

## Demographic, Lifestyle, Job Factor for Mental Disorders: Descriptive Study among Port Logistic Terminal Employees at Tanjung Priok

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### ABSTRACT

**Introduction:** The results of work stress research in the port industry show work stress at the port has the strongest relationship with the mental workload, followed by role ambiguity and interpersonal conflict. However, in the port industry with hot, noisy working conditions, unclear age limits for workers, workers with various backgrounds triggering conflict, long working hours triggering not only stress, but anxiety and depression in workers, results in high absenteeism and hypertension cases in port workers. The aim of this research is see how demographic factors, lifestyle, and job factors contribute to the incidence of mental disorders problems in the port logistic industry. **Methods:** We carried out descriptive analysis for demographic aspects, lifestyle, and work factors with each component of mental disorders, namely stress, anxiety and depression. Design study for this research is cross-sectional. DASS 42 was an instrument for dependent variable. Data analysis was conducted with the Chi-square test to see the strength of the relationship between the two variables. The sample in this study was 201 with total sampling method. **Result:** Research results show that demographic factors do not have a strong relationship with mental disorders; lifestyle factors are the factors that have the strongest relationship with mental disorders, namely routine exercise and sleep duration. Work factors do not have a strong relationship with mental disorders at Port Logistic Terminal at Tanjung Priok. **Conclusion:** Regular exercise and sleeping more than 7 hours can reduce the frequency of mental disorders. Companies can focus on providing their employees with sports facilities and education regarding regular exercise and sleeping more than 7 hours.

**Keywords:** anxiety, depression, stress

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### INTRODUCTION

Mental health is a global problem that occurs in both developing and developed countries. Mental health is a condition where humans can think calmly and peacefully to communicate well and productively (Ministry of Health, 2018). Mental health is influenced by various factors, including individual factors (drug use, emotional management skills, and genetics), structural factors, and social factors (World Health Organization, 2020). The most common mental health issues in the industrial world are stress, depression, and anxiety. The causes of mental health issues among workers include both

qualitative and quantitative workload, long working hours, job targets that must be achieved, uneven distribution of responsibilities, lack of supervision from superiors, lack of appreciation and feedback, and discrimination and intimidation from superiors (Firdausyan *et al.*, 2023)

Work-related stress is a worker's response to work demands that are not in accordance with the worker's capacity, both in terms of knowledge and physical capacity. Stress in the workplace is caused by the work context and work content. Work content that causes stress in the workplace includes monotonous work, no response from work results, feeling that the work is useless, lack of variety in work, workload that is too high or too low, working hours that are too long, and lack of participation in decision-making and having no control over work and the work environment while the work context

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includes career development, unfair performance appraisals, inappropriate salaries, unclear roles in the organization, poor interpersonal communication, poor organizational culture and an imbalance between work matters and home matters stairs (World Health Organization, 2020).

The port industry plays an important role in the economy in general; the results of work stress research in the port industry according to Akrimah, Wardana and Tualeka (2023) show work stress at the port has the strongest relationship with the mental workload, followed by role ambiguity and interpersonal conflict. Work stress, anxiety, and depression increase workers' fatigue, so that employee productivity in the work environment will decrease. However, work stress can be reduced through a spirit of optimism about the future. Employees who have a spirit of optimism will tend to have lower levels of stress, depression and anxiety, thereby reducing employee fatigue levels (Fortes, Tian and Huebner, 2020).

Apart from the work context and job content, information regarding demographic aspects and employee lifestyles is also important to know. This is part of an intervention program that can be carried out to prevent incidents of stress, depression and anxiety. Lack of sleep, sedentary lifestyle, long working hours and working long hours increase the incidence of stress, fatigue and musculoskeletal disorders (Zheng *et al.*, 2023). Other demographic factors such as age, gender, marital status, smoking status, physical activity, hypertension, and cancer are factors associated with depression in Indonesia (Simanjuntak, 2020). The demographic factor of gender indicates that women are more vulnerable to stress than men (Ersen, Çinar and Soylemez, 2024). Age and length of service also affect stress, where older age and experience correlate with lower stress levels compared to new employees and younger individuals. Married employees tend to experience more stress, while those with higher education levels have lower stress levels (Imenpanah, Abargouei and Esfahani, 2023).

