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Seafarers' mental health and wellbeing

Subtitle

Report submitted to the IOSH Research Committee

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We would like to thank all participants who gave up their time to help us with this study.

Abstract

This research has sought to provide fresh insight into the issue of seafarers' mental ill health. Existing studies have been hampered by the difficulties associated with accessing sufficient information about international seafarer populations and their mental health status to allow for comparisons to be made with other workers and/or over time. This research adopted a different approach to the issue and sought to clarify whether mental ill health among seafarers is considered to be a significant problem by key stakeholders; what factors seafarers identify as supporting or undermining mental health and wellbeing on board cargo ships; and what policies and practices could be implemented by ship operators in order to provide better support for seafarers' mental health and wellbeing. The research combined the use of questionnaires, interviewer-administered questionnaires, semi-structured interviews and an analysis of secondary data provided by insurance companies (known as P&I clubs). The study concluded that seafarers' mental health and wellbeing is of considerable concern to maritime charities, employer associations and trade unions. It is, however, regarded as a less pressing problem by employers. The research found that seafarers and some employers advocate proactive measures to improve the shipboard communications infrastructure and available recreational facilities, seafarers' employment terms and conditions and physical health in support of better mental health and wellbeing on board. These measures are likely to be more effective in improving happiness and mental health and wellbeing on board than current reactive strategies (e.g. the provision of counselling to seafarers) and self-help strategies targeted at seafarers.

Executive summary

In the context of growing concerns about mental health and wellbeing at work, this research set out to explore mental health and wellbeing among seafarers working in the international cargo shipping industry.

The research sought to address the following questions:

- 1) In the context of changes to shipboard work and life in the 21st century, are mental health problems among seafarers considered to be a significant problem by key stakeholders within the international cargo shipping industry?
- 2) What factors and features of life on cargo vessels do seafarers identify as supporting and/or undermining good mental health and wellbeing?
- 3) What policies and practices could be implemented by ship operators and/or welfare bodies to provide better support for the mental health and wellbeing of seafarers?

The following approaches to data collection were taken:

- 1) A review of relevant literature was conducted.
- 2) A questionnaire was sent to a small, randomly generated, sample of HR managers working in ship operating companies.
- 3) An interviewer-administered questionnaire was employed with a large sample of seafarers.
- 4) Interviews were conducted with employers, seafarers, maritime charities and stakeholder organisations.
- 5) Interviews were conducted with P&I clubs, which serve as insurers to ship operators, and requests for data were also made to them.

The research found that:

- 1) It is difficult to establish the extent of the problem of mental ill health (and suicide) among seafarers relative to comparable populations.
- 2) There is evidence of an increase in recent-onset anxiety and depression among serving seafarers.
- 3) There is evidence that in some roles seafarers may be particularly prone to emotional exhaustion and 'burnout'.
- 4) Significantly more seafarers report being happy or very happy at home than report being happy or very happy on board.
- 5) Seafarers were significantly more likely to report being lonely at sea than at home.
- 6) Mental health and welfare is identified by maritime charities, P&I clubs and stakeholder organisations as an important issue.
- 7) Employers do not recognise the importance of mental health and welfare on board to the same extent as maritime charities and stakeholders.
- 8) Employer records and records obtained from P&I clubs do not provide evidence of an increasing problem of repatriations as a result of mental ill health or of suicides among seafarers.
- 9) Isolation, loneliness, lack of shore leave, fear of criminalisation, fear of job loss and separation from family all predispose seafarers to mental ill health.
- 10) 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.
- 11) Employers and seafarers recognise the significance for mental wellbeing of proactive changes to conditions of shipboard life and work.
- 12) Some employers have adopted a wide-ranging approach to improving seafarers' mental health and wellbeing on board, which includes proactive changes to terms and conditions of employment as well as improvements to quality of shipboard life. However, 55% of employer respondents stated that their companies had not introduced any policies or practices aimed at addressing issues of seafarers' mental health in the last 10 years.
- 13) Most of the activities that seafarers identified as making them happy at home were not available to them at sea (many involved interactions and activities with families and friends, for example).
- 14) Seafarers were able to identify a range of things that had the potential to make them happy on board. However, in many cases they described how these were not available on their current vessel.
- 15) When they were experienced, family-related problems caused most seafarers to feel down/depressed on board.
- 16) Various ship-specific factors caused seafarers to feel down such as too much work, being unable to take shore leave and poor food.
- 17) Various crew-related factors caused seafarers to feel down such as having a 'bossy captain', experiencing discrimination, being blamed for things and falling out with superiors and other colleagues.
- 18) Getting tired was identified by the majority of seafarers as an underlying cause of shipboard depression, as was boredom.

- 19) Seafarers reported a range of shipboard strategies that they used to combat depression, including recreational activities and interactional activities.
- 20) Seafarers identified the provision of free internet access as the most significant contribution that could be made by employers to the improvement of mental health and wellbeing on board. Alongside free internet provision, they identified a range of areas where employers could take action in support of mental wellbeing on board. These included terms and conditions of work, relationships on board, physical health, accommodation and recreation.

The report concludes that:

Strategies to support good mental health need to be orientated towards proactive shipboard improvements designed to stimulate positive social interaction (with those on board and those ashore) and to improve opportunities for seafarers to relax, recharge and uplift their mood. Improvements in terms and conditions in support of a good work-life balance for seafarers are also required.

General recommendations are made as follows:

- 1) Companies and stakeholders should take steps to address the significant difference found between the happiness levels of seafarers when they are on board and when they are at home.
- 2) Companies and stakeholders should be aware of the evidence indicating that recent-onset psychological disorders are increasing among serving seafarers.
- 3) Companies and stakeholders should recognise the importance of good mental health and wellbeing in the cargo shipping industry.
- 4) Companies and stakeholders should reconfigure their efforts to support mental health and wellbeing on board in order to proactively reduce the incidence of unhappiness and of recent-onset anxiety and depression among seafarers.

Specific recommendations are made as follows:

- 1) Free and unlimited internet should be made available to all seafarers on board all cargo vessels.
- 2) In recognition of the differences between individuals, a varied menu of interactive recreational activities should be available to seafarers on board.
 - a) As a minimum, one of the following activities should be facilitated on board: basketball, squash, swimming.
 - b) In addition, a minimum of four of the following activities should be facilitated on board: table tennis, darts, barbecues, karaoke, card and board games, bingo (with prizes).
- 3) In recognition of the differences between individuals, a varied menu of solitary recreational activities should be available to seafarers on board.
 - c) As a minimum, a dedicated gymnasium with three different pieces of equipment should be provided.
 - d) In addition, a minimum of two of the following should be provided: a sauna, a book and DVD library, satellite TV within cabins, a library of interactive video games.
- 4) Comfortable mattresses and furnishings within cabins should be prioritised to facilitate rest and sleep.

- 5) Shore leave should be provided at every opportunity and for all ranks.
- 6) Varied, good-quality food should be provided on board and a feeding rate of at least US\$11.00 per person should be allocated to each vessel.
- 7) Self-help guidance on improving mental resilience should be provided to all seafarers.
- 8) Contracts should balance work and leave time for all ranks in a ratio not worse than 2:1 and with an upper limit of a maximum of six months on board.
- 9) Anti-bullying and harassment policies should be introduced and enforced.
- 10) Officers should receive training in creating a positive atmosphere on board, including via the provision of positive feedback on work, when appropriate, and respectful interactions with subordinates.
- 11) Confidential counselling services should be made available to seafarers.

Introduction

Work constitutes a major part of life for many people. In the UK, there were an estimated 32.48 million people in work in the period August to October 2018 (Office for National Statistics <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/december2018> – accessed 9/4/19).

The UK Health and Safety Executive reports that, in the period 2017/2018, of the 30.7 million working days lost due to work-related ill health and non-fatal workplace injuries (Labour Force Survey), 15.4 million were related to stress, depression or anxiety (<http://www.hse.gov.uk/statistics/dayslost.htm> – accessed 9/4/19). This makes mental health a major cause of lost working time in the UK, resulting in a significant cost to the economy.

However, this is not a UK-specific problem. In 2011, Wittchen et al¹ published a systematic review of mental disorders in the EU-27, Switzerland, Norway and Iceland. They concluded that approximately 38% of the EU population suffers from a mental disorder each year and were unable to uncover substantial country variations (Wittchen et al 2011¹). In 2018, the World Health Organization estimated that 300 million people suffered from depression, noting that ‘The burden of mental disorders continues to grow with significant impacts on health and major social, human rights and economic consequences in all countries of the world’ (<https://www.who.int/news-room/fact-sheets/detail/mental-disorders> – accessed 9/4/19).

Having been overlooked and considered taboo for many years, the importance of mental health and wellbeing has been given greater prominence in the media in recent years. In the UK, this has been spurred on by the efforts of major public figures (for example the Dukes and Duchesses of Cambridge and Sussex via their ‘Heads Together’ initiative) who have engaged in campaigns to promote greater social awareness of mental health issues in society and to simultaneously reduce the stigma that is commonly associated with mental health challenges. Such media exposure combined with concerns raised by governmental and non-governmental authorities at both the global and national level have led to many industries examining the issue of work and mental health more closely. For example, the Confederation of British Industry published research on the issue in 2018, highlighting ‘both the business and moral case for making progress in this area’ (<https://mhfaengland.org/mhfa-centre/news/cbi-front-of-mind/> – accessed 9/4/19). In shipping, this concern has been shared by the UK Chamber of Shipping and related stakeholders.

However, despite recently expressed concern for the mental health of seafarers, it is apparent that there is conflicting evidence relating to the scale of the problem within the international cargo shipping sector and conflicting views about the potential usefulness of a variety of approaches aimed at reducing the prevalence of mental health problems on board. These oppositions are underpinned by a lack of available evidence relating to the sector. Maritime Administrations are required to collect data on serious incidents on board, which are usually defined as fatalities. In relation to physical or mental illness, however, there are no such requirements and, in any case, most Maritime Administrations do not collect population data, so it is impossible to construct fatality rates or indeed suicide rates. This makes it very difficult to establish trends and to make comparisons over time or with other industries. As a result, interested parties have relied on a very few sources of data, all of which carry with them particular drawbacks in terms of providing a representative picture of the issues of interest, on a global scale.

In order to make a significant contribution to our understanding of the related issues, this study has taken a fresh approach to the problem and has set out to address the following questions:

- 1) In the context of changes to shipboard work and life in the 21st century, are mental health problems among seafarers considered to be a significant problem by key stakeholders within the international cargo shipping industry?
- 2) What factors and features of life on cargo vessels do seafarers identify as supporting and/or undermining good mental health and wellbeing?
- 3) What policies and practices could be implemented by ship operators and/or welfare bodies to provide better support for the mental health and wellbeing of seafarers?

In this report we begin with an outline of the existing data and related literature. We outline the methods utilised in this new research. We present the findings from the study and we complete the report with a discussion, conclusion and set of recommendations.

Overview of existing evidence

There are three bodies of publicly available knowledge and evidence that are of particular relevance to concerns about the mental health and wellbeing of seafarers. The first specifically addresses the issue of seafarers' mental health. The second relates to suicides at sea, and we review this literature here on the basis that suicide in the context of shipboard work can normally be linked to a mental disorder. In doing so, we distinguish between suicide as the ultimate indicator of a failure to cope with daily life and suicide that can be understood as a rational act (in the face of a terminal prognosis, for example). When suicide occurs on board it is highly unlikely that it is of the latter kind. Finally, we consider a relatively new body of evidence relating to the repatriation of seafarers in combination with a longer standing (but small) body of work concerning medical attendance in relation to seafarers.

Seafarers' mental health

The literature on seafarers' mental health has focussed on two related areas. Firstly, authors have sought to present evidence relating to the question of how seafarers' mental health problems compare with peer groups ashore – their mental health status. Secondly, there has been an interest in discussion of the factors that may contribute to poor mental health among seafarers on board.

The status of seafarers' mental health

There is relatively little empirical work relating to seafarers' mental health (Melbye and Carter 2017²) and how this compares with the general population. This is seen as being partly due to a historic lack of interest in the topic (International Committee on Seafarers' Welfare 2009³), which may relate to the transient nature of employment across the seafarer population (Beechinor 2017⁴). However, it is also likely to relate to the considerable challenges that are associated with assessing rates of mental ill health within the seafarer population. There are several dimensions to this challenge. Firstly, seafarers are largely recruited on temporary voyage-based contracts (Sampson et al 2018⁵) which are only awarded on successful completion of a medical examination. This tends to screen out unhealthy workers, leading to a particularly strong 'healthy worker effect' (McMichael 1976⁶, Oldenburg et al 2009⁷) which cannot be adequately compensated for with use of appropriate reference groups (Shah 2009⁸). This makes it very difficult to compare the mental health status of seafarers with other groups. Secondly, seafarers are a remote and dispersed group of workers who are extremely difficult to access. Thirdly, and relatedly, it is very difficult to obtain a random sample of international seafarers employed by different organisations.

The modest quantities of available evidence seem to indicate higher levels of psychiatric disorders (Sampson et al 2017⁹) and associated conditions such as alcoholism (Olkinuora 1984¹⁰, Roberts 2005¹¹) among seafarers than many other occupational groups. In a rare contemporary comparative study of the health of active seafarers, Sampson et al (2017⁹) found that short-term psychiatric disorders had increased among seafarers in the period 2011–2016. In 2016, 37% of active seafarers were found to have experienced a recent-onset deterioration of mental health. The study concluded that while this figure did compare favourably with some studies of the general population, it compared unfavourably with most. Furthermore, the authors considered the deterioration in seafarers' mental health over a relatively short period of time to be a cause for concern (Sampson et al 2017⁹).

