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Psychosocial Hazards Identified at Western Australian Offshore Oil and Gas Facilities and Potential Costs

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KEYWORDS

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ABSTRACT

Offshore workers face similar stressful working conditions globally. Whether employed on oil, gas or wind facilities, as work offshore is geographically isolated, physically demanding, risky and requires long absences away from home. This study aimed to identify specific mental health stressors in the oil and gas industry off the northwest coast of Australia. The study employed a focus group approach, followed by interviews with offshore oil and gas workers. Interview data was analysed through NVivo and analysis revealed additional psychosocial stressors causing poor mental health for offshore oil and gas workers. One theme which emerged from the analysis was the significant economic costs of poor mental health in the workplace for both employers and employees. These research findings can provide a basis for further research into the economic costs of psychosocial hazards on offshore facilities and recommendations are made for industry, industry regulators and government agencies.

1. INTRODUCTION

Psychological injuries are a serious and worsening issue in Australian workplaces and can cause adverse mental health problems, with an increase from 6.5% for 2011/12 to 9.2% for 2021/22 (Safe Work Australia, 2023). Psychological injuries also result in greater compensation costs and more time away from work than physical injuries. Mental health conditions resulted in 34.2 working weeks of median time lost in 2021-2022. In comparison, physical injuries and conditions resulted in 8.0 weeks of median time lost (Safe Work Australia, 2023).

When considering that the medium work time of 18.8 weeks were lost to mental health conditions in 2015-16 and by 2021 this was 34.2 (Safe Work Australia, 2023), it is evident that poor mental health in the workplace is a growing issue. Likewise, when considering median compensation costs, costs for mental stress claims amount to more than three times the cost for all serious compensation claims. The

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compensation cost per claim for mental stress was \$58,615 in 2021/2022, which is almost four times the amount of for the median compensation amount for all claims which was estimated at \$15,743.

Workers' compensation costs in 2022-2023 in the Western Australian mining industry were \$187.1 million (inclusive of oil and gas extraction claims, King et al., 2023). Offshore oil and gas workers are at a higher than usual risk of poor mental health. Long, revolving and uneven shift patterns have been linked to depression and anxiety (Berthelsen et al., 2015; Pavičić Žeželj et al., 2019; Torquati et al., 2019). Poor sleep quality has been linked to anxiety (Parkes, 2015) and mood disorders as well as depression (Berthelsen et al., 2015). Stress and anxiety are associated with the isolation of Fly-in-fly-out (FIFO) work (Henry et al., 2013; Parker et al., 2018; Parkes, 2012).

Failing to address mental health issues results in absenteeism, presenteeism, loss of focus, loss of production and an increased risk of making mistakes resulting in higher accident rates (James et al., 2018). In contrast, productivity and performance can be affected in a significant and positive way by promoting good mental health (Department of Mines, Industry Regulation and Safety, 2020; Wright and Cropanzano, 2000). Lack of focus and diminished attention and awareness on high-risk installations such as offshore oil and gas facilities present safety risks that extend to all employees, as an accident is likely to impact on co-workers due its seriousness.

A literature review, focus group and interviews were conducted for this study. The first version of a model was developed based on a scoping review of existing published literature addressing psychosocial stressors for offshore oil and gas workers worldwide. This model was then adapted to reflect the findings of the focus group and interviews with research participants who worked in the Western Australian offshore oil and gas industry as information specific to this group of people was not found in the published literature reviewed.

2. METHODOLOGY

This study was qualitative and exploratory in nature, utilising a literature review, a focus group of eight members and one-on-one interviews through Microsoft Teams with 29 offshore oil and gas workers. Analysis was conducted using NVivo software, which allowed themes and patterns to be identified from transcripts recorded through Microsoft Teams. The study was granted ethical approval by the Human Research Ethics Committee (HREC) (Ethics Approval number HRE2021-0512).

2.1 Participants

There were 37 participants: 8 members of a focus group and 29 interviewees, who were selected based employment position and type. Of these interviewees, 5 were part of a pilot study. Thirty-three participants were male, 4 were female and ages ranged from 25 years of age to 60+ years. All interviewees worked at least 12 hours each day, with no rest days while offshore.

2.2 Procedure

The literature review process is described in Figure 1. The focus group questions were formed from a review of the published literature, which identified numerous mental health hazards offshore. Open-ended questions were asked during interviews and the interviews were recorded and transcribed.

The focus group questions were concentrated on identifying factors that may affect the mental health of offshore oil and gas workers, impacts of poor mental health, opportunities for improvements and identifying possible mitigation strategies. Results and analysis of the focus group answers were used to develop the interview questionnaire.

The interview questions asked participants for their demographic information. This was followed by exploratory questions asking for information about hours of work, management, mental health hazards, management of return to work after a work-related injury or ill health, workplace culture, if there was stigma when reporting mental health issues, economic effects of poor mental health, positive mental health strategies used in the offshore oil and gas industry, education and support.

Interview participants were also asked if there were any other factors that caused poor mental health and ways to improve mental health for offshore oil and gas workers. A successful Pilot Study was conducted with 5 participants followed by a further 24.

