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Beyond the Engine: Personal Habits and Work Performance of Engine Seafarers Onboard

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ABSTRACT

This descriptive-correlational study aimed to determine the relationship between personal habits and work performance of engine seafarers onboard. The independent variables are their personal habits, such as sleeping habits, eating habits, stress management, and physical activity. On the other hand, their work performance is the dependent variable. This was participated by randomly selected 100 seafarers from Iloilo City. The researcher-made questionnaire was validated by the research experts, and constructed Google forms were distributed through Facebook Messenger. After which, researchers electronically gathered the data during the data collection process. The statistical tools used for the descriptive statistics were frequency count, mean, standard deviation, and ranking, while the Pearson correlation coefficient was utilized for the inferential statistics. The researchers found that the level of personal habits of engine seafarers onboard when taken as a whole was average (M=3.39, SD=.483) but when grouped according to sleeping habits is high (M=3.55, SD=.600), eating habits is high (M=3.59, SD=.667), stress management is average (M=3.12, SD=.657), and physical activity is average (M=3.32, SD=.568). Moreover, the level of work performance of engine seafarers onboard when taken as a whole is high (M=3.68, SD=.492). Lastly, there is a correlation between the personal habits and work performance of engine seafarers onboard, denoting significant relationship (r (100)=.827, p=0.000). Thus, engine seafarers onboard can adapt biologically and physically to their working conditions. They are committed to their work, even though they experience psychological disturbance and socio-cultural disparity. Their personal habits and work performance are indivisible, attitudinal and behavioral manifestations of being responsible sea workers.

1. Introduction to the Study.

This section contains an overview of how and why this study was conducted. This chapter consists of seven parts: (1) Background of the Study, (2) Conceptual Framework and Theoretical Framework of the Study, (3) Statement of the Problem, (4) Hypothesis, (5) Definition of Terms, (6) Scope and Delimitation of the Study, and (7) Significance of the Study.

Part One, Background of the Study, presents the overview of the study.

Part Two, Conceptual Framework and Theoretical Framework of the Study, illustrates the expected relationship between variables and explain why the research problem exist.

Part Three, Statement of the Problem, presents the general and specific problems of the study.

Part Four, Hypothesis of the study, states prediction about the research will find.

Part Five, Definition of Terms, presents the conceptual and operational meanings of important terms used in the study.

Part Six, Scope and Delimitation of the Study, specifies the scope and coverage of the study.

Part Seven, Significance of the Study, enumerates and explains the benefits that may be derived from the findings of the study.

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1.1. Background of the Study.

According to Norkiene (2004), health problems that are characteristic of society in most part depend on people's lifestyle and behavior. Not only biomedical status matters, but also social and psychological aspects of life are very important in the individual state and evaluation of a subject's health. Evaluation of health condition and lifestyle, that are some of the most important elements of human's quality of life, are very important.

Based on the study of Kairis (2012), when considering the health and lifestyle of seafarers, it keeps the following factors in mind; unstable work schedules and long working hours due to operational needs, the small community with which one must adapt and work, the feeling of being away from home and familiar faces, the difficult working environment as well as all the hazards involved, the restricted medical facilities and limited medical supplies, and the confined nature of life. In addition, Kairis (2012) posits that usually smoking and alcohol consumption rates are higher for seafarers in comparison to workers ashore. This behavior can be related to the fact that a person who works on a ship can feel bored more frequently than a person who works ashore and is able to occupy himself with other tasks that he sees interesting. Therefore, smoking and drinking is being seen as a way to relieve from stress, increase concentration, remain awake during night watches and overcome loneliness. Moreover, it discussed that sleep disruption is unavoidable when working at sea due to the 24-hour nature of the job. Seafarers frequently complain about a lack of proper sleep, which causes them to feel tired, stressed, and unable to concentrate. The study found out that not getting enough sleep leads to difficulty staying alert, getting irritable, slower thinking and work performance becoming increasingly inconsistent. Kairis (2012) also discussed in his study that most seafarers are subjected to chronically elevated stress levels, which have a negative impact on both physical and mental health, as well as work performance. Consequently, the type and nature of the work may cause variations in stress levels depending on the duties assigned to someone. The overlap between home and work is a major source of stress. Stress is usually caused when people have to deal with demands that are greater than their ability to meet. Lastly, it stated that nutrition is extremely important to a seafarer's health owing to the physically demanding nature of the ship's work environment.

The quality of life of an individual is directly influenced by their job, which shapes both their economic and health status. Indeed, job-related stress is known to have a negative impact on one's health and quality of life at work (Van der Klink, 2011). A healthy diet and physical activity (PA)-based lifestyle has been shown to reduce the risk of noncommunicable diseases (NCDs) such as type 2 diabetes and heart disease. Lifestyle and well-being patterns are rooted in late adolescent and early adult habits and have a long-term impact on health (Al-Lawati JA, 2018).

According to Australian Maritime Safety Authority's (2007), survey of the health, stress, and fatigue of Australian Seafarers, many seafarers are explorative with food, even though they are less positive about the importance of nutrition in people's lives.

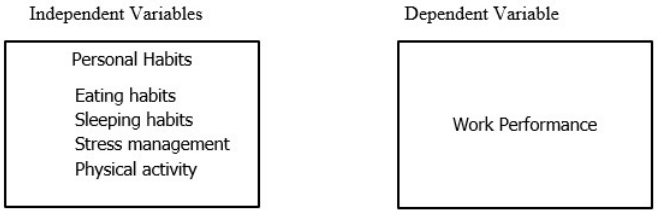
Drannan (2016), believes that health benefits from personal habits like physical exercise are the main reason for individuals to begin and continue exercising on a regular basis. He discussed that this habit had in fact been proven to increase mood and increase job performance. Many psychologists and top companies have incorporated a habit of physical exercise into the corporate strategy to help increase mood and job performance which results in more productive employees. Individuals today have many options as to the forms of physical exercise they wish to engage in. Anything from the gym (lifting weights) to sports (tennis, basketball, swimming, etc.) to going for a run outside.

Hence, the purpose of this research is to determine the relationship between personal habits and the work performance of engine seafarers onboard. The findings will enlighten shipping companies, maritime schools, teachers, students, parents, and other social groups in society not only about the challenges faced by seafarers but also about their daily practices and working conditions. It could particularly give information on their healthy and unhealthy self-habits and productive and non - productive work performance. Engine seafarers are meant to be supported and empowered as brave people sailing across different bodies of water.

