

## MENTAL HEALTH PROBLEMS AND FACTORS AFFECTING SEAFARERS HEALTH

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### ABSTRACT

This paper aims to shed new light on the subject of sailors' mental health issues. Previous studies have been impeded by the difficulty of obtaining enough data on the mental health of international seafarers to allow for cross-sections with other employees and/or time. An alternative approach was taken in this study, which sought to determine whether or not mental illness among seafarers is seen as an important issue by key stakeholders, what factors seafarers identify as supporting or undermining mental health and well-being aboard freighters, as well as what policies and practices ship operators could implement to better support seafarers' mental health and well-being. It was conducted using a mix of primary data collected via surveys and secondary data collected through interviews and questionnaires delivered by interviewers and semi-structured interviews (known as P&I clubs). According to the findings of the survey, maritime charities, business groups, and trade unions are very concerned about the mental health and well-being of seafarers. Employers, on the other hand, see it as a less urgent issue. Many seafarers and certain companies encourage proactive initiatives to enhance shipboard communication infrastructure and recreational facilities, as well as job circumstances and physical health of seafarers to promote greater onboard mental and emotional well-being. Reactive tactics (e.g., seafarer counselling) and self-help strategies aimed towards seafarers may not be as successful as these measures in enhancing the well-being of crew members.

**Keywords:** - Mental health, psychological issues, Factors, Seafarer, Maritime, Suicide, Anxiety; Depression

### INTRODUCTION

A rising number of people are concerned about the mental health and well-being of those who work in the international cargo shipping business, therefore this study sought to find out more about it.

The worldwide cargo shipping industry now employs seafarers from all over the world who operate in small crews. Most of them work long hours and have contracts dependent on travel that may last up to a year. As a result of a lack of internet connectivity and the related costly fees as well as time zone variations and extended working hours, communication with loved ones back home is restricted. These people are especially susceptible to mental illness in this situation.

Recent years have seen an increasing emphasis on protecting the mental health and well-being of sailors. Confusion caused by seemingly contradicting facts about indications of poor mental health, such as suicides and repatriations for mental health reasons, has impeded their efforts, but they are still trying. In addition, health promotion activities in the maritime sector have been hindered by the lack of seafarers' viewpoints on best practices.

## LITERATURE REVIEW

Zhu Zhen (2022) - The health of the ocean shipping sector depends heavily on the regular monitoring of seafarers' mental well-being. Seafarers' mental health state may be assessed more effectively and intelligently using a dual subjective-objective testing system presented in this research. Seafarers' mental health test scale (SMHT) is revised using fuzzy factor analysis and the test data of 283 marine practitioners are analyzed using SPSS v24 software; secondly, this paper proposes an intelligent framework module for immersive subjective emotion extraction based on natural language processing, such as semantic summary extraction (SSE) and speech emotion extraction (SEE), using a hybrid scoring mechanism to obtain semantic and emotional matching. Cronbach's alpha was 0.852 and R was 0.873(0.850.90); both indicate strong reliability and scale association validity for the SMHT scale (for the SCL-90,  $(r=0.4680.841)>0.45$ ). As compared to the standard mental health scale, the subject-object dual test approach had a calibration rate improvement of around 12.05 percent. CAT, machine learning, the SCL-90, and fMRI were all compared to see whether this system had any benefits or downsides, and the findings showed that it did, giving a straightforward and clever option for conventional psychological assessment of seafarers.

Woraluk Jonglertmontree (2022) - It is well known that seafarers labour in hazardous conditions, both physically and psychologically. The mental health of seafarers, in contrast to physical health, has received little attention. In-depth studies of mental health issues and the elements that influence them are scarce. As a scoping review, this study sought to identify best practices in dealing with the mental health challenges experienced by seafarers and their associated variables by methodically mapping the data. On August 20, 2020, MEDLINE/PubMed, Science Direct, Academic Search Complete utilizing EBSCOhost databases, SCOPUS, EMBASE, and Web of Science were searched for studies on the subject. The framework of Arksey and O'Malley and the Preferred Reporting Items for Scoping Reviews flow diagram were used to perform this scoping review. Studies that examined the link between elements related to working conditions or the work environment and the mental health of seafarers, among other things, met the inclusion criteria. Narrative summaries and reports of the data were provided.

Birgit Pauksztat (2022) - The COVID-19 pandemic and the steps taken to prevent its spread have had a profound effect on workplaces and occupational health and safety, with significant levels of mental anguish documented in various sectors. There were existing occupational health and safety problems in the marine sector prior to the COVID-19 epidemic, including psychological dangers. However, there is still a lack of information regarding the prevalence of mental health issues and the variables that contribute to them. The goal of this research was to examine the influence of the COVID-19 pandemic on seafarers' self-reported feelings of depression and anxiety. Respondent and work-related factors were also examined.

