

WORK ENVIRONMENT AND MENTAL HEALTH CHALLENGES AMONG FILIPINO SEAFARERS: A CORRELATIONAL STUDY

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of the Requirements for the Degree
BACHELOR OF SCIENCE IN MARINE TRANSPORTATION

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ABSTRACT

Despite growing research on seafarers' mental health, limited evidence has examined the relationship between multidimensional work environment factors and specific mental health challenges among Filipino seafarers. This study examined work environment factors, mental health challenges, and the relationship between these variables among Filipino seafarers. A quantitative descriptive-correlational research design was employed among 51 Filipino seafarers using a structured questionnaire. Work environment factors and mental health dimensions, including stress, anxiety, depression and emotional distress, fatigue, and isolation and social factors, were assessed using descriptive statistics. Data normality was evaluated using the Shapiro–Wilk test, while Spearman's rank-order correlation was used to determine the relationship between the principal variables. The findings showed that work environment factors were experienced at a moderate extent, while work-related stress was experienced at a high extent. Anxiety, depression and emotional distress, and fatigue were reported at moderate extents, whereas isolation and social factors were generally experienced at a low extent. A moderate positive and statistically significant relationship was found between work environment factors and mental health challenges ($\rho = 0.441$, $p = 0.001$). The findings emphasize the need for organizational approaches to seafarer mental health that integrate supportive leadership, fatigue management, psychosocial support, effective communication, and improved working conditions. Strengthening these measures may contribute to seafarers' well-being and promote safer maritime operations.

Keywords: *Anxiety, Fatigue, Psychosocial, Stress, Wellbeing*

DEDICATION

This study is dedicated to our parents and families. Their love, encouragement, sacrifices, and support have been our strength throughout our academic journey. Their guidance motivated us to keep going despite the challenges we faced while completing this research. We also dedicate this study to our instructors and professors. They generously shared their knowledge and guidance, helping us successfully develop this work. Their commitment to teaching has greatly contributed to our growth as students and future maritime professionals.

To our fellow maritime students, we hope this study will provide information and inspiration on the importance of study habits and academic performance. We aim for this research to support future studies and encourage students to build effective learning practices. Above all, we dedicate this work to Almighty God for giving us wisdom, strength, guidance, and blessings throughout the completion of this study.

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INTRODUCTION

Background of the Study

Mental health among seafarers has received increasing attention because the maritime workplace combines demanding occupational conditions with prolonged periods of social separation and limited opportunities for recovery. Seafarers commonly work under extended duty schedules, irregular work-rest patterns, hazardous operational conditions, confined shipboard environments, and prolonged separation from family. These conditions may create psychosocial demands that are associated with stress, anxiety, emotional distress, fatigue, and reduced psychological well-being (Brooks & Greenberg, 2022; Jonglertmontree et al., 2022). A systematic review by Brooks and Greenberg (2022) identified social isolation, poor physical conditions, long working hours, sleep problems, and other occupational stressors as important concerns affecting the mental health and psychological well-being of maritime personnel.

The psychosocial work environment is particularly important because seafarers' psychological experiences are shaped not only by individual characteristics but also by workload, leadership, interpersonal relationships, organizational support, communication, safety, and working conditions. Jonglertmontree et al. (2022), in a scoping review of seafarer mental health, identified workload, shipboard conditions, inadequate sleep, poor social support, and other occupational factors as contributors to psychological problems among seafarers. More recent evidence strengthens this perspective. Hayes-Mejia and Stafström (2023) examined the psychosocial work environment and mental health of the global seafarer workforce and demonstrated the importance of work-related psychosocial conditions in understanding seafarers' mental health. Their subsequent cross-sectional

study involving 13,008 seafarers from 154 nationalities and 44 shipping companies also found associations between working conditions and seafarers' well-being and happiness (Hayes-Mejia & Stafström, 2024).

The relationship between work conditions and mental health is also supported by research on organizational and sociotechnical factors. Li et al. (2022) found that a healthy organizational climate, supportive coworkers, authentic leadership, and appropriate use of digitalization were associated with psychological capital and mental well-being among seafarers, with burnout functioning as an important pathway. These findings suggest that seafarer mental health should not be viewed solely as an individual health concern but also as an organizational and occupational issue.

The multidimensional nature of seafarer mental health is further demonstrated by recent studies. Jonglertmontree et al. (2022) identified stress, anxiety, depression, fatigue, and sleep-related problems among the principal mental health concerns reported in the maritime literature. Similarly, Sivri et al. (2025) found persistent relationships between stressful shipboard conditions, pressure from superiors, isolation, depression, and anxiety among seafarers in the post-COVID-19 period. Their findings emphasized the importance of addressing workplace tension, leadership, workload, and psychosocial conditions when developing mental health interventions for seafarers.

Occupational stress remains an important component of this multidimensional problem. Seafaring involves safety-critical responsibilities, irregular working hours, high workloads, and exposure to unpredictable operational conditions. Jonglertmontree et al. (2022) reported that occupational and organizational factors were consistently associated with psychological problems among seafarers. Brooks and Greenberg (2022) similarly

identified long working hours, poor working conditions, isolation, and insufficient organizational support as important contributors to psychological distress. Consequently, examining stress within the broader psychosocial work environment provides a more comprehensive understanding of the occupational experiences of seafarers.

Fatigue is another important dimension of seafarer mental health and occupational safety. Irregular shifts, night watches, extended working periods, insufficient sleep, and emergency duties can interfere with normal recovery. Recent evidence indicates that fatigue among seafarers is multidimensional and is shaped by sleep and recovery, work organization, shipboard environmental conditions, psychosocial factors, and organizational and regulatory contexts (Zhao et al., 2026). Fatigue is therefore not simply a physical condition but an occupational and psychosocial concern that may influence concentration, decision-making, emotional regulation, and safety.

The connection between sleep, fatigue, and psychological well-being has also been emphasized in earlier reviews. Jonglertmontree et al. (2022) identified inadequate sleep, extended working hours, excessive workload, and insufficient opportunities for recovery as important factors associated with mental health problems among seafarers. Brooks and Greenberg (2022) likewise reported that poor sleep and demanding work conditions were repeatedly associated with psychological distress and emotional exhaustion. These findings demonstrate the importance of considering fatigue as part of a broader assessment of seafarer mental health.

Anxiety and depressive symptoms constitute additional dimensions of psychological difficulty in seafaring. Recent evidence indicates that stressful working conditions, pressure from superiors, isolation, and other shipboard challenges remain

associated with anxiety and depression among seafarers. Sivri et al. (2025) reported substantial levels of depressive and anxiety symptoms in a post-COVID-19 sample and identified tense working environments and pressure from superiors as important elements within the psychosocial network associated with these outcomes. Nittari et al. (2022) likewise identified multiple occupational and environmental factors associated with the mental health of merchant seafarers, including work organization, isolation, and shipboard conditions.

Social isolation and separation from family represent another distinctive feature of seafaring. Months spent onboard ships may restrict face-to-face interaction with family members and limit opportunities for social recovery. Brooks and Greenberg (2022) identified social isolation and separation from family as recurring concerns within the maritime mental health literature. Among Filipino seafarers, family relationships are particularly relevant because maintaining connections with family is an important component of emotional and social well-being. Abila and Acejo (2021) specifically examined the mental health of Filipino seafarers and highlighted the importance of understanding their occupational and social experiences within the context of seafaring.

Communication technology has increasingly become an important component of seafarer welfare. Access to internet-based communication enables seafarers to maintain contact with family and friends and may provide opportunities for accessing health information and support. Abila et al. (2023) examined the role of information and communication technology in seafarers' mental health and emphasized the potential of ICT to empower seafarers through communication, health information, and other forms of

support. Thus, communication access can be considered part of the broader psychosocial environment in which seafarers live and work.

The issue is particularly important for Filipino seafarers. The Philippines is one of the world's major sources of maritime labor, making the welfare of Filipino seafarers important to both the national economy and international shipping. However, evidence indicates that Filipino seafarers experience mental health concerns that require greater attention. Abila and Acejo (2021) documented the mental health concerns of Filipino seafarers and emphasized implications for seafarers' education. More recently, the National Maritime Polytechnic reported that 189 Filipino seafarers were diagnosed with mental disorders between 2018 and 2022, with anxiety and depressive disorders accounting for the largest proportions of recorded cases. The report also identified family and work-related concerns as important issues requiring attention.

Mental health help-seeking may also be influenced by stigma and concerns about disclosure. Martinez et al. (2020), in a systematic review of Filipino help-seeking for mental health problems, identified cultural and structural barriers that may discourage Filipinos from seeking professional mental health assistance. In the maritime context, these concerns may be compounded by the occupational consequences that seafarers associate with reporting psychological difficulties. This emphasizes the importance of creating organizational environments where mental health concerns can be discussed confidentially and without fear of discrimination.

Organizational support is therefore a critical component of the psychosocial work environment. Supportive leadership, positive interpersonal relationships, effective communication, fair organizational practices, and accessible welfare services may help

create conditions that promote psychological well-being. Li et al. (2022) found that supportive organizational climates and authentic leadership were associated with seafarers' psychological capital and mental well-being. Similarly, Hayes-Mejia and Stafström (2024) demonstrated that different aspects of seafarers' working experiences were associated with well-being and happiness. These findings reinforce the view that mental health promotion should extend beyond individual coping and include improvements in the organizational environment.

Resilience and coping mechanisms may also provide protective resources for seafarers. Abila et al. (2023) emphasized the potential of communication technology and health education to empower seafarers in managing their mental health. Li et al. (2022) likewise demonstrated the importance of psychological capital and organizational conditions in supporting seafarers' well-being. Such evidence suggests that interventions should combine individual-level resources with organizational and psychosocial measures rather than relying exclusively on personal coping strategies.

Mental health interventions in maritime settings have consequently expanded beyond conventional clinical services. Suggested approaches include mental health awareness, confidential counseling, peer support, resilience-building programs, leadership development, fatigue management, improved communication facilities, and supportive organizational policies. Abila et al. (2023) emphasized the potential of ICT-based approaches for supporting seafarers' mental health, while Jonglertmontree et al. (2022) recommended organizational measures addressing workload, rest, social support, and access to psychological resources. More recent evidence from Zhao et al. (2026) further

supports integrated fatigue risk management that considers work organization, recovery, environmental, psychosocial, and organizational factors.

The literature therefore indicates that seafarer mental health is multidimensional and closely connected to the occupational context. Stress, anxiety, depressive and emotional distress, fatigue, and isolation or loneliness may occur alongside psychosocial conditions involving workload, leadership, safety, organizational support, communication, and social relationships. The emerging evidence also indicates that these dimensions should be examined together rather than as isolated problems. Hayes-Mejia and Stafström (2023) specifically demonstrated the relevance of the psychosocial work environment to seafarer mental health, while their 2024 study further linked working conditions with well-being and happiness.

Despite the growing international literature, a gap remains in localized quantitative evidence examining the relationship between a multidimensional psychosocial work environment and multiple mental health challenges among Filipino seafarers. Existing Philippine studies have provided valuable evidence concerning Filipino seafarers' mental health, education, help-seeking, and technology-supported well-being (Abila & Acejo, 2021; Abila et al., 2023), while the National Maritime Polytechnic has provided recent evidence on diagnosed mental disorders among Filipino seafarers. However, there remains a need for studies that simultaneously examine workplace conditions and multiple dimensions of mental health within a Filipino seafarer population.

This gap is particularly important because the psychosocial work environment encompasses several interconnected dimensions, including working conditions, organizational mental health policies, support from superiors, safety and security, and the

perceived relationship between working conditions and mental health. Examining these dimensions alongside stress, anxiety, depressive and emotional distress, fatigue, and isolation or social factors may provide a more comprehensive understanding of seafarers' occupational well-being.

Accordingly, the present study, entitled “Psychosocial Work Environment and Mental Health Among Filipino Seafarers: A Multidimensional Correlational Analysis,” examines the psychosocial work environment and multidimensional mental health challenges experienced by Filipino seafarers and determines whether a significant relationship exists between these variables. By focusing on the association rather than assuming causation, the study seeks to provide localized evidence that may inform occupational health initiatives, maritime education, shipping-company welfare programs, and policies intended to promote healthier and safer working environments for Filipino seafarers.

Theoretical Framework

This study is primarily anchored on the Job Demands–Resources (JD-R) Model developed by Demerouti et al. (2001) and further expanded by Bakker and Demerouti (2007, 2017). The model proposes that every occupation involves two broad categories of working conditions: job demands and job resources. Job demands refer to physical, psychological, social, or organizational aspects of work that require sustained physical or psychological effort and may consequently be associated with fatigue, stress, and other adverse outcomes. Job resources, in contrast, refer to physical, psychological,

social, or organizational factors that help employees achieve work goals, reduce job demands, stimulate personal development, and promote well-being.

The JD-R Model is particularly relevant to the maritime industry because seafaring involves distinctive occupational demands. Seafarers may encounter extended working hours, demanding workloads, irregular work-rest schedules, safety-critical responsibilities, hazardous conditions, confined working environments, and prolonged periods away from their families. These conditions may constitute job demands that require continuous physical and psychological effort. Recent maritime research has similarly demonstrated that workload, working conditions, organizational factors, and psychosocial demands are important considerations in understanding seafarers' mental health and well-being (Brooks & Greenberg, 2022; Jonglertmontree et al., 2022; Hayes-Mejia & Stafström, 2023).