2.3. Analysis

After transcription of focus group and interview documents, notes were made of the main themes for each question. Information was then entered into the NVivo software program. Participants in the focus group and interviews remained anonymous and were assigned numbers 1-37. Codes and sub-codes emerged through classifying and arranging of data in NVivo. Mind-mapping for each transcript was used to identify further themes and patterns (The University of Adelaide, 2020), providing a visual method of establishing results within theory (Wheeldon, 2018).

Validity and reliability were demonstrated through the uniformity of results when repeatedly searching for similar relationships in the text. NVivo also minimises the possibility of human and automatic errors (Dhuria & Chetty, 2017). To ensure that respondents were given the opportunity to relate their own experiences accurately and authentically (Creswell, 2009), questions were designed to be open-ended.

The number of participants was not predetermined and, in line with the aim of qualitative research of discovering experience and meaning, interviews were conducted until data saturation was achieved.

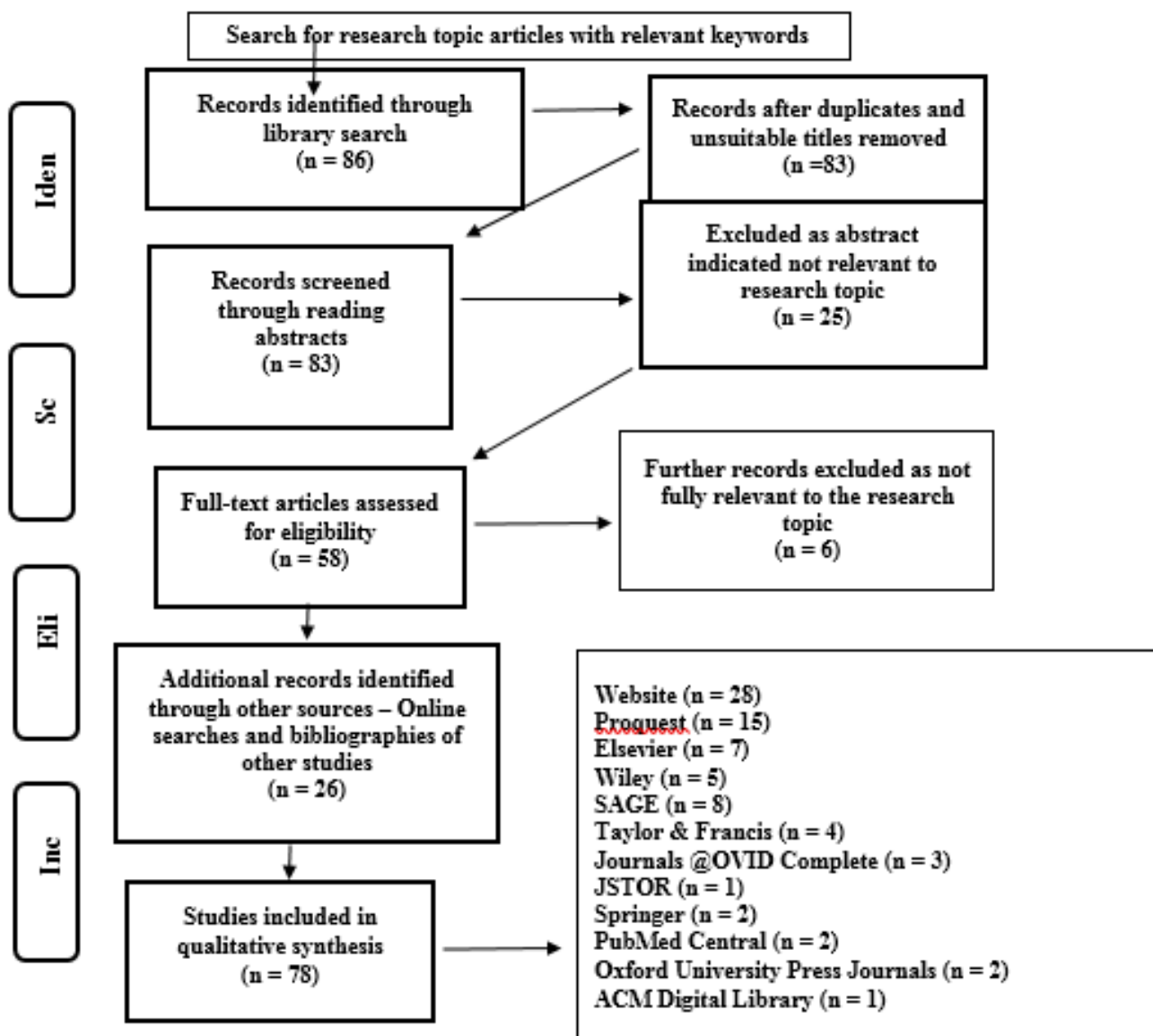
3. RESULTS AND DISCUSSION

3.1 Identified causes of poor mental health

A scoping review of published literature revealed that working on offshore platforms, whether they be wind, oil, or gas installations, exposes employees to multiple types of stressors which have a negative effect on the psychosocial health of employees.