1.2. Conceptual Framework of the Study.

Figure 1 shows the schematic diagram of the research entitled, "Personal Habits and Work Performance of Engine Seafarers Onboard". The independent variables are their personal habits, such as sleeping habits, eating habits, stress management, and physical activity. On one hand, their work performance is the dependent variable.

Figure 1: Conceptual Framework of the Study.



Source: Author.

1.3. Theoretical Framework of the Study.

This research was anchored to the theory of work performance by Blumberg (1982). It was explained that it is a fairly classic behavior model, despite being focused on performance. The model says that an individual's performance, or behavior, is influenced by three different factors. These factors are their capacity, their opportunity and their willingness. This concept is helpful to consider, especially at work. It captures "opportunity" as a concrete factor influencing performance, which is something we really value in the context of the workplace. Leaders and managers frequently assign sole accountability for performance to the candidate they are considering. In actuality, though they also have a part in molding opportunities since they are leaders.

When considering the theory of work performance from the perspective of a seafarer, well, obviously fit, rested and happy seafarers have a better chance of performing well. Even one underperforming seafarer can cause a problem, so there needs to be every effort to make sure the team works, and the ship performs (Harris, 2021). According to Massami and Manyasi (2021), nowadays, most shipping businesses are aware of the value of evaluating seafarers' work performance. As a result, one of the key elements in determining the profitability of any shipping firm is identifying ways to improve seafarers' work performance or finding ways that it can already be improved. Every company wants to have workers that can use the resources at hand effectively and efficiently to achieve the organization's goals and objectives. More focus on elements that can boost employees' levels of motivation, inventiveness, and job happiness can improve the performance of the workforce.

1.4. Statement of the Problem.

This study aimed to ascertain the relationship between personal habits and work performance of engine seafarers onboard.

Specifically, this seeks to answer the following questions:

1. What is the level of personal habits of engine seafarers onboard when taken as a whole and grouped according to eating habits, sleeping habits, stress management, and physical activity?
2. What is the level of work performance of engine seafarers onboard?
3. Is there a significant relationship between personal habits and work performance of engine seafarers onboard?

1.5. Hypothesis.

There is no significant relationship between personal habits and work performance of engine seafarers onboard.

1.6. Definition of Terms.

For the reason of clarity and precision, the following words are defined conceptually and operationally:

Engine seafarer – is an engine rating competent to perform the functions at the support level and someone who has previously qualified to serve as a rating forming part of an engineering, as clearly specified in the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers Code (Maritime Industry Authority, 2022).

In this study, "engine seafarer" refers to one of the 100 randomly selected participants of the study to examine the relationship between their personal habits and work performance.

Personal Habits – is a behavior pattern acquired by frequent repetition or physiologic exposure that shows itself in regularity or increased facility of performance (Merriam-Webster Dictionary, 2022).

In this study, personal habits are classified into eating habits, sleeping habits, physical activities, and stress management.

Work performance – is a kind of evaluation report indicating how well an employee is executing the expected related work activities (Igi-Global, 2022).

In this study, work performance is defined as basis on quality of work of 100 respondents as seafarers carrying out onboard.

1.7. Scope and Delimitation of the Study.

The purpose of this study was to determine the relationship between the personal habits and work performance of engine seafarers onboard. The research was anchored to the theory of work performance by Blumberg (1982). The independent variables are their personal habits, such as sleeping habits, eating habits, stress management, and physical activity. At the same time, their work performance is the dependent variable.

A descriptive-correlational design was used for the research, and 100 seafarers from Iloilo City were chosen at random. A researcher-made questionnaire was validated by the research experts, and constructed Google forms were distributed through Facebook Messenger and emails. Likewise, researchers electronically gathered the data during the data collection process. The statistical tools used were frequency count, mean, standard deviation, and ranking for the descriptive statistics, while the Pearson correlation coefficient was utilized for the inferential statistics.

1.8. Significance of the Study.

The findings of this study are deemed significant for the following groups:

Maritime Students. To enlighten their intellect regarding the lifestyle and work procedures of engine seafarers onboard so that they are aware of what and how the shipping industry operates.

School Administration. To orient maritime students of the nature of the shipping industry, opportunities, and challenges of their future work as seafarers, including the importance of proper work habits and productive work performance onboard.

Shipping Companies. To evaluate concrete interventions to improve physical and psychosocial working conditions, aiming to support good work performance, reduce health hazards, and improve maritime safety.

Government. To implement maritime measures and policies to strengthen the maritime industrial system, as well as to grant full protection to Filipino seafarers and their families, promote their interests, and safeguard their well-being.

Researchers. To gain an in-depth knowledge and understanding of different work practices and situations faced by seafarers both in domestic and international travel destinations.

Other Researchers. To lay the groundwork for future research on the relationship between personal habits and work performance of seafarers, as well as to contribute to the existing literature on the subject.

2. Review of Related Literature.

Section 2 presents the significant highlights of the review of related literature and other publications that are parallel to this research. This chapter includes six parts: (1) The Engine Seafarer; (2) Sleeping Habits; (3) Eating Habits; (4) Stress Management; (5) Physical Activity; and (6) Work Performance.

Part One, The Engine Seafarer, explains the nature of work, experiences, and situation of engine seafarers onboard.

Part Two, Sleeping Habits, tackles the sleeping benefits and challenges experienced by engine seafarers onboard.

Part Three, Eating Habits, contains brief information about how engine seafarers select, consume, and use certain food or diet, in response to social and cultural influences.

Part Four, Stress Management, discusses the psychological disturbances acquired and coping mechanisms developed by seafarers onboard.

Part Five, Physical Activity, presents the daily work activities and physical adjustments made by engine seafarers in the maritime industry.

Part Six, Work Performance, describes productivity level, time management, and the ability of engine seafarers to meet work accomplishments.

2.1. Engine Seafarers.

According to the Great Lake Commission (2023), engines, boilers, pumps, generators, and other equipment and systems essential to a vessel's functioning are all operated, maintained, and repaired by the engine department. There are two types of employees in this department: those who are licensed and those who are not. The licensed engineers are responsible for duties like running and maintaining a ship's propulsion and auxiliary systems, as well as main engines, boilers, fuel, steering mechanisms, feed systems, electrical, refrigeration systems, sewage treatment, lube oil, keeping watch in the engine room, managing unlicensed crew, recording engine performance, and reporting on it. While the unlicensed are mainly the oiler, mechanical assistant, junior engineer, fireman, deck engine mechanic, engineman, pumpman, electrician, machinist, conveyor man, and refrigeration. These are just a few of the many diverse jobs available in the engine room, depending on ratings.