Within the present study, the psychosocial work environment represents the occupational conditions through which job demands and resources may be experienced. The dimensions examined include the onboard working environment, company mental health policies, support from superiors, work conditions and mental health, and safety and security at work. Some of these dimensions may represent job demands, while others function as job resources. For example, demanding work conditions and safety concerns may increase psychological demands, whereas supportive superiors and effective company mental health policies may provide organizational resources that help seafarers manage occupational pressures.

The JD-R Model further proposes two major psychological processes. The first is a health-impairment process, in which excessive or sustained job demands consume employees' physical and psychological resources and may contribute to exhaustion, stress,

fatigue, and other negative health outcomes. The second is a motivational process, in which adequate job resources promote engagement, motivation, resilience, and well-being (Bakker & Demerouti, 2017). This dual-process perspective is relevant to seafarers because demanding working conditions may coexist with organizational resources such as leadership support, communication, welfare programs, and mental health policies.

The mental health component of the present study is examined multidimensionally through stress, anxiety, depressive and emotional distress, fatigue, and isolation and social factors. These dimensions reflect different psychological and social manifestations that may emerge within demanding occupational environments. Stress and anxiety may arise when perceived occupational demands exceed available resources, while fatigue may reflect prolonged effort and insufficient recovery. Emotional distress and isolation may also be associated with prolonged deployment, separation from family, limited social interaction, and other psychosocial conditions of life at sea. Previous maritime research has consistently identified these concerns as important dimensions of seafarers' psychological well-being (Brooks & Greenberg, 2022; Jonglertmontree et al., 2022).

Recent evidence provides further support for applying the JD-R perspective to seafaring. Hayes-Mejia and Stafström (2023) found that psychosocial work environment factors were associated with mental health among seafarers, demonstrating the importance of examining occupational conditions when assessing psychological outcomes in this population. Their subsequent study also showed that working conditions were related to seafarers' well-being and happiness (Hayes-Mejia & Stafström, 2024). Similarly, Li et al. (2022) emphasized the importance of organizational climate, leadership, coworker support, and psychological resources in explaining psychological well-being and burnout among

seafarers. These findings reinforce the proposition that seafarer mental health is influenced by the interaction between occupational demands and available organizational resources.

The model is also relevant to fatigue, which represents an important component of the present study. Seafarers frequently perform work under irregular schedules and demanding operational conditions, making adequate recovery particularly important. Recent research indicates that seafarer fatigue is associated with interacting work-related, sleep-related, environmental, psychosocial, and organizational factors (Zhao et al., 2026). From a JD-R perspective, persistent demands combined with inadequate resources for recovery may contribute to exhaustion and reduced psychological functioning.

The Mental Health Continuum perspective proposed by Keyes (2002) also provides a complementary theoretical basis for understanding the multidimensional nature of mental health. Rather than defining mental health solely as the absence of mental illness, the continuum perspective recognizes varying degrees of psychological, emotional, and social well-being. This perspective supports the present study's assessment of multiple mental health dimensions rather than treating mental health as a single condition. The World Health Organization (2022) similarly conceptualizes mental health as a state of well-being that enables individuals to cope with stress, function effectively, and contribute to their communities.

The integration of the JD-R Model and the Mental Health Continuum provides a comprehensive theoretical foundation for the present investigation. The JD-R Model explains how occupational demands and resources within the psychosocial work environment may be associated with psychological outcomes, while the Mental Health Continuum provides a broader perspective for understanding mental health across multiple

dimensions of psychological and social functioning. Together, these perspectives recognize that seafarers' mental health cannot be adequately understood solely through individual characteristics; it must also be considered within the occupational and organizational context in which seafarers live and work.

Accordingly, the present study uses the JD-R Model as its primary theoretical foundation to examine the association between the psychosocial work environment and mental health among Filipino seafarers. The study does not assume a causal relationship between the variables. Instead, it determines whether a statistically significant association exists between the multidimensional psychosocial work environment and the identified mental health challenges. This theoretical perspective provides a basis for interpreting the study's findings and for developing organizational and psychosocial interventions aimed at improving seafarer well-being and promoting safer maritime operations.

Conceptual Framework

The conceptual framework of this study is based on the premise that the mental health of seafarers is closely associated with the psychosocial conditions in which they perform their work (Figure 1). Seafaring is characterized by distinctive occupational conditions, including prolonged periods onboard, demanding workloads, irregular working schedules, safety-critical responsibilities, separation from family, and limited opportunities for recovery. Within this context, the psychosocial work environment encompasses both occupational demands and organizational resources that characterize the daily work experiences of seafarers.

INPUT	PROCESS	OUTPUT
1. Demographic Profile • Age & Sex • Civil Status • Rank / Position • Vessel Type • Length of Service • Contract Duration 2. Psychosocial Work Environment • Onboard Working Environment • Company MH Policies • Support from Superiors • Work Conditions & MH • Safety & Security at Work 3. Multidimensional Mental Health • Stress & Anxiety • Depressive/Emotional Distress • Fatigue • Isolation & Social Factors	Methodology: • Instrument Validation • Questionnaire Distribution • Data Collection & Coding Statistical Analysis: • Descriptive Statistics • Shapiro–Wilk Normality Test • Spearman's Rank-Order Correlation (r_s) (To assess association without presuming causality)	Empirical Findings & Action: • Assessment of psychosocial work environment and mental health challenges among Filipino seafarers. • Empirical evidence on the relationship / association between variables. • Basis for maritime recommendations (organizational support, MH promotion, fatigue management, leadership, and communication).

Figure 1. The Psychosocial Work Environment and Multidimensional Mental Health of Filipino Seafarers: An IPO Framework

The framework identifies psychosocial work environment as the first major variable of the study. It is operationalized through five dimensions: onboard working environment, company mental health policies, support from superiors, work conditions and mental health, and safety and security at work. These dimensions represent important aspects of the organizational and occupational context in which Filipino seafarers perform their duties. A supportive work environment, responsive leadership, appropriate mental health policies, and adequate safety measures may represent organizational resources, whereas demanding or unfavorable working conditions may represent psychosocial demands. The Job Demands–Resources Model provides the theoretical basis for understanding these occupational demands and resources and their relationship with workers' well-being (Demerouti et al., 2001; Bakker & Demerouti, 2017).

The second major variable is mental health, which is conceptualized as a multidimensional construct encompassing stress, anxiety, depressive and emotional

distress, fatigue, and isolation and social factors. These dimensions reflect different psychological and social experiences that may occur among seafarers working in demanding and socially restricted environments. Stress represents psychological strain associated with occupational demands; anxiety reflects worry and uneasiness related to work responsibilities and safety; depressive and emotional distress reflects experiences such as loneliness, homesickness, reduced motivation, and emotional exhaustion; fatigue represents physical and mental tiredness and difficulties associated with alertness and decision-making; while isolation and social factors encompass limited social interaction, communication barriers, restricted internet connectivity, and cultural differences.

The framework assumes that these dimensions should be examined collectively because seafarer mental health is not a single-dimensional condition. Previous maritime research has demonstrated that occupational demands, working conditions, organizational support, social isolation, fatigue, and communication are interconnected aspects of seafarers' psychological well-being (Brooks & Greenberg, 2022; Jonglertmontree et al., 2022; Hayes-Mejia & Stafström, 2023). More recent research likewise emphasizes the importance of examining psychosocial working conditions and multiple dimensions of well-being when assessing the mental health of seafarers (Hayes-Mejia & Stafström, 2024; Zhao et al., 2026).

The framework also incorporates the demographic profile of the respondents as contextual information. The respondents are described according to age, sex, civil status, rank or position onboard, type of vessel, length of service, and average contract duration. These characteristics provide contextual information for understanding the population

under investigation. However, they are not treated as primary predictor variables in the present correlational analysis.

The conceptual framework follows an Input–Process–Output (IPO) structure. The input consists of the respondents' demographic characteristics, the psychosocial work environment dimensions, and the multidimensional mental health indicators. The process involves the preparation and validation of the research instrument, questionnaire distribution, data collection, organization and coding of responses, statistical treatment, and interpretation of results. Descriptive statistics are used to determine the extent of the psychosocial work environment and mental health dimensions. Data normality is assessed using the Shapiro–Wilk test, and because the data do not meet the assumptions of normality, Spearman's rank-order correlation is used to examine the association between the psychosocial work environment and mental health.

The output of the framework is an assessment of the psychosocial work environment and mental health challenges experienced by Filipino seafarers, together with empirical evidence regarding the relationship between the two major variables. The resulting evidence may provide a basis for developing recommendations concerning organizational support, mental health promotion, fatigue management, leadership practices, communication, and working conditions within the maritime sector.

Importantly, the conceptual framework does not presume that the psychosocial work environment causes mental health challenges. Consistent with the descriptive-correlational design of the study, it proposes that the two constructs may be associated with one another. This distinction is particularly important because the statistical analysis identifies the strength and direction of a relationship but does not establish causality. Thus,

the framework provides a structured basis for examining how the psychosocial work environment and multidimensional mental health are related among Filipino seafarers.

Objectives of the Study

The study generally aims to assess the psychosocial work environment and mental health challenges among Filipino seafarers and determine the association between these variables.

Specifically, the study seeks to:

1. describe the respondents' profile in terms of age, sex, civil status, rank or position, vessel type, length of service, and contract duration;
2. assess the extent of the psychosocial work environment experienced by Filipino seafarers in terms of onboard working environment, company mental health policies, support from superiors, work conditions and mental health, and safety and security at work;
3. determine the extent of mental health challenges experienced by Filipino seafarers in terms of stress, anxiety, depressive and emotional distress, fatigue, and isolation and social factors;
4. determine the overall extent of mental health challenges experienced by Filipino seafarers; and
5. determine whether a significant association exists between the psychosocial work environment and mental health challenges among Filipino seafarers.

Significance of the Study

The study is significant because it provides evidence on the psychosocial work environment and mental health challenges experienced by Filipino seafarers. By examining workplace conditions alongside different dimensions of mental health, the study may contribute to a better understanding of the psychosocial factors that characterize life and work at sea. The findings may be useful to the following groups:

Filipino Seafarers. The study may help seafarers recognize the importance of psychosocial working conditions and mental well-being while onboard. It may also encourage greater awareness of stress, anxiety, emotional distress, fatigue, and social concerns and the importance of seeking appropriate support when needed.

Shipping Companies and Manning Agencies. The findings may provide useful information for strengthening workplace practices, mental health programs, supervisory support, communication mechanisms, fatigue-management measures, and other initiatives that promote seafarers' well-being.

Maritime Schools and Training Institutions. The study may serve as a basis for strengthening maritime education and training by incorporating mental health awareness, stress management, interpersonal support, fatigue management, and psychosocial preparedness into relevant programs and activities.

Maritime Industry Policymakers and Government Agencies. The findings may provide evidence that can support the development, implementation, and evaluation of policies and programs addressing psychosocial risks and mental health in the maritime sector. The results may also contribute to initiatives that promote safer and healthier working environments for Filipino seafarers.

Future Researchers. The study may serve as a reference for researchers who intend to conduct further investigations on seafarers' psychosocial work environment and mental health. It may provide a basis for comparative, longitudinal, or intervention-based studies involving larger samples, different maritime populations, and additional psychosocial factors.

MATERIALS AND METHODS

Research Design

The study employed a quantitative descriptive-correlational research design to assess the psychosocial work environment and mental health challenges among Filipino seafarers and to determine the association between these variables. The descriptive component was used to determine the extent of the psychosocial work environment and the level of mental health challenges experienced by the respondents. The correlational component was used to examine whether a significant association existed between the psychosocial work environment and mental health challenges.

The study did not seek to establish a cause-and-effect relationship. Rather, it examined the statistical association between the two major variables based on the responses of the participating Filipino seafarers.

Respondents of the Study

The respondents were 51 Filipino seafarers who had experience working onboard merchant vessels. The respondents were selected based on their eligibility and willingness to participate in the study. Relevant demographic characteristics included age, sex, civil status, rank or position, vessel type, length of service, and contract duration.

Participation was voluntary, and respondents were informed of the purpose of the study, the nature of their participation, and their right to decline or withdraw from the study without penalty.

Research Instrument

The primary data-gathering instrument used in the study was a structured survey questionnaire designed to assess the psychosocial work environment and mental health challenges experienced by Filipino seafarers (Appendix A). The questionnaire was developed to reflect the objectives of the study and the specific dimensions identified in the conceptual framework. It was organized into sections covering the respondents' demographic characteristics, psychosocial work environment, and mental health challenges.

Section 1. Demographic Information

The first section gathered the respondents' demographic and occupational information. The variables included sex, age, civil status, position or rank onboard, type of vessel, length of service, and average contract duration.

Sex was categorized as male, female, or prefer not to say. Age was grouped into four categories: 18–25, 26–35, 36–45, and 46 years and above. Civil status included single, married, separated/divorced, and widowed. Position or rank onboard included captain/master, officer, rating, and other positions. Vessel type included cargo, tanker, passenger/cruise, and other vessel types. Length of service was categorized as 1–5, 6–10, 11–15, and 16 years and above, while average contract duration was classified as less than six months, 6–9 months, and 10–12 months.

These variables were collected to provide a contextual description of the respondents and to characterize the population included in the study.

Section 2. Psychosocial Work Environment

The second section assessed the respondents' perceptions of their psychosocial work environment onboard. The items focused on workplace conditions and organizational factors that may be relevant to seafarers' psychological well-being.

