



Factors Associated with the Nurse Compliance in Nursing Round Implementation at Siti Khodjijah Hospital

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The quality of nursing care must be increase through the nursing round and collaboration with other medical personal. Nursing round was an effective strategy in the treatment aspect, particularly improving communication among team members related to interaction between nurses and other medical personal. This quantitative study applied *cross sectional* approach, the population was nurses who worked at the Siti Khodjijah Hospital with a sample of 70 respondents at 6 different wards. A modified questionnaire was used by researcher to collect data, which have validity and reliability test. Data were analyzed by chi square test and logistic regression test. Training, the number of nurses in the workforce, reward, punishment, and benefits of the nurses compliance were significantly associated with the nurse compliance in the implementation of nursing rounds with p value were 0.11, 0.026, 0.036, 0.018, 0.038 respectively. Whereas supervision was not significance with nurses compliance in the implementation of nursing rounds with $p = 0.615$ in multivariate analysis by using logistic regression test found the number of workforce with p value of 0.010 ($p < 0.05$) which $\exp(B) = 28,650 \geq 2$. There were association between training, the number of nurses in the workforce, reward, punishment, and benefits of the nurses compliance towards compliance of nurses in the implementation of nursing rounds, where the number of nurses in the workforce was the most dominant factor. The hospital management should engage the number of workforce in each ward, conducting training activity to increase the knowledge of nurses, provide proper reward and punishment for nurses or ward who didn't do the nursing rounds routinely.

Keywords: Compliance, Nursing Rounds, Nurse.

1. INTRODUCTION

Nursing services becomes a critical success factor of health care in hospitals. This is because the nursing staff that is the backbone of the hospital and sub-systems in the healthcare system which also being an integral part of the hospital services. Indonesian nurses as the health workers which have the most numerous in the health professionals, with the proportion of 40%, which is spread in hospitals 65%, public health 28%, and the remaining 7% in other health facilities.¹

Changes that occur in the health service can make changes occurred in the nursing services. The changes are due to cultural diversity, an increasingly aging population, technology, services, and fulfillment of health care quality information.² The changes perceived as the kinds of opportunities and challenges. Nurses must be able to anticipate and observe the trend because sooner or later it will have an impact on nursing practice.³

Improving the quality of the nursing care needs to be done with the activities of nursing rounds which is one of the forms

of nursing activities in collaboration with the other medical staff. The nursing rounds are an effective strategy in the aspects of care, especially to improve communication among team members related to the interaction between the nurses and the other medical personnel.⁴ In addition, the nursing rounds is also useful in the development of clinical practice, evidence base which is to improve their perception of the environment as a setting for regulation of professional nursing practice and in turn it increases job satisfaction. It occurs inspection work processes in the nursing rounds by improving communication and collaboration which is to reduce errors in treatment and to improve better results.⁵

Increasing the quality of service needs to be done by identifying the factors that play a role in improving the compliance of nurses in the implementation of nursing rounds. According to Gibson, there are three groups of variables that influence the workplace behavior and person performance, namely: individual variables, organizational variables and psychological variables. Individual variables are for the example the emergence of compliance because of their self-awareness that includes the

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organization of hospital policies (rules availability, staff element) (Schedules A, 2005).

The purpose of this study was to determine what factors associated with the implementation of the nurses obedient in the nursing rounds in the Siti Khodijah Hospital Sepanjang.

2. RESEARCH METHODOLOGY

2.1. Type, Population and Sample, Time

This study was descriptive correlation quantitative research using cross sectional approach.⁶ The Sample in this study were all nurses with total 70 people of the Siti Khodijah Hospital Sepanjang. The study was done during 9 days (from 6th to 14th August 2014), The instruments of study included characteristics of the nurses, training, the number of workforce, supervision, reward, punishment, the benefit/usefulness and the compliance of nurse. The Instruments have been tested by the construct validity in PKU Muhammadiyah Hospital Surabaya with respondents that are 30 nurses. The data analysis used univariate, bivariate and multivariate analyzes. The univariate analysis explained all the independent variables and the dependent variable separately; the bivariate analysis defined the relationships of training, the number of workforce, supervision, reward, punishment, and benefit/usefulness of the compliance of nurses in the implementation of the nursing rounds by using Chi Square. The multivariate analysis accounted the relationship among those instruments and the strongest relationship with the performance of nurse by using logistic regression.