The shipping sector has faced significant technological advancements, challenging economic conditions, and greater pressure to be profitable during the past few decades. The workload for the remaining seafarers has reportedly increased as a result of the reduced workforce and changes in task performance. The resources and requirements for seafarers' jobs are unusual in a number of ways because of the distinctive and in many ways unique aspects of the working circumstances on board. In relation, the engine crew recounts a situation at work where they feel under-resourced. Although the nature of the work has changed, the number of employees has decreased, and new tasks are being added, the crew's structure and the workplace's layout have not changed (Lundh & Rydstedt, 2016).

Life at sea is rewarding and fulfilling, but it is not without its struggles. Seafarers leave their homes and love ones for up to a year to work at the same time. They commonly face loneliness, violent storms, the threat of piracy, and even hijacking by terrorists. Seafaring can also be isolating. Fatigue, poor mental health, and stress can affect seafarers on a daily basis and be the difference between safe transit and a major incident. Indeed, many of these men and women seafarers come from the world's poorest countries, with insufficient career options (Manaadiar, 2019). Moreover, seafarers have a pertinent contribution to the entire global society, but their welfare has received limited attention from the maritime world for a long time. They have been struggling to improve their welfare. In the case of the oarsmen of Roman and Spanish galleys and the crews of modern and efficient ships, seamen were unfortunately underfed, underpaid, and overworked and considered workers beyond the delegated resources of the law. For many years, whenever seafarers spoke out about overwork, poor food, cruelty, and unsafe working conditions, their voices were neglected, and their protests were suppressed without any attraction of interest from the shipping industry (Exarchopoulos et al., 2018; Vandergeest & Marschke, 2021).

At the onset of the COVID-19 pandemic, seafarers have been impacted in different ways that are distinct from other terrestrial workers. They experienced long periods of isolation and inevitable close in-person attachment while at sea, which means that disease infections on vessels can spread rapidly. However, the isolation at sea makes it hard for them to access appropriate health care. Between 200,000 and 400,000 seafarers were stranded at sea due to pandemic protocols and restrictions. In addition, many ports imposed a prohibition on shore access, preventing seafarers from accessing essential services, including health care and communication with families. This situation leads to suggestions concerning policy strategies that could contribute to diminishing the marginalization of seafarers in industrial fishing both during this time of COVID-19 and beyond. These includes granting seafarers in fishing full access to stronger labor protections such as those in the Maritime Labour Convention (MLC) of the International Labor Organization (ILO), national labor laws, and increasing support for people and organizations that are frontliners in providing adequate support for seafarers (De Beukelaer, 2021; Vandergeest et al., 2021). According to Chopra (2011), one of the industries with the fastest job growth today is maritime. It is also a key target of employees since it is a highly lucrative overseas endeavor. The bravest men in the world are seafarers. for choosing to do a career that was so risky compared to others. As stated by Carter (2009), the evolution of civilization has benefited from sailing, allowing for greater human mobility than land transport, whether for trade, warfare, or transportation.

2.2. Sleeping Habits.

Seafarers indicated that sleep abnormalities are common issues they encounter onboard. Many of them testified that their work environment and workplace conditions have native effects on their sleep habits and quality. Sleep quality was also associated with the fact that seafarers had inadequate communication with their families, mostly through phone or video call during loading or unloading in different ports. They did not have internet across the sea. Most of them firmly expressed that separation from family members without any communication is emotionally challenging (Dohrmann et al., 2019).

According to the study of Cui et al. (2022), investigations have shown that two significant risk factors for seafarer fatigue

are noise and poor sleep quality. Marine engine noise and objective sleep metrics have, however, hardly ever been the subject of research. The study made a ground-breaking effort to address the essential relationship by using primary data obtained from a 28-day on-board experiment and 1 questionnaire survey conducted both throughout the journey and berthing periods. Six objective sleep measures were utilized to quantify the level of seafarer weariness over the course of 28 days, and energy signs related to engine noise were estimated. Prior pertinent investigations have shown that two significant risk factors for seafarer fatigue are noise and poor sleep quality. It was advised to increase the psychological adjustment training link's content and to develop the sailors' character strength to help them better handle challenging conditions.

Managers in the marine industry should act as social workers to improve the sleep quality of sailors and reduce their level of weariness. To lessen the impact of noise on living spaces, sound insulation materials should be strongly considered while building ships (Cui et. al., 2022). In addition, seafarers regard sleep quality as one of the major health deficiencies they experience onboard. The growing responsibilities of upper-level positions held by key officers were deemed additional reasons for sleep abnormalities. Poor sleep quality has been linked to absenteeism and occupational accidents in workers who work long shifts or rotate shifts. Many seafarers cited sleep disorders at sea as one of the major issues. This may also lead to adverse work results like non-productive work performance on board, which means the safety of the shipping vessel would be at risk. The interests of shipping companies can help improve the quality of their employees' sleeping conditions by providing facilities like good communication and job training to manage work stress (Oldenburg & Jensen, 2019). In the same perspective, seafarers are more exposed to heat, which reduces sleep duration and reduces work performance. This might be because of the different settings on board such navy vessels and the types of tasks, as well as workloads and stressors. Shift workers in the offshore petroleum industry have complained about pain they felt while sleeping. The workplace setting can induce more noise that can disturb sleep, especially for shift workers while the others are at work (Baygi et al., 2022).

According to (Baygi et al. 2022), the large number of social, psychological, and physical pressures experienced by seafarers—particularly those who operate for extended periods of time—include irregular working hours. In connection with the well-being and sleep quality that may have an impact on their safety and well-being while working aboard long-haul tankers. Many seafarers said that their physical working environment and the concerns brought up by their families had an impact on the quality of their sleep. They cited the nature of the job and the psychological work environment as contributing factors to stress at sea.

2.3. Eating Habits.

The provision of food on board depends on various influential factors. Initially, the time between food deliveries and the availability of fresh food is determined by when the ships arrive at the port of supply. The preference and quantity of food ordered are ascertained in consultation between the cook and the master, and the food budget of the shipping company. Individual choices are not taken into consideration. Many shops on board provide access to high-fat snacks and sweets, where short flagging in ports prevents self-supply on land. While the cook decides what dishes are offered on board, the choice of what to eat is the seafarers' sole way to influence their own diet. This complex nutritional situation on board led to an unfavorable diet and promoted the development of undesirable diseases (Zyriax et al., 2018).