The section consisted of five dimensions:

1. Onboard Working Environment – assessed how the general working environment onboard relates to the respondents' psychological well-being and stress.
2. Company Mental Health Policies – assessed the extent to which company policies and practices provide awareness, recognition, and organizational support related to mental health.
3. Support from Superiors – assessed the perceived availability of assistance, understanding, and support from superiors in relation to work and well-being.
4. Work Conditions and Mental Health – assessed the perceived influence of working conditions, including workload and other operational demands, on the respondents' mental well-being.
5. Safety and Security at Work – assessed respondents' perceptions of safety, security, and psychological concerns associated with working onboard.

The items in this section were answered using the study's five-point response continuum. Higher scores indicated a greater extent of the condition or perception represented by the item.

Section 3. Mental Health Challenges

The third section assessed the mental health challenges experienced by Filipino seafarers while onboard. The items were organized into five dimensions: stress, anxiety, depressive and emotional distress, fatigue, and isolation and social factors.

A. Stress

The stress dimension assessed experiences associated with occupational pressure and psychological strain onboard. The indicators included onboard stress, workload-related mental exhaustion, pressure to perform duties without error, and stress associated with long working hours.

B. Anxiety

The anxiety dimension assessed feelings of worry, nervousness, and uneasiness associated with seafaring responsibilities and situations. The indicators included job responsibility anxiety, safety-related worry, emergency-response uneasiness, and nervousness during inspection or evaluation.

C. Depressive and Emotional Distress

The depressive and emotional distress dimension assessed experiences of emotional difficulty that may occur during extended periods away from home and while performing demanding duties at sea. The indicators included onboard loneliness, family-related homesickness, contract-related emotional exhaustion, and loss of motivation to perform duties.

The term depressive and emotional distress was used in the analysis to avoid implying that the questionnaire clinically diagnosed depression. The responses represent

self-reported experiences and should therefore be interpreted as indicators of emotional distress rather than clinical diagnoses.

D. Fatigue

The fatigue dimension assessed physical and mental tiredness and its possible effects on functioning while onboard. The indicators included physical and mental tiredness, sleep-related mental impairment, duty-related alertness difficulties, and fatigue-related decision-making difficulties.

E. Isolation and Social Factors

The isolation and social factors dimension assessed social and communication-related experiences that may affect seafarers' well-being while onboard. The indicators included onboard social isolation, communication barriers, limited internet connectivity, and cultural differences.

Response Scale

The questionnaire used a four-point Likert-type scale for assessing the extent of the psychosocial work environment and mental health challenges. Respondents indicated the degree to which they agreed with each statement.

The responses were scored as follows:

Response	Numerical Value
Strongly Disagree	1
Disagree	2
Agree	3
Strongly Agree	4

Continuum for Verbal Interpretation

The mean scores obtained from the respondents' responses were interpreted using the following four-point continuum. The class interval was calculated by subtracting the lowest scale value (1.00) from the highest scale value (4.00) and dividing the difference by four. Thus, the class interval was 0.75. The resulting mean ranges and their corresponding verbal interpretations are presented below.

Mean Range	Verbal Interpretation
3.26–4.00	Very High Extent
2.51–3.25	High Extent
1.76–2.50	Low Extent
1.00–1.75	Very Low Extent

Instrument Validation and Reliability

Before the questionnaire was administered, the instrument was reviewed to ensure that the items were clear, relevant, and appropriate to the objectives of the study and the context of Filipino seafarers. The questionnaire was subjected to content validation by qualified reviewers with relevant knowledge of maritime education, seafaring, research methodology, and/or mental health.

The validated instrument was subsequently administered to the selected respondents. The responses were examined for completeness before coding and statistical analysis.

The internal consistency of the questionnaire should be reported using Cronbach's alpha, if reliability testing was conducted. A coefficient of 0.70 or higher may generally be

considered acceptable for research purposes. The overall reliability coefficient and, where appropriate, the reliability coefficients for the major sections should be reported in the final manuscript. Based on the responses provided by the respondents, the 40-item instrument obtained an overall Cronbach's alpha coefficient of 0.889, indicating good internal consistency (Appendix B). This suggests that the items, when considered collectively, demonstrated a satisfactory level of consistency in measuring the constructs included in the instrument.

Data Gathering Procedure

Prior to the conduct of data collection, the researcher secured the necessary institutional approvals and permissions. An approved Research Data Gathering Approval Form was obtained to authorize the implementation of the study (Appendix C). In addition, an approved letter from the Dean was sought and secured to facilitate the conduct of the research and the distribution of the survey questionnaire to the intended respondents (Appendix D). The researcher also coordinated with appropriate maritime organizations and prospective Filipino seafarer respondents.

Following the approval of the research data-gathering protocol, the validated questionnaire was uploaded to Google Forms for online administration. The electronic survey link was distributed to qualified Filipino seafarers through appropriate communication channels. Before proceeding to the questionnaire, participants were presented with an informed consent (Appendix E) statement explaining the purpose and procedures of the study, the voluntary nature of their participation, their right to decline or

withdraw from the study, and the measures adopted to protect the confidentiality of their responses.

Participants who provided consent were allowed to proceed with the survey and complete the demographic and substantive sections of the questionnaire electronically. Respondents were given sufficient time to complete the instrument. The Google Forms platform automatically recorded and organized the submitted responses, allowing the researcher to efficiently collect and monitor the completed questionnaires.

Upon completion of the data-gathering period, the collected responses were downloaded from Google Forms and reviewed for completeness and consistency. Sample of the filled-out questionnaire is presented in Appendix F. The data were subsequently coded, organized, and prepared for statistical analysis. Appropriate descriptive and inferential statistical procedures were then applied in accordance with the objectives of the study.

All information obtained from the respondents was treated with strict confidentiality and was used solely for academic and research purposes. Personal identifying information was not included in the presentation of the findings. The results were reported in aggregate form to ensure that individual respondents could not be identified.

Statistical Treatment of Data

The collected data were encoded and analyzed using appropriate statistical procedures.

Frequency and percentage were used to summarize the respondents' demographic profile, including age, sex, civil status, rank or position, vessel type, length of service, and contract duration.

Mean and standard deviation were used to determine the extent of the psychosocial work environment and mental health challenges. These statistics were calculated for the individual indicators and their corresponding dimensions.

The Shapiro–Wilk test was employed to assess the distributional characteristics of the data and to guide the selection of the appropriate correlation procedure.

Since the data did not satisfy the assumptions required for a parametric correlation analysis, Spearman's rank-order correlation coefficient (ρ) was employed to determine the association between the psychosocial work environment and mental health challenges.

The level of statistical significance was set at 0.05. A probability value (p) less than 0.05 was interpreted as indicating a statistically significant association, while a probability value greater than 0.05 indicated that the association was not statistically significant.

The resulting Spearman's rho was interpreted according to the direction and magnitude of the correlation. A positive coefficient indicated that higher scores on one variable tended to be associated with higher scores on the other variable, whereas a negative coefficient indicated an inverse association. The correlation coefficient was interpreted in terms of strength rather than causation.

Ethical Considerations

Ethical principles were observed throughout the conduct of the study. Participation was voluntary, and respondents were provided with appropriate information regarding the purpose, procedures, and intended use of the research data. Informed consent was obtained before participation.

Respondents were informed that they could refuse to answer any question or withdraw from the study without adverse consequences. Confidentiality and privacy were maintained during data collection, processing, analysis, and reporting. The results were presented in aggregate form to protect the identity of individual participants.

Because the study involved questions concerning mental health experiences, the researcher also emphasized that the questionnaire was intended for research assessment and was not a clinical diagnostic instrument.

To demonstrate the originality and quality of the research manuscript, the Turnitin Overall Similarity Report is presented in Appendix G, while the Grammarly Results are presented in Appendix H as evidence of the language and grammar review conducted prior to the finalization of the manuscript. The completed Adviser's Consultation Form, documenting the research consultations throughout the study, is provided in Appendix I, and Appendix J contains photographic documentation of the procedures and other research activities undertaken during data collection.

RESULTS AND DISCUSSION

This section presents and discusses the findings on the work environment factors, mental health challenges, and coping mechanisms among Filipino seafarers, with emphasis on the interrelationships among these variables. The findings are interpreted in relation to relevant maritime research and the occupational context of seafaring.

Profile of the Respondents

Figure 2 presents the demographic and occupational profile of the respondents according to gender, age, civil status, rank onboard, vessel type, length of service, and average contract duration. The respondents were predominantly male, comprising 96% of the sample, while females represented 4%. In terms of age, the largest proportion belonged to the 26–35-year group (46%), followed by those aged 18–25 (24%), while 18% were 46 years and above and 12% were 36–45 years old. Regarding civil status, 54% were single, and 46% were married.

The occupational profile further indicates that 56% of the respondents were ratings, while the remaining 44% were officers and engineering personnel. In terms of vessel type, bulk carriers accounted for the largest proportion (46%), followed by tankers (34%), while container vessels represented 8% and cargo and passenger vessels each accounted for 6%. Regarding length of service, 32% had 1–5 years of experience and another 32% had 6–10 years, while 24% had 16 years and above and 12% had 11–15 years of service. Notably, 74% reported an average contract duration of 6–9 months, indicating that extended deployment was a common characteristic of the respondents' maritime employment.

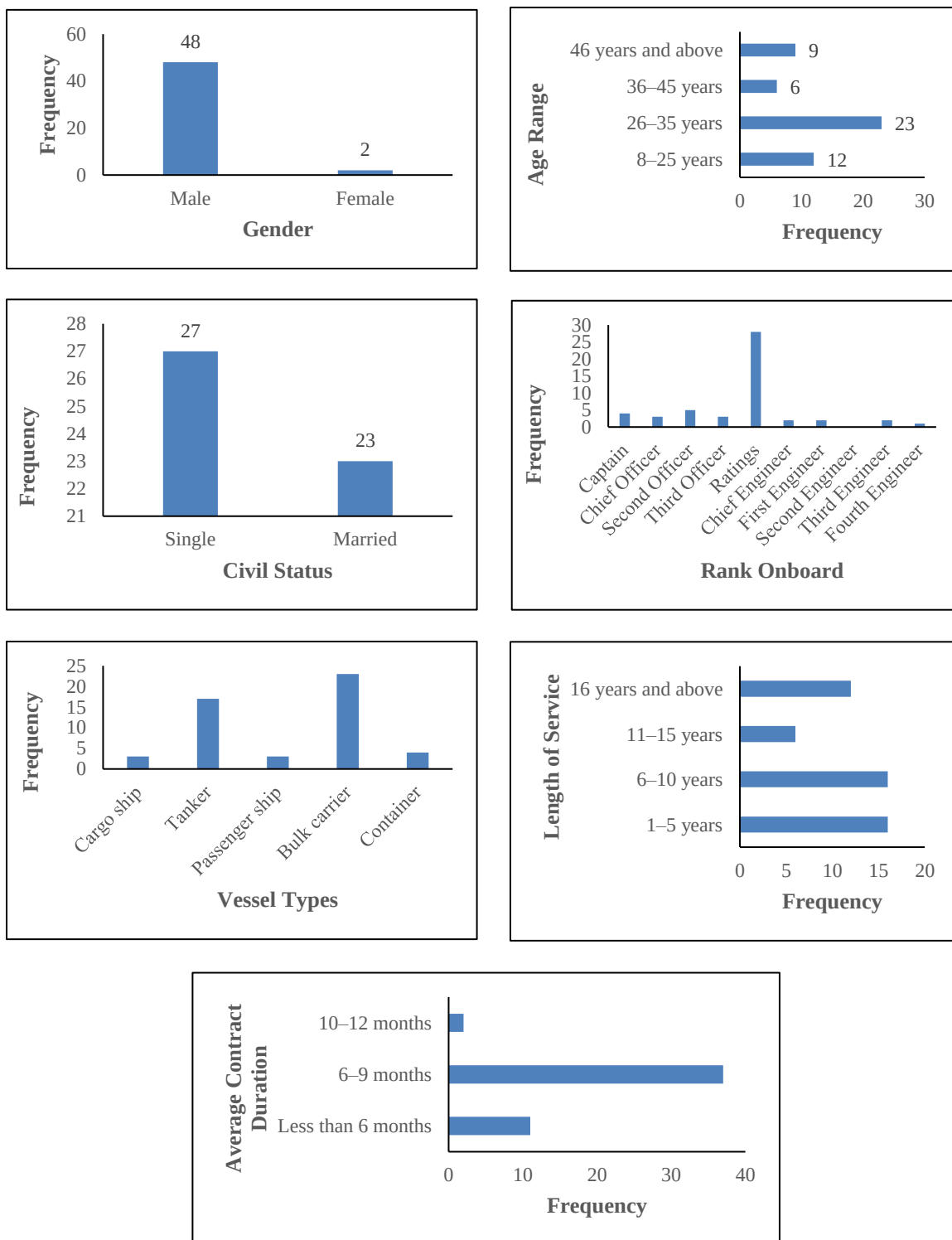


Figure 2. Profile of the Respondents in Terms of Gender, Age, Civil Status, Rank Onboard, Vessel Type, Length of Service, and Average Contract Duration

The predominance of male respondents is consistent with the continuing gender imbalance within the global seafaring workforce. However, gender and other demographic characteristics should be interpreted primarily as contextual variables rather than direct explanations of mental-health outcomes. Hayes-Mejia and Stafström (2023) emphasized the importance of psychosocial working conditions in understanding seafarers' mental health, suggesting that the occupational environment and the demands associated with maritime employment are important considerations when examining psychological well-being.

