



## The Relationship of Workload and Job Stress with Work Fatigue in Factory Employees

Nelsa Putri Rahmasari<sup>1</sup>, Pipid Ari Wibowo<sup>1</sup>, Zaenal Abidin<sup>1</sup>, Karina Nur Ramadhanyas<sup>1</sup>

<sup>1</sup>STIKes Bhakti Husada Mulia Madiun

\*Corresponding Author: Nelsa Putri Rahmasari

E-mail: [nelsaputri557@gmail.com](mailto:nelsaputri557@gmail.com)



### Article Info

#### Article history:

Received 19 July 2024

Received in revised form 5

August 2024

Accepted 27 August 2024

#### Keywords:

Work Stress

Work Fatigue

Employee

### Abstract

Work fatigue will reduce performance and increase work errors, workers who come in and out of the cracker factory because the salary they get is quite small for workers, the majority of whom have married and have dependents in the family, this is supported by the salary slip shown by the worker to the researcher. The aim of this research is to determine the relationship between workload and work stress with work fatigue in cracker factory employees in Dolopo District. The research method used is quantitative research. This research uses a cross-sectional study design. Researchers determined that the population came from employees of the cracker factory in Dolopo District, Kab. Madiun with a total of 69 workers, the sample size required for cracker factory employees in Dolopo District, Kab. In Madiun, 60 respondents will be researched. Most of the workers at the cracker factory in Dolopo sub-district experience severe work fatigue and work stress. There is a significant relationship between fatigue and work stress among workers at the cracker factory in Dolopo sub-district. The suggestion that the cracker factory needs to make is to make stress management strategies for workers to minimize fatigue and work stress, for example by conducting outbound events or gatherings between workers. Meanwhile, the advice that workers can do is to do muscle stretching or light exercise periodically while working.

## Introduction

Progress in various aspect life humans in the end will deliver we are in the era of globalization. One of method For evaluate progress a country is with pay close attention increasingly technology sophisticated and rapid industrialization. Standards and quality life man has increase along with progress technology, on the other hand, progress technology can give rise to impact negative, like increasing pollution environment, accidents work, and illness consequence Work. Needed source Power human (HR) performers tall For overcome problem the. (Iba, 2022).

Protection worker needed at the time carry out activity production and improvement quality and quantity results production. The protection in question is respectful treatment honor and dignity human, guarantee safety and health, as well uphold The moral high ground is in place Work. Protection This aim For give guarantee safety and improve health worker. Fatigue is one of problem main K3 (Health and Safety Work) that can cause happen accident Work.

Excessive anxiety This called stress. Stress is something circumstances tension that can be influence emotions, thought processes and conditions somebody Where He forced give response exceed ability adjustment himself to something demands environment. The size of the stress experienced depending on the response given by him myself, even No seldom stress

considered as something that can threaten himself and his environment (Wijono, 2012). Stress Work is one of the topic that gets attention in a way special, because If No managed with Good can impact significant negative to performance, health, as well productivity employees ' work. Like for example in America, as many as 40% of workers report that his job truly make it stress, and as much as 8% of expenses insurance health used For cost treatment stress work (Gharib et al., 2016).

Stress Work can experienced Because exists imbalance between demands environment work and abilities individual. One of rule management Japan say that effectiveness organization depending on ability the leader For utilise strength stress in yourself and your employees them, and shift them become energy For success. Where p the can achieved if individual can make the stress as challenge For Keep going forward (Gharib et al., 2016). One of source problem health and safety worker is fatigue Work. This is not can left so just Because can cause worker not enough focus on work them, which in turn reduce productivity they. Based on observations made researchers at the start study find that there is a number of symptom fatigue in work that causes work employee dismissed from work as for symptoms experienced like Dizzy mild, sore in the legs, and cramps in the hands and shoulders. If left alone so just a symptom fatigue will cause not enough focus and lack productive. From p This Not yet can is known in a way Certain factor what 's causing it employee experience or feel fatigue in Work.

