







# Offshore Personnel Mental Health and Wellbeing during Covid-19

A summary report of research in collaboration with the Mental Health Working Group: National Offshore Petroleum Safety and Environmental Agency (NOPSEMA), Offshore Alliance (Maritime Union Australia and Australian Workers Union), and the Australian Petroleum Production and Exploration Association (APPEA).

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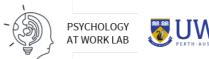






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# **Executive Summary**

This report outlines findings regarding the state of mental health and wellbeing, and workplace experiences of offshore workers during the Covid-19 pandemic. During the Covid-19 pandemic various state and federal government restrictions such as border closures and self-isolation protocols are being implemented. All of these restrictions may have implications for offshore worker mental health, given that these workers are highly mobile and often cross state borders between work and home. The findings in this report illustrate how the offshore workforce is coping overall, identify the potential impact of Covid-19 restrictions, and provide insights into the ways in which some of the mental health implications of the current situation can be addressed.

Responses were collected via survey to which 502 offshore workers responded in 2021. Findings regarding offshore worker mental health show most offshore workers are experiencing either a moderate to high level of psychological distress, and some (13%) report to experience very high or severe psychological distress, a level that suggests they require treatment. Overall, results show psychological distress is higher in offshore workers than the wider community. Offshore workers in 2021 had similar levels of psychological distress to FIFO workers surveyed in 2020. Social and emotional wellbeing were lower in offshore workers in 2021 compared to FIFO workers in 2020. Overall suicidal thoughts reported by offshore workers were low.

Next, workers also described Covid-19 specific stressors that have had an impact on their mental health and wellbeing. These stressors included difficulty travelling home and across state borders, loneliness and negative impacts on family and other relationships. Approximately half of workers report longer rosters as a result of Covid-19. The strain resulting from these stressors was specifically described to relate to the uncertainty of getting to work on time or to return home, or not knowing if a lockdown will happen while away. Participants described issues with access to social support and their personal network and noted a lack of support from their employer during Covid-19.

Participants further described ways in which their employers can be helpful in managing the impacts and challenges associated with Covid-19 and safety protocols. Helpful practices that were appreciated by offshore workers included reliable rosters, importance of family connection, social support, and humane management practices.

Beyond Covid-19 specific workplace aspects, various established work design factors were also considered. Doing so identified how the offshore work environment overall, including the workers family and social life, personal attributes, aspects of the job and the site and organisation, are affecting their mental health and wellbeing. Results indicated a number of threatening factors for









offshore worker mental health and wellbeing. These included loneliness on facility, perceived mental health stigma at work, and perceived work-family conflict as well as long and unpredictable rosters, poor internet and communication facilities. Factors that were protective of offshore worker mental health and wellbeing included perceived line manager support, job satisfaction, social support (from co-workers, friends and family), satisfaction with food quality, and autonomy during time off-shift. In addition, regular communication with home and perceived priority given to mental health and wellbeing were common factors reported by workers as beneficial for mental health and wellbeing.

Covid-19 has brought an unpredictability and uncertainty to management and workplaces that clearly has had an impact on offshore worker mental health and wellbeing. We recognise the specific challenges that Covid-19 poses specifically for the offshore industry. Importantly, however, the findings reported here provide clear guidance as to how the uncertainty and ambiguity could be managed with a view of better protecting offshore worker mental health and wellbeing.

An overarching theme in offshore workers' responses was a need for **relational repair** between employer and workers. There was evidence of a potential breach of the **psychological contract** between workers and their employers (i.e., unwritten mutual expectations of employer and employee), characterised by respect, compassion, objectivity, and trust. We propose the following five recommendations to support offshore worker mental health and wellbeing during Covid-19 and beyond:

- Recommendation One: Facilitate support from organisation, supervisors, and between colleagues
- Recommendation Two: Provide opportunities to connect with home, and be at home
- Recommendation Three: Consider workload, accommodation factors, and management of Covid-19 protocols
- Recommendation Four: Communicate decisions with transparency
- Recommendation Five: Engage workers in decision-making processes









