DETERMINANTS OF OCCUPATIONAL STRESS ON TAPPERS WORKERS IN BULUKUMBA REGENCY

Nurwahidah [1], Nildawati [2], Ranti Ekasari [3*]
Public Health Department, Medical and Science Faculty, Universitas Islam Negeri Alauddin Makassar,
Jl. Sultan Alauddin, Makassar, 92113
Email Corresponding: [3] *ranti.ekasari@uin.alauddin.ac.id*

Abstract

Occupational stress is a global issue that is influenced by occupational, individual, organizational and psychosocial factors. Excessive workload and pressure can trigger occupational stress. This study was conducted with the aim of knowing the factors associated with work stress in tappers workers at PT PP London Sumatra Indonesia Tbk in Tamatto Village, Ujung Loe District, Bulukumba Regency. This research is a quantitative research with cross-sectional study design. Data analysis used is univariate analysis with frequency distribution and bivariate analysis with chi-square test. The number of samples in this study were 200 workers obtained using accidental sampling technique. Factors that affect job stress in tappers are organizational factors, namely, temperature physical environment, career development and workload. The results showed that there was a significant relationship, namely the physical environment of temperature (p-value = 0.002), career development (p-value = 0.000) and workload (p-value = 0.000) to work stress on tappers workers at PT PP London Sumatra Indonesia Tbk while other variables showed an insignificant relationship between age (p-value = 0, 618), married status (p-value=0.614), last education (p-value=0.573), length of service (p-value=0.982) to work stress on tappers workers at PT PP London Sumatra Indonesia Tbk in Tamatto Village, Ujung Loe District, Bulukumba Regency.
Keywords: Occupational Stress, Occupational Stress Factors, Tappers Workers

Introduction

The World Health Organization (WHO) states that stress is a worldwide epidemic. The American Institute of Stress states that stress-related illnesses cost the US economy more than 100 billion per year. A survey of the executive nurse workforce in the United States found that 46% felt their jobs were stressful and 34% had seriously considered leaving their jobs in the previous 12 months due to workplace stress (Fajrillah, 2016).

Stress experienced by workers is stress experienced in the workplace including occupational stress. Currently, work stress is a global issue that affects all professions and workers in developed and developing countries. Based on data from WHO, around 450 million people in the world experience mental and behavioral disorders, predicting that occupational stress will become a major threat to human health by 2020 (Setyawati et al., 2018).

A survey conducted by the Health Safety Executive (HSE) stated that work-related stress and depression in 2017/2018 was 595,000 cases with a prevalence rate of 1,800 per 100,000 workers. Occupational stress and depression also accounted for 44% of all cases of work-related ill health and 57% of sickness absence. Labour Force Survey data in 2018/2019 shows that there were 602,000 cases of occupational stress in the UK (*Health and Safety Executive,* 2019).

A United Nations (UN) report, calls occupational stress the "disease of the 20th century". The United States based on the records of the National Institute of Occupational Health (NIOSH), states that since the 90s, the entire cost of workers' health compensation is spent by 80% to deal with work-related diseases (Work Related Disease) namely "Stress Related Disorder" (ICD-9-309), while in the United Kingdom (UK) there are 71% of managers experiencing physical and mental health problems caused by work stress and also found in Australia (Sagala, 2020).

In Indonesia, stress is a mental disorder that is still a significant problem. Riskesdas 2018 states that the prevalence of mental emotional disorders in Indonesia for 5 years has increased in every province, the prevalence of stress in Indonesia is 7.0% South Sulawesi is 12.8% and Bulukumba is 12.2%. All provinces experienced an increase including DKI Jakarta which rose 6 levels from 2013 (Kemenkes RI, 2018).

Stress is a condition of tension that affects a person's emotions, train of thought, and physical condition. Stress that is not properly addressed usually results in a person's inability to interact positively with their environment, both in the sense of the work environment and outside of it. In the research of the prevalence of occupational stress in workers at PT IKI (PERSERO), Makassar was 40%. While in the research of Handayani et al.,(2022) the level of occupational stress in employees of PT Prima Karya Manunggal Pangkep Regency was 13.8%.

Method

This type of research includes quantitative research, this research quantifies the factors that affect job stress. Quantitative research is research conducted to answer questions using a structured design, in accordance with the systematics of scientific research. Quantitative research uses a cross-sectional research design approach, which is a research design in which the independent and dependent variables are measured at the same time (Lutfiyah & Nisa, 2011).