Fatigue Work can caused from formal and informal work. fatigue monkey constitute something feeling subjective will but different with weaknesses and have characteristic gradually. One of which problem relate with comfort and health moment Work is fatigue consequence Work. Fatigue Work will lower performance and improve error Work. The decline performance The same with decline productivity, and if level productivity a power Work disturbed by factors fatigue physique or mental, corporate will feel the resulting consequences, namely decline productivity company. Additionally, effects period long other from fatigue Work can covers Disease Consequence Work (PAK) and carelessness Work. Job factors including burden work, work shifts, and time Work. Individual factors including age, type gender, condition nutrition, quality sleep, and habits smoking (Suma'mur, 2017). Environment Work can physical and non- physical. According to RI Minister of Manpower Regulation Number 5 of 2018, factors physique environment Work including noise, climate work, vibration, lighting, and pressure air. Environment Work non physical including connection Work between employees and superiors they. According to (Juliana et al., 2018) things This can cause inconvenience moment Work as well as possible fatigue happen If work the persist.

Statistics from Director General Supervision Employment show that on average there are 414 accidents Work every day in Indonesia. 27.8% of This is consequence extreme fatigue, and 39 people, or 9.5% of the total, experienced disabled. The National Safety Council stated that fatigue is cause of 13% of accidents Work ; 97% of employees own at least One factor risk exhausted on the spot work, and more than 80% have more from One factor risk, according to research conducted to more of the 2,000 workers who experienced it accident Work. When a lot factor This combined, possibly injury or on- site accident Work increase. Commission National Safety, 2017 Exceeds 50% of accidents Work caused by fatigue work (Setyawati et al., 2007).

Based on data from the International Labor Organization, every year 99,000 accidents occurred work in Indonesia, with 70% of them cause death and disability lifetime life. The sectors that cause it death biggest including warehousing, transportation, fisheries, forestry, agriculture, and construction ( Ministry of Health, 2014). Tired, is also known as fatigue, which is something condition physical and mental causes decline Power work and decline resilience body For Work. Because of fatigue this, someone lost desire For Work because twelve condition psychological. Somebody can stop Work If they feel too tired so that they No can

continue work they. Tired worker but Keep going Work can bother smoothness work and health his body.

Until 2010, sector service construction Still become source main accident Work Because fatigue, with 31.9 percent ; followed by industry manufacturing (31.6 percent), transportation (9.3 percent), mining (2.6 percent), forestry (3.6 percent), and other sectors (20 percent) (Fadila, 2021). Polyclinic company accept complaint fatigue more of 65% of Indonesian employees. Causative factor Fatigue is very diverse, which is influenced by load work, environment work, problem physical, and condition health. Individual factors like age, health status, nutritional status, pattern eat, kind gender, and condition psychology can too influenced (Umyati, 2010).

Based on background behind on researcher interested For take study about connection burden work and stress Work with fatigue work on employees cracker factory and do studies introduction with results of 10 workers obtained results worker with levela fatigue Work as many as 4 workers (40.0%) and workers with extreme level of fatigue in Work as many as 6 workers (60.0%). So based on the data you can depicted more Lots power experienced work fatigue in Work. Beside That 's exhaustion Work besides can lower level health can also influence level productivity work and finally influence quality performance Work.

Research results conducted by (Asriyani & Karimuna, 2017) about reason fatigue Work PT employees. Kalla Cocoa Industry in 2017. Survey results show that related variables ( $p < 0.05$ ) are duration work ( $p = 0.000$ ) and length of service ( $p = 0.01$ ), while variables that don't related ( $p > 0.05$ ) is burden work ( $p = 0.121$ ) and nutritional status ( $p = 0.921$ ) of PT employees. Kalla Cocoa Industry in the District Ranomeeto, Regency South Konawe. The result show that of the 46 people surveyed, 21 experienced fatigue Work heavy and 10 experienced fatigue light, in comparison with duration normal work where 2 people experience fatigue severe and 14 people experienced it fatigue light. On the other hand, there were 13 people who experienced it fatigue Work mild and 3 people experienced it fatigue Work heavy. On the other hand, there were 11 people who experienced it fatigue Work mild and 19 people experienced it fatigue Work heavy.

This matter supported with results research (Mulyadi & Arminah, 2019) which analyzes influencing factors fatigue Work employee furniture in the district Mangala Makassar city is in line with research above. The result show that there is correlation between working periods with fatigue work ( $p=0.030$ ) and length of work with fatigue work ( $p=0.002$ ). For work period variable, from 27 workers furniture whose working life for a long time, 20 workers (74.1%) experienced it fatigue work and 7 workers (25.9%) did not experience fatigue Work. For variable length of work, from 3 workers furniture (10%) that meets length of service requirements every day, i.e. 8 hours and so on, no someone has experienced it fatigue Work.

