

# Meta Analysis: Relationship Of Work Discipline And Work Motivation With Nurse Performance

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**Abstract-Background:** Human resources have a very important role in an organization. The role of human resources in an organization is very important because the quality of high human resources is generally followed by high performance. Performance is the foundation for achieving the goals of an organization. Of the human resources in the hospital, the one who mainly has a big role is nurses, this is because the nursing profession has a relatively large proportion, which is almost more than 50% of all human resources in the hospital. of a number of nurses in the nursing room, only 25% have attended basic training in inpatient nursing care, besides nurses who have PPGD certification only 5% of the nurses assigned to the treatment room.

**Purpose:** This study examines and analyzes and explains the relationship between work discipline and work motivation with the performance of nurses in hospitals.

**Method:** This study used a retrospective observational study, in the sense that the researcher made a recapitulation of facts without doing experimental manipulation. Effect size. Sources of data using secondary data obtained from previous studies online. Data collection procedures using Google Scholar and Garuda Portal which were involved in the last 5 years. Data were analyzed using Review Manager 5.4 (Revman 5.4).

**Result:** Of the 386 studies that were obtained according to the inclusion and exclusion criteria, there were 12 studies which could be continued into Review Manager 5.4 (Revman 5.4) analysis. Whereas for the work discipline variable using 4 studies and 10 study motivation. The results of data analysis showed a relationship between work discipline and the performance of nurses in the hospital with a p value <0.05, namely p 0.00001 and a pooled odds ratio value of 5.91 (95% CI 3.14-11.15). shows a relationship between work motivation and the performance of nurses in the hospital with a p value <0.05, namely p> 0.00001 and a pooled odds ratio of 8.10 (95% CI 3.63-18.09).

**Conclusion:** There is a relationship between work discipline and work motivation with the performance of nurses in the hospital

**Index Terms-** Work Discipline, Work Motivation, Nurse Performance

## I. INTRODUCTION

In this period, human resources have an important position for an organization or company. Human resources, in this case high-performing employees, play a dominant role in running the company's operations and achieving the goals that have been set (Ernawati & Rochmah, 2018). Human resources have a very important role in an organization. The role of human resources in an organization is very important because the quality of high human resources is generally followed by high performance. Performance is the foundation for achieving the goals of an organization. The success of an organization in improving its performance greatly depends on the quality of the human resources involved in working while in the organization. Hospital as a health service organization or institution is an organization that has a high level of complexity because the human resources that work are multi-disciplinary. Of the human resources in the hospital, the one who mainly has a big role is nurses, this is because the nursing profession has a relatively large proportion, which is almost more than 50% of all human resources in the hospital. The work and duties are more than other workers because the duties and functions of this workforce are to support medical services in the form of nursing care (Sutrisnoputri et al, 2018). Of the human resources in the hospital, the one who mainly has a big role is nurses, this is because the nursing profession has a relatively large proportion, which is almost more than 50% of all human resources in the hospital. The work and duties are more than other workers because the duties and functions of this workforce are to support medical services in the form of nursing care (Sutrisnoputri et al, 2018). Of the human resources in the hospital, the one who mainly has a big role is nurses, this is because the nursing profession has a relatively large proportion, which is almost more than 50% of all human resources in the hospital. The work and duties are more than other workers because the duties and functions of this workforce are to support medical services in the form of nursing care (Sutrisnoputri et al, 2018).

According to William B. Castetter, to determine the level of ineffective personnel performance and the main source of ineffective performance is to pay attention to organizational factors in which there is performance discipline as reflected in attendance, productivity and increased responsibility (Arifin et

al, 2020). Work discipline is a conscious attitude or an employee's willingness to do and obey the rules set by the company. Basically, working people also want to get money to make ends meet. For this reason, an employee begins to appreciate hard work and increasingly shows loyalty to the company and that's why the company rewards employee work performance by providing compensation. One way of management to improve work performance,

Based on the competence of nurses, it can be seen that of the number of nurses in the nursing room, only 25% have attended basic training in inpatient nursing care, besides nurses who have PPGD certification are only 5% of the nurses assigned to the nursing room (Ernawati). & Rochmah, 2018).

Work discipline of an employee is not only seen from attendance, but can also be assessed from the employee's attitude in carrying out work. Employees who have high discipline do not delay work and always try to finish on time even though there is no direct supervision from their superiors. In addition to work discipline, in order to improve employee performance. Good performance of nurses is the best way to answer the quality assurance of health services provided to patients, both sick and healthy, so it really needs to be considered. However, it is not uncommon for complaints to be found related to the quality of health services originating from the performance of health workers including nurses. Therefore, the hospital must focus on the problem of service quality on the performance of nurses (Ernawati & Rochmah, 2018).

Given that nurses are one of the most important resources in the hospital, nurses are required to have intellectual, interpersonal, technical and moral abilities. Nursing provides services in the hospital 24 hours a day, and has constant contact with patients which decreases nurse discipline. According to Siagian, there are several factors that affect a person's performance, namely salary or compensation, work environment, organizational culture, leadership style, work discipline, work motivation, and job satisfaction. Nurses who often come late to work, are passive towards work, are not on time to complete their work, incomplete patient status reports, delays in returning patient clinical status records, and lack of awareness and willingness to behave in accordance with norms and regulations or laws. With these conditions, this of course makes inpatient nurses undisciplined in their work and will affect the performance of each inpatient nurse. Discipline is one of the things that must be maintained and improved continuously so that the employee concerned becomes accustomed to working with full discipline and responsibility in accordance with the duties given by the hospital (Sutrisnoputri et al, 2018).

The results found that the relationship between work discipline and work motivation and the performance of nurses still shows a difference. In the variable of work discipline and nurse performance, the results of research from Riyanti (2020) state that there is a relationship between work discipline and nurse performance, the results of this study are similar to the research of Sutrisno and Dewi (2018) and Arifuddin (2016) also states that there is a relationship between work discipline and performance. nurse. However, it is not in line with the results of research by Urus (2019) and Mardianto (2016),

which states that there is no relationship between work discipline and nurse performance.

The difference in research results is also on the work motivation variable with the nurse's performance. Research results from Franata and Urus (2019), Dewi (2018), Ria Irena (2017) state that there is a relationship between work motivation and nurse performance, the results of this study are similar to those of Fajri and Irena (2017) and Mardianto (2016) and Budiawan (2015). ) also stated that there is a relationship between work motivation and nurse performance. However, it is not in line with the research results of Salawangi (2018) and Nadya Anggitasari et al (2019) which state that there is no relationship between work motivation and nurse performance.