Helen Sampson (2020) - Recent years have seen a rise in the recognition of mental health as a major concern for the worldwide workforce. As a result of these concerns, a number of organizations in the shipping industry have proposed a wide variety of mostly reactive and behavior-based remedies and risk reduction techniques. For the first time, a new study has been published that examines the mental health and wellness of seafarers on deep-sea cargo ships, as well as the perspectives and opinions of active seafarers, as well as their stakeholders and employers. This is a unique approach in that it focuses on the things that seafarers themselves believe are important to their own personal well-being and pleasure. Employers may take a number of practical initiatives to reduce seafarers' exposure to a variety of risk factors connected with depression and other mental health issues by drawing on these two key sources of data. Among the topics addressed in this report are the

availability of communication equipment, food and recreational amenities on board ships, shore leave, work-to-leave ratios, harassment and bullying aboard ships, and onboard furnishings.

Marcus Oldenburg (2019) - Researchers in this research are looking at whether the stress and strain felt by container ship workers differs amongst the different occupational groups on board shipboard. In a marine field research, 323 container ship seamen were asked to complete a questionnaire and biometrically analyzed. In addition, the Sense Wear wristband monitor and the Polar RS800 watch were used to measure energy expenditure and heart rate variability. Data gathered by the wristband monitor indicated an average daily sleep length of 5.0 hours, with notably brief sleep episodes amongst nautical officials. Additionally, sleep deprivation was reported substantially more often by members in this profession (67 percent). At 801 kcal per day, the deck ratings were in first place, followed by the crew members in the engine room and lastly the nautical officers (568 kcal). The lowest heart rate variability was seen in the last listed group, which was also the most likely to feel mental stress at work.  $r = -0.387$ ;  $p = 0.002$ ), and this was the only stressor that had a negative relationship with heart rate variability. Further research is needed to establish the unique stresses that seafarers face on the job, and health promotion programs tailored to these groups should be created.

## **EXISTING EVIDENCE**

Concerns concerning sailors' mental health and well-being may be addressed by three distinct sources of publicly accessible information and evidence. The first focuses on the mental health of sailors. Second, we'll look at the literature on suicides at sea, as those who commit themselves while working on a ship are more likely to have a mental illness. It is only by doing this that we can tell apart between suicide as a desperate act and suicide as a calculated one (in the face of a terminal prognosis, for example). In the event of a suicide aboard a ship, it's exceedingly unlikely to be of the latter kind. Finally, we take a look at a tiny but growing body of research on the repatriation of seafarers, as well as a more established but still modest body of work on medical care for seafarers.

## **SEAFARERS' MENTAL WELL-BEING**

Both of these issues have been examined in the literature on sailors' mental health. As a first step, the authors of this study attempted to answer the question, "How do the mental health issues of sailors compare to those of the general population?" This interest in the elements that may lead to poor mental health among sailors on board has also been discussed.

The status of mental well-being of mariners.

More research is needed to understand the mental health of sailors as compared to the general population (Melbye and Carter 2017). Anecdotally, it has been suggested that a lack of recent attention to the issue (the International Committee on Seafarers' Welfare, 2009) is partially responsible for this (International Committee on Seafarers Welfare, 2009) (Beechinor 2017). There is a good chance it has to do with the fact that estimating the prevalence of mental illness among seafarers is a difficult task in itself. This is a complex problem with many facets. Firstly, seafarers are largely recruited on temporary voyage-based contracts (Sampson et al 2015) which are only awarded on successful completion of a medical examination. An unhealthy worker impact can't be sufficiently accounted for by using suitable reference groups (McMichael 1976, Oldenburg et al 2009) since this tends to filter out unhealthy employees (Shah 2009). The mental health of sailors cannot be compared to that of other groups due to this. As a second point, mariners are a hard-to-

reach and scattered group of employees. The third problem is that a representative sample of international seafarers employed by a variety of organizations might be difficult to collect at random. Shipwrecked sailors seem to have greater rates of psychological illnesses (Sampson et al 2017) and alcoholism (Olkinuora 1984, Roberts 2005) than those in other occupations, according to the little information available. Sampson et al. (2017) conducted a unique comparative analysis of active seafarers' health in the period 2011–2016 and identified a rise in seafarers' short-term mental problems. Among the working sailors in 2016, 37% said that their mental health has deteriorated during the previous year. Some studies of the general population contrasted well with this number, but most investigations found it to be unfavorable. Furthermore, the authors saw the rapid decline in the mental health of sailors as a reason for alarm (Sampson et al 2017).

