

# THE PREDICTOR FACTORS OF EMERGENCY NURSES' PERFORMANCES FOR THE PROFESSIONAL SERVICES EXCELLENCE

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## ABSTRACT

*Emergency nurses' performances remains long standing determinates of quality services rendered for patients admitted to get emergency treatments in the hospitals. It has been viewed as a dimension of professional services excellence. The purpose of this study focused on the predictive correlation of five predictors; namely human resources management, transformational leadership, incentives, hospital structure, and job rotation on the emergency nurses' performance. This descriptive quantitative study used total sampling technique of 100 nurses in the Emergency Department, in four Government Hospital in Banjarmasin, Bajarbaru, and Martapura. All data obtained by administering questionnaires to the participances. The analytical procedure of multiple linear regression was utilized to determine the predicting strength correlation between the dependent and the independent variables. The result of Pearson product-moment correlation coefficients revealed that positive correlation established between emergency nurses' performances and human resources management, transformational leadership, incentives, hospital structure, and job rotation, as the independent variables. The summary of multiple linear regression analysis of all independent variables indicated that incentives was the most strongly predictor to the emergency nurses' performances.*

**Key Words** : predictor factors, emergency nurses' performances

## INTRODUCTION

According to WHO (2011), the goal of health care system is to improve performances and responsiveness to the expectation of the population. As one of the public service providers in the health sector, hospitals have a strategic role in accelerating the improvement of public health status. That challenge should be responded by shifting paradigm, improving hospital management and investing in the development of human resources (Pattiasina, 2011). Within this context, Emergency Department (ED) is the first place for patients to get emergency treatments. A successful ED is not merely about the availability of facilities, but the performance of human resources is another significantly influential element that contributes to services excellence (Rondeau, 2001).

The reality of service performances of ED hospitals in Indonesia were not optimal (Pattiasina, 2011). The results of survey of Centre of Health Information about the quality of health services at three regions of Indonesia; namely

Jakarta, Makassar and Bali Island showed that 67.1% of patients were dissatisfied with health services in Indonesia hospitals (Departemen Kesehatan RI, 2015). The quality of service excellent performed by nurses was ranked at the lowest percentage (Murni, 2016). Nurses spend more time with patients than any other health care providers. This means that their performance is critical for the successful professional services excellence in the hospitals.

Previous study found that services excellence reflected in nurses' performances were significantly relationship by organizational predictors (Fort & Voltero, 2004; Thao & Hwang, 2010; Thulth & Sayej, 2015). Management of human resources (Vermeeren et al., 2014), transformational leadership (Ibrahim et al., 2016; Lin, et al., 2015), incentives (Huang & Lai, 2014; Kurtzman, et al., 2011), hospital structure (Duffield, et al., 2007; Hearld, et al., 2008; Wilfred, et al., 2014) and job rotation (Mohan & Gomathi, 2015; Ogghojafor & Adebakin, 2012) were factors

selected based on the focus of previous studies indicating their significant correlation to nurses' performances. These predictors are found in daily work environment where nurses carry on their duties (Thulth & Sayej, 2015).

The predictors and human resources development are the contributive factors that cause shifting in a hospital management. The program of developing human resources by increasing nurses' performances should be aligned with nurses' needs (Thulth & Sayej, 2015). Hospitals have to understand what the predictor factors that the nurses' performances or to find out an appropriate method in order to reach a high level of nurses' performance.

## METHOD

The study conducted in four Government Hospitals in Banjarmasin, Banjarbaru, and Martapura on January until December 2016. This study used descriptive method with quantitative analytic approach. The participants for this study selected by total sampling technique, 100 emergency nurses were participants for this study. The data were garnered by administering questionnaires to the participants. The data were then classified using Likert scale. Items were rated on 5 points rating scale; 1 = "strongly disagree", 2 = "disagree", 3 = "neutral", 4 = "agree", and 5 = "strongly agree".

Validity and reliability test were undertaken to ensure validity and reliability of instruments. The analytical procedure of multiple linear regression was utilized to determine the predicting strength correlation between emergency nurses' performances and the independent variables, namely; human resources management, transformational leadership, incentives, hospital structure, and job rotation.