In early studies, consideration was given to the question of whether the seafaring occupation was behind the development of psychiatric disorders or alternatively whether it was more likely that people with, or susceptible to, psychiatric disorders would become seafarers (Brandt et al 1994¹²). Some credence was lent to the latter hypothesis by epidemiological work on Norwegian males from a variety of occupations (Sundby and Nyhus 1963¹³). More recently, however, studies (based on single nationality samples of

seafarers) have suggested that the occupation of being a seafarer presents a risk in relation to psychiatric diagnosis (Hemmingson et al 1997¹⁴). Furthermore, there is evidence that some ranks of seafarers (galley staff in particular) may suffer higher levels of emotional exhaustion and moderately elevated levels of what is termed 'burnout syndrome' than employees in other occupations (Oldenburg et al 2013¹⁵).

Factors undermining seafarers' mental health

There are many factors that may be considered to undermine seafarers' mental health and wellbeing. Some of these can be seen as factors that are generic across the occupation and others relate more to some shipboard positions than others.

Generic predisposing factors that may be regarded as inherent to the seafaring profession overall include isolation and loneliness (Melbye and Carter 2017², Jepsen et al 2015¹⁶, Borovnik 2011¹⁷, Oldenburg et al 2009⁷), lack of shore leave (Borovnik 2011¹⁷, Iverson 2012¹⁸, Martek Marine 2017¹⁹), bullying (Martek Marine 2017¹⁹, Iverson 2012¹⁸), fear of criminalisation (Iverson 2012¹⁸, Martek Marine 2017¹⁹, International Committee on Seafarers' Welfare 2009³), fear of job loss (Swift 2015²⁰, Jezewska et al 2013²¹) and separation from family (Oldenburg et al 2013¹⁵, Carotenuto et al 2012²², Iverson 2012¹⁸, Jezewska and Iverson 2012²³, Borovnik 2011¹⁷, Jepsen et al 2015¹⁶, Jezewska et al 2013²¹).

There is little consensus over which roles on board carry higher challenges for mental health. However, there is agreement that risk exposure in terms of mental ill health does vary with rank and role on board (Melbye and Carter 2017², Lefkowitz et al 2015a²⁴, Carter 1976²⁵, Levy 1972²⁶, Carotenuto et al 2012²², Elo 1985²⁷). Officers are generally regarded as having more psychiatric problems than ratings (Melbye and Carter 2017², Lefkowitz et al 2015a²⁴, Carter 1976²⁵, Levy, 1972²⁶). However, both engineers and engine crew have also been identified in the literature as more prone to mental health problems than other seafarers (Carotenuto et al 2012²², Elo 1985²⁷).

Other factors have also been linked to differences in mental health outcomes among seafarers. Shift work (practised more frequently by some ranks than others on board) has been identified as a risk factor by Jepsen et al (2015¹⁶) and Filipinos have been identified as less likely to present with psychiatric disorders on board (Bell and Jensen 2009²⁸, Grøn and Knudsen 2012²⁹) as a result of both pre-employment medical screening and under-reporting (Grøn and Knudsen 2012²⁹).

Suicide

In extreme cases, poor mental health and the presence of depression may result in suicide among seafarers (Szymanska et al 2006³⁰, Borch et al 2012³¹). There is, however, relatively little robust evidence relating to suicide rates among seafarers, making the contemporary situation across the international fleet very difficult to gauge. This is partly due to the absence of contemporary population data, which are necessary to construct rates, and partly due to the difficulties that are inherent in the process of identifying suicide cases (Bedeian 1982³²). Nielsen describes the difficulties faced by all researchers very clearly in discussing his study of deaths at sea on board Hong Kong-registered ships. He writes that:

[...] the third biggest cause of death is 'individual persons missing at sea'. Classifying these disappearances is a difficult task as the cause could be suicide, homicide, or an accident. In seven of these cases there was no clear evidence to support a different characterisation, i.e. accident or suicide. Four of the missing persons had been on-duty but they were catering personnel or engine ratings with no direct necessity to work on deck. The other three missing persons were off-duty, two of them being the master of the ship. For the eighth case no details were available in the case file except for the fact that the seaman was missing. In the last case there was a confirmation that the victim had actually been working on deck. However, as there were no witnesses to his disappearance, the case was allocated to the 'missing' category. (Nielsen 1999:129³³)

The robust data that do exist are largely based on national studies. Some studies are clear that suicide rates are historically higher among seafarers than populations ashore (Szymanska et al 2006³⁰,

Wickstrom and Leivonniemi 1985³⁴, Roberts et al 2013³⁵, Roberts et al 2010³⁶, Brandt et al 1994¹²) while others suggest that contemporary rates of suicide among seafarers are more broadly comparable with the general population (Roberts et al 2010³⁶). There are indications that seafarers are more at risk of suicide in deep-sea trades (Roberts and Marlow 2005³⁷, Roberts and Williams 2007³⁸), that rates of suicide among some national groups of seafarers are falling (Roberts and Marlow 2005³⁷, Borch et al 2012³¹), and that some departments (notably catering), nationalities (Roberts et al 2010³⁶) and ranks (notably ratings) may have higher associated risks of suicide (Roberts and Marlow 2005³⁷, Szymanska et al 2006³⁰, Wickstrom and Leivonniemi 1985³⁴, Brandt et al 1994¹², Roberts et al 2010³⁶). Very few international studies of suicide have been attempted with reference to data from open registers (also termed 'flags of convenience'). This is largely due to access difficulties (Nielsen 2001³⁹). However, in 2019 a study of fatalities in the international fleet was published by the Seafarers International Research Centre. It indicated that suicides were infrequently recorded as discrete events by Maritime Administrations, making data analysis challenging and confident interpretation of data at the current time pretty much impossible (Sampson and Ellis 2019⁴⁰). Over a period of 17 years the study identified 38 cases of suicide, which represented 3.7% of all fatalities. However, the authors noted that only four cases of suicide had been recorded by any of the seven administrations in the period 2000–2006, and that three of the administrations did not record a single suicide in the whole period. This was regarded as indicative of considerable under-reporting/recording (Sampson and Ellis 2019⁴⁰).

Repatriations and medical assistance

The patchy nature of the available data on seafarers' mental health and associated suicides has led to some researchers studying data on repatriations and medical assistance to consider what they reveal about psychological disorders among contemporary seafarers. Lefkowitz et al (2015b⁴¹) considered a telemedicine database of 3,921 seafarers requiring medical assistance/advice, of which 61 cases resulted in repatriation. They found that the incidence of psychiatric illness was relatively low among seafarers for whom assistance was sought (0.6%) but that psychiatric cases were disproportionately represented among repatriations (5%), emphasising the severe consequences of psychiatric illness on board. Abaya et al (2015⁴²) considered repatriation rates among Filipino seafarers via an examination of the records of local manning agents over a five-year period. Of 6,759 cases, just 1.8% related to psychiatric disorders, which were most commonly identified as depression but also included cases of anxiety, depression, schizophrenia and bipolar disorder. Much higher rates of anxiety, depression and self-harm were identified in a study by Bell and Jensen in 2009²⁸, however. On examining the international fleet medical records of crew employed by P&O Princess Cruises, they identified 8.3% of repatriations to be due to psychiatric conditions.

While repatriation data have the potential to add valuable insights into severe cases of mental ill health, it is likely that many seafarers who are aware of a deterioration in their mental health suffer in silence while on board and may seek repatriation on alternative grounds that are less likely to jeopardise their future work opportunities.

Method

Given the limitations faced by researchers attempting to examine the extent of seafarers' mental ill health, the rates of suicide among seafarers and the proportion of mental ill health cases found among repatriated seafarers, this research set out to address the problem using a different approach. As such, we were interested in answering the following questions:

- 1) Are mental health problems among seafarers considered to be a significant problem by key stakeholders within the international cargo shipping industry?
- 2) What factors and features of life on cargo vessels do seafarers identify as supporting and/or undermining good mental health and wellbeing?
- 3) What policies and practices could be implemented by ship operators and/or welfare bodies to provide better support for the mental health and wellbeing of seafarers?

In order to assess the perceptions of stakeholders we undertook a review of 'grey literature' relating to seafarers' mental health, we interviewed a small number of stakeholders (10), we visited P&I clubs and conducted semi-structured interviews with claims handlers and key personnel (15) and we analysed the results from a questionnaire sent to HR managers in ship operating companies (43).

In order to gain an understanding of the factors which seafarers identify as supporting or undermining their mental health on board, we carried out a total of 1,507 interviewer-administered questionnaires and a small number of semi-structured interviews (5) with active seafarers. These seafarers were located in seafarers' centres or were found and interviewed on board while their ship was berthed in a port.

We analysed these combined data to allow us to make recommendations for good practice in support of seafarers' mental health and wellbeing.

All semi-structured interviews were conducted face to face* or using Skype.† They were recorded and transcribed and were thematically coded utilising NVivo software.

The sample of companies included in the survey of HR managers was selected randomly using a database of companies named *Seaweb*. *Seaweb* provides:

600+ data fields on 200,000+ ships of 100 GT and above [...] on ships, owners, shipbuilders, ship movements, fixtures, casualties, ports, companies, as well as maritime news and analysis. (<https://ihsmarkit.com/products/maritime-ship-tracker-ais-live-ship-data-seaweb.html> – accessed 16/5/19)

After an initial trial, we ascertained that the database could provide us with the information we required and would allow us to construct a random sample of international cargo ship operating companies. A list of companies operating at least 10 in-service cargo vessels over 1,000 GT was randomly generated and the top 173 for whom HR manager contact details could be established were contacted by email and asked to complete a questionnaire. Repeated follow-up was used until no further responses could be elicited. The follow-up was initially by email, then by telephone and finally by post including hard copy questionnaires. Of 173 companies contacted, responses were finally elicited from 43. Given the quality of the information that was extracted from the questionnaire, this was deemed a satisfactory result. The questionnaire asked HR managers to provide factual information about cases of death and repatriation in the last 10 years as well as data on the numbers of seafarers employed. It was more demanding than an opinion survey and we were therefore satisfied with the response rate of 24.9%, which we feel was the best result that could be achieved in the circumstances. As a result of feedback from some companies who did not return a questionnaire, we felt that non-participating companies were more likely to lack the information we required than to have a particular orientation to the issues concerned, i.e. we did not feel that participation or non-participation indicated experience or lack of experience of the associated issues. One company wrote to us, for example, explaining that:

We are indeed always very interested to contribute to your great research work and the subject of Mental Health is definitely a very important topic, which as well have our attention, as we currently run various programs to address this.

However, we are unable to answer your questionnaire in the current form, as we do not have detailed data dating back to 2006. (Ship company based in Singapore)

In relation to our seafarers' questionnaire we had to take a different approach. Databases like *Seaweb* are not available for seafarers and as a result we were unable to generate a random sample for use with our seafarers' questionnaire. We therefore utilised an alternative strategy and visited both individual ships in the company of port chaplains‡ and seafarers' welfare centres in the UK, Germany and Philippines to complete interviewer-administered questionnaires with a large sample of seafarers (1,507). Seafarers from a variety of cargo ships call at the ports concerned and make use of the seafarers' welfare centres. Crews of mixed nationality predominate in the international fleet, although it may be more likely that seafarers of some nationalities and ranks make more use of welfare centres than others.

* All interviews with seafarers and most interviews with P&I clubs were face to face.

† All stakeholder interviews were conducted using Skype.

‡ Port chaplains have permission to visit ships and our researcher was permitted to accompany them. The choice of vessels to be visited was made by chaplains and not by researchers.

In constructing our sample of stakeholders, we selected five companies which included both ship owners and ship managers and very large and very small organisations. We included major charities/welfare organisations and ship owner associations in our remaining selection. These selections were made using our locally held knowledge of the sector and with assistance from key informants in organisations such as *Intermanager*, which is the international trade association for ship management companies.

Findings

The attitudes of key stakeholders to the issue of mental health among seafarers

A review of recently published grey literature uncovered a significant quantity of articles published on the issue of seafarers' mental health in 2017 and 2018 (Blake 2017a⁴³, ITF 2017⁴⁴, Martek Marine 2017¹⁹, Maritime Repatriations Limited 2017⁴⁵, Blake 2017b⁴⁶, The Shipowners' Protection Ltd 2017⁴⁷, Nautilus International Telegraph 2017⁴⁸, Linington 2018⁴⁹, Westbury 2018⁵⁰, Seatrade Maritime News 2017⁵¹, UK Chamber of Shipping 2017⁵², Safety at Sea 2017⁵³). Many of these appeared to have been triggered by a paper delivered in Singapore by a member of the UK P&I club in 2016 highlighting problems of suicide in the sector and by the subsequent publication of a report by SIRC comparing the health of seafarers in 2011 and 2016 (Sampson et al 2017⁹). The UK P&I club subsequently produced a series of short videos available on the internet. In one, Neil Beckwith, a Senior Claims Executive, explains that when analysing their own data on mental health cases and suicides they found that 50% of all the suicides they had handled had occurred in the most recent three years, 2014–16 inclusive.

(<https://www.ukpandi.com/knowledge-publications/tmtv/video/in-relation-to-seafarers-how-important-is-mental-health-9/> – accessed 16/5/19).

In this research, we interviewed 11 of the 13 P&I clubs that constitute the International Group of P&I clubs. We also asked them if they could provide us with data relating to claims relating to repatriations on mental health grounds.