Based on some of the results of previous research that has been carried out, it is known that there are still differences in research results. Based on the research gap, it is necessary to conduct a Meta-analysis to determine the relationship between work discipline and work motivation with the performance of nurses in hospitals.

## II. RESEARCH METHOD

This study used a meta-analysis research design with a correlation meta-analysis research design. Meta analysis is used to analyze empirical studies that have been conducted by previous researchers, quantitative research results, research results in comparable forms such as means, correlation coefficients, and odds-ratios. In correlation meta-analysis, the research design carried out is the same as other types of meta-analysis studies, so this chapter will not elaborate on the general procedure for conducting correlation meta-analyses and only focuses on statistical analysis (Retnawati et al., 2018).

The data used is secondary data obtained from previous studies online. The data is in the form of books and primary reports or the results contained in scientific publication articles in national journals and international journals. As for other secondary data sources, it is obtained from supporting research that has been done online previously related to articles on the relationship of work discipline and work motivation with the performance of nurses in hospitals.

*Literature Review* It uses the literature published in 2016-2020 which can be accessed in full text in pdf format. Search engines used in the form of Researchgate, Garuda Portal, and Google Scholar use the keywords "work discipline, work discipline, work motivation, work motivation, nurse performance, nurse performance." The criteria for the journals reviewed are research journal articles in Indonesian or English with the subject. nurses, a type of research journal article with the theme of the relationship of work discipline and work motivation with the performance of nurses in hospitals.

The study identification results from each database were combined into one endnote software. In the Garuda database, 55 studies were identified. In the Google Scholar database, 211 studies were identified. In the Research Gate database, 120 studies were identified. The total number of studies obtained from the two databases was 386 studies. After identifying 386 studies, the study titles were reviewed. A total

of 372 were excluded because they did not examine the risk factors referred to in this study. After analyzing according to the inclusion and exclusion criteria, there were 14 studies that met the requirements, of which 14 were national studies. At the time of the analysis to the Comprehensive Meta Analysis (CMA), studies that can be analyzed are 14 studies that meet the requirements of the analysis because they present complete data, where in the meta-analysis the types of research that can be analyzed are those that have statistical measures such as mean, standard deviation, odds ratio, relative risk, difference in means, correlation. The journal search resulted in 14 studies which were analyzed using the Comprehensive Meta Analysis Version 3 (CMA 3) program.

### III. FINDINGS

In meta-analysis, the type of research that can be analyzed is research that has statistical measures, namely the results of data tabulation, there is a relationship or no relationship, which can be entered into the Comprehensive Meta Analysis. with a total (N) sample of 386 samples. Following are

descriptions in tabular form for 14 disciplinary and motivational studies.

#### Discipline

The number of studies that were combined to analyze the relationship between work discipline and nurse performance was 4 studies, all of which were cross-sectional with a total sample of 342. The following are the results of a meta-analysis of the relationship between work discipline and nurse performance (Table 1).

#### Motivation

The number of studies that were combined to analyze the relationship between work motivation and nurse performance was 10 studies, all of which were cross-sectional with a total sample of 705. Following are the results of a meta-analysis of the relationship between work motivation and nurse performance (Table 2).

Table 1. Research Characteristics the relationship between work discipline and nurse performance

No.	Name	Year	Number of samples	P Value	P-OR	95% CI
1	Riyanti, Ardianto Y	2020	67 respondents	(p = 0,000)	14,375	4,374-17,240
2	Arifuddin A, Muh RN	2016	99 respondents	(p = 0.004)		
3	Mardianto NP, Febi K, Ardiansah, Tacunan	2016	56 respondents	(p = 0.052)	3.89	1,15-13,14
4	Take care of A, Arry P, ALR, Anwar M	2019	120 respondents	p = 0.570	1,189	0.778 - 1.818
<b>Total Samples:</b>			<b>342</b>			

Table 2. Research Characteristics of the relationship between work motivation and nurse performance

No.	Name	Year	Number of samples	P Value	P-OR	95% CI
1	Dian Rosyidawati1, Noer Bahry Noor1, Andi Zulkifli2	2020	167 samples	0.001	15.44	5,19-45,94
2	Darmayanti R, Parjo, M. Ali Maulana	2015	37 respondents	0.001	14.67	2,68-80,42
3	Budiawan	2015	11 respondents	0.001	24.30	7,27-81,21
4	Franata	2019	90 respondents	0.005	0.13	0.03-0.64
5	Irena	2017	57 respondents	0.003	6.35	1.97-20.46
6	Nadya Anggitasari, Budiman, Rosnawati	2019	56 samples	0.533		
7	Mailool CM, Linnie P, Jill L.	2017	35 nurses	0.0889	9.33	0.94-92.48
8	Glady Endayani Salawangi *, Febi K. Kolibu *, Ribka Wowor	2018	64 respondents	0.076	14.09	0.64- 309.03
9	Take care of A, Arry P, ALR, Anwar M	2019	120 respondents	0.034	1,610	1,066 - 2,432
10	Mardianto	2016	56 respondents	0.007	5,58	1.71-18.18
<b>Total Samples:</b>			<b>705</b>			

**Data Analysis Stages**

The stages carried out in inputting data using the Comprehensive Meta Analysis Version 3 application are:

- a. Determine the effect size, where the effect size used in this study is the research result of each research study analyzed
- b. Entering data into the program with the Dichotoms Variance data type because the type of research studied was data from an observational study (cross sectional). (screenshot image)
- c. Choose to use the Inverse Variance statistical method. The Inverse Variance method is a method for obtaining an estimate of the combined effect size where each study effect size is weighted by one per variance (Borenstein et al., 2009). Weighting shows the variation of data, the larger the sample of a study will have a greater weight and vice versa, the smaller the number of samples will indicate a small weight.
- d. Enter the data according to the procedure for inputting names and numbers on the chart setting of the fixed effect model analysis with a 95% Confidence Interval until the results are obtained.
- e. If high heterogeneity results ( $I^2 > 50\%$  and  $p$  value  $< 0.05$ ) are found, the input in data analysis is changed from a fixed effect model to a random effect model.
- f. The assessment of the results of the heterogeneity test is determined by calculation
  - 1)  $I^2 = 0\%$  to  $25\%$ , meaning low heterogeneity
  - 2)  $I^2 = 26\%$  to  $50\%$ , meaning moderate heterogeneity
  - 3)  $I^2 = 51\%$  to  $75\%$ , meaning that the heterogeneity is quite high
  - 4)  $I^2 = 76\%$  to  $100\%$ , meaning that the heterogeneity is very high

(Higgins JPT et al., 2003).

