Meta Analysis: The Relationship between Hospital Management on Work Motivation among Nurse

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ABSTRACT

Background: In terms of improving employee performance, hospitals must have efforts that aim to motivate employees to be disciplined and have a work spirit in doing their jobs, while the efforts that can be made are to implement good hospital management. Motivation will be formed if the management applied by the agency is good, so that self-improvement and service quality will run by itself. This study aimed to analyze the relationship between hospital management on work motivation among nurse.

Subjects and Method: This study is a meta-analysis with PICO, population: nurse. Intervention: good hospital managemenet. Comparison: poor hospital management. Outcome: nurse work motivation. The articles used in this study were obtained from three databases, namely Google Scholar, Pubmed, and Science Direct. Keywords to search for articles are "Hospital Management" OR "Hospital Care" AND "Nurse Motivation" OR "Work Motivation" or "Work Ambition" AND "Multivariate". Articles included are full-text English from 2014 to 2019. Articles were selected using a PRISMA flow diagram. Articles were analyzed using the Review Manager 5.3 application.

Results: A total of 8 cross-sectional study articles from Asia (Indonesia, Malaysia, and Japan), Europe (Switzerland), Africa (Ghana), and North America (United States) were reviewed in the meta-analysis. Based on the results of the analysis, it was found that good hospital management can increase work motivation of nurses 1.91 times compared to poor hospital management (aOR= 1.91; 95% CI= 1.16 to 3.15; p= 0.01) and the results were statistically significant.

Conclusion: Good hospital management increase nurse work motivation.

Keywords: hospital management, work motivation, ambition, nurse.

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BACKGROUND

The hospital is part of integral part of health care experienced a change in value orientation and thinking. In order to survive and thrive in an environment that fast changing and competitive, hospital have to change the management paradigm hospital to the point of view consumer. Service quality approach and customer satisfaction is one of the important strategies that cannot be ignored (Jannah, 2017).

The success of health services is also based on factors of nursing services commonly referred to as care nursing, Therefore, for self-development and organizational survival, hospital management needs improve employee performance. In this

case, the expected increase in employee performance is to be able to improve their performance as much as possible to provide satisfactory service (Banakhar, 2018).

Another thing that affects the success of an organization is employee performance. Every organization or company will always try to improve the performance of its employees in the hope that the company's goals are achieved. To achieve these results, factors that influence the achievement of performance are needed, including work motivation, work discipline and job satisfaction (Willis-Shattuck et al., 2008).

Motivation is behavior that includes existing strengths within a person to initiate and direct behavior in order to achieve goals, motivation will not arise if there is no impulse or need that comes from him. Work motivation is a work drive that is owned by employees to carry out their duties as expected, with work motivation to make a job more well done (Tella et al., 2007).

Ryandini et al. (2020) stated that an effort to improve employee performance, of course the role of the hospital must have efforts that aim to motivate employees to be able to be disciplined and have a work spirit in doing their work, while the efforts that can be made are to implement good hospital management.

Based on this background, a comprehensive study is needed from various primary studies on the implementing hospital management on work motivation among nurse. This study aimed to analyze the relationship between hospital management on nurse work motivation.

SUBJECTS AND METHOD

1. Study Design
This research is a systematic review and meta-analysis. Data collection was obtained from 3 databases, namely: Google Scholar, PubMed, and Science Direct. The analysis of this research was carried out using RevMan 5.3 software. The keywords used were "Hospital Management" OR "Hospital Care" AND "Nurse Motivation" OR "Work Motivation" or "Work Ambition" AND "Multivariate".

2. Inclusion Criteria
The inclusion criteria used are full English papers with a cross sectional design, the relationship measure used is the adjusted Odds Ratio (aOR), the research subjects are nurse, the outcome of the study is work motivation of nurse.

3. Exclusion Criteria
Exclusion criteria in this study were articles published in languages other than English, statistical results reported in the form of bivariate analysis.

4. Operational Definition of Variables
The search for articles was carried out by considering the eligibility criteria determined using the PICO model.

Hospital management is coordination is carried out, from various existing resources through the planning, organizing process, and also the ability to achieve a goal, the The measuring instrument used is questionnaire.

Work motivation is stimulus or stimulation for every employee to work in carrying out their duties. Likert scale with 4 (four) answer choices, namely often, sometimes, rarely, never is a measuring tool commonly used to measure this variable.

