factors that influence the performance of nurses in several Regional General Hospitals. The research will identify the characteristics of nurses, nurse's perception in the application of team method, nurse's motivation, identify the relationship between nurses characteristics, nurse's perception in applying team method, nurse motivation to performance, and identify the most influencing factor on the nurse's performance.

Method

This study uses descriptive correlation design with cross-sectional approach. This study was conducted at three regional public hospitals with a sample of 200 nurses. The sampling method is random stratification sampling. Data collection is done by distributing questionnaires filled by nurses. Validity and reliability tests were performed on 30 nurses.

Questionnaires about nurses' perceptions in the implementation of team assignment methods obtained *r* value on the range 0.417–0.700 with a value of Cronbach Alpha 0.892, performance variable from range 0.424–0.901 with value of Cronbach Alpha 0.932, and variable of work motivation in range 3.64–6.78 with value Cronbach Alpha 0.906. Data were analyzed by univariate, bivariate, Chi-square and multivariate used logistic regression with a significance level of 95%.

Result

Nurse characteristic

The characteristics of nurses in this study were mostly female nurses as much as 78%, with an average age of 28 years. Nurse education qualifications are mostly D3 Nursing with an average of 2.5 years of work, and the monthly income of nurses is mostly in the high category. The factors of nurses' perception in the application of team methods were that most nurses perceived it well (72%). Work motivation factors have almost the same proportion, namely 55.5% good motivation and 45.4% less good. The performance of nurses has almost equal proportions between those who perform well (51.5%) and not (48.5%).

Factors related to nurse performance

There are no relations between sex, age, education level, and income to nurse performance (*p* respectively: 0.692; 0.131; 0.122; 0.877), and there are relations between nurse perception in applying team method and work motivation to nurse performance (*p* respectively: 0.046; 0.008) (Table 1). There are relationships between work duration and nurse performance (*p* = 0.030) (Table 2).

Most related factor to nurse performance

Results from multivariable analysis can be concluded that there are four variables that express a significant relationship to nurse's performance that is work period, education level, the perception in applying team method and work motivation (*p*: 0.018; 0.032; 0.010; 0.004). The most dominant factor can be seen based on the largest OR value which is variable of work motivation (2.438), and the smallest is the length of work (1.198). Nurses who have good work motivation have a 2.43 times chance to perform well compared to nurses who have poor work motivation after being controlled by other variables (Table 3).

Discussion

Results showed most of the nurses (51.5%) said to have good performance. Performance in this research is the nurse's perception about her performance in implementing nursing care. Performance appraisal uses the self-assessment method. Self-appraisal is a self-directed appraisal process that can identify weaknesses and strengths so that it can be used as a learning and self-development.⁵

The relation between age and nurse performance

Nurses in this study were mostly 28 years old. Based on these data, nurses who have a productive and potential age are hospital assets if they can be managed properly related to increased work productivity which will ultimately improve service quality.

Results of the analysis showed that ≤35 year's old nurse had almost the same proportion between nurses who performed poor (49.4%) and well (50.6%). Nurses who are >35 years old have well performance (70%). Ma'wah⁶ states that an older person has better skills and abilities and work performance compared to a younger age. Increasing the age of a person is often directly proportional to the experience that will affect the performance of the individual.

Further analysis revealed no significant relationship between age and nurse performance with *p*-value 0.131 (<0.05). This study is in line with research conducted by Mokhtar and Mohamed that age does not correlate with performance. Individual age is accompanied by psychological maturity can indicate the maturity of the soul to be wiser, better emotional control, rational thinking, and have tolerance to differences of views and behavior.⁷

The relation between sex and nurse performance

Nurses are mostly female (78%). From 156 female nurses, 52.6% have good performance. Results of statistical analysis found that there is no relationship between sex and nurse performance. This is in line with the research of Jeeza et al. and Emmanuel who also obtained sex has no correlation to nurse performance.^{8,9}

Some studies have shown that men and women generally have similarities in a person's ability to learn, memory, ability to do reasoning, creativity, and intelligence. There is no data showing that men or women are good workers.

Table 1 Relation between characteristics of nurses, perceptions of team method and work motivation on nurse performance in some Regional General Hospital, 2018 (n = 200).

