Transformational leaders can improve Achievement Motivation and Competence Development to support Nurses Productivity

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Nurses are health workers who interact directly with patients. Here, a nurse's work must be in accordance with the demands of task with a good standard result. Thus, in this study aimed to determine transformational leadership style and motivation achievement with competency development as an effort to increase nurse productivity. The observational analytic study was used to determine the relationship between variables using a cross-sectional study design. Here, data collection was carried out at the Hospital X Bogor Inpatient Unit in July-August 2020 with a total population around 45 people. The results showed that the influence between transformational leadership style, achievement motivation, and competency development on nurse productivity during influenced Transformational Leadership Style on Achievement Motivation. Thus, the influence of Transformational Leadership Style and Achievement Motivation on Competency Development have achievement motivation to increase competency development. Furthermore, the development of nurse competence is adequate and it will be increased on nurse productivity. Here, the professionally skills need to improved and continuously updated to support services. Professional and proportional services will be developed if supported by the appropriate competencies.

Keywords: Transformational leadership style, achievement motivation, competence development, nurse productivity

1. INTRODUCTION

Health services is provided by nurses to several patient who need help over 24 hours per day and 7 days a week at the hospital [1]. Nurses also maintain the health workers who interact directly with patients. The work done by a nurse must be in accordance with the demands of the task with good results based on hospital standards. If this is done, a nurse can be said to have applied the principles of good work productivity. The quality of nursing services does not only depend on the individual but also depends on the support of colleagues and management [2]. This support is expected to be able to create an organization that allows workers to grow, be motivated, productive, reward performance, recognize achievement, and encourage job satisfaction. The nursing organizational system is needed to become a sub-system in the hospital organization. To run this system, organizations need leaders to achieve their vision, mission and goals. Nursing leadership in the hospital needed to manage nursing services. Both of the leaders and members are raising the process to achieve a higher level of morality and motivation [3]. The style for leading organization needs to be adapted to changing situations [4]. Nurses is more compatible with transformational leadership styles than transactional leadership styles and can increase job satisfaction [5]. Here, a leadership style has an impact on organizational and employee performance [6]. In addition, job satisfaction and stress levels at work are also influenced by leadership styles [7]. Work motivation is an important variable in influencing the performance of nurses. The need for achievement is a huge reserve of potential energy and people who succeed in business and industry are people who get things done. Nurse competence really needs to be improved because it is the largest proportion of human resources in health care centers and is directly related to patients [8]. Nurses in the hospital showed that the competence of nurses should be improved [9]. Hospital management must understand that nurses must be required to be professional in order to be

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excellent in providing services. Underperforming nurses is becoming a global problem. This is because a quality of care and nursing processes are still poor. Less than optimal work quality, non-compliance and nurse indiscipline indicate that the nurse's performance is still not good, so it needs to be improved. Thus, X Hospital Bogor routinely evaluates patient satisfaction. The services obtained by patients from the care unit according to the consumer satisfaction survey are in accordance with management regulations every month. However, there were several complaints from patients and families about services, both in terms of staff friendliness and response time to patient handling in the inpatient unit. This is certainly an input and needs to be explored again how the suitability of service and satisfaction in services at the hospital. Thus, the qualitative preliminary study in the Nursing Unit at X Hospital Bogor, there are several problems that cause these complaints. The nursing staff perceives the leadership of the Head of the Room only giving orders but not giving directions on how to do them. Nurses' adherence to procedures and service standards has not been running as expected where they carry out their duties based on habits. Employees are not disciplined in working time, such as arriving late or leaving early for work. Organizational support for self-development is felt to be not optimal. Motivation to work is lacking because initiative and innovation are almost non-existent and work based on orders and rely on others for duties and responsibilities at work. Education and training are not held continuously.