### **Background**

The resource sector is a key contributor to Western Australia's economy--it is the main exporter of petroleum in Australia, and accounts for a significant amount of global petroleum production (Department of Jobs Tourism Science and Innovation, 2021). As of 2020/2021, Western Australia had 22 petroleum projects producing gas, condensate and crude oil from 55 onshore and offshore fields, with 13 processing plants for LNG exports and domestic gas supply (Department of Jobs Tourism Science and Innovation, 2021). The remote locations of these operations requires a number of employees to work in offshore roles on platforms or processing plants, with approximately 20,200 individuals across Australia employed in this industry as of August 2021 (Australian Bureau of Statistics, 2021). The nature of offshore work requires individuals to be away from home and family for repeated and extended periods of time. Previous research has found onshore roles--involving FIFO mine workers--pose similar demands, one-third of these workers suffered high or very high levels of psychological distress (Gilbert et al., 2020), and research identified adverse effects on these workers' families (Parker et al., 2018). The current Covid-19 pandemic has led to various state and federal government restrictions such as border closures and self-isolation protocols being implemented. All of which may have implications for offshore worker mental health, given that these workers are highly mobile and often cross state borders between work and home. Therefore, it is important to understand how the offshore workforce is coping overall, identify the potential impact of Covid-19 restrictions, and provide insights into the ways in which some of the mental health implications of the current situation can be addressed.

The Centre for Transformative Work Design (CTWD) at Curtin University and The Psychology at Work Lab (PaW) at The University of Western Australia, in collaboration with the National Offshore Petroleum Safety and Environmental Agency (NOPSEMA), the Australian Petroleum Production and Exploration Association (APPEA) and the Offshore Alliance (Maritime Union of Australia and Australian Workers Union) sought to investigate the state of mental health and wellbeing, and workplace experiences of offshore workers during the Covid-19 pandemic. This aim was achieved by answering the following three questions:

- Q1: What is the overall state of offshore worker mental health and wellbeing during Covid-19?
- **Q2**: How does the level of mental health and wellbeing of offshore personnel during Covid-19 compare to other groups, including FIFO workers, and the general Australian population?
- Q3: What are core aspects of the offshore workers' experiences on and offshore that may be critical in shaping their mental health and wellbeing during Covid-19?









These questions were answered using a survey tool collecting both quantitative and qualitative data between June and August 2021. Respondents answered questions about their mental health and wellbeing through evidence-based, validated, and reliable measures. They provided details regarding their roster, accommodation, travel arrangements and other work aspects in the context of Covid-19. This report summarises key findings from the data analysis and provides recommendations for regulatory bodies, unions, and operators.









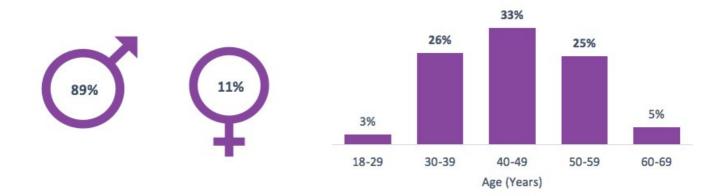
## **Study Details**

#### **Offshore Worker Participant Sample**

The sample included in the analysis consisted of 502 respondents. This final sample consists of respondents retained after cleaning data for careless responding and incomplete data (N.B: total number of engagements with the survey was n = 1029).

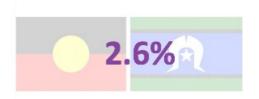
Figures 1 & 2 show demographic information of the final sample. Most respondents were male, middle-aged, and were in a domestic relationship. Moreover, half of the respondents indicated to have one to two children. Over two-thirds of the offshore workers who responded have been in the industry for less than 20 years, with the majority working either as an operator or technician/tradesperson. One-third of respondents had either an apprenticeship or tertiary and further education (TAFE) background as their highest level of education, and almost half of the respondents worked on a floating production site. Participants reported being employed across 63 different companies.

Figure 1. Demographic Information of the Sample.





**75%** are married/in a domestic partnership, and over **50%** have **1** to **2** children



identified as Aboriginal/Torres Strait Islander

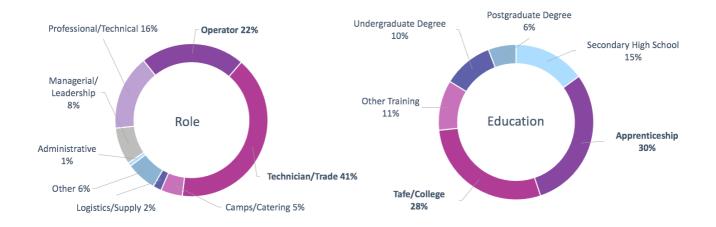


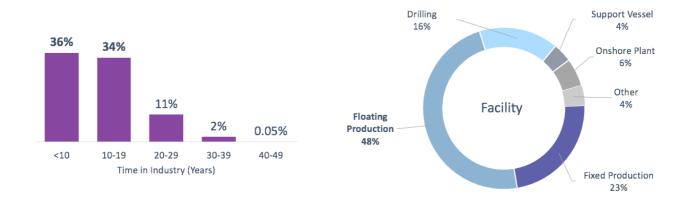






Figure 2: Employment Details and Educational Background of Respondents.