The population in this study were all tappers workers at PT PP London Sumatra Indonesia Tbk in Tamatto Village, Ujung Loe District, Bulukumba Regency as many as 332 respondents. The sample is an object that represents and is studied. The sampling technique in this study used accidental sampling, with a total of 200 who worked as tappers at PT PP London Sumatra Indonesia Tbk who happened to meet with researchers to serve as respondents. Data collection was carried out for 7 days of research.

The results of this study will go through the stages of univariate and bivariate analysis. Univariate data can be described in the form of frequency distribution tables. Bivariate analysis aims to determine the relationship or correlation of independent variables to the dependent variable. In this study, the Chi-Square test was used to determine the relationship between 2 or more research variables on a nominal or ordinal scale.

Result

Based on the results of univariate analysis of individual factors (Table 1), it can be seen that the majority of workers with a young age of 15-44 years are 154 (77.0%) respondents. Married status in the majority of workers is married status of 180 (90.0%) respondents. Looking at the latest education, the education level of the majority of workers is elementary and junior high school level, 126 (63.0%) respondents. The average worker has a long working period of> 11 years, the results obtained by 189 (94.5%) respondents.

From the results of the univariate analysis of work factors (Table 1), it can be seen that the majority of workers feel disturbed by the physical environment of temperature as many as 72 (36.0%) respondents. Seen in the career development variable, the majority of workers felt unsatisfied 91

(45.5%) respondents. On the workload variable, workers who feel their workload is heavy are 110 (55.0%) respondents. The average worker experienced mild work stress of 153 (76.5%) respondents.

Table 1. 1 Frequency Distribution of Individual Characteristics, Work and Occupational Stress among Tappers at PT PP London Sumatra Indonesia Tbk (N=200)

Variables	Frequency (n)	Percentage (%)
Age		
Young	154	77,0
Elderly	46	23,0
Marital Status		
Married	180	90,0
Single	20	10,0
Last Education		
Elementary-Middle School	126	63,0
Senior High School	74	37,0
Working Period		
New	11	5,5
Long	189	94,5
Physical Environment (Temperature)		
Not Disturbed	128	64,0
Disturbed	72	36,0
Career Development		
Not Satisfy	91	45,5
Satisfy	109	54,5
Workload		
Light	90	45,0
Heavy	110	55,0
Occupational Stress		
Mild Stress	153	76,5
Severe Stress	47	23,5
TOTAL	**200**	**100**

Source: Primary Data, 2022

The results of individual and occupational characteristics obtained based on statistical tests and researcher analysis are as follows:

Table 1. 2 The Relationship of Individual and Job Characteristics to Job Stress in Tappers Workers at PT PP London Sumatra Indonesia Tbk

Workers' Characteristics	Category				Total		P-Value
	Mild Stress		Severe Stress				
	n	%	n	%	N	(%)	
Age							
Young	117	76,0	37	24,0	154	100	0,666
Elderly	37	80,4	9	19,6	46	100	
Marital Status							

Workers' Characteristics	Category			Total			P-Value
	Mild Stress		Severe Stress				
	n	%	n	%	N	(%)	
Married	140	77,8	40	22,2	180	100	0,412
Single	14	70,0	6	30,0	20	100	
Last Education							
Elementary-Middle School	94	74,6	32	25,4	126	100	0,380
Senior High School	60	81,1	14	18,9	74	100	
Working Period							
New	9	81,8	2	18,2	11	100	1,000
Long	145	76,7	44	23,3	189	100	
Physical Environment (Temperature)							
Not Disturbed	111	84,1	21	15,9	132	100	0,002
Disturbed	43	63,2	25	36,8	68	100	
Career Development							
Not Satisfy	60	63,2	35	36,8	95	100	0,000
Satisfy	94	89,5	11	10,5	105	100	
Workload							
Light	89	98,9	1	1,1	90	100	0,000
Heavy	64	59,1	45	40,9	110	100	

Based on young age, there were 117 (76.0%) who experienced mild stress, 37 (24.0%) workers experienced severe stress. In the elderly, there were 37 (80.4%) who experienced mild stress and 9 (19.6) who experienced severe stress. The results of bivariate analysis to see the relationship between age and stress levels using the Chi-square statistical test, obtained a p value = 0.666, where the p value> 0.05 means that the age category has no relationship with stress levels, so it can be interpreted that Ha is rejected and H0 is accepted.

