Job Satisfaction is Dominant Factor Influencing of Nurse Performance in X Hospital Pekanbaru

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Abstract

Introduction: The provision of optimal health services is determined by the quality of health workers. The research objective was to explore the factors that influence the performance of nurses in health service.

Method: It was a quantitative analytic study with a cross-sectional design. A total of 58 nurses participated with the purposive sampling technique. The data was collected by questionnaire and worksheets observation. The statistical analysis was done by Smart PLS (Partial Least Square).

Result: This study showed that individual characteristics are correlated to job satisfaction (p-value 0.001) but not correlated with the performance of nurses (p-value 0.468). Organizational factors were correlated to job satisfaction (p-value 0.000) but not correlated to work performance (p-value 0.865). Job satisfaction was correlated to work performance (p-value 0.001). There was a negative correlation between individual characteristics and nurse performance (-0.466). Meanwhile, the organizational factor only has a direct effect of 0.025 on nurse performance. Only job satisfaction has a direct effect on nurse performance with an increase of 0.5 (50%) for every increase of one value of job satisfaction

Conclusion: Job satisfaction is a dominant factor that has a direct effect on nurse performance. Hospital management needs to consider health workforce planning, mapping, and development competency to optimize nurse performance.

Keyword: Job Satisfaction, Nurses, Performance

Introduction

Performance in nursing is related to service quality. Improved performance in nursing care can be achieved by careful employee selection and the assignment of appropriate staff. Performance measurement should be carried out annually by the head nurse through monitoring the performance of the nurse and comparing it with standard performance to identify problems which then enable solutions to be taken. The results of these measurements are informed to nurses to improve nurse skills.[1] The identification of a nurse's job is very important to meet the needs of appropriate nursing resources.[2]

Job satisfaction is an important goal in Human Resource management. Because the job satisfaction of nurses is relevant to the improvement of work performance in performing nursing care. Low levels of job satisfaction are common in developing countries. Based on the results of research in the United States, Canada, England, and Germany showed that 41% of nurses in hospitals are dissatisfied with their jobs and 22% of them plan to leave their jobs within one year.[3] So it is not uncommon for nurses to choose to work in clinics rather than in hospitals. The reason is that the workload is very high, job satisfaction can reflect a person's feelings about his job from everything faced in his work environment.[4]

Measuring the job satisfaction of nurses is not only to determine the performance of nurses but also to determine management strategies in the future.[5] The increasing patient turnover causes the workload of nurses to be higher so it is necessary to calculate the ratio of the number of nurses and workload.[6] Nursing work and organizational responses include patient demand, environmental complexity, medical complexity, qualities with which to evaluate nursing practice.[7] The workload will affect the work performance of the nurse.[8] Other factors that influence nurse performance include motivation, equitable salary, incentives, work environment, organization factors, recognition by management, and development opportunities.[9,10,11] These studies had not explored and observed the performance of nurses in various shifts. Every shift has a different workload which may influence job satisfaction and work performance. Therefore, we want to evaluate the performance of nurses in each shift depend on personal factors, organizational factors, and job satisfaction.

Methods

It was a quantitative analytic study with a cross-sectional design. A total of 58 nurses were chosen as the subjects using purposive sampling techniques. The inclusion criteria of the subjects were working in the inpatient room and working at the functional nurse level. The independent variables are individual characteristics (age, years of service, education, Body Mass Index, Level of Clinical Authority), organizational factors (work units and work climate), and job satisfaction (job, appreciation, achievement, responsibility, and self-development). The dependent variable is work performance.

A structured questionnaire of 48 items with Likert Scales was used to measure organizational factors and job satisfaction. Work performance was measured by worksheet observations. The observation time was for one week period (28 June-4 July 2019) in three shifts). Observation of the worksheet filled out by the observer by calculated the percentage of productive and non-productive activities. Each respondent was observed 96 times in one week. There were 19 observers involved in this study, they are the head of the nurse's room and the supervisor. The observer was given a checklist (✓) on the type of activity when making observations at the specified time.