Mental health is an issue today, especially when the whole world is facing the Covid-19 pandemic. According to data from IHME (2019), a total of 577.7 out of 100,000 people in the world experience depression, and 360.1 people out of 100,000 in the world experience anxiety, which has an impact on illness, disability, or death. While the prevalence of anxiety and depression in the world reaches 3.8% and 3.4%, respectively; this

is the highest case of mental illness in the world, and in Indonesia cases of anxiety reach 3.5% of the total population. Mental illness occurs most frequently in productive age, with the first cases of depression and anxiety occurring most frequently at the age of 20-29 years (Dattan and Rodés-Guirao, 2023). Based on the data, it is illustrated that the incidence of mental illness has a large potential to occur in the working community. Survey results from Northwestern National Life revealed that 40% of workers complained that their work caused them very much stress and extreme stress (NIOSH, 2014). The main causes of stress according to the American Psychological Association in 2021 are low income 56%, high workload 50%, and unrealistic job expectations 48% (American Psychological Association, 2021). The negative impact of stress at work is found in the same survey, namely loss of interest and motivation at work, difficulty focusing, and lack of effort at work (American Psychological Association, 2021). The consequences of this stress, if no intervention is carried out, can cause a decrease in employee productivity, work accidents and complaints from clients. Mental illness costs 4% of a country's total gross domestic product (GDP) (OECD, 2021). Indonesia's total GDP in 2023 based on data from BPS is 20,892.4 trillion, so the cost of mental illness in Indonesia is estimated to reach 835 trillion. The port industry is strategic in Indonesia as an entry point for economic activities. In February 2024, it was recorded on the BPS website that export activities reached (USD) 20,494,057,910,996 and import activities reached (USD) 18,494,530,338,000. The high number of exports and imports impacts the high level of inspection activities of incoming goods by customs, especially for goods that enter the red route.

Port Logistic Terminal at Tanjung Priok is a port company that provides facilities for the inspection of goods entering the red line by customs with a total of 239 employees. The services provided are space, heavy equipment, and loading and unloading workers (TKBM) to unload containers. In 2023, the number of employee permits reached 734 days, sick leave 1419 days, absenteeism 648 days and total delays 3028 times. The number of accidents in 2023 was 10 incidents of equipment damage and two near accidents and the level of hypertension in occupational health examinations in 2022 among employees reached 60%. This condition requires appropriate corrective actions so that the above problems can be resolved properly. The results of

a preliminary study on 30 employees related to mental disorders in the form of depression, stress, and anxiety using the DASS (Depression Anxiety Stress Scale) 42 questionnaire showed that 6.3% of employees experienced moderate depression, 21.9% experienced moderate anxiety and 3.1% experienced moderate stress and 3.1% experienced severe stress.

The research objective is to describe depression, anxiety, and stress from the perspective of demographics, lifestyle factors, and employee job factors quantitatively so that it can illustrate the contribution of demographic factors, lifestyle factors, and work factors to the incidence of stress, depression, and anxiety in employees at Port Logistic Terminal at Tanjung Priok.

## METHODS

This research is descriptive research conducted at Port Logistic Terminal located in Tanjung Priok, North Jakarta. Design study for this research is cross-sectional. This research was from January to May 2024. The total population in this research is 201 people, with a sample of 201 people using total sampling with the inclusion criteria being employees who have worked for more than one year, are willing to fill out the questionnaire and in the work area at the time the research is conducted. This research uses the DASS 42 questionnaire (stress, anxiety and depression) combined with questions related to demographic aspects, lifestyle, and Job factors. The questionnaire was analyzed using a cross-tabulation approach and the strength of the relationship between two variables tested using the Chi-square test. This research has passed the ethical review with ethical number 0924-08.002/DPKE-KEP/FINAL\_EA/EUE/VIII/2024.