Study results preliminary on February 27, 2024 with interview a number of workers, Research This own respondents majority aged 20-47 years, totaling 60 workers work on parts production as well as majority worker have a service period of >5 years. During observations and interviews to workers, some big power Work sigh experience fatigue moment Work throughout body, often yawning, drowsiness, leg pain heavy, feeling thirsty as well as decline resulting concentration factor environment and load Work. Worker in the production feel burden heavy when carry out the production process feel burden heavy when carry out the processing process ingredients, drying and frying. Worker feel burden Work light during the installation process stremin. Worker part frying start feel that burden it works heavy during the frying process must stir with position standing, work done is at near source fire. Worker in the installation stremin feel burden Work light Because his job done with sitting position. explained that in carry out activity cracker production at the cracker factory in the Regency Dolopo Madiun in the drying process done with method lift place drying crackers from in room to outside room with long distance as well as back and forth many times. This process done manually by workers with

activity motion more physical Lots so that give rise to burden work and fatigue work on employees. After the drying process finished the final process is carried out that is frying done the first two times shrimp crisp heated use the oil already hot shrimp crisp poured while stirred without There is fire, then the second shrimp crisp direct fried use existing frying pan fire. There are also workers who leave entered the cracker factory Because salary earned Enough small For the majority of workers Already have a family and have dependents in his family, p This supported from the pay slip shown by the worker to researcher. Research purposes This For know connection burden work and stress Work with fatigue work on employees cracker factory in the District Dolopo.

## Methods

Research methods used is study quantitative. Quantitative method this can also be done considered as technique research used For investigate population or sample certain. Study correlation describe connection between variable. Study This use design cross-sectional study, where researcher do measurement or study in same time. Researcher use cross sectional design because want to know There is or or not connection between variable independent and variable dependent in One measurement with use tool measuring questionnaire. Represents study correlation or association, which studies connection between variable and effortful discover, explain, estimate, and test something connection with use existing theories ( Nursalam, 2017 ). Study This analyze about factor affecting fatigue work on employees cracker factory in the District Dolopo. Researcher set population originate from employee cracker factory in the District Dolopo Regency. Madiun with number of 60 workers. Deep sample study This is employee cracker factory in the District Dolopo Regency. Madiun. Samples taken in study This use Slovin's formula as following :

$$n = \frac{N}{1 + N(d)^2}$$

Information :

n : Sample Size

N: Population size

d<sup>2</sup> = Percentage leeway accuracy error taking still samples Can tolerated e=0.05

So : Formula

$$n = \frac{69}{1 + 69 (0,05)^2}$$

$$n = \frac{69}{1 + 69 (0,0025)^2}$$

$$n = \frac{69}{1 + 0,15^2}$$

$$n = \frac{69}{1,15}$$

$$n = 60 \text{ respondents}$$

So that with use formula on so big samples required For employee cracker factory in the District Dolopo Regency. Madiun will do it researched is 60 respondents. Study This use probability sampling techniques, especially random sampling, where every subject in population have the same opportunities For selected become member sample. Retrieval method sample use simple

random sampling, Simple Random Sampling is taking member sample from population carried out in a way random without pay attention to existing strata in population that (Sugiyono, 2014).

## Result and Discussion

Following This results univariate on employees sub-district cracker factory dolopo:

### Distribution Age Employee Crackers Factory in Dolopo District

Table 1. Frequency Distribution of Respondents Based on Age at the Cracker Factory in Dolopo District

No	Age	f	Percentage (%)
1	Age 21-45 years	45	75
2	Age 46-60 years	15	25
<b>Total</b>		<b>60</b>	<b>100</b>

Source: Primary Data, 2024

Based on table 1 above can There were 45 people aged 21-45 years (75%) and 15 people aged 46-60 years (25%).

Table 2. Frequency Distribution of Respondents Based on Work Fatigue at the Cracker Factory in Dolopo District

No.	Work Fatigue	F	Percentage (%)
1	Not tired	20	33.3
2	tired	40	66.7
<b>Total</b>		<b>60</b>	<b>100</b>

Source: Primary Data, 2024

Based on table 2 can seen The frequency of work fatigue without fatigue was 20 people (33.3%), and work fatigue was 40 people (66.7%).

