

Meta-analysis study: Relationship of age and workload of nurses in hospital

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Abstract

Work stress on nurses is a hospital human resource management problem. Work stress is related to the age factor, those workers with an older age tend to have poor health conditions compared to workers of the younger generation, so they are vulnerable to a decrease in one's physiological abilities, which are ultimately weak to pressure. This study analyzes Correlation between both age, workload, and paintings strain on medical institution nurses. This study uses a retrospective observational research method, in the sense that the researcher makes a recapitulation the facts without performing experimental manipulation effect size. The records supply uses secondary points acquired from previous online studies. The statistics series uses science Direct, Garuda Portal, and Google pupil posted in the last five years. Information has been analyzed using Review Manager 5.4.1. From 1127 studies received in line with the inclusion and exclusion criteria, 11 studies were obtained, which could be continued to the analysis of review manager 5.4.1. The age variable used four studies and the workload ten studies. The data analysis showed no relationship between age and work stress in hospital nurses with a p -value < 0.05 , namely $p = 0.95$, and the pooled odds ratio value of 0.96 (0.95% CI 23-3, 93). There is a significant relationship between workload and work on nurses in hospitals with a value of $p = 0.00001$ ($p < 0.05$) and a pooled odds ratio of 4.90 (95% CI 3.25-7.40) that nurses who have a heavy workload are at risk or have a tendency of 4.90 times to increase work stress. There is no relationship between age, and there is a relationship between workload and work stress on nurses in hospitals. The tendency of workload factors to increase work stress.

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I. INTRODUCTION

A vital component of the health system, the hospital offers emergency care, complex curative services, knowledge and technology transfer centers, and serves as a referral center that consistently raises service quality to meet expectations and increase service user satisfaction. Article 29 letter b of the Act No. 44 of 2009 respecting Hospitals states that hospitals shall prioritize patient interests in compliance with hospital service standards in order to deliver safe, high-quality, anti-discriminatory, and efficient health services [1].

Since nurse quality is the foundation of health services, it is imperative that this issue be researched in order to preserve and raise the standard of health services. When it comes to

responding to collateral for the quality of health services offered to patients, whether healthy and ill, good nurse performance is a bridge. High-performing nurses are essential to raising the standard of healthcare services. Nonetheless, complaints about health services that are based on the performance of medical personnel, such as nurses, are frequently found [2]

One of the problems with hospital human resource management is the stress that nurses experience on the job. There are several biochemical, psychological, social, and physical factors that contribute to stress. When nurses cope with their own work environment, they may suffer job stress, which is a feeling of pressure brought on by organizational, personal, and environmental variables. The potential for

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nurses' emotions to diverge from what the patient need is one aspect of occupational stress brought on by an increasing workload.

The productivity of healthcare professionals, including nurses, is significantly impacted by this excessive workload. The number of current nurses, in the opinion of nurses, is not commensurate with the volume of work that needs to be done. Because every patient who visits implicitly demands that they receive effective and efficient services so that their concerns are promptly treated, this requirement may induce work-related stress [3]. Likewise, using work stress related to age factors, that workers with an older age tend to have poor health conditions compared to workers with a younger age, so they are vulnerable to a decrease in a person's physiological ability which is ultimately weak to pressure [4]. However, the high and low levels of work stress depend on the stress management carried out by a person in dealing with the work situation [5].

Work stress is a serious problem that causes the number of mental emotional disorders of 9.8% in Indonesia. Related to work stress factors, including the severity of work, stress at work, working hours, conditions of employment and continuous work, and individual factors including age, education level, gender, sleep quality. Work stress can have an impact such as an increased risk of work accidents, poor performance, and misjudgments. As a result, stress causes a decrease in the welfare and quality of life of workers [6]. The Impact of Stress on Individuals and Organizations generally occurs when there is too much to do and too many unusual thoughts or demands or even when dealing with uncontrolled situations. This leads to a decrease in the productivity and efficiency of workers, as a result, increases work accidents, psychological, physiological problems and the loss of quality work results. Therefore, it is desirable to keep stress at a positive level all the time when using ways to understand and manage stress [7].