The occupational profile is particularly relevant to the present study because the respondents' experiences of mental health may be shaped by the nature of their shipboard duties, rank, vessel operations, and duration of deployment. Wan et al. (2023), using the Job Demands–Resources framework, demonstrated that job demands and job resources are associated with burnout, engagement, health, and work ability among seafarers. More recent evidence has likewise indicated that psychological outcomes vary according to occupational characteristics such as ship type, job role, workload, sleep quality, and fatigue (Sembursa et al., 2025).

The high proportion of respondents with contracts lasting 6–9 months is particularly relevant to the present investigation. Prolonged deployment may involve continued exposure to workload, fatigue, restricted recovery opportunities, separation from family, and reduced access to familiar social networks. Research involving Filipino seafarers has identified family separation, stress, fatigue, communication, and interpersonal relationships as important dimensions of seafarer well-being. Abila et al. (2023) further emphasized the importance of information and communication technologies

in helping seafarers maintain social connections and support their mental health during deployment.

Taken together, the profile establishes the occupational context within which the three principal constructs of the present study—work environment factors, mental health challenges, and coping mechanisms—should be understood. The demographic and occupational characteristics do not by themselves establish relationships with mental health. Rather, they provide contextual information for interpreting how seafarers experience workplace demands, psychological challenges, and the coping resources available to them.

Work Environment Factors

Table 1 presents the extent of work environment factors affecting the mental health of Filipino seafarers. The overall mean of 3.21 (SD = 0.68) indicates a High Extent, suggesting that the identified work environment factors have a considerable influence on the mental health and psychological well-being of the respondents. Recent research has established that working conditions and psychosocial factors onboard are associated with seafarers' well-being and mental-health outcomes. Hayes-Mejia and Stafström (2023), for example, found significant associations between psychosocial work-environment characteristics and mental-health outcomes among seafarers.

The onboard working environment obtained a mean of 3.45 (SD = 0.64), interpreted as Very High Extent. This indicates that the conditions in which seafarers live and perform their duties are strongly perceived to affect their mental health. The shipboard environment is particularly important because seafarers spend extended periods living and working

onboard. Hayes-Mejia and Stafström (2024) found that work-environment factors were significantly associated with well-being and happiness among seafarers, supporting the importance of maintaining favorable conditions onboard. Their study involved 13,008 seafarers from 154 nationalities and 44 shipping companies, providing substantial evidence regarding the relationship between work experiences and well-being at sea.

Table 1. Extent of Work Environment Factors Affecting the Mental Health of Filipino Seafarers

	Mean	SD	Descriptive Equivalent
1. Onboard Working Environment	3.45	0.64	Very High Extent
2. Company Mental Health Policies	2.88	0.77	High Extent
3. Support from Superiors	3.45	0.68	Very High Extent
4. Work Conditions and Mental Health	3.10	0.61	High Extent
5. Safety and Security at Work	3.19	0.70	High Extent
Overall Mean	3.21	0.68	High Extent

Company mental health policies obtained a mean of 2.88 (SD = 0.77), interpreted as High Extent. This suggests that company policies and programs addressing mental health have a considerable influence on the respondents' psychological well-being. Organizational policies can provide mechanisms through which seafarers receive information, assistance, and appropriate support when experiencing mental-health difficulties. Hayes-Mejia and Stafström (2024) emphasized that greater attention to seafarers' well-being by shipping companies may contribute positively to crew retention and safety at sea.

Support from superiors obtained a mean of 3.45 (SD = 0.68), interpreted as Very High Extent. This indicates that support received from superiors is one of the important work-environment factors affecting the mental health of the respondents. Supportive relationships and a positive psychosocial environment may help seafarers manage demanding situations onboard. Hayes-Mejia and Stafström (2023) identified psychosocial

work-environment characteristics as relevant to seafarers' mental-health outcomes, highlighting the importance of considering interpersonal and organizational conditions when addressing mental health at sea.

The factor work conditions and mental health obtained a mean of 3.10 (SD = 0.61), interpreted as High Extent. This finding indicates that the respondents perceive their general working conditions as having a considerable effect on their mental health. Working at sea can involve demanding occupational responsibilities, extended periods onboard, and limited opportunities for recovery. Hayes-Mejia and Stafström (2024) reported that work-related factors and the general work environment were associated with seafarers' well-being and happiness, reinforcing the importance of favorable working conditions in promoting psychological well-being.

Lastly, safety and security at work obtained a mean of 3.19 (SD = 0.70), interpreted as High Extent. This result indicates that perceptions of safety and security are also relevant to the mental health experiences of Filipino seafarers. A safe working environment is particularly important in maritime occupations because seafarers may encounter occupational hazards and demanding operational situations. Recent research by Bhatia et al. (2025) identified workload and long working hours as the two most prominent fatigue risk factors reported by seafarers, demonstrating how demanding occupational conditions can affect seafarers' well-being and safety.

Overall, the High Extent rating, with an overall mean of 3.21 (SD = 0.68), indicates that work environment factors have a meaningful role in the mental health experiences of Filipino seafarers. The findings highlight the importance of maintaining a supportive onboard environment, strengthening company mental-health policies, encouraging

supportive leadership, improving working conditions, and maintaining safety and security at work. Recent studies consistently emphasize the relationship between seafarers' work environments, psychosocial conditions, workload, and overall well-being.

Mental Health Challenges

A. Stress

Table 2 presents the extent of work-related stress experienced by Filipino seafarers across four indicators: onboard stress, workload-related mental exhaustion, pressure to perform duties without error, and stress associated with long working hours. The findings show a consistently high extent of work-related stress across all indicators, resulting in an overall assessment categorized as High Extent. This indicates that stress is not attributable to a single aspect of shipboard employment but appears to arise from the combined demands of the seafaring work environment, workload, performance expectations, and working-time conditions.

Table 2. Extent of Work-Related Stress Experienced by Filipino Seafarers

Work-Related Stress Indicators	Mean	SD	Extent
1. Onboard stress	3.10	0.46	High Extent
2. Workload-related mental exhaustion	3.02	0.55	High Extent
3. Pressure to perform duties without error	2.82	0.66	High Extent
4. Stress associated with long working hours	3.02	0.79	High Extent
Overall Mean	2.99	0.62	High Extent

The prominence of onboard stress, which obtained a mean of 3.10 (SD = 0.46) and was interpreted as High Extent, suggests that the shipboard environment itself constitutes an important psychosocial context for seafarers. This interpretation is consistent with the findings of Hayes-Mejia and Stafström (2023), who reported significant associations between psychosocial work-environment characteristics and mental-health outcomes

among a large multinational sample of seafarers. Their findings underscore the importance of considering the work environment when examining seafarers' psychological well-being rather than treating mental-health outcomes solely as individual-level phenomena. Similarly, Hayes-Mejia and Stafström (2024) found that working conditions were associated with seafarers' well-being and happiness, further indicating that everyday experiences onboard can shape broader dimensions of psychological well-being. Thus, the high level of onboard stress observed in the present study may reflect the cumulative psychological demands embedded in the maritime work environment.

The workload-related mental exhaustion indicator obtained a mean of 3.02 (SD = 0.55), interpreted as High Extent. This further highlights the psychological consequences of sustained work demands. Rather than representing physical tiredness alone, mental exhaustion may reflect prolonged cognitive effort, continuous vigilance, and limited opportunities for psychological recovery. This interpretation is supported by Galić et al. (2023), who identified workload and working-time conditions as important factors associated with fatigue and sleep-related problems among seafarers. More recently, Bhatia et al. (2025) reported that workload was identified by seafarers as the most prominent fatigue risk factor in a large international survey. Their findings are particularly relevant because they demonstrate that excessive work demands remain a salient concern in contemporary seafaring despite improvements in maritime safety and operational systems.

The stress associated with long working hours obtained a mean of 3.02 (SD = 0.79), interpreted as High Extent, reinforcing the role of working-time demands in shaping seafarers' stress experiences. Recent evidence indicates that prolonged working hours can constrain opportunities for adequate rest and recovery, thereby increasing vulnerability to

fatigue and psychological strain. Bhatia et al. (2025) identified long working hours as the second most prominent fatigue risk factor reported by seafarers, following workload. Consistent with this finding, Rüpke and Athanassiou (2024) identified working hours, workload, insufficient recovery, and related occupational conditions as interconnected contributors to seafarer fatigue. Likewise, Ma and Liao (2025) highlighted workload and working-time characteristics as important work-environment determinants of seafarer fatigue. The convergence between these studies and the present results suggests that the temporal organization of maritime work remains a significant occupational stressor.

The pressure to perform duties without error obtained a mean of 2.82 (SD = 0.66) and was likewise interpreted as High Extent, although it was relatively less pronounced than the other indicators. This finding is noteworthy because of the safety-critical nature of seafaring, in which operational errors can have consequences for personnel, vessels, cargo, and the marine environment. The finding is consistent with research demonstrating that fatigue and excessive work demands can affect attention, cognitive functioning, and work performance. Rüpke and Athanassiou (2024) emphasized that fatigue among seafarers emerges from multiple interacting work-related factors and can compromise functional capacity. Similarly, Ma and Liao (2025) identified both work-environment and management-related factors as relevant to seafarer fatigue. Accordingly, the pressure to maintain error-free performance may coexist with the very conditions—high workload, prolonged working hours, and inadequate recovery—that can undermine sustained cognitive performance.

An important feature of the present findings is the convergence of stress across the four indicators. Although the relative prominence of individual stressors differed, all four

indicators were classified as High Extent. This pattern suggests that work-related stress among the respondents is better conceptualized as a multifactorial occupational phenomenon rather than as a response to one isolated stressor. This interpretation aligns with Hayes-Mejia and Stafström (2023), who demonstrated that multiple dimensions of the psychosocial work environment were associated with seafarers' mental health. It is also consistent with the recent synthesis by Ma and Liao (2025), which categorized seafarer-fatigue determinants across individual, environmental, and management domains. Such evidence supports a systems-oriented interpretation in which occupational demands interact rather than operate independently.

The findings also contribute to the growing literature on seafarer well-being by providing evidence from Filipino seafarers, an important population within the global maritime workforce. While much of the recent literature has examined multinational samples, the consistency of the present findings with international evidence suggests that Filipino seafarers may encounter many of the same structural stressors identified across maritime contexts. At the same time, the present results provide context-specific evidence that may be relevant to understanding the occupational experiences of Filipino seafarers, particularly given the country's longstanding participation in the international maritime labor market. The alignment with multinational findings reported by Hayes-Mejia and Stafström (2023, 2024) and Bhatia et al. (2025) strengthens the external relevance of the observed pattern.

Taken together, the results indicate that work-related stress among the surveyed Filipino seafarers is high and multidimensional, with onboard conditions, workload-related exhaustion, prolonged working hours, and performance pressure emerging as

interconnected aspects of the occupational experience. The findings are broadly consistent with recent empirical evidence showing that workload, working hours, psychosocial work conditions, fatigue, and insufficient recovery are closely related in seafaring (Galić et al., 2023; Hayes-Mejia & Stafström, 2023, 2024; Rüpke & Athanassiou, 2024; Bhatia et al., 2025; Ma & Liao, 2025). Rather than suggesting that stress originates from a single occupational exposure, the results point toward the cumulative demands associated with working and living in a safety-critical environment for extended periods.

From a scholarly perspective, the findings underscore the importance of examining work-related stress as an occupational and organizational phenomenon. Interventions aimed at reducing seafarer stress may therefore need to address the conditions that generate sustained work demands, including workload distribution, working-time arrangements, recovery opportunities, and the psychosocial quality of the shipboard environment. This interpretation is consistent with recent evidence that seafarer well-being is shaped not only by individual characteristics but also by the organization and conditions of work (Hayes-Mejia & Stafström, 2023; Rüpke & Athanassiou, 2024; Bhatia et al., 2025). Such an approach may be more appropriate than focusing exclusively on individual coping because the principal stressors identified in the present study are embedded within the structure of maritime work.

B. Anxiety

The findings indicate that anxiety among the Filipino seafarers was present to a high extent, suggesting that anxiety-related experiences were evident across the measured dimensions of their work environment and occupational responsibilities. This pattern is

important because anxiety-related experiences may have implications for concentration, decision-making, interpersonal functioning, and safety in a work setting where seafarers routinely perform tasks requiring sustained attention and adherence to safety procedures.

Table 3. Extent of Anxiety Experienced by Filipino Seafarers

Anxiety Indicators	Mean	SD	Descriptive Equivalent
1. Job Responsibility Anxiety	2.55	0.67	High Extent
2. Safety-Related Worry	2.84	0.64	High Extent
3. Emergency Response Uneasiness	2.63	0.74	High Extent
4. Inspection and Evaluation Nervousness	2.67	0.68	High Extent
Overall Mean	2.67	0.68	High Extent

The relatively greater concern associated with safety-related worry, which obtained a mean of 2.84 (SD = 0.64) and was interpreted as High Extent, suggests that the hazardous and unpredictable nature of maritime work remains an important psychological consideration. Seafaring involves exposure to operational hazards, changing weather and sea conditions, emergency situations, and responsibility for the safety of both personnel and vessels. This interpretation is consistent with the recent study of Sánchez-González et al. (2024), which emphasized that the maritime environment can exacerbate psychological difficulties and that psychological well-being is particularly relevant to the safe performance of maritime duties. Their findings further showed that difficulties in performing one's job were associated with poorer psychological well-being among seafarers.

The findings also suggest that anxiety should not be understood solely as an individual psychological response but as an outcome potentially shaped by occupational demands and the broader shipboard environment. The National Maritime Polytechnic's research on Filipino seafarers identified work-related stress, high accountability, magnitude of responsibility, high work volume, sleep loss, fatigue, and concerns for family

members ashore as important contributors to occupational stress. These conditions provide a plausible contextual explanation for why anxiety may remain evident among seafarers.