A Seafarer's nutritional status and weight gain are attributed to frequent overeating and unhealthy diets while on board. Meals are prepared by a cook on board the merchant ships, and large portion sizes are provided for free. With this, catering on board creates a tempting eating environment that encourages overeating. Seventy percent of all seafarers who lost weight said it happened onboard. It seems that other factors besides food intake contribute to weight fluctuations in seafarers. One of these factors is the total daily energy expenditure. They expend a lot of physical energy for demanding work, but there are still a lot of overweight or obese seafarers (Nittari et al., 2019). Indeed, many research articles found that different living environments affect seafarers' lifestyle and food intake in various ways and thus could favor or inhibit weight gain or weight loss. Thus, seafarers of different origins are likely to be influenced in different ways. It appears that the body weight and eating behavior of engine seafarers are adversely affected by the work situation on board, both within and outside the work context (Neumann et al., 2021).

2.4. Stress Management.

Stress can be sudden or unexpected. It exists in different forms. It could be psychological, emotional, social, professional, or occupational. Job stress debilitates the mental health of employees at work. Poor working conditions, an excessive workload, work shift, long work hours, role complexity, role conflicts, and strained relationships with the boss, co-workers, or subordinate officers, and risk and danger may all contribute to it. Particular responses show whether a person or group is experiencing job stress. It may manifest as a headache, sleep issues, problems concentrating, irritability, stomach pain, work dissatisfaction, and a low emotional attitude (Suhrab & Kaliappan, 2022).

Specifically, seafarers deal with many stressors triggered by long-term separation from home, family, and fatigue that occurs because of high work demands, including high workload and long working hours. Work and life in an isolated work environment brought more stressors, such as environmental stressors (e.g., poor weather, noise, vibration), deprivation of physical and psychosocial needs (e.g., limited influence on quantity and quality of food, limited opportunities for physical recreation and social life, lack of or limitations on internet access), and interpersonal relations. Interpersonal relations represent a struggle in all work environments; however, considering the multicultural and hierarchical structure of the seafaring sector and the confined work environment, unfavorable relations may pose themselves as a difficult stressor on board

(Slišković, 2020). With all of the aforementioned psychological issues faced by engine seafarers, an onboard health promotion program in the form of guidance should be developed. Providing the long working hours over many months on board, a further precautionary measure would be a shortened duration of stay on the vessels for the crew members.

Additionally, a reduction in the number of terminals called at for cargo handling through better scheduling in the port would allow for more relaxation time for seafarers in light of the frequent port turnovers. Thus, seafarers' psychophysical strain on board is meant to be accompanied by occupational group-specific health promotion programs (Oldenburg & Jensen, 2019). According to McVeigh et al. (2019), substantial changes in the maritime sector have raised professional demands at sea, posing difficulties for sailors' emotional wellbeing. The main goal of this study was to investigate how a sample of merchant mariners and superintendents perceived and dealt with stress, resilience, and other negative emotions. In order to improve the living and working conditions for maritime employees, it is necessary to investigate how this sample views their well-being, resilience, and stress.

2.5. Physical Activity.

Any movement is considered to be physical activity. Walking, cycling, wheeling, sports, active recreation, and play are all common forms of exercise that can be enjoyed by everyone at any ability level. Noncommunicable diseases (NCDs), such as heart disease, stroke, diabetes, and various malignancies, can be prevented and managed by regular physical activity. Also, it helps to prevent hypertension, maintain a healthy body weight, and it can enhance mental health, quality of life, and overall wellbeing (World Health Organization, 2023).

According to Mckeon (2018), the ideal marine candidate would have experience working abroad and be able to adapt to new situations quickly and efficiently. Marine engineers might frequently spend time on board a ship evaluating its performance and obtaining data for repairs and upkeep. A successful career in the maritime industry depends on the Marine Engineer's ability to maintain enthusiasm and confidence. The work is physically demanding, and a Marine Engineer may spend a lot of time away from home. Seafarers often work in unstable and confined living environments for several months. Significant lifestyle changes and health risks in the seafaring population have been reported because of the unique living conditions at sea, which require seafarers to provide more physical and neurological stability to maintain regular physical conditions. Sagaro et al. (2020) examined the health risks among Danish seafarers and found that significant lifestyle changes were associated with health hazard factors, such as a low level of fitness and metabolic syndrome. Moreover, Sagaro et al. (2020) investigated lifestyle-related cardio metabolic disease among seafarers on vessels in the United States' inland waterways and identified various chronic disease risk factors, such as a high prevalence of physical inactivity and obesity. On the other hand, several studies quantify and evaluate physical activity and sleep behavior among seafarers in Asian maritime environments. The main finding was that most of them exhibited extremely low levels of physical activity and poor sleep quality. Using self-reported physical activity measurements, previous studies have provided data on the relationship between physical activity and poor sleeping quality among seafarers. The findings of the current study purport and expound these earlier findings with an objective examination of physical activity and sleep quality (Youn & Lee, 2020). Indeed, tailor-made onboard health prevention measures are needed in view of the high stress level and increased strain on seafarers. The study conducted by Oldenburg & Jensen (2019) indicated that there is more time to apply onboard psychosocial interventions. The importance of human care should be taken into consideration to ensure adequate sleeping times. Due to the high strain on seafarers, intervention actions for the promotion and improvement of individual and socio-environmental health status are recommended for future studies. The study also evaluated the benefits of needs-adapted leisure activities, including attractive sport offers on board, a healthy and varied diet, training on health issues, and relaxation training that may contribute to an increase in the sailors' resilience. According to the study of Novia (2015), the environment of the ship controls an employee's life at sea 24 hours a day. Thus, it is crucial for the company to encourage employees to lead healthy lifestyles. In addition, the company has a financial incentive to take these steps because improving employee satisfaction and occupational health is a key component of any successful business plan. The effectiveness of any employer-led initiative to encourage employees to engage in physical activity, however, depends on the attitudes of the employees who are free to take advantage of the possibilities as they see fit.

