



Original Article

An Investigation of Work Stress among Malaysian Seafarers during the Endemic

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Abstract: The shipping industry contributes more than 95% of global trade and plays an essential role in global economic growth. Besides its importance, seafaring is also known as a stressful occupation. They are exposed to more stressful work lives, particularly during the COVID-19 pandemic, and its impacts prolong the endemic phase. However, minimal attention has been paid to surveying the level of work stress, particularly among Malaysian seafarers. This cross-sectional study has surveyed work stress among 390 Malaysian seafarers using nonproportionate random sampling. Online questionnaires in Google Forms with an appended consent form were distributed to the respondents by an appointed representative. The online questionnaire comprised demographics and the Malay version of the Job Stress Scale (JSS). Data was collected in approximately four weeks and analysed using descriptive statistics. The results showed that the level of work stress among seafarers was at a moderate level overall and for each subscale. This study contributes to more understanding about stress especially work stress among seafarers and how COVID-19 impacts their level of work stress. Further study is highly recommended to confirm its relationship with other related factors.

Keywords: Work stress; Malaysian seafarers; Endemic.



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1. Introduction

Seafaring is stressful (Jensen & Oldenburg, 2021; McVeigh, MacLachlan, Vallières, Hyland, Stilz, Cox & Fraser, 2019). The work-related stress in seafaring is different from work stress in other professions. The nature of their working environment involves having to be in an isolated and confined space, experiencing being away from home for an extended period, sharing the same work and rest place, having non-stop working hours and insufficient rest time (McVeigh, MacLachlan, Stilz, Cox, Doyle, Fraser & Dyer, 2017; Carotenuto, Molino, Fasanaro, Amenta, 2012).

Seafarers are also exposed to safety issues, like many possible dangers in the form of accidents, injuries, and diseases (Carotenuto, Fasanaro, Molino, Sibilio, Saturnino, Traini & Amenta, 2013; Iversen, 2012). Being seafarers has put them physically and emotionally stressed, and they are risky for mental health-related problems. Work stress is not a new issue among seafarers, and it is widely discussed in many studies, including many aspects. For example, in physical aspects such as noise, weather, type of ship and location. Personal matters like character, social status, experience and awareness. Social aspects like support, interaction with people and social activities. Besides, work-based matters such as workload, long working hours, treatment, and wages could also be other aspects of stress. The following studies show all the aspects of work stress mentioned. See (Nurcholis & Qurniawati, 2020; Oldenburg & Jensen, 2019a; Oldenburg & Jensen, 2019b; Sliskovic, 2017; Carotenuto et al, 2013; Iversen, 2012; Rengamani & Murugan, 2012; Oldenburg, Jensen & Baur, 2009; Jezewska, Leszczynska & Jaremin, 2006).

Studies on stress have shown that demographic factors like gender and experience contribute to work stress. For example, in terms of gender, males had lower stress levels than females (Aronsson & Rissler, 1998; McCarty, Zhao & Garland, 2007; Al-Ezzi, 2019). Length of working experience also could contribute to stress like what has been found by Wu, Fox, Stokes & Adam (2012). The respondents who have worked less than two years have reported the highest stress level than those who were three to five years and above. Lee, Kim & Kim (1997) also found that seafarers who have worked less than five years are more likely to experience work stress. Traditional psychology theory of stress is usually attributed to the Lazarus transactional stress theory. Stress happens when a person appraises or perceives an environmental stimulus as demands are greater than their ability to meet stress demands (Epel, Crosswell, Mayera, Prather, Slavich, Puterman & Mendes, 2018; Lazarus et al., 1985). According to Lazarus' theory, appraisal is key to understanding stress (Lazarus, 1995). In work settings, stress can be defined as a feeling raised by individuals that deviates them from functioning in relation to the workplace due to constraints or demands that may impact psychological or physiological consequences (Parker & DeCotiis, 1983). All individuals in a certain working environment tend to experience work stress, which may be due to the work demands, constraints and conflicts in that environment (Cooper & Marshall, 1976).

The COVID-19 pandemic has significantly impacted the lives of seafarers. Studies have been addressed these issues and showed that factors like travel restrictions, termination of the contract, stranded at sea during the movement control order phase, and not leaving the ships even for medical services (Jonglertmontree, Kaewboonchoo, Morioka, & Boonyamalik, 2023; Sliskovic, 2020; Pesel, Sandrin, & Jensen, 2020). Although the COVID-19 pandemic has moved to an endemic phase, the impacts of the pandemic would cause the existing seafarers' work stress to increase and have the possibility to worsen their work-life quality. Thus, it would jeopardise shipping activities and economic growth, including shipping and economic activities worldwide, in general, and in Malaysia, in particular. Therefore, the present study intends to survey the level of work stress among seafarers, particularly Malaysian seafarers.

2. Materials and Methods

2.1. Research Design and Procedures

The present research was a quantitative, cross-sectional research design. This study used a questionnaire adapted from the Job Stress Scale by Parker and DeCotiis (1983), which was translated into Malay using back-to-back translation. The questionnaire consists of two sections. The first section was the demographic background of respondents, and the second section was the Job Stress Scale. Due to restricted access for seafarers, a representative from the Marine Department of Malaysia was appointed to distribute the online questionnaire. The researcher has provided a general overview of the research, data collection-related information, and confidentiality matters. The informed consent and confidentiality issues were explained and included in the initial part of the online questionnaire. The representative distributed the online questionnaire via Google form to the seafarers, and responses were tracked by the researcher online via Google form collaborator medium.

2.2. Participants

This study involved a number of 390 Malaysian seafarers. Most seafarers were male (98.5%), on contract scheme (72.9%), married (72.6%), Malays (81.3%), had a sailing experience of six years and above (72.6%) and included both local and international experience (72.3%). In terms of their position, more than half (61.3%) were officers and engineers. The details of the demographic profile of respondents are presented in Table 1.