The result is likewise consistent with recent Philippine evidence concerning the mental health of Filipino seafarers. The National Maritime Polytechnic reported that anxiety disorders constituted the largest proportion of diagnosed mental disorders among Filipino seafarers from 2018 to 2022. The same research identified work-related and family-related problems as important contributors to mental health difficulties. Importantly, this does not mean that the high anxiety-related experiences observed in the present study represent clinical anxiety or a mental disorder. Rather, the findings indicate the presence of anxiety-related occupational experiences, which warrant attention before they potentially develop into more serious psychological problems.

International evidence further supports the importance of monitoring anxiety among seafarers. Sivri et al. (2025) found substantial levels of anxiety among seafarers in the post-COVID-19 period and reported that stressful shipboard working conditions, pressure from superiors, and port-related difficulties were connected to psychological well-being. The authors consequently recommended psychological monitoring, attention to workload and leadership, targeted support for vulnerable groups, and the inclusion of psychosocial indicators in occupational assessments. Similarly, Senbursa et al. (2025) demonstrated that stress, sleep quality, fatigue, and anxiety are interconnected among seafarers, with mental health outcomes varying according to workload, job role, and vessel characteristics.

For Filipino seafarers specifically, Abila and Malecosio (2024) emphasized the importance of psychosocial interventions and mental health support in addressing the

psychological demands associated with maritime employment. Their study demonstrates that mental health support should be considered an integral component of seafarer welfare rather than an intervention reserved only for severe psychological difficulties. The recent development of the National Maritime Polytechnic's Mental Health Awareness for Seafarers course likewise reflects growing recognition within the Philippine maritime sector that mental health literacy, early identification, and appropriate support are necessary components of seafarer welfare and safety.

Overall, the findings suggest that anxiety among Filipino seafarers is a meaningful occupational concern experienced to a high extent and should not be overlooked. The high extent observed across the measured dimensions indicates a need for preventive and supportive interventions. Maritime organizations may therefore strengthen routine psychosocial monitoring, mental health awareness, emergency preparedness, supportive leadership, fatigue management, and accessible counseling or referral mechanisms. Such measures are particularly relevant because anxiety in maritime settings may interact with fatigue, workload, sleep disturbance, and safety-related demands. Addressing these factors proactively may help preserve seafarers' psychological well-being while supporting safe and effective shipboard performance.

Taken together, the findings demonstrate that anxiety among Filipino seafarers constitutes a high occupational psychosocial concern rather than an isolated psychological experience. The pattern is consistent with contemporary maritime research showing that seafarers' psychological well-being is influenced by the interaction of occupational responsibility, safety demands, workload, fatigue, and shipboard working conditions (Sánchez-González et al., 2024; Sivri et al., 2025; Senbursa et al., 2025). Within the

Philippine context, the findings are particularly significant given evidence of mental-health concerns among Filipino seafarers and the prominence of anxiety disorders among reported cases (National Maritime Polytechnic, 2024). Thus, the results reinforce the need to position psychological health alongside physical safety within maritime occupational health policies, with emphasis on early identification, psychosocial support, fatigue and workload management, and accessible mental-health services.

C. Depression

The findings indicate that depressive and emotional distress experiences were present to a high extent among the Filipino seafarers. This suggests that emotional difficulties associated with life and work at sea were sufficiently evident to warrant attention. The result is particularly relevant in seafaring because the workplace simultaneously functions as the employees' living environment, creating prolonged exposure to occupational demands, restricted social interaction, and separation from their usual support systems.

Table 4. Extent of Depression and Emotional Distress Experienced by Filipino Seafarers

Depression and Emotional Distress Indicators	Mean	SD	Descriptive Equivalent
Onboard Loneliness	2.75	0.66	High Extent
Family-Related Homesickness	2.69	0.79	High Extent
Contract-Related Emotional Exhaustion	2.59	0.70	High Extent
Duty-Related Loss of Motivation	2.90	0.54	High Extent
Overall Mean	2.73	067	High Extent

The pattern may be understood in relation to the social and emotional consequences of prolonged periods away from home. Seafarers spend extended periods living and working within relatively confined environments, which can limit opportunities for

ordinary social interaction and access to family support. Recent research on Filipino seafarers describes how they actively recreate a sense of home aboard vessels through food, cultural practices, and other reminders of life in the Philippines, highlighting the importance of maintaining connections with home for their well-being (Turgo, 2024). Thus, the emotional difficulties observed in the present study may reflect not simply physical separation from family but the broader challenge of maintaining emotional continuity between life at sea and life ashore.

This interpretation is reinforced by the National Maritime Polytechnic (NMP) study on the mental health and well-being of Filipino seafarers. Based on data involving Filipino seafarers and shipping or crewing organizations, the study reported an increasing trend in diagnosed mental disorders among Filipino seafarers, with depressive disorders following anxiety disorders among the commonly reported conditions. Importantly, the NMP identified family-related and work-related problems as major contributors to mental health concerns. This provides contextual support for the present finding that emotional difficulties associated with family separation and occupational demands remain relevant among Filipino seafarers.

The findings concerning onboard loneliness, which obtained a mean of 2.75 ($SD = 0.66$) and was interpreted as High Extent, are also consistent with contemporary research describing the psychological implications of isolation in maritime work. Jena (2025) noted that seafarers experience distinctive occupational stressors, including limited interaction with other people, isolation from society, confined workspaces, unpredictable weather, and exposure to hazardous situations. These conditions can create an environment in which emotional needs may be difficult to address despite the physical presence of other crew

members. Consequently, being surrounded by colleagues does not necessarily eliminate loneliness, particularly when seafarers remain physically separated from their families and established social networks.

The family-related homesickness indicator obtained a mean of 2.69 (SD = 0.79) and was likewise interpreted as High Extent. This dimension is particularly significant in the Filipino context. Recent evidence from the Philippines indicates that homesickness and mental health are among the principal concerns reported by Filipino cadets and ratings, with extended separation from family influencing perceptions of whether to remain in maritime employment. This supports the interpretation that emotional distress among Filipino maritime workers may be closely connected to the social cost of prolonged absence from family rather than being attributable exclusively to shipboard working conditions.

The findings are further supported by Abila and Malecosio (2024), who examined psychosocial interventions among Filipino international merchant seafarers. Their study emphasized the importance of mental health and psychosocial support for Filipino seafarers and demonstrated the relevance of interventions designed to address psychological challenges associated with maritime employment. The implication is that emotional distress should be addressed through a preventive and supportive framework, rather than waiting until symptoms become sufficiently severe to require clinical intervention.

International evidence likewise demonstrates that depression and related psychological difficulties remain important concerns within the maritime workforce. Sánchez-González et al. (2024), in their study of 170 Spanish seafarers, emphasized that the maritime environment can exacerbate psychological problems and potentially affect both seafarer well-being and maritime safety. Their study also demonstrated the value of

screening approaches for identifying anxiety, depression, and reduced psychological well-being before these difficulties become more consequential. More recent research by Senbursa et al. (2025) similarly examined depression, anxiety, stress, sleep, and fatigue as interconnected dimensions of seafarers' mental health, reinforcing the view that psychological well-being at sea should be understood as a multidimensional occupational-health issue rather than as isolated emotional symptoms.

The duty-related loss of motivation indicator obtained the highest mean of 2.90 (SD = 0.54) and was interpreted as High Extent. This is particularly noteworthy because motivation may influence work engagement, task persistence, and the quality of performance in safety-critical maritime operations. When emotional exhaustion and prolonged separation accumulate, reduced motivation may become an expression of broader psychological strain. This is consistent with the recent SEAFiT Crew Survey Report (2025), in which seafarers identified increased workload, work-related stress, insufficient opportunities to relax and recharge, limited recreational opportunities, and the need for stronger mental-health support as continuing concerns.

Taken together, the findings suggest that depressive and emotional distress among Filipino seafarers should be regarded as a significant occupational-welfare concern experienced to a high extent. The results do not establish clinical depression, but they indicate the presence of emotional experiences that may become more problematic when combined with prolonged contracts, isolation, fatigue, workload, limited recreational opportunities, and separation from family. This distinction is important because occupational stress and emotional distress should not automatically be equated with

psychiatric disorders; rather, the observed experiences can represent an opportunity for early prevention and intervention.

The findings therefore support the need for proactive psychosocial support throughout the seafarer's employment cycle. Mental-health initiatives should extend beyond crisis response and include regular psychological check-ins, peer-support mechanisms, confidential counseling and referral systems, meaningful recreational activities, adequate opportunities for rest, and reliable communication with families. Such measures are consistent with current Philippine maritime initiatives. The NMP, for example, developed the Mental Health Awareness for Seafarers (MHAS) course to equip seafarers with knowledge and skills for identifying, managing, and seeking assistance for mental-health concerns.

Overall, the findings demonstrate that depressive and emotional distress among Filipino seafarers was experienced to a high extent, indicating that emotional well-being is an important concern within the maritime occupational setting. The convergence of family separation, loneliness, prolonged contracts, occupational demands, and reduced motivation provides a plausible explanation for the pattern observed in the study. Recent Philippine and international literature similarly emphasizes that seafarer mental health is shaped by the interaction of occupational, social, and personal factors (Abila & Malecosio, 2024; Sánchez-González et al., 2024; Senbursa et al., 2025). For Filipino seafarers, this concern is particularly important given national evidence of mental-health cases and the documented contribution of family- and work-related problems to psychological difficulties. Accordingly, strengthening mental-health promotion, family connectivity, onboard social support, fatigue management, and accessible psychosocial services should

form part of a comprehensive strategy for protecting both seafarer well-being and maritime operational safety.

D. Fatigue

Table 5 presents the extent of fatigue experienced by Filipino seafarers across four dimensions: physical and mental tiredness, sleep-related mental impairment, duty-related alertness difficulties, and fatigue-related decision-making difficulties. Overall, the findings indicate that the respondents experienced fatigue to a high extent. This suggests that fatigue was a noticeable experience among the seafarers and was manifested not only through feelings of tiredness but also through sleep-related, attentional, and decision-making concerns.

Table 5. Extent of Fatigue Experienced by Filipino Seafarers

Fatigue Indicators	Mean	SD	Descriptive Equivalent
Physical and Mental Tiredness	2.71	0.70	High Extent
Sleep-Related Mental Impairment	3.00	0.63	High Extent
Duty-Related Alertness Difficulties	2.41	0.75	Low Extent
Fatigue-Related Decision-Making Difficulties	2.80	0.72	High Extent
Overall Mean	2.73	0.70	High Extent

The highest-rated dimension was sleep-related mental impairment, which obtained a mean of 3.00 (SD = 0.63) and was interpreted as High Extent, indicating that sleep-related difficulties represented the most pronounced aspect of fatigue among the respondents. This finding is important because seafaring commonly involves irregular schedules, watchkeeping duties, nighttime work, and disruptions to normal sleep patterns. A recent systematic review by Zhao et al. (2026) identified sleep and recovery conditions as important contributors to seafarer fatigue and emphasized that fatigue among seafarers is a multidimensional phenomenon influenced by work organization, environmental

conditions, and organizational factors. The finding in the present study therefore suggests that adequate opportunities for sleep and recovery remain important considerations in managing fatigue among Filipino seafarers.

Fatigue-related decision-making difficulties obtained a mean of 2.80 (SD = 0.72) and were interpreted as High Extent. This suggests that the respondents' experiences of fatigue may extend beyond physical exhaustion and may affect cognitive aspects of work performance. Such a finding is particularly relevant in maritime operations because seafarers are required to maintain judgment, attention, and appropriate responses while performing safety-sensitive tasks. The International Maritime Organization (IMO) recognizes fatigue as a safety hazard because it can affect a seafarer's ability to perform duties effectively and safely (IMO, 2019). More recently, Zhao et al. (2026) emphasized that seafarer fatigue has important implications for operational performance and maritime safety, reinforcing the importance of addressing fatigue as a multidimensional occupational risk.

The respondents likewise experienced physical and mental tiredness to a High Extent, with a mean of 2.71 (SD = 0.70). This finding indicates that fatigue among the respondents involved both physical exhaustion and mental strain. The result is consistent with the current understanding of seafarer fatigue as a condition that may arise from the interaction of demanding work schedules, insufficient recovery, environmental stressors, and other shipboard conditions. The recent systematic review by Zhao et al. (2026) similarly identified work organization, sleep and recovery, shipboard environmental stressors, and psychosocial factors as interconnected contributors to seafarer fatigue.

Although duty-related alertness difficulties obtained the lowest mean of 2.41 (SD = 0.75) among the four indicators, it was classified as Low Extent. This finding suggests that difficulties in maintaining alertness during duty were present among the respondents, although they were less pronounced than the other dimensions measured. The result remains significant from a maritime safety perspective because watchkeeping and other shipboard duties require sustained attention and readiness to respond to operational situations. The IMO's requirements on fitness for duty specifically call for watch systems to be arranged so that the efficiency of watchkeeping personnel is not impaired by fatigue (IMO, 2026). Thus, even a low level of alertness difficulty warrants attention because fatigue-related reductions in vigilance may have implications for safety-sensitive activities.

The relatively consistent standard deviations across the four indicators indicate that the respondents' assessments were generally similar, suggesting a relatively consistent experience of fatigue within the group. The overall High Extent therefore indicates that fatigue was reflected across the different dimensions examined in the study.

