

THE 5<sup>th</sup> INTERNATIONAL CONFERENCE ON HEALTH POLYTECHNICS  
OF SURABAYA (ICOHPS)

2<sup>nd</sup> *International Conference of Environmental Health (ICoEH)*

**The Effect of Work Stress, Gender, Age and Working Period Of Nurse on the  
Performance of Night Shift Nurse**

Annisa Alfianti. K, Demes Nurmayanti, Pratiwi Hermiyanti, Winarko, Silvia Saptorini  
Environmental Health Departement of Politeknik Kemenkes Surabaya

*Corresponding author: demes@poltekkesdepkes-sby.ac.id*

**ABSTRACT**

As many as 50% of 6 night shift nurses in inpatient installations experience stress at work. The causes of work stress experienced by night shift nurses in inpatient installations are the many demands of work and role conflicts. One of the bad effects of work stress is that performance will decrease. This study aims to analyze work stress, gender, age and years of service on the performance of night shift nurses in inpatient installations. The type of research used is analytic research with *cross sectional method*. The population in this study were 36 people, the sample in this study was 33 people. The variables studied were work stress, gender, age, years of service and work performance of nurses. The primary data collection technique was obtained through interviews with questionnaires and analyzed using Mean<sub>hypothetical</sub> and SD<sub>hypothetical</sub> in determining the level of work stress and nurse performance. The results of the study are that there is an influence between work stress and characteristics of age and tenure on performance with a value of 0.000, respectively; 0.018: 0.023. However, there is no influence between gender characteristics on performance with a p value of 0.625. The conclusion of this study is that there is an influence between work stress on performance and characteristics including gender, age and tenure.

**Keywords: work stress, work performance, tenure, productivity,**

**nurses BACKGROUND**

Stress in psychology is a feeling of being depressed and the occurrence of mental tension experienced by a person. Stress can be experienced by anyone and anywhere. Stress can be a problem if the amount of stress experienced is too much which will endanger physical and mental conditions <sup>(1)</sup> <sup>(2)</sup>. Like nurses, nurses have the main task of paying attention to patient needs and caring for patients with full responsibility. Every day in carrying out their work nurses in inpatient installations will not only deal directly with patients but also with patients' families, colleagues and superiors who are in the hospital so that in carrying out their work nurses will be vulnerable to stress at work <sup>(3)</sup>. The nursing profession in the inpatient room has a very high risk of stress because nurses have very high duties and responsibilities for human safety. The tasks carried out by inpatient ward nurses are carrying out nursing care standards which consist of carrying out nursing assessments, analysis to formulate nursing diagnoses, standard nursing evaluations for individuals, documentation of health care services, etc <sup>(4)</sup>. Work stress on nurses occurs in Singapore which is caused by an inadequate number of staff, high demands or workloads and conflicts in the workplace <sup>(5)</sup>.

Work stress on nurses also occurs in Indonesia. Work stress on nurses also occurs in Indonesia, where according to a 2007 PPNI survey, around 50.9% of nurses who work

in four provinces have experienced work stress, often experience dizziness, and cannot rest properly due to the workload is too high and time-consuming and the salary is low without being balanced with adequate incentives. As many as 44% of nurses in the inpatient room at Husada Hospital, 51.5% nurses at the International Hospital MH. Thamrin Jakarta, 54% of nurses at PELNI Hospital "Petamburan" Jakarta and 51.2% of nurses in the *Intensive Care Unit* (ICU) and Emergency Installation (IGD) Mitra Keluarga Hospital Bekasi experience work stress with different causes <sup>(6)</sup>. Work stress experienced by nurses must get attention because if nurses experience stress at work it will have an impact on the quality of nursing services will decrease so that in the end it will cause complaints from patients <sup>(3)</sup>. Nurse performance is a measure of success in achieving nursing service goals. The performance of nurses can be seen through the provision of nursing care that has been obtained through learning received during the completion of the nursing education program <sup>(7)</sup>.