## RESULT

The average worker in Indonesia spends 8-10 hours at work; the amount of time spent at work is very vulnerable to contributing to stress, anxiety, and depression due to work. The following are details of the results of univariate and bivariate analyses of demographic factors, lifestyle factors, and work factors on the incidence of stress, anxiety, and depression. Table 1 shows that the frequency of problematic stress is only 2%. The frequency of problematic anxiety is 12.9% and the frequency of problematic depression is 7%.

Table 2 shows that employees aged  $\geq 35$  years have a 62.2% higher percentage compared to employees aged  $< 35$  years. Male employees have a greater percentage than women, namely 89.1%, and female employees only 10.9%. Most employees are married with a percentage reaching 83.6% and single employees at 16.4%. The last demographic variable is education level, where employees who have a senior high school education have a higher percentage than employees who have studied at a university, namely 51.2% and 48.8%.

Table 3 shows that the variable for employees who smoke has a higher frequency at 61.2% compared to employees who do not smoke at 38.8%. Physically active employees have a higher frequency than employees who are not physically active, employees who exercise have a frequency of 61.7%, and employees who do not exercise 38.3%. According to the results, the length of sleep, which indicates the employee's rest hours at night, it was found that employees who slept for  $< 7$  hours had a higher frequency than employees who slept for  $\geq 7$  hours, namely 56.7% and 43.3%, respectively.

**Table 1.** Distribution of Mental Disorders

| Variables  | Mental Disorder |      |         |      | Total |     |
|------------|-----------------|------|---------|------|-------|-----|
|            | Normal          |      | Problem |      | N     | %   |
|            | n               | %    | n       | %    |       |     |
| Stress     | 197             | 98   | 4       | 2    | 201   | 100 |
| Anxiety    | 175             | 87.1 | 26      | 12.9 | 201   | 100 |
| Depression | 187             | 93   | 14      | 7    | 201   | 100 |

**Table 2.** Distribution of Demographic Factors

| Variables       | Demographic Factors |      |
|-----------------|---------------------|------|
|                 | n                   | %    |
| Age             |                     |      |
| $\geq 35$ years | 125                 | 62.2 |
| $< 35$ years    | 76                  | 37.8 |
| Gender          |                     |      |
| Female          | 22                  | 10.9 |
| Male            | 179                 | 89.1 |
| Marital status  |                     |      |
| Married         | 168                 | 83.6 |
| Single/Divorce  | 33                  | 16.4 |
| Education       |                     |      |
| High school     | 103                 | 51.2 |
| University      | 98                  | 48.8 |
| <b>Total</b>    | 201                 | 100  |

Table 4 shows that, for the work period variable, employees who have worked  $\geq 3$  years have a higher percentage than employees who have worked  $< 3$  years, namely 94% and 6%, respectively. Permanent employee status has a higher percentage compared to non-permanent employees with respective percentages of 80.6% and 19.4%. Employees who work shifts have a higher percentage compared to employees who work non-shifts, namely 55.7% and 44.3%, respectively.

Table 5 shows that demographic factors (age, gender, and marital status) are not related to stress, anxiety, and depression. Meanwhile, lifestyle factors (smoking habits, physical activity, and sleep duration) show that active physical activity is related to stress (p value 0.021) but not to anxiety and depression, while a sleep duration of  $\geq 7$  hours is related to depression (p value 0.015) but not to stress and anxiety. Work factors (work duration, employee status, and shift work) are not related to the occurrence of stress, anxiety, and depression.