The literature review used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) statement (Moher et al., 2009) for reporting items (see Figure 1).

Figure 1. Flow chart depicting the article search and selection procedure for all articles



3.2 Literature review findings

Working long hours or shifts, as well as revolving shift patterns were found by several authors to be linked to anxiety (Berthelsen et al., 2015; Pavičić Žeželj et al., 2019; Torquati et al., 2019) and depression (Berthelsen et al., 2015; Pavičić Žeželj et al., 2019). Night shifts, likewise, place employees at risk of irritability (Roberts & del Vecchio, 2000) and elevated suicidal intent; Parker et al. (2018). Fatigue at the end of a work cycle offshore can be worsened by pressure to complete tasks and projects (Nielsen, 2013), affecting situational awareness which is linked to higher accident rates due to an increase in unsafe behaviours (Miller et al., 2019). Workplace bullying was found to result in increased depression and an elevated suicide risk (Nielsen et al., 2013), along with fatigue and poor coordination (Bowers et al. 2018). Poor sleep or sleep quality can lead to anxiety (Parkes, 2015), depression, mood disorders and neuroticism (Berthelsen et al., 2015).

The isolation of offshore work was found to be significantly linked to stress (Parkes, 2012), corresponding with other studies that revealed negative links between the isolated working environment of onshore mining with anxiety (Henry et al., 2013; Parker et al., 2018), psychological distress (Landon, 2019), poor team functioning and poor interpersonal relationships (Warren, 2015). Where there is low job decision or latitude, employees are at risk of anxiety, stress and depression (Berthelsen et al., 2015).

3.3 Focus group research findings

The focus group participants revealed the main concerns to be the length of offshore rosters, which had at the time been compressed and lengthened due to COVID-19 regulations, casualisation of the offshore workforce and promoting mental health in the workplace in the way of best practice, with clear and constant messaging required from management. A part of this clear messaging included reducing the stigma surrounding mental conditions, developing self-awareness and a good mindset, and providing a multi-faceted approach to psychological wellness, including presentations and literature on mental health. A fear of injury (and reinjury), with a focus on lowering the likelihood of making mistakes were concerns from one participant (P5), who was concerned about loss of focus and the potential of endangering other colleagues:

'Poor mental health can result in mistakes and endanger other personnel.'

A fear of job loss (P4) and loss of work identity (P8) were other themes which emerged from the focus group. In this case, loss of work and work identity can be directly linked to casualisation of work and injury: work identity has enjoyed a long and rich spotlight in debate and theory (Parkes, 2011; Weber, 2015).

The possibility of psychometric testing was raised by P1. This acts as a form of employee screening, because if employees are seeking psychological help due to the inherent nature of the work environment, they may not be suited to this type of work (P8). Other themes which emerged from the focus group analysis were the importance of exercise, maintaining good employer-employee relationships and the inadequacy of facilities such as accommodation, internet and food provided by the organisation.

3.4 Interview research findings

Space to work and live on offshore facilities is, clearly, limited. Participants alluded to the confinement of all areas of their life offshore. This included workspaces, accommodation, and shared areas such as the mess room and the gym. Furthermore, the mess room was often full, with workers having to wait for seating to become available (P2, P18). This lack of space worsens other stressors that are present offshore (Evans & Stecker, 2004), significantly impacting work engagement and persistence with complex work tasks (Underhill & Quinlan, 2011). Other findings linked crowding in remote or isolated environments to aggression and a reduced tolerance of current team members by new team members, as well as reduced perceived control and increased interpersonal tension (Evans & Stecker, 2004). An absence of space means that employees also endure a lack of privacy when making personal phone calls (P29).

Several participants referred to their unwillingness to speak up when they felt something was wrong due to the likelihood of negative consequences (P13, P21, P37). For casual workers offshore, a fear of speaking up is pervasive (P13, P33). P10 and P13 explained that casual workers were reluctant to speak

up if they were showing symptoms consistent with COVID-19 and were hesitant to report mental health conditions such as depression (P24). This is not a new phenomenon or one that is exclusive to offshore work. Studies have revealed that Occupational Health and Safety Representatives hold fears for their employment if they raise an issue (Australian Council of Trade Unions, 2018; McCabe, 2007). In 2018, attention was drawn to the removal of Health and Safety Representatives from facilities and rosters due to their speaking up on workplace issues (Collins & Collins, 2002). Furthermore, raising concerns about safety or organisational practices carries the risk of being blacklisted (Collins & Collins, 2002; P6; P13).

Poor morale, productivity decline and increased staff turnover are widely known effects of micromanaging employees (Irani-Williams et al., 2021; Tavanti, 2011). On the whole, micromanagement is a negative work practice, revealing a lack of trust or confidence in employees (Sibbel, 2010), consequently resulting in a loss of trust in management (Tavanti, 2011). In this study, employees' diets were micromanaged (P20) and it was felt that supervisors exercised excessive regulation over their workers (P6, P12).