Furthermore, the staffing data of RS X Bogor in 2019 (related to the performance assessment of 30 nurses in the Inpatient Unit) obtained that most of the nurses' performance was in the sufficient category of 16 people (53%), and the performance of nurses in the poor category was 7 people (23%), In fact, one nurse (3%) did not meet the performance standards so that the hospital staffing was terminated. Furthermore, for nurse productivity, according to data in November 2019, it was found that most nurses had sufficient motivation as many as 14 people (46%) and nurses in the less category were 5 people (16%). Moreover, in December 2019 from the results of interviews and observations an introduction to the 5 Heads of Rooms in the Inpatient Unit of RS X Bogor said that 3 (60%) nurses had not attended the Nursing Room Management training. Several certifications for competency enhancement in the form of continuous education and training have been fulfilled, but have not been continuously and thoroughly implemented, related to budget allocation and the suitability of human resources to be assigned to these activities. The results of interviews with the head of nursing, leadership competency training has not been implemented and standard operational procedures for the roles and functions of the head of the room are being designed, therefore the role of leadership in achievement motivation, competency development as an effort to increase the productivity of nurses in the Inpatient Unit

cannot be explained. Thus, in this research was conducted to determine the transformational leadership style and develop a model of achievement motivation with competency development as an effort to increase the productivity of nurses so as to improve health services in inpatient units in hospitals. This research is important because there is no evaluation from the subordinates towards the leader as an evaluation material and the suitability of the follow-up plan in placing the leader in a unit. Here, we will conduct an analysis from the Effect of Transformational Leadership Style and Achievement Motivation on Nurse Productivity over Competence Development as Intervening in Inpatient Unit of X Hospital Bogor.

2. METHODOLOGY

In order to achieve the result, we observe analytic study to determine a relationship between variables using cross-sectional study design. The design selection was used to obtain the relationship between the dependent variable and the intervening variable and the independent variables at one time collection. The data collection taken from inpatient Unit at RS X Bogor in July to August 2020. Here, we collect the data from 45 population of nurses from working in the Inpatient Unit. All data were recorded using a questionnaire as a tool to measure the dependent variable (Nurse Productivity), independent (Transformational Leadership Style and Achievement Motivation), and intervening (by competency development activity). The number of respondents' answers does not start from zero point but starts from number 1 (for the minimum) and maximum point is 5.

Before data collection obtained, all questions in the research questionnaire were tested for validity and reliability to obtain a measuring instrument that was in accordance with the research objectives. For univariate analysis using index analysis is categorized into a range of scores based on the calculation of the three-box method with an index score range of 9 - 45 with a range of 36. By using the three-box method, the 36 ranges are divided into three parts, resulting in a range for each. the part of 12, which will be used as the index interpretation list, low = 9 to 21, medium is equal 22 to 34, and high is equal 35 to 45. Furthermore, the data obtained were tested for normality, heteroscedasticity, multicollinearity and after the test phase was carried out, it was continued with path analysis. This research has been reviewed and passed the ethics conducted by the Research Ethics Commission of Esa Unggul University with number 0227-20.208 / DPKE-KEP / FINAL-EA / UEU / VIII / 2020.

A. Research hypothesis
In order to analyze the observation data, we proposed four hypotheses to see correlation between predictor and target parameter. The hypotheses in this study described as follows:

H₁: There is an effect of transformational leadership style on achievement motivation

H₂: There is an influence of transformational leadership style and achievement motivation on competency development

H₃: There is an influence of transformational leadership style, achievement motivation, and competency development on nurse productivity

H₄: There is an effect of transformational leadership style on achievement motivation in increasing nurse productivity with competency development as an intervening Variable

3. RESULT AND DISCUSSION

In order to archive the results, we validate the test in the research questionnaire contained two questions. The each of question which is invalid over variable productivity of nurses and transformational leadership styles. Both of the questions were excluded from the research questionnaire. Furthermore, the results of the reliability test for all questions on the questionnaire form were reliable. During data collection, all respondent's data can be taken. The percentage number of female and male nurses around 75.6 % and 24.4%, respectively. Here, the age nurse is grouped in the several age group. The first age group 26 to 40 years old around 51.1 % and followed by the second age group around 18 to 25 years old which is 44.4% while the third age group 41 to 50 years is a minority around 4.4% of population. The largest respondents have education Nursing in diploma level around 38 people or 84.4% of population and the rest with the educational background nurses.