Work stress experienced by nurses due to their work environment can affect their performance and job satisfaction. If the performance of a nurse is not in accordance with what was previously expected, the presence and absence of nurses will be high so that it will cause problems related to employees and will have an impact on decreasing the performance of a company or agency <sup>(8)</sup>. The results of previous studies stated that work stress can affect the performance of inpatient installation nurses at Panti Waluya Sawahan Hospital, Malang. The lower the level of work stress of nurses, the performance of nurses in carrying out nursing care will be better <sup>(8)</sup>. Based on the results of the preliminary survey, it was found that from 6 night shift nurses in inpatient installations, 50% experienced work stress in the heavy category. So this study aims to analyze the effect of work stress and characteristics of nurses on the performance of night shift nurses in inpatient installations.

## RESEARCH METHODS

The type of research used is observational analytic research with *cross sectional method*. The object of this research is a night shift nurse who works in an inpatient installation. The variables studied included nurses' work stress levels, gender, age, years of service and nurse performance levels. The types of data obtained included primary and secondary data. The tools used in data collection in this study were demographic questionnaires, job stress questionnaires. nurses, nurse performance questionnaire. The data collection technique used in this study was interviews by asking several questions contained in the questionnaire and documentation sheets. Data processing in this study uses *editing*, *scoring* and *coding* Mean<sub>hypothetical</sub> SD<sub>hypothetical</sub> in determining the level of work stress and nurse performance.

## RESULTS AND DISCUSSION

**Table 1**  
**Characteristics of nurses on the performance level of inpatient night shift nurses**

No	Characteristics of Nurses	Performance Level (%)		
		Good	Moderate	Less
1	Mild Stress	30,3	-	-

2	Moderate Stress	-	45,5	-
3	Severe Stress	-	-	24,2
4	Male (Gender)	31	50	19
5	Female (Gender)	47,1	29,4	23,5
6	≤ 40 Years (Age)	42	32	26
7	≥ 40 Years (Age)	-	50	50
8	< 10 Years (Working Period)	37,5	37,5	25
9	10 – 20 Years (Working Period)	42	33	25
10	>20 Years (Working Period)	100	-	-

### 1. The Effect of Work Stress on the Performance of Night Shift Nurse

Stress is a stimulus or action from the human body that comes from outside or from within the body that can have a detrimental impact on health and can cause performance to decline <sup>(9)</sup>. Job stress is a stressful condition that can affect changes in emotions, a person's pattern of thinking and a person's condition <sup>(10)</sup>. Job stress will have an impact on individuals, organizations and society. For individuals, it will have a negative impact on the physical and mental health of workers, decreased performance, lack of career development and job loss. For organizations the impact of work stress such as absenteeism, losses related to worker health to *turnover*. For the social environment, work stress causes high pressure for those who are serious, so it needs quick and appropriate handling <sup>(11)</sup>.

The cause of stress in the work environment is found in individuals who are in fields that require full responsibility in this case the nurse must be responsible for patient safety so that it will make nurses vulnerable to burnout. This can cause work performance and service to patients to deteriorate <sup>(12)</sup>. One of them is the *work shift* system. The rotating work system or commonly known as *shift work*. Nurses who work on the night shift will be more at risk of being exposed to moderate stress when compared to nurses who work the morning shift. Nurses who work on the morning shift will experience higher mild stress because nurses on the morning shift have sufficient rest time and sufficient lighting at work so that the workload is not too heavy. Nurses who work on night shifts will experience higher stress this is because nurses who work on night shifts have a lot of work activities to overtime resulting in less time to rest <sup>(13)(14)</sup>.

There are three categories of potential sources of stress, including environmental factors, individual factors and organizational factors. In addition, the workload is too heavy, the working time is urgent, the quality of work supervision is low, the work climate is unhealthy, the work authority is inadequate and there are differences between employees and leaders in their work <sup>(10)</sup>.

Based on the table, it can be seen that 48.5% of night shift nurses got a medium level of performance and 24.2% of night shift nurses got a good level of performance.

Based on Table 1, it can be seen that there is an influence between work stress on work performance. This can be seen through the p value given of  $0.00 < 0.05$ , it can be said that work stress has an influence on the work performance of the inpatient night shift nurse. Work stress experienced by nurses can arise if their basic needs are not met, the basic needs in question are biological needs such as wages or salaries, the need for love, the need for security, the need for a sense of belonging and belonging, the need for a sense of respect and the need for a sense of belonging. for self-actualization <sup>(15)</sup>.