2.6. Work Performances.

Cited to the study of Mohammad Abdullah (2022), the maritime sector is usually regarded as one of the most physically demanding and dangerous work environments. In the general working population, occupational fatigue has been linked to poor work performance, accidents, injuries, ill-health, sick leave, and disability. Moreover, fatigue has been designated as a dangerous element because it inhibits work performance and is difficult to comprehend by people who frequently cannot discern their state of weariness. According to Massami et al. (2021), most shipping companies are now aware of the significance of analyzing seafarers' work performance. Thus, improving seafarers' work performance or discovering ways to improve seafarers' work performance is becoming one of the most important factors in the success of any shipping company. Any organization seeks employees who can achieve corporate goals and objectives while utilizing available resources efficiently and effectively. Manpower performance can be improved by focusing more on factors that stimulate employees' motivation, creativity, and job satisfaction. Moreover, according to Massami et al. (2021), seafarers are important assets of any shipping company and thus, it helps shipping enterprises devise efficient human resource strategies to get maximum benefit from this kind of assets. Enhanced seafarers' work performance leads to improved company productivity and higher service quality and therefore make the shipping company competitive in the trading markets. The shipping industry is increasingly concerned about a

shortage of skilled seafarers, particularly officers and engineers (McLaughlin, 2015). In recent years, much research has been conducted with the focus of formulating strategies to retain seafarers (Caesar et al., 2015; Papachristou et al., 2015; Pauksztat, 2017; Tang & Sampson, 2017). The general conclusion from these research highlights the importance of job satisfaction (or motivation), which plays a key role in retaining seafarers. However, very little is known with regards to the factors influencing job satisfaction. There is presently a dearth of studies that adopt a theoretical lens to analyzing the determinants of job satisfaction or dissatisfaction of seafarers. Furthermore, very few studies have investigated the relationship between job satisfaction and performance of seafarers. The performance of seafarers is measured by productivity and quality (i.e., making fewer mistakes). Performance improvements in seafarers have the potential of enhancing ship's turnaround time, meeting the efficiency demands of shipowners, and safety performance of ship operations (Fenstad et al., 2016). In line to the study of Svecova (2009), it indicated that the growth of satisfaction is to be reflected in the increase in productivity, improvement of product quality and increased number of innovations. Thus, if employers desire their employees to be loyal to the company, they must improve employees work satisfaction. The main factors of satisfaction are salary, job diversity, personal development opportunity of employees, desirable supervisor-subordinate relationship and work environment and fringe benefits. Pursuing a seafaring career can be unsatisfying, despite the obvious attractions and benefits such as high wages and opportunities to sail internationally. The prospects and joy of visiting faraway lands have been considerably reduced due to faster turnaround in ports because of efficient cargo-handling operations and increasing demands from shipping companies to maximize profits. In addition, there are nowadays fewer incentives to pursue a seafaring career since salaries offered by shore-based jobs are just as competitive. However, there is a lot of stress associated with working on board a ship. This stress is attributed to poor working and living conditions. The shortage of seafarers and prevailing minimalist manning level on merchant ships have dramatically increased the workload of seafarers, who face tighter and longer work schedules as well as develop a feeling of either satisfaction or dissatisfaction (An et al., 2020). In fact, many factors can lead to the satisfaction or dissatisfaction of seafarers. Appropriate and concrete human resources management strategies can be employed to motivate and retain seafarers and improve their job performance. Most research findings are not applicable to the seafaring context given that seafarers work and live in the same small environment over prolonged periods. It is better to reward seafarers in the form of pay, bonuses, promotions, training and development, and welfare on board ships to increase satisfaction (Campanico-Cavaleiro et al., 2019).

Seafaring remains a demanding job that requires one to face the challenges of harsh weather and working conditions on top of keeping up with the advancements in technologies onboard. As compared to rewards and benefits, addressing these stressors can greatly increase seafarers' job satisfaction. For the more experienced seafarers who have learned how to handle such stresses and manage their emotions away from home, their employers can instead focus on their personality development, empowering them and setting performance objectives and career paths. When these mature and experienced seafarers are retained, their skills can be transferred to the inexperienced. With a well-defined career path for seafarers and more recognition from the management, the image of seafaring will improve, and as a result, the sense of attachment and pride within the seafaring community will increase (Yuen et al., 2018).

The presentation of a ship route optimization system aims to meet the requirements of a demanding maritime trade. In order to give it an operational perspective, the article highlights the most recent updates to the entire on-board ship weather routing system. The directional spreading of the waves is considered while modeling ship reactions for any sea-state scenario. Using the capabilities of a strong multi-objective evolutionary algorithm, the best set of solutions are approximated and sequentially ordered in accordance with the needs of the ship. The modularity of the code provides for considerable flexibility in the handling of goals and objectives as well as in the choice of input (Vettor & Soares, 2016).

3. Research Design and Methodology.

Section 3 is divided into two parts: (1) Research Design and (2) Methodology.

Part One, Research Design, restates the reasons for conducting the study and the research design used.

Part Two, Methodology, describes the respondents involved in the study, the data gathering instruments used, the steps of the research process as well as the procedures for data analysis.

3.1. Research Design.

Descriptive-correlational research design was used to determine the relationship between personal habits and work performance of engine seafarers onboard. As a descriptive study, it sought familiarity with the subjects, portrayed selected characteristics of the subjects accurately, and provided the necessary background for the formulation of a more precise problem for a subsequent, more specific study and for the development of hypotheses. It systematically described the situation or area of interest factually and accurately. It allowed the researcher to carefully describe and understand the behavior. This study was correlational, for it demanded the degree to which the variables were related to each other using various statistical instruments.

3.1.1. Respondents.

The respondents of the study were 100 seafarers onboard who were currently residing in Iloilo City. The purposive random sampling technique was applied for the selection of the respondents in the study.

Table 1: Number of Respondents.

Sex	Population (N)	%
Male	95	95%
Female	5	5%
Total	**100**	**100%**

Source: Author.

3.1.2. Data Instrument.

This study utilized a duly validated researcher-made questionnaire. It is divided into 5 areas namely: (1) Eating Habits; (2) Sleeping Habits; (3) Stress Management; (4) Physical Activity; and (5) Work Performance. A 5-point Likert scale of agreement was featured wherein each rating has an assigned point consisting, Always = 5, Often = 4, Sometimes = 3, Rarely = 2 and Never= 1.

3.2. Methodology.

3.2.1. Data Gathering Procedure.

After a letter of permission to conduct the study was approved by the research adviser, data gathering started on December 6, 2022, to January 10, 2023, using Google Forms sent to the respondents through messenger and e-mail. Upon the retrieval of the data, responses were tallied and submitted to statistical treatment.

3.2.2. Data Analysis Procedure.

The collected data from the respondents were processed and analyzed using the Statistical Package for Social Sciences (SPSS). Frequency count, means, standard deviation, ranking, and Pearson correlation coefficient were used and set at .05 level of significance. The scale of interpreting the level of personal habits and work performance of engine seafarers and their correlations are as follows.

Figure 2: Level of Personal Habits and Work Performance.

Scale	Description
4.20-5.00	Very High
3.40-4.19	High
2.60-3.39	Average
1.80-259	Low
1.00-1.79	Very Low

Size of Correlation

Scale	Description
0.90-1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70-0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50-0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30-0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00-0.30 (0.00 to -0.30)	Negligible correlation

Source: Author.

