



## Stress and Coping Mechanisms among Shipboard Trainees in Cebu

Carl Jay P. Diamante<sup>1,\*</sup>

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### ABSTRACT

This study investigates the stress levels and coping mechanisms among shipboard trainees in Cebu, a major hub for maritime education in the Philippines, with the aim of identifying areas for institutional improvement. Using a descriptive research design, quantitative data were collected from 200 trainees currently enrolled in Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE) programs. Findings reveal that while the occupational environment is generally perceived as manageable, significant stressors—such as physical strain, sleep deprivation, and anxiety related to long working hours—persist. Trainees commonly employ adaptive coping strategies, including physical activities and emotional sharing, though maladaptive coping methods and limited social support were also noted. The study highlights the need for maritime institutions to enhance peer support networks, integrate mental health programs, and foster emotionally receptive environments. Addressing these areas is crucial for improving the well-being of trainees, which in turn, contributes to safer and more effective maritime operations. Future research should explore the long-term effects of institutional interventions on stress management and operational outcomes.

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### 1. Introduction.

The maritime industry, a vital component of the global economy, depends heavily on seafarers to ensure the seamless movement of goods across the world's oceans (Nitarri et al., 2022). However, the profession presents significant challenges, particularly for shipboard trainees, who face stressors such as prolonged time away from home, demanding work schedules, and the inherent risks of seafaring (Nitarri, 2022; Senbursa, 2024). Cebu, a key hub for maritime education in the Philippines, serves as the focal point for this study, where trainees transitioning from academic programs to real-world sea duties experience heightened stress levels (Chiong, 2023).

Research consistently identifies various stress-inducing factors in the maritime environment, including isolation, sleep deprivation, and the physical and mental demands of shipboard

life (Bilir et. al, 2023). These challenges are particularly pronounced among trainees, who must quickly adapt to the rigors of maritime labor while meeting the expectations of their supervisors and peers (Metsrovic et al., 2024). If left unaddressed, the pressures of seafaring can lead to serious mental health issues, such as anxiety, depression, and burnout (Brooks & Greenberg, 2022).

Understanding these stressors is crucial for ensuring the well-being and effectiveness of shipboard trainees. Equally important is the identification of coping mechanisms, ranging from individual psychological tactics to institutional support systems, which are essential in reducing stress-related outcomes (Velená & Rinkenauer, 2021). This study aims to explore the sources of stress and coping strategies employed by shipboard trainees in Cebu, with a view to enhancing institutional support for mental and emotional health (Montallana & Gepilano, 2023).

The findings from this research can inform policy changes and the development of interventions that promote resilience, mental health awareness, and overall well-being, thereby improving the training experience and long-term career satisfaction of maritime professionals (Ajayi & Udeh, 2024). Addressing these issues will contribute to safer and more effective mar-

<sup>1</sup>College Instructor. Cebu Technological University, Philippines.  
<https://orcid.org/0009-0000-6646-3380>.

\*Corresponding author: Carl Jay P. Diamante. E-mail Address: [diamante-carljay@gmail.com](mailto:diamante-carljay@gmail.com).

itime operations.

## 2. Research Questions.

Specifically, the study will try to address the following questions:

1. What are the common stresses encountered by Shipboard Trainees?
2. What are the coping mechanisms usually applied by Shipboard Trainees in dealing with their stresses onboard?

## 3. Methodology.

The study employs a descriptive research design with a quantitative approach to investigate stress levels and coping mechanisms among shipboard trainees in Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE) programs. Data will be collected onboard vessels to capture real-time experiences, minimizing bias. Respondents will be randomly selected from trainees currently in their shipboard training in Cebu, with participation contingent on informed consent.

A modified questionnaire, based on a prior study on Australian seafarer entitled “A Survey of the Health, Stress and Fatigue of Australian Seafarers” This study will assess common stressors and coping strategies using a 5-point Likert scale. Data analysis will involve calculating frequencies, percentages, and means to provide insights into the stressors and coping mechanisms of the trainees, ultimately enhancing the understanding of their well-being.

## 4. Application and Results.

The study can be illustrated with the help of the paradigm shown in Table 1:

1. What are the common stresses encountered by Shipboard Trainees?

The survey results indicate a nuanced understanding of the stress levels among shipboard trainees, with varying experiences across different dimensions of their training environment. The working environment yielded a total mean score of 3.47, suggesting that trainees generally feel satisfied and capable of managing their roles despite encountering some stress. Statements such as “You are satisfied with your job” and “You can handle your job accordingly” received particularly high ratings, with means above 3.7, indicating consistent positive sentiment among trainees.

However, the physical condition aspect was marked by a lower mean score of 2.94, classifying it as stressful. Trainees reported experiences of body pain, fatigue, and inadequate rest, which are significant contributors to their overall stress levels. These findings align with those of Salazar et al. (2019), who noted that physical strain and

Table 1: Stress Survey.