It was clear from the interviews that while the majority of P&I clubs were more sensitive to issues of mental health at the current time than they had been in the past, they didn't have a strong feeling that medical repatriations in general, or medical repatriations on mental health grounds, were increasing in relation to the claims that they dealt with. As one interviewee explained:

I mean we're attuned to them because we read all the articles and we are you know it's a very live issue at the moment so we do notice them when they come in but I wouldn't say that we're being flooded with such claims. You know we've always had the psychosis cases you know true psychosis and they're not on the increase, we've always, well you know at the other end of the spectrum you've got what they always term in the Philippines as adjustment disorder where somebody just claims he's got insomnia and can't sleep and ...[...] he's lonely and he's feeling negative or whatever. So those are really difficult cases because anyone can go on the internet and look up the symptoms you know if they want to go home before Christmas, they can't sleep, can't eat, having negative thoughts. (P&I club 2)

Another endorsed the view that seafarers' increased awareness of the discussion of mental health within the industry (and the increased acceptance of it) might in itself increase the occasions when mental health is recognised as part of a claim. However, they too felt sceptical about having seen any increase in numbers overall.

Okay so we've established we don't know for sure. I think we probably see more than we used to, I don't know how many more, but [...] I don't know how much that is because people are more willing to talk about it. So a crew member who may have come up with some excuse to be repatriated, I say excuse but you know on a different grounds before might now be more open about it. [...] So I think there's more talking about it now I'm not sure that the problem has increased. (P&I club 5)

There was also an uncertainty in relation to suicide cases and a clear awareness of the challenges associated with trying to ascertain whether problems of suicide were increasing or decreasing. P&I clubs

were aware that while they might know the number of suicides they had been told of in a given year, they could not construct suicide rates as they had no idea how many seafarers were employed by their clients in any given year. One interviewee put it this way:

Those figures, we broke them up by year and there was one big spike a couple of years ago, but it's fairly meaningless because you don't know the number of seafarers that you're... you need suicides per head or suicides per vessel, if you don't have that information you can't... That's always been our problem in loss prevention. (P&I club 10)

They were also aware of the challenges that arise due to reporting inconsistencies which might be a result of inconclusive evidence of suicide, concern for family members or fear of reputational damage on the part of companies who might prefer not to admit to suicides having taken place on board their vessels. Interviewees explained how:

I think people are being a bit more canny and won't actually tell us it's a suicide in the first place. (P&I club 3)

And:

So something where you can say maybe he went that far accidentally then we deliberately wouldn't record suicide because then the family wouldn't be able to get the money and he wouldn't potentially be able to be buried in hallowed ground. [...] Give the benefit of the doubt. So on the one hand you want to get more, generally more data about suicides and understand it more but actually from the mother and the family, from the local community, from a financial point of view, from all of these things it's actually better that it's not officially recorded as suicide. (P&I club 5)

In addition to providing us with interviews, P&I clubs provided us with data, where they could, and from these we were able to ascertain the percentage of crew illness claims that related to mental health (including suicide cases). The lowest percentage of illness claims relating to mental health issues was found to be 0.9% and the highest proportion was found to be 3.6%. The average across the four P&I clubs that provided us with data was 2%. This indicates that mental health claims make up a very small proportion of overall repatriation cases on the grounds of illness. In relation to trends and patterns, the data did not reveal any discernible increase or decrease in mental health repatriations as a percentage of overall ill-health repatriation cases. This was also true in relation to an analysis of the raw numbers (see Figures 1 and 2). It was not possible to consider rates of mental ill health from the P&I club data as there were no data relating to numbers of seafarers employed by P&I club members (i.e. ship operators covered by specific P&I clubs) in any given year or time period.

Figure 1: Number of mental health cases by P&I club

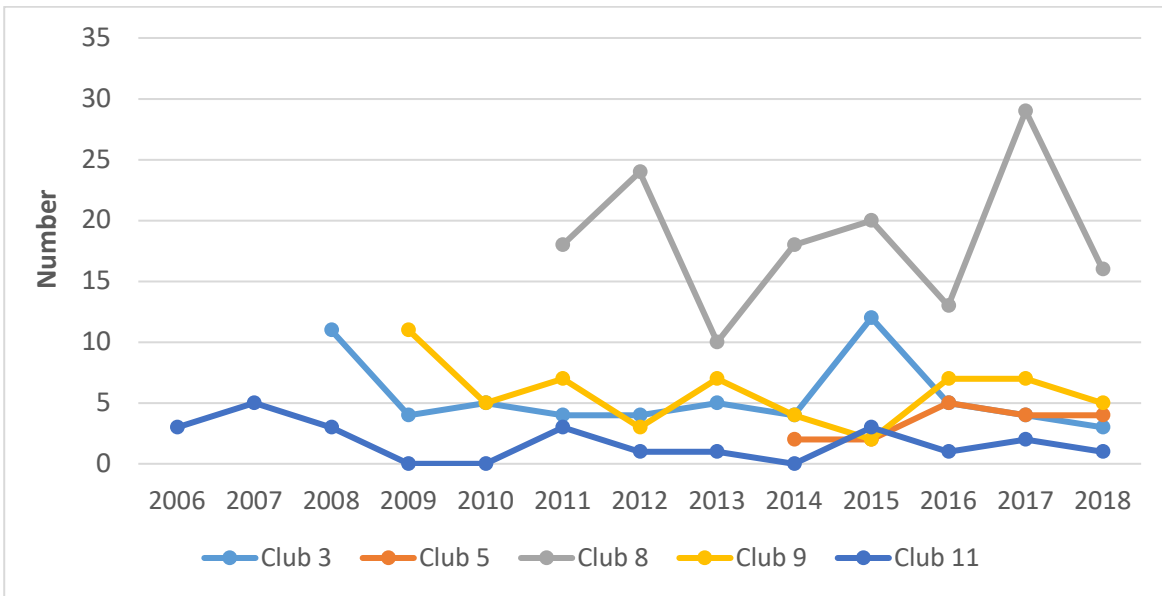
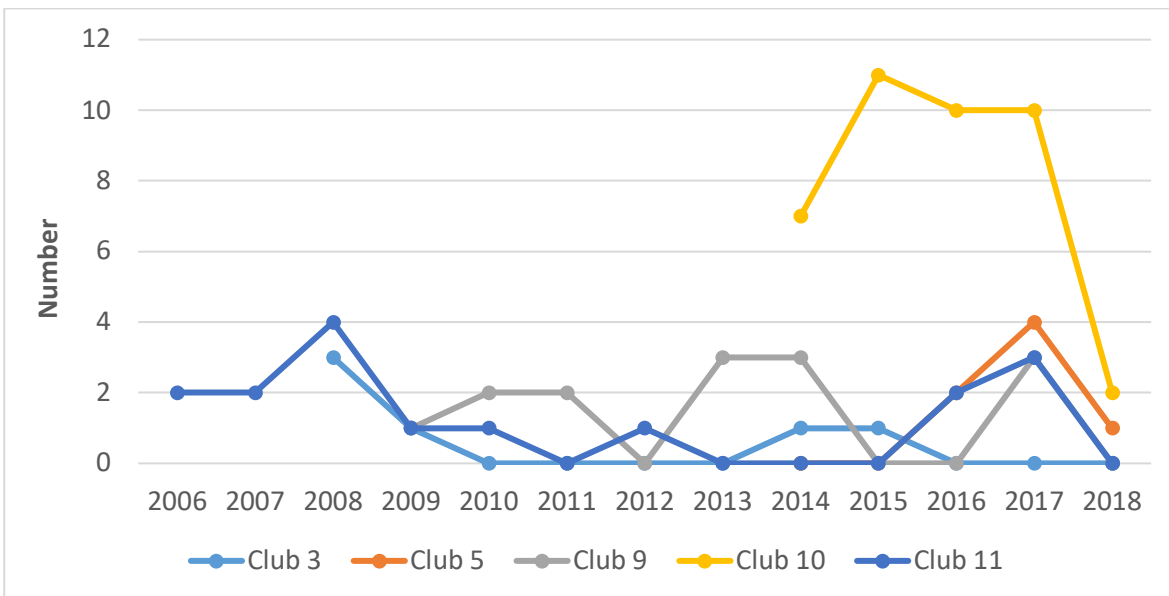


Figure 2: Number of suicide* cases by P&I club



It was apparent, therefore, that among P&I clubs there was a raised awareness of, and concern about, mental health problems among seafarers. However, this was largely as a result of concerns raised by others and did not seem to be driven by intra-organisational evidence of an increasing problem nor was it seen in numeric/financial terms a significant problem.

* For Club 10 suicides include both affirmed suicides and assumed.

Articles written in stakeholder publications tend to highlight the problem of seafarers' mental ill health and then propose causes and call for action. The UK Chamber of Shipping, for example, published a blog in 2017⁵² that stated:

Suicide rates* among seafarers have more than tripled since 2014, according to figures from the UK P&I Club [...] Today the rate of suicide for international seafarers is triple that of shore workers according to the International Maritime Organisation [...] Due to machismo cultures, high levels of prejudice, and poor mental health education, crew are not always likely to seek counselling or professional support, and this often leads to serious consequences [...] Confidentiality is another factor that prevents seafarers from seeking help [...]

(<http://www.ukchamberofshipping.com/latest/breaking-taboo-seafarer-mental-health/> – accessed 17/5/10)

In considering what might be done to alleviate the problems, the UK Chamber of Shipping's blog touches on generic factors that produce a poor environment for mental health such as isolation and working away from communities, small crews, long hours and communication barriers. These could all be addressed by ship operators with a range of proactive measures such as improving ratios of working time to leave time, improving connectivity, placing more seafarers on board and so forth. However, in relation to remedies it references more reactive strategies to do with awareness raising, counselling and self-help guides.

The UK Chamber of Shipping's emphasis on reactive, and self-help, strategies to address the problem of mental ill health at sea has been echoed in the solutions that have generally been offered to the industry by a range of concerned charitable, and other, stakeholders. While they are mainly reactive, these do incorporate some proactive solutions at the level of advice to seafarers about their own behaviours on board. Few stakeholders have made recommendations relating to necessary proactive changes on the part of employers. Among the solutions offered are a free online service to provide specialist mental health help to UK seafarers set up by the Seafarers Hospital Society in conjunction with the Big White Wall (<https://seahospital.org.uk/mental-health-and-wellbeing-2/> – accessed 31/5/19); free training resources produced by KVH Videotel in association with the International Seafarers' Welfare and Assistance Network (ISWAN) which are designed to 'help seafarers recognise signs of mental health problems or when colleagues might be finding it difficult to cope' and to underline 'the importance of rest, diet, team activities, and maintaining good relationships' (<https://www.ibj-online.com/seafarers-mental-health-programme-offered-free/452>, <https://www.nautilusint.org/en/news-insight/news/Nautilus-helps-launch-free-seafarer-wellbeing-resource/> – accessed 17/5/19); self-help guides of various kinds (<https://www.seafarerswelfare.org/assets/documents/ship/Psychological-Wellbeing-at-Sea-English.pdf>) and in a variety of formats; an app designed by the Sailors' Society to encourage and support the practice of psychologically healthy behaviours among seafarers on board (https://play.google.com/store/apps/details?id=org.sailorssociety.was&hl=en_GB – accessed 17/5/19); and guidelines on good practice to employers produced by the UK Chamber of Shipping, Nautilus International and the Rail and Maritime Transport (RMT) union (<https://www.ukchamberofshipping.com/library/guidelines-shipping-companies-mental-health-awareness/> – accessed 17/5/19).

Stakeholder interviews that were conducted as part of this research also suggested that there is currently a raised level of concern about mental health and seafarer suicides at sea. However, they indicated a more open-minded approach to solutions than the grey literature has incorporated. Interviewees tended to describe initiatives of both a reactive and proactive nature and emphasised the importance of improving the context and circumstances of seafarers' lives at sea while also ensuring that measures are in place to assist seafarers faced with a deterioration in mental health while on board.

Examples of comments supporting a balance between reactive and proactive measures included the following:

It's obvious that prevention is much better than cure. (Stakeholder 5)

There's space for both the proactive and reactive services. (Stakeholder 4)

So what we try to do in [company name] is give a holistic solution to this problem. (Employer 3)

* NB this was meant as a proportion of mental health cases rather than as a rate per 100,000 seafarers.

I think the biggest impact that we get is talking to people personally [...] I can't say enough about the personal approach for people in understanding and working at making them feel as individuals and making the connection there [...] we've hired a set of independent personnel development people [...] who are there to guide people and help with the career and give the seafarer a contact point when they're on leave. (Employer 1)

A range of relevant issues that required attention in order to improve mental wellbeing were identified by stakeholders including:

- reducing fatigue (including via the provision of improved mattresses)
- assisting families with comprehensive health insurance to reduce seafarer anxiety on board
- providing swimming pools and saunas
- providing gyms
- promoting the benefits of social interaction with barbeques, games etc.
- screening seafarers for mental health problems prior to employment
- psychologically assessing seafarers and attempting to produce a good fit among crew members
- evaluating and encouraging emotional intelligence among officers
- introducing the 'Wellness at Sea' app
- providing a range of activities and outlets for seafarers on board in recognition of the fact that 'one size does not fit all'.