Another theme which emerged from the interview data was the difficulty of being away from home and family. Missing out on special occasions was a common theme in the analysis (P5, P15, P13, P12, P21), as well as in published literature (Landon, 2019). In addition, there was frustration over not being able to be present when family emergencies occurred (P21, P25). Going back offshore to work when there are unresolved family issues causes employees stress (P1, P8, P13). Likewise, reintegration back into family life can be difficult (P8), leading to detachment from home life and feeling like a stranger at home (Parkes et al., 2005).

Strained partner relationships caused mental distress in 68% of relationships in a study of onshore FIFO workers (Parkes et al., 2005). The feeling of 'living two lives' was found in both the literature (Fair Work Act, 2009) and this study (P28). The isolation of FIFO work is known to exacerbate the impacts of family issues. Further to this, the poor internet facilities provided (P2, P3, P4, P6, P7, P10, P11, P17, P18) means that workers cannot communicate adequately with partners and children (P15).

Casual workers in this study had been subjected to several underhand practices by their organisation. The practice of hiring-firing-rehiring appeared to be grudgingly tolerated by participants (P12, P20), perhaps because companies are refusing to grant their employees permanency and the employees have no alternative but to accept this situation. Preconditions put in place to protect casual workers (Carmona- Barrientos, 2020; Fair Work Ombudsman, 2023; Stanford, 2021) seem to be easily navigated by organisations in the form of employment dismissal at the end of each cycle or swing. Even if the preconditions of casual conversion are met, employers still retain the right to refusal on reasonable grounds to provide permanent employment (Carmona-Barrientos, 2020). Casual or temporary employment arrangements are significantly linked to increased levels of job-related stress (Bailey-Kruger, 2012).

Those who experienced interpersonal conflict and bullying had suffered from stress (P11, P20), echoing previous findings from offshore facilities (Bowers et al., 2018) and often this came from management level down to employers, a clear example of unequal power relations (P8, P13, P22). This reflects other findings from research into employees' experiences of FIFO work (Parker et al., 2018). For P20 and P29, some gendered harassment was experienced from male colleagues, reflecting findings in previous research (Theobald, 2002) that revealed women's experiences to be negatively affected by the male-dominated environment of FIFO work, where all participants felt some degree of

restriction against their career progression. In this study, P20's experience was described as 'one of those female-male things' and P29's description implied a clear case of harassment for a relationship.

The impacts on female workers result in an increase in stress symptoms (Australian Human Rights Commission, 2018) in an already stressful working environment. Research into sexual harassment in the mining industry reported that 74% of female workers had been victims of sexual harassment in the five years prior to the study (Murphy et al., 2021). Likewise, sexual harassment was found to be pervasive in the offshore oil and gas industry (Blanchflower and Bryson 2020). Indeed, a potential female participant would not go ahead with the interview, despite the desire to share her experiences, for fear of being identified.

Employees offshore find their unions are a source of support and are important for their wellbeing (Robinson & Smallman, 2013, P6, P18). Membership of a union is linked to life satisfaction and reduced rates of stress and worry. Employees have also shown lower levels of loneliness, sadness and depression when they belong to a union (Robinson & Smallman, 2013). Trust in others and in legal and political institutions, groups and figures is also more positive (Robinson & Smallman, 2013). Managing health and safety in the workplace with the assistance of a union has been linked to reduced injuries rates, whereas quite the opposite occurs where union representation is absent (Xiang et al., 2014).