#### Measures

The measures included in the survey were selected to understand the current state of offshore worker mental health and wellbeing, and workplace factors affecting their mental health. Mental health is defined by the World Health Organisation as a state of wellbeing where the individual realises their own potential, can cope with the normal stresses of life, work productively, and is able to contribute to their community (World Health Organisation, 2014). This definition guided the selection of our measures examining mental health and wellbeing. Additionally, we also included questions relating to workplace factors, to investigate their relationship with mental health. The selection of these factors was guided by research on work design (e.g. Parker, 2014), and was assessed as important as considering aspects of the workplace in relation to mental health and wellbeing can help identify issues that can be addressed to improve mental health. We also









included other aspects related to the workers' personal life to generate a somewhat holistic overview of the issues that are affecting offshore workers' mental health and wellbeing. The measures used are list in Table 1.

Table 1: Survey Measures and Sources.

Construct	Measure	Source
Mental Health Ou	utcomes	
	Wellbeing (social, emotional, psychological)	(Lamers et al., 2011)
	Burnout	(Dollard & Bakker, 2010)
	Psychological Distress (K10 and K6)	(Furukawa et al., 2003; Kessler et al., 2002)
	Suicide thought	(Nock et al., 2007)
Workplace factor	s	
	Work-family Conflict	(Netemeyer et al., 1996)
	High Workload	Self-developed
	Feeling Dehumanised	(Bastian & Haslam, 2011)
	Mental Health Stigma	(Gould et al., 2010)
	Loneliness	Self-developed
	Continuance commitment (Feeling trapped in job)	(Meyer et al., 1993)
	Work Design (autonomy, task variety)	(Morgeson & Humphrey, 2006)
	Manageable Workload	Self-developed
	Support from Friends, Family, Significant Other	(Dahlem et al., 1991)
	Support from Manager	(Cousins et al., 2004)
	Support from Colleagues	(Cousins et al., 2004)
	Affective commitment (Pride in job)	(Meyer et al., 1993)
	Job satisfaction	Self-developed









#### **Qualitative open-ended questions**

Included in the survey were five open ended questions. This qualitative data provides contextual detail to the survey results. Questions asked included:

- What other details are important to know about the isolation protocols you undertake? (Responses received n=148)
- So that we can share examples of good practice in the industry, please describe any positive or helpful practices your employer has put in place to help improve your offshore experience during COVID-19. (Responses received n=216)
- What other impacts are you experiencing due to changes in your work arrangements?
   (Responses received n=254)
- What is a type of help or support that would benefit you right now? (Responses received n=220)
- What is one thing that you wish your employer would do that could improve your offshore experience during COVID-19? (Responses received n=343)

Responses to the open-ended questions were systematically coded using a directed content analysis to identify and summarise key themes of the content (Assarroudi et al., 2018).









#### **Results**

The following section explores results from both quantitative and qualitative analyses to answer the three questions posed above. First, Q1 is addressed by exploring the current state of mental health and wellbeing in offshore workers. Second, Q2 is addressed by comparing offshore worker mental health to the wider Australian population and other samples (i.e., FIFO worker samples). Finally, Q3 is addressed by exploring potential workplace factors impacting on worker mental health and wellbeing and the challenges and impacts offshore workers reported facing as a result of Covid-19. Specifically, the role of roster changes, change communication, accommodation arrangements, and other impacts noted by the respondents. Additionally, details are included regarding what helpful and other general actions employers have taken in response to Covid-19.

#### Offshore Worker Mental Health and Wellbeing During Covid-19

Assessing the state of offshore worker mental health and wellbeing provides insights that help clarify the need for action. To contextualize offshore worker mental health and wellbeing, it is useful to compare the state of their mental health with relevant data from the wider community and those in similar roles. Figures below show offshore worker psychological distress, wellbeing, and suicidal thought in comparison to:

- FIFO Sample (2020; *n*=362; Gilbert et al., 2020)
- Australian Population Norm during Covid-19 (2021; n=3286; Biddle et al., 2021; ANU poll)
- FIFO Sample (2018; *n*=3108; Parker et al., 2018)
- Benchmark Sample (2018; *n*=326; Parker et al., 2018)
- Australian Population Norm (2018; N=8841 Males; Australian Bureau of Statistics [ABS])

The results presented in the following section either demonstrate the percentage of individuals in a given category, or a comparison of mean scores using statistical analysis.