3. RESULTS

3.1. Characteristics of Respondents

Table I describes the characteristics of nurses with the average age of 29.84 years old and the youngest is 20 years old and the oldest 40 years old with at most 30 years old. Based on the average length of working of nurses is 7.6 years old with the longest working period is 19 years old and the latest working period is 1 years old.

Table II describes the characteristics of the sexes of nurses which are mostly women 90% while there are a bit of male 10%.

Table III describes the characteristics of nursing education level which are most of the nurses from diploma of nursing 82,8% and small number of bachelor 17,2%.

Table I. Distribution of mean, SD, minimum and maximum of respondents based on age and length of working in Siti Khodijah hospital Sepanjang in 2014.

Characteristics	Mean	Standard deviation	Minimum	Maximum
Age	29,84	5,23	20	40
Length of working	7,6	5,72	1	19

Table II. Distribution of frequency of respondents based on sexes in Siti Khodijah hospital Sepanjang in 2014.

Sexes	Frequency	Percentage
Male	7	10
Female	63	90
Total	70	100

Table III. Distribution of frequency based on education level in Siti Khodijah hospital Sepanjang in 2014.

Education level	Frequency	Percentage
Diploma of nursing	58	82.8
Bachelor of nursing	12	17.2
Total	70	100

Table IV. Distribution of frequency of respondents based on training in Siti Khodijah hospital Sepanjang in 2014.

Training	Frequency	Percentage
Attend	58	82.8
Do not attend	12	17.2
Total	70	100

Table V. Distribution of frequency of respondents based on the number of workforce in Siti Khodijah hospital Sepanjang in 2014.

The number of workforce	Frequency	Percentage
Fulfilled	43	61.5
Unfulfilled	27	38.5
Total	70	100

3.2. Univariate Analysis

Table IV illustrates the training of nurses largely been a lot of nurses attend the training 82.8%, and small part of nurses do not attend the training 17.2%.

Table V illustrates number of workforce of nurses largely was fulfilled in the amount of 61.5% and a small percentage was unfulfilled 38.5%.

Table VI illustrates supervision which is mostly good is 55.7%, and partly bad is 44.3%.

Table VII illustrates the Reward in mostly good nurse is as much as 64.2% and the partly is bad is as much as 35.8%.

Table VIII illustrates the nurses with punishment is mostly 80% and without punishment is 20%.

Table VI. Distribution of frequency of respondents based on supervision in Siti Khodijah hospital Sepanjang in 2014.

Supervision	Frequency	Percentage
Good	39	55.7
Bad	31	44.3
Total	70	100

Table VII. Distribution of frequency of respondents based on reward in Siti Khodijah hospital Sepanjang in 2014.

Reward	Frequency	Percentage
Good	45	64.2
Bad	25	35.8
Total	70	100

Table VIII. Distribution of frequency of respondents based on punishment in Siti Khodijah hospital Sepanjang in 2014.

Punishment	Frequency	Percentage
With punishment	56	80
Without punishment	14	20
Total	70	100

Table IX. Distribution of frequency of respondents based on benefit/usefulness in Siti Khodijjah hospital Sepanjang in 2014.

Benefit/usefulness	Frequency	Percentage
Good	44	62.8
Bad	26	37.2
Total	70	100

Table X. Distribution of frequency of respondents based on the compliance of nurses in Siti Khodijjah hospital Sepanjang in 2014.

Compliance	Frequency	Percentage
Obedient	55	78.5
Disobedient	15	21.5
Total	70	100

Table IX illustrates of the benefit/usefulness which is good 62.8% and bad 37.2%.

Table X illustrates the compliance of nurses in Implementation of the nursing Rounds with percentage of obedient nurse is as many as 78.5% and disobedient nurses is 21.5%.

3.3. Bivariate Analysis

The above table shows that there is a relationship between the compliance of nurse in the implementation nursing rounds and training in the Siti Khodijjah Hospital with p value $0.043 < 0.05$.

The table above shows that there is relationship between the compliance of nurse in the implementation of nursing rounds and the number of workforce in Siti Khodijjah Hospital with p value $0,026 < \text{from } 0,05$.