One employer explained how:

Every single wellbeing element we have on board brings something good to the crew. From a pool that's even a small size, it will bring euphoria to the people that [...] immerse themselves in the water, you know they feel euphoria, that's proven medically. To the people who stay in the sauna and feels their pores relax and feel a different mind-set [...] we'll educate cooks to have the 'Mexican food night' [...] a pizza night [...] so that people don't get bored [...] There's no point offering proactive or reactive mental wellbeing stuff when you exhaust the person to work on board [...] you need to have your basic needs satisfied, and what's a basic need? First of all I need to be relaxed, first of all I need to have a good night's sleep, and I don't want to exceed my capacity working on board [...] (Employer 3)

This multifaceted approach was also reflected by some employers who responded to the HR questionnaire. One described, for example, that their efforts to improve mental wellbeing included:

Well-maintained accommodation spaces, well organised and equipped training (gym) facilities, good quality of food and water as well as health diet programs, low-cost communication facilities (satellite internet phones - voice and emails) continuous on the job training and good performance awarding schemes, shorter periods of employment contracts, recreation libraries (books/novels) board games, quarterly organised health campaigns which are raising awareness to mental health issues and educate shipboard personnel. (HR questionnaire respondent 'free text' open response)

However, not all companies had seen the need to introduce new initiatives aimed at improving seafarers' mental health on board. Just under half of the HR manager respondents to our questionnaire (46.5%) indicated that they did not personally believe that mental health problems were increasing and three quarters of respondents (72.5%) stated that their own company had not specifically identified the mental health of seafarers as an issue or area of priority in the last 10 years. Relatedly, 55% of questionnaire respondents said that their company had not introduced any practices or policies relating to seafarers' mental health in the last 10 years. The vast majority of companies that had not introduced any new practices or policies relating to seafarers' mental health (90.9%) had not identified mental health as an issue of priority or concern in the last 10 years.

Reduced shore leave and moving to more mixed nationality crewing patterns have both been identified as potential threats to seafarers' mental health (Borovnik 2011¹⁷, Iverson 2012¹⁸, Martek Marine 2017¹⁹).

Over half of the HR managers who responded to our questionnaire (55.6%) believed that shore leave had reduced in the period 2006–2016 and just under 10% had either changed from single nationality to mixed nationality crewing or added a nationality to their crew mix. Yet in this context, where we might expect employers to compensate for such factors by providing better facilities on board, a small proportion (3.9%) of HR manager respondents felt that the number of recreational facilities provided by their companies to seafarers had actually declined on their vessels in the period. This was explained by managers as relating to vessel size and commercial considerations. One manager wrote that:

Due to vessel size, recreational equipment have deteriorated. Owner looking into cost saving and commercial pressure by charterer in place.

Another explained that:

As our vessels are very small we have no space for gyms or similar.

While a third was more blunt stating:

We provide limited gymnasium equipment. There is little room as these are cargo vessels.

Taken together, our data therefore indicate that while a number of charities, P&I clubs and journalists have raised the issue of poor mental health among seafarers as a difficulty that requires urgent attention, employers are less convinced that it is a problem that requires immediate or extensive action. This finding is less surprising when the contradictory evidence in the public domain is taken into account and when we consider shipping companies' personal experiences of medical repatriations on mental health grounds alongside their experiences of employee suicide at sea.

We asked HR managers to provide some specific and detailed information on numbers of seafarers employed in 2006 and 2016, numbers of medical repatriations in the period, numbers of repatriations on the grounds of mental ill health and numbers of suicides. The data indicated that repatriations on the grounds of mental ill health had actually fallen as a proportion of all medical repatriations in our small sample of companies (which collectively reported employing 30,034 seafarers in 2006 and 41,254 seafarers in 2016). Medical repatriations in 2006 totalled 619 and in 2016 they totalled 1,091. Of these, 31 (5%) were repatriations on the grounds of mental ill health in 2006 and 36 (3.3%) were repatriations on the grounds of mental ill health in 2016 (this difference is not statistically significant, $\chi^2 = 3.062$, d.f.=1, $p=.080$). When we considered repatriations on the grounds of mental ill health as a proportion of the numbers of seafarers employed by our respondent organisations in 2006 and 2016, we found a stable rate of 0.1% in both years. Analysis of the data relating to causes of repatriations on the grounds of mental ill health indicated that most HR managers identified depression as the leading cause of repatriation, followed by anxiety.

In terms of deaths on board, 70.7% of HR managers reported that at least one seafarer in their company had been found dead on board in the period 2006–2016. Across all companies, a total of 109 seafarers had been found dead on board in the 10-year period.* Thirteen of these deaths (11.9%) were deemed to have been suicides. In one case a suicide note was left. In addition to the 109 seafarers who were found dead on board, a further 18 seafarers were reported to have gone missing from their vessels in this period. Seven of these missing seafarers (38.9%) were identified in the course of subsequent investigations as suicides. The majority of HR respondents (72.1%) did not believe that suicides among seafarers on board were becoming more common.

The factors and features of life on cargo vessels that seafarers identify as supporting or undermining good mental health and wellbeing

Two approaches were taken in order to allow us to explore which features of shipboard life were regarded as supportive to good mental health by seafarers and which were regarded as undermining the potential for good mental health on board. We conducted an interviewer-administered questionnaire with a very large sample of active seafarers (1,507 in total). In addition, we explored the issues in more detail

* NB in this question we very clearly asked respondents not to include seafarers who had gone missing and we explained that we would ask about missing seafarers separately.

with five seafarers who took part in a recorded interview. The characteristics of the seafarers who responded to the questionnaire are detailed in Appendix 1.

Contextual features

We used the questionnaire to explore some relevant features of the context within which seafarers served on board. We therefore asked seafarers whether or not their partners were allowed to sail with them, how many days they worked each week and how frequently they were able to take shore leave. These factors were included as they relate to isolation and levels of fatigue, which are both significant elements identified in the literature as contributing to poor mental health among seafarers.

Many seafarers in the sample were single (33.8%). However, across the whole sample, 27.7% of seafarers said that partners were allowed by their company to sail with them. Higher-ranked seafarers and seafarers from Northern/Western Europe were much more likely to be allowed to sail with their partners and this finding was statistically significant (Rank: $\chi^2 = 105.046$, d.f.=2, $p=.000$, Nationality: $\chi^2 = 34.332$, d.f.=5, $p=.000$). Given that the mean number of days worked per week was 6.646 (indicating very low levels of time off) it is likely, however, that few partners would choose to accompany seafarers on board as they would have little time available to spend together.* Almost half (48.3%) of the seafarers responding to the question about shore leave indicated that they could sometimes enjoy shore leave but that this was less often than once in every two weeks. For a substantial minority of seafarers the situation with regard to shore leave was even worse and 7.2% stated that they were never able to take shore leave.† Seafarers themselves were very aware of the ways in which the shipboard context could negatively impact on their mental wellbeing. As one stated rhetorically:

Between pressure, workload, no days off and you are a gazillion miles away from home with limited communication, what do you think is going to happen? (Seafarer 5)

Factors inducing happiness and unhappiness on board and at home

Prior to an exploration of the features of shipboard (and home) life that made seafarers happy or unhappy we asked them to describe how happy they felt on average when they were at home and how happy they felt on average when they were at sea. The vast majority of seafarers (70.5%) described themselves as 'very happy' on average while at home compared with only 10.5% of seafarers who described themselves as very happy on board. When we combined the answers of 'very happy' and 'happy' we found that 92.8% of seafarers considered themselves to be happy/very happy at home while only 66.9% considered themselves to be happy/very happy on board. This difference was strongly significant ($\chi^2 = 315.080$, d.f.=1, $p=.000$).

In relation to the things that made seafarers feel happiest we categorised responses (which were open and could be multiple).‡ We found that the majority of things that made seafarers happiest (1,920) could be categorised as relating to being with family members. Involvement in activities such as sports, DIY, hobbies, watching movies, being outdoors, driving cars/motorbikes, cooking, walking, being with pets etc. was the second largest category of happiness-related activity with 530 seafarers identifying these kinds of activities as making them happiest. The next largest category was related to friendships with 429 responses of a friend-related nature (e.g. partying, vacation, talking, going to bands with friends etc.). The second last category of responses related to visiting places with 303 responses of this nature while the final category of responses related to having a sense of freedom. One hundred and forty-nine responses relating to the pleasure of having time for oneself were recorded.

It is worth noting that the vast majority of things that make seafarers happiest at home are simply unavailable at sea. It is not surprising, therefore, that the things that seafarers identified as making them happiest at sea were rather different to those that they identified as making them happy at home.

* There are other reasons why seafarers' wives may not accompany them on board, but lack of time together going ashore and boredom on board are acknowledged problems for seafarers' wives <https://www.marineinsight.com/life-at-sea/seafarers-wife-the-woman-behind-a-successful-life-at-sea/> (accessed 20/8/19).

† (NB in Tilbury most seafarers were accessed while on board their vessels).

‡ Please see Appendix 2 for breakdown and categories.

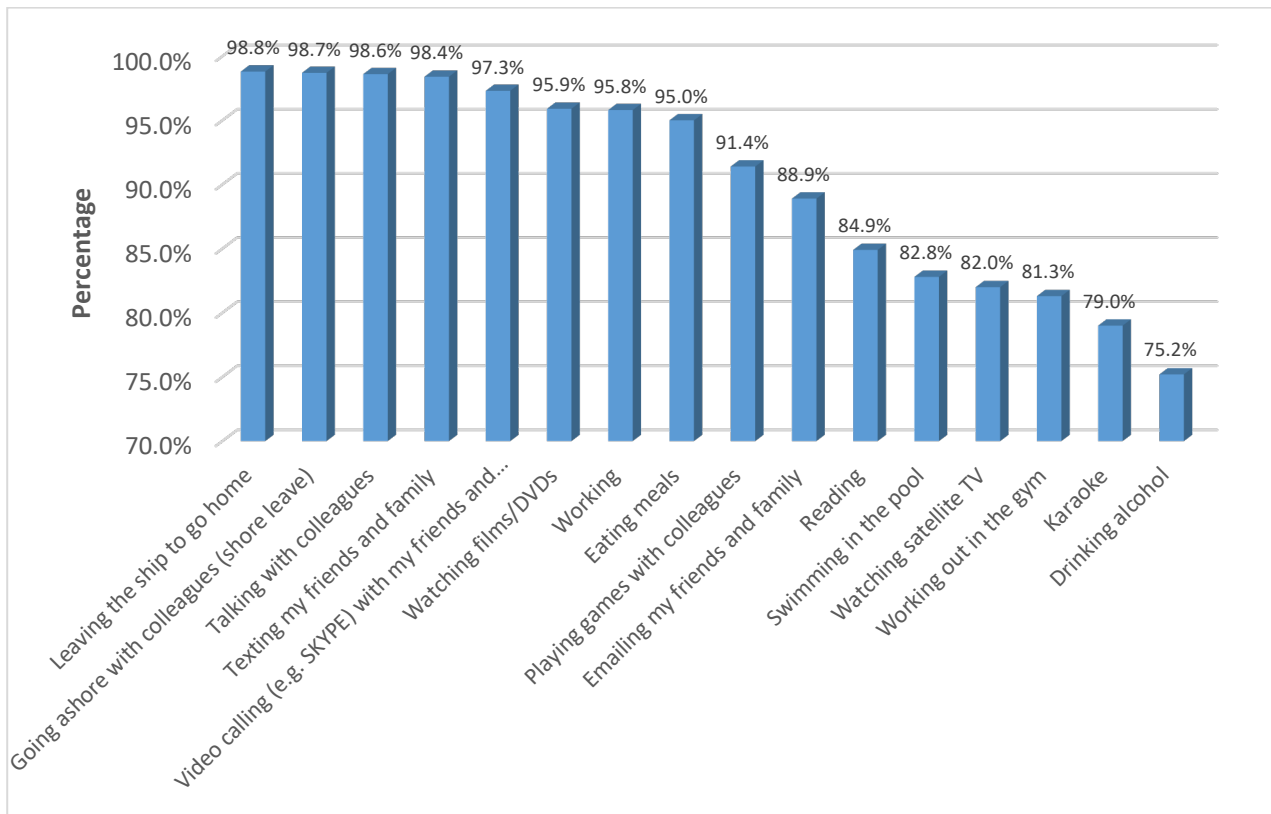
At sea, we categorised the things that made seafarers happiest (which were again described to us in open and potentially multiple responses) into six categories: social events, lone activities, job/work-related issues, shore leave, things relating to relationships with the people on board and communication with home (please see Appendix 3 for details of the categories). The largest group of responses related to social events with 1,327 responses relating to social activities on board such as parties, team sports, barbecues, karaoke, social drinking together and so forth. Things that seafarers generally did alone accounted for a smaller proportion of the responses, with 490 indicating that going to the gym, reading, listening to music and so forth made them happy on board. The next largest category of responses incorporated activities relating to work, the context of work or the environment such as the general lifestyle of a seafarer, the salary, travel, good weather and so forth. Four hundred and sixty-six responses of this nature were categorised in this group. Shore leave was specifically mentioned 133 times and relationships on board were mentioned 129 times. Specific reference was made to the ability to communicate with the outside world as something that made seafarers happiest on board 100 times. Twenty-five seafarers specifically stated that there was nothing that made them happy on board.

When asked what made them saddest at home, 783 responses from seafarers related to problems arising in conjunction with family life or family members such as arguments, ill health, bereavement and so forth (for full breakdown please see Appendix 4). Finance-related issues were mentioned 481 times, employment issues (such as leaving to go back to the ship, having to do training during leave time and worrying about availability of next contract) were mentioned 340 times, psychological issues such as boredom were mentioned 71 times and missing the ship, colleagues or routines was mentioned 23 times. One hundred and twenty seafarers expressly stated that there was nothing that made them sad at home.

There were three main categories of issue that seafarers identified as making them saddest on board. The largest of these (incorporating 1,265 responses) related to vessel/crew-specific factors such as bad relationships on board, fatigue, bullying and long tours. Family-related factors such as missing family members, sickness at home etc. were mentioned 515 times and poor recreational access such as poor food, poor internet access and so forth was specified 224 times (for a full breakdown please see Appendix 5). Forty-two seafarers expressly stated that there was nothing that made them sad on board.