## RESULTS AND DISCUSSION

According to research results, 60% of respondents were women, with 55% of them were younger than 30 years old, 84% of the participants had diploma degree, and 73% of had less than ten years work experience.

Pearson correlation coefficients were computed by SPSS 23 to determine the relationship between emergency nurses' performances, human resources management, transformational leadership, incentives, hospital structure, and job rotation. The results showed in the Table 1.

**Table 1 Results of Pearson Correlation**

Independent Variables	Emergency Nurses' Performances	
	Pearson Correlation	Sig. (2-tailed)
Human resources management	0,888	0,000
Transformational leadership	0,959	0,000
Incentives	0,901	0,000
Hospital structure	0,897	0,000
Job rotation	0,955	0,000

Note: Correlation is significant at the 0.01 level (2-tailed)

The Table 1, showed that the correlation matrix depicts a significant correlation  $r(100) = 0.89$ ,  $p \leq 0.05$ , between the human resources management value and emergency nurses' performances value. Furthermore, Pearson correlation value of transformational leadership, incentives, hospital structure, and job rotation perceived that organisational support and transformational leadership positively correlated with emergency nurses' performances respectively; ( $r = 0.96$ ,  $p \leq 0.05$ ), ( $r = 0.90$ ,  $p \leq 0.05$ ), ( $r = 0.88$ ,  $p \leq 0.05$ ), and ( $r = 0.96$ ,  $p \leq 0.05$ ).

**Table 2 Multiple Linear Regression for Single Set of Predictors: Model Summary and Coefficients**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
Constant	7.120	4.386		1.623	0.111
Human resources management ( $X_1$ )	0.050	0.051	0.062	0.999	0.325
Transformational leadership ( $X_2$ )	0.082	0.053	0.094	1.547	0.125
Incentives ( $X_3$ )	0.455	0.062	0.445	7.340	0.000
Hospital structure ( $X_4$ )	0.166	0.049	0.176	3.348	0.001
Job rotation ( $X_5$ )	0.322	0.068	0.348	4.772	0.000

R = 0.978, R Squared = 0.956,  $p = 0.05$ , N = 100

Dependent variable: emergency nurses' performance.

The ANOVA test in Table 3 showed that the F statistic (411.82) was greater than F table (2.99), the  $p$  value of the model was 0.000, which is lower than the significance level (0.05), F statistic test was proved to be significant. This result also indicates that the proposed model might well describe the correlations of all independent variables to the dependent variable. Furthermore, the result also supports that all independent variables (human resources management, transformational leadership, incentives, hospital structure, and job rotation) may explain the dependent variable (emergency nurses' performances).

**Table 3 Results of Multiple Linear Regression for Single Set of Predictors: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	113.030	5	22.606	411.820	.000
Residual	5.160	94	.055		
Total	118.190	99			

Predictors: human resources management, transformational leadership, incentives, hospital structure, and job rotation;  
Dependent variable: emergency nurses' performance

Based on the results of the regression equation for the standardized variables, simultaneous regression can be written by this equation:

$$Y = \beta_0 + \beta_1.X_1 + \beta_2.X_2 + \beta_3.X_3 + \beta_4.X_4 + \beta_5.X_5 + e$$

$$= (7.120) + 0.050.X_1 + 0.082.X_2 + 0.445.X_3 + 0.166.X_4 + 0.322.X_5 + e$$

The predictor variable for the model is incentives as this variable contributes to the highest percentage of variation of the emergency nurses' performances by 0.445. The second highest contributor is the job rotation with parameter of estimation of 0.322. The third ranking of contribution is hospital structure with parameter of estimation of 0.172. This is followed by job design with parameter of estimation of 0.052, while human resources management contributes to the least, with parameter of estimation of 0.050 only.

Based on the independent *t* test and the significance of level indicated in table 1, the measures of two predictors, human resources management (*t* statistic = 0.999, *p* > 0.05), transformational leadership (*t* statistic= 1.547, *p* > 0.05), have positive correlation, but not significantly correlation to emergency nurses' performances. On the other hand, there were significant positive correlation between predictors and emergency nurses' performances, indicated by incentives (*t* statistic = 7.340, *p* < 0.05), hospital structure (*t* statistic = 3.348, *p* < 0.05), and job rotation (*t* statistic = 4.772, *p* < 0.05). Overall, incentives was the highest *t* test result that contribute to be the strongest predictor of the five variables of emergency nurses' performances.