There were 140 (77.8%) who experienced mild stress and experienced severe stress as many as 40 (22.2%) in married workers. While those who are not married, there are 14 (70.0%) workers who experience mild stress. While those who are not married, there are 6 (30.0%) who experience severe stress. The results of bivariate analysis to see the relationship between status and stress levels using the Chi-Square statistical test, obtained a p value = 0.412, where the p value> 0.05 means that the married status category has no relationship with stress levels, so it can be interpreted that Ha is rejected and H0 is accepted.

There were 94 (74.6%) who experienced mild stress in elementary education, 32 (25.4%) who experienced severe stress. While in high school education, there were 60 (81.1%) who experienced mild stress and 14 (18.9%) workers who experienced severe stress. The results of bivariate analysis to see the relationship between the last level of education with stress levels using the Chi-Square statistical test, obtained a p value = 0.380 where the p value> 0.05 means that the education level category has no relationship with stress levels for it can be interpreted that Ha is rejected and H0 is accepted.

There were 9 (81.8%) who experienced mild stress in workers with a new working period, and 2 (18.2%) who experienced severe stress. While the old working period, there were 145 (76.7%) who

experienced mild stress and 44 (23.3%) who experienced severe stress. The results of bivariate analysis to see the relationship between tenure and stress level using the Chi-Square statistical test, obtained the result of p = 1,000 where the p value> 0.05 and the results of the study of tenure are not related to job stress.

There were 111 (84.1%) workers who felt undisturbed experiencing mild stress, and 21 (15.9%) who experienced severe stress. While workers who feel disturbed experience mild stress there are 43 (63.2%) and 25 (36.8%) who experience severe stress. The results of bivariate analysis to see the relationship between the physical environment of temperature and stress levels using the Chi-Square statistical test, obtained a p value = 0.002 where the p value <0.05 means that the physical environment category has a relationship with stress levels for it can be interpreted that Ha is accepted and H0 is rejected.

There are 60 (63.2%) workers whose career development is satisfactory experiencing mild stress, and 35 (36.8%) who experience severe stress. While workers whose career development is unsatisfactory, there are 94 (89.5%) who experience mild stress and 11 (10.5%) experience severe stress. The results of bivariate analysis to see the relationship between career development and stress levels using the Chi-Square statistical test, obtained a p value = 0.000 where the p value <0.05 means that the career development category has a significant relationship with stress levels for it can be interpreted that Ha is accepted and H0 is rejected.

There were 89 (98.9%) workers whose light workload experienced mild stress, and 1 (1.1%) who experienced severe stress. While workers whose workload is heavy, there are 65 (59.1%) who experience mild stress, and 45 (40.9%) who experience severe stress. The results of bivariate analysis to see the relationship between workload and stress levels using the Chi-Square statistical test, obtained a p value = 0.000 where the p value> 0.05 means that the workload category has a relationship with stress levels, so it can be interpreted that Ha is accepted and H0 is rejected.

Discussion

Age is one of the categories chosen by researchers considering several previous studies, that age has a relationship with the occurrence of work stress, but in this study it was found that the relationship was not significant. In contrast to research conducted by Rudyarti (2020), this research states that the p value obtained in the research conducted was p = 0.000 so that age has an influence on work stress. Apart from that, other research also chose age as a category of related factors, namely research conducted by Rahmadina (2022) obtained that age has a relationship with a value of p = 0.019.

Based on research analysis, it was found that there was no significant relationship between marital status and work stress. Based on this research, it is not in line with research conducted by Rhamdani & Wartono (2019) Where results study show exists connection between marital status with stress work as a nurse with p=0.041. Likewise in other similar research with study this , stated that marital status No own connection to happen stress Work namely in research conducted by Arif et al (2021) , no There is connection between marital status with stress Work .

Based on the research conducted, it was found that workers who had primary or junior high school education constituted a larger number of workers. This is because *tappers workers* do not need high knowledge . _ Worker *these tappers* need power physically large and not _ Lots use ability think But more to power . Although Thus , work This need skill or ability Because the more expert somebody in do his job , then the more fast his job finished (Saputra & Diza, 2020) . However based on analysis bivariate obtained level education No own significant relationship _ with stress work on workers *tappers.*

This research is in line with Mustika (2018) showing a p value = 0.102, which means the relationship between education level and work stress is very low. This research is not in line with

Candraditya & Dwiyanti (2017), where the Spearman correlation statistical test showed a significant value of p = 0.000 (p value < α with α = 0.05) which means there is a significant relationship between education level and work stress.