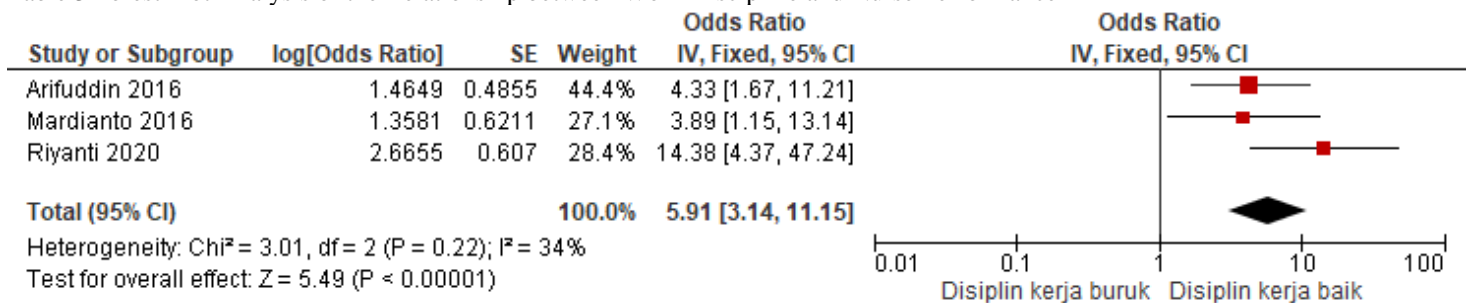
**Meta-Analysis of the Relationship between Work Discipline and Nurse Performance**

The results of the calculation of the effect size of the study for the relationship between work discipline and nurse performance are as follows. In the analysis using Revman 5.4 the number of studies that can be analyzed because it has complete data of 4 studies. Detailed analysis of the relationship between work discipline and nurse performance can be seen in the forest plot below (Table 3). Based on table 3.shows the results of the analysis of 3 research studies which state that there is a relationship between work discipline and nurse performance and analyzed using the Fixed Effect Model analysis model. The results of the heterogeneity test showed that the variation in the study was moderate heterogeneous, with a  $p$  value = 0.22 and a variation value between studies ( $I^2$ ) of 34%.

The results of data analysis displayed on the forest plot indicate that there is a relationship between work discipline and nurse performance with a  $p$  value  $< 0.05$ , namely  $p < 0.00001$  and a pooled odds ratio of 5.91 (95% CI 3.14, 11.15), so that It can be concluded that good work discipline 5.91 times increases the performance of nurses compared to nurses who have poor work discipline.

The funnel plot image on the variable relationship between work discipline and nurse performance (Figure 1) shows publication bias. This is indicated by the symmetry of the right and left plots, where 2 plots are on the left and 1 plot is on the right. In addition, the right plot is located at 0.6, the left plot is at 0.4, so the plots are not the same distance apart.

Table 3 Forest Plot Analysis of the Relationship between Work Discipline and Nurse Performance



Information:

- : Odds Ratio for each study
- : Combined odds ratio
- : Odds ratio - 1

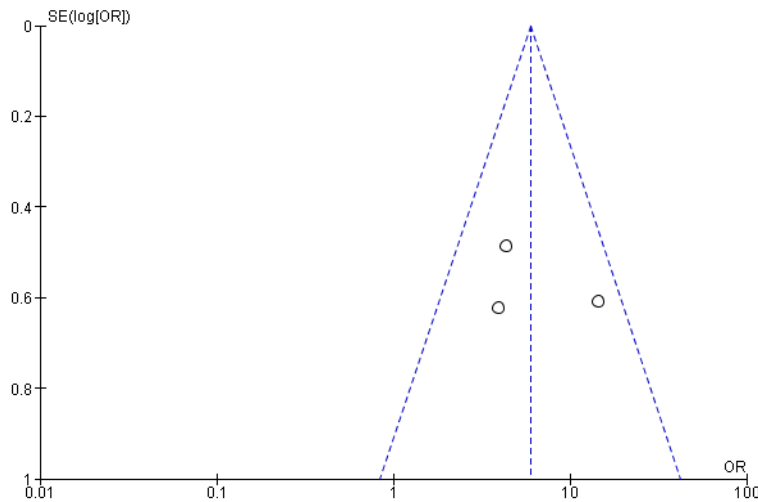
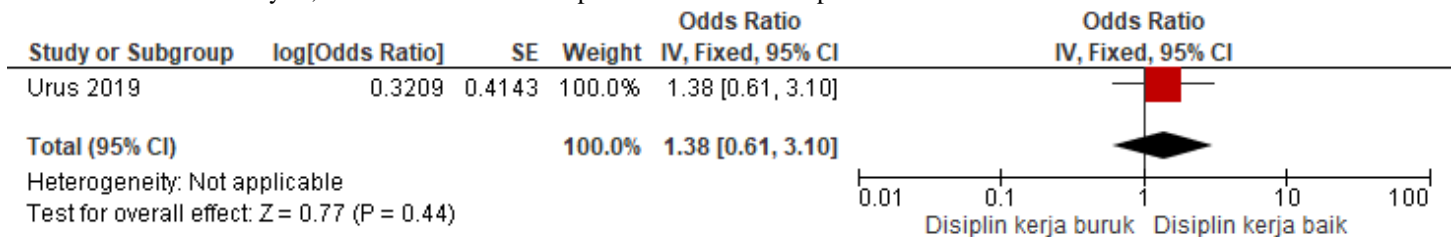


Figure 1 Funnel Plot of the Relationship of Work Discipline to Nurse Performance

Meanwhile, based on table 4 shows the results of the analysis of 1 research study which states that there is a relationship between work discipline and nurse performance and is analyzed using the Fixed Effect Model analysis model. The results of data analysis displayed on the forest plot indicate that there is no relationship between work discipline and nurse performance with a p value > 0.05, namely p = 0.44

