ORIGINAL RESEARCH

Managerial Competence of First-Line Nurse Managers in Public Hospitals in Indonesia

Joko Gunawan [1]
Yupin Aungsuroch [1]
Mary L Fisher [2,3]
Anna M McDaniel [3]
Colleen Marzilli [4]

[1]Faculty of Nursing, Chulalongkorn University, Bangkok, Thailand; [2]FINE Center, Indiana University School of Nursing, Indianapolis, IN, USA; [3]College of Nursing, University of Florida, Gainesville, FL, USA; [4]School of Nursing, The University of Texas at Tyler, Tyler, TX 75799, USA

Purpose: Working as a first-line nurse manager requires high managerial competence as an essential component in the delivery of health care. Therefore, factors that influence managerial competence warrant examination. The aim of this study was to identify factors associated with managerial competence of the first-line nurse managers using the best-fit model of human resource management framework.

Methods: A cross-sectional study was conducted. A total of 247 first-line nurse managers from 18 public hospitals in Indonesia participated. Data on managerial competence and its related factors were collected via validated questionnaires.

Results: The five factors of managerial competence were identified – performance appraisal ($\beta = 0.476$, $p < 0.001$), career advancement ($\beta = 0.425$, $p < 0.001$), recruitment and selection ($\beta = 0.354$, $p < 0.001$), larger hospitals ($\beta = 0.165$, $p = 0.001$), and management training attendance ($\beta = 0.109$, $p = 0.029$), which collectively explained 44.9% of the variance in managerial competence.

Conclusion: Human resource management factors, hospital types, and training attendance have significant roles to improve managerial competence of the first-line nurse managers. Nurse managers should provide routine performance appraisal, career advancement, and transparent recruitment and selection as well as to improve the attendance of management training and learn from larger hospitals for leadership and development of the first-line nurse managers.

Keywords: nurse administrators, Indonesia, personnel management, public hospitals

Introduction

The role requirements for first-line nurse managers in hospitals have become highly complex due to the complexity of the healthcare delivery system today.[1] Increased effort by top managers and human resource leaders has focused on improving managerial competence of first-line nurse managers through the process of succession planning, training, rewards, and career development. These efforts were spurred by the need for high quality care of the units to achieve the vision and mission of the hospital.[2]

However, working as a first-line nurse manager remains challenging, which is most likely related to the many and complex functions of management of the ward, budgeting, staff management, professionalism, and leadership.[3] It also requires high competence as an articulation of knowledge, skills, and attitudes.[2] Therefore, first-line nurse managers need to be supported, and factors that influence their competence warrant examination.

Managerial competence is defined as the application of knowledge, attitudes, and skills of first-line nurse managers in specific management functions which is observed and measured as a behavior.[2] Internationally, first-line nurse managers are

Correspondence: Yupin Aungsuroch;
Joko Gunawan
Faculty of Nursing, Chulalongkorn University Bangkok,
Borommaratchachonnani Srisataphat, Building, Rama 1 Road, Pathumwan, Bangkok 10330, Thailand
Tel +662-218-1131
Fax +662-218-1130
Email yaungsuroch@gmail.com;
jokogunawan2015@gmail.com

also called ward managers, head nurses, ward sisters, unit managers, and charge nurses, but in Indonesia the charge nurses and the ward sisters are not considered first-line nurse managers.[4] A first-line nurse manager in Indonesia is called "Kepala Ruangan" in the Indonesian language, and refers to a clinical nurse who holds a position as a head nurse, a ward manager or a ward head nurse, or a unit manager.[5]

Aimed at improving managerial competence of first-line nurse managers at public hospitals in Indonesia, various human resource management activities were provided. Despite the implementation of human resources activities, the managerial competence of first-line nurse managers remains low, as indicated by local studies in Indonesia.[4,6,7] This gap in practice and research needs further exploration.

Previous local studies have documented factors that are correlated with managerial competence including educational level, facilities and resources, and performance evaluation.[6,7] However, those factors might not address essential factors that influence managerial competence as indicated in international literature, such as human resource management factors, individual factors, organizational factors, and other factors.[8] Besides, studies that explore the factors related to managerial competence of first-line nurse managers are limited in the current literature. Therefore, this gap warrants further examination.