Based on research analysis, it was found that there was no significant relationship between work experience and work stress. This is in line with research conducted by Habibi (2018) The obtained p value = 0.353 means that there is no influence of work experience on work stress. In other research, namely research by Manabung et al (2018), it was found that work period p = 0.021 was significantly related to work stress. Thus, there is a relationship between work experience and work stress among workers at PT Pertamina TBBM Bitung.

Previous research is not in line with research by Arlita et al (2022) showing the relationship between work experience and work stress of PT There were 8 people (66.67%) with a work period of 5-10 years and 35 people with a work period of >10 years (85.37%). Workers with a level of light stress with a work period of <5 years, namely 15 people (21.7%) with a level of moderate stress with a work period of <5 years, namely 11 people (15.9%) and a level of severe-very heavy stress with a work period < 5 years, namely 14 people (20.2%). There is a significant relationship between length of service and the level of work stress in textile factory workers in the city of Tangerang with a p value of 0.002.

Study of Diesel et al (2017) is not in line with previous research, showing that the majority of respondents are in the tenure group > 10 years (63.2%). Cross tabulation shows that there is no relationship between length of service and level of job stress with a p value of 0.339. This study shows that the length of time a person works is not necessarily the cause of work stress, this is because the work period group> 10 years is more able to control stress which is more responsive to problems in their work that they are used to. Marshanty (2020) which is in line with previous research shows there is no significant relationship between tenure and worker stress with a p value of 0.96.

A good organizational environment can support the development of workers, on the contrary, a bad organizational environment will have a bad impact on workers which can cause stress in workers. Although a person works with a long working period, it can be avoided when the organizational environment supports all work processes so that there is a feeling of satisfaction and comfort at work (Panji, 2009). The tendency of workers to carry out work activities indicates the existence of a work period. This working period is calculated based on a person's period of time from the first time he worked until he was still actively working. The period of work for workers can increase workers' expertise as a form of investment in the workplace and is a devotion with a sense of responsibility for the survival of the company. Workers with a longer tenure will be more motivated when working so that productivity also increases (Mardikaningsih et al., 2022).

Researchers assume that the working period is the period of time a person has passed while pursuing work. In general, workers who have worked for a long time in the company will add experience so that they are proficient at work. In this study, the more dominant is the length of service between > 11, this proves that there is no tenure factor associated with work stress.

The physical environment of temperature has a relationship with work stress based on bivariate analysis that has been done, meaning that the physical environment of temperature has a significant relationship with work stress. In checking the temperature in the workplace, a temperature of 28°C was obtained, one of the causes of the relationship between the physical environment of temperature and the level of work stress in workers because work activities with environmental temperatures in the morning, afternoon with a temperature of 28°C are included in the heavy category (Saris et al., 2017).

This is in line with research conducted by Angwen (2017), the research obtained is the relationship between the physical environment and work stress with a p value <0.05. From this value, it can be concluded that the research hypothesis is accepted. This is in line with the research of Ridwan et al (2017) workers who are in a hot work environment can experience heat stress. Heat stress has an impact on the physiological response of workers which results in work stress. Based on the research,

the p value is 0.006 which can be concluded that there is a relationship between the physical environment and work stress. This study shows that workers with the category of feeling disturbed by the physical work environment who experience severe work stress amounted to 56%, mild stress amounted to 46%. This is with a work environment that has heat stress can interfere with workers' discomfort while in the workplace and while doing work.

This research is in line with Asmaradana (2018) testing the effect of the physical environment on work stress, the beta coefficient of -0.296 shows the effect of the physical work environment on work stress. And the probability value is 0.016, it can be concluded that the hypothesis states that the physical work environment has an effect on work stress. This is not in line with Kristanti (2017) p value = 0.445 that the physical environment has no relationship with work stress. Similarly, research by Setiawa (2019) based on tests that have been carried out, the physical work environment has a regression coefficient value of -0.227 with a probability value (Sig.) 0.202 which is greater than 0.05, thus the physical work environment has no significant effect and has a negative correlation with work stress.

Therefore, improving the physical work environment such as lighting (room light and brightness level), air circulation (air pollution level and air freshness level), color layout (wall color and room color suitability), sound/music (noise pollution and noise level), cleanliness and security can reduce work stress at the Medan city Pratama tax service office. This study shows the results of the relationship between the physical environment of temperature and work stress. The temperature work environment in a company is a working condition to provide a comfortable working situation and atmosphere for workers in achieving the company's desired goals (Nitisemito, 1982).

Researchers assume that some workers experience work stress related to the influence of the physical environment. It was found that the outdoor temperature in the tappers' work was 28°C, which means that the temperature in this workplace exceeds the temperature threshold value which can have a psychological impact, for example stress, workers easily feel angry, tired, and depressed. This can make workers distracted in completing work tasks.