The table above shows that there is no relationship between the compliance of nurse in the implementation of nursing rounds and supervision in Siti Khodijjah Hospital with p value $0,615 < \text{from } 0,05$.

The table above indicates that there is correlation between the compliance of nurse in the implementation of nursing rounds and reward in Siti Khodijjah Hospital with p value $0,036 < \text{from } 0,05$.

Table XI. Relationship between the compliance of nurse in the implementation of nursing rounds and training in Siti Khodijjah hospital Sepanjang in August 2014.

Training	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Yes	49	84,5	9	15,5	58	100	0,043
No training	6	50,0	6	50,0	12	100	
Total	55	78,6	15	21,4	70	100	

Table XII. Relationship between the compliance of nurse in the implementation of nurse rounds and the number of workforce in Siti Khodijjah hospital Sepanjang in August 2014.

Number of workforce	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Fulfilled	38	88,4	5	11,6	43	100	0,026
Unfulfilled	17	63,0	10	37,0	27	100	
Total	55	78,6	15	21,4	70	100	

Table XIII. Relationship between the compliance of nurse in the implementation of nurse rounds and supervision in Siti Khodijjah hospital Sepanjang in August 2014.

Supervision	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Good	32	82,1	7	17,9	39	100	0,615
Bad	23	74,2	8	25,8	31	100	
Total	55	78,6	15	21,4	70	100	

Table XIV. Relationship between the compliance of nurse in the implementation of nurse rounds and reward in Siti Khodijjah hospital Sepanjang in August 2014.

Reward	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Good	39	86,7	6	13,3	45	100	0,036
Bad	16	64,0	9	36,0	25	100	
Total	55	78,6	15	21,4	70	100	

The table above shows that there is relationship between the compliance of nurse in the implementation of nursing rounds and punishment in the Siti Khodijjah Hospital with p value $0,001 < \text{from } 0,05$.

The table above illustrates that there is correlation between the compliance of nurse in the implementation of nursing rounds and benefit/usefulness in Siti Khodijjah Hospital with p value $0,018 < \text{from } 0,05$.

3.4. Multivariate

The table above images that the number of workforce as variable has the most great Exp (B) similarly of six value which is smaller than 0,05 that indicates about the number of workforce as the most dominant in the relationship between the compliance of nurse in the implementation of nurse rounds.

Table XV. Table relationship between the compliance of nurse in the implementation of nurse rounds and punishment in Siti Khodijjah hospital Sepanjang in August 2014.

Punishment	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Good	49	87,5	7	12,5	56	100	0,001
Bad	6	42,9	8	57,1	14	100	
Total	55	78,6	15	21,4	70	100	

Table XVI. Relationship between the compliance of nurse in the implementation of nurse rounds and benefit/usefulness in Siti Khodijjah hospital Sepanjang in August 2014.

Benefit/Usefulness	The compliance of nurse						P value
	Obedient		Disobedient		Total		
	N	%	N	%	N	%	
Good	39	88,6	5	11,4	44	100	0,018
Bad	16	61,5	10	38,5	26	100	
Total	55	78,6	15	21,4	70	100	

Table XVII. Multivariate test model of the effects among training, the number of workforce, reward, punishment, and benefit/usefulness and the compliance of nurse in the implementation of nursing rounds.

No	Variable	P value	Exp (B)	95% CI	
				Lower	Upper
1	Training	0,043	13,163	1,089	159,129
2	The number of workforce	0,010	28,650	2,253	364,294
3	Reward	0,816	1,215	0,235	6,825
4	Punishment	0,018	10,509	1,501	73,566
5	Benefit/usefulness	0,019	11,951	1,510	94,584

4. DISCUSSION

4.1. Training and Compliance of Nurse in the Implementation of Nursing Rounds

The results of the bivariate analysis between the compliance of nurse in the implementation of nursing rounds and the number of workforce which gained nurses who received training, obedient nurse that is 84.5% compared to 50.0% of nurse without training. While nurses who are not trained denote that they are disobedient 50.0% compared with nurses who received training 15.5%. The results of analysis by using chi square test p -value = 0.016 < Alpha 0.05 shows statistical decision of H_0 rejected which means no significant association between the compliance of nurse in the implementation of nursing training rounds. Results of multivariate analysis generates P value of 0.043 (p value < 0.05) with exp (B) = 13.163 ≥ 2 , so that it can be concluded that H_0 refused which means training to nurses about nursing rounds can improve the compliance of nurse 13.163 times which are compared with nurse without training. The results of the study related to this treatment have a significant to the implementation of the round of nursing so that more nurses who follow the training, then the implementation of the nursing round will be effective. This training is very useful for the improvement of knowledge and skills on the nurse so that this training is very important for nursing round activities can run.