The findings are particularly relevant in light of recent international attention to seafarer fatigue. In 2025, the IMO Maritime Safety Committee agreed to prioritize work addressing seafarer fatigue, including an examination of provisions concerning hours of work and rest and crewing arrangements (IMO, 2025). This recent policy attention reinforces the importance of the present findings, particularly because the respondents reported fatigue across physical, cognitive, sleep-related, and alertness-related dimensions. Likewise, the ILO's Maritime Labour Convention establishes requirements concerning seafarers' hours of work and rest and specifically recognizes the danger posed by fatigue,

particularly for personnel involved in navigational safety and the safe operation of ships (ILO, 2025).

The results also highlight the importance of implementing effective fatigue-management practices at the shipboard and organizational levels. The IMO Guidelines on Fatigue emphasize that fatigue should be addressed through preventive and management measures involving seafarers, companies, training institutions, ship design, and maritime administrations (IMO, 2019). In this regard, the high extent of fatigue reported by the respondents suggests the need for continued attention to adequate rest periods, appropriate watchkeeping arrangements, monitoring of fatigue symptoms, and organizational practices that support sufficient recovery.

Overall, the findings demonstrate that Filipino seafarers experienced fatigue to a high extent, with sleep-related mental impairment representing the most prominent dimension, followed by fatigue-related decision-making difficulties, physical and mental tiredness, and duty-related alertness difficulties. The results support the contemporary view that seafarer fatigue is a multidimensional occupational and safety concern rather than merely a condition of physical tiredness. The findings further emphasize the importance of strengthening fatigue-risk management, particularly through adequate sleep and recovery opportunities, appropriate work-rest arrangements, and measures that protect alertness and cognitive performance. These measures are consistent with the continuing international efforts of the IMO and ILO to address fatigue and safeguard seafarers' health, well-being, and operational safety.

E. Isolation and Social Factors

Table 6 presents the extent of isolation and social factors experienced by Filipino seafarers. Overall, the findings indicate that isolation and social factors were experienced to a high extent, suggesting that social isolation, communication difficulties, cultural differences, and connectivity problems were noticeable aspects of the respondents' work at sea. The findings also point to limited internet connectivity as the highest-rated social-related concern, indicating that access to reliable communication technology remains an important consideration in maintaining seafarers' social connections while onboard.

Table 6. Extent of Isolation and Social Factors Experienced by Filipino Seafarers

Isolation and Social Factor Indicators	Mean	SD	Descriptive Equivalent
Onboard Social Isolation	2.45	0.83	Low Extent
Communication Barriers	2.57	0.73	High Extent
Limited Internet Connectivity	2.71	0.81	High Extent
Cultural Differences	2.51	0.73	High Extent
Overall Mean	2.56	0.78	High Extent

The onboard social isolation indicator obtained a mean of 2.45 (SD = 0.83) and was interpreted as Low Extent. This suggests that Filipino seafarers generally maintain a reasonable level of social interaction despite the physically separated and confined nature of shipboard work. This finding is important because seafaring inherently involves prolonged separation from family and community, restricted mobility, and dependence on the onboard crew for social interaction. A 2024 scoping review by Şenbursa emphasized that isolation remains one of the recurring psychosocial challenges associated with life at sea and identified maintaining contact with family and access to communication facilities as important mechanisms for supporting seafarers' well-being. Thus, the low level of social isolation observed in the present study may indicate that respondents have developed

functional social networks onboard or have access to communication mechanisms that help mitigate the effects of physical separation from their families.

The communication barriers indicator obtained a mean of 2.57 (SD = 0.73) and was interpreted as High Extent. This indicates that communication difficulties were noticeable among the respondents. This finding is important considering that contemporary ships frequently employ multinational crews in which differences in language and communication practices may create misunderstandings. A 2023 study involving Greek and Norwegian vessels found that communication difficulties among mixed-nationality crews were associated with unsafe situations arising from language misunderstandings, with cultural differences also emerging in the qualitative accounts of seafarers. The finding in the present study therefore highlights the continued importance of clear operational procedures, effective teamwork, and appropriate use of a common working language.

Limited internet connectivity obtained the highest mean of 2.71 (SD = 0.81) and was interpreted as High Extent. This finding suggests that although respondents may not experience severe onboard social isolation, the availability, reliability, or quality of internet access remains a noticeable limitation. The result is supported by recent industry-wide evidence. The 2024 SEAFiT Crew Survey, which included 21,312 seafarers from 1,614 ships and had a predominantly Asian participation base, reported that 91% of respondents emphasized the need for high-quality internet access to maintain communication with loved ones. Notably, Filipino seafarers constituted 70.1% of the survey participants. This provides particularly relevant contextual support for the present finding because the large representation of Filipino seafarers in the SEAFiT survey makes the importance of connectivity especially pertinent to the population examined in this study.

More recent evidence likewise demonstrates that connectivity continues to be an important element of seafarer welfare. The Mission to Seafarers' 2025 Seafarers Happiness Index reported that internet access remained a critical component of seafarers' well-being because communication with family and friends helped maintain morale. At the same time, seafarers continued to report problems involving weak signals, slow connections, data restrictions, and unreliable connectivity while vessels were underway. Therefore, the high rating for limited internet connectivity in the present study should be considered an important social and welfare concern because it may affect the quality and consistency of social contact.

The cultural differences indicator obtained a mean of 2.51 (SD = 0.73) and was interpreted as High Extent. This indicates that differences in nationality, cultural practices, values, or interpersonal norms were noticeable considerations in the respondents' social experience onboard. This may reflect the multicultural nature of contemporary maritime crews, where seafarers are required to work effectively with individuals from different cultural backgrounds. The 2023 study on mixed-nationality crews found that cultural differences could accompany communication difficulties and contribute to potentially unsafe situations. Similarly, Abila et al. (2023) emphasized that mental health education and support in international seafaring should be sensitive to cultural differences because seafarers come from diverse national and occupational cultures. Hence, the finding emphasizes the importance of cultural awareness and inclusive communication practices.

The overall finding of a High Extent of isolation and social factors, with an overall mean of 2.56 (SD = 0.78), indicates that these factors are relevant aspects of the respondents' shipboard experience. However, the individual results show variation across

the indicators. While onboard social isolation was classified as Low Extent, communication barriers, limited internet connectivity, and cultural differences were all classified as High Extent. This suggests that social challenges among the respondents are more strongly associated with communication, connectivity, and multicultural interaction than with direct feelings of social isolation.

The finding is further contextualized by the 2025 study of Karakasnakis et al., which examined seafarers' perceptions of onboard well-being across different company sizes and vessel types. The study reflects the growing recognition within maritime research that seafarer welfare is not limited to physical health but also encompasses social and psychological dimensions of life onboard. Similarly, the 2025 SEAFiT survey reported an overall decline in its crew-wellness index compared with 2024, reinforcing the continuing need for proactive measures addressing seafarers' social connections and overall well-being.

Taken together, the findings indicate that Filipino seafarers in the present study generally experience social and isolation-related factors to a high extent, although the individual dimensions vary. The low level of social isolation is encouraging because it suggests that direct feelings of isolation are not a major difficulty for the respondents. However, the high levels of communication barriers, limited internet connectivity, and cultural differences identify specific areas requiring continued attention. Reliable internet access is more than a recreational convenience; it facilitates communication with family and friends, supports emotional well-being, and may reduce the psychosocial consequences of prolonged separation from home. Recent maritime evidence consistently emphasizes the

importance of connectivity and social contact in supporting seafarer welfare (Abila et al., 2023; Şenbursa, 2024; SEAFiT, 2024).

Thus, while onboard social isolation was experienced to a low extent, the overall High Extent rating demonstrates that isolation and social factors remain relevant to the social well-being of Filipino seafarers. Maintaining and improving communication opportunities, reliable internet access, supportive crew relationships, and culturally responsive shipboard practices may help address these challenges and prevent them from developing into more serious psychosocial concerns.

Overall, the results demonstrate that isolation and social factors were experienced to a high extent, with limited internet connectivity, communication barriers, and cultural differences emerging as notable concerns, while onboard social isolation was experienced to a low extent. These findings suggest that social well-being at sea depends not only on interpersonal relationships but also on effective communication, reliable digital connectivity, and the ability to function within multicultural shipboard environments. Recent maritime evidence similarly identifies internet access, social connection, and supportive onboard environments as important components of seafarer welfare (Abila et al., 2023; Şenbursa, 2024; SEAFiT, 2024; Mission to Seafarers, 2025).

Shapiro-Wilk Test

The Shapiro–Wilk test was conducted to determine whether the data followed a normal distribution. The results showed a statistically significant departure from normality, $W(1,275) = 0.84$, $p < .001$ (Table 7). Since the p-value was below the 0.05 level of significance, the null hypothesis of normality was rejected. This indicates that the data were

not normally distributed. Therefore, non-parametric statistical procedures were considered appropriate for the subsequent analysis where the assumption of normality was required.

Table 7. Shapiro–Wilk Test of Normality

Variable/Test	N	Shapiro–Wilk W	p-value	Decision	Interpretation
Overall Data	1,275	0.84	< .001	Reject normality	Data are not normally distributed

Relationship Between Work Environment Factors and Mental Health Challenges

As shown in Table 8, the Spearman rank-order correlation analysis revealed a moderate positive and statistically significant relationship between work environment factors and mental health challenges among Filipino seafarers ($\rho = 0.441$, $p = 0.001$). This finding indicates that variations in work environment factors were significantly associated with variations in the mental health challenges reported by the respondents. However, because the analysis is correlational, the result should not be interpreted as evidence that work environment factors directly cause mental health challenges.

Table 8. Relationship Between Work Environment Factors and Mental Health Challenges Among Filipino Seafarers

Variables	Spearman’s rho (ρ)	p-value	Decision
Work Environment Factors and Mental Health Challenges	0.441	0.001	Moderate positive significant relationship

Note. $N = 51$; level of significance = 0.05.

The observed significant relationship is consistent with recent maritime research emphasizing the importance of the psychosocial work environment in seafarers' mental health. Hayes-Mejia and Stafström (2023), in a large international study involving 17,861 seafarers from 154 nationalities, found that psychosocial work-environment conditions were associated with mental health outcomes, including stress, anxiety, and depression. Their findings demonstrate that seafarers’ psychological health cannot be examined

independently of the conditions under which maritime work is organized and performed. This provides empirical support for the present finding that work environment factors and mental health challenges are significantly associated among the Filipino seafarers surveyed.

However, the positive direction of the relationship should be interpreted according to how the work-environment construct was operationalized in the present study. The five indicators include the onboard working environment, company mental health policies, support from superiors, work conditions and mental health, and safety and security at work. Therefore, the overall score represents respondents' assessment of these work-environment conditions. A positive correlation with mental health challenges does not automatically mean that a favorable work environment causes greater psychological difficulties. Instead, the result indicates that the two composite measures varied together in the sample. The exact substantive meaning of the direction therefore depends on the wording and coding of the individual work-environment items.

Recent evidence further demonstrates that working conditions at sea are closely connected with broader dimensions of seafarer well-being. Hayes-Mejia and Stafström (2024), using data from 13,008 seafarers representing 154 nationalities and 44 international shipping companies, found significant associations between working conditions and seafarers' well-being and happiness. Their study considered work-environment dimensions such as workload, challenges, expectations, training, skills, and job satisfaction, demonstrating that the conditions experienced onboard are relevant to how seafarers perceive their overall well-being. The present study extends this body of evidence by

demonstrating a significant association specifically between work-environment factors and a broader measure of mental health challenges among Filipino seafarers.

The finding is particularly relevant to the Philippine maritime context. The National Maritime Polytechnic (NMP, 2024) reported increasing numbers of diagnosed mental disorders among Filipino seafarers between 2018 and 2022, with anxiety disorders and depressive disorders comprising the largest proportions of reported cases. The NMP research also emphasized the challenging nature of seafaring work and the psychological stresses associated with prolonged periods at sea. Although the present study does not measure clinical mental disorders, the significant relationship observed between work environment factors and mental health challenges reinforces the importance of examining the occupational context in which Filipino seafarers experience psychological difficulties.

The result is also consistent with the growing emphasis on organizational and psychosocial support for Filipino seafarers. Abila and Malecosio (2024) examined psychosocial interventions among Filipino international merchant seafarers and highlighted the importance of mental health and psychosocial support within maritime employment. Their study identified a range of interventions and emphasized the need for Philippine maritime stakeholders to strengthen mechanisms that support seafarers' psychological well-being. The significant relationship found in the present study provides further justification for considering mental health support as part of the broader occupational environment rather than treating it solely as an individual responsibility.

The relationship between work environment and mental health may also be understood through the interaction of workload, fatigue, safety demands, leadership, and recovery opportunities. Seafarers work in an environment where occupational

responsibilities and living arrangements occur in the same physical setting. Consequently, unfavorable working conditions may be experienced continuously because the ship simultaneously functions as both workplace and residence. Hayes-Mejia and Stafström (2024) reported that a substantial proportion of seafarers experienced insufficient sleep, loneliness, limited opportunities for group activities, and other psychosocial concerns while onboard. These findings illustrate how working and living conditions can overlap and collectively influence seafarers' well-being.

The present finding also supports the importance of supportive organizational structures. Company policies concerning mental health, supervisory support, safety, communication, and working conditions may influence the extent to which seafarers can manage occupational demands. Abila et al. (2023) emphasized the potential of information and communication technologies to empower seafarers in managing their mental health and maintaining connections while at sea. Similarly, Abila and Malecosio (2024) highlighted the relevance of psychosocial interventions for Filipino seafarers. These studies suggest that mental health promotion should be embedded within the systems and resources available to seafarers throughout their periods of deployment.