4. Results and Discussions.

Section 4 presents the results of the data after the study has been conducted. The information obtained from the study are presented in this chapter. This chapter is divided into two parts, namely: (1) Descriptive Data Analysis, and (2) Inferential Data Analysis.

Part One, Descriptive Data Analysis, presents the result of the study with the use of frequency count, mean, standard deviation and rank; and

Part Two, Inferential Data Analysis, reports the inferential data and their respective data analysis and interpretation. Pearson correlation coefficient was used in the inferential data analysis.

4.1. Descriptive Data Analysis.

Table 2 shows the level of personal habits of engine seafarers onboard when group according to sleeping habits was high with the composite mean of 3.55, SD= .600. Of all the items, "I practice body hygiene before/ after sleeping" got the highest weighted mean of 4.09. This implied that practicing healthy sleep hygiene can help seafarers full asleep.

It was followed by "I clean my room and tidy my bed after sleeping" with the mean of 4.00. Respondents tends to find it important because of peace and tranquility that well organized, clean rooms bring and helps to have positive mood and has an impact on sense of well-being. Also having "I can wake up early for my duty" generated a mean of 3.97. Respondents believes that waking up earlier can give more time to accomplish the goal. Consistently doing that can give body more energy motivation, as it can regulates sleep schedule. Based on the result it supported to the study of (Baygi et al. 2022), in connection with the wellbeing and sleep quality that may have an impact on their safety and well-being while working aboard. However, the items such as "I play video games before sleeping and I watch TV before sleeping" obtained the lowest mean of 2.90 and 2.96. This means respondents tends to believe that video games and watching tv programs before bedtime have been thought to produce poor sleep, specially sleep latency.

Table 3 shows the level of personal habits of engine seafarer onboard when group according to eating habits was high with a mean of 3.59, SD= .667. of all the items, "I eat before my duty" got the highest weighted of 4.08. This implies that food is important and need to be valued, because to be healthy and active, it should certainly have enough food before going to work.

It was followed by "I eat a complete meal (3) three times a day" with a mean of 3.98. Respondents tends to find it important because it can increase productivity in a workplace, also having "drink a multivitamin" generated a mean of 3.87. Respondents believe that taking multivitamins can be a substance in the body that can build energy help to stay function properly. It is true, according to the study of Neumann et al. (2021), it appears that the body weight and eating behavior of engine seafarers are adversely affected by the work situation on board, both within and outside the work context.

However, items such as "I drink energy booster" and "I drink coffee everyday" obtained the lowest mean of 3.28 and 3.30 as average. This means that even it helps you to increase your alertness, brain function and improves productivity it has

Table 2: Level of Sleeping Habits of Engine Seafarers.

No.	*Sleeping habits Questionnaires*	*Mean*	*Interpretation*	*Rank*
1	I watch TV program before sleeping.	2.9600	Average	11
2	I play and meditate before and after sleeping.	3.7700	High	5
3	I can sleep well even in vibratory/ noisy environment.	3.2000	Average	9
4	I play video games before sleeping.	2.9000	Average	12
5	I clean my room and tidy my bed after sleeping.	4.0000	High	2
6	I communicate to my family before or after sleeping.	3.5900	High	7
7	I have an allotted time to take a sleep after duty.	3.6900	High	6
8	I practice body hygiene before/ after sleeping.	4.0900	High	1
9	I drink lots of water before sleeping.	3.9100	High	4
10	I am disturbed in my sleep by bad weather.	3.3600	Average	8
11	I can sleep while lights on.	3.1400	Average	10
12	I can wake up early for my duty.	3.9700	High	3
	Overall	**3.55**	**High**	

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

Table 3: Level of Eating Habits of Engine Seafarers.

No.	*Eating Habits Questionnaires*	*Mean*	*Interpretation*	*Rank*
1	I drink 6-8 glasses of water each day.	3.8500	High	4
2	I eat a variety of fruits and vegetables each day.	3.4800	High	7
3	I eat 3 servings of fruits and vegetables each day.	3.3300	Average	9
4	I eat 6-8 servings of whole grain products (bread), rice, corn, or root crops each day.	3.4700	Average	8
5	I eat 2-3 serving of protein-rich foods each day.	3.6300	High	5
6	I eat a complete meal 3 times a day.	3.9800	High	2
7	I eat snacks in the morning and afternoon.	3.5000	High	6
8	I eat before my duty.	4.0800	High	1
9	I eat midnight snacks.	3.3100	Average	10
10	I drink coffee every day.	3.3000	Average	11
11	I drink energy booster.	3.2800	Average	12
12	I drink multivitamins.	3.8700	High	3
	Overall	**3.59**	**High**	

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

side effects of too much consumption like constipation, nausea and insomnia (Gabrish, 2017).

Table 4 shows the level of personal habits of engine seafarers onboard when group according to stress management was average with a composite means of 3.12 SD = .617. Of all the items, "I have faith in greater power of being (God)" got the highest weighted mean of 4.05. This implies that having faith is something means trusting it completely. Respondent with strong faith is confident in their knowledge that they can do anything they set their minds.

Items followed by "I feel stress when I have family problem" with a mean of 3.36. Also "I feel stress when I can't do my job right" with a mean of 3.30, adhere that family stress affects their emotional aspect which they cannot focus and perform on their respective jobs that can end to poor work performance and mental health issues. It is true that according to the study of Slišković (2020), seafarers deal with many stressors triggered by long-term separation from home and family.

In contrary, the items such as "I feel stress when I'm doing my job" and "When I feel stressed, I worry all the time" obtained the lowest mean of 2.70 and 2.79. This means that seafarers who can cope and deal with stress necessary, being happy at work and loving what you do can keep you more motivated and productive.

Table 4: Level of Stress Management of Engine Seafarers.

No.	*Stress Management Questionnaires*	*Mean*	*Interpretation*	*Rank*
1	I feel stressed when I am doing my job.	2.7000	Average	12
2	I feel stressed when I am alone.	2.8100	Average	10
3	When I feel stressed, I worry all the time.	2.7900	Average	11
4	When I feel stressed, I have difficulty sleeping.	3.1300	Average	4
5	When I feel stressed, I have difficulty in concentrating to my job	3.1000	Average	6
6	When I feel stressed, my appetite is affected (tend to eat more or not eating at all).	3.1200	Average	5
7	I'd rather be alone when I'm stressed.	3.0400	Average	8
8	I have faith in greater power of being (God).	4.0500	High	1
9	I feel stressed when I have family problems (insufficient funds, family member died, family got into a fight etc.)	3.3600	Average	2
10	I feel stressed when I can't do my job right.	3.3000	Average	3
11	When I see someone who cannot do their job right, I feel stressed.	3.0500	Average	7
12	Working 15 to 18 months onboard can make feel stress.	2.9500	Average	9
	Overall	**3.12**	**Average**	

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

Table 5 shows the level personal habits of engine seafarers onboard when group according to physical activity with a composite mean of 3.32; SD = .568. Of all the items "I keep myself entertained in my free time by chatting on the phone, using

social media, watching videos etc." got the highest weighted mean of 3.97. This implies that during their free time the respondents are prone into sedentary lifestyle. It was followed by "I perform actively on the extra chores on board" with mean of 3.72, also "I engage myself on recreational activities (Basketball, Volleyball etc.)" with a mean of 3.52. Based on the result it supported to the study of Oldenburg & Jensen (2019), it needs-adapted leisure activities, including attractive sport offers on board, a healthy and varied diet, training on health issues, and relaxation training that may contribute to an increase in the sailors' resilience.