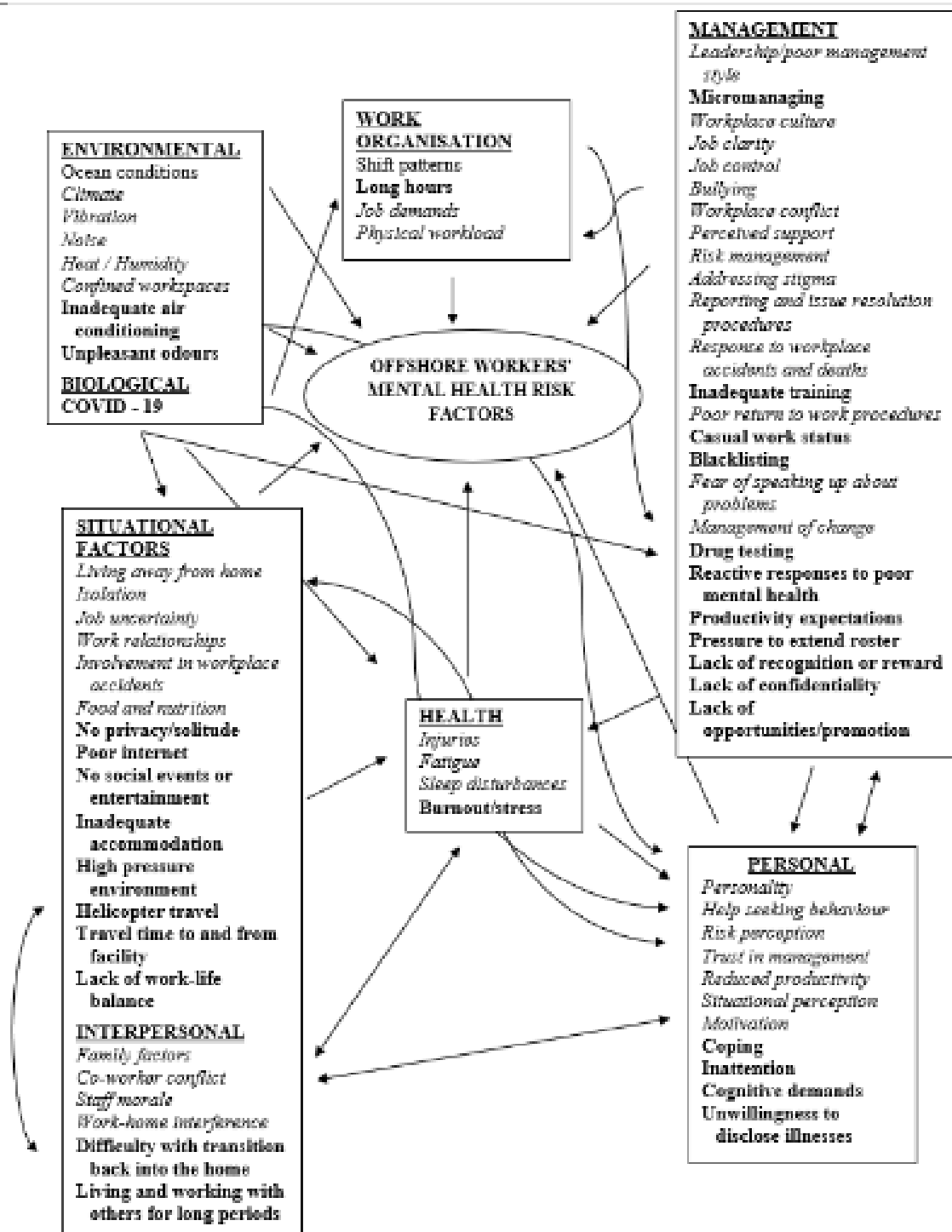
In Australia, exposure to heat has caused more deaths than all other natural hazards together. Northern areas of Western Australia are subjected to much higher ambient temperatures, which are linked to job-related injuries (Opperman et al., 2017), than other areas in the north of the country that are classed as part of the monsoon tropics (Hansen et al., 2008). As extreme heat can worsen existing mental health conditions (Berry et al., 2010), it is fortunate that organisations are managing heat stressors as best they can. At times, the heat is unbearable for offshore oil and gas workers in northwest Australia (P1, P6, P7, P8, P9, P13, P16, P18, P23, P25, P26, P28), having the possibility to affect wellbeing and mood and increase the risk of suicide and violence (Anderson, 2001; Zander, 2015).

As suicide risk is a pre-existing issue for FIFO workers (Nielsen et al., 2013; Parker et al., 2018), it was concerning to learn of incidents that had occurred due to the poor mental health of offshore oil and gas workers. For example, P13 explained that a worker was taken off a vessel and when sent home this worker then killed his housemate. Another worker gained his role as an Integrated Rating due to the employee in the role before him committing suicide (P18).

In 2015, it was estimated that extreme heat reduced work productivity rates by, on average, \$6.9 billion per year (Asare, 2022). Management of these environmental factors are under constant emphasis offshore, with systems in place that ensure maintenance of personal hydration and regular breaks (P13, P16, P22, P26).

Factors included in italics in Figure 2 were developed based on a review of published literature. The new knowledge generated through this research is shown in Figure 2, with the new knowledge identified from this research's findings in bold.

Figure 2. Identified mental health hazards for offshore oil and gas industry workers



3.5 Revision of the model

Based on information provided by focus group members and the interviewees, several factors were removed from the model, including chemical exposure, poor air quality, work design, lack of job variety, job satisfaction, job-person fit, long hours of work, safety culture and staff turnover. Other

factors not mentioned by research participants were pain and motion sickness, past experiences, and cultural/international differences. These therefore were not included in the final model. Coping styles was changed to coping, as styles of coping were not discussed. Rather, participants discussed whether employees were able to cope working offshore or not.

Additional stressors not identified in the literature included inadequate training, lack of confidentiality (breaches of trust), not being recognised or rewarded for hard work, coercion to extend hours and roster lengths by management and organisations, lack of opportunity for promotion and unwillingness to disclose illnesses.

Factors acting as psychosocial stressors identified from the focus group and interviews were added to the revised model, and included unpleasant odours, casual work status, blacklisting, drug testing (particularly for cannabis use), poor management style and productivity expectations:

'I have left a job because I found it too stressful to maintain a high productivity level. Felt better leaving on a high than getting to a point where I failed and was unwilling to show managers I was stressed' (P3).

Pressure to extend rosters (particularly during COVID) was described:

'When time off and pay is negatively adjusted this can also affect people's mental health, such as back-to-backshifts because someone has COVID/is sick and they need you to stay on the rig longer' (P29).