5. Study Instruments
The instrument used in this research is the Critical Appraisal Checklist Center for Evidence Based Management (CEBMa).

The following are indicators in critical assessment:

a. Do the research objectives clearly address the focus/problem of the research?

b. Is the research method (research design) suitable for answering the research question?

c. Is the research subject selection method clearly written?

d. Does the sampling method give rise to bias (selection)?

e. Does the research sample take represent the designated population?

f. Was the sample size based on pre-study considerations?

g. Is the measurement method achievable?

h. Are the research instruments valid and reliable?

i. Was statistical significance assessed?

j. Was a confidence interval given for the main outcome?

k. Are there any confounding factors that have not been taken into account?

l. Are the results applicable to your re-search?

6. Data Analysis

The collected articles were then processed using the Review Manager (RevMan 5.3). Data processing is done by calculating aOR. Forest plots and funnel plots are used to determine the size of the relationship and the heterogeneity of the data.

RESULTS

Process of searching article wascarried out by searching several journal databases Pub-Med, Google Schoolar, and Science Direct it can be seen using the PRISMA FLOW flow-chart shown in Figure 1.

The initial search process resulted in a total of 1,012 articles, after deleting the duplicated articles, 784 articles were found, of which 86 articles were eligible for a full text review. A total of 9 articles that meet the criteria according to the quantitative synthesis meta-analysis.
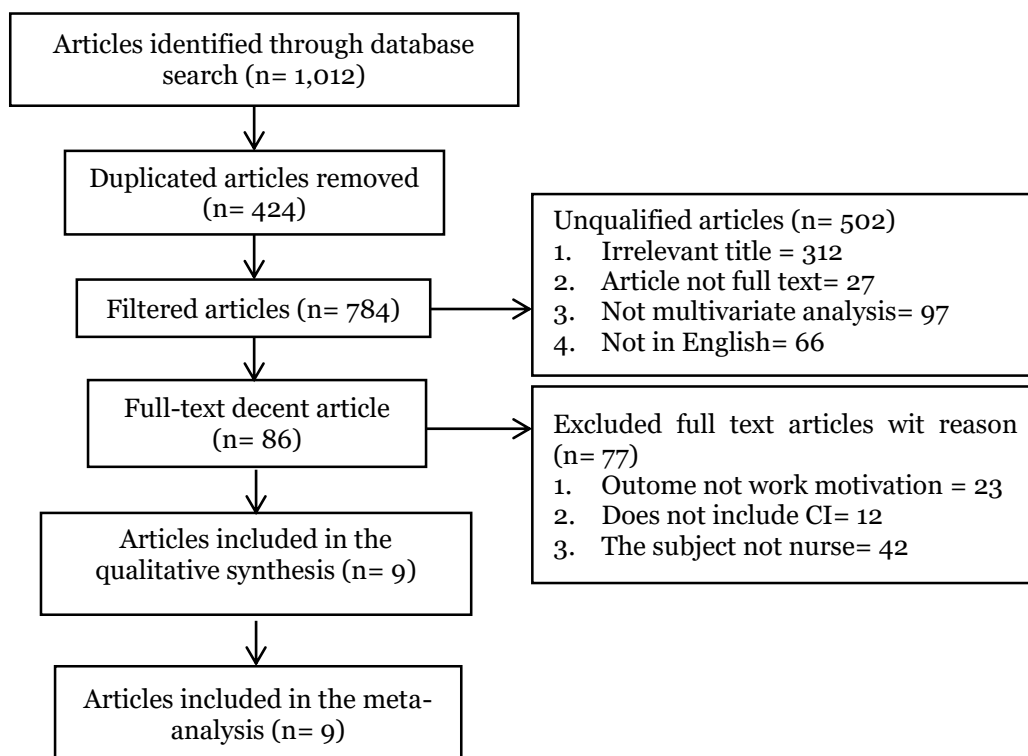