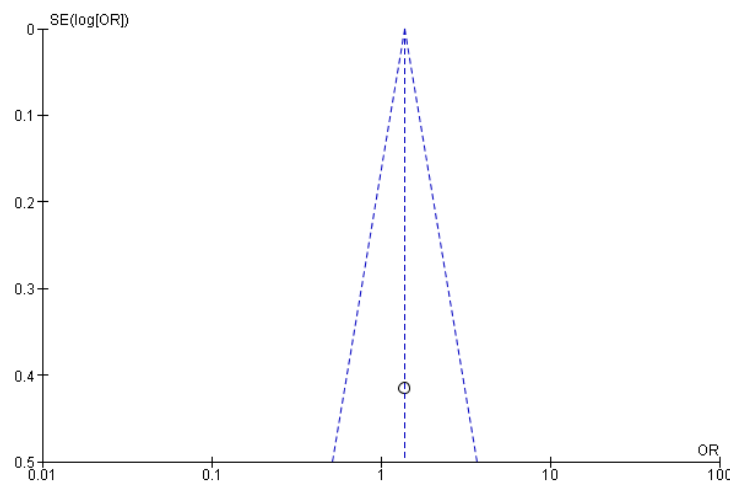
and a pooled odds ratio value of 1.38 (95% CI 0.61, 3.10), so that it can be concluded that good work discipline 1.38 times increased the performance of nurses compared to nurses who had poor work discipline. The funnel plot image on the variable without work discipline on nurse performance (Figure 2) with the plot touching the vertical line is located at 0.4143.

Table 4 Forest Plot Analysis, There is No Relationship between Work Discipline and Nurse Performance



Information:

- : Odds Ratio for each study
- : Combined odds ratio
- : Odds ratio - 1

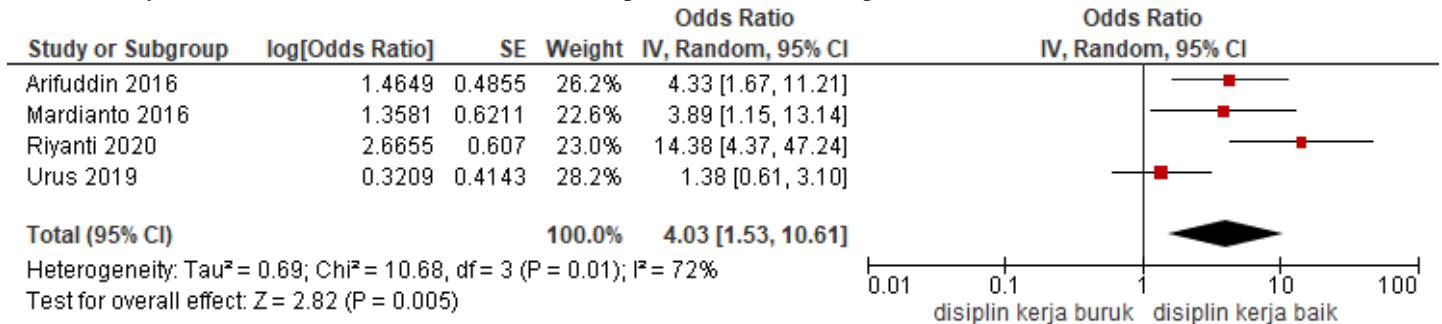


Picture. 2 Funnel Plot There is no relationship between work discipline and nurse performance

Based on table 5. shows the results of the analysis of 4 research studies and analyzed using the Fixed Effect Model analysis model. The results of the heterogeneity test showed that the variation in the study was moderate heterogeneous, with a p value = 0.001 and a variation value between studies (I<sup>2</sup>) of 72%. The results of data analysis displayed on the forest plot show that good work discipline has a risk of increasing nurse performance with a p value <0.05, namely p = 0.005 and a pooled odds ratio value of (aOR = 4.03; 95% CI = 1.53 to 10.61; p = 0.005) so it can be concluded that good work discipline 4.03 times increases the performance of nurses

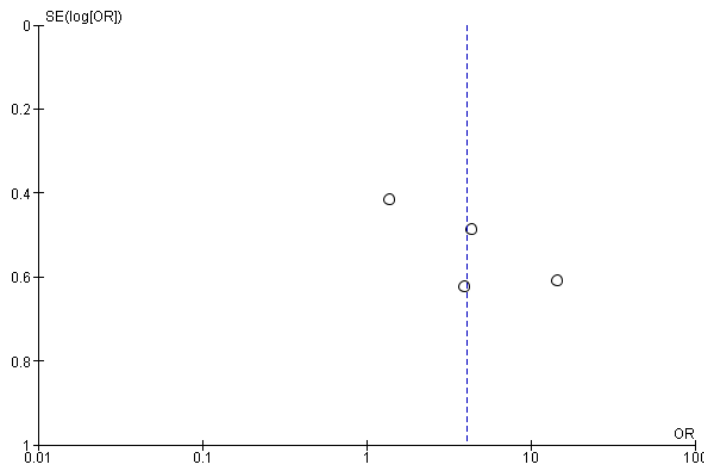
compared to nurses who have bad work discipline compared to bad work discipline significantly based on statistics. The funnel plot image on the combined variable of the relationship between work discipline and nurse performance (Figure 3), has a publication bias. This is indicated by the asymmetry of the right and left plots, where 2 plots are on the left and 2 plots are on the right and there are 2 plots touching on the vertical line. In addition, the right plot is located at 0.41, the left plot is at 0.49, so the plots have different distances between them.

Table 5 Analysis of the Combined Forest Plot Relationship between Work Discipline and Nurse Performance



Information:

- : Odds Ratio for each study
- : Combined odds ratio
- : Odds ratio - 1



Picture. 3 Funnel Plot of Combined Relationship of Work Discipline on Nurse Performance