## DISCUSSION

### Univariate Analysis

The research results show that employees experiencing stress have only a 2% risk, employees experiencing anxiety have a 12.9% risk, and those experiencing depression have a 7% risk. This description of the results aligns with the study by Kusumawati *et al.* (2024), where non-risk stress, anxiety, and depression have a higher frequency compared to risk stress, anxiety, and depression. Based on the results of the interview with the QHSE department, this happens because of the

company's family culture, which makes employees feel comfortable and consider the office as a second home, as well as the culture of mutual support among employees. This aligns with the research by Listiyorini and Kasmir (2024), which indicates that a positive organizational culture can reduce stress and enhance performance within an organization. It is also consistent with the findings of Kartika (2023) which suggest that an organizational culture that makes employees comfortable can decrease employee stress and encourage them to deliver their best performance. Port Logistic Terminal at Tanjung Priok also provides free sports facilities for employees, namely futsal for male employees and aerobics for female employees. This aligns with research by Martland *et al.* (2024) that indicates exercise can reduce psychological stress and improve sleep quality. This research is also consistent with findings by Biolsi *et al.* (2023) that light exercise can decrease anxiety, even with just short-term activity. This demonstrates that the provision of sports facilities enhances the mental health of Port Logistic Terminal at Tanjung Priok employees, thereby reducing the risk of low presentations of stress, anxiety, and depression.

The independent variables, aside from demographic factors, are lifestyle factors, which include smoking, exercise, and sleep duration. The research results show that employees who smoke have a higher frequency compared to employees who do not smoke.

The last independent variable is the work factor, which consists of work duration, employee status, and shift status. Employees with a tenure of three years or more have a higher percentage

**Table 3.** Distribution of Lifestyle Factors

| Variables         | Lifestyle Factors |            |
|-------------------|-------------------|------------|
|                   | n                 | %          |
| Smoking habit     |                   |            |
| Smoking           | 123               | 61.2       |
| No Smoking        | 78                | 38.8       |
| Physical activity |                   |            |
| Active            | 77                | 38.3       |
| Not Active        | 124               | 61.7       |
| Sleep duration    |                   |            |
| <7 hours          | 114               | 56.7       |
| $\geq 7$ hours    | 87                | 43.3       |
| <b>Total</b>      | <b>201</b>        | <b>100</b> |

**Table 4.** Distribution of Job Factors

| Variables                                       | Lifestyle Factors |            |
|---|-------------------|------------|
|   | n                 | %          |
| <b>Working Duration</b>                         |                   |            |
| $\geq 3$ years                                  | 189               | 94         |
| $< 3$ years                                     | 12                | 6          |
| <b>Employee Status</b>                          |                   |            |
| Non-Permanent                                   | 39                | 19.4       |
| Permanent                                       | 162               | 80.6       |
| <b>Working Shift</b>                            |                   | 55.7       |
| Shift (operation, general service, maintenance) | 112               | 55.7       |
| Non-Shift (HRD, QHSSE, Finance)                 | 89                | 44.3       |
| <b>Total</b>                                    | <b>201</b>        | <b>100</b> |

compared to employees with a tenure of less than three years. According to an interview with HR, most employees of Port Logistic Terminal at Tanjung Priok feel comfortable working at this company, as evidenced by the fact that the majority of employees have been with the company for over 10 years. Permanent employees have a higher percentage compared to temporary employees. According to an interview with HR, employees who have

worked for one year will undergo a performance evaluation; if their performance is good, they will be immediately promoted to permanent status, so only new employees have the status of temporary employees. Employees who work in shifts have a higher percentage compared to those who work non-shift. Through interviews with the HSE department, it was found that the business processes at Port Logistic Terminal at Tanjung Priok must support 24-