Table 3. Frequency Distribution of Respondents Based on Work Load at the Cracker Factory in Dolopo District

No.	Workload	f	Percentage (%)
1	Light	30	50
2	Heavy	30	50
<b>Total</b>		<b>60</b>	<b>100</b>

Source : Primary data, 2024

Based on table 3 can seen frequency burden Work light as many as 30 people (50%), and bebean Work heavy as many as 30 people (50%).

Table 4. Frequency Distribution of Respondents Based on Work Stress at the Cracker Factory in Dolopo District

No.	Work stress	f	Percentage (%)
1	No stress	21	35
2	Stress	39	65
<b>Total</b>		<b>60</b>	<b>100</b>

Source: Primary Data, 2024

Based on table 5.5, it can be seen that the frequency of employees who are not stressed is 21 people (35%), and employees who are stressed at work are 39 people (65%).

Analysis bivariate done when For analyze relationship between two variables.

Table 5. Relationship between workload and work fatigue

Workload	Work Fatigue				Total		P - value	RP(95% CI)
	Not tired		Tired					
	n	%	n	%	n	%		
Light	12	20%	18	30%	30	50%	0.411	1,833 (0.616-5.453)
Heavy	8	13.3%	22	36.7%	30	50%		
<b>Total</b>	<b>20</b>	<b>33.3%</b>	<b>40</b>	<b>66.7%</b>	<b>60</b>	<b>100%</b>		

Source : Primary data, 2024

Based on Table 5 above can is known that category burden Work light as many as 12 people (20%) did not experience fatigue work, and 18 people (30%) experienced fatigue Work. Meanwhile, load Work heavy as many as 8 people (13.3%) did not experience fatigue work and 22 people (36.7%) experienced fatigue Work.

Chi Square test results can said that There is connection between burden Work with with fatigue Work p value = 0.411 less of  $\alpha = 0.05$ . The calculation results risk obtained RP = 1.833 statistics can concluded that employee with burden work done own risk 1,833 times more big experience fatigue in Work compared to with workers in factories other.

Table 6. Relationship between work stress and work fatigue

Job Stress	Work Fatigue				Total		P - value	RP(95% CI)
	Not tired		Tired					
	n	%	n	%	n	%		
No stress	6	10%	15	25%	21	35%	0.774	0.714 (0.226-2.258)
Stress	14	23.3%	25	41.7%	39	65%		
<b>Total</b>	<b>20</b>	<b>33.3%</b>	<b>40</b>	<b>66.7%</b>	<b>60</b>	<b>100%</b>		

Source : Primary data, 2024

Based on Table 6 above can is known that category employee No stress in Work as many as 6 people (10%) did not experience fatigue work, and 15 people (25%) experienced fatigue Work. Meanwhile, stress Work as many as 14 people (23.3%) did not experience fatigue work and 25 people (41.7%) experienced fatigue Work. Chi Square test results can said that There is connection between burden Work with with fatigue Work p value = 0.744 is less of  $\alpha = 0.05$ . The calculation results risk obtained RP = 0.714 which means that Stress Work is factor protection For happen fatigue in Work.

### Workload

According to research conducted against 60 employees, known in category frequency burden Work light as many as 30 people (50%), and burden Work heavy as many as 30 people (50%). Employee Possible difficulty finish task Because burden excessive and difficult work that is not in accordance with his abilities. Besides that burden lots of work and demands must resolved in time certain so that target can be achieved trigger happen fatigue Work. Whereas category burden experienced hardship fatigue consider Still can handle heavy and demanding work time with give time Rest when employee feel tired.

According to (Ariyani et al., 2019) burden Work refers to how old a person is can do something activity in accordance ability and capacity without experience fatigue. According to (Aisyah et al., 2019), burden Work excessive is many work that must be done resolved in time limited so that cause worker difficulty finish it. Problem burden Work is reason general stress work among workers in various industry. Apart from that, many workers reported burden light work Because monotonous work, so they become more skilled in finish task daily without feel

burdened. Do related tasks with brain can cause enhancement stress work (Munandar, 2006). For prevent impact negative to employee consequence burden work, it is recommended that employees each other working together to help fellow employee Good from factory the or party other. This cracker factory should also be give burden Work based on abilities and expertise his workers.