Context of Human Resource Management Practices at Public Hospitals in Indonesia

Indonesia consists of 1572 public hospitals and 1248 private hospitals.[9] According to Hospital Act No 40 Year 2009,[10] hospitals are grouped into four types. Type A hospitals are top referral and larger hospitals, with a minimum of 400 beds and a variety of specialists and sub-specialists. Type B hospitals contain between 200–399 beds and a variety of specialists and limited sub-specialists. Type C hospitals hold between 100–199 beds and have more than four types of specialists. Type D hospitals are in transition to Type C hospitals, with less than 50 beds and limited specialists (only general medicine and dentistry).

The management of human resources in hospitals in Indonesia is regulated by the hospital law, but it is limited to the arrangement of the number and classification of human resources, ethical standards in the workplace, services, and facilities.[10] There is no regulation to standardize the components of human resource activities, which leads to diverse human resource management practices among public hospitals, however the activities are more likely in the practice of recruitment and selection, training and development, rewards, performance appraisal, and career planning.[11] In the recruitment and selection of first-line nurse managers, a nurse candidate should have at least an educational level of Diploma III or Diploma IV with five years of clinical experience, or a Bachelor's degree in nursing with three years of experience. The Diploma III is a three-year nursing program at the college/university level, called Ahli Madya Keperawatan without conducting a research. The Diploma IV is a one-year clinical program taken after completing a Diploma III. The additional requirements from several hospitals are include being a primary nurse and having management training certification.[12]

In the training and development, public hospitals provide managerial training for their first-line nurse managers in various topics, such as professional nursing practice models, ward management, patient-centered care, nursing career ladders, leadership and management of nursing care, staffing, conflict management, communication, rewards, etc. The majority of the management training is for three to four days.[13] For rewards, most nurses and nurse managers receive a reward in the form of a financial bonus, which is given based on index total score. The total score is calculated based on the combination of scores in competence, performance, education, length of work, functional position, staff classification, certification, and service. One index equals to 75,000 IDR, or 6 USD.[14] However, the standards for competence and performance for nurse managers vary among hospitals, and the remuneration system still has pros and cons.

In addition, performance appraisal is conducted monthly and yearly by both human resource managers and the head of the nursing department or nursing division. The performance appraisal is more likely according to managerial functions of planning, organizing, directing, staffing, and evaluating.[15] Career planning for nurse managers is categorized into five levels: nurse manager 1, or first-line nurse manager; nurse manager 2, or area manager; nurse manager 3, or head of sub-nursing department; nurse manager 4, or head of nursing department; and nurse manager 5, or director/vice director of nursing. The first-line nurse managers are considered low managers, area managers and head of sub-nursing department are considered middle managers, and the head of nursing departments and the directors or vice directors of nursing are considered top managers.[13] These five levels are not in place in

all public hospitals in Indonesia because this career panning is not yet standardized across the country.

Conceptual Framework

This study used a competence-based human resource management theory with a best-fit approach as a conceptual framework. The competence-based human resource management combines the theory of competence and human resource management that most likely focuses on people than on the job.[16] The competence-based human resource management empirically provides an important model to advance the competence of human resources within an organization, and it emphasizes competence analysis in all human resource activities.[17] In addition, the best-fit approach in the competence-based human resource management emphasizes that human resource management should be congruent with individual and organizational related factors as essential to contributing to controlled variables that affect competence.[18] The competence-based human resource management with the best-fit approach model was found as a variant from the precedent models of Harvard, Michigan and York for human resource management.[18]

According to literature, competence is defined in multiple ways based on the eye of the beholder. Competence in the United Kingdom refers to ability or capacity of an individual in performing tasks within an occupation.[19] In the United States, competence is defined as the behavior of an individual as the reflection of their knowledge, skills, attitudes, characteristics, and personalities in doing required activities.[20] In Indonesia, competence is defined as the behavior in performing specific tasks as the combination of skill, knowledge, attitude.[4] There is no consensus about the definition of competence, but a clarifying definition has emerged.[18] The concept of competence has been widely used in human resource management to match the talents to the needs in an organization.

A literature review provides significant associations of managerial competence of first-line nurse managers with individual and hospital-related factors, including clinical experience,[21] educational level,[8] length of work,[8,22] management training attendance,[23] hospital types,[22] and hospital-geographic area.[24] In conclusion, there are three sets of factors consisting of individual-related factors, hospital-related factors, and competence-based human resource management factors that are considered important factors of managerial competence of the first-line nurse managers. This study aimed to identify these factors are associated with managerial competence of first-line nurse managers at public hospitals in Indonesia.