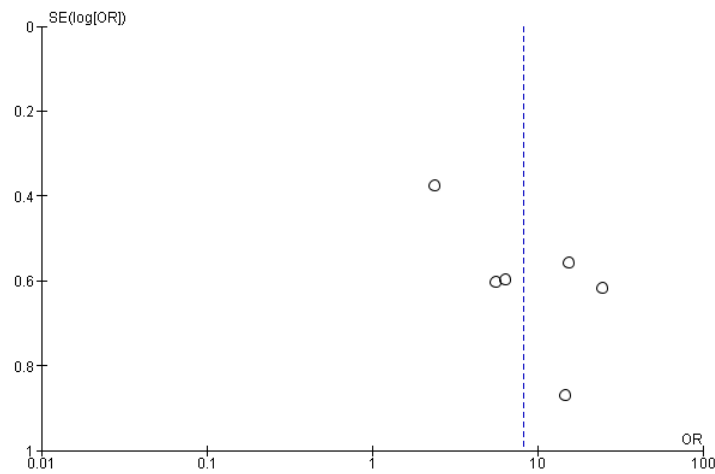
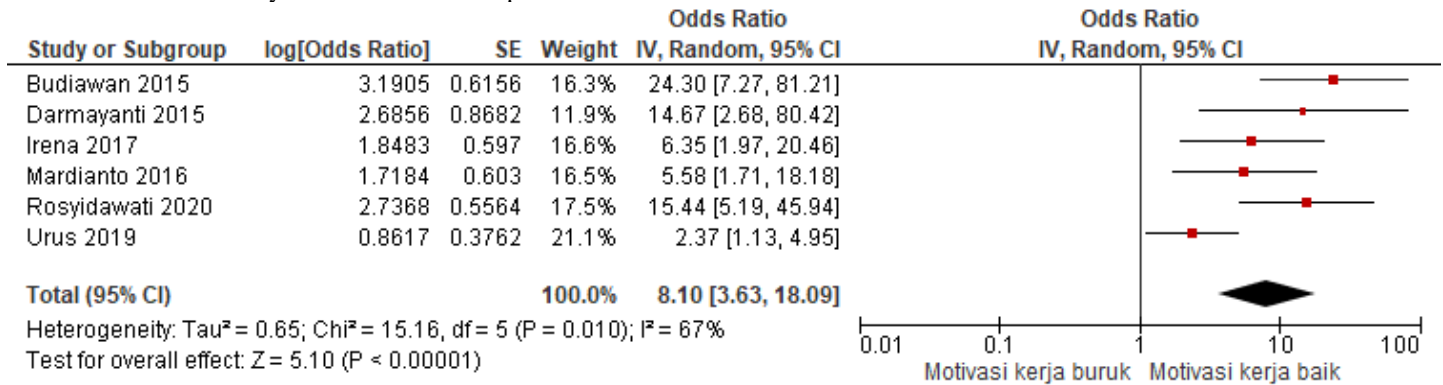
**Meta-Analysis of the Relationship between Work Motivation and Nurse Performance**

The results of the calculation of the effect size of the study for the relationship between work motivation and nurse performance are as follows. In the analysis using Revman 5.4 the number of studies that can be analyzed because it has complete data as many as 10 studies. Detailed analysis of the relationship between work motivation and nurse performance can be seen in the forest plot below (Table 6). Based on table 6, it shows the results of data analysis from 6 research studies, the results of which state that there is a relationship between work motivation and nurse performance and were analyzed using the Random Effect Model analysis model. The results of

the heterogeneity test showed that the variation in the study was moderate heterogeneous, with a p value = 0.010 and a variation value between studies (I<sup>2</sup>) of 67%. The results of data analysis displayed on the forest plot show that there is a relationship between work motivation and nurse performance with a p value <0.05, namely p <0.00001 and a pooled odds ratio of 8.10 (95% CI 3.63, 18.09), so it can be concluded that the work motivation of 5.080 nurses performance compared to work motivation is poor. In the combined variable of the relationship between work motivation and nurse performance (Figure 4), there is a publication bias. This is indicated by the asymmetry of the right and left plots, with 3 plots on the left and 3 plots on the

right. In addition, the right plot is located at 0.55, the left plot is located at 0.376, so the plots have different distances between them.

Table 6 Forest Plot Analysis of the Relationship between Work Motivation and Nurse Performance



Picture. 4 Funnel Plot of Relationship between Work Motivation and Nurse Performance

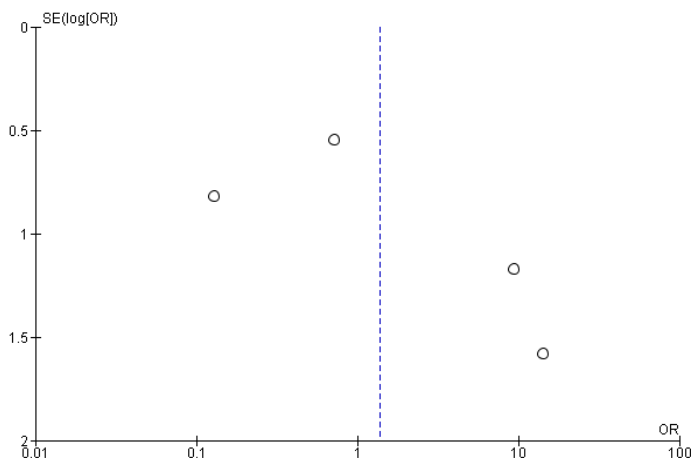
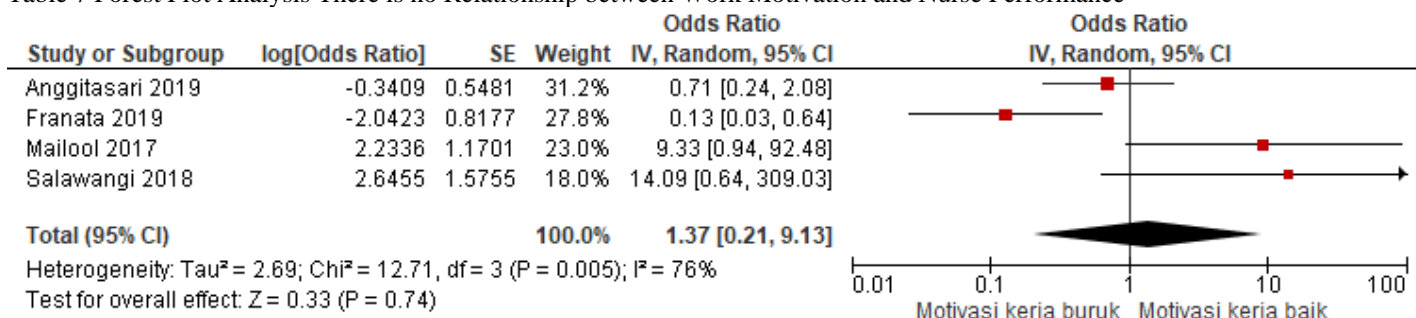
Based on table 7, it shows the results of data analysis from 4 research studies, the results of which state that there is no relationship between work motivation and nurse performance and were analyzed using the Random Effect Model analysis model. The results of the heterogeneity test showed that the variation of the study was moderate heterogeneous, with a p value = 0.005 and a value of variation between studies (I<sup>2</sup>) of 76%.