**Table 5.** Distribution of Demographics, Lifestyle, Job Factors, and Mental Disorders

| Variables                                       | Stress   |           |         | Anxiety  |           |         | Depression |           |         |
|---|----------|-----------|---------|----------|-----------|---------|------------|-----------|---------|
|   | Normal % | Problem % | P Value | Normal % | Problem % | P Value | Normal %   | Problem % | P Value |
| <b>Demographic Factor</b>                       |          |           |         |          |           |         |            |           |         |
| Age   |          |           |         |          |           |         |            |           |         |
| ≥35 years                                       | 97.6     | 2.4       | 1.000   | 88       | 12        | 0.772   | 94.4       | 5.6       | 0.491   |
| < 35 years                                      | 98.7     | 1.3       |         | 855      | 14.5      |         | 90.8       | 9.2       |         |
| Gender  |          |           |         |          |           |         |            |           |         |
| Female  | 95.5     | 4.5       | 0.373   | 77.3     | 22.7      | 0.174   | 90.0       | 9.1       | 0.655   |
| Male  | 98.3     | 1.7       |         | 88.3     | 11.7      |         | 93.3       | 6.7       |         |
| Marital status                                  |          |           |         |          |           |         |            |           |         |
| Married   | 97.6     | 2.4       | 1.000   | 85.7     | 14.3      | 0.264   | 92.3       | 7.7       | 0.474   |
| Single/Divorce                                  | 100      | 0.0       |         | 93.9     | 6.1       |         | 97.0       | 3.0       |         |
| Education                                       |          |           |         |          |           |         |            |           |         |
| High school                                     | 97.1     | 2.9       | 0.622   | 91.3     | 8.7       | 0.108   | 96.1       | 3.9       | 0.138   |
| University                                      | 99.0     | 1.0       |         | 82.7     | 17.3      |         | 89.8       | 10.2      |         |
| <b>Lifestyle Factor</b>                         |          |           |         |          |           |         |            |           |         |
| Smoking habit                                   |          |           |         |          |           |         |            |           |         |
| Smoking   | 99.2     | 0.8       | 0.301   | 89.4     | 10.6      | 0.299   | 94.3       | 5.7       | 0.544   |
| No Smoking                                      | 96.2     | 3.8       |         | 83.3     | 16.7      |         | 91.0       | 9.0       |         |
| Physical activity                               |          |           |         |          |           |         |            |           |         |
| Active  | 94.8     | 5.2       | 0.021   | 81.8     | 18.2      | 0.126   | 88.3       | 11.7      | 0.074   |
| Not Active                                      | 100      | 0.0       |         | 90.3     | 9.7       |         | 96.0       | 4.0       |         |
| Sleep duration                                  |          |           |         |          |           |         |            |           |         |
| <7 hours  | 96.5     | 3.5       | 0.135   | 81.6     | 18.4      | 0.015   | 88.6       | 11.4      | 0.011   |
| ≥7 hours  | 100      | 0.0       |         | 94.3     | 5.7       |         | 98.9       | 1.1       |         |
| <b>Job Factor</b>                               |          |           |         |          |           |         |            |           |         |
| Working Duration                                |          |           |         |          |           |         |            |           |         |
| ≥3 years  | 97.9     | 2.1       | 1.000   | 86.2     | 13.8      | 0.371   | 93.1       | 6.9       | 0.590   |
| <3 years  | 100      | 0.0       |         | 100      | 0.0       |         | 91.7       | 8.3       |         |
| Employee Status                                 |          |           |         |          |           |         |            |           |         |
| Non-Permanent                                   | 100      | 0.0       | 1.000   | 84.6     | 15.4      | 0.996   | 89.7       | 10.3      | 0.480   |
| Permanent                                       | 97.5     | 2.5       |         | 87.7     | 12.3      |         | 93.8       | 6.2       |         |
| Working shift                                   |          |           |         |          |           |         |            |           |         |
| Shift (operation, general service, maintenance) | 98.2     | 1.8       | 1.000   | 86.6     | 13.4      | 1.000   | 92.9       | 7.1       | 1.000   |
| Non-Shift (HRD, QHSSE, Finance)                 | 97.8     | 2.2       |         | 87.6     | 12.4      |         | 93.3       | 6.7       |         |

hour operational activities, so the average employee works in a shift system, with only the HSE, HRD, and a few finance departments working non-shift.

### Bivariate Analysis

Bivariate analysis was carried out through percentage figures presented through cross-tabulation, and the author carried out the Chi-square test to see the strength of the relationship between variables.