Materials and Methods
Design

This study employed a correlational study design with a cross-sectional approach.

Samples

The number of respondents was calculated using G-power 3.1 analysis program[25] with 11 factors at α 0.05, statistical test power 0.95, and an effect size of 0.09 from a previous study,[22] followed by a calculation of 20% attrition rate which resulted in a total sample of 177 first-line nurse managers as a minimum sample.

A total of 31,920 nurse managers were identified as the population of this study during data collection.[9] A multi-stage sampling was used to select the sample among the five biggest islands in Indonesia to represent Indonesia. In addition, the five islands including Java, Sulawesi, Sumatra, Kalimantan, and Papua were selected as they have all types of public hospitals on those islands, specifically Type A hospitals, which do not exist on other islands.[9] The sampling technique could be described in the following three steps: first, during data collection we identified the number of public hospitals, which consist of 795 public hospitals in Java, 336 public hospitals in Sulawesi, 321 public hospitals in Sumatra, 112 public hospitals in Kalimantan, and 32 public hospitals in Papua.[9] Second, we divided each type of public hospital on each island with an equivalent ratio of 60:1 to simplify the size and to get an equal number of hospitals on each island. As a result, 25 public hospitals were included, with 11 public hospitals in Java, six public hospitals in Sumatra, three public hospitals in Sulawesi, three public hospitals in Kalimantan, and two public hospitals in Papua. Third, we recruited all participants by total sampling, which consisted of 369 first-line nurse managers. The inclusion criteria of the sample consisted of an Indonesian national ward head nurse or nursing unit manager in inpatient/outpatient unit, intensive care unit (ICU), operation room, and emergency unit employed for at least one year as a first-line nurse manager and competent in the Indonesian language.

Data Collection

The first author collected data from January to May 2018, assisted by four local research project coordinators. The coordinators were selected based on their experience in

conducting research. In this study, the research project coordinators' jobs consisted of gaining the study approval in each hospital setting, instrument distribution, and conducting the informed consent process for each participant. Prior to the data collection process, the objective and procedure of the study were explained to each coordinator. They also signed a contract form, and paid a research fee for collecting data.

Ethical Consideration

The ethical approval of this study was obtained by the Medical and Health Research Ethics Committee (MHREC) of the Faculty of Medicine Gadjah Mada University, Yogyakarta, Indonesia on May 17, 2017 with No. KE/FK/0565/EC/2017. To ensure that ethical principles were protected, each participant was given an explanation of aims, procedures, and impacts of the study. The the participants were asked to sign a written informed consent if they agreed to participate. Each participant could withdraw at any time during the study, and their names, including hospital facility name remained confidential and classified. This manuscript was derived from the dissertation project entitled "Factors influencing managerial competence of first-line nurse managers at public hospitals in Indonesia". We declared that this research complied with the provisions of the Declaration of Helsinki.[26]

Data Analysis

A descriptive analysis and hierarchical stepwise multiple regressions were used for data analysis. The statistical assumption for multiple regressions was examined, and a result of normal data distribution was obtained as there was no violation of the linearity, autocorrelation, multicollinearity, or homoscedasticity. IBM SPSS Statistics for Mac version 22 was used for data analyses with a value of 0.05 as the significance level.

Validity, Reliability and Rigor

To measure managerial competence, the Indonesian First-Line Nurse Managers Managerial Competence Scale (I-FLNMMCS) was used, which was developed by the authors.[27] The scale consists of 43 items categorized into seven dimensions: applying quality care improvement, self-management, leadership, facilitating spiritual nursing care, utilizing informatics, staffing and professional development, and financial management. The overall Cronbach's α value was 0.95, with a value range between

0.71 and 0.90 in each dimension. The value of Item-Content Validity Index (I-CVI) ranged between 0.81 and 1, which indicated that the scale is valid and reliable. I-CVI is computed as the number of experts giving a rating 3 or 4 to the relevancy of each item, divided by the total number of experts.[28] A 5-point rating scale was used (5-Always, 4-Quite often, 3-Sometimes, 2-Once in a while, and 1-None of the time). The scale was originally developed in the Indonesian language, but it is also available as an English version. The higher score reflects the higher competence of first-line nurse managers.