Stress is an unavoidable part of human life, because stress will make individuals develop and change. Stress is a relationship between the individual and the environment that is assessed by each individual who experiences it as a dangerous thing if it cannot be overcome. Stress can occur in each individual with different causes. Stress can come from within oneself, family, organization or community or the surrounding environment and work environment. Individuals who are in a job that is full of responsibility for the safety of others will be very susceptible to stress and boredom. Like nurses who are required to work skillfully and make decisions quickly. If the demands or problems experienced cannot be managed properly, the nurse will experience severe stress, loss of motivation, severe saturation and the level of absenteeism will be more frequent. So that this will cause a decrease in work performance to the point of deteriorating health services to patients <sup>(12)</sup>.

Stress is a condition of a person, where his physical or psychological condition regarding disturbances that come from inside or outside himself so that it can cause unusual or deviant behavior, both physically, socially and psychologically. So it can be said that deviant employee behavior is one of work stress. Job stress can arise through various things that basically make employees feel less comfortable. Factors that can cause stress are work factors, non-work factors and personal factors. Work stress experienced by employees / workers must be addressed properly because employees who experience stress at work will feel frustrated, often emotional and feel uncomfortable at work so that what happens is that the organization will fail, because it can interfere with one another in carrying out their duties. his job <sup>(16)</sup>.

Job stress can affect employee performance, employee performance is important in developing the company. Employee performance will greatly impact the company's profits, so that employees with good performance will be maintained. Good employee performance will make a good contribution. In an increase in the company's financial statements, if there is an increase or continuous profit, the employee's performance is considered to make a positive contribution <sup>(16)</sup>. Performance is a maximum achievement produced by an employee in doing his job. Employee performance can be seen through the many contributions of an employee to the company. Performance can be influenced by the quality and ability of employees, supporting advice, super facilities including matters relating to government policies or regulations. Performance indicators are quality, quantity, timeliness in completing work, effectiveness and independence <sup>(17)</sup>.

Based on the results of the study, it was found that work stress can affect the performance of nurses. This explains that if work stress increases or is severe it will reduce the potential for employee performance and vice versa if work stress decreases it will increase the potential for employee performance. As with previous studies, the results showed that there was a relationship between the level of work stress and the performance of nurses in the inpatient room at Panti Waluya Hospital, Malang <sup>(8)</sup>. The results showed that work stress can affect the work performance of nurses <sup>(18)</sup>

Some of the effects of stress include fatigue at work, mental and physical disruption of a person, trauma, fatigue of caring, besides stress can also cause several things including anxiety, boredom at work, unstable emotions, lack of concentration, lack of ability to take a job. decision making, blood pressure rises causing low performance<sup>(19)</sup>. In dealing with stress at work, it can simply be done by relaxing muscles that start to feel tense, other body parts that feel stiff and resting so that the body will come back fresh<sup>(18)</sup>.

## **2. The Effect of Characteristics (Gender, Age and Working Period) on the Performance of Night Shift Nurse**

### **a. The Effect of Nurse Gender on the Performance of Night Shift Nurse**

Based on table 1, it can be seen that as many as 31% of male nurses have good performance, 50% have moderate performance and 19% have poor performance. Meanwhile, female nurses are 47.1%, female nurses have good performance levels, 29.4% have moderate performance levels and 23.5% nurses have poor performance levels.

Based on table 1, it can be seen that there is no influence between gender on work performance. This can be seen through the given p value of  $0.625 > 0.05$ , it can be said that gender has no effect on the work performance of the inpatient night shift nurse.

Gender is a biological sex categorization so that self-identity can be known as male and female<sup>(20)</sup>. Gender or gender in roles in various systems or jobs are usually the same, this can make the roles between male employees and female employees according to their conditions have many similarities. So not infrequently the work of men - men are also done by female employees and vice versa. However, there are several things that can be used to see the performance of an employee through the same or different genders. The role of gender or gender has a role on employee performance, there is no difference, which can be interpreted that in the process of completing and doing a job both men and women have similarities both in terms of quality and quantity<sup>(21)</sup>.