The threshold value of the work climate (heat) with the wet temperature index is not allowed to exceed 30°C for light workload, 26.7°C for medium workload, 25°C for heavy workload (Badan Standardisasi Nasional, 2004). In this study, workers were disturbed by the changing seasons, namely the rainy and dry seasons. In measuring the temperature in this plantation, 28°C was obtained, which makes workers feel disturbed because it exceeds the temperature threshold value. Workers do not feel disturbed by the temperature of the work environment seen in the field, workers think that this seasonal change is a common thing and it is not a barrier to work.

Based on the research, it was found that there is a significant relationship between career development and work stress, this is in line with previous research conducted by Riza et al (2019) career development was found to be p=0.004 which influenced the incidence of work stress in informal sector workers (factory laborers) in Semarang City. This study is also in line with Lubis (2022) showed that in this study, as many as 14 respondents who had poor career development, it was known that 11 people (78.57%) experienced moderate stress and 3 (21.43%) mild stress. Based on the results of the Chi Square test, the value of p = 0.000 was obtained, hence there is a significant relationship between career development and work stress.

However, in contrast to Heikal (2016), analysis using the Chi Square test obtained a p value with a significant value of 0.092 which means that it has no relationship with job stress. This study is also different from Suryani et al (2020) showing a p value of 0.457 which means there is no relationship between career development and job stress. This research is also not in line with Pranomo et al. (2018) test statistics on the relationship between career development and work stress of police members of the Bekasi City Metro Police traffic unit found that there is a relationship between career development and work stress where the p value is 0.013 (p = <0.05).

In this study, workers who felt their career development was unsatisfactory because, seen in the field conditions, everyone must have expectations, when starting to work in a company. However, in reality, their dreams and aspirations for achievement and a good career are often not realized. Tappers are jobs where there are no opportunities for promotion because there are no levels of positions in this job, all are the same as workers or employees. Likewise, workers who feel that their career development is satisfying, seen in the field conditions, because they consider their job appreciation is getting a bonus at a certain time and it is certain every year.

Researchers assume that career development in work is also very necessary and has a big influence on worker performance. Every employee must have the opportunity to be promoted because every company will definitely apply job promotion where with this, it will improve the quality of the workers themselves. However, in this study, it was found that career development has a relationship with workers' job stress, especially tappers, which means that in this job there is still a lack of appreciation and promotion which makes this job monotonous.

Based on research analysis, there is a significant relationship between workload and work stress. As explained in previous research by Zulkifli et al. (2019), the statistical test obtained p = 0.039, namely that there is a relationship between workload and work stress. In another study by Fitriani (2018), the result was p=0.001, which means there is a relationship between workload and work stress in toll collector workers. Previous research is in line with research by Fadillah et al. (2020) shows that online motorcycle taxi drivers with light workloads show light work stress, 52.9% with medium workloads show moderate workloads, 48.7% with high workloads show moderate work stress, 50%. In this study, most of them included moderate workload with moderate work stress. The statistical test obtained the p value = 0.009, this shows that there is a significant relationship between workload and work stress among online motorcycle taxi drivers in Banjarbaru City in 2020. Excessive workload will cause both physical and mental fatigue and emotional reactions. Too little workload will cause boredom and monotony. Excessive workload will cause work stress (Setiyawan, 2017) . Other research on the relationship between workload and work stress which is not in line with previous research is Amita (2021) showing a p value = 0.573, which means there is no relationship between workload and work stress. This happens because the demands of the job with decision making at each task level are in accordance with their respective portions. In contrast to the research of Amir et al. (2019) which is in line with this research, statistical analysis using the *Spearman Rank test* between workload and work stress obtained a p value of 0.026 indicates that there is a relationship with work stress.

Many factors can influence a person's workload at work, including type of work, working time and individual factors. A worker has his or her own abilities in relation to workload. Among them they are more suitable for physical, mental and social workloads. However, some of the common similarities are that they are only able to carry loads of a certain weight. There is even a load that is considered optimal for a person. Controlling workload can be done by resting and exercising to balance work demands (Qoyyimah et al., 2020) .

In this study, workers who felt the workload was light were seen in field conditions, rubber tapping work was light work and there were not too many types of work in this position so workers considered the work This has become his daily activity. However, *tappers (rubber tapping)* workers are required to work in a standing position and walk to collect rubber for 5 hours, this can cause the workload to feel heavy.