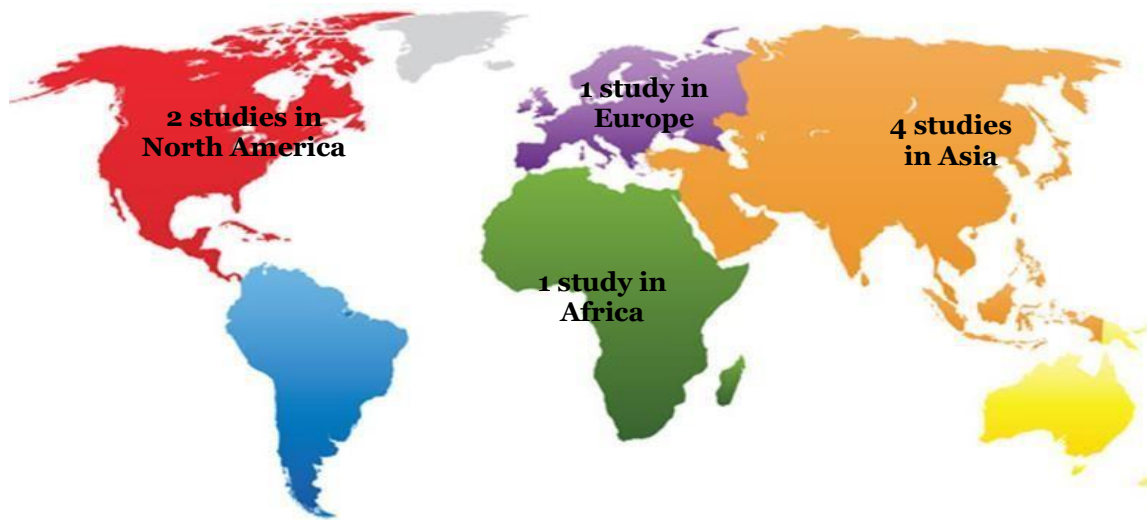**Figure 1. Results of Prisma Flow Diagrams**

Figure 2. Resarch Distribution Map

It can be seen in figure 2 that the research articles come from fourth continents such as Asia, Africa, North America, and Europe.

Table 1 showed about study quality assessment using CEBM, then table 2 showed the details of the articles provide nursing management on patients statisfaction.

a. Forest plot relationship between hospital management on work motivation among nurse

The good hospital management has the possibility to increase work motivation among nurse 1.91 times compared to a hospital that does not have good manage-ment (aOR= 1.91; 95% CI= 1.16 to 3.15; p= 0.01) and the result is statistically significant.

b. Funnel plot the relationship between hospital management on work motivation among nurse

This study showed an indication of publication bias that overestimates the true effect, which is characterized by an asymmetric distribution between the right and left plots. The plot on the right has 4 with standard error between 0.2 and 0.5, then the plot on the left has 2 with standard error between 0 and 0.3, and 2 plot touch the vertical line.

Table 1. Critical Appraisal Checklist Center for Evidence Based Management (CEBMa) for Hospital Managememt on Work Motivation among Nurse.

Primary Study	Criteria												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Gambino et al. (2010)	2	2	2	2	2	2	2	2	2	2	2	2	24
Rozenblum et al. (2012)	2	2	2	2	2	2	2	2	2	2	2	2	24
Bonenberger et al. (2014)	2	2	2	2	2	2	2	2	2	2	2	2	24
Putri (2014)	2	2	2	2	2	2	2	2	2	2	2	2	24
Blegger et al. (2016)	2	2	2	2	2	2	2	2	2	2	2	2	24
Kodama et al. (2016)	2	2	2	2	2	2	2	2	2	1	2	2	23
Masum et al. (2016)	2	2	0	2	2	2	2	2	2	2	2	2	22
Gunawan et al. (2019)	2	2	2	2	2	2	2	2	2	2	2	2	24

Table 2. Summary of Articles Sources of The Relationship between Hospital Management on Work Motivation among Nurse.