Nevertheless, the moderate correlation of $\rho = 0.441$ indicates that work environment factors do not explain all variation in mental health challenges. The coefficient represents a meaningful association, but a considerable proportion of the variation remains attributable to other factors that were not examined in this particular correlation. These may include fatigue, sleep quality, family separation, financial concerns, individual coping resources, social support, length of deployment, and personal characteristics. This multidimensional interpretation is consistent with contemporary

maritime research, which increasingly conceptualizes seafarer mental health as the result of interacting occupational, psychosocial, social, and individual influences rather than a single workplace exposure (Hayes-Mejia & Stafström, 2023, 2024).

From a practical perspective, the significant relationship suggests that maritime organizations should not address seafarer mental health exclusively through individual-level interventions. Organizational measures addressing working conditions, supervisory support, safety, workload, communication, and access to mental health resources may form an important component of a comprehensive approach to seafarer welfare. The NMP's development of a Mental Health Awareness for Seafarers course in 2024 reflects this broader movement toward strengthening mental health literacy and support within the Philippine maritime sector (National Maritime Polytechnic, 2024).

Overall, the findings demonstrate a moderate positive and statistically significant relationship between work environment factors and mental health challenges among the Filipino seafarers surveyed ($\rho = 0.441$, $p = 0.001$). The result is broadly consistent with recent international and Philippine maritime research emphasizing the connection between psychosocial working conditions, organizational support, and seafarer well-being (Hayes-Mejia & Stafström, 2023, 2024; Abila & Malecosio, 2024). The findings therefore reinforce the importance of considering the work environment as an integral component of seafarer mental health. At the same time, the correlational nature of the analysis means that the result should be interpreted as an association rather than a causal relationship. A comprehensive approach combining organizational improvements, psychosocial support, mental health education, fatigue management, and accessible support systems may therefore be more appropriate than relying solely on individual coping strategies.

CONCLUSION AND RECOMMENDATIONS

The study concludes that the mental health of Filipino seafarers is closely intertwined with the nature of maritime employment. Because seafarers live and work within the same environment for extended periods, their psychological well-being should be considered an integral component of occupational health and safety. Mental health should therefore be addressed as a continuing aspect of seafarer welfare rather than only when serious psychological difficulties arise.

The study further concludes that promoting seafarers' psychological well-being requires attention to both individual and organizational responsibilities. Effective mental health support cannot rely solely on the ability of seafarers to cope with occupational demands. Shipping companies, shipboard management, maritime institutions, and other stakeholders share an important role in creating conditions that support psychological well-being, encourage help-seeking, and reduce barriers to accessing appropriate assistance.

The study also concludes that a comprehensive and preventive approach is more appropriate for promoting seafarer mental health. Such an approach should integrate supportive leadership, safe and healthy working conditions, appropriate work and rest practices, effective communication, social connectivity, mental health awareness, and accessible psychosocial support. Strengthening these areas can contribute to a more supportive shipboard environment while complementing existing maritime safety and welfare practices.

Finally, the study concludes that seafarer mental health should be incorporated into broader maritime occupational-health strategies and organizational decision-making. Sustained attention to psychological well-being can help promote healthier working

relationships, support seafarers throughout their periods of deployment, and contribute to the overall welfare, effectiveness, and safety of the maritime workforce.

Based on the conclusions of the study, shipping companies and maritime organizations are recommended to strengthen comprehensive mental health programs for seafarers. These programs should include regular mental health awareness activities, confidential counseling and referral services, psychological support, and mechanisms that allow seafarers to seek assistance without fear of stigma or negative consequences. Mental health support should be made accessible throughout the employment cycle, including pre-deployment, onboard deployment, and post-deployment periods.

Shipboard management and superiors are encouraged to foster a supportive and respectful working environment by maintaining open communication, recognizing seafarers' concerns, and promoting constructive relationships among crew members. Supervisors should be provided with appropriate training to recognize potential signs of psychological distress and to respond appropriately while respecting confidentiality and professional boundaries.

Shipping companies are likewise encouraged to strengthen fatigue-management and work-rest practices by ensuring reasonable workload distribution, sufficient opportunities for sleep and recovery, and appropriate watchkeeping arrangements. Organizational measures should prioritize the protection of seafarers' physical and psychological capacity to perform safety-sensitive duties effectively.

Companies should also enhance opportunities for social connection and communication while onboard. Reliable communication facilities and internet access should be maintained whenever feasible to enable seafarers to remain connected with their

families and support networks. Shipboard activities that encourage social interaction, teamwork, recreation, and positive crew relationships should likewise be supported as part of an integrated seafarer-welfare program.

Maritime training institutions are recommended to incorporate mental health literacy, stress management, fatigue awareness, psychological first aid, coping strategies, and appropriate help-seeking practices into relevant maritime education and training programs. These initiatives can help prepare seafarers to recognize psychological concerns, support fellow crew members appropriately, and make timely use of available professional services.

Maritime policymakers and regulatory agencies are encouraged to continue strengthening policies and monitoring mechanisms that promote seafarer welfare, psychosocial safety, appropriate working conditions, and access to mental health services. Collaboration among government agencies, shipping companies, maritime institutions, and seafarer organizations should be encouraged to ensure that mental health remains an integral part of maritime occupational health and safety.

Finally, future researchers are encouraged to conduct further studies using larger samples and broader research designs to provide a deeper understanding of the factors influencing Filipino seafarers' mental health. Future investigations may consider additional occupational, social, organizational, and personal factors and may employ longitudinal or mixed-method approaches to provide a more comprehensive understanding of seafarer well-being and the development of effective interventions.

DECLARATION OF THE USE OF AI TOOLS

The researcher hereby declares that Artificial Intelligence (AI) tools were utilized as an assisting instrument in the preparation and refinement of this study. Specifically, AI was used to support the drafting of statistical tables, interpretation of data, and formulation of the conclusions and recommendations sections. These tools were employed solely to enhance clarity, organization, and language structure of the research output.

However, all research data, including collection, analysis, and interpretation, were generated and verified by the researcher. The final responsibility for the accuracy, integrity, and originality of the study remains with the researcher. The use of AI did not replace the researcher's judgment, analysis, or decision-making process but served only as a supplementary writing and formatting aid in accordance with academic integrity standards.

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APPENDIX A

Survey Questionnaire

WORK ENVIRONMENT AND MENTAL HEALTH CHALLENGES AMONG FILIPINO SEAFARERS: A CORRELATIONAL STUDY Questionnaire

Dear Participant,

You are cordially invited to participate in a research study aimed at understanding the mental health challenges, workload conditions, and coping strategies of Filipino seafarers.

Your professional experience and onboard insights are vital to evaluating key stressors—such as workload demands, fatigue, anxiety, social isolation, and contractual factors—and identifying effective workplace support mechanisms.

Section1: Demographics Information

Instructions: Please

provide the following information by checking or filling in the appropriate

1. Gender

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

2. Age

- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46 and above
- ☐ Option 5
- ☐ Option 6
- ☐ Option 7

- ☐ Option 8
- ☐ Option 9
- ☐ Option 10
- ☐ Option 11
- ☐ Option 12
- ☐ Option 13
- ☐ Option 14
- ☐ Option 15
- ☐ Option 16
- ☐ Option 17
- ☐ Option 18
- ☐ Option 19
- ☐ Option 20
- ☐ Option 21
- ☐ Option 22
- ☐ Option 23
- ☐ Option 24

3. Civil Status

- ☐ Single
- ☐ Married
- ☐ Others

4. Position/Rank onboard

- ☐ Captian
- ☐ Chief officer
- ☐ Second officer
- ☐ Third officer
- ☐ Ratings
- ☐ Chief engineer
- ☐ First engineer
- ☐ Second engineer
- ☐ Third engineer

☐ Fourth engineer

☐ Other: _____

5. Type of Vessel

☐ Cargo Ship

☐ Tanker

☐ Passenger Ship

☐ Bulk carrier

☐ Container

☐ Other: _____

6. Length of Service(Years)

☐ 1-5

☐ 6-10

☐ 11-15

☐ 16 and above

7. Average contract duration

☐ Less than 6 months

☐ 6-9 months

☐ 10-12 months

☐ Option 4

☐ Option 5

Section 2: Mental Health Challenges

Instruction : Rate each
statement using the scale below

1 =
Strongly Disagree 2 = Disagree 3 = Agree
4 = Strongly Agree

A. Stress

	1	2	3	4
I experience high levels of stress while onboard	☐	☐	☐	☐
My workload causes mental exhaustion	☐	☐	☐	☐
I feel pressure to perform my duties without error.	☐	☐	☐	☐
Long working hours increase my stress level	☐	☐	☐	☐

B. Anxiety

	1	2	3	4
I often feel anxious about my job responsibilities.	☐	☐	☐	☐
I worry about safety risks while at sea	☐	☐	☐	☐
I feel uneasy when dealing with emergencies onboard	☐	☐	☐	☐
I experience nervousness during inspection or evaluation	☐	☐	☐	☐

C. Depression/ Emotional Well-being

	1	2	3	4
I feel lonely while onboard the vessel	☐	☐	☐	☐
I miss my family to the point it effects my mood	☐	☐	☐	☐
I feel emotionally drained during my contract	☐	☐	☐	☐
I sometimes lose motivation to perform my duties	☐	☐	☐	☐

D. Fatigue

	1	2	3	4
I feel physically and mentally tired most of the time	☐	☐	☐	☐
Lack of sleep affects my mental condition	☐	☐	☐	☐
I struggle to stay alert during my duty	☐	☐	☐	☐
Fatigue affects my decision-making ability	☐	☐	☐	☐

E. Isolation and Social Factors

	1	2	3	4
I feel socially isolated while onboard	☐	☐	☐	☐
Communication barriers affects my mental well-being	☐	☐	☐	☐
Limited internet access increases my stress	☐	☐	☐	☐
Cultural differences affect my comfort	☐	☐	☐	☐

SECTION 4: WORK ENVIRONMENT FACTORS

Instruction : Rate each statement using the scale below

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

	1	2	3	4
The working environment onboard contributes to my stress	☐	☐	☐	☐
Company policies support mental health awareness	☐	☐	☐	☐
I feel supported by my superiors	☐	☐	☐	☐
Work conditions (noise, weather, workload) affect my mental health	☐	☐	☐	☐
I feel safe and secure while performing my duties	☐	☐	☐	☐

APPENDIX B

Cronbach's Alpha Coefficient

Reliability Result

To evaluate the internal consistency and measurement stability of the research instrument, a pilot study was conducted prior to the actual survey administration. The pilot testing involved thirty (30) Filipino seafarers who possessed demographic and professional characteristics similar to the target study population but were excluded from the final sample size.

The data obtained from the pilot administration were subjected to reliability analysis using Cronbach's alpha (α) coefficient. The scale yielded an overall Cronbach's alpha coefficient of 0.80, demonstrating high internal consistency across all items in the mental health indicator scales. Because the calculated reliability coefficient exceeded the standard academic acceptance threshold of 0.70, the research instrument was confirmed to be reliable, stable, and methodologically sound for assessing the mental health challenges experienced by Filipino seafarers.

Reliability Coefficient Summary

Variable / Scale Section	No. of Items	Target Pilot Sample (N)	Cronbach's Alpha (α)	Verbal Interpretation
Core Mental Health Challenges (Anxiety, Depression, Occupational Stress, Fatigue, Social Isolation)	20	30	0.80	High Internal Consistency / Reliable

Note: A Cronbach's alpha value of 0.70 or higher indicates acceptable internal consistency in social science and descriptive quantitative research. The achieved coefficient of 0.80 confirms the statistical reliability and suitability of the survey questionnaire for full-scale data collection.

APPENDIX C

Duly Approved Research Data Gathering Approval Form

**Misamis University**
Ozamiz City
MISAMIS UNIVERSITY RESEARCH CENTER
CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

MU-RC-042/13 November 2024

Thesis/Research Data Gathering Approval Form

Date: 09-21-26

Name of Authors: CABILAN, JHER LEE HANZ, GABRIEL, RYLAND, VELEZ, JANBERT ANDREW
College/Department: COLLEGE OF MARITIME EDUCATION
Research Title: A STUDY ON THE MENTAL HEALTH CHALLENGES EXPERIENCED BY FILIPINO SEA FARERS

Data Gathering Procedure:

a. Type of Research: (Kindly check)

☒ Quantitative	☐ Qualitative	☐ Experimental
☐ Approved Research Title & Problem/Objectives	☐ Approved Data Gathering Procedure	☐ Approved Data Gathering Instrument/Data Sheets

b. Respondents/Participants/Subject/Samples to be Collected: _____

c. Procedure:

☒ Survey	☐ Interview	☐ Experimentation	☐ Laboratory Testing
--	------------------------------------	--	---

d. Place of Implementation/Study Area: _____

If to be conducted outside the school campus, indicate the nature of transportation to be used:

☐ Own private vehicle	☐ public utility vehicle	☐ rental	☐ Others, please indicate _____
--	---	---------------------------------	--

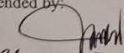
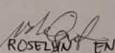
e. Date/s of Implementation/Sampling: _____

Attachments:

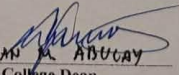
☐	Approved Letter of Consent from the designated authority in the area/place where the study is to be conducted
☐	Signed Parents' Consent

The thesis proposal mentioned above is hereby recommended for the commencement of data gathering implementation.