The statistical analysis used was *SmartPLS* (Partial Least Square)[12,13] There are three stages in this PLS statistical test, the first stage was an analysis of the outer model, consisting of Convergent validity (standard > 0.7), Composite reliability (standard > 0.7), Average Variance Extracted (Standard > 0.5), and Cronbach Alpha (standard > 0.6). The second stage was the inner model analysis consisting of multicollinearity test (Variance Inflation Factor < 10), Coefficient of Determination (R^2), and Predictive Relevance ($Q^2 > 0$). The third stage was hypothesis analysis. The ethical approval has been received from the ethical committee of STIKes Hang Tuah Pekanbaru, with the number of 173/KEPK/STIKes-HTP/IV/2019.

Results

The statistical analysis was done in *SmartPLS*. Testing for data analysis was carried out by testing the outer model

consisting of validity and reliability testing as well as testing the inner model consisting of testing the coefficient of determination (R^2), predictive relevance (Q^2), path coefficients, and hypotheses formulated in this study.

Stage 1. Outer Model Analysis

The first step was a validity test. The results of the convergent validity test with an AVE value > 0.5 indicate that the model was valid and fulfilled the requirements for discriminant validity. The AVE value of individual factors was 0.870, organizational factor was 1,000, job satisfaction was 0.507, and nurse performance was 0.730. The next step was a reliability test. The reliability value for individual characteristics was 0.953, organizational factor was 1,000, job satisfaction was 0.804, and nurse productivity was 0.890. The composite reliability value was > 0.6 then all variables are declared reliable.

Stage 2. Inner Model Analysis

The criteria of the inner model include the multicollinearity test, coefficient of determination (R^2), and predictive relevance (Q^2). One way to detect multicollinearity symptoms is to look at the Variance Inflation Factor (VIF). All variables have a VIF < 10, So it can be concluded that there is no multicollinearity Based on the results of testing the coefficient of determination, it can be seen that the R-Square value for the job satisfaction variable is R^2= 0.305 or 30.5%, and the nurse's performance R^2= 0.404 or 40.4%. The variable can predict the model well if Q^2 > 0. Based on the results of Q^2=0.586 (58.6%), it was shown that the overall model was valid and reliable.

Respondent characteristics

Respondent characteristics consisted of age, work period, Body Mass Index (BMI), education, authority level, and work unit. Among the 58 respondents, the majority of nurses (37.9%) aged 20-25 years old, 36.2% had years of service for > 1-5 years, 48.3% had normal BMI and the majority (74.1%) had Diploma III education level. The distribution of respondent characteristics can be seen in table 1.

Table 1. Characteristics of respondent

Characteristics	F	%
Age (years)		
20 - 25	22	37.9
> 25 - 30	21	36.2
>30 - 35	6	10.4
> 35	9	15.5
Years of service		
0 - 1	11	19
> 1 – 5	21	36.2
> 5 – 10	19	32.8
> 10	7	12
BMI (Body Mass Index)		
Low	1	1.7
Normal	28	48.3
High	26	44.8
Obesity	3	5.2
Education		
Diploma	43	74.1
Bachelors degree	15	25.9
Authority level		
Level I	29	50
Level II	18	31
Level III	11	19
Work unit		
Floor 5A	6	10.3
Floor 5B	11	19
Floor 5C	14	24.1
Floor 3	27	46.6
Total	58	100

Table 2 showed that the majority of respondents was 51 (88%) are satisfied and very satisfied. Only seven people (12%) was felt dissatisfied with this dependent variable. Respondents who have high performance when carrying out tasks on the morning shift were 91.4%, the afternoon shift was 82.8%, and the night shift was 70.7%. The results of observations in the night shift showed that was 5.2% of respondents have low performance.

