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JOB STRESS IMPACT ON PERFORMANCE OF HOSPITAL WORKER MEDIATED BY MOTIVATION

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ABSTRACT
The purpose of this study is to examine the impact of job stress on the performance of workers of hospitals in East Jakarta mediated by motivation underpinned by inverted-U theory. The methodology used in this study is by utilizing a questionnaire distributed to hospital staffs in East Jakarta. By using 280 workers who had filled out the questionnaire completely, the validity was tested with factor analysis and internal consistency with Cronbach Alpha. The results of testing the two models using structural equation modeling (SEM) found that motivation affected job stress and performance differently. Job stress was unrelated and had no direct effect on performance. The second model showed that motivation especially extrinsic motivation mediated the relationship between job stress and performance. An in-depth discussion of the results of this study is discussed at the end of this article. This study used a self-assessment that has the risk of causing common method variance and used cross-sectional data that can interfere with testing the mediation model. The practical implication of this study found that during the pandemic, the extrinsic motivation that drives the nurses to work hard is the environmental conditions, namely the patients who need help. Recruitment of nurse volunteers, socialization about COVID-19 and how to handle and prevent it need to be massively given to reduce the job stress of nurses. The novelty of this study is that the research was conducted during a pandemic with a very high addition of confirmed cases of COVID-19. The results of this study contribute to enriching knowledge about human resource management, especially regarding stress and employee motivation in times of crisis.

Keywords: Extrinsic Motivation, Intrinsic Motivation, Hospital Facility, Job Stress, Performance

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1 INTRODUCTION

The COVID-19 pandemic that has lasted for almost two years has caused various parties to experience stress. Health workers who work in hospitals are people who experience stress at work. They are required to serve patients, most of whom are COVID-19 patients. Stress is everywhere and is a part of human life. Therefore, despite stress, people must continue to pursue goals for survival (Maier & Watkins, 2010). This is evidenced by previous researcherswho found that stress is related to motivation and performance (Barney & Elias, 2010; Chan et al., 2018; Jones et al., 2020; Kuvaas et al., 2017). Several previous researchers have found that stress is indeed related to performance (Crego et al., 2016; Kotteret al., 2017; Lin et al., 2020; Ranasinghe et al., 2017). Job stress can be positively or negatively related to job performance (Abolghasemi & Varaniyab, 2010; Samaha & Hawi, 2016). At a job stress level that is not too high, performance can increase, even job stress is sought to improve performance (Robbins & Judge, 2015). Therefore, stress can motivate people to be better. However, a high level of job stress actually reduces performance. Andersonet al. (2019) found that stress affects performance, while Lin et al. (2020) found that the relationship between stress and performance is bidirectional. Meanwhile, Bello and Gumarao (2016) found that stress was not correlated with performance. The findings of research by Jamieson et al (2016) stated that stress does not always harm performance.

According to Lin et al. (2020), although it can reduce performance, stress actually increases motivation. In contrast, Korkmaz and Ipekci (2015) found that motivation had a negative effect on stress. This is because motivation can be caused by individual internal factors or external factors. Intrinsic motivation (IM) can prevent stress but extrinsic motivation (EM) increases stress (Ganster et al., 2011). The love for work that is felt to be fun will certainly make people not experience stress, while motivation caused by external forces will cause work stress. The relationshipbetween IM and EM is still unclear, but IM has always been assumed to be independent of EM (Bowles & Polania-Reyes, 2012; Heinz, 2015). Lemos and Verissimo (2014) found that IM and EM are not contradictory, but can coexist. In general, IM and EM are correlated, although the relationship between the two is difficult to explain (Kuvaas et al., 2017).