In contrast, the items such as "Do not have time for sports or exercise" and "I am too tired to exercise, play sports and dance" obtained the lowest mean of 2.85 and 3.05. This means that the respondents felt that they do have time to exercise while onboard, despite the time limitations of shift work and lack of energy they try not to compromise their health.

Table 5: Level of Physical activity of Engine Seafarers.

No.	*Physical activity Questionnaires*	*Mean*	*Interpretation*	*Rank*
1	I perform actively on the extra chores on board.	3.7200	High	2
2	I walk and engage myself in sports after working hours.	3.4700	High	5
3	I perform at least 40 minutes of sports/dance on most days of the week.	3.3300	Average	8
4	I engage at least 20 minutes of sustained vigorous activities result in rapid breathing on most days of the week.	3.3700	Average	7
5	I perform muscle and bone strengthening activities 2-3 times a week.	3.4900	Average	4
6	I perform yoga stretching and zumba 3 to 4 times a week.	3.0800	Average	9
7	I spend no longer than 2 hours per day watching television, playing passive video games, or playing on the computer.	3.0600	Average	10
8	I do not have time for sports or exercise.	2.8500	Average	12
9	I am too tired to exercise, play sports or dance.	3.0500	Average	11
10	I perform stretching exercises at least 10 minutes for 3 to 6 times a week.	3.3900	Average	6
11	I engage myself on outdoor recreational activities (Basketball, Volleyball, etc.)	3.5200	High	3
12	I keep myself entertained in my free time by chatting on the phone, using social media, watching videos etc.	3.9700	High	1
	Overall	**3.32**	**Average**	

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

Table 6 shows that the level of personal habits of engine seafarers onboard when taken as a whole is average (M=3.39, SD=.483) but when grouped according to sleeping habits is high (M=3.55, SD=.600), eating habits, it is high (M=3.59, SD=.667), stress management is average (M=3.12, SD=.657), and physical activity is average (M=3.32, SD=.568). The statistical results implied that engine seafarers onboard are responsible and conscious of the food that they eat, considering the acquisition of nutrients, vitamins, and minerals. Aside from this, they value the right duration of a nap or sleep to recharge energy for another laborious workday on the ship. Some seafarers can withstand challenges encountered onboard, but others are incapable of rising from difficult situations that require sociocultural adjustments. Indeed, their physical condition can adapt to their work environment, but others deal with body mass issues that require proper diet, exercise, and a healthy lifestyle. Despite of these, Çakir (2019) and Nittari et al. (2019) found that seafarers are vulnerable to having accidents and acquiring different diseases due to work culture, climatic changes, personal habits, etc. They unexpectedly experience serious and fatal injuries. The main causes of such injuries are threatening work practices, neglecting ship rules, and stringent regulations. Battineni (2020) emphasized that it is important to follow some preventive methods to overcome the accident rate onboard.

Table 6: Level of Personal Habits of Engine Seafarers Onboard when Taken as a Whole and Grouped According to Sleeping Habits, Eating Habits, Stress Management, and Physical Activity.

Variables	*N*	*Mean*	*SD*	*Interpretation*	*Rank*
As a Whole	100	3.39	.483	Average	
Sleeping Habits	100	3.55	.600	High	2
Eating Habits	100	3.59	.667	High	1
Stress Management	100	3.12	.657	Average	4
Physical Activity	100	3.32	.568	Average	3

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

Table 7 shows the level of work performance of the respondents was high with a composite mean of 3.68. Of all the items, "I practice safety on board ship especially on hot works and danger area" set the highest weighted mean 4.25; SD=1.028. It has followed by " Teamwork and coordination of engine department can enhance work performance " with a mean of 4.17; SD=1.025 this implies that the respondents are aware of the protocols and procedures onboard to ensure safety and to prevent human injury. The respondents also imply that they are aware of the situation especially on dangerous areas. They work together in order to accomplish a task which boosts their work performance.

In contrary, the items such as "Doing exercise 3 times a week can affect work performance in checking all parameters on the engine room" and "It affects my work performance when there is a bad weather" obtained the lowest mean of 3.42 and 3.33. This means that doing exercise three (3) times a week is not necessary. The nature of the job in the first place is physically demanding. Moreover, bad weather is not a factor that affects work performance.

Yes, it was justified to the study of Abdullah (2022), the maritime sector is usually regarded as one of the most physically demanding and dangerous work environments.

Table 7: Level of Work Performance of Engine Seafarers Onboard .

No	*Work Performance Questionnaires*	*Mean*	*SD*	*Interpretation*	*Rank*
1	I feel rested after a good sleep handling over watch makes easy.	3.7600	.98596	High	7
2	I feel accomplished in my work after having double check the engine room before I retire for rest.	3.9100	.92217	High	5
3	I work well without supervision of higher rank engine officers.	3.6400	.99005	High	10
4	work well without supervision of higher rank engine officers. performance onboard.	3.5000	.82266	High	20
5	Teamwork and coordination of engine department can enhance work performance.	4.1700	1.02548	High	2
6	I practice safety on board ship especially on hot works and danger area.	4.2500	1.02863	Very High	1
7	I take multivitamins before duty or working in the engine.	3.7100	1.08521	High	8
8	I take energy booster before repairing the engine trouble.	3.5300	1.15867	High	16
9	I eat complete meal before having heavy work.	4.0900	.96499	High	3
10	Drinking alcoholic beverages can affect work performance during engine watch.	3.8100	1.22841	High	6
11	Food supply on ship can affect work performance working at the engine room.	3.5500	1.22578	High	14
12	Eating snacks before duty hour can affect work performance in trouble shooting.	3.5800	1.09341	High	12
13	I deal stress by the use of entertainment (social media, cell phone and etc.) and makes me more productive in working with all machineries on board.	3.6400	.95896	High	11
14	I get stressed when I go near dangerous places, (Somalia) it affects my work performance.	3.4300	1.07548	High	22
15	It affects my work performance when there is a bad weather.	3.3300	1.00559	Average	24
16	Praying to God reduces stress and make me motivated in working with auxiliary machineries.	4.0800	1.06059	High	4
17	When I don't have enough sleep (6-8 hours) my night engine watch is poor.	3.5000	.84686	High	19
18	When I have headaches, stomach aches, body pain etc. I can't work well my responsibilities on board.	3.5100	.94810	High	18
19	Doing exercise 3 times a week can affect work performance in checking all parameters on the engine room.	3.4200	1.10261	High	23
20	Stretching before duty can affect my work performance in checking/ taking all rounds of the machineries.	3.5600	1.06667	High	13
21	Light exercise before bed can make myself feel better on the next day going to work.	3.5400	.91475	High	15
22	Being physically fit can affect my work performance on working small space like entering in the bilge and engine manhole.	3.5300	.98939	High	17
23	I do physical exercise to help regulate blood pressure to work well inside the engine room.	3.6900	.86100	High	9
24	Role ability fit can affect my work performance in working in the engine room.	3.4800	1.02966	High	21
	Overall	**3.68**		**High**	