While not offshore, travel (helicopter travel and travel time to and from the facility) impacted employees, as well as transitioning back into the home and readjusting to family life:

'I would say, so when we talk about mental health, so naturally, the offshore environment is by its nature, because you're working towards a target, you're trying to achieve a goal and complete a project is quite stressful, it's quite stressful. There's a lot to deliver. You're working in a, you know, in the middle of the ocean, hundreds of kilometres away from shore, the cabins might not be to everyone's liking, especially if you have, if you're claustrophobic or uncomfortable in those environments. And yeah, going offshore with the pre-existing mental health issue. Now I'm just generally speaking, right, because there's a number of issues and then you've got the isolation, it kind of becomes a compounding effect. And the reason I would say people may not get the same opportunities would be not because they're just a hazard to themselves. But it also might be a hazard to others around' (P27).

No privacy or solitude, inadequate accommodation, poor internet, no entertainment, or social events and working in a high-pressure environment were new stressors identified. Living and working with others for long periods, gender harassment, inattention at work cognitive demands, burnout and stress were included in the updated model.

3.6 Economic effects

The financial costs of poor mental health in the workplace are evident in the literature. Productivity loss in the form of combined absenteeism and presenteeism was estimated at an average of \$2,620,548 per 1000 workers annually (KPMG, 2018). In 2018, KPMG and Mental Health Australia reported that stress or other mental conditions accounted for the largest percentage of conditions that resulted in five

or more days of absence from the workplace. Absenteeism due to depression and anxiety is a major global concern (Arends et al., 2010). Employees often take leave from work and companies must cover this absent worker:

'Yes, we have had several people off for an extended time due to mental health/stress, this is where the company has to get a relief and pay someone else' (P4)

Another form of stress relating to financial costs sees offshore workers placed under stress to meet production deadlines and targets:

'It's compensation. It's sick leave, it's backfill, you know. It's loss of production, loss of productive time, it's retraining, you know, there's so many aspects to it. When someone's ill, you might think he's off for a day or, you know, you have someone off for six months for argument's sake. You gotta backfill that role. You gotta cover the wages of both the individual that's working and the individual that's at home getting help, you know, old mate who comes in to backfill, they need to be trained. You know, there's a cost associated with bringing that up. You know, there's the onboarding cost of bringing someone on. There's the HR payroll type administrative costs that sit behind, you know, superannuation charges, annual leave, personal leaves. You know old mate's sick, then you're backfilling a second time, you know, so the impact is huge, then there's the actual interpersonal, unquantifiable type impacts that happen within an organization as well, you know, the stigma of old mate being off because he's got a mental illness or something like that and then you've gotta start training, you know, co-workers. You have to make sure that people are given the opportunity you know to understand what's happening and to support you know, so there's a lot and if they go to hospital, you know it's a completely different game again, right?' (P21).

According to P26, an organisation would absorb the cost of absences and the retraining of new employees during sickness leave of existing employees. Although the organisation may absorb the cost of replacing an employee who is absent from work due to poor mental health, the individual may end up paying for private counselling due to being unwilling to disclose their mental health symptoms:

'Well, it's not cheap getting psychologists to help and I've been through every medical test known to mankind' (P22).

There is also a lack of trust in these services which are linked to the organisation due to breaches of confidentiality (P3, P9, P20). Furthermore, employees' concerns that their organisation may not respond favourably to the disclosure of poor mental health may be plausible. Employers are said to respond differently to psychological injuries in comparison with physical injuries (Wyatt, Cotton, and Lane 2017). Psychological injury claimants maintain that they receive less fair treatment and less support than co-workers who are recuperating from physical injuries. Employees who have disclosed a mental illness or even spoken up about a safety issue find themselves with less opportunities:

'I can speculate that potentially someone who's not in the best mental condition, or someone who may not be in a suitable condition to be working offshore may not have the same opportunities is what I would speculate' (P27).

Being limited in terms of career development frustrates and demotivates workers, even impacting interpersonal relationships both at work and at home. Employee performance is lowered (Tessema & Soeters, 2006):

'There's huge economic factors affecting companies and people's performance and ability to do their job is impacted when they suffer' (P15).

Occupational stress is increased by a lack of opportunity for promotion (Mosadeghrad et al., 2011). Furthermore, this has more impact on employee turnover than workload or wages (Shields & Ward, 2011). Mistakes on offshore oil and gas facilities can be extremely costly. The Deepwater Horizon oil spill in 2010 was estimated to cost \$144.89 billion (Lee et al., 2018), traceable to a series of errors which was attributed to the offshore drilling culture of the time (Elkind et al., 2011). Even if the workplace culture is healthy, working in a high-risk environment requires workers to be in the right frame of mind (P13), as lapses in focus and concentration have the potential to cause devastating outcomes:

'You know financially well it does have an impact when people haven't got their mind and their job and having accidents and that probably winds down to safety. If someone's, you know, and you can tell like you've been at sea long enough, you see guys going through marriage breakups. They're not with us, you know, their head's in another place. That is definitely a massive safety issue to it and I've been guilty of it too, and I've had stuff on my mind, you're not thinking about the job. So it's deeper than just mental health and people's well-being. It actually affects, well, the operation, which is a financial thing, least of our worries, but it has a mega impact on health and safety. You know, if someone's doing a critical task and they're worried about, you know, their wife playing up or they've got depression, or they're worried about something that really isn't something to worry about, then that's where I see the big risk of it is that it can, you know, cause injury to others' (P6).