Variable	Nurse performance				n (%)	X ²	p-value	OR (95% CI)
	Less		Well					
	n	%	n	%				
<i>Sex</i>								
Man	23	52.3	21	47.7	44 (22)	0.32	0.692	1.21
Woman (1)	74	47.4	82	52.6	156 (78)			(0.652;2.37)
<i>Age</i>								
<35 years old	91	50.6	89	49.4	180 (90)	3.04	0.131	2.38
>35 years old (1)	6	30	14	70	20 (10)			(0.878;6.486)
<i>Education</i>								
Ners (1)	32	41	46	59	78 (39)	2.86	0.122	1.639
Diploma	65	53.3	57	46.7	122 (61)			(0.923;2.912)
Total								
<i>Income</i>								
Low	46	47.4	53	52.6	97 (48.5)	0.88	0.877	0.920
High	51	49.5	52	50.5	103 (51.5)			(0.52;1.60)
<i>Nurse's perception in applying team method</i>								
Less Good	34	60.7	22	39.9	56 (28)	4.64	0.046*	1.987
Good	63	43.8	81	56.3	144 (72)			(1.059;3.728)
<i>Work motivation</i>								
Poor	53	59.6	36	40.4	89 (44.5)	7.840	0.008*	2.244
Good	44	39.6	67	60.4	111 (55.5)			(1.269;3.960)
n (%)	97	48.5	103	51.5	200 (100)			

* Meaning on α 0.05.

Table 2 Relation between length of work and nurse performance in some Regional General Hospital, 2018 (n = 200).

Variable		Mean	St. Dev	Std. Error	N	p	Mean diff	(95% CI)	
								Lower	Upper
Length of work	Less performance	2.20	1.67	0.17	97	0.030*	-0.67	-1.27	-0.06
	Well performance	2.87	2.59	0.26	103				

Table 3 Final modeling analysis of logistic regression (n = 200).

No.	Variable	B	SE	Wald	p value	OR (95% CI)
1.	Work motivation	0.891	0.305	8.522	0.004	2.438 (1.340;4.434)
2.	Nurse's perception in applying team method	0.884	0.343	6.632	0.010	2.420 (1.235;4.741)
3.	Length of work	0.180	0.076	5.606	0.018	1.198 (1.032;1.390)
4.	Education	0.672	0.314	4.583	0.032	1.958 (1.058;3.623)
	Constant	-1.780				

The differences found are consistent in terms of absence and leadership style. Women tend to have higher absentee rates than men.¹⁰

The relation between education and nurse performance

Nursing education in this research is mostly nurse diploma (61%). The result of subsequent analysis stated that there is no significant correlation between education level and nurse performance with p -value 0.122 (<0.05), there is no relationship between the level of education with the performance of nurses. It is also in accordance with research conducted by Jeeza et al. and Mudallal and Gebregziabher which says there is no relationship between educational level and performance of nurses.^{8,11,12}

Further analysis concluded that nurse with bachelaurate education had a better chance of performing better than nurses with diploma education. It is in line with Tesfaye et al.¹³ who said that nurses with better education have more chances to perform well, it is because nurses who have better education and skills will increase self-confidence in performing its performance impact on patient care becomes more effective.¹³

The relation between length of work and nurse performance

Based on the results of this study, it is found that the average nurse's length of work is 2.5 years. Further analysis indicates that the longer nurses are working they will have good performance. It is proved by statistical tests that there is a relationship between the lengths of work with the performance of nurses.

Someone who works longer will be more skilled and experienced in doing his job. The quality of nursing care is negatively related to the length of work and experience of nurses. The role of nurses in patient care, direct contact with patient suffering, overwork, heavy working conditions and increased use of technology can lead to fatigue, especially if these factors are related to social responsibility.¹¹

The relation between individual income and nurse performance

Individual incomes in this study were mostly in the high category (51.5%). The result of bivariate analysis stated that there was no significant relationship between individual income and nurse performance.

The relation between nurse perception in applying team method and nurse performance

Based on the result of this study, most nurses perceived well (51.5%) of team method implementation. However, it should be noted that there are still nurses who have a poor perception of the application of team assignment methods. Differences in perceptions about the application of team assignment methods can also be influenced by the lack of a complete understanding of all nurses' practices related

to the good application of team assignment methods or can be caused by the difference of views between individuals in understanding the application of team assignment methods.

Most nurses have a good perception of applying the team assignment method (72%). There is a significant relationship between the perception of the application team assignment method and the nurse's performance. Dickerson and Latina¹⁴ in his research stated that there is improved staff performance after applying team methods in nursing care. The result from the monthly survey shows 88% increase in compliance of care with a team assignment method approach. The nurse feels responsible both in managing patients and other team members so that continuity of care increased by 45%. Survey about the incidence of falling patients reached the target of achieving zero during the last 3 months after the application of team methods. The application of team methods increases the involvement of team members in managing patients as well as improving the patient centered care culture.¹⁴