Based on the results of the study, it was found that gender could not. affect nurse performance. This is in accordance with previous research, namely the absence of a relationship between gender and the performance of nurses at the Prof. Mental Hospital. Dr. V. L Ratumbusang North Sulawesi with a given p value of  $0.917 > 0.05$  because a person's performance is not included in the characteristics of an individual but performance is a form of talent or ability possessed by a person<sup>(21)</sup>.

### **b. The Effect of Nurse Age on the Performance of Night Shift Nurse**

Based on table 1, it can be seen that as many as 42% of nurses aged 40 years have good performance, 32% have moderate performance and 26% have poor performance. Meanwhile, nurses aged 40 years have a moderate level of performance as much as 50% and as many as 50% of nurses have a low level of performance.

Based on table 1, it can be seen that there is an influence between age on work performance. This can be seen through the p value given of  $0.018 < 0.05$ , it can be said that age has an influence on the work performance of night shift nurses in inpatient installations. One of the factors that have an influence on performance is the age factor, those who are still in their productive period usually have a higher level of performance or productivity compared to workers who are old, making their physical condition weak and limited.

The relationship between age and performance becomes one of the important problems in the future because there are three main reasons that form the basis of this statement, namely the first is the belief that performance decreases with increasing age. Second, the number of workers or employees who are old. Third, the existence of a regulation from a country for certain purposes and purposes such as setting limits for retirement age. The older a person is, the more reluctant they are to stop working. This is because when a person gets older it will be difficult to find a new job<sup>(21)</sup>.

Some of the results of research on age, based on the results of research conducted by Emmanuel Vensi Hasmoko (2008) with the title analysis of factors that affect the clinical performance of nurses in the inpatient ward of Panti Wilasa Citarum Hospital, Semarang. Getting the results that the results of one's abilities and skills can be related to age, because the longer a person's age, the understanding and knowledge of the problems faced will mature in handling them. In addition, age also affects productivity in performance because one can get the level of maturity that comes from the job. In addition, the age factor also affects the performance of nurses which can be seen from a number of positive qualities that older workers bring to their work. However, older workers are also often seen as lacking flexibility and often rejecting technology.

A total of 13 nurses (47.1%) aged 40 years obtained work results or performance in good categories. This is because at this age a person will experience a stable period, the physical condition at this age is also in very good condition. As according to Elizabeth B. Hurlock's theory, he divides the age range of early adulthood into three stages, namely, early adulthood which starts at the age of 18 years to approximately 40 years where physical and psychological changes have reached maturity, then middle adulthood begins at the age of 40 years to 60 years. years in which there is a decline in physical and psychological abilities that will be clearly visible to everyone.

The term age can be defined as the length of life or existence of a person measured in units of time from a chronological point of view of a normal individual showing the same anatomical and physiological development. Workers with a young age will tend to experience higher disability compared to older workers or older workers who are more stable because they are more balanced with life so they are not easy to experience mental stress and inability to work<sup>(22)</sup>. Age can affect productivity in performance because one can get the level of maturity that comes from the job. In addition, the age factor also affects the performance of nurses which can be seen from a number of positive qualities that older workers bring to their work. However, older workers are also often seen as lacking flexibility and often rejecting technology. Research from Rusdianti in 2011 found that nurses who were < 32 years old had less performance (53.4%)

than nurses who were 32 years old (33.7%)<sup>(22)</sup>.

### **c. The Effect of Nurse Age on the Performance of Night Shift Nurse**

Based on table 1, it can be seen that as many as 37.5% of nurses with a tenure of < 10 years have a moderate level of performance and as many as 25% have a low level of performance. Meanwhile, for nurses who have a working period of 10 - 20 years, as many as 42% of nurses have good performance, 33% are moderate and as many as 25% of nurses have a low performance level. In nurses with a working period of > 20 years as much as 100% have a good level of performance.

Based on table 1, it can be seen that there is an influence between years of service on work performance. This can be seen through the given p value of 0.018

$< 0.05$ , it can be said that the working period has an influence on the work performance of night shift nurses in inpatient installations.