Here, the prior to path analysis was processed for all data and also tested for feasibility with suitable for further analysis. In this study, the normality assessment was proposed to develop normal distribution by using One-Sample Kolmogorov-Smirnov method. Here, the significance of value transformational leadership style variable (X_1) is 0.326 while the achievement motivation variable (X2) is 0.732 then the competency development variable (X3) is 0.665, respectively. Due to the significance value of the three variables is greater than 0.05 then there are no symptoms of heteroscedasticity in the model. Based on the multicollinearity test, we cannot obtain the VIF value due to less than 10 or low tolerance value around 0.1 from calculation. Thus, in the test results we found reliable value test. Furthermore, the regression coefficient value is reliable and robust to changes occur in other variables over regression model. The result of the correlation analysis test shows that the relationship between each variable has no weak and positive and significant relationship characteristics (see Table I).

Table I. Distribution of Average Value Range of Research Variables

Variable	Score	Category
Nurse Productivity	35	High
Transformational Leadership Style	36	High
Achievement motivation	36	High
Competency Development	36	High

As can be seen in Table I, the transformational leadership variable gets in the high category. Here, all parameters are located in the high category while the low and medium category, respectively. Here, the variable reflected by supervisors in carrying out of variable functions. In addition, the variable is appropriate and can be translated either as well as being a role model for nurses. Furthermore, the achievement motivation in working for providing services in the unit and supporting the goals of the organization to be better than others is in the high category. Parameter highest of these variables is follow the model result. Here, the nurses who working in the United Arab Inpatient have a good motivation in supporting its work (see Figure 1).
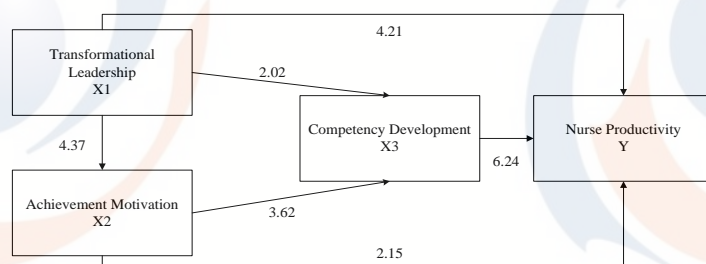

Figure 1. Path Analysis diagram

Competency development is classified as high category. The indicator with the highest score is "Can complete a job because it is in accordance with the profession". These results reflect that in working, nurses in the Inpatient Union have been able to apply their knowledge and knowledge to support their work. However, the indicator "Active in internal / external education and training" shows the lowest score (middle category). In working, nurses in the Inpatient Unit are not entirely exposed to regular education and training. Routines and high workloads cause reduced opportunities due to difficulties in managing time and the lack of support facilitated by hospital management. The productivity of nurses shows an average result in the high category. The indicator with the highest score is "Carrying out work according to responsibilities even without being supervised by superiors".

These results reflect that in working nurses in the Inpatient Union are responsible for their work. For the indicator with the lowest average score and in the medium category, it is "More work done than colleagues". In working, nurses in the Inpatient Unit still work based on command restrictions. From the statistical results tests (see Figure 1), it is found that there is an influence between transformational leadership style on achievement motivation with a T-value of 4.37 (> 1.96), which means that the hypothesis is accepted. It is known that the coefficient of determination or R Square is 0.31 or 31% (Table 2). This figure means that the transformational leadership style variable (X1) affects the achievement motivation variable (X2) by 31%, while the remaining 69% is influenced by other variables. There is an influence between transformational leadership style on competency development with a T value of 2.02 (> 1.96). Then there is the effect of achievement motivation on competency development with a T-value of 3.63 (> 1.96). These two values mean that the hypothesis is accepted. It is known that the coefficient of determination or R Square is 0.46 (46%). This figure implies that the variable transformational leadership style (X1) and achievement motivation (X2) affect the competency development variable (X3) by 46%, while the remaining 54% is influenced by other variables. There is an influence between Transformational Leadership Style, Achievement Motivation, and Competency Development on Nurse Productivity. The T value of the three variables is greater than 1.96, which means that the hypothesis is accepted. It is known that the coefficient of determination or R Square is 0.735 (73.5%). This figure implies that the transformational leadership style variable (X1) and achievement motivation (X2), the competency development variable (X3) affects the productivity of nurses (Y) by 73.5%, while the remaining 26.6% is influenced by other variables. Based on the results of the Sobel test (see Table III) for the indirect effect of X1 to Y through X2, it appears that the value of Z (1.906) <1.96, Ho failed to reject, which means that transformational leadership style does not indirectly affect nurse productivity through achievement motivation. This is also the same for the indirect effect of X1 to Y through X3, it appears that the value of Z (1.848) <1.96, then Ho fails to reject, which means that transformational leadership style does not indirectly affect nurse productivity through competency development. While the indirect effect of X2 to Y through X3 is obtained Z value (3.139)> 1.96, so Ho rejects, which means that achievement motivation indirectly affects the productivity of nurses but needs competency development. In other words, achievement motivation can increase nurse productivity but it is influenced by competency development. The development of nurse competence is important but it is not easy to do without good planning. It is an ongoing process and is primarily influenced by work experience and education.