The study's findings are based on a number of linked studies that show how age, gender, and workload affect work-related stress. [8], the most important factor determining occupational stress is workload, which has a substantial association with age.

Research conducted by [9] that the respondent's age factor with work stress has a significant relationship with p value = 0.704 ($p > 0.05$). 0.011 OR 0.34 (95% CI: 0.02, 6.04) nurses aged between 21-30 years were more often under moderate stress.

With a P-Value value of 0.110 OR 2.62 (95% CI: 0.22, 30.43), [10] study, which looked at 63 nurses, found no correlation between workload and age and the work stress experienced

by nurses at Dr. H. Mohamad Rabain in the Muara Enim area. There is no significant correlation between age and work stress for nurses, according to research by [11] which found that 36 individuals (52.2%) with p value = 0.092 OR 2.67 (95% CI: 0.97, 7.30) had high levels of work stress in nurses under the age of 33.

There is no correlation between age and work stress, according to [12] research, which found that the number of nurses under 40 who experienced work stress was higher than those over 40. This is because at that age, a person has enough experience and knowledge to know that the younger a person is, the more likely they are to experience work stress.

Numerous studies have been conducted on the relationship between workload and work stress in nurses. For example, [11] found a significant correlation between the workload variable and the incidence of work stress in nurses, with a value of (p value = 0.010) OR 4.25 (95% CI: 1.52, 11.89). Fachruddin et al.'s study The calculated value (p = 0.011) OR 2.62 (95% CI: 0.61, 11.28) indicates that there is a working association between job stress and workload for nurses.

In their study, [13] discovered a correlation between nurses' stress levels and workload, with a p value of 0.008 ($p < 0.05$) OR 7.08 (95% CI: 1.80, 27.80). The study's p -value was 0.000, OR 6.22 (95% CI: 2.48, 15.62), specifically. Workload and the prevalence of work-related stress among nurses are related. According to Badri16's research, there was a correlation between the workload of nurses and the job stress of ICU and IGD nurses at Harapan Bunda Hospital and Camatha Sahidya Hospital Batam (p -value = 0.006 OR 6.79 (95% CI: 1.88, 24.49). Workload and work stress are significantly correlated, according to Linda18, with a p value of 0.042 OR 4.33 (95% CI: 1.02, 18.38).

The research of Zulfikar Lating18 the value of p = 0.000 OR 40.61 (95% CI: 2.30, 717.71) there is a significant relationship between workload and the occurrence of work stress in nurses in the inpatient room at the Namrole City Hospital. In research of Togatorop et al19 that the p -value = 0.000 OR 24.30 (95% CI: 5.74, 102.95) which means; there is a relationship between workload and stress levels in inpatient nurses. Because most respondents/nurses had a high workload category during the COVID-19 pandemic, [14] research demonstrates an association between nurse workload and nurse job stress with a p -value of 0.029 ($p < 0.05$) OR 6.50 (95% CI: 1.28, 33.03). as well as the excessively high degree of knowledge needed, the high speed and dexterity of the work, the excessive amount of work, and other factors that might lead to stress.

[10] found no correlation between the workload and job

stress of nurses at Dr. H. Mohamad Rabain in the Muara Enim area. The study's p-Value was 0.710 OR 0.79 (95% CI: 0.24, 2.56), indicating that there is no association between the two variables. Future researchers will be perplexed by the existence of these disparities in outcomes when deciding which findings to pursue. In order to ascertain the tendency of the link between age, workload, and work stress, it is therefore seen to be crucial to perform a meta-analysis study by integrating the findings of multiple research studies. Consequently, fresh quantitative data will be collected from a large number of participants, allowing for the drawing of more conclusive conclusions.