Competence-Based Human Resource Management Scale (CBHRMS) was used to measure human resource management practice in the hospital setting. This scale was also developed by the authors,[14] which consists of 30 items within 5 dimensions; performance appraisal, training and evaluation, recruitment and selection, career planning and development, and rewards scheme. A 5-point Likert scale was used, which indicated the level of agreement from strongly disagree (1) to strongly agree (5). This scale is valid and reliable with Cronbach's α value of 0.89 (between 0.85 and 0.88 in each component), and I-CVI between 0.81–1. The higher score, the higher each component of HRM practice.

A demographic form was used to describe the characteristics of the first-line nurse managers, which consisted of questions about educational level, age, gender, clinical experience, length of work, management training attendance, hospital types, and current setting. All instruments were available in the Indonesian language.

Results
Characteristics of Respondents

Of the total respondents, only 259 participants from 18 hospitals were recruited (70.1% response rate). During normality testing, we removed 12 of 259 samples identified as outliers. Therefore, the total sample was 247 participants. However, this number was still greater than the number of participants needed based on the power calculation. The respondents consisted of females (n = 195, or 79%) and males (n = 52, or 21%), with the average age of 40.14 years. The majority of the respondents had a professional degree in nursing (n = 181, or 73%) rather than a technical degree in nursing (n = 66, or 27%). The average clinical experience was 12.8 years, and the average length of work was 4.06 years. More than a half of the respondents had attended management training (n = 141, or 57%). In

addition, the number of the respondents working at Type C hospitals (n = 123, or 50%) were greater than those working at Type A hospitals (n = 51, or 20%) and Type B hospitals (n = 73, or 30%). The respondents were mostly living in urban areas (n = 134, or 54%) compared with those living in rural areas (n = 113, or 46%) (see Table 1).

Managerial Competence of First-Line Nurse Managers

The average managerial competence among first-line nurse managers in this study was not high (Mean 3.64, SD 0.62). The highest component of managerial competence was applying quality care improvement, and the lowest component was financial management (see Table 2).

Table 1 Individual-Related Characteristics of First-Line Nurse Managers (N = 247)

Characteristics	n	%	Mean	SD	Range
Gender					
Male	52	21			
Female	195	79			
Total	247	100			
Educational level					
Professional nursing degree	181	73			
Technical nursing degree	66	27			
Total	247	100			
Management training attendance					
Yes	141	57			
No	106	43			
Total	247	100			
Clinical experience			12.80	5.18	4.0–34.0
Length of work			4.06	1.79	1.0–11.0
Age			40.14	6.00	22.0–52.0
Hospital type					
Type A	51	20			
Type B	73	30			
Type C	123	50			
Total	247	100			
Hospital geographical area					
Urban area	134	54			
Rural area	113	46			
Total	247	100			

Factors Associated with Managerial Competence of First-Line Nurse Managers

Three sets of factors were analyzed using the hierarchical stepwise regression. All individual-related factors were included in the first step, which accounts for 5.5% of the variance in managerial competence which was associated with management training attendance ($\beta = 0.186$, $p = 0.001$) and a professional nursing degree ($\beta = 0.181$, $p = 0.033$). In the second step, the individual-related factors were controlled before adding the hospital-related factors in the regression equation, and the results showed that only management training attendance significantly associated with managerial competence from the individual-related factors while the professional nursing degree was excluded. Among hospital-related factors, only Type A hospital ($\beta = 0.238$, $p < 0.001$), Type B hospital ($\beta = 0.187$, p 0.003), and management training attendance ($\beta = 0.138$, $p = 0.023$) were significant. This improved the power by 10% for the variance. In the third step, individual and hospital-related factors were controlled before adding the competence-based human resource management factors. The results showed that, among five competence-based human resource management factors, only performance appraisal ($\beta = 0.476$, $p < 0.001$), career advancement ($\beta = 0.425$, $p < 0.001$), and recruitment and selection ($\beta = 0.354$, $p < 0.001$) were statistically significant. Rewards scheme and training and development were not statistically significant. In this step, management training attendance ($\beta = 0.109$, $p = 0.029$) remained, and only Type A hospital ($\beta = 0.165$, $p = 0.001$) was significant. Type B hospitals were excluded. The final

Table 2 Managerial Competence of First-Line Nurse Managers (N= 247)

No	Managerial Competence	Mean (SD)
1	Applying quality care improvement	3.90 (0.82)
2	Utilizing informatics	3.79 (0.76)
3	Spiritual nursing care	3.71 (0.74)
4	Leadership	3.67 (0.69)
5	Self-management	3.63 (0.75)
6	Staffing	3.56 (1.02)
7	Financial management	3.10 (0.81)
	Overall managerial competence	3.64 (0.62)

model showed that 44.9% of the variance in managerial competence was associated with the five most consistent factors, namely performance appraisal, career advancement, recruitment and selection, Type A hospital, and management training attendance ($R^2 = 0.449$, $F_{(1,241)} = 4.854$) (see Table 3).