The model of nursing care applied in each nurse unit greatly affects a nurse's performance and nurse's job satisfaction.¹⁵ The application of team assignment methods aims to provide nursing care based on the patient's objective needs. The quality of patient care is central to every model of nursing care. Fernandez et al.¹⁶ in their study comparing the effectiveness of various applications of the assignment method, showed that the quality of high nursing care was found in the team assignment methods and primary nursing methods. The highest compliance of nursing care documentation and reporting pain was found in the team assignment method (92%). Team assignment model is best applied for developing nursing skills compared to other assignment methods. The nurse's job satisfaction is also stated highest in the model of team assignment method.¹⁶

Increased teamwork and coordination between nurses in carrying out tasks can be achieved by applying team assignment methods. Teamwork allows good relationships between nurses in sharing knowledge and experience in implementing patient services so that it can be developed nurses' knowledge and skills. Other than teamwork and coordination, leadership role in the team method is very important; a head nurse is responsible for dividing assignments to the team leader of several patients and health service providers. In addition, they have responsible for facilitating the communication between multidisciplinary nursing service providers. Decision making can be delegated to the team leader, and team members will work together to achieve the general goals.¹⁷

The relation between work motivation and nurse performance

The result from statistical analysis of nurse work motivation mostly shows good motivation (60.4%) which means nurse make the best effort to give good service by showing high morale. The result of the bivariate analysis shows that nurses with high work motivation (56.3%) have good performance. The results of the next statistical test stated that there was a significant relationship between work motivation and nurse performance ($p=0.008$). In line with Hee,¹⁸

Aduo-adjei et al.,¹⁹ and Lambrou et al.'s research²⁰ found that motivation has a positive effect on nurse performance.

This study emphasizes motivation as a need for achievement, needs to influence, and the needs of affiliates. The need for achievement can encourage individuals to perform their duties well; this is because nurses with high achievement needs are oriented toward successful completion of tasks in the careful calculation. Hospital management both in nursing director and head nurse can increase the work motivation of the nurses by providing several challenges for the progress of the nurse in completing their work.²¹ Nurses can be given an optimal opportunity to experience the success and satisfaction of their efforts in career path programs. With the career pathway program, nurses will be motivated to improve their competence and will affect the performance of nurses in performing nursing care for patients.

Motivation with high needs for influence people can affect performance because they enjoy their duties to influence others in the service to the patient.²² Motivation with high needs for affiliate emphasizes good interpersonal relationships between nurses. With the existence of a working relationship and a good working atmosphere will affect the nurse in completing the work. A good relationship with clients can also be established so that the process of nursing care can be well given. An affiliate that is reflected in harmonious interpersonal relationships will give satisfaction to colleagues who can improve their performance, accordance with Robbins' opinion, the extent to which co-workers can support and give attention, fun, and technically capable of carrying out existing tasks.⁴

Nursing professionals tend to be more motivated by intrinsic motivation factors than medical professionals.²⁰ Factors from intrinsic motivation relevantly affect the performance of nurses; it is a form of natural motivation that can increase the interest of nurses in carrying out tasks. The nurse will give the necessary attention to carrying out her duties. If managers can appreciate what motivates workers, it will have an impact on maximum performance results.¹⁹ Managers are advised to identify the needs of nurses, design a relevant motivational program to encourage nurses to achieve maximum performance.¹⁸

Most influencing factors to nurse performance

The result from multivariate analysis states that work motivation is the most dominant variable affecting performance compared to other variables (OR: 2.438). Internal motivation becomes the most influential factor in improving nurse performance. Management needs to participate in increasing nurses' motivation. Evaluation of team work, security systems, and environmental conditions contribute to improving nurse satisfaction which will have an impact on nurse performance.²³

There is a relationship between the length of work, level of education, the perception of nurses in the application of team methods and work motivation on nurses' performance. Work motivation is the most dominant variable influencing nurse performance compared to other independent variables.

This study reveals factors that significantly affect the performance of nurses. Based on the findings of this study hospital management needs to create and improve the work motivation that can affect the performance of nurses. Nurse work motivation consists of internal and external motivation that can improve the performance of nurses in performing nursing care so that the quality of services will be better.

Further research on the performance of nurses can use a more varied method of performance assessment, not only using self-assessment but also use data observation of the supervisor/mentor or patient, it is necessary to perform performance appraisal by comparing the method of assignment of nursing care such as team method and the case method.

The nurse assesses the performance with self-assessment, so the data was very subjective and highly dependent on the honesty and courage of respondents in expressing their opinions related to the research variables. A more objective assessment of performance is required by adding other assessment methods (peer group, performance appraisal from supervisor/from patient, etc.). In the work motivation variable, the nurse only assesses internal motivation only, there is no indicator of assessment related to external motivation which can also influence the research result.

Conflict of interests

The authors declare no conflict of interest.

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