Although screening for poor mental health and mental health programs and interventions are a direct cost to organisations, increasing economic participation of individuals suffering from poor mental health would result in annual economic benefits of approximately \$1.3 billion (The Productivity Commission, 2020). This includes preventative priority reforms and early interventions at approximately \$1.1 billion. Web-based training allows for employee-paced learning, is low cost, offers privacy and does not require space (KPMG and Mental Health Australia, 2018).

Return-to-work programs and interventions for physical injuries fail to consider psychological barriers and mental wellbeing in general when employees are returning to the workplace. Organisations will prioritise returning the employee to the workplace as promptly as possible. Sometimes workers will sidestep the process of the disclosure of psychological illness by taking time off without giving a reason or will claim that the time off is for another reason entirely. Employees without permanent work status will sometimes extend their time off between different jobs if they feel they are not able to return to work, demonstrating that casual workers endure further negative consequences because of their work status.

'And they're losing their jobs so they don't report so much because I don't think they'd report psychological, you know, depression, because they just wouldn't pick them up the next swing' (P24).

Being unable to get permanent work is stressful and frustrating and not being able to speak up due to the potential for job loss or social and professional exclusion, demotion, or career sabotage (P21). Casual workers contend with unstable employment status due to the practices of organisations which class their casual workers as not employed by the company as soon as they finish their current work cycle offshore. They are then reinstated again once they are provided with another work cycle (P12, P20).

Depression alone can result in costs to organisations, even when the measures are more proactive, such as screening, treatment and providing support for those with depression. However, this is preferable to the costs associated with reactive mental health measures, where the total costs associated with depression are underestimated. Absenteeism, losses in production and poor focus due to poor mental health, for example, are all ongoing costs for organisations (Eggert, 2010; Grazier, 2019; Iijima et al., 2013; KPMG & Mental Health Australia 2018). In 2017, it was estimated that suicide and poor mental health posed a cost of \$220 billion a year to the Australian economy (Wyatt et al., 2017). More recently, the suicide rate was reported to be between 11-25 in 100,000 for Australian male mining employees, but is likely to be closer to the higher end of this figure (25 in 100,000) over the duration of 2001 to 2019 (King et al., 2023). This appears to be increasing, while rates were declining in other groups of male employees. In addition, it is possible that mining workers have been miscoded as construction employees due to the similarity of job titles in both industries (King et al., 2023).

Bereaved families and friends who have lost a loved one through suicide often struggle to understand the event and may blame themselves, or even experience blame from others, wondering if they could have done more to help or even prevented the death (Australian Institute of Family Studies, 2009; Private Mental Health Consumer Carer Network, 2019). They also experience feelings of anger, isolation, rejection and of being abandoned, complicating their grief and delaying their recovery (Australian Institute of Family Studies, 2009).

Suicides affect work colleagues and can cause high levels of distress, where swift reaction in the form of mental health first aid would be valuable (Golan et al., 2010). People who have been impacted by the suicide of a loved one risk the loss of their employment, are more likely to need to take medication such as antidepressants, are more at risk of becoming dependent on alcohol and drugs (Parliament of Australia, 2010) and are subsequently at a higher risk of suicide (Private Mental Health Consumer Carer Network, 2019). Their relationships with family, friends and partners may suffer (Parliament of Australia, 2010). For those who have lost a loved one to suicide, the loved one may have been the main income provider (Kinchin & Doran, 2017). Likewise, it is not unusual that bereaved individuals leave their employment or feel like they can no longer live in the same home, town or city (Parliament of Australia, 2010).

Fatigue due to mental health conditions can affect focus (Warren, 2015), leading to a reduction in alertness levels and ultimately affecting job performance (Bowers et al., 2018). Good employee mental health is linked to a lower likelihood of mistakes being made and therefore lower risk minimisation of the need for supervision of employees. Some employees feared reinjury when they were returning to work after an injury in the workplace (P5).

Attaining safety outcomes is an ongoing process which can be continually improved upon. Mistakes offshore can have catastrophic consequences. Unfortunately, employees can find themselves in conflict with management due to discrepancies between safety and the authority of employees over their safety concerns and employees can ultimately remain quiet over mistakes which can occur accidentally,

particularly when new to the work, or when employees are feeling unhappy about a safety situation (National Academies of Sciences, Engineering, and Medicine, 2018).

Injury caused by lack of attention in the offshore oil and gas industry can result in economic loss for employees too:

'I have witnessed several employees who have had to demobilise early from their swing due to not feeling 100%. This has inadvertently had an impact on them financially. I have also had several reports of cancelled swings offshore due to staff "feeling unwell" and "not being in the right headspace". As to measure the exact proportion of these that relate directly to mental health this would be hard to gauge' (P1).