Author (Year)	Country	Study Design	Sample	Population	Intervention	Comparison	Outcome	aOR (CI 95%)
Gambino et al. (2010)	United States	Cross-sectional	150	Nurse in maternity ward USA hospital	Good hospital management	Poor hospital management	Work motivation, statisfaction, and workload	1.07 (1.01 to 1.12)
Rozenblum et al. (2012)	United States	Cross-sectional	125	Nurse in emergency unit	Good hospital management	Poor hospital management	Work motivation	4.03 (2.51 to 6.48)
Bonenberger et al. (2014)	Ghana	Cross-sectional	256	Nurse in Ghana Hospital	Good hospital management	Poor hospital management	Work motivation	0.51 (0.30 to 0.84)
Putri (2014)	Indonesia	Cross-sectional	257	Nurse in maternity ward	Good hospital management	Poor hospital management	Work motivation	1.82 (1.04 to 3.20)
Blegger et al. (2016)	Switzerland	Cross-sectional	1649	Nurse in 37 hospitals in Switzerland, Europe	Good hospital management	Poor hospital management	Work motivation, workload, and stress level	1.88 (1.12 to 3.15)
Kodama et al. (2016)	Tokyo	Cross-sectional	736	Nurse in Tokyo with work experience >5 years	Good hospital management	Not implementing hospital management according to standards	Work motivation	4.48 (2.59 to 7.77)
Masum et al. (2016)	Malaysia	Cross-sectional	417	Nurse in Melaka hospitals	Good hospital management	Poor hospital management	Work motivation	2.47 (1.12 to 5.78)
Gunawan et al. (2019)	Indonesia	Cross-sectiona	200	Nurse in Central Java	Good hospital management	Poor hospital management	Work motivation, statisfaction, and workload.	2.43 (1.23 to 4.74)

Study or Subgroup	log[Odds Ratio]	SE	Weight	Odds Ratio IV, Random, 95% CI	Year
Gambino 2010	0.0677	0.0294	14.6%	1.07 [1.01, 1.13]	2010
Rozenblum 2012	1.3938	0.2416	13.0%	4.03 [2.51, 6.47]	2012
Bonenberger 2014	-0.6733	0.2707	12.6%	0.51 [0.30, 0.87]	2014
Putri 2014	0.5988	0.2855	12.4%	1.82 [1.04, 3.18]	2014
Blegger 2016	0.6313	0.2643	12.7%	1.88 [1.12, 3.16]	2016
Kodama 2016	1.4996	0.2796	12.5%	4.48 [2.59, 7.75]	2016
Mssum 2016	0.9042	0.4035	10.7%	2.47 [1.12, 5.45]	2016
Gunawan 2019	0.8879	0.3474	11.5%	2.43 [1.23, 4.80]	2019
Total (95% CI)			**100.0%**	**1.91 [1.16, 3.15]**	

Heterogeneity: Tau² = 0.44; Chi² = 79.07, df = 7 (P < 0.00001); I² = 91%
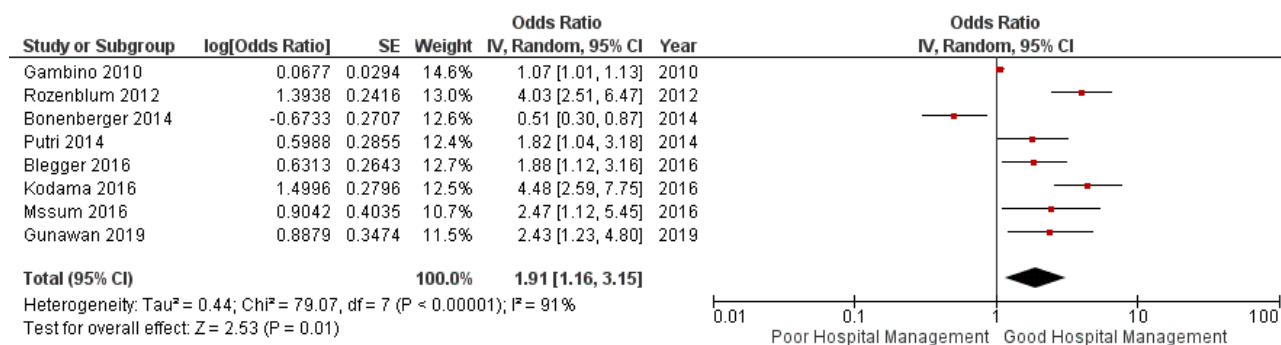Test for overall effect: Z = 2.53 (P = 0.01)