Discussion

Findings of this study showed that only five factors consisting of performance appraisal, career advancement, recruitment and selection, Type A hospitals (larger hospitals), and management training attendance, were significant and collectively explained 44.9% of the total variance in managerial competence of first-line nurse managers.

The first-line nurse managers who received greater performance appraisals, career advancement, and recruitment and selection had higher managerial competence. This conceptually makes sense because performance appraisal determines the competence level that has been performed by first-line nurse managers. This study emphasizes that the performance appraisal in the public hospital should be open and routine. Similar with career advancement, if the career of a first-line nurse manager is planned and advanced strategically, the managerial competence will be increased because they have a clear picture of what they will be in the future. In addition, better recruitment and selection also significantly affected managerial

competence. This variable remains critical and it should be very objective and strictly based on competence analysis.

The findings also indicated that the first-line nurse managers who never attended management training had lower competence than those who attended management training. This result supports the findings from Brooks[29] that poor competence and management behavior is related to poor attendance of management training.

It is important to note the first-line nurse managers working in Type A hospitals had higher competence than those working in Type C hospitals, and those working in Type B hospitals had no difference in managerial competence compared to those working in Type C hospitals. This finding however provides a support for the Government of Indonesia to choose Type A hospitals as the top referral hospitals in Indonesia. This was in line with previous studies[22,30] that revealed larger hospitals like Type A hospitals may provide richer resources and facilities to support first-line nurse managers in increasing their managerial competence than the small hospitals like Type B and C hospitals.

Findings of this study also revealed that the educational level, clinical experience, length of work, hospital geographical area, Type B and Type C hospitals, rewards scheme, and training and evaluation could not add the predictive powers in managerial competence of first-line nurse managers. The educational level was not a factor of managerial competence. The impact of this variable was only seen in

Table 3 Results of Hierarchical Stepwise Regression Analysis of Factors Associated with Managerial Competence of First-Line Nurse Managers (N = 247)

Study Variables	R	R^2	R^2 Change	b	S.E (b)	Beta (β)	t	p
Step 1								
Constant				3.565	0.057		62.103*	<0.001
Management training attendance	0.235	0.055		0.249	0.076	0.186	3.293*	0.001
Professional nursing degree				0.181	0.085	0.134	2.138*	0.033
Step 2								
Constant				3.604	0.063		57.637*	<0.001
Type A hospitals	0.394	0.155	0.100	0.352	0.094	0.238	3.733*	<0.001
Type B hospitals				0.246	0.082	0.187	2.991*	0.003
Management training attendance				0.167	0.073	0.138	2.287*	0.023
Step 3								
Constant				2.227	0.161		13.831*	<0.001
Performance appraisal	0.670	0.449	0.349	0.317	0.044	0.476	7.152*	<0.001
Career advancement				0.324	0.049	0.425	6.559*	<0.001
Recruitment and selection				0.257	0.051	0.354	5.049*	<0.001
Type A hospitals				0.217	0.064	0.165	3.386*	0.001
Management training attendance				0.132	0.060	0.109	2.203*	0.029

Note: *Significant level at 0.05.

the first step of hierarchical stepwise regression, which only professional nursing degree was a significant factor of managerial competence. The second step of regression indicated that the professional nursing degree was excluded from the equation due to the suppression from the other variables. In other words, the educational level might not be the only indicator to develop competence although a previous study emphasize that the educational level is a very important factor in nurse managers' competence.[8]

Clinical experience also was not related to managerial competence. It is noteworthy to emphasize that clinical experience is different from managerial experience. Clinical experience does not guarantee a nurse as a great manager.[30] In many cases, nurses are often selected to be a manager because of lack of qualified personnel instead of their desire to lead.[4] Similar with the length of work, the managerial competence of first-line nurse managers was not related to the amount of time they spent in their current workplace.[31] If the first-line nurse manager does not want to, or has to improve their competence, the time will not make a difference.[30]

In addition, the rural and urban areas In Indonesia where the hospitals were located were not associated with managerial competence of first-line nurse managers. Living in rural and urban area does not make a first-line nurse manager become a competent manager in Indonesia. Although rural area may not have the best resources available like in the urban area,[32] new knowledge and skills can be easily accessed in today's era where the Internet provides so much information related to nursing management and leadership.