Previous studies have proven that motivation is related to performance and affects performance (e.g., Cerasoli et al., 2014; Cetin, 2015; Dogan, 2017; Kori et al., 2016). Cerasoli et al. (2014) emphasize that IM and EM must interact to improve performance. Job stress is often seen as a motivator because it can increase the sense of

urgency. If this is the case, then job stress can increase performance. However, if stress is prolonged, boredom will cause performance to decline. Conversely, pressure to achieve high performance can cause job stress to increase. This study aims to broaden understanding and prove the relationship between stress, especially job stress, motivation and perceived performance directly and indirectly, by testing the model of the relationship between these variables. This proof needs to be done because there is a causal relationship between motivation, stress, and performance (Bonneville-Roussy et al., 2017). In addition, because there are still many disagreements among researchers, especially regarding the effect of job stress on performance, research that examines the relationship and influence of the two constructs is still needed.

2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Job stress is an individual's reaction to environmental characteristics that threaten emotionally and physically (Jamal, 2007). Job stress is a dangerous physical and emotional response that occurs when job requirements do not match the employee's abilities. Many things can be caused by stress, such as performance, physical and mental health, anger, and various psychological conditions of people (Greenberg & Barron, 2008). Job stress can pose challenges or threats to individual well-being. Stress can be experienced anywhere, whether at home, school, or at work. Job stress can be caused by role conflict, role ambiguity, or psychological problems (Barney & Elias, 2010). Therefore, job stress can reduce motivation and performance at work (Yozgat et al., 2013). Other researchers have found that job stress can increase motivation and increase or decrease performance (Lin et al., 2020).

Stress on several levels consumes time, energy, and individual attention, so it can hinder performance. High stress causes individual perceptions to narrow, ignore information, and reduce performance. Stress also causes physiological responses that can inadvertently reduce performance (Muse et al., 2003). On the other hand, some researchers have found that low stress causes no challenge so that stress actually reduces performance and high stress can optimize performance because it feels challenged. Meanwhile, the inverted-U theory states that increasing stress will be good up to a certain point (Muse et al., 2003). The center of the inverted-U curve is the optimal stress. Stress levels below that point cause boredom and low performance. Based on this theory, stress can increase or decrease motivation and performance, but it can also have no effect on these two variables.

Although researchers have expressed the relationship between job stress and job performance for almost a century, there is still controversy about the relationship between the two, whether there is a negative linear relationship (stress decreases performance), a positive linear relationship (stress increases performance), an inverse U relationship (at the level or type of performance, certain types of stress are needed to improve performance and at certain levels or types of stress reduce performance), or there is no relationship between stress and performance (Jamal, 2007). Several researchers have found that stress reduces performance (Applebaum et al., 2010; Kotter et al., 2017; Olusegun et al., 2014; Yozgat et al., 2013). However, some researchers have found that stress can actually increase performance (Crego et al., 2016; Henderson et al., 2012; Weerda et al., 2010). Several other researchers have found that stress is not correlated with performance (Bello & Gumarao, 2016; Jamal, 2007; Samaha & Hawi, 2016) Meanwhile, several researchers found that the relationship between stress and performance was mediated by other variables (Applebaum et al., 2010; Fried et al., 2008; Henderson et al., 2012;Yozgat et al., 2013).

Furthermore, job performance is an individual's performance related to work and job demands, mission and organizational goals (Yozgat et al., 2013). Besides being influenced by job stress, a factor that has been widely proven to affect performance is motivation (Byron & Khazanchi, 2012; Cerasoli et al., 2014; Fischer et al., 2019; Taylor et al., 2014). Motivation is often referred to as the heart of organizational behavior because motivation affects performance and productivity (Amabile & Pratt, 2016; Cerasoli et al., 2014; Dogan, 2017; Fischer et al., 2019). However, motivation was also found to be unrelated to performance (Cetin, 2015). Motivation is the desire to do something. Motivation that provides direction, intensity, and persistence at work can be categorized as intrinsic motivation (IM) and extrinsic motivation (EM) (Cerasoli et al., 2014; Deci et al., 2017). Individuals are intrinsically motivated because of themselves, for example feeling comfortable at work or being interested in work. Meanwhile, individuals are extrinsically motivated due to external factors, either invitations, orders, or coercion from outside themselves. The power of motivation described for practice purposes as intrinsic or extrinsic will guide and direct performance behavior (Pinder, 2011). Employees are intrinsically motivated by interest and comfort in work and extrinsically driven by social considerations (Amabile & Pratt, 2016; Fischer et al., 2019).