### Demographic and Stress Variables

Age  $\geq 35$  years has a higher percentage of risk of stress compared to employees aged  $< 35$  years and the results of the bivariate test with Chi-square showed that the age variable was not related to stress events. This is in line with research by Ningsi, Faizah and Annas (2021) where there is no relationship between age and work stress. Most employees aged  $\geq 35$  years already occupy important positions in the company, resulting in a higher mental workload and an increase in stress (Zulkifli, Rahayu and Akbar, 2019). Female employees have a higher percentage of risky stress compared to male employees and the results of statistical tests using Chi-square show that the gender variable is not related to stress risk. This is in line with research from Gamero-Burón and Herrera Sánchez (2024) that female employees have a higher percentage of experiencing stress because of tradition factor, family factor and personality. Female employees who work experience a double workload where they have to work in the office and do housework at the same time, which causes increased fatigue which leads to stress Ningsi, Faizah and Annas (2021). Married employees have a frequency of stress risk compared to employees who are not married or working and the results of statistical tests using Chi-square show that the marriage variable is not related to work stress. Domestic conflict can increase the risk of stress in employees, where work pressure plus domestic conflict causes an increased risk of stress in employees (Sari, Zainuddin and Saptaputra, 2021). Employees with a high school education level have a higher percentage of stress risk than employees with a tertiary education level; this is because the higher the education, the easier it is to find information related to job competencies, the easier it is to understand job instructions and the easier it is to complete the job so the risk of stress decreases down (Suci, 2018).

### Lifestyle and Stress Variables

Lifestyle variables consist of smoking habits, exercise, and sleep duration. Employees who smoke have a higher percentage compared to employees who do not smoke. The results of the Chi-square statistical test indicate that the smoking habit is not related to work stress. Employees who smoke tend to socialize and discuss with other employees; this is part of communication that can reduce levels of stress, depression, and anxiety (Gunnarsson *et al.*, 2023). Another study by Zandkarimi, Kamelifar and Heshmati-Molae (2019) found that positive communication can effectively reduce stress and depression.

Employees who do not exercise have a higher risk of stress levels compared to those who do exercise. The results of the Chi-square statistical test indicate that there is a relationship between exercising and the occurrence of stress risk. This is in line with research by Astuti, Surmantika and Rubai (2021) which states that exercise is an effort made to reduce stress levels because it can divert stress to another focus and can lower cortisol levels in the brain. Employees who sleep for seven hours or more have a higher frequency compared to employees who sleep for less than seven hours. The results of the Chi-square statistical test indicate that there is no relationship between sleep duration and stress. The results of this study align with the research by Christodoulou, Markopoulou and Koutelidakis (2024), which indicates that chronic sleep deprivation increases stress, depression, and anxiety, and the study by Cao *et al.* (2024) states that inflammation in the nerves triggered by lack of sleep leads to depression in humans. Employees who lack sleep can cause metabolic changes in the human body, where these metabolic changes affect the secretion of cortisol hormones that can increase the stress response.

### Job and Stress Variables

The work variables consist of length of service, employee status, and shift status. Employees with a length of service of  $\geq 3$  years have a higher percentage compared to employees with a length of service of  $< 3$  years. The results of the Chi-square statistical test indicate that there is no relationship between work experience and work stress. Employees with a length of service of  $\geq 3$  years already hold important positions in the company, thus they have greater responsibilities. This aligns

with the research by Monalisa *et al.* (2024), which states that high demands and responsibilities can lead to stress. The longer the work period, the older they become and the closer they are to retirement, which results in increased stress for employees with a tenure of  $\geq 3$  years. This finding aligns with research by Goudarzi, Mehdad and Golparva (2023), which indicates that employees who have retired face stress risks due to factors such as family conflict, unsupportive organizational factors, and welfare guarantees.

Permanent employees have a higher percentage of stress risk compared to temporary employees. The results of the Chi-square statistical test indicate that there is no relationship between employee status and stress. Permanent employees are those who have worked for a longer period and have many job demands that must be borne according to their positions and roles, as they already hold leadership positions in each group (Edith and Minja, 2023). Non-shift employees have a higher percentage of work-related stress compared to shift employees. The results of the Chi-square statistical test indicate that there is no relationship between work shifts and stress. The results of this study are not in line with previous research on work stress due to non-shift employees who tend to frequently work overtime to complete their tasks (Yu and Leka, 2022). This is related to the increase in work targets that can pose a risk of stress for employees (Tejasari *et al.*, 2018). Long working hours experienced by non-shift employees can increase anxiety and depression and worsen psychological stress responses (Ochiai *et al.*, 2023).