The results of the study revealed that the hypotheses of the correlation between three predictors (incentives and hospital structure, and job rotation) and emergency nurses' performances were proven, but the hypotheses of the correlation between other predictors (human resources management and transformational leadership) and emergency nurses' performance were rejected. Then, the study results were compared with similar studies.

Regarding the first hypothesis "the correlation between human resources management and emergency nurses' performances", the human

resources management is essential to enable the delivery of efficient and effective health services and to achieve patient satisfaction (Elarabi, 2014). This study shows that the hospital has mapped the emergency nurses' competence according to their expertise area but the distribution of emergency nurses' competences, and the quantity of nursing staffs were not equitable with the workload. It is identified that the nurses' workload is high, they can not improve nurses' service performances.

This finding is consistent with the study in Dutch nursing homes and home care with the conclusion that simply introducing human resources management practices or programmes, in the absence of an appropriately supportive workload and workplace climate, will be insufficient to attain optimal employees' performances (Rondeau, 2001). Vermeeren, et al., (2014) research results indeed show a positive, but not statistically significant relationship between these variables. The strategy implied cutting costs of performances of management in many health care, which result in reduced investments in employees and most likely to be less employees' performances in Dutch home care and nursing care.

Then, the second hypothesis "the correlation between transformational leadership and emergency nurses' performances". In this study, the majority of emergency nurses have been given low percentage on their leader's leadership style, this is indicated by the absence of that leadership in determining nurses' performances. Bohem, et al., (2015) described that the power of organizational personality and variable of leadership climate as the mechanisms that link top managerial charisma to the organizational performance and stated that there was not significant relationship between transformational leadership and performance. The opposite results of the study by Yi Lin, et al., (2015) reveals the significant effect of transformational leadership in nursing on work quality of nurses in Taiwan. Al-Hussami (2008), Thao & Hwang (2010) conclude that leadership have direct effect toward the employee performances.

Regarding the third hypothesis "the correlation between incentives and emergency nurses' performances". In this study, the hospital have been enacting the incentives policies based on the employment status, educational level, and workload so as to encourage the nurses to work more productively. This results are generalizable

to the Fort & Voltero (2004), Kurtzman et al., (2011), Huang & Lai (2014) research that show that incentives have significant impact on job performance and job satisfaction. Prompt payment of salaries, non monetary incentives to health workers may become powerful motivation to enhance performances.

The fourth hypothesis "the correlation hospital structure between emergency nurses' performances". The results supported by Wilfred et al., (2014) that organizational structure was found influential to the performance of public health service providers in Kenya. Similar results by Duffield et al., (2007) show that there is a strong correlation between hospital structure and nurses' empowerment as well as the significant influence of controlling action toward organizational effectiveness. Organizational structure should be designed and used for the division of nurses with a well-managed organization and able to facilitate the development and deployment of organizational strategy.

The last hypothesis "the correlation between job rotation and emergency nurses' performances". Job rotation is a job design approach practices which will increase the motivation among the employees and it has the positive effect towards motivation of employees and development (Mohan & Gomathi, 2015). This implies a similar result with Gabr & Mohamed (2012) reveals job rotation with characteristic model found to be improve nurses' satisfaction and value of their activities to achieve optimal nursing care quality.

The opposite results of the study by Ogbojafor & Adebakin (2012) showed that job design in terms of not affecting or influencing to job satisfaction and performance. This is because, in reality, a bad job design at several hospital may undoubtedly generate dissatisfaction.

## CONCLUSION

In summary, findings of this study showed that combination of all predictors has positive and significant correlation to emergency nurses' performances. In partial, the two organizational factors, namely human resources management, transformational leadership do not have significant correlation to emergency nurses' performances. On the other hand, there found that significantly positive correlation between predictors and performances which were established by incentives, hospital structure, and job rotation. Overall, incentives contribute to be

the strongest predictor than other predictors to emergency nurses' performances.

All significantly positive correlation factors have important role to emergency nurses' performances. The improvement of working performances need to be taken into account in order to reach an optimal nursing care to the clients. Other factors related to nurses' performances need to be explored to inform recommendations for the improvement of emergency nurses' performances.

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