When the motivation is intrinsic, the employee feels an interest in the job. This means that his attention is focused on his intense and persistent effort so that his performance improves. In other words, actions in their work are rewards for them (Cerasoli et al., 2014; Shin & Grant, 2019). IM expands its business based on its interest in work (Menges et al., 2017). IM has a positive impact on performance (Cerasoli et al., 2014; De Jesus et al., 2013; Liu et al., 2016; Taylor et al., 2014). Meanwhile, extrinsically motivated behavior is regulated by

instrumental gain and loss (Cerasoli et al., 2014). Furthermore, the effect of EM varies because it has multidimensionality (Ryan &Deci, 2020). EM can decrease performance (Byron & Khazanchi, 2012; Taylor et al., 2014). However, Cerasoli et al. (2014) proves that the interaction of IM and EM has an effect on performance. This is supported by Amabile and Pratt (2016) and Gerhart and Fang (2014).

IM and EM can predict employee outcomes when they are combined (Gerhart & Fang, 2014). Although IM and EM can coexist in influencing individuals, they are separate dimensions of motivation, one of which will dominate (Deci & Ryan, 2008). In addition, although IM and EM can operate simultaneously, existing research suggests that IM or EM will be more dominant (Weibel et al., 2010). The relationship between IM and EM is negative. If performance increases due to rewards, EM will increase as well as decrease IM (Bowles & Polania- Reyes, 2012; Dysvik et al., 2013; Weibel et al., 2010). IM is driven by personal needs and satisfaction and is based on pleasure, whereas EM is based on environmental control, feelings of obligation, reward, and punishment (Park et al., 2012). Based on the results of previous studies regarding the relationship between job stress, IM, EM, and job performance, the hypotheses tested in this study are:

H1: Job stress is negatively related to motivation (IM and EM)

H2: Job stress is negatively related to job performance

H3: Hospital facilities positively related to job performance

H4: Motivation (IM and EM) is positively related to job performance.

H5: Motivation mediates the relationship between job stress and job performance.

3 METHODOLOGY

a. Participants

This research was conducted on nurses who are health workers at hospitals in East Jakarta and its surroundings, which was carried out from January to June 2021. In those months, COVID-19 cases in Indonesia experienced a spike as a result of the Christmas and New Year holidays, plus Eid holidays in May 2021. This condition becomes prolonged because the infecting virus mutates into new, more infectious variants. Nurses were under tremendous pressure due to the bed occupancy rate (BOR) above 50% and the increasing mortality rate of COVID-19 patients. Nurses were required to be able to serve patients who are mostly infected with the corona virus. Therefore, filling out the questionnaire by the nurses was done while they were taking a break fromwork. Of the 400 questionnaires sent to doctors, nurses and non-medic staffs in several hospitals, only 280 questionnaires were completely filled out.

This study used 5 variables, namely job stress, intrinsic motivation, extrinsic motivation, hospital facilities and perceived job performance. The job stress questionnaire was adopted from the article of Wu et al. (2018). For example, my work is very complicated and there is a heavy workload, with = 0.925. Intrinsic and extrinsic motivation questionnaires were adopted from the Guay et al. (2008). An example of an intrinsic motivation questionnaire was that I work because I think this job is interesting, with = 0.912. An example of an extrinsic motivation questionnaire was thatI work because I think that this job was good for me, with = 0.718. The Hospital facilities questionnaire for example is that the worker performs well with the sufficiency of hospital ICU Unit, bed, ventilators, etc with =0.932 Meanwhile, the job performance questionnaire which was the perceived performance was adopted from the article of Koopmans et al. (2013). For example, I can fulfill the responsibility, with = 0.978.