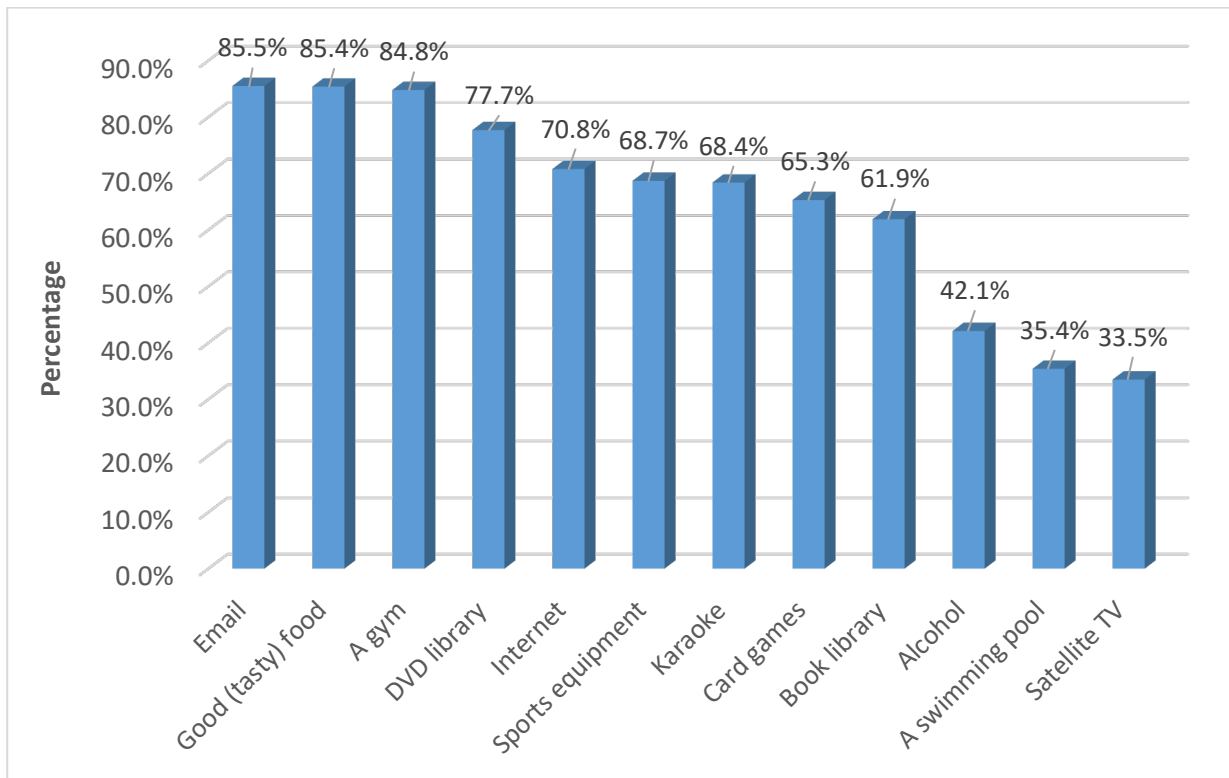
Having invited seafarers to respond openly to questions about what made them happiest and saddest at home and at sea, we also asked them to indicate from a list of things that are sometimes available on board, or that sometimes happen on board, what made them happy. After 'leaving the ship' the thing identified by the most seafarers as making them happy was taking shore leave with colleagues (see Figure 3). The vast majority of seafarers (98.7%) identified shore leave with colleagues as making them happy and 98.6% stated that talking with colleagues made them happy. Texting family and friends and skyping family and friends also made the vast majority of seafarers happy (98.4% and 97.3% respectively) and watching films, working, eating meals and playing games with colleagues were all identified by over 90% of seafarers as making them happy. More than 80% of seafarers identified emailing friends and family, reading, swimming, watching satellite TV and working out in the gym as making them happy. Finally, karaoke and drinking alcohol were identified as making respondents happy when they were available on board by at least 75% of respondents.

Figure 3: Things that made seafarers happy/very happy on board ship



Unfortunately, many of the things that seafarers identified as making them happy on board were not available to them on their current vessel (see Figure 4). Most notably, only 33.5% of seafarers had satellite TV on board their current vessel, just 35.4% were sailing on a vessel with a swimming pool and only 42.1% were allowed to drink alcohol on board. It was also evident that significant numbers of seafarers did not even have access to email, tasty food, a gym or a DVD library. These can be regarded as among the most basic facilities on board which are provided by the majority of ship operators but which were not enjoyed by approximately one in six of our sample.

Figure 4: Percentage of seafarers who had access to the following things on board



Loneliness at sea and at home

The literature on seafarers' mental health and wellbeing indicates that isolation and the experience of loneliness is a long-established concern among those interested in seafarers' welfare. Isolation is a facet of shipboard life, but it is also considered to be a feature of shore-based life for some seafarers who have spent long periods of time cut off from their communities and who return home as relative 'strangers' (Sampson 2013⁵⁴). As one seafarer who we interviewed for this study explained:

Three months on land is nothing. You can't see your kids grow up, you can't see anything. You are just like an Uncle coming and going. (Seafarer 2)

Nevertheless, seafarers were much more likely to describe feeling always or very often lonely at sea than they were to describe themselves at home. Just 4.2% of seafarers described themselves as either always or often lonely at home compared with a much higher percentage of seafarers who described themselves as always or very often lonely at sea (20.2%). This difference was highly statistically significant ($\chi^2 = 179.152$, d.f.=1, $p=.000$).

Factors that had caused seafarers to feel 'down'

Factors that might make seafarers feel 'down' were grouped under several headings. We asked seafarers about 'ship-related' factors that they had experienced in the past that had made them feel 'down', factors relating to other people on board (which they had experienced in the past) that had made them feel 'down', health and wellbeing factors that they had previously experienced as making them feel 'down' and home-related factors that they had experienced in the past as having made them feel 'down'.

In reporting these findings, we adopt two approaches. We will report on the proportions of seafarers who said they had felt down because of the issues concerned without excluding those seafarers who had

never experienced the issues of concern. This will offer a sense of the scale of the problems identified. We will then report the proportions of people who felt down because of an experience they had actually had, which will indicate the severity of the different problems in terms of their emotional impact on seafarers.

No more than 60.5% of seafarers indicated that any single ship-related issue had made them feel 'down' on board. The factor selected by most respondents as responsible for bringing their mood down was 'bad food', which was identified by 60.5% of respondents. At interview one seafarer elaborated explaining that good food could conversely cheer seafarers up. He told us:

Good food let's start with that [...] Good food really does do something. You start looking forward to meals. (Seafarer 5)

Another endorsed his view saying:

The most important person on the vessel is the cook, you know if there's good food most people are happy. (Seafarer 1)

Too much work was only just behind bad food as a factor that made seafarers feel 'down'. Just under 60% of seafarers (59.2%) stated that too much work had made them feel down in the past. This was followed by being prevented from taking any shore leave, which was identified by 52.1% of seafarers as a factor that they had experienced in the past as making them feel 'down'. Explaining the positive elements of shore leave, one seafarer described at interview how:

I went to the mall, down town [...] that makes you happy. You see different people. Like I am talking to you [...] I went to the mall and I get connected with my wife and [ask] 'what do you want to buy' and try to show her something [and ask] 'ok is this good?' [...] you are as if you are with her [...] Just to look around and what's happening around, what's new, how people are buying and what they are buying. (Seafarer 2)

Seafarers also identified experiencing lots of port calls as causing them to feel 'down' (45.7%), working alone as resulting in them feeling down (27.5%) and being the only person on board from their country as having made them feel 'down' (18.8%). Almost half (43.8%) of the very small number of female respondents to the questionnaire said that the experience of being the only woman on board a vessel had made them feel 'down' in the past.

A variety of issues relating to interaction with other seafarers on board were included in the questionnaire. We asked seafarers to indicate which of these factors (if any) they had experienced in the past as making them feel 'down'. The most common response to this question was related to 'being blamed for things that were not my fault'. More than half of respondents said that this had made them feel down (55.2%). One interviewee explained that:

You have lots of misunderstanding most times and you have to endure a whole lot because sometimes you may want to explain yourself but then it is not possible. You have to accept blame sometimes [...] because you cannot really explain yourself to the person [...] and the person gets angry and is like 'ok I am supposed to be your boss and I am higher in rank than you' and you just can't do much except stay quiet. (Seafarer 3)

Being blamed for things that were not your fault was accompanied by a range of depressing factors that appear to be associated with hierarchical relations on board, namely being shouted at (48.3%), a bossy captain (45.1%), discrimination (43.1%) and falling out with superiors (39.9%). Echoing the thoughts of many seafarers, one interviewee explained how critical the other people on board were to a seafarer's outlook, singling out the importance of the captain in particular. He said:

You have a watch for four hours, every twelve hours, the entire time you are on the ship. [...] If that person is insufferable that can make for a lot of really bad days [...] If you have a bad captain, that just makes a bad voyage. (Seafarer 5)

Bad relationships with superiors were identified by many seafarers as being responsible for making them feel 'down', but relationships with colleagues more generally could also have this impact. Falling out with

colleagues was identified by 38% of respondents as having caused them to feel 'down' and being bullied was identified by 31.3% of seafarers as making them feel 'down'. These issues were followed by being teased by colleagues (28.6%), not being able to make friends (19.6%), not being able to fit in (19.2%), being physically assaulted (14.9%), sexual harassment (5.3%) and being sexually assaulted (4%).

Within the literature describing the root causes of ill mental health on board, health and wellbeing-related factors feature quite prominently. We therefore asked seafarers about a variety of health and wellbeing-related factors, namely getting tired, feeling unwell, getting bored, being afraid due to bad weather, feeling trapped, being seasick and having too much time alone. Of these, getting tired was identified by the most seafarers (61%) as a factor that had made them down/depressed. Feeling unwell was just behind tiredness and was identified as a cause of feeling down by 60.6% of seafarers. These factors were followed in descending order by getting bored (51.8%), being afraid due to bad weather (45.8%), feeling trapped (41.9%), being seasick (41.7%) and having too much time alone (34.9%).

Family matters were key in relation to whether or not seafarers felt down. The majority of seafarers (79.8%) said that missing their family had made them feel down, bad news from home was identified by 69.3% of seafarers as something that had made them feel down, financial difficulties were identified by 62.5% of seafarers as making them feel down, problems with a relationship were identified by 59% of seafarers as a past cause of feeling down. These factors were followed in descending order by hearing about a death (57.2%), the end of a relationship (47.2%) and moral dilemmas (33.8%).

When we excluded respondents who said they had not experienced the specified issues on board we were able to gain a sense of which factors acted as the most powerful depressants **if/when** experienced by seafarers.

Unsurprisingly, hearing about a death at home was the most likely trigger of depression noted by seafarers. While 34.9% of seafarers had never had the experience of hearing about a death on board, 89.1% of those seafarers who had experienced hearing about a death on board stated that it made them feel down. In general there were similar figures for the end of a relationship (not ever experienced by 39.9% of respondents but the cause of depression for 81% of those who had experienced it) and for relationship problems more generally (not experienced by 23.8% of respondents but a cause of depression for 78.1% of those who had experienced it). Missing family had been experienced by almost all seafarers (only 2.9% said they had not experienced this and of those who had 82.25% said that it had made them depressed).

In general, family-related problems were the most likely problems to result in depression among seafarers on board if, and when, they were experienced. However, some issues relating to shipboard relationships were also very important triggers of depression. The most significant of these appeared to be the experience of being blamed for something that was not the seafarer in question's fault. The majority of seafarers had experienced being blamed for things that were not their fault (only 27.9% stated that they had never experienced this) and of those who had experienced it 76.7% of respondents reported that it made them feel down/depressed. When seafarers felt that they were subject to discrimination on board (something that had not been experienced by 40.4% of respondents) they were also quite likely to be negatively affected by this in terms of their mental wellbeing and 72.4% of those who had experienced discrimination described it as making them feel down. Bullying and falling out with colleagues also led to depression among seafarers and 61.5% of those who had experienced bullying (50.9% of respondents had experienced being bullied) said it made them feel down/depressed. In terms of falling out with colleagues this had been experienced by the majority of seafarers (63.6%) and 59.8% of respondents who had experienced it stated that it had made them feel down/depressed. It was surprising to see that seafarers were remarkably resilient when it came to some other serious forms of misbehaviour and maltreatment on board at the hands of colleagues. Only 56.6% of respondents who were sexually harassed identified this as resulting in depression, 61.4% of those who were physically assaulted stated that this had made them feel depressed and just 54.8% of the minority of seafarers (11.8%) who had experienced sexual assault stated that this had caused them to feel down.

Of the ship-related issues that we identified as potentially depressing to seafarers' mood, food was the most significant factor with most seafarers describing experience of bad food on board (88% had experienced bad food) and the majority (69.1%) reporting that bad food on board had led to them feeling down/depressed. The vast majority of seafarers had experienced being unable to get ashore (94%), and among these 55.5% stated that this made them feel down/depressed. Most seafarers (94.8%) had also experienced being required to work alone, but a minority (29.1%) stated that this made them feel

down/depressed. Over half of our respondents (56%) stated that they had never experienced being the only seafarer from their country on board a vessel but even among those who had, only 44.2% identified this as having been a cause of being down/depressed. By contrast, it was very common for women to have experienced being the only woman on board a vessel but less than half of our female respondents (46.7%) stated that this made them feel down/depressed.