Researchers assume that workload is a consequence of the implementation of activities provided by the company to workers. A person's work is basically related to the physical and mental. The work that is assigned every day will usually feel easy or not. It depends on the worker how to respond to the job appropriately. The workers in this study considered that rubber tapping work was too hard work, so many of them felt that this work was demanding and it affected their mental condition, so the workload in this study was related to work stress .

Conclusion

From a total of 200 respondents, 46 (23.0%) respondents experienced severe stress. Chi-square test results show that there is no relationship between the characteristics of age, married status, latest education, length of service with work stress. However, a significant relationship was found between the physical environment of temperature (p=0.002), career development (p=0.000), workload (p=0.000) with work stress.

Basic control of the OHS hierarchy related to the physical environment of temperature associated with work stress requires administrative control, namely measuring or checking the condition of the physical environment of temperature regularly, for example checking the temperature in the workplace. It is recommended that tappers be given promotions so that workers can be motivated to apply OHS behavior in the workplace, by assessing the compliance of each worker and then giving points which then for workers with the highest points for several consecutive months will receive awards in the form of promotions. A work shift program should be implemented so that workers can rest.

References

[1] Amir, J., Wahyuni, I., & Ekawati. (2019). Hubungan Kebisingan, Kelelahan Kerja dan Beban Kerja pada Pekerja Bagian Body Rangka PT. X. *Jurnal Kesehatan Masyarakat*, 7(1), 345–350.

[2] Amita Rahma, S., & Baiduri, W. (2021). Analisis Hubungan Antara Karakteristik Pekerja Dengan Stres Kerja Pada Pekerja Pt Lti Yang Bekerja Dari Rumah Selama Masa Pandemic Covid-19 Tahun 2021. *PREPOTIF : Jurnal Kesehatan Masyarakat*, 5(2), 664–672. https://doi.org/10.31004/prepotif.v5i2.1954

[3] Angwen, D. G. (2017). Hubungan antara Lingkungan Fisik dan Beban Kerja dengan Stres Kerja pada PT Panggung Electric Citrabuana. *Calyptra: Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 6(2), 577–586.

[4] Arif, M., Malaka, T., & Novrikasari, N. (2021). Hubungan Faktor Pekerjaan Terhadap Tingkat Stres Kerja Karyawan Kontrak Di Pt. X. *Jurnal Kesmas (Kesehatan Masyarakat) Khatulistiwa*, 8(1), 44. https://doi.org/10.29406/jkmk.v8i1.2639

[5] Arlita, R. M., Kusmiati, M., & Abdullah, N. A. (2022). Hubungan Faktor Individu dengan Tingkat Stres pada Pekerja Pabrik Tekstil PT. X Kota Tangerang. *Bandung Conference Series : Medical Science*, 2, 1048–1055.

[6] Asmaradana, Yoanita, P. (2018). *Pengaruh Lingkunga Kerja Fisik dan Non Fisik Terhadap Stress Kerja dan Kinerja Karyawan*.

[7] Badan Standardisasi Nasional. (2004). *Bahaya, identifikasi dan Penliailan K3*. 1–8.

[8] Candraditya, R., & Dwiyanti, E. (2017). Hubungan Tingkat Pendidikan, Masa Kerja dan Tingkat Kebisingan Dengan Stress Kerja di PT.X. *Jurnal Penelitian Kesehatan*, 15(1), 1–9.

[9] Diesel, W., Gunung, P., & Balikpapan, M. (2017). Hubungan Kebisingan Dan Shift Kerja Terhadap Tingkat Stres Kerja Pada Pekerja Mesin Pembangkit Swd (Stork Werkspoor Diesel) Pltd Gunung Malang Balikpapan. *Jurnal Kesehatan Masyarakat (e-Journal)*, 5(5), 156–162.

[10] Fadillah, A. I., Fauzan, A., & Ariyanto, E. (2020). Hubungan Beban Kerja, Masa Kerja dan Usia dengan Stress Kerja pada Pengemudi Ojek Online di Kota Banjarbaru Tahun 2020. *Jurnal Kesehatan Masyarakat (e-Journal)*, 8(2), 81–89.

[11] Fajrillah. (2016). *Hubungan Stres Kerja Dengan Kinerja PerawatPelaksana Dalam Melaksanakan Pelayanan Keperawatan Di Instalasi Gawat Darurat Rumah Sakit Umum Anutapura Palu*.