II. METHODS

This kind of study is known as a meta-analysis. In order to gather new data and conduct quantitative testing, researchers combined a number of related research publications. In order to determine the effect size—that is, the degree of correlation or the size of the difference between variables—this meta-analysis study was carried out in an observational study. This study was conducted between November 2021 and June 2022.

Searching for publications published in the past year (2017–2022) is accomplished by visiting GoogleScholar, an electronic database that is available in both Indonesian and English. According to the 2009 PRISMA-P checklist instrument protocol, the article search results are displayed in a flow chart. Articles that do not fit the search topic are eliminated using the following criteria: identification, filtering, and eligibility. The final step is to download the pertinent article using the keywords:

1. Age and busyness in relation to hospital nurse job stress,
2. Age and workload in relation to hospital nurse work stress.

After determining the research questions using SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type), the quality of the data was examined using the Duffy's Research Appraisal Checklist Approach table in accordance with the established inclusion criteria. The Revman 5.4.1 application was then used to conduct the statistical data analysis.

III. RESULT

A. Meta-Analysis of the Relationship between Age and Work Stress on Nurses in Hospitals

The following forest plot provides a description of the findings of the study's effect size calculation about the relationship between age and work stress on hospital nurses in both significant and unimportant articles.

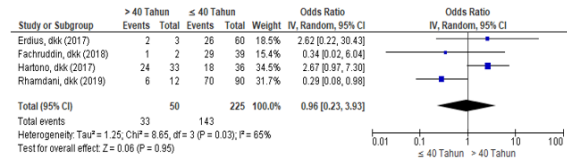


Fig. 1. Forest Plot of Age with Work Stress on Nurses in Hospital.

The results of data analysis from four studies about the association between age and work stress among hospital nurses are displayed in Figure 1 above. The Random Effect model was used for this study. With a p-value of 0.03 and a value of variance amongst researchers of 65%, the findings of the heterogeneity test demonstrated that the research variation was very heterogeneous. With a p value > 0.05, or 0.96, and a pooled odds ratio value of 0.96 (95% CI 23-3.93), the analysis of the data presented on the forest plot indicates that there is no correlation between age and work stress on hospital nurses. Therefore, it can be said that nurses over 40 experience 0.96 times more stress than nurses under 40.

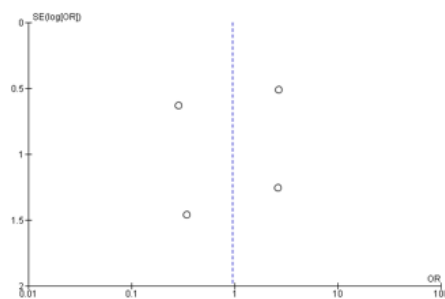


Fig. 2. Funnel Plot "Age Relationship with Work Stress on Nurses in Hospitals"

Given that there are two plots on the right and two on the left, and that the distances between the plots are not significantly different, Figure 2's funnel plot of the relationship between age and work stress on nurses does not exhibit any signs of publication bias. The balance of the distance between research from the right and left sides shows that symmetrical visualization does not suggest publication bias. Therefore, it is advised to do a quantitative meta-analysis using a random effects model.

B. Meta-Analysis "The Relationship of Workload with Work Stress on Nurses in Hospitals"

A heterogeneity test with a value of $I^2 = 49\%$ (moderate heterogeneity) was obtained from the findings of the meta-analysis of the link between workload and work stress among hospital nurses using the Fixed effect model analysis model.

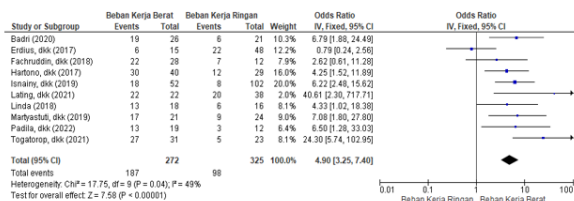


Fig. 3. Forest Plot "Workload with Nurse Work Stress"

The results of data analysis from ten papers on the connection between hospital nurses' workload and work stress are displayed in Figure 3 above. The Fixed Effect model was used for this analysis. With a p-value of 0.04 and an I² value of 49%, the findings of the The research variation was fairly diverse, according to the heterogeneity test.