Table 2.
Summary of Nurse Performance Satisfaction

Variables	f	%
Organization factors		
Work environment		
Very satisfied	30	51.7
Satisfied	28	48.3
Job satisfaction		
Very satisfied	35	60.3
Satisfied	23	39.7
Appreciation		
Very satisfied	30	51.7
Satisfied	26	44.9
Not satisfied	2	3.4
Responsibility		
Very satisfied	11	19

Variables	f	%
Satisfied	44	75.9
Not satisfied	3	5.1
Work satisfaction		
Very satisfied	7	12.1
Satisfied	50	86.2
Not satisfied	1	1.7
Carrier Development		
Very satisfied	24	41.4
Satisfied	34	58.6
Performance		
Good	52	89.7
Low	6	10.3
Morning shift		
High	53	91.4
Moderat	5	8.6
Afternoon shift		

Variables	f	%
High	48	82.8
Moderat	10	17.2
Night shift		
High	41	70.7
Moderate	14	24.1
Low	3	5.2
Total	58	100

Table 3 showed that the average nurse spends time done direct productive activities (medical services) was 49.1% in the morning shift. Indirect productive activities, for example, documented nursing care, handover of shifts, communication with other care professionals was 41.3%. Nurses still done non-productive activities was 9.6%.

Table 3. Summary of Observation Work Performance of Nurses at X Hospital 2019

Shift	Productive activities (%)			
	Direct activities	Indirect activities	Non-productive Activities (Health services)	Non-productive Activities (Non-health service)
Morning shift	53.7	38.7	0.7	6.9
Afternoon shift	51.8	39	0.2	9
Night shift	41.8	46.2	0	12
Average	49.1	41.3	0.3	9.3

Table 4 showed that individual characteristics and job satisfaction related to job performance, while organizational factors are related to job satisfaction. Two independent variables not related (p-value > 0.05), namely: individual characteristics and organizational factors.

Table 4. Summary of Nurses Performance at X Hospital 2019

Variable	Original Sample (O)	Mean (M)	SD	T Statistics (O/SD)	*p*-value (<0,05)
1. Relationship individual characteristics to job satisfaction	-0.100	-0.103	0.138	0.726	0.468
2. Relationship of Individual Characteristics to Nurse Performance	-0.416	-0.397	0.129	3.218	0.001
3. Relationship of Organizational Factors to Job Satisfaction	0.573	0.577	0.094	6.068	0.000
4. Relationship of Organizational factors to Performance	0.025	0.010	0.147	0.170	0.865
5. Relationship of Job Satisfaction to Performance	0.500	0.507	0.147	3.408	0.001

Abbreviation: SD=Standard Deviation

The next stage is to shows the effect on the structural model of the relationship between variables. Four variables were eliminated and not included in the modeling because they had an AVE value for the loading factor indicator (AVE < 0.5) namely: BMI, education, development, and work units. The structural model of the relationship between variables can be seen in Figure 1.
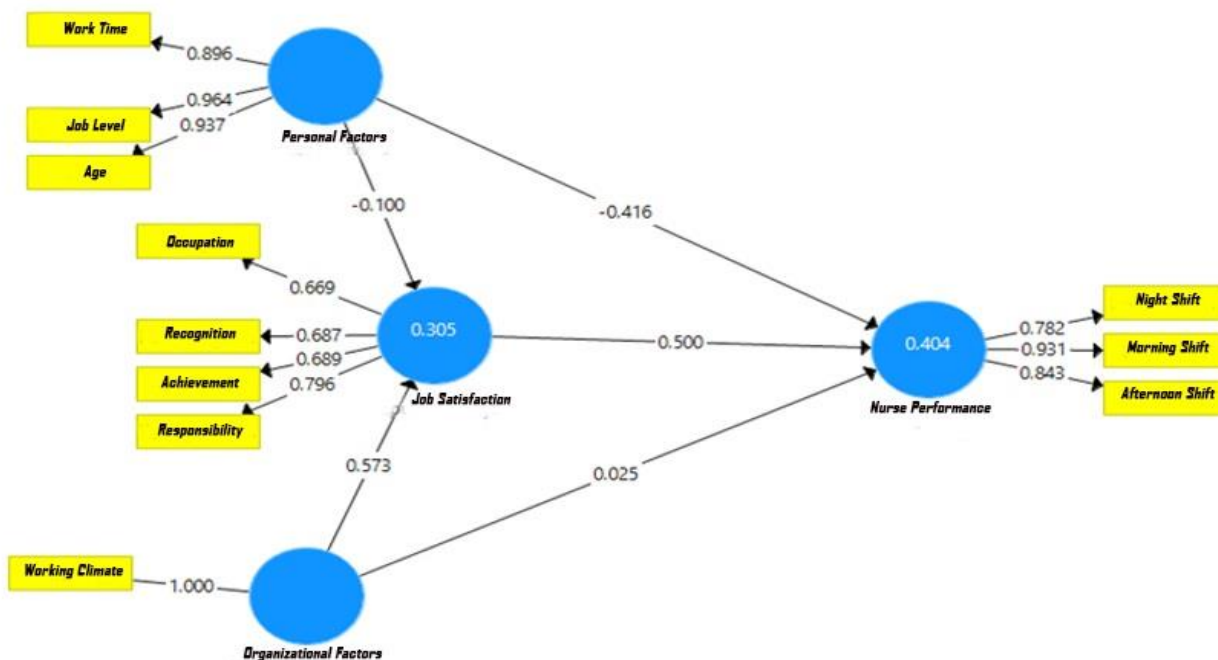
Figure 1. Composition of Structural Model Influence on Nurse Performance