### Demographic Variables and Anxiety

Age  $< 35$  years has a higher risk of anxiety compared to age  $\geq 35$  years. The results of the Chi-square statistical test show that there is no relationship between age and anxiety. The results of a study conducted by Deloitte (2023) showed that Gen Z and Millennials had higher levels of anxiety than baby boomers and Gen X; this was due to social media exposure to lifestyle and financial needs. Women have a higher percentage of anxiety compared to men. The results of the Chi-square statistical test show that there is no relationship between gender and risk anxiety. Women have the hormone estrogen which influences their mood and emotions so that women tend to feel more anxious than men (Assyifa *et al.*, 2023). Married employees have a higher percentage of at-risk anxiety compared

to those who are unmarried or divorced. The results of the Chi-square statistical test show that there is no relationship between marital status and risk anxiety. Family work conflict is a factor that causes an imbalance between work demands and family demands, this causes internal conflict among workers, then the demands of family needs from a financial perspective also increase the anxiety factor in employees (Yusnita and Nurlinawaty, 2022). Employees who have higher education tend to have more access to various information so that this increases anxiety in those with higher education (Fortuna, Saputri and Wowor, 2022).

### Lifestyle and Anxiety Variables

Non-smoking employees have higher anxiety levels compared to smoking employees. The results of the statistical test indicate that there is no relationship between smoking habits and anxiety. According to Thakur (2020), electronic cigarettes can be used to reduce high stress temporarily, although their effectiveness needs further investigation. Smoking can relieve anxiety for a moment, but the negative health effects will last in the long term. Smoking can reduce anxiety because it allows employees to socialize and communicate with their coworkers, thereby improving their mood and reducing anxiety (Sari, Berliyanti and Adawiyah, 2023). Employees who do not exercise have a higher percentage of anxiety risk compared to those who do. Statistical tests found no relationship between exercise habits and anxiety. Exercise can reduce anxiety by diverting attention so that people do not focus on things that make them anxious, and exercise can also enhance subjective feelings of fitness, which influences the reduction of anxious feelings (Herzog *et al.*, 2022). Employees who sleep less than seven hours have a higher percentage of anxiety risk compared to those who sleep seven hours or more. The results of the Chi-square statistical test found a relationship between sleep duration and anxiety. Quality sleep has been proven to reduce the risk of stress, depression, and anxiety, making sleep often used as therapy to address mental health issues (Scott *et al.*, 2021).

### Job and Anxiety Variables

Employees with  $\geq 3$  years of service have a higher percentage of anxiety risk compared to employees  $< 3$  years. The statistical test results show that there is no relationship between work

experience and anxiety. Employees with  $\geq 3$  years of service are employees who have worked for an average of more than 10 years so that on average they are approaching retirement. The results of the analysis from the questionnaire found that those who are worried about being at risk are those who are approaching retirement. Unprepared retirement is a cause of anxiety for employees (Tsagem and Abdullahi, 2023). Non-permanent employees have an anxiety percentage above permanent employees. The results of the Chi-square statistical test show that there is no relationship between employee status and anxiety. According to the results of interviews, non-permanent employees show that they are worried that they could be fired at any time without compensation; this influences the percentage of non-permanent employees to be higher (Hannerz *et al.*, 2023). Employees with shift work status have a higher risk of anxiety compared to non-shift employees. The results of the Chi-square statistical test show that there is no relationship between shift status and risk anxiety. Shift employees experience abnormal circadian cycles which can cause mental disorders in employees (Chintami, Renovaldi and Putra, 2023).