With a p value of <0.05, or 0.00001, and a pooled odds ratio of 4.90 (95% CI 3.25-7), the data analysis results shown on the forest plot indicate a relationship between workload and work stress on hospital nurses. Based on these findings, it can be concluded that nurses with a heavy workload will experience work stress 4.90 times more frequently than nurses with a light workload. Figure 4 describes the Funnel Plot Relationship between Workload and Work Stress on Hospital Nurses.

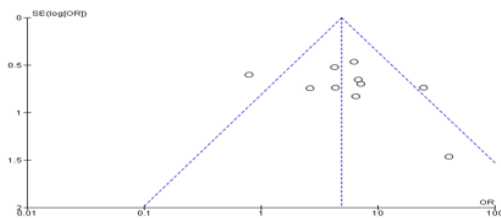


Fig. 4. Funnel Plot Relationship of Workload with Work Stress on Nurses in Hospitals.

The asymmetry of the left and right plots—there are six plots on the right and four on the left, with two plots crossing the line—indicates publication bias, according to Figure 4, which is a funnel plot of the relationship between workload and nurse work stress.

DISCUSSION

C. Meta-Analysis "Age Relationship with Work Stress on Nurses in Hospitals"

Research Variation and Heterogeneity An analysis of four research journal publications that looked at the connection between hospital nurses' age and work-related stress revealed varying variance and weight values. variance determination using the heterogeneity test. Because a random effects model was employed and the p value was 0.03 and the I² value was 65%, the results of the heterogeneity test on the four articles, which had a total sample size of 274,

showed a reasonably significant heterogeneity result. Differences in the demographic of research subjects or the fluctuating number of individuals may be the cause of the relatively high heterogeneity seen in the combined study.

The study by [12] is the one with the most samples (102), whereas Fachrudin's research (2019) has the fewest samples (40). Furthermore, according to the proportion, there are roughly 1% of connected articles (1 article) and 99% of unrelated articles (3 articles).

Strict research selection criteria based on design, population type, and findings could help to mitigate some of the variation. The same study design (cross sectional), multivariate analysis, and the same subject type (hypertensive patients) were among the inclusion criteria used in the selection of publications for this investigation. However, the study location was not a criterion for the population or number of samples. This suggests that the most likely source of heterogeneity in this study is the number of diverse populations and research samples, or the range of numbers that vary greatly from the greatest to the smallest, various research sites [15].

1) Research Results Analysis Age and work stress among hospital nurses were shown to be unrelated, according to a combined effect of the four journal publications that were examined. The total effect p test value, p = 0.95, which is higher than 0.05, supports this. With a 95% CI of 0.23 to 3.93 and a pooled odds ratio of 0.96, it can be said that nurses under 40 are 0.96 times more likely to experience work-related stress.

The age range in the four research articles under analysis is based on the findings of a study that divided the age range into two groups: those under 40 and those beyond 40. When these four publications are combined, the result shows that there is no correlation between age and work stress among hospital nurses. This can be attributed to the quantity of samples and the ratio of articles with results that are connected only (25%) and those that are not related (about 75%). which is a significant disparity, with 211 samples unrelated and 63 related.

The age variable's funnel plot is shown in Figure 4.4. The symmetrical distribution of plots (dots) surrounded by vertical lines—two on the right and two on the left—indicates that this study does not exhibit any publication bias. There was a substantial amount of data variability in this study, which may contribute to publication bias.