	Statements	Mean	Interpretation
Working Environment	You are satisfied with your job.	3.84	ALWAYS
	You can handle your job accordingly.	3.66	ALWAYS
	You are comfortable being a Shipboard Trainee.	3.43	ALWAYS
	You are happy working on board.	2.73	ALWAYS
	Working on board has stress.	3.71	SOMETIMES
	<b>TOTAL MEAN</b>	<b>3.47</b>	<b>LESS STRESS</b>
Physical Condition	You have experience body pains.	3.11	SOMETIMES
	You are having enough sleep.	3.06	SOMETIMES
	You are having enough rest.	3.05	SOMETIMES
	You are tired being Shipboard Trainee	2.55	SOMETIMES
	<b>TOTAL MEAN</b>	<b>2.94</b>	<b>STRESS</b>
Health Condition	You experience illness lately.	2.62	SOMETIMES
	You are taking medicine lately.	2.35	OFTEN
	You are having allergies on board.	2.45	OFTEN
	You have experience difficulty in breathing on board.	2.36	OFTEN
	You are having good health condition.	3.32	ALWAYS
	<b>TOTAL MEAN</b>	<b>2.62</b>	<b>STRESS</b>
Physiological and Psychological	You lose weight due to stress.	2.95	SOMETIMES
	You experience mood changes on board.	2.81	SOMETIMES
	You feel lonely on board.	2.39	OFTEN
	You feel fear of sea.	2.58	SOMETIMES
	You have experienced difficulty in sleeping.	2.61	SOMETIMES
	<b>TOTAL MEAN</b>	<b>2.71</b>	<b>STRESS</b>
Social Environment	The crew treats you well.	3.43	ALWAYS
	You have good relationship with others on board.	3.48	ALWAYS
	You have best buddy on board.	3.22	SOMETIMES
	You interact with your officials.	3.13	SOMETIMES
	You follow instructions given by officials properly	3.41	ALWAYS
	<b>TOTAL MEAN</b>	<b>3.33</b>	<b>LESS STRESS</b>
	<b>GRAND TOTAL MEAN</b>	<b>3.01</b>	<b>STRESS</b>

Source: Authors.

fatigue among seafarers significantly impact their mental well-being.

The health condition category recorded a mean of 2.62, indicating that trainees often experience health issues such as illnesses and allergies while at sea. This is consistent with research by Akamangwa (2016), which identified that maritime professionals frequently encounter health challenges due to lifestyle factors associated with prolonged sea duty, further exacerbating their stress.

In the physiological and psychological dimension, the mean score of 2.71 reflects concerns such as mood changes, feelings of loneliness, and sleep disturbances. This aligns with findings by Brooks & Greenberg (2022), who observed that irregular work schedules in maritime settings disrupt circadian rhythms, contributing to both physical and mental health challenges.

Interestingly, the social environment was perceived more positively, with a mean score of 3.33, suggesting that supportive interactions among crew members mitigate some stress. This supports research by Gottschall & Guerin (2023), which emphasized the importance of camaraderie and social support in high-stress environments, demonstrating that positive social relationships can enhance resilience and improve mental health.

Overall, the grand total mean of 3.01 categorizes the working conditions aboard as stressful, highlighting the complexities trainees face in balancing their well-being with their responsibilities. This comprehensive understanding of stressors faced by shipboard trainees underlines the ne-

cessity for maritime institutions to develop targeted interventions aimed at reducing stress, enhancing physical and mental health resources, and fostering a supportive social environment to promote overall trainee well-being.

2. What are the coping mechanisms usually applied by Shipboard Trainees in dealing with their stresses onboard?

Table 2: Coping Stress.

	Statements	Mean	Interpretation
Physical Coping	You exercise onboard.	3.04	SOMETIMES DONE
	You eat too much onboard.	1.31	RARELY DONE
	You are sexually active onboard	2.52	SOMETIMES DONE
	You pray onboard	3.92	ALWAYS DONE
	<b>TOTAL MEAN</b>	<b>2.69</b>	<b>SOMETIMES DONE</b>
Emotional Coping	You share problems with your crewmates.	3.07	SOMETIMES DONE
	You smoke onboard.	1.39	RARELY DONE
	You use prohibited drugs onboard.	1.00	RARELY DONE
	<b>TOTAL MEAN</b>	<b>1.82</b>	<b>OFTEN DONE</b>
Social Support	You perform extra activity onboard.	1.68	RARELY DONE
	You drink alcohol onboard.	1.22	RARELY DONE
	You are having leisure activity onboard.	2.24	OFTEN DONE
	<b>TOTAL MEAN</b>	<b>1.71</b>	<b>RARELY DONE</b>
	<b>GRAND TOTAL MEAN</b>	<b>2.07</b>	<b>OFTEN DONE</b>

Source: Authors.