[12] Fitriani. (2018). Pengaruh Beban Kerja Terhadap Stres Kerja Dengan Shift Kerja Sebagai Variabel Moderating Pada Pekerja Pengumpul Tol Pt. Margautama Nusantara Makassar. *Kesehatan*, 105.

[13] Habibi, J., & . J. (2018). Analisis Faktor Risiko Stres Kerja Pada Pekerja Di Unit Produksi Pt. Borneo Melintang Buana Export. *Journal of Nursing and Public Health*, *6*(2), 50–59. https://doi.org/10.37676/jnph.v6i2.658

[14] Handayani, Y., Hidayat, & Suharni A. Fachrin. (2022). Faktor yang Berhubungan dengan Stres Kerja pada Karyawan PT. Prima Karya Manunggal Kabupaten Pangkep. *Window of Public Health Journal*, *2*(5), 1699–1709. https://doi.org/10.33096/woph.v2i5.820

[15] Health and Safety Executive. (2019). *Health and Safety at Work: Summary Statistics for Great Britain 2019*. London: HSE.

[16] Heikal, M. (2016). *Pengaruh Stres Kerja Dan Pengembangan Karir Terhadap Prestasi Kerja Karyawan Pada PT. Jasa Marga (Persero) Tbk Cabang Belmer*. *17*(April).

[17] Kemenkes RI. (2018). *Profil Kesehatan Indonesia Tahun 2018*. Jakarta: Kementerian Kesehatan RI.

[18] Kristanti, E. (2017). Pengaruh Lingkungan Kerja Fisik dan Lingkungan Kerja Non Fisik Terhadap Stres Kerja dan Dampaknya Terhadap Kinerja Karyawan (Studi Pada Kantor Bersama Samsat Mojokerto Kota). *Jurnal Ilmu Manajemen*, *5*(1), 1–10.

[19] Lubis, S. R. H. (2022). Pengukuran Faktor Psikososial terhadap Stres Kerja Pada Penjahit Konveksi Home Industry. *Jurnal Ilmu Kesehatan Masyarakat*, *11*(02), 101–110. https://doi.org/10.33221/jikm.v11i02.1084

[20] Lutfiyah, & Nisa, Y. F. (2011). *Analisis Faktor-Faktor yang Mempengaruhi Stres Kerja pada Polisi Lalu Lintas*. Fakultas Psikologi, UIN Syarif Hidayatullah Jakarta.

[21] Manabung, A. R., Suoth, L. F., & Warouw, F. (2018). Hubungan Antara Masa Kerja dan Beban Kerja Dengan Stres Kerja pada Tenaga Kerja Di PT. Pertamina TBBM Bitung. *Kesmas*, *7*(5), 1–10.

[22] Mardikaningsih, R., Retnowati, E., & Radjawane, L. E. (2022). *Dampak Stres , Lingkungan Kerja dan Masa Kerja terhadap Produktivitas Pekerja Konstruksi*. *1*(4), 38–52.

[23] Marshanty, Y. A. (2020). Hubungan Beban Kerja Mental, Masa Kerja Dan Usia Terhadap Kejadian Stres Pada Pekerja Perusahaan Akuakultur Di Banyuwangi. *Journal of Community Mental Health and Public Policy*, *2*(1), 1–11. https://doi.org/10.51602/cmhp.v2i1.36

[24] Nitisemito, A. S. (1982). *Manajemen personalia : (manajemen sumber daya manusia)*. Ghalia Indonesia.

[25] Panji, A. (2009). *Psikologi Kerja*. Rineka Cipta.

[26] Pranomo, nurafian majid, Jayanti, S., & Widjasena, B. (2018). Faktor-Faktor Yang Berhubungan Dengan Stres Kerja Pada Anggota Polisi Satuan Lalu Lintas Polres Metro Bekasi Kota. *Jurnal Kesehatan Masyarakat (e-Journal)*, *6*(1), 636–644.

[27] Qoyyimah, M., Abrianto, T. H., & Chamidah, S. (2020). Pengaruh Beban Kerja, Stres Kerja dan Lingkungan Kerja Terhadap Kinerja Karyawan Bagian Produksi PT. INKA Multi Solusi Madiun. *ASSET: Jurnal Manajemen Dan Bisnis*, *2*(1), 11–20. https://doi.org/10.24269/asset.v2i1.2548

[28] Rahmadina, S. (2022). *Determinan Stres Kerja Pada Pengendara Ojek Online di Jabodetabek*.