The age of the responder and work stress had a strong association, according to research by Fachrudin et al. (2010) on the subject. This is due to the fact that 53% of nurses between the ages of 21 and 30 report considerable stress,

meaning that the majority of them deal with work-related stress. due to the fact that that age falls within the more vulnerable productive age group. This relates to the [16] expression, which states that employees under 40 are more likely than those over 40 to endure stress at work.

One could argue that employees over 40 or in the senior age group are better able to manage stress. Because the age component has not been balanced with the workload it receives, deteriorating physical conditions might lead to the category of old age that endures extreme stress. A physical state that is no longer strong but is nevertheless able to manage the strain it receives due to light stress can be the reason of the elderly age group that feels mild stress.

in keeping with [17] research, which shows a correlation between work stress and age. In a similar vein, [18] research also discovered that the age factor contributed to the prevalence of work-related stress.

In contrast, the other three publications demonstrated that there was no correlation between age and job stress among nurses. For example, [10] study, which looked at 63 nurses, found no connection between workload and age and work stress among nurses at Dr. H. Mohammad Rabain, Muara Enim Regency. This is due to the fact that there are age-related factors, the proportion of young and skilled nurses is the same, and the stress that nurses experience at work is more closely linked to other occupational factors.

The research of [12] states that there is no relationship between age and nurses' work stress, in this study it showed that 50% of nurses aged >40 years experienced work stress, even though at that age a person had enough experience and knowledge, this is contrary to what was stated by [19] that adults have a good tolerance for stressful events, which means that the older you get, the lower your stress level or the younger you are, the more likely you are to experience work stress. Study of [11] showed that there was no significant relationship between age and work stress on nurses in their research. Based on age, it was found that high work stress in general, young nurses less than <33 years old or classified as productive age, the cause of the absence of a relationship was because nurses with this age group obtained a balanced percentage between nurses who experienced work stress and who did not experience work stress as much as 50% in productive age.

The absence of a significant relationship between age and work stress on the nurse, was associated with the nurse's experience in work situations and the ability to provide good nursing care. In accordance with [20] statement from the researcher's quote, that age does not correlate with stress. Age is not a factor causing stress, because stress can

occur in nurses of any age. Stress is more dependent on individual stress management. This is also conveyed by [21] that age does not have a relationship related to work stress, because one's maturity in dealing with work stress is not seen from age, but from the experience generated. If the age of the young nurse has gained a lot of ability and knowledge or mastery of competence/expertise in the field of nursing as well as experience in the work environment in their field so that they are able to organize or control themselves under work pressure or an extreme work environment so that they change stressful conditions into triggers or stressors that have an impact on increasing productivity. work.

D. Meta-Analysis of the Relationship between Workload and Work Stress on Nurses in Hospitals.

a.

Research Variation and Heterogeneity The results of the heterogeneity test in 10 research articles with a sample of 602 related to workload variables showed heterogeneity because the p value of $\text{Chi}^2 < 0.00001$ and the value of $I^2 = 49\%$, so using the random effects model. The results of the heterogeneity test have different variations and characteristics showing moderate heterogeneity ($I^2=49\%$) so that the fixed effect model is used. This is in accordance with the fixed effect model which assumes that the research modeled is homogeneous, which means that there are no differences between studies. The fix effect model of Meta-Analysis is as follows. The heterogeneity obtained in the combined research articles was moderate ($I^2 = 49\%$) this could be due to differences in the population of the research subjects. The largest number of samples was found in the research as many as 154.

1) Research Results Analysis Based on the 10 journal articles analyzed, there was a combined effect which concluded that there was a significant relationship between workload and work stress on nurses in hospitals. This is evidenced by the p value of the overall effect test < 0.05 , namely $p = 0.00001$. The pooled odds ratio value is 4.90 with a 95% confidence interval of 3.25 - 7.40, so it can be concluded that nurses with heavy loads tend to be 4.90 times more at risk of increasing work stress. If the confidence interval crosses the vertical line, it means that it includes a mean difference = 0 or odds ratio = 1, meaning that it is not statistically significant ($p > 0.05$); if the confidence interval does not cross the vertical line, it is statistically significant ($p < 0.05$).