Working period is a factor that can affect a person's productivity or performance at work. The longer a person's working period, the more the abilities and skills of the workforce will increase. A person's experience in doing his job regularly or continuously will increase his ability in technical mastery. The period of service is the level of mastery of the workforce in carrying out both technical equipment and work. As for what can determine whether a person is experienced or not in carrying out his work, namely the length of time working or working age

(23).

Working period is the time of workers or employees who have worked in an institution, agency and organization. The tenure of a person in an organization is important to know because the tenure is one indicator of the tendency of employees to carry out their work activities. For example, in work productivity, the longer a person works, the higher his productivity will be, this is because the person is experienced and has good skills in completing his duties (24).

The tenure of the employee or employee can be said to have an effect on the quality of work of the employee because. Years of work can affect performance because someone who works longer is proportional to experience and better skills in completing his work. Service life can be measured in units of time, such as years or months. So that with the length of the service period owned by the employee or employee, it is hoped that the employee will increasingly master his work better and be able to solve various kinds of problems related to his work (25).

## **CONCLUSION AND RECOMMENDATION**

### **1. Conclusion**

Most of the night shift nurses in inpatient installations are female in the age group of 25 – 30 years with a tenure of  $< 10$  years, getting stress levels in the moderate stress category and performance levels in the medium performance category. There is an influence between work stress, age and tenure on the work performance of night shift nurses. There is an influence between the characteristics of nurses including age and years of service on the work performance of night shift nurses and there is no influence between gender characteristics.

### **2. Recommendation**

Can be used for reference in further research and consideration for research on work stress with different variables such as hospital physical conditions, individual factors and environmental factors. Related agencies, especially hospitals, can pay attention to and deal with the stress experienced by nurses, especially those who work on night shifts in order to minimize the error rate that will occur caused by stress at work.

## **REFERENCES**

1. Nur L, Mugi H. Tinjauan Literatur Mengenai Stres Dalam Organisasi. Ilmu Manaj. 2021;18(1):20–30.

2. Tua N, Gaol L. Teori Stres : Stimulus , Respons , dan Transaksional. 2016;24(1):1-11.



3. Fajrillah F, Nurfitriani N. Hubungan Stres Kerja dengan Kinerja Perawat Pelaksana dalam Melaksanakan Pelayanan Keperawatan di Instalasi Gawat Darurat Rumah Sakit Umum Anutapura Palu. *J Keperawatan Sriwij.* 2016;3(2):17–24.
4. Adnyaswari NA, Andayani I gusti AD. pena. *J Manaj Unud.* 2017;6(5):2474–500.
5. Lim J, Bogossian F, Ahern K. Stress and coping in Singaporean nurses: A literature review. *Nurs Heal Sci.* 2010;12(2):251–8.
6. Yana D. Stres Kerja pada Perawat Istalasi Gawat Darurat di RSUD Pasar Rebo Tahun 2014. *J Adm Kebijakan Kesehat.* 2015;1(2):107–15.
7. Sutrisno YN, Suryoputro A, Fatmasari EY. Faktor - faktor yang berhubungan dengan kinerja perawat rawat inap di RSUD Kota Semarang. *J Kesehat Masy.* 2017;5(1):142–9.
8. Nurcahyani E, Widodo D, Rosdiana Y. Hubungan tingkat stres kerja dengan kinerja perawat. *J Care.* 2016;4(1):42–50.
9. Runtuwene KS, Kolibu FK, Sumampouw OJ. Hubungan Antara Stres Kerja Dengan Kinerja Pada Perawat Di Rumah Sakit Umum Daerah Minahasa Selatan. *J KESMAS.* 2018;7(5).
10. Qoyyimah M, Abrianto TH, Chamidah S. Pengaruh Beban Kerja, Stres Kerja dan Lingkungan Kerja Terhadap Kinerja Karyawan Bagian Produksi PT. INKA Multi Solusi Madiun. *ASSET J Manaj dan Bisnis.* 2020;2(1):11–20.
11. Budiyanto, A.J.M. Rattu, Umboh JM. Faktor - Faktor Yang Berhubungan Dengan Stres Kerja Perawat Pelaksana Di Ruang Rawat Inap Rumah Sakit Umum Bethesda GMIM Tomohon. *J KESMAS.* 2019;8(3):1–18.
12. Murharyati A, Kismanto J. Faktor-faktor yang mempengaruhi stres kerja perawat di ruang rawat inap RSUD Sukoharjo. *Kesmadaska.* 2015;(119):119–23.
13. Manaf IR, Simanjong A, Asriwati. Faktor yang Mempengaruhi Stres Kerja Perawat Puskesmas di Wilayah Kerja Dinas Kesehatan Kabupaten Simeulue Tahun 2019. *J Kesehat Ceadum.* 2019;1(4):9–20.
14. Rahmadyrza MI. Faktor - Faktor Yang Mempengaruhi Munculnya Stres Kerja Perawat Di Ruang Rawat Inap Cendrawasih RSUD Arifin Ahmad Provinsi Riau Pekanbaru. *J FEKON.* 2015;2(1).
15. Hendrawan A, Suchayowati H, Laras T. Pengaruh Stress Kerja Terhadap Kreativitas Pada Tenaga Kerja Pada UMKM Di Wilayah Bantarsari Kabupaten Cilaca. *J Manaj dan Ekon.* 2018;1(2):80–101.
16. Julvia C. Pengaruh Stres Kerja Dan Konflik Kerja Terhadap Kinerja Karyawan. *J Ilm Manaj bisnis.* 2016;16(2):59–60.
17. Massie RN, Areros WA. Pengaruh Stres Kerja Terhadap Kinerja Karyawan Pada Kantor Pengelola It Center Manado. 2018;6(2):41–9.
18. Rudyarti E. Pengaruh Stres Kerja Terhadap Kelelahan Kerja Pada Perawat Di