The results of data analysis displayed on the forest plot show that there is no relationship between work motivation and nurse performance with a p value > 0.05, namely p = 0.74 and

a pooled odds ratio value of 1.37 (95% CI 0.21, 9.13), so that it can be It was concluded that the work motivation was good, 1.37, the nurse's performance was compared to the work motivation was bad.

There is a publication bias in the variable No Relationship between Work Motivation and Nurse Performance (Figure 5). This is indicated by the asymmetry of the right and left plots, with 2 plots on the left and 2 plots on the right. In addition, the right plot is located at 1.17, the left plot is located at 0.55, so the plots have different distances between them

Table 7 Forest Plot Analysis There is no Relationship between Work Motivation and Nurse Performance



Picture. 5 Funnel Plot Has No Relationship between Work Motivation and Nurse Performance

Based on table 8, it shows the results of data analysis from 4 research studies, the results of which state that there is a relationship between work motivation and nurse performance and were analyzed using the Random Effect Model analysis model. The results of the heterogeneity test showed that the variation of the study was very high heterogeneous, with a p value <0.00001 and a variation value between studies (I<sup>2</sup>) of 81%.

The results of data analysis displayed on the forest plot showed that good work motivation significantly increased the performance of nurses by 4.43 times compared to bad work motivation based on statistics (aOR = 4.43; 95% CI = 1.70 to 11.49; p = 0.002).

The funnel plot image on the Combined variable of the relationship between work motivation and performance of nurses (Figure 6), there is publication bias. This is indicated by the asymmetry of the right and left plots, with 3 plots on the left and 7 plots on the right. In addition, the right plot is located at 0.55, the left plot is located at 0.3, so the plots have different distances between them.

1	3 studies stated that there is a relationship between work discipline and nurse performance. The results of the heterogeneity showed that the variation of the study was moderate heterogeneous with a p value = 0.22 and a value of I <sup>2</sup> = 34%
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2	1 study states that there is no relationship between work discipline and nurse performance. The results of the analysis stated that the value of p > 0.05 p = 0.00001, the value of the pooled odds ratio was 1.38 (95% CI 0.61, 3.10)
3	4 studies stated that there is a relationship between work discipline and nurse performance. The results of the heterogeneity showed that the variation of the study was moderate heterogeneous with a p value = 0.01 and a value of I <sup>2</sup> = 72%.
4	6 studies stated that there is a relationship between work motivation and nurse performance. The results of the heterogeneity showed that the variation in the study was moderate with a value of p = 0.010 and a value of I <sup>2</sup> = 67%.
5	4 studies stated that there is no relationship between work motivation and nurse performance. The results of the analysis stated that the value of p > 0.05 p = 0.05, the value of the pooled odds ratio was 1.37 (95% CI 0.21, 9.13)
6	4 studies stated that there is a relationship between work motivation and nurse performance. The results of the heterogeneity showed that the variability of the study was highly heterogeneous with a p value <0.00001 and a value of I <sup>2</sup> = 81%



Table 8 Analysis of the Combined Forest Plot Relationship between Work Motivation and Nurse Performance

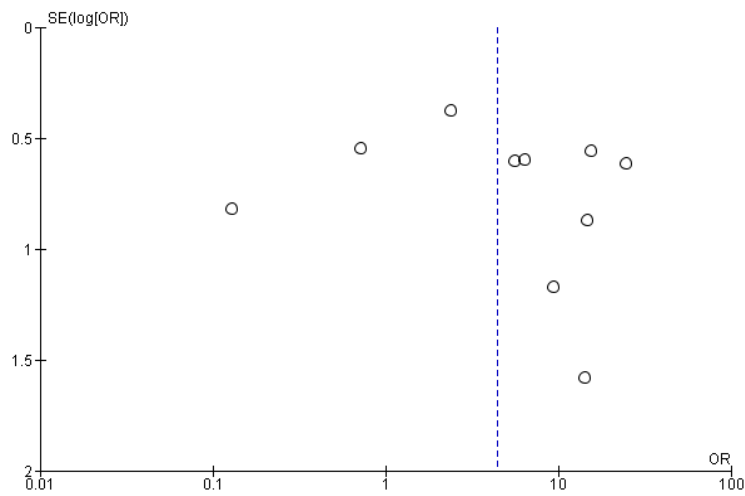
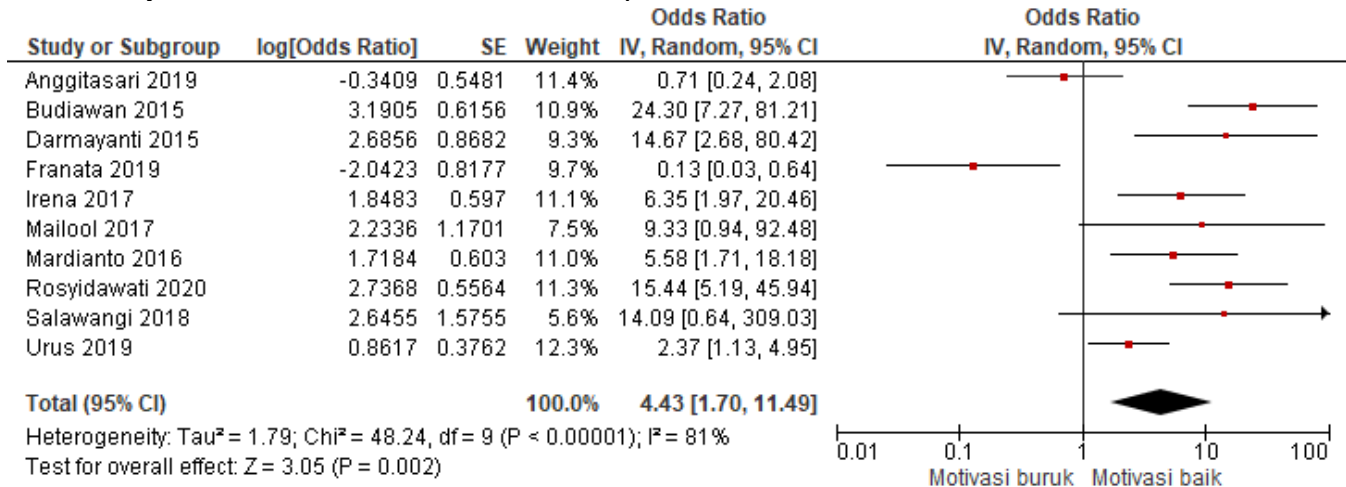


Figure 6 Combined Funnel Plot of Relationship between Work Motivation and Work Motivation

#### IV. DISCUSSION

##### Relationship between Work Discipline and Nurse Performance in Hospitals

This study is the first meta-analysis study that analyzes the relationship between work discipline and nurse performance in hospitals. Many studies have analyzed work discipline and nurse performance in hospitals. For this reason, statistical analysis is carried out using meta-analysis to prove the quality of each study so that new quantitative data can be obtained and more accurate conclusions can be drawn.