Interpretation: Very High (4.20-5.00); High (3.40-4.19); Average (2.60-3.39); Low (1.80-2.59); and Very Low (1.00-1.79)

Source: Author.

4.2. Inferential Data Analysis.

A Pearson correlation coefficient was used to determine the relationship between personal habits and work performance of engine seafarers onboard.

Table 8 shows that there is a correlation between personal habits and work performance of engine seafarers onboard, denoting significant relationship (r (**??**)=.827, p=0.000). There is enough evidence to reject the null hypothesis because the p-value was less than the .05 significance level. This signifies the indivisible attachment between their personal habits and work performance. Both have a bidirectional influence on the attitude and behavior of the engine seafarer onboard. Their personal habits and work performance cannot only contribute to their healthy and productive physicality but also to the welfare of the seafaring industry. In essence, Yuen et al. (2018) highlighted that seafaring remains a demanding job that requires one to face the challenges of harsh weather and working conditions on top of keeping up with the advancements in technologies onboard. Because of this, De Beukelaer (2021) and Vandergeest et al. (2021) suggested the marine industry to grant seafarers full access to stronger labor protections such as those in the Maritime Labor Convention of the International Labor Organization, national labor laws, and increasing support for people and organizations that are frontliners in providing adequate support for seafarers.

Table 8: Relationship between Personal Habits and Work Performance of Engine Seafarers Onboard.

Variables	Personal Habits		Work Performance		**Remarks**
	r_s	P	r_s	p	
Personal Habits	-	-	.827**	0.000	Significant
Work Performance	.827**	0.000	-	-	

*Note. *Significant at p <0.05*

Source: Author.

5. Summary, Conclusions, Implications and Recommendations.

Chapter 5 consists of four parts: (1) Summary, (2) Conclusions, (3) Implications, and (4) Recommendations.

Part One, Summary, summarizes the essential points of the investigation and findings.

Part Two, Conclusions, presents the inferences drawn from the findings of the study.

Part Three, Implications, shows what the findings of the study implied.

Part Four, Recommendations, offers some recommendations based on the findings and conclusions drawn from the study.

5.1. Summary.

This descriptive-correlational study examined the personal habits and work performance of 100 randomly selected seafarers from Iloilo City. The researcher-made questionnaire was validated by the research experts, and Google forms were constructed and distributed through Facebook Messenger and email. Likewise, researchers electronically gathered the data during the data collection process. The statistical tools used were frequency count, mean, standard deviation, and ranking for the descriptive statistics, while the Pearson correlation coefficient was utilized for the inferential statistics. Based on the results of the study, the following are the summary of findings:

1. The level of personal habits of engine seafarers onboard when taken as a whole was average (M=3.39, SD=.483) but when grouped according to eating habits is high (M= 3.59, SD=.667), sleeping habits is high (M=3.55, SD= .600), stress management is average (M=3.12, SD=.657), and physical activity is average (M=3.32, SD=.568).
2. The level of work performance of engine seafarers onboard when taken as a whole is high (M=3.55, SD=.492).
3. There is a correlation between personal habits and work performance of engine seafarers onboard, denoting significant relationship (r (100) =.827, p=0.000).

5.2. Conclusion.

In view of the findings, the following conclusions were drawn:

1. Engine seafarers onboard can adapt biologically and physically to their working conditions. Their personal habits entail that they are well-equipped and responsible for safeguarding their health and wellness. For the sake of their family's financial security, they still show audacity beyond their own suffering.
2. Engine seafarers are committed to their work, even though they experience psychological disturbance and socio - cultural disparity. They devote their time and effort to earning for the family's welfare and security. They can calculate risk and implement solutions to the greatest extent possible.
3. The personal habits and work performance of engine seafarers are indivisible and behavioral manifestations of self-responsibility and work management. They can strike a balance between their personal matters and work requirements. They have a strong heart and a prepared mind to face and overcome challenges.

5.3. Implications.

For theory: The results and findings of this study will contribute to strengthening the foundations of related literature on seafaring. This could add more valuable information on the theoretical frameworks of maritime education and training. The established theories grounded in this study can back up the conceptual reviews of future researchers.

For practice: The maritime educational learning institutions will continue to empower the present and future generations of marine engineers and seafarers. Proper training and development of skills will be strengthened, in order to produce competent and work-oriented individuals. They do not just impart great contributions to their family but also to the country itself.

5.4. Recommendations.

1. Seafarers onboard may take a step toward work efficiency and productivity to ensure quality performance in shipping work. Their personal habits should be consistent with their work performance to ensure systematic work function and organization. Moreover, seafarers should just keep doing their regular routine as it is fine as is. Maintain a good performance and there should be no problems that can arise.
2. The maritime industry may maintain its duty to give equal opportunities and benefits to seafarers. They should be equal with seafarers in other sectors, and work policies should also be implemented to address the possible inequalities and injustices. Furthermore, seafarers might find it difficult to alter some of their routine, but altering the one that affects work performance negatively might benefit in the long run. Preparation is key to overcome difficult time ahead.
3. Future researchers may comprehensively assess the determinants of job outcomes in the context of seafaring. By examining the effects of each determinant, management efforts can be prioritized to motivate and retain seafarers. In addition, Future researchers should conduct detailed examination of the factors that influence job results in seafaring. It can assist in the future researchers for their future studies.

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