### **Stress Work**

Based on research conducted of 60 workers can seen that employees who employees No stress in Work as many as 21 people (35%), and 39 people (65%) experienced stress Work. According to Dainess (Khoirudin & Farid, 2023) Stress Work is something condition dynamic in the self somebody. Where the reaction in each person is not The same although to situation the same stress, someone will perceive it different Because everyone has map cognitive matter This give rise to tension Because interaction between individual with environment, person explore himself until appear experience ever experienced so that happen imbalance A number of researcher (Rachmawaty, 2015) stated factor factor decider from stress Work like insecurity in work Jordan, Ashkanasy & Artel (2002), conflict role and ambiguity role (Beehr & Franz, 1987; Yousef, 2002) pressure time (Lipshitz et al., 2001) interpersonal conflict (Narayanan et al., 1999), work overload (Sullivan & Bhagat, 1992) and pressure in Cahn performance (2000)

Based on results study on can concluded that background factors enhancement work stress level the in a way statistics proven relate significant with factor work. From the results analysis that has been done, there are 2 variables entered to in a bivariate model, i.e burden work and fatigue Work. This matter prove that party company should do step prevention and control For can reduce the level of work stress experienced by employees they. Work stress experienced by employees can impact period long with appearance various disturbance health if No overcome with Good. Apart from having an impact for health employees, work stress experienced by employees can also impact for company That Alone.

### **Fatigue Work**

Based on the results of research conducted on 60 employees, the results showed that the frequency of work fatigue was 20 people (33.3%), and work fatigue was 40 people (66.7%). From the research above, researchers can conclude that employees can experience fatigue due to high workloads and limited time. Fatigue is a complex condition caused by biological factors in the work process, influenced by internal and external factors. Work stress is a psychological response to work demands that exceed a person's abilities, including physical demands and social conditions that interfere with carrying out tasks. This is different from fatigue which is a physical response (Vanchapo, 2020). Work fatigue reduces efficiency and performance, as well as physical strength and endurance. Continuous work fatigue can cause stress, decreased productivity, and disruption of relationships between employees (Suma'mur, 2017).

Fatigue is characterized by decreased efficiency, work capacity and body endurance which varies in each individual. Work fatigue also causes a decrease in work capacity, motivation and activity level. Prolonged activity can cause fatigue and decreased alertness, which is controlled by brainstem activation and inhibition systems.

### **Workload Relationship With Fatigue Work**

Research result about connection burden Work with fatigue work on employees cracker factory in the district dolopo 2024 is known category burden Work light as many as 12 people (20%) did not experience fatigue work, and 18 people (30%) experienced fatigue Work. Meanwhile, load Work heavy as many as 8 people (13.3%) did not experience fatigue work and 22 people (36.7%) experienced fatigue Work. This matter because burden too much work heavy will cause usage excessive energy, so trigger happen tired, fine mental fatigue or fatigue physically able cause happen *overstressed*.

Based on research conducted on site factory, height burden Work caused by long working hours almost every day. Originally scheduled 8 hours to 10-12 hours. Because, company Not yet add amount employee or chase the goal. There were 8 respondents (13.3%) with burden Work high which is not report fatigue Work. This matter because age those who still are young and vast experience so that makes it easier his job. From 30 respondents with burden Work mild, 12 people (20%) did not report fatigue Work. This matter because work the easy carried out, supported by age young and a lot of experience, so easy done. Apart from that, as many as 18 respondents (30%) with burden Work light report fatigue Work. This matter caused Because burden suboptimal work causes happen fatigue Work. If burden Work worker No sufficient so will potential boredom arises give rise to fatigue.

According to researcher, load excessive work can cause fatigue work, excessive load can cause fatigue physique or mental, as well reaction emotional like Sick head, distraction digestion, and easy offended. It 's light weight burden Work a worker can used For determine how long a person worker can do activity Work within the limits of ability or capacity it works. The more heavy burden Work so the more short time somebody can Work without experience significant fatigue and distraction physiological, and vice versa. At time or condition certain, delays can become motivation For produce performance good job, however If pressure time This cause Lots error in work or cause problem health for individual, p This reflect burden excessive work. Individual face burden Work when demands work exceed ability cognitive and technical. To some extent, a burden Work This make work become No productive for each employee. If this Keep going continue, will cause constant mental fatigue continuously increase.