b. Procedures

This study used a survey method with a questionnaire that uses a Likert Scale with a value of 1 for answers strongly disagree to a value of 5 for answers strongly agree. Questionnaires were distributed to 500 nurses caring for COVID-19 patients. After the questionnaire was filled out completely by the respondent, the questionnaire was sorted, separated between the completed and incomplete questionnaires. Incomplete questionnaires were discarded and not included in further testing. The complete questionnaire was inputted with excel and SPSS to test its validity and reliability. Testing the validity using confirmatory factor analysis with a minimum loading factor of 0.5 and reliability with internal consistency using Cronbach's Alpha of more than 0.7 (Hair et al., 2010).Furthermore, the correlation between research variables was tested using Pearson's Correlation. To test the modelof the relationship between research variables used structural equation modeling (SEM) testing with a two-stage approach using AMOS (Byrne, 2010).

4 RESULTS

a. Preliminary Analysis

The results of the validity test show that the 14 job stress questions are valid (with a loading factor 0.582 to 0.840) and Cronbach's Alpha is 0.925. Furthermore, 5 valid intrinsic motivation questions (with loading factors 0.754 to 0.910) and 5 valid extrinsic motivation questions (with loading factors 0.523 to 0.748), 5 valid

questions on hospital facilities Cronbach's Alpha are 0.912 and 0.718, respectively. Meanwhile, 12 questions regarding perceived job performance are valid(with a loading factor 0.702 to 0.871) and Cronbach's Alpha is 0.928. Furthermore, the results of descriptive statistics and correlations between research variables are presented in Table 1 below.

Table 1: Descriptive Statistics and Correlation between Research Variables

	Mean	**Std. Dev.**	**α**	**1**	**2**	**3**	**4**	**5**
Job Stress (1)	2.775	0.5978	0.934	1.000				
Intrinsic Motivation (2)	3.723	0.5698	0.892	- 0.332	1.000			
Extrinsic Motivation (3)	4.132	0.3648	0.728	- 0.274	0.459	1.000		
Hospital Facilities	4.299	0.476	0.6923	0.267	0.552	0.695	1.000	
Perceived Job Performance (4)	3.790	0.573	0.944	0.740	0.269	0.365	0.4154	1.000

Table 1 shows that the correlations between research variables are significant, except for the correlation between job stress and perceived performance. Although not very strong, performance was positively related to IM and EM, while job stress was negatively related to IM and EM. Hereas hospital facilities has no significant correlation. Furthermore, the average intrinsic and extrinsic motivation and perceived job performance were high, while the average job stress was moderate. This showed that nurses did not feel too stressed at work. However, the mean extrinsic motivation was higher than intrinsic motivation. This showed that nurses were motivated to carry out their duties mainly due to external factors. The relationship between the two types of motivation and job stress was negative, while between the two types of motivation and perceived job performance was positive.

b. Relationship Model Testing Results

The results of testing the relationship model using SEM found that there were at least two relationship models that fit the data between the four variables that produce the optimal suitability value (We exclude the hospital facilities as the variable is not significant). The first relationship model was the direct effet of both types of motivation on job stress and perceived job performance. The results of the first model test are presented in

Table 2: Direct Effect of Motivation on Job Stress and Performance

Model 1	**Standardized Regression Weights**	**Critical Ratio**
Intrisic Motivation→ Job Stress	-0.0576	-0.536
Extrinsic Motivation→Job Stress	-0.632**	-5.325
Intrisic Motivation→Perceived Job Performance	-0.233	-1.842
Extrisic Motivation→Perceived Job Performance	0.623**	4.652
Extrinsic Motivation→Intrisic Motivation	0.804**	9.245

GFI=0.932

CFI=0.921

Chi-square= 21.786

IFI=0.899

RMR= 0.017

Table 2 shows that extrinsic motivation increases performance and reduces work stress. Meanwhile, intrinsic motivation does not affect perceived job performance and job stress. The first model showed that extrinsic motivation played a more important role in improving performance (Fang & Gerhart, 2012) and reducing work stress (Cerasoli et al, 2016). Furthermore, extrinsic motivation can encourage an increase in intrinsic motivation. The first model also showed that there was no influence between job stress and perceived job performance. Furthermore, this study also examined motivation as a mediating variable in the relationship between job stress and job performance. The results of testing the relationship model are presented in Table 3.