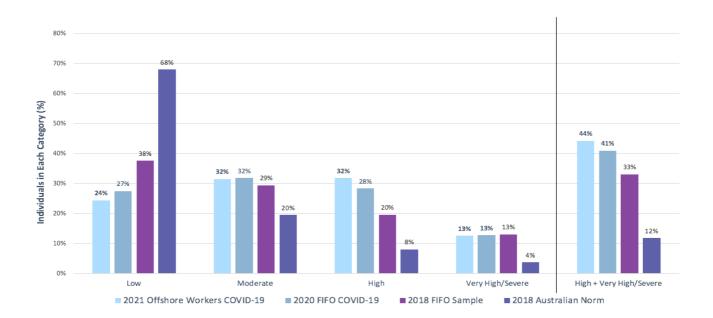




#### **Psychological Distress**

Figure 3 shows the percentage of offshore workers who provided a K10 score that represents either Low, Moderate, High, or Very High/Severe psychological distress (Kessler et al., 2002). High and Very High/Severe categories are combined as these indicate the level of psychological distress that is recommended for intervention and additional support. These are presented alongside previous FIFO worker and Australian population norms using data from the ABS.

Figure 3. Psychological Distress in Offshore Workers and Other Groups



Findings show the majority of offshore workers are experiencing either a Moderate to High level of general psychological distress. Additionally, 13% of offshore workers surveyed in 2021 report Very High/Severe psychological distress, suggesting they may be experiencing depression and/or anxiety. When comparing the offshore workers to other groups, we notice the following:

- Offshore workers demonstrated higher levels of psychological distress when compared to general population norms--these differences were statistically significant.
- Offshore workers scored similarly to the 2020 FIFO sample on the K10, suggesting similar levels of psychological distress between FIFO workers and offshore workers during Covid-19
- Offshore and FIFO workers were spread more evenly across the K10 categories, whereas
  the population norm shows most are likely to experience low psychological distress,
  with fewer in higher distress categories.









Due to the occurrence of Covid-19 and its potentially negative effects on mental health in community comparison groups, it was assessed to be appropriate to compare our offshore worker data to individuals in the community living with Covid-19. Figure 4 presents the percentage of individuals who are likely to be experiencing a serious mental illness using the K6 (Kessler et al., 2003). This measure is an abbreviated version of the K10, which provides a dichotomous 'probable' and 'not probable' screen for serious mental illness. The figure shows the percentage of people in each sample (general Australian population through ANU Poll, and offshore workers) who fall into the probable serious mental ill health category.

Figure 4. 'Probable' Number of Individuals Experiencing a Serious Mental Illness.



First, when compared to 2017, the number of individuals in the community in 2021 (comparing ANU data from 2017 and 2021) possibly experiencing a serious mental illness has increased (Biddle & Gray, 2021). Second, for 2021 offshore workers were slightly more likely to give responses indicating serious mental illness than the general population, with a difference of 3%.

Overall, results show psychological distress is higher in offshore workers than individuals in the general population. Offshore workers and FIFO workers surveyed during Covid-19 reported similar levels of psychological distress. Importantly, the results showed many offshore workers are at a level of psychological distress that indicates that mental health intervention is required (Australian Bureau of Statistics, 2012; Kessler et al., 2004).

#### Wellbeing

Mental health is more than the absence of mental-ill health such as depression or anxiety, it also includes positive experiences related to wellbeing, such as satisfaction and wellness (World Health







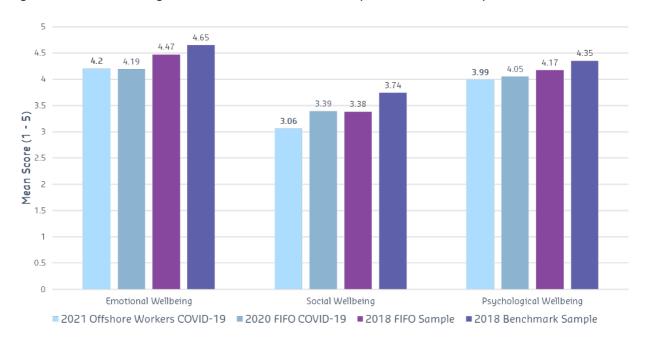


Organisation, 2014). Wellbeing has been characterised via multiple dimensions, including emotional, social, and psychological (Lamers et al., 2011) and are defined as follows:

- **Emotional**: happiness, life satisfaction
- **Psychological**: how people feel about themselves, what opportunities there are to grow, and to express themselves and their ideas.
- Social: feelings of social acceptance, integration, coherence with others, trust in a good society

Wellbeing scores for the offshore sample and comparison groups across the dimensions mentioned above are shown in Figure 5.