The search results of journals from various sources in the end resulted in 112 studies relevant to the title and only seven studies that met the inclusion criteria and could be analyzed into meta-analysis using the Revman 5.4 application software. Although in the end only seven studies were obtained, the research could be continued using meta-analysis because according to Sastroasmoro (2011) in his book, he stated that meta-analysis was a combination of two or more studies. So it can be concluded that with a minimum of two studies, a quantitative analysis can be carried out using meta-analysis.

The risk estimates and study characteristics were extracted from the original study. Total exposure data in the exposed and unexposed groups was drawn based on the data provided in the original study. Overall, the articles that were combined into the meta-analysis had the same research results, namely the relationship between work discipline and nurse performance in hospitals. The results of the funnel plot on the variable relationship between work discipline and nurse performance, there is a publication bias. This is indicated by the symmetry of the right and left plots, where 2 plots are on the left and 1 plot is on the right. In addition, the right plot is located at 0.6, the left plot is at 0.4, so the plots are not the same distance apart. This suggests a publication bias. Moher et al., (2009) suggest a quantitative meta-analysis with a random effect model approach, although the combination of this information can produce a more precise statistical analysis, bias is unavoidable (Rumokoy LJM et al., 2020). This can occur in this study because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. The varied correlation results will show high heterogeneity (Waluyohadi AEG., 2019). This can occur in this study

because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. The varied correlation results will show high heterogeneity (Waluyohadi AEG., 2019). This can occur in this study because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. Variable correlation results will show high heterogeneity (Waluyohadi AEG., 2019).

The statistical method used to determine the pooled OR ratio of the relationship between work discipline and nurse performance is seen from the results of the heterogeneity test. The heterogeneity test of the relationship between work discipline and nurse performance gave  $p = 0.22$ . It can be concluded that the variation between studies is homogeneous so that the statistical method used is the fixed effect model. The meta-analysis of the relationship between work discipline and nurse performance shows that there is a significant relationship between education and latrine use with a pooled OR ratio of 5.91 (95% CI, 3.14-11.15). So it can be concluded that people with good work discipline are 5.91 times having good performance compared to nurses who have poor shell discipline.

The results of research conducted by Riyanti (2020) state that there is a relationship between work discipline and nurse performance with a  $p$ -value = 0.000 with an OR value of 14.375 means that respondents with good work discipline are at 14 times greater risk of having good work productivity when compared to respondents with less work discipline. good. This is in line with research by Ariffudin (2016) which also states that there is a relationship between work discipline and nurse performance with a  $p$ -value = 0.004 which means there is a relationship. This is because it is known that of the 36 respondents with discipline to work well, as many as 30 (44.7%) of respondents had good work productivity and as many as 6 (8.9%) of respondents had poor work productivity. Of the 31 respondents, work discipline was not good enough, as many as 8 (11).

Sutrisnoputri (2018) in his research explained that there is a relationship between work discipline and nurse performance with a  $p$ -value = 0,000 which means there is this relationship because respondents who have sufficient work discipline have sufficient performance, namely 45 people (84, 9%). This happens because even though there is a lot of work or workload experienced by nurses, they can manage themselves well, meaning that they can use and divide their time properly so that they can do and complete tasks on time, enter and leave the office on time, comply with all rules (regulations) that apply in the workplace, use office facilities carefully and have a team at work.

Mardianto (2018) states that there is a relationship between work discipline and nurse performance with an OR value of 3.89 (CI 1.15 - 13.14) this states that good discipline reflects a person's sense of responsibility for the tasks assigned to him. amounting to 3.89 times compared to those with less good discipline. This encourages work passion, morale, and the realization of company, employee and community goals. Discipline will reflect strength, because usually someone who is successful in his work, his studies are usually those who

have high discipline. The discipline of respondents in this study was mostly with less good discipline than good discipline, in this case the researcher assumed that this could be motivated by the respondent's tenure.

The research above is not in line with the research of Urus (2019) which states that work discipline is not related to the performance of nurses with a  $p$ -value = 0.570 this is because the lack of work discipline does not have a statistical effect on the performance of nurses at Sorong Regional Hospital in relation to the treatment given. . Lack of punishment causes nurses to commit or violate established rules because no one is supervising their actions at work. Therefore the head of the room is more active in supervising his subordinates so that the punishment given has an effect on improving the performance of nurses in achieving the goals of the Sorong Regency Hospital in improving the quality of service.

Researchers assess that the inconsistent research results from the relationship between work discipline and nurse performance apart from the weight and power of the research that are not yet ideal, are also related to differences in place and socio-culture, where one's work discipline can reflect one's responsibility for the work being carried out. In addition, if nurses have good work discipline, the work to be done will also be maximized.

### **Relationship between Motivation and Nurse Performance**

This study is the first meta-analysis study that analyzes the relationship between work motivation and nurse performance in hospitals. Many studies have analyzed the work motivation and performance of nurses in hospitals. For this reason, statistical analysis is carried out using meta-analysis to prove the quality of each study so that new quantitative data can be obtained and more accurate conclusions can be drawn.

The search results of journals from various sources in the end resulted in 112 studies relevant to the title and only seven studies that met the inclusion criteria and could be analyzed into meta-analysis using the Revman 5.4 application software. Although in the end only seven studies were obtained, the research could be continued using meta-analysis because according to Sastroasmoro (2011) in his book, he stated that meta-analysis was a combination of two or more studies. So it can be concluded that with a minimum of two studies, a quantitative analysis can be carried out using meta-analysis.