Recommended by:

 <u>R/M LOVELLE DECARRES</u> Thesis/Research Adviser	 <u>MARY ROSELYN ENGUITO</u> Thesis/Research Instructor
---	--

Approved by:


CAPT. ALLAN A. ABUCAY
College Dean

CONTROLLED DOCUMENT

APPENDIX D

Dean-Approved Request Letter for the Conduct of the Study

	Misamis University Ozamiz City College of Maritime Education Phone: +6388 521 0367 / +6388 521 2917 Email: maritime@mu.edu.ph	
Capt. Allan M. Abucay Dean, College of Maritime Education Misamis University Ozamiz City		
Greetings!		
The undersigned are student-researchers of Misamis University taking up Bachelor of Science in Marine Transportation.		
Presently, we are undertaking a research entitled "WORK ENVIRONMENT AND MENTAL HEALTH CHALLENGES AMONG FILIPINO SEAFARERS: A CORRELATIONAL STUDY," as one of the requirements for graduation.		
Along this line, we would like to respectfully ask for your permission to conduct the study. The respondents of the study will include Filipino seafarers who have relevant experience working at sea. The study will focus on assessing the work environment and mental health challenges experienced by Filipino seafarers and identifying the correlations associated with the demands and conditions of their work at sea.		
We will administer a questionnaire to the respondents containing survey questions aligned with the objectives of the study. The responses and information provided by the respondents/participants will be treated as strictly confidential and will be used solely for the purposes of this research. The presentation of the data will be done in a general manner, and the identities of the respondents will not be divulged.		
Thank you for your consideration and support. We sincerely hope for your favorable approval of this request.		
Respectfully yours,		
 <u>Cabilan, Arvillee Hanz M.</u> Name & Signature (Researcher)		
 <u>Gabriel, Roland C.</u> Name & Signature (Researcher)		
 <u>Velez, Jangiel Andrew B.</u> Name & Signature (Researcher)		
Noted:  <u>2/M Pocodua, Joycelee T.</u> Research Adviser		
 <u>Marie Roselyn S. Elquinto</u> Research Instructor		
 <u>Capt. Allan M. Abucay</u> Dean, College of Maritime Education		

APPENDIX E

Letter To Respondents

Approved Letter of Consent

LETTER TO RESPONDENTS

Dear Filipino Seafarers,

Good day!

You are invited to participate in a research study entitled “WORK ENVIRONMENT AND MENTAL HEALTH CHALLENGES AMONG FILIPINO SEAFARERS: A CORRELATIONAL STUDY,” conducted as part of the researchers’ academic requirements.

The purpose of this study is to gather information on the relationship between the work environment and mental health challenges among Filipino seafarers. Your participation will involve answering an online survey, which will take approximately 8–10 minutes to complete. Your participation is voluntary, and you may choose not to answer any question or withdraw from the study at any time without any penalty.

All information collected will be treated with strict confidentiality and will be used solely for academic research purposes. No personally identifiable information will be collected, and your responses will be analyzed in aggregate form only.

Respectfully yours,

Jher Lee Hanz M. Cabilan
Ryland C. Gabriel
Janbert Andrew B. Velez

Researchers

APPENDIX F

Filled-out Survey Questionnaire

1. Gender
☒ Male
☐ Female
☐ Prefer not to say

I-clear ang pinili

2. Age
☐ 18-25
☐ 26-35
☒ 36-45
☐ 46 and above

I-clear ang pinili

3. Civil Status
☐ Single
☒ Married
☐ Others

I-clear ang pinili

4. Position/Rank onboard
☐ Captain
☒ Chief officer
☐ Second officer
☐ Third officer
☐ Ratings
☐ Chief engineer

I-clear ang pinili

5. Type of Vessel
☐ Cargo Ship
☐ Tanker
☐ Passenger Ship
☒ Bulk carrier
☐ Container
☐ Iha

I-clear ang pinili

6. Length of Service(Years)
☒ 1-5
☐ 6-10
☐ 11-15
☐ 16 and above

I-clear ang pinili

7. Average contract duration
☐ Less than 6 months
☒ 6-9 months
☐ 10-12 months

I-clear ang pinili

1
2
3
4

I experience high levels of stress while onboard
☐ 1
☒ 2
☐ 3
☐ 4

My workload causes mental exhaustion
☐ 1
☒ 2
☐ 3
☐ 4

I feel pressure to perform my duties without rest
☐ 1
☐ 2
☒ 3
☐ 4

Long working hours increase my stress level
☐ 1
☒ 2
☐ 3
☐ 4

I-clear ang pinili

B. Anxiety

1
2
3

I often feel anxious about my job responsibilities
☐ 1
☒ 2
☐ 3

I worry about safety risks while at sea
☐ 1
☒ 2
☐ 3

I feel uneasy when dealing with emergencies onboard
☐ 1
☐ 2
☒ 3

I experience nervousness during inspection or evaluation
☐ 1
☒ 2
☐ 3

I-clear ang pinili

C. Depression/ Emotional Well-being

1
2
3
4

I feel lonely while onboard the vessel
☐ 1
☐ 2
☒ 3
☐ 4

I miss my family to the point it affects my mood
☐ 1
☒ 2
☐ 3
☐ 4

I feel emotionally drained during my contract
☐ 1
☒ 2
☐ 3
☐ 4

I sometimes lose motivation
☐ 1
☒ 2
☐ 3
☐ 4

I-clear ang pinili

E. Isolation and Social Factors

1
2
3

I feel socially isolated while onboard
☐ 1
☐ 2
☒ 3

Communication barriers affects my mental well-being
☐ 1
☐ 2
☒ 3

Limited internet access increases my stress
☐ 1
☒ 2
☐ 3

Cultural differences affect my comfort
☐ 1
☐ 2
☒ 3

I-clear ang pinili

93

APPENDIX G

Turnitin Result

Page 2 of 62 - Integrity OverviewSubmission ID: trn.sub.:28447:146182197

28% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography

Match Groups

- 238 Not Cited or Quoted 24%**
Matches with neither in-text citation nor quotation marks
- 36 Missing Quotations 3%**
Matches that are still very similar to source material
- 5 Missing Citation 1%**
Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 10%  Internet sources
- 5%  Publications
- 27%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

APPENDIX H

Grammarly Result

Report: Janbert Andrew Velez

Janbert Andrew Velez

 by Misamis University

General metrics

105,326	13,778	650	55 min 6 sec	1 hr 45 min
characters	words	sentences	reading time	speaking time

Score

**99**

This text scores better than 99% of all texts checked by Grammarly

Appendix I

Adviser's Consultation Form


Misamis University
 Ozamiz City

MISAMIS UNIVERSITY RESEARCH CENTER
CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
 ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

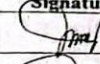
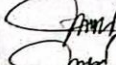
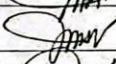
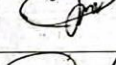
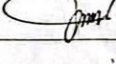
MU-RC-043/19 August 2025

ADVISER'S CONSULTATION FORM

NAME OF THE ADVISER: LOVELEE T. DEDOMILES

TITLE OF THE STUDY: A STUDY ON THE MENTAL HEALTH CHALLENGES EXPERIENCED BY MARITIME INDUSTRY SEA FEARERS

NAME OF PROPONENTS: _____

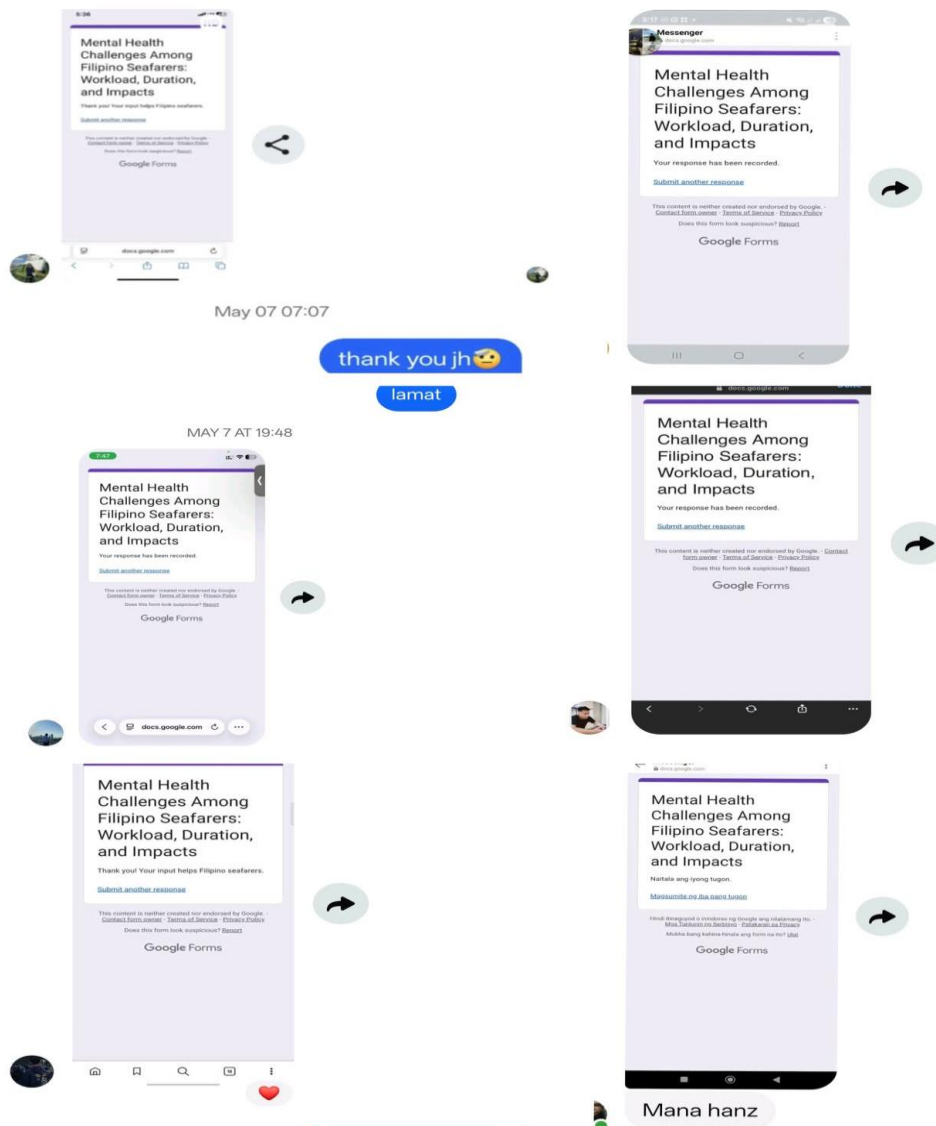
Date of Consultation	Purpose	Adviser's Comments	Adviser's Signature
11/20/25	Initial consultation	Reviewed the study title and recommended revisions.	
12/16/25	Discussion of the problem and objectives	Discussed the research objectives and scope.	
01/08/26	Review of related literature	Advised proponents to improve the related literature.	
02/17/26	Review of methodology	Reviewed the research methodology and suggested corrections.	
03/03/26	Final consultation	Approved the revisions for the next stage.	

**There must be at least 5 consultations before the proposal defense and at least 5 consultations before final defense.*

CONTROLLED DOCUMENT

Appendix J

Photographic Documentation



CURRICULUM VITAE

Researcher 1

Personal Information

Name: Ryland C. Gabriel
Address: Blancia, Molave, Zamboanga Del Sur
Date of Birth: June 5, 2005
Nationality: Filipino
Civil Status: Single
Email Address: rylandgabriel11@gmail.com
Contact Number: 09864726333



Educational Background

Level Year	School	
Tertiary: 2023-2027	Misamis University	
	Misamis Occidental	
Secondary: 2023	Molave, Vocational Technical School	2017-
	Molave, Zamboanga Del Sur	
Elementary: 2017	Blancia, Central School	2011-
	Molave, Zamboanga Del Sur	

Skills and Competencies

- Leadership Skills
- Time Management
- Problem-Solving Skills
- Teamwork and Collaboration

CURRICULUM VITAE

Researcher 2

Personal Information

Name: Jher Lee Hanz M. Cabilan

Address: Guilingan St, Molave, Zamboanga Del Sur

Date of Birth: June 11, 2005

Nationality: Filipino

Civil Status: Single

Email Address: jhleecabs@gmail.com

Contact Number: 09468201564



Educational Background

Level Year	School	
Tertiary: 2023-2027	Misamis University	
	Misamis Occidental	
Secondary: 2023	Sacred Heart Diocesan School	2017-
	Molave, Zamboanga Del Sur	
Elementary: 2017	Molave Regional Pilot School	2011-
	Molave, Zamboanga Del Sur	

Skills and Competencies

- Leadership Skills
- Time Management
- Problem-Solving Skills
- Teamwork and Collaboration
- Bridge watchkeeping
- Navigation skills
- Radar interpretation
- Chart plotting

CURRICULUM VITAE

Researcher 1

Personal Information

Name: Janbert Andrew B. Velez

Address: Maralag, Dumingag, Zamboanga Del Sur

Date of Birth: June 23, 2005

Nationality: Filipino

Civil Status: Single

Email Address: janbertandrewvelez@gmail.com

Contact Number: 09519422566



Educational Background

Level Year	School	
Tertiary: 2023-	Misamis University	2023-
	Misamis Occidental	
Secondary: 2023	Dumingag National High School	2017-
	Dumingag, Zamboanga Del Sur	
Elementary: 2017	Maralag Elementary School	2011-
	Duminagag, Zamboanga Del Sur	

Skills and Competencies

- Leadership Skills
- Time Management
- Problem-Solving Skills