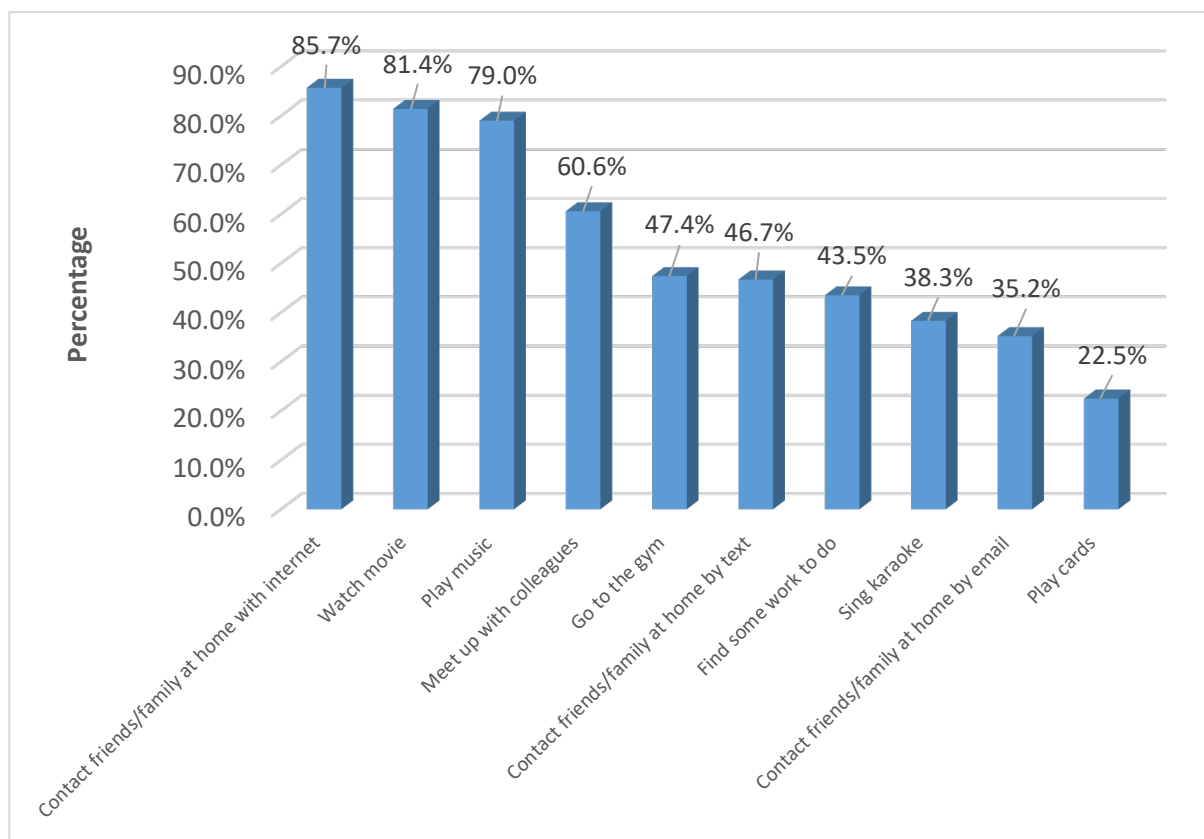
Policies and practices that could be implemented by ship operators and/or welfare bodies to provide better support for the mental health and wellbeing of seafarers

When considering what could be done by ship operators and welfare bodies to provide more support for seafarers' mental health and wellbeing, it is helpful to begin with an analysis of the things that seafarers themselves describe as useful in combatting loneliness and depression at home and ashore. In administering our questionnaire, we asked seafarers what strategies they found useful in combatting depression and loneliness at home and on board and they described a variety of activities and interactions that they found helpful.

Strategies employed by seafarers to combat loneliness

The most commonly utilised strategy to combat loneliness on board (identified by 85.7% of respondents) was reaching out to friends or family at home via the internet (see Figure 5).

Figure 5: What seafarers did on board to make themselves feel better when they were lonely



One seafarer explained that:

I believe internet goes a long way in keeping you sane, trust me. [...] not having this feeling that you are totally excluded from the rest of the world. (Seafarer 3)

The importance of feeling connected to events and life ashore was stressed in a similar way by another interviewee who said:

Nowadays, the internet you are connected to the world and what's happening. Before you were lost when you come [home] 'oh that building came up, oh what fast cars' [...] but now everything's on the net and you don't feel the change [...] you're in touch with what is happening in the world, first of all, what's happening with your family. You learn that somebody's had marriage or somebody has a bad day and you can give some suggestion or we can talk it out. (Seafarer 2)

Making use of the internet to combat loneliness was followed by the usually solitary activities of watching a DVD (81.4%) or playing music (79%). Meeting up with colleagues was identified by 60.6% of seafarers as a strategy they used to combat loneliness and this was followed in descending order by going to the gym (47.4%), texting family or friends at home (46.7%), finding some work to do (43.5%), singing karaoke (38.3%), emailing friends or family at home (35.2%) or playing cards (22.5%). In addition to the pre-categorised responses we asked seafarers to respond to, we also offered them the opportunity to add open responses to this question. These responses indicated that activities (such as video games, swimming, smoking, board games and domestic tasks) were mentioned 235 times, strategies relating to mental resilience such as reading the bible, looking at pictures or planning for the future were mentioned 35 times, communicating with family and friends (already covered in the fixed responses) were mentioned a further 28 times, interacting with others on board was mentioned 24 times in free text responses, and 10 seafarers specifically replied that they did not ever get lonely on board.

In relation to the strategies that seafarers used to combat loneliness when they were at home we invited respondents to reply freely without pre-coding responses at all. Responses indicated that seafarers employed a considerable variety of strategies in combatting loneliness at home. The majority of responses could be considered to relate to activities that were pursued in order to allay loneliness. These included sports activities and exercise, DIY, driving, fishing, spending time with pets, surfing the internet, cooking on a barbecue, drinking beer and so forth (please see Appendix 6 for detailed breakdown). Strategies linked to family and friends were described 813 times and visiting places was mentioned 223 times. Twelve seafarers specifically stated that they were never lonely at home.

Strategies employed by seafarers to combat feelings of depression

Seafarers reported a number of strategies that they employed to try to cheer themselves up when they were down on board. The two most commonly employed individual strategies were to watch movies or films and to chat with others on board. When we grouped the open responses given by seafarers to this question, we found that the majority of seafarers (1,260) engaged in some kind of 'activity' if feeling down on board. Many of these were activities that are generally solitary such as using the gym or playing video games and not all of them are likely to be aligned with good health, for example eating, drinking and smoking. However, for the most part they were found to be effective ways of fending off depression. The second most common set of strategies related to interacting with others on board in some manner (490 responses were of this nature). As well as simply finding someone to chat with, seafarers reported watching movies or singing with colleagues, generally socialising with others on board, having a drink with others, playing games etc. The next most common set of strategies described by respondents related to communicating with family and friends ashore. This approach was described in 373 responses. Seafarers also described employing a variety of strategies that could build mental resilience (239 responses alluded to these). Among these responses, reading the bible or praying was the most common strategy employed and it was mentioned 112 times (please see Appendix 7 for detailed breakdown).

When they were at home and feeling down seafarers were most likely to state that they would engage in activity. Activities included watching TV/movies etc., listening to music, shopping, visiting places, swimming, sleeping, reading and so forth. Nine hundred and eleven seafarers mentioned engaging in some kind of activity at home should they need to cheer themselves up. Seafarers also described how they would interact with friends and family when feeling down – playing, eating, visiting and talking with

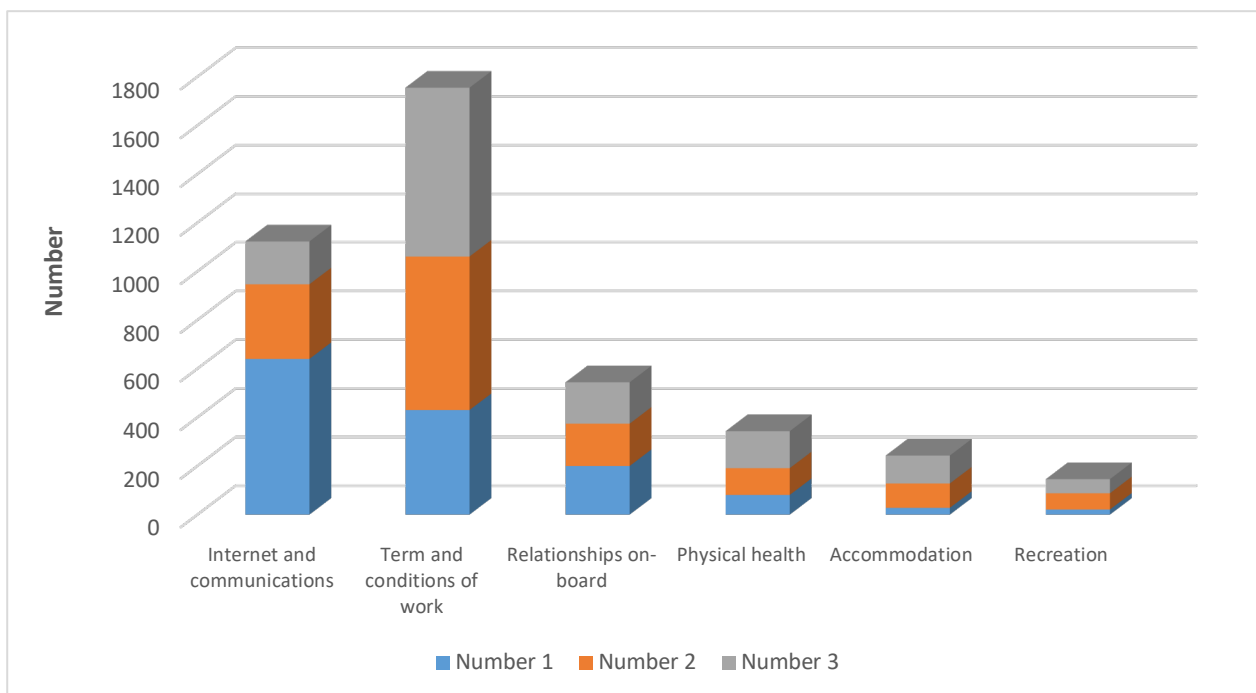
them. Such strategies were mentioned 870 times. One hundred and twenty seafarers expressly stated that they never felt down at home (please see Appendix 8 for detailed breakdown).

It is evident that seafarers have access to a far greater range of activities and potential interactions when they are ashore. It is also clear that there is no 'one size fits all' strategy that individuals employ to combat loneliness or depression. This suggests that ship operators need to consider the provision of a range of recreational facilities for seafarers on board while also considering the provision of a good communications infrastructure to allow seafarers to readily interact with friends and family ashore.

When seafarers were asked to name the top three things that they felt would make life on board happier 987 mentioned free internet access with 609 respondents stating that this was the number one thing that would make life on board happier for seafarers. Permanent contracts and shorter contracts were also mentioned a great deal by seafarers as topping the list of things that would make seafarers happier. Three hundred and eighty-five seafarers put permanent contracts in their top three things to make seafarers happier list, 372 mentioned shorter contracts, 260 felt that larger crews would be one of the top three things to make seafarers happier and 229 described getting more sleep as something that would be important in making seafarers happier. More shore leave was thought to be among the top three things that would make seafarers happier by 188 seafarers.

When we grouped responses into the categories internet and communications, terms and conditions of work, relationships on board, physical health, accommodation and recreation, we found that factors relating to the provision of good internet and communications were most frequently mentioned by seafarers as the single most significant thing that would make seafarers happier on board. However, when the top three things that were mentioned were combined and categorised, we found that terms and conditions of work were included by most seafarers as one of the top three things that would improve seafarers' happiness. This category was followed by the category 'internet and communications' and in descending order we then identified relationships on board, physical health, accommodation and recreation as the most significant factors (see Figure 6).

Figure 6: Top three things that would make life on board better/happier for seafarers



We also asked seafarers what companies could do to reduce depression and anxiety for seafarers while on board. The most frequent responses came in the category of recreation. One thousand four hundred and five responses mentioned some kind of recreational activity/provision, including internet (854), recreation facilities generally (158), shore leave (117), gym (61), BBQ parties (56), games competitions (38), welfare fund (31), karaoke (29), satellite TV/DVDs (21), pool/sauna (12), video games (8) and

books/magazines (4). The next most commonly mentioned kind of thing that companies could do in order to reduce seafarers' anxiety and depression on board was considered to be things relating to the improvement of terms and conditions of employment. There were 1,270 responses to the question that mentioned terms and conditions, including better pay, longer leave periods, less workload and paperwork and bigger crews (see Appendix 9 for full details).

Despite the significant link made by seafarers between food quality and depression, it is surprising that more seafarers did not think of mentioning cooks or victualling rates when asked what companies could do to improve the mental wellbeing of seafarers on board. Our employer survey found that the victualling, or feeding, rate on board had increased from an average US\$8.869 in 2006 to US\$10.0029 per seafarer per day. This rate is rather meagre given that it covers three meals a day, provisions in some parts of the world are very expensive and ships' cooks always have additional personnel to feed in ports and when pilots are on board.

Another area that was not highlighted as important by seafarers was the provision of counselling services. Not only did negligible numbers of seafarers (nine) mention counselling as something that companies could provide to reduce depression and anxiety for seafarers while on board, but very small numbers had ever sought such support either at home (3%) or while on board (1.2%).*

Discussion

While a review of the relevant literature demonstrates that it is not possible to readily compare rates of ill mental health among international seafarers with rates of ill mental health among comparable populations ashore, and it is similarly difficult to compare rates over time, there are indications that global seafarers are increasingly suffering from recent-onset anxiety and depression on board (Sampson et al 2017⁹), and that they are generally at a higher risk of experiencing a psychological disorder, suffering from 'burnout' or receiving a psychiatric diagnosis in their lifetime (Olkinuora 1984¹⁰, Roberts 2005¹¹, Hemmingsson et al 1997¹⁴, Oldenburg et al 2013¹⁵) than populations ashore. There is, however, no firm evidence that these risks and conditions are resulting in increased proportions of seafarers being repatriated on the grounds of ill mental health or in them being increasingly prone to suicide while on board.