In the combined funnel plot, there is publication bias. This is indicated by the asymmetrical distribution of plots on the right and left of the vertical line. the number of plots is more on the left as many as 8 plots while on the left as many as 2

plots. The plot will form a symmetrical distribution if there is no bias, but on the other hand, the funnel plot will appear asymmetrical with gaps on the right and left sides of the graph if there is a bias. This bias may be due to the fact that smaller studies did not show a statistically significant effect and were not published, resulting in a publication bias. Publication bias is often the cause of asymmetry in funnel plots, but this asymmetry can occur due to lower methodological quality.

The results of the combination of all research articles stated that there was a significant relationship between workload and work stress on nurses in hospitals. The study stated that there was a relationship between 9 articles (90%) with a total sample of 539 and 1 article (10) which had no relationship) with a total sample of 63.

Research that states there is a relationship between workload and work stress on nurses as many as 9 research studies, namely in Research of [22] This shows that there is a relationship between the workload of nurses and the work stress of nurses in hospitals. Because the majority of respondents/nurses experience a high workload category during the COVID-19 pandemic and the level of expertise required is too high, high work speed and dexterity, too much work volume and so on so that it can cause stress.

On research of Fachruddin et al [10] shows that there is a relationship between workload and nurse work stress, with it being found that workload is correlated with work stress. This means that the increase in work stress will accompany an increase in the workload. The level of client dependence and the number of staff in the room that is not suitable is one of the factors causing the high workload so nurses experience work stress. There is a relationship between workload and the incidence of nurse work stress. It can be seen that respondents/nurses with light workloads have a 6 times greater chance of not being stressed at work when compared to respondents with heavy workloads. Based on research of [11] that there is a significant relationship between the workload variable and the incidence of work stress in nurses. It was found that nurses who stated their workloads were heavy had 4,250 times the chance of experiencing work stress compared to nurses who stated their workloads were light.

[23] mentions in his research, there is a correlation between the workload of nurses and the work stress of ICU and IGD nurses at the residence of the Mother's Hope Hospital and the residence of the Camatha Sahidya Hospital in Batam, with findings saying that the health care nurse feels burdened by using her job, such as having to observe patients closely during hours. service. while the number of patients

who visit is large so that nurses lack energy compared to critical patients who must be given nursing care. In addition, nurses also do a variety of jobs for patient safety. On research of [24] shows that there is a significant relationship between workload using work stress, there are findings of nurses who feel burdened, most of them experience work stress and nurses who feel unburdened, do not experience work stress. In research of [25] there is a significant relationship between workload and the occurrence of work stress on nurses in the inpatient ward of the Namrole City Hospital, that most of the nurse respondents with heavy workload groups are dominated by moderate and heavy work stress. Study results of [26] that the results of the study showed that there was a relationship between workload and stress levels for inpatient nurses, because the stress level for inpatient nurses at Santa Elisabeth Hospital Medan experienced moderate work stress as much as 59.3%.

While the research above is not in line with [10] that it was found that there was no relationship between workload and work stress of nurses at dr. H. Mohamad Rabain, Muara Enim district, because it is more dominant to find low work stress. It can be seen that there is no percentage of the factors that affect the workload between direct, indirect and non-nursing nursing actions, and the difference between young and skilled nurses. Work stress experienced by nurses is more influenced by other work factors.

It was concluded that most of the studies in the articles under study suggest that the workload of nurses who have a heavy workload is at risk or has a greater tendency to increase work stress compared to nurses who have a workload with a light category tend not to cause pressure on nurses which has an impact on work stress. nurses, with an increase in workload, the pressure also increases so that it can reduce work productivity, as well as a workload that is in accordance with the limits of the body's ability for each worker to become productive in completing his work. The workload itself has a negative and significant influence on the performance of employees or employees. This is explained by [27] the negative effect of workload on employee performance means that the lower the employee's workload, the higher the employee's performance. According to [28] workload has a negative and significant effect on employee performance.