Figure 1 shows that the direct effect of individual characteristics on work performance (-0.416). Indirect effect = -0.100x 0.500 = -0.05. The total coefficient of the influence of individual factors on performance is -0.466. This means that if the individual factor increases by 1 unit, then the performance decreases by 0.466 (46.6%). The direct effect of job satisfaction with performance is 0.500, meaning that if job satisfaction increases by 1 unit, then performance increases by 0.500 or by 50%. The direct effect of organizational factors on performance was 0.025. Indirect effect = 0.573 X 0.025 = 0.014. Its means that if the organizational factor increases by 1 unit, then the performance increases by 0.014 (1.4%).

Discussions
Individual Characteristics
This study showed that the majority of respondents are productive age (< 35 years old). In theory, the productive age has the potential to provide high performance. In addition to considering quality, quantity must also be a concern because the low number of nurses is associated with neglect to carry out nursing care which leads to low health services.[14,15] The level of clinical authority must be developed through continuous competency improvement training of nurses. So that the roles and responsibilities of nurses are more optimal.[16] In this study, the majority of nurses' education levels are at Diploma. If a nurse has not received an increase in academic education level, it is better if a continuous training program is needed so that the competence of the nurse is more optimal in providing services.[17] The integrity of nursing services is the basis for changing health services in improving the quality of nursing care through the use of effective human resources.[18]

Organizational Factors
The level of organizational culture can be seen from the level of commitment of hospital members to the values and beliefs of the leadership to all levels of employees. These values and basic belief factors play a role in shaping the ethics, attitudes, behavior of organizational members and shaping their

perspective on problems. A good organizational climate is built by the hospital because it can encourage them to work professionally, accountably, to meet high work performance criteria.[19] One of the organizational cultures that must be prioritized is patient safety. This refers to the quality and competence of nurses. If the hospital management has a high commitment to patient safety, it is necessary to improve a good working climate as well.[20] The work environment is a comfortable work environment and the availability of facilities needed to provide services.

Job Satisfaction

Understanding the problem of job satisfaction and a nurse's career path is very important to build the capacity and mix of skills in job performance. If job satisfaction can be fulfilled, it can maintain quality resources in health services.[21] A person with a high level of job satisfaction shows a positive attitude towards his job. Job satisfaction is an affective or emotional response to various aspects so that job satisfaction is not a single concept. A person can be relatively satisfied with one aspect of work and dissatisfied with one or more other aspects.[22] The nurse has a big share in the process of patient satisfaction.[23]

Nurse Performance

Maintenance performance measurement has been carried out using working sheet observations. In general, the respondent's performance level was 90.16%. One measure of the success of nursing services is how much the nurse's performance in providing good nursing care to patients. Many factors can influence optimal work performance growth, including the quality and physical abilities of the employees and other supporting facilities.[24] However, it is necessary to consider forming a team to monitor and evaluate the work performance of nurses which is useful for improving the quality of health services in hospitals.[25]

Conclusions

Job satisfaction is a dominant factor that has a direct effect on nurse performance. Job satisfaction contributes to increasing the work performance of nurses by up to 50 percent. The main priority in increasing job satisfaction will have implications for increasing work performance. Hospital management needs to consider health workforce planning, mapping, and development competency to optimize nurse performance.

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