Rumah Sakit X. *J Ind Hyg Occup Heal*. 2021;5(2):13.

19. Herawati A, Afriani T, Yatnikasari A, Dewi S. Analisa Faktor Penyebab Dan Manajemen Stres Bagi Perawat Unit Gawat Darurat. *J Keperawatan Jiwa*. 2021;9(1):113.
20. Soeprodjo ROK, Mandagi CKF, Engkeng S. Hubungan Antara Jenis Kelamin Dan Motivasi Kerja Dengan Kinerja Perawat Di Rumah Sakit Jiwa Prof. Dr. V. L. Ratumbusang Provinsi Sulawesi Utara. *Kesmas [Internet]*. 2017;6(4):1–6. Available from: <https://ejournal.unsrat.ac.id/index.php/kesmas/article/view/23107>
21. Ariyanti NS, Wiyono BB, Timan A, Burhanuddin B, Mustiningsih M. Perbedaan Tingkat Kinerja Ditinjau Dari Jenis Kelamin Pegawai Tata Usaha Di Perguruan Tinggi. *J Adm dan Manaj Pendidik*. 2020;3(3):233–8.
22. Hasudungan L. Pengaruh Faktor Pendidikan, Umur Dan Pengalaman Kerja Terhadap Kinerja Aparatur Sipil Negara (Asn) Pada Dinas Pekerjaan Umum Penata Ruang, Perumahan Dan Kawasan Permukiman Kabupaten Kapuas Kalimantan Tengah. *J Ilm Ekon Bisnis*. 2017;3(3):301–10.
23. Pamungkas A, Hamid D, Prasetya A. Pengaruh pendidikan dan pengalaman kerja terhadap kemampuan kerja dan kinerja karyawan (Studi pada Karyawan PT. INKA (Persero)). *J Adm Bisnis S1 Univ Brawijaya [Internet]*. 2017;43(1):96–103. Available from: <https://media.neliti.com/media/publications/87716-ID-pengaruh-pendidikan-dan-pengalaman-kerja.pdf>
24. Walukow PA, Mandagi CKF, Ramayar A. Hubungan Masa Kerja Dan Kepemimpinan Dengan Kinerja Perawat Di Ruang Rawat Inap Rumah Sakit Umum Daerah (Rsud) Minahasa Selatan. *J Kesehat Masy*. 2018;7(3):1–8.
25. Aprilyanti S. Pengaruh Usia dan Masa Kerja Terhadap Produktivitas Kerja (Studi Kasus: PT. OASIS Water International Cabang Palembang). *J Sist dan Manaj Ind*. 2017;1(2):68.