Table 3: Motivation Mediates the Effect of Job Stress on Performance

Model 1	**Standardized Regression Weights**	**Critical Ratio**
Intrisic Motivation→ Job Stress	-0.332	-8.453
Extrinsic Motivation→Job Stress	-0.375**	-5.126
Intrisic Motivation→Perceived Job Performance	-0.244	-1.445
Extrisic Motivation→Perceived Job Performance	0.687**	5.152
Extrinsic Motivation→Intrisic Motivation	0.767**	9.243

GFI=0.932

CFI=0.921

Chi-square= 21.786

IFI=0.899

RMR= 0.017

Table 3 shows that job stress has a significant effect on intrinsic and extrinsic motivation (Barney & Elias, 2010), but only extrinsic motivation has an effect on perceived job performance (Cerasoli et al., 2016; Kuvaas et al., 2016). If in the first model extrinsic motivation affects intrinsic motivation, then in this second model intrinsicmotivation affects extrinsic motivation. In other words, the two types of motivation influence each other (Amabile & Pratt, 2016; Gerhart & Fang, 2014).

5 DISCUSSION

Motivation is a fundamental component of human performance and is the focus of attention of organizations and industry. Many studies have shown that motivation is related to performance and affects performance (e.g., Cerasoli et al., 2014; Dogan 2017; Gerhart & Fang, 2014; Kori et al., 2016; Menges et al., 2017; Ryan & Deci, 2020; Shin & Grant, 2019; Taylor et al., 2014). Individuals who are motivated either because of their relationship to work, because of their desire to get rewards, or their fear of getting punished, can encourage the achievement of better performance. In other words, both IM and EM can improve performance. This confirms the results of the study of Kuvaas et al. (2016) and Cerasol et al. (2016), but contrary to the results of the study of Dysvik et al. (2013) who found that only IM improved performance.

The results of this study strengthen the results of previous studies that motivation was positively related to performance and negatively related to job stress (e.g., Jones et al., 2020; Kori et al., 2016; Kuvaas et al., 2017; Parket al., 2012; Patrick & William, 2012). The results of the first model test showed that EM had an effect on both job stress and performance. The effect of EM on job stress was negative, while on positive performance, which means EM can reduce job stress and improve performance. This supports the results of research which also foundthat EM actually increases performance (e.g., Cerasoli et al., 2016; Kuvaas et al., 2016). Meanwhile, the results of the second model test showed that job stress can reduce motivation, both IM and EM. The second model supports the results of research by Barney and Elias (2010), which found that job stress has a negative effect on motivation. This is contrary to the results of research by Golboa et al. (2008), Lin et al. (2020), and Radcliffe and Lester (2003) who actually found that job stress was a source of employee motivation. However, both the first and second models suggest that IM and EM must interact in influencing performance. This confirms the results of previous studies (e.g., Amabile & Pratt, 2016; Cerasoli et al., 2014; Gerhart & Fang, 2014).

Meanwhile, job stress is also a major problem for organizations and employees because it can reduce performance. Both employees and organizations always want to reduce the work stress of their employees. The results of this study did not find any relationship between job stress and performance. This contradicts the results of previous studies (e.g., Anderson et al., 2019; Applebaum et al., 2010; Ashadi & Damiri, 2013; Weerda et al., 2010; Yozgat et al., 2013). Individuals who are motivated to work well are less likely to feel stress at work. The results of this study also found an inverse relationship between motivation and work stress.

Furthermore, the results of this study found that job stress was not related to performance and had no effect on the performance of nurses. The results of this study confirm the results of Bello and Gumarao's research (2016). Contrary to popular belief, stress does not always harm performance (Jamieson et al., 2013). The results of this study found that the relationship between job stress and performance was mediated by another variable, namely motivation. This supports previous research which found that the relationship between job stress and performanceis mediated by other variables (e.g., Applebaum et al., 2010; Fried et al., 2008; Henderson et al., 2012; Yozgat etal., 2013).