### **Connection Stress Work To Fatigue Work**

From the results measurement fatigue work performed on employees cracker factory in the district dolopo in 2024 can seen from respondents with category employee No stress in Work as many as 6 people (10%) did not experience fatigue work, and 15 people (25%) experienced fatigue Work. Meanwhile, stress Work as many as 14 people (23.3%) did not experience fatigue work and 25 people (41.7%) experienced fatigue Work. Fatigue can interpreted as something condition decreasing efficiency, performance work, and reduced strength or resilience physique body For Keep going continue mandatory activities carried out (Wignjosobroto, 2003). Fatigue Work will lower performance and add level error Work. Increasing error Work will give opportunity happen accident Work in industry (Nurmianto, 2003).

Fatigue show condition body in a way different for each individual, however disappearance efficiency, reduced capacity work, and power stand body (Tarwaka & Sudiajeng, 2004). Fatigue lower capacity and power stand marked work with fatigue, decline motivation, and decline activity, a marked conditions with tiredness work and decline system alert nerve center consequence prolonged activity, most importantly controlled by the system activation and inhibition stem brain. Represents phenomenon complex caused by factors biology in place affected work both by internal factors and external. According to (Nurmianto, 2003), fatigue Work lower performance and improve possibility happen error. Increasing error Work will open opportunity happen accident work in industry. Fatigue is feeling subjective. Fatigue is something marked state with decreasing efficiency and motivation work (Ariyani et al., 2019). The result is fatigue Work can lower productivity and performance so that has an increasing impact error work and accidents.

According to researcher average employee experience fatigue Work Because the more tall stress Work so the more big its influence to fatigue Work so that result fatigue Work the more tall. Besides that there are lots of orders to be made quick resolved as required worker do Work overtime good day Work with additional working hours as well as on the day holiday so that add time Work workers and causes fatigue worker.



## Conclusion

Workload experienced hardship fatigue Work as many as 22 people (36.7%) more Lots compared to with burden Work heavy ones are not experience fatigue Work. Employees who experience burden Work average weight bear workload 2-4 hours more Lots from timetable Work they. Stress Work employee experienced factory fatigue Work as many as 25 people (41.7%) more Lots compared to with stressed employees Work But No feel fatigue Work. Employees who experience stress average work experience fatigue Work excessive Because Power stand a body that doesn't support so that No can control self they Alone. There is connection between burden Work with fatigue work on employees cracker factory in the district dolopo in 2024. There is connection between work stress with fatigue work on employees cracker factory in the district dolopo in 2024.