Where employees suffer from poor mental health, they are reluctant to disclose this due to stigma:

'Because they know that they won't get a job if they if they say look, I'm ADD, ADHD or PTSD or whatever it might be wrong with them, they tend to hide it and say they haven't got anything wrong with them because they know that their company immediately will find somebody that hasn't got that'...' well we do have people unfortunately, it happens every year. We do have the odd person that jumps off the back of the boat in the middle of the night. You know they can't stop anybody from doing that because most of the time, nobody knows it's gonna happen anyway. But if they knowingly take somebody on that is...that hasn't got a... you know a doctor can obviously say this is your condition and it's stabilized with, maybe it's with drugs or with psychotherapy or whatever it is. I would say that any employer of somebody that's gonna be in the middle of an ocean in the middle of nowhere would have to be relatively hesitant to take somebody on with a condition like that. I think that would be fair to say really. But not to not employ them because there's so many different things that could be wrong with somebody and some of them are manageable and some of them aren't I guess' (P20).

The disclosure of a mental health condition increases the potential for casual workers of not being employed and of not being reemployed once disclosure has occurred. It has been suggested that 'if a manager has a choice of 15 employees for a position, they will not choose the one who has depression' (Education and Health Standing Committee, 2014, p. 74). Unwillingness to employ someone who had disclosed a mental health issue has also been reported (Brohan et al., 2012), where supervisors' views of the risk of employing someone with a mental disorder outweighed their preference for disclosure of such matters (Brohan et al., 2010).

Long-term absenteeism undoubtedly results in higher compensation costs than short-term absence from work. Furthermore, performance is impacted and productivity are impacted by ill-managed stress, presenting further significant costs to organisations. Work attendance rates as well as accident rates are affected by poor mental health (James et al., 2018), as employees will return to work earlier if they feel that they have support from co-workers and managers, when there are high levels of morale in the workplace. Return to work rates are better in workplaces which use health and wellbeing programs (Cotton, 2006).

Economic effects of poor mental health in the workplace have been described as complex (Greden et al., 2019). Poor mental health is associated with a broad range of costs, which are shared between numerous parties such as employers, workers, families, government agencies and health services. These costs are also interconnected, that is, if the costs of the poor mental health burden are decreased for one group, then this will in turn affect other parties (Dewa et al., 2007). There are also multiple ongoing expenses for a single organisation until the claim is finalised in the form of regular wages, travel expenses to appointments, medical and rehabilitation expenses and in some cases accommodation and food costs. Psychologically injured employees can also claim for other benefits such as regular compensation payments following a lump sum payment (WorkCover WA, 2021).

4. CONCLUSIONS

There was strong agreement amongst the interviewees that poor mental health was likely to affect organisations negatively, as they bear the cost of replacing and training a new employee, as well as organising and retraining the injured employee who returns to alternative duties. Compensation costs, potential negative publicity resulting from a workplace accident or suicide are also damaging for both organisations and employees alike, although these outcomes can be difficult to gauge due to restricted access to official organisational records of financial losses that are caused by poor mental health and wellbeing and can only be garnered through listening to the experiences of individuals through in-depth conversations.

Potential recommendations are to make sure that employees are able to raise issues comfortably and without reproach. It must be ensured that any unacceptable behaviours towards female employees are addressed and handled in a sensitive manner and without reprisals to the employee. The poor company-provided facilities on some installations or vessels should also be addressed and improved. The use of shared accommodation, sometimes with up to four workers per room, and the practice of 'hot bedding' should cease. Another practice that should not continue is the sidestepping of casual conversion of employees that have fulfilled the criteria for converting to permanency.

Organisations should make every effort to provide adequate means of audio and visual communication with employees' families. Internet provision should be substantial enough that it is able to allow maximum usage, for example, at the end of a shift when a large number of workers may contact home. When the interviews had been completed, later feedback from P13 revealed that an upgrade in the satellite internet provider on his vessel had been a 'lifesaver' (P13) for employees' mental health.

Providing a good work-life balance would partially resolve the issue of poor mental health causes for offshore oil and gas workers. Provision of better exercise facilities, social activities and entertainment options would improve the quality of what little downtime workers have. Likewise, food options need to be varied and of good quality. These are all proactive rather than reactive measures which address the causes of poor mental health while working offshore for long periods.

All employees who attend counselling or psychological appointments through the Employee Assistance Program of their organisation should be assured that it is confidential and where confidentiality is breached there needs to be procedures for accountability. Considerations are needed for the suggestion by research participants of mandating the Mental Health 1st Aid course. Organisations are also encouraged to provide resilience-building guidance to offshore oil and gas employees.

From the results of this study, there are clear economic effects of psychosocial stressors which are part of the offshore oil and gas working environment. Future research might investigate these costs via a quantitative approach, although the lived experiences of workers which are garnered through qualitative research remain significant, particularly in relation to suicide.

DECLARATION OF CONFLICT OF INTERESTS

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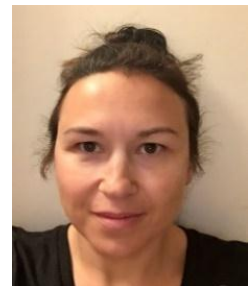
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