The results of this study found that the level of job stress of the nurses was not too high. The pandemic that has been running for more than a year has caused nurses to get used to the large number of COVID-19 patients. The number of patients who are confirmed positive for COVID-19 every day has not shown a decline. Even afterthe holiday, the number of patients infected with the virus is increasing. This prolonged condition causes nurses to get used to it and feel less pressure.

There is no relationship between job stress and performance because there is a psychological contract approach between the individual and the organization where he works. In this case, individuals are seen as rational beings who pay attention to performance because they know that they are paid to do the work. This can be seen in the mean value of EM which is higher than IM. What's more, in a pandemic, nurses feel called to work hard tosave patients infected with COVID-19. The nurses then ignore the difficulties that create barriers to better

performance, regardless of what is happening in their work environment. These nurses will not let their performance be affected by the state of the work environment. Interest or not, like it or not, nurses just feel called to perform because they want the pandemic to end soon. Their performance will remain the same whether there is high chronic work stress or no work stress. It also shows that work is not considered as the main interest in theirlife. They prioritize the safety of patients during this pandemic.

The results of this study indicate that job stress is not seen as a way of increasing performance or decreasing performance, but as a neutral state for individual performance. Job stress is not always caused by factors related to work motivation, but can be caused by role conflict and role ambiguity or because of psychological factors. Sometimes job stress has an effect on performance, both positive and negative, but sometimes it has no effect. Thisis in accordance with the inverted-u theory which states that stress can be increased to a certain point which has an effect on increasing performance. However, certain levels of stress actually cause boredom and are not relatedto performance. The pandemic condition that has lasted for almost two years has caused prolonged job stress for nurses, thereby reducing motivation and having no effect on the performance of the nurses. The nurses, even though they are working as hard as they can to save hundreds or even thousands of lives, they are also already bored because this pandemic will not end soon.

The COVID-19 pandemic has been difficult for nurses, not only because of the large number of infected people, but because the disease is relatively unknown. Although it is not proven to have an effect on performance, job stress must be handled properly. Stress management of nurses must be done. At the peak of the pandemic, the Indonesian government has recruited many volunteers to help nurses, both in hospitals and in isolation places. However, socialization about the disease, how to prevent and treat it is still needed so that there is no excessive fear and results in high levels of job stress. Hospital management and government support is needed, especially in providing personal protective equipment and providing adequate rest time for health workers.

6 CONCLUSION

The COVID-19 pandemic has an effect on the job stress of nurses which reduces their motivation. Job stress has no effect on performance, so it cannot be relied upon as a factor that affects the increase or decrease in performance. The sufficiency and completeness of hospital facilities tend not having any impact on increasing quality of job performance probably do to it has no impact on motivating the hospital staffs. Intrinsic motivation, which is relied on to improve performance and reduce job stress, still needs to be proven true, because in this study it is extrinsic motivation that can improve performance and reduce job stress. Perhaps it is more appropriate to say that although independent, both types of motivation must be developed to improve employee performance and reduce job stress. The pandemic that has been going on for more than a year is boring for nurses. Jobs that contain very high stressors have made them bored, so it has no effect on the performance of nurses. Motivational factors, especially those from the environment, are factors thatcan improve their performance.

This research has several weaknesses. First, the use of motivation, job stress, and employee performance questionnaires using self-ratings allows for a common method bias that could weaken the correlation test. The use of supervisor-rating in assessing the performance of nurses can eliminate this bias (Podsakoff et al., 2012). Second, the data used is cross-sectional, so it is not appropriate to test the mediating model. Future research needs to use longitudinal data so that it can be more precise in testing the mediation model. Third, the data used needs to be covering other provinces in Indonesia not only in East Jakarta so that more precise testing can be carried out.

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