This study is in line with the results of research that has been done by Yetty Kusmayati⁷ that shows about the training to nurse increase their compliance to infection of nosocomial prevention. In addition, this study are consistent with the results of research conducted by Kasendra Anggraeni that has analyzed the relationship between the training and the performance of nurse. The training could create an environment where employees can acquire or learn the attitudes, abilities, skills, knowledge, and behaviors that are specifically related to the job.⁸

4.2. The Number of Workforce and the Compliance of Nurse in the Implementation of Nursing Rounds

The results of the bivariate analysis between the compliance of nurse in the implementation of the nursing rounds and the number of workforce shows that the number of workforce that is fulfilled, more obedient in the amount of 88.4% compared to 63.0% who is unfulfilled, while the number of workforce who is unfulfilled are more disobedient 37.0% compared to fulfilled workforce 11.6%. The results of the analysis obtained by using the chi square test p -value = 0.026 < Alpha 0.05, which statistical decision shows H_0 rejected, which means no significant association between the compliance of nurse in the implementation of nursing rounds and the number of workforce. Results of multivariate analysis generates P value of 0.010 (p value < 0.05)

with exp (B) = 28.650 ≥ 2 , so that it can be concluded that H_0 refused which means that is fulfillment of the number of workforce for nursing rounds activities can improve the compliance of nurse by 28.650 times compared with those who are unfulfilled.

One of indicator of the effective and efficient of hospital success is the availability of adequate human resources with a high quality, professionally in accordance with the functions and duties of each personnel. The more availability of human resources/the number of nurses, it will facilitate the division of jobs and activities of the implementation of the nursing round can run well. One important effort should be made by hospital leader is to plan HR needs appropriately in accordance with the function of each unit of service, parts, and installation of hospitals.⁹

4.3. Supervision and the Compliance of Nurse in the Implementation of Nursing Rounds

The results of data analysis showed that supervision is a variable that is not related to compliance of nurses in the implementation of the nursing rounds. The univariate results indicate that supervision is mostly in good type 55.7% and in bad type 44.3%. Chi Square test results obtained p -value = 0.615 > Alpha 0.05, which is statistical decision of H_0 accepted, which means there is no significant association between the compliance of nurse in the implementation of nursing rounds and supervision.

One of the supervisor duties is function as direction and control, in which a supervisor should be able to apply oversight of subordinates, in this case is a nurse. The leader must be able to supervise and to assess all activities that have been planned together, and the members are able to perform tasks that they are responsible as good as possible.¹⁰ The results showed most of level education is Diploma of Nursing so that it can cause that supervision had no connection with the compliance of nurses in the implementation of nursing rounds, because the supervision function as direction and control of the head of the room depends on knowledge, perception, education and age. In accordance with the results of research conducted by the Rusca Putra, Setyoadi, Cantika Tri Yuliarini which concluded that the supervision of the head of the room may be affected by some of those factors (Castledine G, 2005). In accordance with Notoatmojo's opinion that critical thinking, logical and systematic way of thinking is proportional to the level of so that it can increases the quality of work.

4.4. Reward and the Compliance of Nurse in the Implementation of Nursing Rounds

The results of the bivariate analysis between the compliance of nurse in the implementation of nursing rounds and reward which is pictured on nurse gained a good reward, more obedient 86.7% compared to who is bad 64.0%, while nurses get bad reward, more disobedient are 36.0% compared to whom get a good reward 13.3%. The results of the analysis obtained by using the chi square test p -value = 0.009 < Alpha 0,036, which is statistical decision of H_0 rejected, which means no significant association between the compliance of nurse in the implementation of nursing rounds and reward.