The risk estimates and study characteristics were extracted from the original study. Total exposure data in the exposed and unexposed groups was drawn based on the data provided in the original study. Overall, the articles that were combined into the meta-analysis had the same research results, namely that there was a relationship between work motivation and nurse performance in the hospital. The results of the funnel plot on the variable relationship between work motivation and performance of nurses, there is a publication bias. This is indicated by the asymmetry of the right and left plots, with 3 plots on the left and 3 plots on the right. In addition, the right plot is located at 0.55, the left plot is located at 0.376, so the plots have different distances between them. This suggests a publication bias. Mohet et al., (2009) suggest a quantitative meta-analysis with a random effect model approach, although the combination of this information can produce a more

precise statistical analysis, bias is unavoidable (Rumokoy LJM et al., 2020). This can occur in this study because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. Variable correlation results will show high heterogeneity (Waluyohadi AEG., 2019). This can occur in this study because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. Variable correlation results will show high heterogeneity (Waluyohadi AEG., 2019). This can occur in this study because of the inconsistency results of research studies that show high scores and varying data, which indicate a negative correlation and a positive correlation. Variable correlation results will show high heterogeneity (Waluyohadi AEG., 2019).

The statistical method used to determine the pooled OR ratio of the relationship between work motivation and nurse performance is seen from the results of the heterogeneity test. The heterogeneity test of the relationship between work motivation and nurse performance gave  $p = 0.010$ . It can be concluded that the variation between studies is heterogeneous so that the statistical method used is the random effect model. The results of the meta-analysis of the relationship between work motivation and nurse performance show that there is a significant relationship between work motivation and nurse performance with a pooled OR ratio of 8.10 (95% CI, 3.63-18.09). So it can be concluded that nurses who have good motivation 5.91 times increase the performance of nurses compared to those with less motivation

Research conducted by Rosyidawati (2020) shows that there is a relationship between motivation and performance of nurses with a  $p$ -value = 0.001 which means there is a relationship because based on the research results obtained 71.28% and in Makassar City Hospital it is 82.19%. This shows low work motivation because nurses feel that they have lost their morale and feel that the performance allowance provided is not appropriate. Motivation is needed because with motivation, employees will be more enthusiastic and responsible for their work so that their performance will be better. Motivation is a human psychological characteristic that contributes to a person's level of commitment. This includes the factors which cause, propagate and sustain human behavior in a particular direction of determination.

Irena's research (2017) states that there is a relationship between motivation and nurse performance with a  $p$ -value = 0.003 which means there is a relationship because of 34 respondents who have low work motivation, 9 respondents (26.5%) have high performance. Meanwhile, of the 23 respondents who had high work motivation, there were 7 respondents (30.4%) whose performance was low from the chi square test carried out, the results were that there was a relationship between motivation and the performance of nurses in the Inpatient room of RSUD Dr.RM Pratomo in 2017 with  $p$  value 0.003 ( $<0.05$ ). The results showed that the POR value = 6.3 means that nurses who have low work motivation are 6.3 times more likely to have low performance compared to those who have high motivation.

Renyaan (2017) also states that there is a relationship between motivation and nurse performance with a  $p$ -value = 0.027,

which means there is a relationship. This is because the results with a value of  $p = 0.027 < 0.05$ , which indicates that there is a significant relationship between motivation and performance of nurses in the Inpatient Room of the Regional General Hospital of Sorong Regency. The discussion continues by comparing the results of this study with the results of previous studies which are relevant (support / same or different). This is in line with the results of Damayanti's (2016) research which also states that there is a relationship between motivation and nurse performance with a  $p$ -value = 0.001 which means there is a relationship. This is because the measurement results of work motivation with the performance of nurses obtained 62 nurses (96.9%) nurses have good performance, Budiawan (2015) also states that there is a relationship between motivation and performance of nurses with a  $p$ -value = 0.001 which means that there is a relationship because nurses with good motivation are 94.19% performing well, while those with less motivation are 40.00%. good ( $p < 0.001$ ). The distribution of the most respondents for the motivation variable is in the good category, and shows a relationship with the performance of the nurse in charge that a good motivation level has the potential to provide good performance compared to those with a less motivation level. Motivation partially influences the performance of the nurses in the inpatient room at RSJ Bali Province.

But the results of this study are not in accordance with the research conducted by Anggitasari (2019) where in this study it states that there is no relationship between motivation and nurse performance with a  $p$ -value = 0.533 which means there is no relationship because respondents experience high motivation and perform well. as many as 35 respondents (81.4%) with respondents who have poor performance of 8 respondents (18.6%), while respondents who have low motivation and have good performance are 28 respondents (75.7%) and respondents who have good performance less good as many as 9 respondents (24.3%). These data show that motivation is not a parameter for not reducing the performance of nurses or vice versa that the low motivation of respondents will have a significant impact on the performance of nurses. This is in line with the results of Mailool's research (2017) which also states that there is no relationship between motivation and nurse performance with a  $p$ -value = 0.089 which means there is no relationship this is because there are 11.4%) have less motivation and as many as 31 respondents (88.6%) have good motivation. This explains that the motivation of the nurses in the Inpatient Installation of the Pancaran Kasih GMIM Manado Hospital tends to be good.

In the research of Salawangi (2018) which shows that there is no relationship between motivation and performance of nurses,  $p$ -value = 0.076 because work motivation and performance of nurses obtained 62 nurses (96.9%) nurses have good performance, while 2 nurses (3, 1%) has poor performance. Based on the results of statistical tests, the value of  $p = 0.076$  is obtained so that  $p$  is greater than the value of  $\alpha$  (0.05). The test results show that there is no relationship between motivation and nurse performance.

Research from Franata (2019) also states that there is no relationship between motivation and nurse performance, that those who think low motivation can be related to nurse

performance if they have knowledge and attitudes and support from leaders and colleagues. good

According to the assessment of researchers, motivation tends to be related to the performance of nurses, this can be seen from the results of the proportion of research articles which state that there is a relationship between motivation and the performance of nurses and if nurses have high work motivation, the resulting performance will also be better and the services provided to them. the patient will be maximal.

## V. CONCLUSION

Based on the results of the analysis and discussion, the following conclusions can be drawn:

1. There is a significant relationship between work discipline and nurse performance through analysis of 3 eligible journals with a relationship between work discipline and nurse performance with a value of  $p < 0.05$ , namely  $p < 0.00001$  and a pooled odds ratio of 5.91 (95% CI 3.14-11.15), so it can be concluded that nurses with good work discipline have 5.91 times increased performance compared to nurses who have poor discipline
2. There is a significant relationship between work motivation and nurse performance through the analysis of 6 eligible journals with a relationship between work motivation and nurse performance with a value of  $p < 0.05$ , namely  $p < 0.00001$  and a pooled odds ratio of 8.10 (95 % CI 3.63-18.09), so it can be concluded that nurses with good work motivation have 8.10 times increased performance compared to nurses who have poor motivation

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