## References

- Aisyah, S., Fachrin, S. A., Haeruddin, H., & Rahman, I. (2019). Faktor Yang Mempengaruhi Kelelahan Kerja Pada Petugas Kebersihan Di Rumah Sakit Dr. Tadjuddin Chalid Kota Makassar. *Window of Health: Jurnal Kesehatan*, 256–265. <https://doi.org/10.33096/woh.v2i3.610>
- Ariyani, H. F., Pangestuti, I. R. D., & Raharjo, S. T. (2019). The effect of asset structure, profitability, company size, and company growth on capital structure (the study of manufacturing companies listed on the IDX for the period 2013-2017). *Jurnal Bisnis Strategi*, 27(2), 123–136. <https://doi.org/10.14710/jbs.27.2.123-136>
- Asriyani, N., & Karimuna, S. R. (2017). Faktor yang berhubungan dengan terjadinya kelelahan kerja pada pekerja PT. Kalla Kakao Industri Tahun 2017. *Haluoleo University*.
- Beehr, T. A., & Franz, T. M. (1987). The current debate about the meaning of job stress. *Journal of Organizational Behavior Management*, 8(2), 5–18. [https://doi.org/10.1300/J075v08n02\\_02](https://doi.org/10.1300/J075v08n02_02)
- Fadila, S. M. (2021). Pengaruh Shift Kerja Terhadap Kelelahan Kerja Pada Pekerja PT Lotus Indah Textile Industries Di Kecamatan Sukomoro Kabupaten Nganjuk. *Stikes Bhakti Husada Mulia Madiun*.
- Gharib, M., Jamil, S. A., Ahmad, M., & Ghouse, S. (2016). The impact of job stress on job performance: A case study on academic staff at Dhofar University. *International Journal of Economic Research*, 13(1), 21–33.
- Juliana, M., Camelia, A., & Rahmiwati, A. (2018). Analisis faktor risiko kelelahan kerja pada karyawan bagian produksi PT. Arwana anugrah keramik, tbk. *Jurnal Ilmu Kesehatan Masyarakat*, 9(1), 53–63. <https://doi.org/10.26553/jikm.2018.9.1.53-63>
- Khoirudin, A., & Farid, M. (2023). Spiritual Well-Being And Peer Social Support With Academic Stress On Student In Boarding School. *International Journal of Research in Counseling*, 2(2), 49–64. <https://doi.org/10.55849/wp.v2i2.57>
- Lipshitz, R., Klein, G., Orasanu, J., & Salas, E. (2001). Taking stock of naturalistic decision making. *Journal of Behavioral Decision Making*, 14(5), 331–352. <https://doi.org/10.1002/bdm.381>
- Mulyadi, M., & Arminah, N. (2019). Analisis Faktor-Faktor Yang Memengaruhi Kelelahan Kerja Pada Pekerja Mebel Di Kecamatan Manggala Kota Makassar. *Sulolipu: Media Komunikasi Sivitas Akademika Dan Masyarakat*, 18(2), 184–188. <https://doi.org/10.32382/sulolipu.v18i2.1155>
- Munandar, H. (2006). *Essays on economic integration* (Issue 391). Rozenberg Publishers.
- Narayanan, L., Menon, S., & Spector, P. (1999). A cross-cultural comparison of job stressors

- and reactions among employees holding comparable jobs in two countries. *International Journal of Stress Management*, 6, 197–212. <https://doi.org/10.1023/A:1021986709317>
- Nurmianto, E. (2003). Ergonomi Konsep Dasar dan Aplikasinya Edisi Pertama. *Guna Widya, Surabaya*.
- Rachmawaty, F. (2015). Peran pola asuh orang tua terhadap kecemasan sosial pada remaja. *Jurnal Psikologi Tabularasa*, 10(1). <https://doi.org/10.26905/jpt.v10i1.241>
- Setyawati, M. I., Chien, L.-J., & Lee, C.-K. (2007). Expressing Vitreoscilla hemoglobin in statically cultured *Acetobacter xylinum* with reduced O<sub>2</sub> tension maximizes bacterial cellulose pellicle production. *Journal of Biotechnology*, 132(1), 38–43. <https://doi.org/10.1016/j.jbiotec.2007.08.012>
- Sugiyono. (2014). Metode Penelitian Manajemen. *Alfabeta*.
- Sullivan, S. E., & Bhagat, R. S. (1992). Organizational stress, job satisfaction and job performance: where do we go from here? *Journal of Management*, 18(2), 353–374. <https://doi.org/10.1177/014920639201800207>
- Suma'mur, P. K. (2017). Higiene perusahaan dan kesehatan kerja (HIPERKES). *Jakarta: Sagung Seto, 2009*
- Tarwaka, S., & Sudiajeng, L. (2004). Ergonomi untuk keselamatan, kesehatan kerja dan produktivitas. *Surakarta: Uniba Press*.
- Vanchapo, A. R. (2020). Pengaruh Upah terhadap Motivasi Kerja Karyawan Sukarela di Puskesmas Se Kabupaten Sikka. *CHMK Nursing Scientific Journal*, 4(1), 157–161.
- Wignjosoebroto, S. (2003). Ergonomi studi gerak dan waktu. *Surabaya: Guna Widya*, 283.
- Wijono, S. (2012). Psikologi Industri dan Organisasi. Dalam Suatu Bidang Gerak Psikologi Sumber Daya Manusia, Edisi Pertama, Kencana Prenada Media, Jakarta. *Jakarta: Kencana Prenada Media, 2010*
- Yousef, D. A. (2002). Job satisfaction as a mediator of the relationship between job stressors and affective, continuance, and normative commitment: A path analytical approach. *International Journal of Stress Management*, 9, 99–112. <https://doi.org/10.1023/A:1014954703735>