E. Meta-Analysis of the Strongest Research Results Relationship of Age and Workload with Work Stress on Nurses in Hospitals

Based on the results of a meta-analysis study between age and workload variables, the results of the study showed that there was no relationship between age and work stress of nurses in the hospital, with the overall effect p test value greater than 0.05, namely $p = 0.95$. The pooled odds ratio value is 0.96 with a 95% confidence interval that is 0.23 – 3.93 because $OR < 1$, meaning age can be a protective factor which means there is a negative relationship between age and work stress on nurses in hospitals.

While there is a significant relationship between workload and work on nurses in hospitals with $p = 0.00001$ ($p < 0.05$) and the pooled odds ratio is 4.90 (95% CI 3.25-7.40) so that It can be concluded that nurses who have a heavy workload are at risk or have a tendency of 4.90 times to increase work stress compared to nurses who have a light workload.

It can be concluded that in this study the workload variable with work stress was more likely to be related to increasing role work stress than the age variable with lower work stress tended to increase work stress on nurses. According to [29], the existence of overlapping work makes the workload bigger and causes stress to workers. [30], The workload that arises is influenced by several factors, including external factors in which there are factors of the tasks carried out both physically such as the workplace, work attitude, the load being lifted or transported, equipment and information facilities, organizational factors can affect the workload, such as work and rest time, shift work, night work, organizational structure model, task and authority delegation system. Therefore, the workload is a difference between the capacity or ability of workers and the demands of the work that must be faced. A worker will feel his workload is heavy if the demands of the task that must be carried out exceed his ability to complete the task. On the other hand, a worker will feel his workload is light if the demands of the task that must be carried out can be completed properly using his abilities.

According to Smit and Suwondo that work stress is the result caused by workplace conditions, organizational factors, workload factors and the ability to do tasks, excessive working time, work responsibilities and challenges that arise from assignments, it was also found that one of the sources

of stress work comes from the content of the work that includes the workload [31].

According to [?] Stress can show changes both physically, psychologically and behaviorally. Someone who experiences work stress will show symptoms such as feeling tired/tired during work, dizziness, anxiety and irritability and procrastination, difficulty concentrating at work, stress can also lead to high absenteeism and decreased productivity.

IV. CONCLUSION

Based on the results and discussion of the meta-analysis of research studies of previous research articles that match the inclusion criteria, conclusions can be drawn:

1. There is no relationship between age and work stress on nurses in hospital with p value < 0.05 , namely $p = 0.95$ and the pooled odds ratio value is 0.96 (95% CI 23-3.93).
2. There is a significant relationship between workload and work on nurses in hospitals with $p = 0.00001$ ($p < 0.05$) and a pooled odds ratio value of 4.90 (95% CI 3.25-7.40) that nurses who have a heavy workload are at risk or have a tendency of 4.90 times to increase work stress compared to nurses who have a light workload.
3. From this study, the workload variable with work stress has a stronger relationship which has a tendency to increase work stress compared to the age variable with work stress which has a lower tendency to increase work stress on nurses.

Workload is the most related factor using work stress in nurses in hospitals, so it is expected that hospital leaders, as health agency organizational policy holders, need to pay attention that the workload assigned to nurses is according to their work capacity so that work stress does not occur. Carry out workload evaluation and work rolling or work placement according to capacity and with age above >40 years in a place with a lighter workload. It is better to hold sports activities once a week for 30 minutes to control the incidence of stress so that the body feels fresh and ready to carry out work routines. To the hospital, this is in the staffing section, in accepting employees/nursing staff at the hospital to consider productive age as a reference for hiring employees, especially nurses in hospitals.

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