Psychiatric problems have been linked to sailing in certain studies, although other researchers questioned whether seafarers are more prone to suffer from such diseases than the general population (Brandt et al 1994). Epidemiological studies on Norwegian men in a range of professions gave some support to the latter notion (Sundby and Nyhus 1963). According to a number of recent research (based on single-nationality samples of seafarers), however, being a seafarer may increase one's chances for mental illness (Hemmingsson et al 1997). Seafarers may also be more susceptible to emotional tiredness and relatively heightened levels of "burnout syndrome" than workers in other professions, according to new research (Oldenburg et al 2013).

#### FACTORS UNDERMINING SEAFARERS' MENTAL HEALTH

Many things may be said to be detrimental to the mental health and well-being of sailors. Some of these may be seen as aspects that are universal to the industry, while others are more specific to particular roles.

One could consider the following generic predisposing factors as inherent to the seafaring profession: loneliness (Melbye and Carter 2017, Jepsen et al 2015, Borovnik 2011, Oldenburg et al 2009), lack of shore leave (Borovnik 2011, Iverson 2012, Martek Marine 2017), bullying (Martek Marine 2017, Iverson 2012), fear of criminalization (Iverson 2012, Martek Marine 2017, International Committee on Seafarers' Welfare 2009), fear of j (Oldenburg et al 2013, Carotenuto et al 2012, Iverson 2012, Jezewska and Iverson 2012, Borovnik 2011, Jepsen et al 2015, Jezewska et al 2013).

In terms of mental health, there is little agreement on which board positions pose the most risk. The danger of exposure to mental illness varies with rank and position on board, as everyone agrees (Melbye and Carter 2017, Lefkowitz et al 2015a, Carter 1976, Levy 1972, Carotenuto et al 2012, Elo 1985). Psychiatric issues are seen as more prevalent among officers than in the general population (Melbye and Carter 2017, Lefkowitz et al 2015a, Carter 1976, Levy, 1972). Engineers and members of the engine crew, on the other hand, have been shown in studies to be more susceptible than other seafarers to mental health issues (Carotenuto et al 2012, Elo 1985).

Mental health outcomes varies among sailors for a variety of reasons. Jepsen et al. (2015) identified shift work as a risk factor, and Filipinos were shown to be less likely to appear with mental problems on board as a consequence of both pre-employment medical screening and under-reporting (Grøn and Knudsen 2012).

#### Suicide

Depression and poor mental health among mariners may lead to suicide in severe situations (Szymanska et al 2006, Borch et al 2012). Suicide rates among mariners, however, are difficult to estimate since there is a lack of solid data. As a result, it is difficult to calculate suicide rates because of a lack of current demographic statistics as well as the challenges inherent in detecting suicide cases

(Bedeian 1982). In his discussion of fatalities at sea on Hong Kong-registered ships, Nielsen outlines the problems encountered by all studies extremely clearly.

National studies are the primary source of reliable data. Szymanska et al. (2006) and Wickstrom and Leivonniemi (1985) show that seafarers' suicide rates have historically been higher than those of the general population (as have other studies such as Roberts et al. (2013) and Roberts et al. (2010), while Brandt et al. (1994) show that seafarers' suicide rates today are more broadly comparable to those of the general population (Roberts et al 2010). According to Roberts and Marlow (2005, 2007), Roberts and Williams (2007, 2012), Borch (2012, 2013), and others, the suicide rate among some national groups of sailors is decreasing. There are also indications that certain departments (such as catering), nationalities (Roberts et al., 2010), and levels of seafarers (such as ratings, 2013) may be associated with higher suicide risks (Roberts and Marlow 2005, Szymanska et al 2006, Wickstrom and Leivonniemi 1985, Brandt et al 1994, Roberts et al 2010). The use of open register data (also known as "flags of convenience") has been tried in very few worldwide suicide studies. This is primarily because to problems with accessibility (Nielsen 2001). Seafarers International Research Centre, however, produced research on international fleet deaths in 2019. Maritime Administrations documented suicides as separate incidents rarely, making data analysis difficult and reliable interpretation of data almost impossible at this point in time (Sampson and Ellis 2019). The research found 38 occurrences of suicide over a period of 17 years, which accounted for 3.7 percent of all deaths. Only four occurrences of suicide were registered by any administration over the period 2000–2006, and three of the administrations did not record a single suicide throughout the whole time. This was seen as a sign of a significant under-reporting/recording of events (Sampson and Ellis 2019).