The findings reveal that shipboard trainees engage in **physical coping strategies**, rated as "sometimes done" with a mean of 2.69. These trainees remain sexually active, exercise onboard, and maintain a religious practice of prayer, although they rarely overeat. According to Lazarus and Folkman (1984), coping involves adaptive cognitive and behavioral efforts to manage stress. Research indicates that individuals who use approach coping strategies, like problem-solving, experience fewer psychological symptoms (Chang et al., 2007), while avoidance strategies, such as denial, are linked to greater distress (Diong et al., 2005).

In terms of emotional coping, this was rated as "often done" with a mean of 1.82. Trainees occasionally share their problems with crewmates and sometimes resort to drug use or smoking as coping mechanisms. Emotional-approach coping, characterized by expressing and processing emotions, is correlated with adaptive coping strategies (Darabos et al., 2021). This approach is particularly effective in supportive social contexts and when stressors involve interpersonal issues.

Lastly, social support among trainees is rated as "rarely done," with a mean of 1.71. While they engage in occasional leisure activities, the overall lack of social support may contribute to increased psychological distress. Family support, in particular, has been associated with reduced stress levels. These findings suggest that while some coping strategies are utilized, there is room for improvement in fostering emotional expression and social support among shipboard trainees.

## 5. Discussion.

The study results provide critical insights into the multifaceted stress levels experienced by shipboard trainees, reveal-

ing both strengths and weaknesses in their training environment. The working environment achieved a high mean score of 3.47, indicating that trainees generally feel satisfied with their roles and believe they can manage their responsibilities effectively. This positive sentiment is underscored by strong ratings for statements related to job satisfaction and competence, highlighting the effectiveness of training programs in preparing trainees for onboard duties.

However, the mean score of 2.94 for physical conditions indicates significant stressors related to bodily strain, fatigue, and insufficient rest. Trainees reported challenges such as body pain and exhaustion, echoing findings from Salazar et al. (2019), who identified physical strain as a critical factor impacting the mental health of seafarers. These stressors not only affect immediate well-being but also pose long-term health risks, necessitating targeted improvements in onboard living and working conditions.

In the health condition category, a mean score of 2.62 suggests that trainees frequently encounter health issues, including illnesses and allergies while at sea. This aligns with Akamangwa's (2016) research, which highlights the health challenges faced by maritime professionals due to the demanding nature of their work environment. The cumulative effect of these health challenges significantly contributes to the overall stress levels of trainees, complicating their training experience.

The physiological and psychological dimensions reveal a mean score of 2.71, emphasizing issues such as mood fluctuations, feelings of loneliness, and sleep disturbances. Brooks and Greenberg (2022) noted that irregular work schedules in maritime settings can disrupt circadian rhythms, exacerbating both physical and mental health challenges. This underscores the critical need for structured schedules and the promotion of healthier lifestyle choices among trainees to mitigate these stressors.

Conversely, the social environment received a more favorable mean score of 3.33, suggesting that positive interactions among crew members serve as a buffer against stress. Research by Gottschall and Guerin (2023) reinforces this, indicating that social support is essential for enhancing resilience in high-stress environments. The camaraderie among trainees plays a vital role in their ability to cope with the demands of shipboard life, highlighting the importance of fostering supportive relationships within crews.

Despite the strengths in social interactions, the findings on coping strategies reveal areas for improvement. Physical coping strategies garnered a mean score of 2.69, indicating that while trainees engage in beneficial practices such as exercise and prayer, there is inconsistency in their application. Emotional coping, rated at 1.82, suggests that while some trainees share their challenges with crewmates, maladaptive behaviors like smoking persist. Lazarus and Folkman (1984) emphasize the importance of adaptive coping strategies, which can lead to better psychological outcomes. This points to the necessity for targeted interventions that promote healthy coping mechanisms and emotional expression.

Finally, the low mean score of 1.71 for social support suggests a significant gap in robust support systems among trainees.

While some leisure activities are undertaken, the absence of strong familial or peer support has been linked to increased stress levels. Enhancing social networks could alleviate psychological distress and foster a more resilient training environment. The findings indicate that while shipboard trainees utilize certain coping strategies, there is ample room for improvement in fostering emotional support and resilience-building practices. Addressing these gaps is essential for promoting the overall well-being of trainees in maritime settings, paving the way for a healthier, more effective training experience.

## Conclusions.

This study provides valuable insights into the stress and coping mechanisms experienced by shipboard trainees in Cebu. While the trainees generally report satisfaction with their working environment, significant stressors related to physical health, fatigue, and psychological challenges persist. The findings reveal a reliance on various coping strategies, with physical coping activities and emotional sharing being utilized, yet they also highlight concerning trends such as the use of maladaptive coping methods and limited social support.

The results underscore the complexity of stress in maritime settings, where the demanding nature of the job can adversely affect trainees' well-being. To address these challenges, maritime institutions and shipping companies must prioritize enhancing social support systems and fostering an environment conducive to open emotional expression. By doing so, they can help trainees better manage stress and improve their overall mental health, ultimately leading to safer and more effective maritime operations. This study lays the groundwork for future research and interventions aimed at supporting the well-being of seafarers in training and contributing to the broader discourse on maritime health and safety.

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