### Demographic Variables and Depression

Employees under the age of 35 have a higher risk of depression compared to employees aged 35 and older. The results of the statistical test using Chi-square found that there is no relationship between age and the occurrence of depression. Older people tend to normalize all the negative events that happen to them; they tend to have greater resilience compared to the younger generation. This is what causes employees under 35 to have a higher percentage of depression compared to older employees (Bakar and Usman, 2022). Female employees have a higher percentage of depression risk compared to male employees. The results of the Chi-square statistical test indicate that there is no relationship between gender and the risk event. Women are more likely to experience depression due to physiological changes in their bodies (Sabic, Sabic and Bacic-Becirovic, 2021). Married employees have a higher risk of depression compared to single or divorced employees. The results of the Chi-square statistical test indicate that there is no relationship between marital status and depression. The risk of depression among married employees is related to the dual burden of work and family life (Yun *et al.*, 2022). The imbalance between these interests is

one of the reasons for the high risk of depression among married employees. Employees with a higher education level have a higher percentage of depression compared to employees with only a high school education. The results of the Chi-square statistical test indicate that there is no relationship between education level and the risk of depression. Employees with higher education have greater responsibilities in the company, which is a cause of a higher risk of depression among employees with higher education (Lyhne *et al.*, 2021).

### Lifestyle Variables and Depression

Employees who do not smoke have a higher risk presentation than employees who smoke. The results of the Chi-square statistical test show that there is no relationship between smoking and depression. Although previous research shows that smoking can be a potential cause of increased depression, several studies show the opposite (Fluharty *et al.*, 2017). Smoking in this study is associated with social interaction activities with fellow employees which can reduce the potential for stress at work. Employees who do not exercise have a higher risk of depression compared to employees who exercise. The results of statistical tests show that there is no relationship between exercise and depression. This is in line with research by Pearce (2022) where exercise is not directly related to depression, but physical activity in the form of brisk walking for 2.5 hours during the week has been proven to reduce the risk of depression. Employees with sleep duration  $< 7$  hours have a higher risk of depression compared to employees with sleep duration  $\geq 7$  hours. The results of the Chi-square statistical test show that there is a relationship between sleep duration and the risk of depression. This is in line with research by Jiang *et al.* (2022) that insomnia is related to the incidence of depression. Lack of sleep can affect the brain's chemical system, which can affect emotional stability (Apriliani and Soetjpto, 2020).

### Job Variables and Depression

Employees with  $< 3$  years of service have a higher risk of depression than employees with  $\geq 3$  years. The results of statistical tests using Chi-square showed that there was no relationship between work experience and risk of depression. employees with  $< 3$  years of service are associated with new employees with an age range of under 30 years; this is related to the fact that the millennial generation and Generation Z have a higher vulnerability to

depression compared to previous generations (Bakar *et al.*, 2022). Non-permanent employees have a higher risk of depression compared to permanent employees. The results of statistical tests using Chi-square show that employee status is not related to depression. The results of the study by Kim and Park (2021) show that non-permanent employees increase the risk of depression in male workers. Uncertainty about future employment status is one of the reasons for the increased risk of depression in non-permanent employees. Employees who work shifts have a higher risk of depression compared to non-shift workers. The results of statistical tests using Chi-square show that there is no relationship between working shifts and depression. Working in shift status will affect the body's circadian cycle, fatigue and lack of sleep which can increase mental problems (Leso *et al.*, 2021).

## CONCLUSION

The results of this study indicate that mental health issues are not influenced by demographic factors or job-related factors, but rather by lifestyle factors (sleep <7 hours and physical activity) that can be controlled by each worker. Researchers recommend that Port Logistic Terminal at Tanjung Priok develop programs that support the improvement of workers' mental health through pre-retirement training programs, coaching and counseling programs with employees, creating permanent and measurable employee enhancement programs, assessing workload and placing employees according to their cognitive capacities, boosting motivation, as well as emphasizing the importance of adequate sleep and regular exercise through training and improving sports facilities for staff.

## CONFLICT OF INTEREST

We confirm that no conflict of interest during this research.

## AUTHORS' CONTRIBUTION

ECP: Conceptualization, Methodology, Writing, Data Curation, Original Draft Preparation. DS: Visualization, Writing & Review, MS: Software, Validation, and Editing.

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