Figure 5. Mean Wellbeing Scores in Offshore Workers Compared to Other Groups.



When comparing offshore workers to previous FIFO worker samples and the 2018 benchmark sample, we find the following:

- Social wellbeing was significantly lower in offshore workers compared to both FIFO workers in 2018 (pre-Covid) and 2020, as well as the 2018 benchmark sample.
- Emotional wellbeing was significantly lower in offshore workers compared to the 2018 FIFO and benchmark sample.
- There were no differences between offshore workers and all other comparison groups for psychological wellbeing.

These findings highlight offshore workers have lower social wellbeing when compared to FIFO worker samples in 2020, 2018, and those in the benchmark sample. Moreover, lower emotional







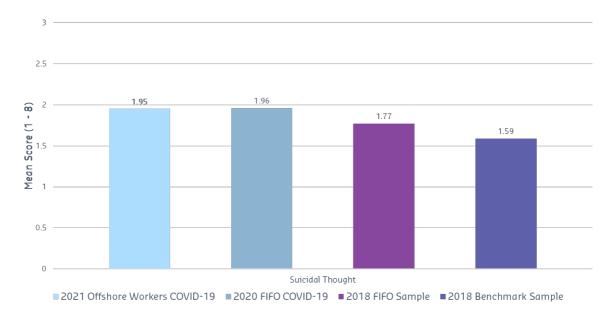


wellbeing may suggest overall lower life satisfaction and happiness in offshore workers compared to FIFO workers during Covid-19, while psychological wellbeing was similar across the samples.

#### Suicidal Thought

Overall suicidal thoughts reported by offshore workers were low. Figure 6 shows the mean scores for suicide thoughts.

Figure 6. Mean Suicide Thought Scores in Offshore Workers Compared to Other Groups.



When comparing offshore workers' suicidal thought to comparison samples, no difference between offshore workers and the 2020 FIFO Covid-19 sample was found. However, there was a significant difference between offshore workers and the 2018 FIFO and benchmark sample, indicating there has been a rise in suicide thought during Covid-19.









#### Qualitative Findings: Challenges and Impacts during Covid-19 in Offshore Work

Offshore workers described the challenges of being away from family and feeling a sense of loneliness, stress navigating protocols, and mental health impacts for themselves, family members, and workmates. From their responses, it is clear that Covid-19 has had far reaching impacts on offshore workers, both at work and at home, with added anxiety and uncertainty regarding travel and job security.

The stress experienced by workers was specifically described in relation to the uncertainty of getting to work on time or to return home, or not knowing if lockdown will happen while away. Participants described issues with access to social support, and specifically noted a lack of support from their employer and limited access to their personal network during Covid-19. Participants noted that it was a challenge to get support, with a sense of working offshore during the pandemic as being a one-way street. Responses reflected perceptions from workers themselves putting in time, effort, and energy and their employers offering little support in return.

Notably responses also reflected distinct mistrust and suspicion expressed by participants regarding some of the Covid-19 protocols and decisions by their employers.