In the concept of management, reward is one of tool to increase the motivation of employees. The results of this study found that the reward is an important role in improving the compliance of nurses, so that nurses who get rewards from the leadership then

the level of compliance to the activities of nursing round will be good. Reward is all forms of financial returns, tangible merits and benefits obtained by the nurse as part of a relationship of workforce. In general, any organization in designing a reward system is to attract employees and retain competent employees.¹¹

The results of this study are supported by the results of research conducted by Kristianto D. (2009) with the title of relationship between reward by giving thanks and discipline time while following the received weigh to the nurse of operating room in Dr. Kariadi Hospital Semarang which found that there is a relationship between thanks reward and time discipline while following the received weigh, so it can be said that the thanks reward can be achieved if the time discipline while following the received weigh can be hold well.

4.5. Punishment and Compliance of Nurse in the Implementation of Nursing Rounds

The results of the bivariate analysis between the compliance of nurse in the implementation of nursing rounds and reward shows that nurses are getting a good punishment, more obedient 87.5% compared to the bad punishment 42.9%, while the nurses who get bad punishment are more disobedient 57.1% compared with 12.5% the good punishment. The results of chi square analysis test which is obtained p -value = 0.001 < Alpha 0.05, which is statistical decision of H_0 rejected, which means no significant association between the compliance of nurse in the implementation of nursing rounds and punishment. Results of multivariate analysis generates P value 0.018 (p value < 0.05) with $\exp(B) = 10.509 \geq 2$, so that it can be concluded that H_0 is refused which means that the provision of good punishment can improve the compliance of nurse 10.509 times compared with whom did not give punishment.

Punishment is the most important role in improving nurse compliance. In addition to the above rewards punishment can also improve the compliance of nurses, the results of this study shows the more there are punishment applied by the hospital, then the nurse compliance will increase. The results of this study supported also premises results of research conducted by Koenecoro Galih stated that there is influence on the administration of punishment to the performance.

M. H. Tirtamidja defined penalty/punishment was a way to redirect the behavior to so that it is appropriate behavior in general. In this case the punishment was given when a behavior that is not expected to be displayed by the person concerned or he/she did not respond or show an expected behavior.¹²

Benefit/Usefulness and Compliance of Nurse in the Implementation of Nursing Rounds.

The results of the bivariate analysis between the compliance of nurse in the implementation of nursing rounds and benefit/usefulness is found that the nurses who gain knowledge about the benefits/usefulness, more obedient 88.6% instead of whom are bad 61.5%, while nurses who earn knowledge about the benefits/usefulness which is not good are more disobedient 38.5% compared to obedient nurses 11.4%. The results of the analysis obtained chi square, where p -value = 0.018 < Alpha 0.05, H_0 is rejected by using the decision statistic which means there is a relationship between the compliance of nurse in the implementation of nursing rounds and the benefit/usefulness.

The results of multivariate analysis generates P value 0.019 (p value < 0.05) with $\exp(B) = 11.951 \geq 2$, so that it can be concluded that H_0 is refused which means that knowledge of benefit/usefulness of nursing rounds can improve the compliance of nurse 11.951 times compared with them that do not know the benefits/usefulness.

Knowledge about the benefits/usefulness is very important to carry out a job which if lacking knowledge about the benefit/usefulness will show work that is not professional. This is reinforced by the data which is obtained by the researchers that the years of service of nurse in Siti Khodjijah hospital is an average of 7.6 years. The years of service associated with work experience, employees who have been working to have a wide range of experience in their respective fields. Duration of working time will establish effective working patterns, their knowledge increase more because of more experience and knowledge gained.

5. CONCLUSION

There is a relationships among the training, the number of workforce, the reward the punishment the benefits/usefulness and the compliance of nurses in the implementation of nursing rounds. This study also does not find the relationship between supervision and the compliance of nurses in the implementation of nursing rounds. The results of multivariate analysis shows that the most influential factor of the compliance of nurses in the implementation of nursing rounds is the number of workforce with P value of 0.010 (p value < 0.05) with $\exp(B) = 28.650 \geq 2$. So it can be concluded that the training, the number of workforce, reward and punishment, the benefit/usefulness were the most important thing in improving nurse compliance in the implementation of nursing round. In this case the hospital is expected to increase the 5 components so that the implementation of the nursing round in will progress effectively.

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