Rewards scheme in this study was not a significant factor of managerial competence, This finding was not consistent with a previous study.[33] This can be speculated that the rewards scheme in terms of remuneration was less likely to have an impact on managerial competence. Besides, the remuneration system among hospitals is still debatable among managers. Thus, the top managers should evaluate the effectiveness of rewards schemes in public hospitals because giving a reward is one way to appreciate what an individual does in proportion to their measurable productivity.[18] In addition, training and evaluation was not a factor of managerial competence. This works in an opposite way compared with management training attendance. The findings in this study emphasize the importance of the attendance of management training, but the training and evaluation provided by the public hospitals where the first-line nurse managers work did not affect managerial competence. This rationally indicates that the training and evaluation in public hospitals may not be sufficient compared with the

training outside hospitals. However, this result might exist due to the unequal sample between those who attended training and those who did not. Therefore, those who did not attend the training could not evaluate the training itself. A further study is needed with an equal sample by adjusting the management training.

Implications of the Study

The findings of this study serve as an input for top nursing managers and human resource managers. It is recommended to routinely or continuously implement the performance appraisal for first-line nurse managers monthly and yearly as this was illuminated in this study as the most important factor to improve managerial competence. It is also suggested that the career planning of first-line nurse managers in the hospitals should be advanced after the standard of career ladder system is clearly developed among top nursing managers in Indonesia. In addition, the role of human resource managers in the recruitment and selection of the first-line nurse managers should be without bias and bureaucracy. The educational level, clinical experience, and length of work might not be the inclusion criteria for the recruitment and selection, but it should be strictly based on the competence analysis of each individual.

As only 57% of the first-line nurse managers attended management training, it is recommended that hospital managers and human resource managers provide more training opportunities to improve the attendance of first-line nurse managers in management training. This will provide additional opportunities for first-line nurse managers to improve their competence. In addition, as the training provided by the public hospitals in this study was not significant compared with the training outside the hospitals, it is therefore recommended that hospital managers and the nursing managers provide specific management training based on the findings of this study, which is specifically related to the quality care improvement, informatics use, spiritual nursing care, self-management, leadership, staffing and financial management, as well as other specific topics as needed. In relation to that, the hospitals should collaborate with nursing education institutions in providing up-to-date leadership and management training. Also, a 3 or 4-day management training should be further considered, which might not be enough to enhance the competence.

Additionally, instead of focusing on better resources and facilities that exist in the larger hospitals, top nursing managers and human resource managers in small hospitals (Type B and C hospitals) should learn from those in larger hospitals (Type A hospitals) for leadership and development of their first-line nurse managers by doing benchmarking regularly. Human

resource manager may focus on other strategies to improve competence in the larger hospitals, in terms of human resource management practices – performance appraisal, career advancement, training, and rewards. Although rewards scheme was not significant in this study, however, top nurse managers and human resource managers should develop the standard of rewards for the first-line nurse managers among hospitals.

It is also recommended for first-line nurse managers to work closely with top nursing managers and human resource managers related to their strengths and weaknesses and how to improve their competence. Additionally, it is also recommend that first-line nurse managers to take an initiative to attend management training or courses to update the knowledge, skills, and attitudes.

This study also serves as new knowledge in the limited empirical literature in competence based human resource management in nursing, specifically in the hospital settings in developing countries. The findings of this study can also be used to enhance managerial competence of first-line nurse managers in other sectors, such as in elderly care.

Limitations of the Study

The samples included in this study might not represent the overall context of the first-line nurse managers in Indonesia. The use of self-assessment might also have limitations, which the respondents might answer the questions that were socially acceptable. In addition, the use of stratified random sampling specifically related to management training attendance, hospital types, and geographical areas are necessary to generalize the findings in future studies.

Conclusion

Findings revealed that there were five significant factors of managerial competence. The performance appraisal was the first factor, followed by career advancement, recruitment and selection, larger hospitals, and management training attendance. This study serves as an input for leadership and management development of first-line nurse managers in Indonesia, which presents strong evidence that the use of competence-based human resource management with a best-fit approach was highly influential to maximize managerial competence of first-line nurse managers.

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Authorship Contribution

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors report no conflicts of interest for this work.

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