[29] Rhamdani, I., & Wartono, M. (2019). Hubungan antara shift kerja, kelelahan kerja dengan stres kerja pada perawat. *Jurnal Biomedika Dan Kesehatan*, *2*(3), 104–110. https://doi.org/10.18051/jbiomedkes.2019.v2.104-110

[30] Ridwan, V. A., Wahyuni, I., & Setyaningsih, Y. (2017). Hubungan Lingkungan Fisik Kerja Dan Beban Mental Dengan Kejadian Stres Kerja Pada Pekerja Laundry Di Pt. Sandang Asia Maju Abadi Semarang. *Jurnal Kesehatan Masyarakat (e-Journal)*, *5*(5), 406–412.

[31] Riza, M., Staf, S., Fakultas, P., Universitas, K., Semarang, M., & Korespondensi, P. (2019). Analisis Faktor Resiko Stress Akibat Kerja pada Pekerja Sektor Formal dan Sektor Informal di Kota Semarang Analysis of Stress Risk Factors Due to Work in Formal Sector Workers and Informal Sector in Semarang City. *Medica Arteriana (Med-Art)*, *1*(1), 29–36.

[32]   Rudyarti, E. (2020). Analisis hubungan stres kerja, umur, masa kerja dan iklim kerja dengan perasaan kelelahan kerja pada perawat. *Seminar Nasional Kesehatan Masyarakat 2020*, 240–249.

[33]   Sagala, A. P. (2020). *Hubungan Beban Kerja dengan Stres Kerja pada Pegawai Kantor Kementerian Agama Kota Binjai*. Universitas Islam Negeri Sumatera Utara.

[34]   Saputra, A. I., & Diza, M. (2020). Hubungan Intensitas Kebisingan Dengan Tingkat Stres Kerja Pada Pekerja Area Workshop Pt. Bintang Intipersada Hipyard Batam. *Zona Kedokteran: Program Studi Pendidikan Dokter Universitas Batam*, *9*(3), 65–74. https://doi.org/10.37776/zked.v9i3.303

[35]   Saris, N., Desi Kusmindari, C., Hasmawaty, H., & Universitas Bina Darma, D. (2017). Hubungan Lingkungan Fisik Dan Beban Kerja Dengan Tingkat Kelelahan Pada Pekerja Perkebunan (Studi Kasus pada PT Perkebunan Mitra Ogan Sekayu). *Jurnal Ilmiah TEKNO*, *14*(2), 11–22.

[36]   Setiawan, N. (2019). *Analisis Pengaruh Faktor Lingkungan Fisik Dan Non Fisik Terhadap Stres Kerja Dimana Komitmen Kerja Sebagai Variabel Intervening Pada Kantor Pelayanan PAJAK Pratama Medan Kota*. *11*(1), 165–173.

[37]   Setiyawan, Y. (2017). *Faktor Determinan Terhadap Stres Kerja Pada Pekerja Bagian Produksi Di PT Indogravure Tahun 2017*. 1–14.

[38]   Suci Mustika, I. S. (2018). Analisis Hubungan Faktor Individu Dan Beban Kerja Mental Dengan Stres Kerja. *The Indonesian Journal of Occupational Safety and Health*, *7*(2), 220. https://doi.org/10.20473/ijosh.v7i2.2018.220-229

[39]   Suryani, A. I., Muliawan, P., & ... (2020). Hubungan Beban Kerja Dengan Stres Kerja Pada Karyawan Garmen Di Kota Denpasar. *Jurnal Penelitian Dan Kajian Ilmiah Kesehatan*, *6*(2), 143–148.

[40]   Syahrir, N., Sitti Patimah, & Ikhram Hardi. (2021). Hubungan Zat Gizi terhadap Stres Kerja pada Pekerja di PT. IKI (PERSERO) Makassar. *Window of Public Health Journal*, *1*(6), 631–639. https://doi.org/10.33096/woph.v1i6.323

[41]   Wahyu Setyawati, N., Ade Aryani, N., & Prawesti Ningrum, E. (2018). Stres Kerja Dan Disiplin Kerja Terhadap Kinerja Karyawan. *Jurnal Riset Manajemen Dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, *3*(3), 405–412.

[42]   Zulkifli, Z., Rahayu, S. T., & Akbar, S. A. (2019). Hubungan Usia, Masa Kerja dan Beban Kerja Dengan Stres Kerja Pada Karyawan Service Well Company PT. ELNUSA TBK Wilayah Muara Badak. *KESMAS UWIGAMA: Jurnal Kesehatan Masyarakat*, *5*(1), 46–61. https://doi.org/10.24903/kujkm.v5i1.831