The data we collected from both P&I clubs and employers suggest that no major changes in rates of suicide or in poor mental health (which is serious enough to require repatriation) have been detected by HR managers or by claims handlers/senior managers in P&I clubs. HR managers and P&I club personnel were generally aware of the raised profile of mental health and wellbeing and paid attention to incidents as they arose but were unable to conclude that the issue of poor mental health on board was getting worse. The data that they provided to us supported these impressions and we could not discern any upward or downward trends in the proportions of repatriations that were a result of mental ill health or in the patterns of suicide.

Despite the lack of hard evidence relating to a worsening problem of serious ill mental health or suicide at sea, it is nevertheless apparent that both P&I clubs and other industry stakeholders such as maritime welfare charities, trade unions and employer associations are currently concerned about mental health and welfare at sea. This seems to be a consequence of the effectiveness of key organisations and high-profile individuals in raising awareness of mental ill health, and its consequences, across society as a whole. In this context, the shipping industry can be understood to have more than its fair share of difficulties with relatively high levels of suicide and serious mental health problems (Olkinuora 1984¹⁰, Roberts 2005¹¹) and indications of increasing shipboard recent-onset mental ill health disorders among seafarers (Sampson et al 2017⁹). While we do not have strong evidence in changing patterns of serious mental ill health (requiring repatriation) and suicide at sea, it is not reasonable to conclude that mental health issues are not a significant problem for the industry overall which has, perhaps, belatedly begun to attend to them as a result of wider social concerns and related media coverage.

In response to concerns about poor mental health and wellbeing among seafarers, maritime welfare charities have tended to propose and develop measures and guidance with an emphasis on reactive measures that can be taken by employers to assist seafarers who are suffering in relation to their mental

* NB we asked seafarers if they had ever contacted an organisation for emotional support or counselling on board providing them with the examples of ISWAN, a chaplain or a trade union.

health on board and proactive measures that can be adopted by individual seafarers to increase their resilience and ability to withstand poor shipboard conditions. While these inevitably make a positive contribution to the protection of mental wellbeing on board, in neither case can they be seen as addressing the underlying causes of the depression and anxiety that are most commonly experienced by seafarers on board. These include separation from family and friends, isolation, work-related insecurities and difficulties, poor shipboard relationships, fatigue and poor physical wellbeing. It is interesting to note that employers (just under half of the employers who responded to our questionnaire) and the majority of seafarer respondents who were included in the research identified a range of proactive measures that can and should be taken by ship operators to improve the living and working conditions of seafarers on board in order to improve mental health and wellbeing. It is also interesting to note that these measures include factors relating to terms and conditions of work, shipboard interaction, facilities and communications infrastructure and physical wellbeing.

Conclusion

In relation to very serious mental ill health and its manifestations (suicide and requirement for repatriation) we find that there is no clear evidence of a worsening situation among seafarers in the contemporary international cargo shipping fleet. However, there is some evidence that mental health problems are generally higher among seafarers than non-seafarers and that recent-onset psychiatric disorders have become more common on board cargo vessels in recent years. This indicates that it is appropriate for industry stakeholders to be concerned about this issue and that such worries may be somewhat overdue.

The research indicates that in stakeholder guidance and in the provision of resources to support seafarers' mental health there is an emphasis on self-help strategies for seafarers (such as resilience building) and on reactive measures that are recommended to employers (such as the provision of counselling). Many employers do not see a need to invest resources in proactive measures to reduce the shipboard pressures on seafarers' mental health and wellbeing; however, a significant minority disagree profoundly and have been very active in promoting a holistic approach to improving seafarers' mental health and welfare.

Although many seafarers seem to cope surprisingly well with challenging psycho-social issues on board (indicating remarkable levels of resilience in the face of assault and bullying, for example) they are significantly more likely to feel happy at home than at sea. The vast majority of seafarers identify a range of areas where ship operators could provide resources that would support seafarers' mental wellbeing on board. These include factors that would create a better work-life balance for seafarers (e.g. shorter periods of time on board), factors that would improve their ability to sustain good relationships with family and friends ashore (e.g. the provision of free internet access), factors that would improve shipboard relationships (e.g. bigger crews and more social activities) and factors that would provide seafarers with better recreational opportunities to raise their mood (such as shore leave, barbecue parties and sports facilities). The need for more reactive services for serving seafarers, such as counselling, hardly featured in their responses.

To some extent the data indicate that current recommendations and initiatives targeted at improving seafarers' mental health and wellbeing on board need to be realigned. The research suggests that notwithstanding a range of well-intentioned suggestions for seafarers and companies made by stakeholders, there needs to be much more emphasis placed on proactive measures aimed at improving the conditions of work and life on board for seafarers and less placed on reactive and self-help strategies for employers and seafarers. While these (self-help and reactive) approaches may make a minor contribution to seafarers' mental wellbeing they are not identified by seafarers themselves as particularly useful or desirable. Many employers also regard them as of limited use and promote a more holistic approach to welfare in their organisations.

General recommendations

- 1) Companies and stakeholders should take steps to address the significant difference found between the happiness levels of seafarers when they are on board and when they are at home.

- 2) Companies and stakeholders should be aware of the evidence indicating that recent-onset psychological disorders are increasing among serving seafarers.
- 3) Companies and stakeholders should recognise the importance of good mental health and wellbeing in the cargo shipping industry.
- 4) Companies and stakeholders should reconfigure their efforts to support mental health and wellbeing on board in order to proactively reduce the incidence of unhappiness and of recent-onset anxiety and depression among seafarers.

Recommendations for specific measures

- 1) Free and unlimited internet should be made available to all seafarers on board all cargo vessels.
- 2) In recognition of the differences between individuals, a varied menu of interactive recreational activities should be available to seafarers on board.*
 - a) As a minimum, one of the following activities should be facilitated on board: basketball, squash, swimming.
 - b) In addition, four of the following activities should be facilitated on board: table tennis, darts, barbecues, karaoke, card and board games, bingo (with prizes).
- 3) In recognition of the differences between individuals, a varied menu of solitary recreational activities should be available to seafarers on board.
 - a) As a minimum, a dedicated gymnasium with three different pieces of equipment should be provided.
 - b) In addition, two of the following should be provided: a sauna, a book and DVD library, satellite TV within cabins, a library of interactive video games.
- 4) Comfortable mattresses and furnishings within cabins should be prioritised to facilitate rest and sleep.
- 5) Shore leave should be provided at every opportunity and for all ranks.
- 6) Varied, good-quality food should be provided on board and a feeding rate of at least US\$11.00† per person should be allocated to each vessel.
- 7) Self-help guidance on improving mental resilience should be provided to all seafarers.
- 8) Contracts should balance work and leave time for all ranks in a ratio not worse than 2:1 and with an upper limit of a maximum of six months on board.
- 9) Anti-bullying and harassment policies should be introduced and enforced.

* While it has been difficult to judge what this would constitute, it is nevertheless necessary to recommend specific levels of provision to arrive at a minimum standard and a level playing field. Levels of provision have therefore been arrived at that are considered to genuinely provide a range of facilities (already known to be available on cargo vessels) while not placing an undue burden on ship operators. This explanatory note may be applied to all the quantified recommendations arrived at in the report.

†This figure is arrived at using known existing feeding rates as a guide.

- 10) Officers should receive training in creating a positive atmosphere on board, including via the provision of positive feedback on work, when appropriate, and respectful interactions with subordinates.
- 11) Confidential counselling services should be made available to seafarers.

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Appendix 1 – Respondent demographics – seafarers’ questionnaire

Age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Age	1,507	18	72	35.36	10.383

Sex

Sex					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	1,487	98.7%	98.7%	98.7%
	Female	20	1.3%	1.3%	100.0%
	Total	1,507	100.0%	100.0%	

Nationality

Nationality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Western/ North Europe	60	4.0%	4.0%	4.0%
	Eastern Europe	174	11.5%	11.6%	15.5%
	Asia	1,011	67.1%	67.1%	82.7%
	Indian Sub-Continent	152	10.1%	10.1%	92.8%
	USA/ Canada	75	5.0%	5.0%	97.7%
	Other	34	2.3%	2.3%	100.0%
	Total	1,506	99.9%	100.0%	
Missing	System	1	.1%		
Total		1,507	100.0%		

Rank

Rank (Senior, Junior, Rating)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Officer	203	13.5%	13.5%	13.5%
	Junior Officer	492	32.6%	32.8%	46.3%
	Rating	803	53.3%	53.5%	99.8%
	Other	3	.2%	.2%	100.0%
	Total	1,501	99.6%	100.0%	
Missing	System	6	.4%		
Total		1,507	100.0%		

Department

Department					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Deck	731	48.5%	48.7%	48.7%
	Engine	538	35.7%	35.8%	84.5%
	Galley	157	10.4%	10.5%	95.0%
	Unclassified	75	5.0%	5.0%	100.0%
	Total	1,501	99.6%	100.0%	
Missing	System	6	.4%		
Total		1,507	100.0%		

Relationship status

Are you single or living with a spouse/partner?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	508	33.7%	33.8%	33.8%
	Living with a spouse/ partner	994	66.0%	66.2%	100.0%
	Total	1,502	99.7%	100.0%	
Missing	System	5	.3%		
Total		1,507	100.0%		

Appendix 2 – Open responses to the seafarers’ survey question, ‘What activities make you happiest at home?’

Being with the family	1,920
Generally	629
Children	245
Vacation/days out	213
Bonding/quality time	168
Spouse or partner	156
Gatherings/parties/special occasions	129
Meals together	91
Playing with my children	65
Beach	55
Taking care of children	45
Shopping	43
Relatives	25
Talking	18
Nieces and nephews	13
Good/healthy food	13
Grandchildren	11
Latest news and updates	1
Activities	530
Sports/exercise	151
DIY/home improvement	56
Hobbies	48
TV/video/movies	39
Outdoors/nature	38
Driving cars or bikes	33
Video games/computer/games	32
Cooking	30
Working on my business	28
Hunting/fishing	24
Gym	13
Walking the dog/pets	13
Surfing the internet	12
Reading books	9
Latest news	2
Games	1
Gardening	1

Being with friends	429
Generally	140
Socialising/partying/hanging out	135
Food and beer	45
Girlfriend	45
Vacation	27
Bonding/quality time	19
Roaming around	9
Talking	6
Music/bands	3
Visiting places	303
Vacation	96
Church	48
Beach	44
Restaurants/pubs/bars	30
Shopping malls	23
Movies/cinema	22
Outdoor/nature	21
Sporting events	17
Roaming around	1
Historic places	1
Having a sense of freedom	149
Own time/free time	44
Being home and not at sea	39
No restrictions	35
Good rest/sleep/relax	30
Having a phone signal	1

Appendix 3 – Open responses to the seafarers’ survey question, ‘What activities make you happiest on board?’

Social events	1,327
Parties/social get togethers	386
Team games/sports	271
BBQ parties	174
Talking with other colleagues/friends on board	118
Karaoke/playing music together	115
Having a beer/drinking with others	72
Watching movies together	65
Good food	49
Spending time with friends	46
Socialising with other nationalities	20
Playing computer games	11
Loan activities	490
Films/movies/TV	136
Gym/exercise/swimming	111
Surfing the internet	68
Relax/rest/day off	63
Video games	37
Reading	27
Playing music	17
Listening to music	13
Fishing	9
Reading bible/praying	5
Just generally being on own	4
The job	466
Enjoy the work/job/lifestyle	151
Earning money for family/good salary	93
Job going well/being rewarded for work/compliments	59
Travelling/visiting new parts of world	56
Learning from others	37
Good cooperation on board/good skills of crew/teamwork	22
Not too busy/pressured	15
Good ship/good machinery	11
Good weather	8
On time salary	6
Safe working	5
Going home/signing off	3
Shore leave	133
The people on board	129
The people/camaraderie/good crew	108
Good captain/management	20
Bad people leaving the ship	1

Communication with home	100
Internet	69
Generally	28
Having a phone signal	3
Not happy on board/other	25

Appendix 4 – Open responses to the seafarers’ survey question, ‘What things make you saddest at home?’

Family and home life	783
Arguments/problems – family	192
Health problems/sickness – family members	127
Arguments/problems – partner/relationship problems	107
Health problems sickness – general	73
Spouse/partner/relative working – busy while home	65
Health problems/sickness – children	55
Death in family/friends	41
Practical problems in home/community	26
Arguments/problems – friends	18
Political situation in country	17
Arguments/problems – general	16
Problems with family business	15
Problems with children e.g. in school	13
Health problems/sickness – own	12
Missing children growing up	5
Being home too long causing arguments	1
Financial issues	481
Having no money or running out	363
Financial demands/bills/debts	60
Not earning/no income/financial insecurities	48
Worries about money	10
Employment	340
Leaving to go back to the ship	172
The call to go back	46
When it’s close to going back – next contract	40
Having to do training courses/paperwork during leave	34
Time until next contract – leave too long	21
Worrying about next contract	20
Leave too short	7
Other	171
Not sad at home/always happy	120
Other	31
Bad weather	20
Psychological issues	71
Loneliness/boredom	67
No sense of purpose	4
Missing the ship	23
Missing the sea/lifestyle	16
Missing others on the ship	4
Lack of routine	3

Appendix 5 – Open responses to the seafarers’ survey question, ‘What things make you saddest on board?’