The nursing manager or head of the nursing unit needs to provide support to each staff or subordinates by providing education, guidance, mentoring, training, discussion, and case studies. In addition, building the competence of nurses to remain professional is provide by training programs related to communication, knowledge, technical skills, clinical reasoning, personality, and reflection in daily habits for the benefit of individuals and communities served.

Table II. Partial Hypothesis Test Calculation Results

Direct Influence	Coefficient value	SE	Statistic T Value	*R-sq*
Sub Structural (X1 to X2)				
X1 → X2	0,51	0,12	4,37 > 1,96	0,31
Sub Structural (X1, X2 to X3)				
X1 → X3	0,31	0,16	2,02 > 1,96	0,46
X2 → X3	0,62	0,17	3,62 > 1,96	
Sub Structural (X1, X2, X3 to Y)				
X1 → Y	0,05	0,13	4,21 > 1,96	
X2 → Y	0,32	0,15	2,15 > 1,96	0,735
X3 → Y	0,74	0,12	6,24 > 1,96	

The strategies that can be done such as providing adequate management support for nurses and enabling them to develop professionally, conduct fair evaluations, provide autonomy in work, employee welfare, and increase organizational resources. In organizations that do not provide training in accordance with organizational goals to improve competence, another impact is the tendency of staff to quit or change jobs. Here, the motivation has a relationship with performance. In organizations that do not provide training in accordance with organizational goals to improve competence, it will have an impact on the tendency of staff to quit or change jobs. For this reason, education and human resource development are important factors in developing nurse competencies. This study is inseparable from its limitations. The limitations of this study are that filling out the questionnaire really depends on the openness of the respondent's suitability in answering. To anticipate this weakness, efforts were made to provide an explanation prior to data collection that the information obtained would not contain the respondent's personal information and its confidentiality was guaranteed. Socialization of this activity cannot be carried out face-to-face by gathering all respondents, because it is related to official and pandemic schedules, which do not allow meetings with face-to-face meetings that gather many people. Visits to the unit are very limited, twice at the beginning and at the end due to current conditions which limit visits to areas with special provisions such as using hazmat including in the care unit (see Table III).

Table III. Summary of Path Analysis output from Direct Effect, Indirect Effect and Total Effect

Variable	Indirect Effect	Total Effect	Z Sobel	Note
X1 → Y to X2	0,1632	0,2142	1,90661361	Z sobel < 1,96 Not significant
X1 → Y to X3	0,2294	0,2804	1,84841385	Z sobel < 1,96 Not significant
X2 → Y to X3	0,4588	0,7788	3,13915398	Z sobel > 1,96 significant

4. CONCLUSION

The transformational leadership style in the Hospital X Bogor Inpatient Unit is carried out well by the head nurse and can be translated according to expectations by the nurse in charge. In daily life, nurses have the motivation to develop independent competences so that they can create good performance. There is an influence of transformational leadership style on achievement motivation, which means that the role of the leader can influence subordinates well by motivating subordinates to work better. The role of the leader is important to increase the nurses' in strictive motivation to become the motivation for achievement in groups, where competition can be a positive thing to further develop themselves, the environment and the organization.

There is an influence of transformational leadership style and achievement motivation on competency development, which means that the role of the leader can motivate subordinates to develop their competence to support their work. The participation of nurses in education and training both internally / externally is deemed necessary to further facilitate capable human resources with the knowledge and knowledge they have. Achievement motivation will increase competency development, so that if the development of nurse competence is adequate or high, the productivity of nurses will increase. Professionally skills need to be improved and continuously updated to support services. Professional and proportional services will be created if supported by the appropriate competencies.

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