#### Repatriations and medical assistance

Some academics are looking at data on medical aid and repatriation to see whether it may shed light on the mental health of today's sailors because of the patchy nature of the existing data on seafarers' mental health and linked suicides. According to Lefkowitz et al. (2015b), 3,921 seafarers requesting medical assistance/advice were included in a telemedicine database, of which 61 instances resulted in repatriation. They discovered that although the prevalence of mental disease was modest among seafarers who sought help (0.6%), it was much higher among those who were repatriated home (5%)—underscoring the seriousness of psychiatric illness on board. Abaya et al. (2015) looked examined Filipino sailors' repatriation rates over a five-year period by examining the records of local manning agency. There were only 1.8 percent of the 6,759 instances including mental problems, which were most usually characterized as depression, but also included cases of anxiety and depression. According to Bell and Jensen in 2009, however, there were far greater rates of anxiety, sadness, and self-harm. An 8.3% repatriation rate was found by reviewing the medical records of P&O Princess Cruises' worldwide fleet of employees.

Many seafarers who are aware of worsening in mental health may seek repatriation on different grounds that are less likely to risk future employment chances may seek repatriation via the use of repatriation data, although this is not always the case.

#### FINDINGS

According to the research, the degree of mental illness (and suicide) among seafarers is difficult to determine in comparison to the general population. A recent rise in anxiety and depression among serving seafarers, as well as indications that certain seafarers are more susceptible to emotional tiredness and 'burnout' in certain professions, has been documented.

When looking at the viewpoints of seafarers, it's clear that considerably more seafarers describe being happy or extremely happy at home than on board. Seafarers, on the other hand, are more likely to report feeling lonely at sea than they are at home. People who work in the maritime industry are more likely to suffer from mental illness due to their isolation and lack of shore leave, fear of criminality, fear of job loss, and separation from their families. At sea, many of the things that made sailors joyful at home were unavailable to them (many involved interactions and activities with families and friends, for example). There were a variety of things that seafarers may recognize as having the potential to make them happy aboard ship. There were times when they were not accessible aboard their present ship, though.

Most sailors felt 'down' or 'depressed' on board when they had family-related issues. Ship-specific problems, such as too much labour, inability to take shore leave, and insufficient food, contributed to sailors' low moods. Having a 'bossy captain', suffering prejudice, getting blamed for things, and falling out with superiors and other coworkers all contributed to a sense of low morale among seafarers. The majority of mariners cited exhaustion and boredom as the two most common causes of shipboard depressive symptoms. Mental health and welfare is identified by maritime charities, P&I clubs and stakeholder organization's as an important issue. However, the research revealed that employers do not recognize the importance of mental health and welfare on board to the same extent as maritime charities and other stakeholders. Neither employer records nor records obtained from P&I clubs provide evidence of an increasing problem of repatriations as a result of mental ill-health or of suicides among seafarers.

Maritime stakeholders and charities are inclined to recommend proactive self-help guidance for seafarers and reactive services in support of seafarers. They are less likely to recommend proactive changes to seafarers' terms and conditions of work and shipboard life. By contrast, some employers and most seafarers recognize that proactive changes to conditions of shipboard life and work can be significant for mental wellbeing. Seafarers' mental health and well-being may be improved by a broad range of measures, including modifications to the terms and circumstances of work and improvements in ship-board living. Despite this, 55% of employers said that in the last 10 years, their organizations had not implemented any policies or processes to address the mental health of seafarers. A variety of shipboard tactics, including recreational activities and interaction activities, were mentioned by seafarers as ways to prevent depression.

Free internet access was rated as the single most important thing employers could do to help crew members' mental health and well-being while at sea. In addition to providing free internet access, they highlighted a number of ways in which companies may help their employees' mental health. Terms and circumstances of employment; relationships aboard the ship; physical health; accommodations; and leisure were all mentioned in this category.

## **CONCLUSION**

Shipboard enhancements that encourage healthy social contact (both on and off the ship) and chances for seafarers to rest, recharge, and raise their mood should be the focus of mental health strategies. Seafarers need better terms and conditions to ensure a decent work-life balance. It is imperative that companies and stakeholders take action to alleviate the considerable disparity in the satisfaction levels of seafarers while on board and at home. Stakeholders and companies alike should be aware of the growing prevalence of recently-onset mental health issues among seafarers. Cargo transport companies and stakeholders should take mental health and well-being seriously. In order to lower the

rate of sadness and recent-onset anxiety and depression among seafarers, companies and stakeholders should reorganize their efforts to promote mental health and wellbeing on board.

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