Figure 3. Forest Plot Relationship between Hospital Management on Work Motivation among Nurse
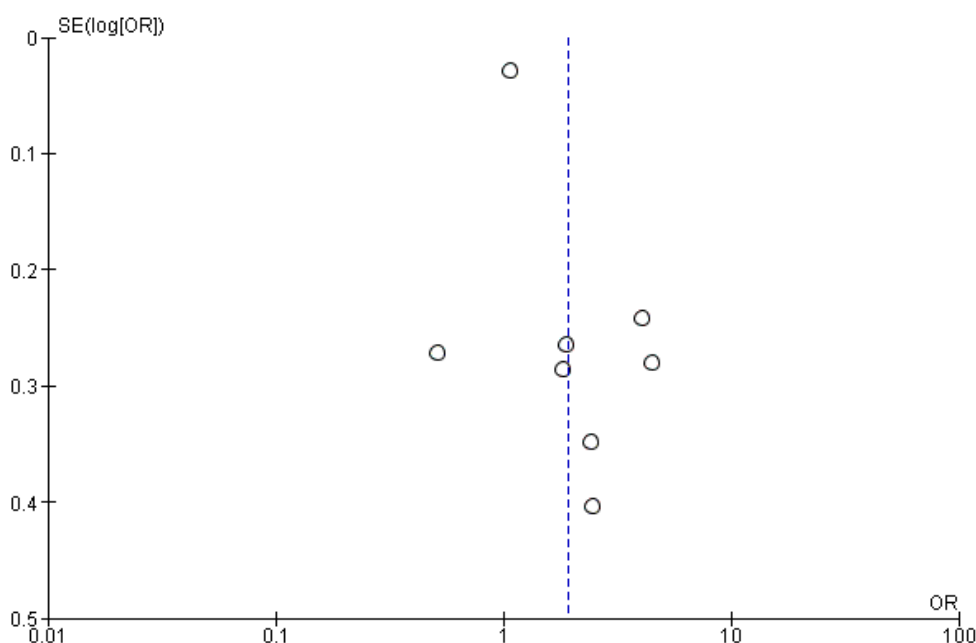
Figure 4. Funnel Plot Relationship between Hospital Management on Work Motivation among Nurse

DISCUSSION

This study is based on a systematic review and meta-analysis investigating the relationship between nursing management in patients statisfaction, from 8 cross-sectional studies conducted in Asia, Africa, North America, and Europe showed that hospital management is something that needs to be considered to increase work motivation especially in nurse.

Hospitals carry out their duties well, carry out health efforts effectively and efficiently by prioritizing recovery and recovery efforts that are carried out in a harmonious and preventive manner and carry out referrals. Therefore, the role of nurses is needed to support the success of this role (Wendimagegn And Bezuidenhout, 2019).

Our study in Ghana showed that motivation n (OR= 0.74; 95% CI= 0.60 to 0.92) and job satisfaction (OR= 0.74; 95% CI= 0.57 to 0.96) were significantly associated with turnover intention and that higher levels of both reduced the risk of health workers having this intention. Health workers in the study districts achi-

eved a good mean score of overall motivation and a moderate mean score of overall job satisfaction (Bonenberger et al., 2014).

Moderate mean scores were also achieved in most of the motivational outcomes, but health workers rated themselves generally positive in timeliness and attendance and conscientiousness. The good mean scores achieved in these two areas, however, should be taken with caution, as it is possible that they are subject to social desirability bias in a way that subjects were reluctant to denote themselves negative attributes, such as being in efficient or reporting late to work (Terzioglu et al., 2016).

A person motivation comes from two main factors: intrinsic (motivators) are driving factors that come from within a person such as achievement, challenging work, and improvement, and extrinsic factors, namely factors that come from outside such as supervision, incentives, work environment, workload, organizational rules and policies. Nurses in hospitals not only provide services to patients, but they also of course, expect services from the hospital management so that their rights are given properly (Santoso, 2021).

According to (Tangkuman et al., 2015) stated that a person's performance proceeds with very dynamic within the individual and influenced by internal and external factors external where the individual is located.

Good employee performance can be achieved through harmonization of criteria and requirements for all staff, developing learning organizations, designing jobs for employees make full use of skills and abilities to provide information on organizational performance and prospects, use internal promotion where possible, use job security policies and use good elements in

management and in determining employee wages (Sulaeman, 2014)

This study results that responsible managerial skills are one of the important factors in achieving high productivity in an organization and of course in employee motivation which will ultimately have an impact on the performance and quality of services provided (Rajhans et al., 2009)

AUTHOR CONTRIBUTION

Sri Sayekti Heni Sunaryanti and Rita Dewi Sunarno is the main researcher who selects the topic, searches for and collects research data.

CONFLICT OF INTEREST

There is no conflict of interest in this study

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