Vessel-related factors	1,265
Trouble with others on board/bad relationships	176
Bad officers/problems with officers	158
Poor sleep/fatigue/lack of rest	121
Busy schedule/too much work/paperwork/lack of crew	115
Seasickness/illness	112
Loneliness/boredom	107
Issues relating to job/work/making mistakes	96
Discrimination/bullying/assault	93
Bad weather	93
Poor teamwork/cooperation	47
Vessel/ship-related problems	35
Hassle from ashore/office	25
Long tours/not relieved on time/extended contracts	24
When you sign on/join ship	23
Poor salary/no advance/late payment/no overtime	20
Nationality/cultural issues	16
Friends signing off	4
Family and home	515
Missing family/home	292
Poor communication facilities with home	78
Bad news/problems at home	65
Missing special occasions/children growing up	28
Being unable to do anything/help out	21
Illness/sickness at home	15
Death at home	12
Arguments with family/friends	4
Recreational issues	224
Bad food	83
No internet	65
Lack of shore leave	53
Poor recreational facilities	18
Not able to do things/hobbies	5
Not sad on board	42
Other	5

Appendix 6 – Open responses to the seafarers’ survey question, ‘What do you do to make yourself feel better AT HOME when you are lonely?’

Activities	908
Sports/gym/exercise	183
Watch TV/movies/videos	138
Hobbies/DIY/work on house	138
Listen to music	95
Cook BBQ/eat/drink beer	82
Video games	52
Play music	42
Drive car/bike	28
Keep busy – general	27
Surf the internet	26
Sleep/rest	26
Read	21
Work on business	21
Time with pets	16
Hunting/fishing	13
Family and friends	813
Meet with friends/hang out/outings	178
Talk/play with children	103
Talk/call with friends	91
Meet up with family/get togethers	78
Talk/call with family	71
Beer/food with friends	57
Talk to spouse/partner	45
Sports with friends i.e. basketball	42
Outings with family	33
Outings with family – restaurants/beer	25
Visit family members	25
Outings with family – malls/shops	21
Outings with family – beach/park	14
Outings with family – movies/cinema	10
Vacation with friends	8
Vacation with family	7
Call/contact those on ship	5
Visit places	223
Shopping malls	41
Church/similar	39
Nature/outdoors	35
Beaches/swimming	27
Visit places	26
Vacation	22
Cinema/movies	20
Restaurants/bars	13
Mentally fix situation	21
Not lonely at home	12
Other	12

Appendix 7 – Open responses to the seafarers’ survey question, ‘If you feel down or depressed ON BOARD what do you do to cheer yourself up?’

Activities	1260
Watch movies/films/TV	340
Listen to music	249
Gym/exercise	105
Sleep/rest	95
Read	85
Play music/sing	72
Video games	60
Keep busy (unspecified)	54
Find some work to do	51
Eat	32
Surf the internet	31
Drink/smoke	29
Sports	19
Household tasks	11
Shore leave	11
Hobbies	10
Walk on deck/look at nature	6
Interact with others on board	490
Speak/chat with others on board	340
Watch a movie/listen to music/sing with friends	56
Socialise with others on board	47
Have a beer/drink with others	19
Speak/chat with superiors	18
Play games with others	10
Communicate with family/friends	373
Speak to family	199
Speak to spouse	89
Speak to friends	68
Speak to kids	13
Post to/look at social media	4
Mental resilience strategies	239
Read the bible/pray	112
Mentally make better	67
Look at pictures/videos	26
Be alone	23
Plan for the future	11
I do not feel down/depressed	11
Other	11
Other (miscellaneous)	9
Ask the company to help/sign off early	2

Appendix 8 – Open responses to the seafarers’ survey question, ‘If you feel down or depressed AT HOME what do you do to cheer yourself up?’

Activities	597
Watch TV/movies/videos	81
Listen to music	80
Gym/exercise	66
Hobbies/DIY/work on house	58
Sleep/rest	43
Sports	38
Cook BBQ/eat	33
Play music/sing	32
Drink/smoke	32
Drive car/bike	27
Video games	26
Read	23
Keep busy – general	22
Time with pets	12
Surf the internet	11
Hunting/fishing	7
Work on business	5
Post to or look at social media	1
Family	525
Talk to spouse	154
Talk to/call family	147
Talk/play with children	76
Meet up with family/get togethers/games	65
Outings with family	32
Outings with family – restaurants, eat out, beer	13
Outings with family – malls/shops	12
Visit family members	12
Outings with family – movies/cinema	7
Vacation with family	4
Outings with family – beach/park	3
Friends	345
Meet with friends/hang out/go out/socialise	161
Talk to/call with friends	127
Beer/food with friends	31
Vacation/outings with friends	14
Sports with friends i.e. basketball	7
Games/computer games with friends	5

Appendix 9 – Open responses to the seafarers’ survey question, ‘What do you think companies could do to reduce depression and anxiety for seafarers while they are on board?’

Recreation	1,405
Internet/communication facilities with families	854
Recreation equipment/facilities (generally)	158
Shore leave	117
Sports/gym	61
Parties/BBQ parties/social get togethers	56
Games/competitions	38
Provide a welfare fund/budget	31
Karaoke/music facilities	29
Provide TV/sat TV/movies	21
Beer/alcohol	16
Pool/sauna	12
Video games facilities	8
Books/magazines/newspapers	4
Term and conditions of work	1,270
Better salary/overtime/bonuses	270
Shorter contracts/longer leave	216
Less work/less paperwork	144
Bigger crews	124
Better leadership/good treatment by officers	73
Company shore side – friendly supportive management.	51
Permanent contracts/job security/company loyalty	49
Follow labour code MLC	49
Sign off on time/timely relief/quick repatriation	46
Support/benefits for families also	30
Health cards/insurance	28
Reduce frequency of port calls/less tight schedules/better routes	27
Better quality of officers	23
Practical ship improvements	21
Other training for crew	20
Company shore side – companies ask opinions of all seafarers	19
On time payment	16
Safe working practices/good safety equipment	12
Company shore side – good management of vessels	10
Enforce company polices	9
Better distribution of work	8
Company shore side – follow up/take seriously complaints	8
Social support/pensions	7
Company shore side/other	7
Better skilled crews	3

Physical/mental health	446
Quality/quantity of food	236
More rest/days off	132
Provide drinking water	17
Good cooks	15
Focus on mental health	14
Food for different nationalities	11
Better allowances/budget for food	9
Confidential reporting services	9
Provide counsellors for seafarers	3
Relationships on board	168
No bullying/discrimination	52
Encourage good relations/better interactions on board	42
Encourage social activity on board	37
Officers should listen to ratings	14
Officer training on crew management	11
Nationality/language on board	9
Better treatment of cadets	3
Accommodation	79
Better accommodation/cabins	79
Family members on board	24
Family members on board	24
Nothing	14
Other/miscellaneous	21

Appendix 10 – Survey of Seafarer Repatriations

This questionnaire includes questions about the medical repatriation of seafarers from your company in the period 2006-2016. If you have records of these then you will probably find it beneficial to have them to hand as you complete the questionnaire. Please note, there are 30 questions in total in the questionnaire.

About your ships

1) What type(s) of ship does your company operate? (please tick all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> 1 Passenger ferry | <input type="checkbox"/> 8 Gas tanker | <input type="checkbox"/> 15 Supply vessel |
| <input type="checkbox"/> 2 High speed ferry | <input type="checkbox"/> 9 Car carrier | <input type="checkbox"/> 16 Standby vessel |
| <input type="checkbox"/> 3 Freight ro-ro | <input type="checkbox"/> 10 Cruise ship | <input type="checkbox"/> 17 Dredger |
| <input type="checkbox"/> 4 Products tanker | <input type="checkbox"/> 11 Bulker | <input type="checkbox"/> 18 Container ship |
| <input type="checkbox"/> 5 Shuttle tanker | <input type="checkbox"/> 12 General cargo | <input type="checkbox"/> 19 Tug |
| <input type="checkbox"/> 6 Crude tanker | <input type="checkbox"/> 13 Reefer | <input type="checkbox"/> 20 Pilot boat |
| <input type="checkbox"/> 7 Chemical tanker | <input type="checkbox"/> 14 Offshore support | <input type="checkbox"/> 21 Tanker (other) |
| | | <input type="checkbox"/> 22 Other |

If other, please specify
[Click here and enter text.](#)

2) Approximately what percentage of your ships had email available for seafarers' personal use in 2006 and 2016 (please enter percentages below):

2006? [Click here and enter percentage.](#)

2016? [Click here and enter percentage.](#)

3) What was your daily 'feeding rate' (victualling allowance) per seafarer in:

2006? [Click here to enter rate.](#)

2016? [Click here to enter rate.](#)

4) On average do you think that shore leave for your seafarers has increased or decreased in the period 2006-2016?

1 On average seafarers' shore leave has increased since 2006

2 On average seafarers' shore leave has decreased since 2006

5) On average do you think that the number of recreational facilities on board your vessels (e.g. gyms, swimming pools, lounges, games) has increased or decreased since 2006?

1 In general recreational facilities on board have increased since 2006

2 In general recreational facilities have decreased since 2006

Please give details of how these recreational have improved/deteriorated

[Click here and enter text.](#)

About your seafarers

- 6) In 2006 approximately how many seafarers did your organisation employ?
[Click here and enter number.](#)
- 7) In 2016 how many seafarers did your organisation employ?
[Click here and enter number.](#)
- 8) Which countries do your seafarers come from (please tick all that apply)
- 1 China
 - 2 Philippines
 - 3 Russia
 - 4 Ukraine
 - 5 India
 - 6 Poland
 - 7 United Kingdom
 - 8 Other (Please specify) [Click here and enter text.](#)
- 9) Has the company changed the nationality composition of the seafarers it employs today compared with 2006?
- 1 Yes
 - 2 No

If yes, please describe the changes that have been made

[Click here and enter text.](#)

Medical repatriations

- 10) In 2006 how many seafarers were repatriated on medical grounds?
[Click here and enter number.](#)
- 11) In 2016 how many seafarers were repatriated on medical grounds?
[Click here and enter number.](#)
- 12) Of those repatriated on medical grounds in 2006 how many were repatriated due to psychological/mental health conditions?
[Click here and enter number.](#)
- 13) Of those repatriated on medical grounds in 2016 how many were repatriated due to psychological/mental health conditions?
[Click here and enter number.](#)

14) In your company what are the most common psychological conditions which have resulted in repatriation in the period 2006 to 2016, with 1) signifying the most common conditions your company has encountered leading to repatriation and 5) indicating the least common.

	Most common				Least common
	1	2	3	4	5
Anxiety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bi polar disorder (previously known as manic depression)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Schizophrenia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please describe)

[Click here and enter text.](#)

Seafarers found dead onboard

15) Has your company experienced a seafarer being found dead on board a company vessel in the period 2006-2016? (please do not include missing seafarers in this answer as we ask about missing seafarers later)

1 Yes

2 No *If, no go to question 20.*

16) (If yes to question 15) How many seafarers have been found dead on board a company vessel in this ten year period? [Click here and enter number.](#)

17) (If yes to question 15) Were any of these deaths deemed to be as a result of suicide?

1 Yes

2 No *If, no go to question 20.*

18) (If yes to question 17) How many deaths were deemed to be a result of suicide in this period (2006-2016)? [Click here and enter number.](#)

19) (If yes to question 17) How were these suicides established? (please tick all that apply). If there were more than 10 cases please complete this table for the most recent 10 cases, and add further details of other cases in the space provided below.

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9	Case 10
A suicide note was left	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The seafarer had been reported by colleagues to be suicidal prior to the event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The seafarer had been reported to be suicidal by family members prior to the event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please describe)

[Click here and enter text.](#)

If you have had more than ten suicide cases please use this space to add further details

[Click here and enter text.](#)

20) Has your company experienced any seafarers going missing from their vessels in the period 2006-16?

Yes

No *If, no go to question 24.*

21) (If yes to question 20) How many in total? [Click here and enter number.](#)

22) (If yes to question 20) How many of these (if any) were positively identified as suicides?

[Click here and enter number.](#)

23) If some missing seafarers were identified as suicide cases what evidence were these judgements based on? Please tick all that apply.

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9	Case 10
A suicide note was left	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The seafarer had been reported to be suicidal prior to the event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An investigation concluded that the missing person had committed suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24) Do you believe that mental health problems are increasing amongst serving seafarers? (please tick all that apply)

- 1 Yes, they are increasing in this company
 2 Yes, they are increasing in the industry in general
 3 No, they are not increasing

25) Do you believe that suicide is a growing problem amongst seafarers? Please tick all that apply

- 1 Yes, suicides are becoming more common in this company
 2 Yes, they are becoming more common in the industry in general
 3 No, they are not becoming more common

26) If you have answered yes to questions 24 or 25 above please explain why you feel mental health problems and/or suicides are increasing at sea.

[Click here and enter text.](#)

Addressing mental health at sea

27) Has your company specifically identified the mental health of seafarers as an issue of concern/area of priority in the last 10 years?

1 Yes

2 No

If yes, please describe the reasons for the concerns in as much detail as possible

[Click here and enter text.](#)

28) Has your company introduced any new practices or policies relating to seafarers' mental health in the last 10 years

1 Yes

2 No

If yes, please describe these practices and/or policies in as much detail as possible

[Click here and enter text.](#)

29) What further measures do you personally think should be adopted across the industry to improve the mental health and wellbeing of seafarers? Please describe in as much detail as possible.

[Click here and enter text.](#)

30) Do you have any further observations that you feel it would be useful to make in relation to this study of seafarers' mental health and wellbeing? If yes please give full details below.

[Click here and enter text.](#)

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