Table 1. Demographic profiles of respondents

Demography	Category	Frequency	Percentage
Gender	Male	384	98.5
	Female	6	1.5

Marital status	Single	100	25.6
	Marriage	283	72.6
	Widow	7	1.8
Race	Malay	317	81.3
	Chinese	9	2.3
	Indian	24	6.1
	Others	40	10.3
Position	Officer	111	28.5
	Engineer	128	32.8
	Rating	69	17.7
	Crew	38	9.7
	Catering	12	3.1
	Others	32	8.2
Years of Experience	0-1 Year	21	5.4
	2-5 Years	86	22.0
	6-10 Years	104	26.7
	11-20 Years	128	32.8
	21 Years and above	51	13.1
Sailing Experience	Local only	83	21.3
	International only	25	6.4
	Local and International	282	72.3
Employment Status	Permanent	81	20.8
	Contract	309	79.2

2.3. Measurements

This study used the Job Stress Scale developed by Parker and DeCotiis to measure work stress levels. This scale has 13 items with two dimensions: time stress (8 items) and anxiety stress (5 items). The scale used Likert scale measures ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability coefficient of this measure has been found to have an acceptable value of Cronbach alpha of 0.9 (Liou, 1995; Jamal, 2007). The reliability of the current study was at the accepted threshold, which, for the overall Job Stress Scale, had a value of 0.895, time stress had a value of 0.832, and anxiety stress was 0.824. Hence, it strengthens the reliability of the Job Stress Scale. Also, this study uses a measurement scale proposed by Landel (1997) and Pallant (2010). The mean score interpretation is seen in Table 2 below:

Table 2. Mean score interpretation.

Mean score	Interpretation
1.01 – 2.33	Low
2.34 – 3.67	Moderate
3.68 – 5.00	High

Source: Adapted from Landell (1997) and Pallant (2010).

3. Results

By applying the descriptive statistical analysis, the result of the data analysis is seen in Table 3 – 5 below:

Table 3. Mean and standard deviation of work stress level (N=390)

Work stress	Mean	Standard Deviation
Overall scale	3.1	0.77
Time stress	3.1	0.79

Work stress	Mean	Standard Deviation
Anxiety stress	2.9	0.90

Note: Work stress score average among Malaysian seafarers.

Table 4. Distribution of time stress levels (N=390)

Time stress	Frequency	Percentage
Low	58	14.9
Medium	232	59.5
High	100	25.6

Note: Level of time stress distribution among Malaysian seafarers.

Table 5. Distribution of anxiety stress levels (N=390)

Anxiety	Frequency	Percentage
Low	112	28.7
Medium	200	51.3
High	78	20

Note: Level of anxiety stress distribution among Malaysian seafarers.

Table 3 captures the work stress score among Malaysian seafarers, which was 3.1. For each dimension, the score for the time stress was 3.1 and anxiety stress was 2.9. These results showed that the level of work stress among Malaysian seafarers was moderate for each dimension. This result was interpreted based on Landel (1997) and Pallant (2010) mean score interpretation, which mentioned the mean score ranged 2.34 to 3.67, under the moderate stress level category. More than half of respondents acknowledged that they had a moderate level of time and anxiety stress level, and more than 10 per cent had a high level of time and anxiety stress level (Table 4-5).

4. Discussion

The present study surveys work stress levels among seafarers. Despite agreeing that seafarers' profession is stressful, results show seafarers have moderate work stress levels. This result offered a bit different perspective. A moderate stress level could be implied as seafarers' work stress is still under control. The result could be related to respondent demographic factors. Referring to demographic profile data, most seafarers were male. Based on gender, male seafarers may experience stress but not at a high level. Studies show males have been found to have less stress compared to females (Aronsson & Rissler, 1998; McCarty et al., 2007; Al-Ezzi, 2019). Experience is also another possible contributing factor. They can control stress better while having more experience. Wu et al. (2012) and Lee et al., (1997) found in their studies that respondents who worked less than five years have reported the highest stress levels. This study is also consistent with what has been found by Doyle et al. (2016), who mentioned that longer seafaring experience is a protective factor of stress. Besides that, this study will occur at the end of the pandemic phase. Seafarers might have made some adjustments to the COVID-19 situation. Many sectors and things are slowly back to normal. Therefore, the stress might not be as high as in the early phase of the pandemic. This study contributes to understanding stress, especially work stress among seafarers and how COVID-19 impacted their level of work stress during the endemic phase. This study can also be explained through the lens of General Adaptation Syndrome theory by Hans Selye (Tan & Yip, 2018). The theory divided stress into three phases: alarm reaction, resistance, and exhaustion. In the phase of alarm reaction, individuals are exposed to a stressor. Thus, they are taken off guard at first, then move to the next phase when they attempt to resist the change to maintain homeostasis. After that, they finally fall to the last phase of exhaustion when encountering the stressor (Tan & Yip, 2018). Thus, seafarers' demographic factors probably make them capable of adapting or countering their work stress.

5. Conclusions

This study offers a valuable descriptive overview of work stress levels among Malaysian seafarers, shedding light on their unique challenges in their demanding work environment. The findings highlight the prevalence of work-related stress, which can have significant implications for seafarers' well-being and overall job performance. By documenting these stress levels, the study lays the groundwork for more focused investigations into the specific factors contributing to work stress within this group. Further research is necessary to deepen our understanding of work stress among seafarers. Future studies should explore the underlying causes of stress, as well as potential coping strategies and interventions that could enhance seafarers' mental health and resilience. By addressing these issues, researchers can

contribute to developing targeted support systems that promote a healthier work environment for maritime industry workers.

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