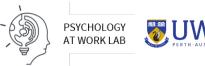






Table 2. Qualitative Responses Highlighting Challenges and Impacts of Covid-19

Theme	Content	Exemplar Quotes
Separation from family	<ul> <li>Separation from family and support network</li> </ul>	I have been in temporary accommodation each rostered time off for 14 months, and only been back to home once in that time.
	<ul> <li>Long periods away from home</li> <li>Loneliness, social isolation</li> <li>Hard decision to continue</li> </ul>	My wife really struggles with the longer rosters and is now suffering from anxiety and depression resulting in nearly having to leave the industry. 2 and 2 was easy. The extra week really affects families.
		Disconnected from my family especially when we went to 4 weeks on 4 weeks off. The 4 weeks on the platform was extremely difficult.
	working, sacrifice relationships for employment	Due to WA border closures, last year I did 9 months before going home to the family. Company said if you go home you don't have a job.
		Self Isolation, going to work, and coming from work, is immensely challenging. We will see this impact for years to come to the individual and to families (separation, divorce, absence from children)
<ul> <li>Mental health struggles</li> <li>Enduring uncertainty and stress</li> <li>Sense of isolation and disconnection prompting mental health struggles</li> <li>Mental and physical exhaustion</li> </ul>	Difficulty with mental health issues due to border restrictions and quarantine. Being away from my family for far longer and being isolated is not humane.	
	disconnection prompting mental health struggles  • Mental and physical	Seeing work colleagues especially from Interstate experiencing a lot of mental health issues (anxiety, depression and even suicidal ideation) due to the ongoing isolation, work and financial issues thrust upon them during the crisis.
		Return home protocols vary greatly dependant on State border status. When I go to work I am never sure if I can go home. When I go home I am never sure if I can go back to work.
		Only applies when entering WA, it is mentally challenging and the build up over time of this has caused me to suffer from anxiety. I have done a total of 3 months in isolation since Covid has started.
Lack of support	<ul> <li>Sense of being let down in a</li> </ul>	Disappointed in the company support. This has both been in a mental and financial aspect.
	<ul><li>time of need</li><li>Struggle to get appropriate support</li></ul>	Nothing positive out here, it's been a constant battle to get living standards to an acceptable level during Covid. HSR's Having to hold the company to account.









Theme	Content	Exemplar Quotes
	Burden to 'push' for the needed support	Because of the inability of interstate personnel to travel to WA it has placed me under more pressure at work - inexperienced personnel, higher workloads etc.
	<ul> <li>Separated from social support networks</li> <li>Increased pressure at work due to staffing changes</li> </ul>	When we went in full lockdown last year I got laid off with no warning and just an email and a link to be able to apply for the dole. Still at the back of my mind.
Distrust of integrity regarding COVID-	<ul> <li>Sense of organisational decisions being unfair and opportunistic</li> </ul>	The company is using COVID-19 as an excuse to make changes to benefit the company at the expense of its employees. Employees have no voice to raise concerns about safety or wellbeing issues without being prosecuted.
19 protocols	<ul> <li>Hidden agenda veiled by Covid-19 protocols</li> </ul>	Not use it as a tool to 'trojan horse' financial decisions as "things that covid made them do"
		Hard to think of anything, though they have (and continue) to provide counselling support services, though not much point if company actions are a key cause of the mental health issues.
		Working more and earning less due to constant company changes in policy (who pays for isolation etc), having to book emergency flights to make it across the border in time.









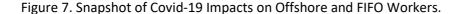
#### Workplace Factors and Offshore Worker Mental Health During Covid -19

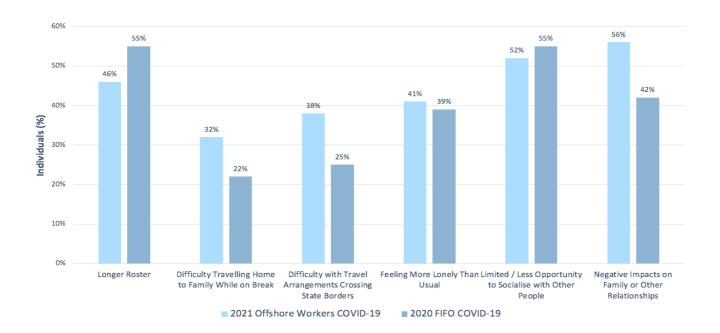
Our findings show higher levels of psychological distress and lower levels of wellbeing within offshore workers in 2021 compared to both prior FIFO studies and Australian norm samples from 2018 (pre-Covid). These findings illustrate the impact of Covid-19 on offshore workers. Developing informed decisions around changes to offshore work is necessary to address the mental health implications of Covid-19 for workers. Therefore, it is important to investigate core aspects of offshore workers' experiences both on- and off-shore, which may be impacting their mental health and wellbeing.

#### **Quantitative Findings**

#### **Covid-19 Impact Snapshot**

Covid-19 necessitated many changes to offshore work. Figure 7 shows the percentage of respondents from the offshore worker sample and the 2020 FIFO sample reporting various impacts Covid-19 had on workers.





Clear implications of Covid-19 for offshore workers reported were difficulty travelling home and across state borders, loneliness, and negative impacts on family and other relationships.

Approximately half of both samples report longer rosters and less opportunity to socialise as a result of Covid-19.









#### **Impact on Rosters**

As noted, changes in rosters were reported by 50% of offshore workers. These changes were predominantly reported to result in longer rosters, a key workplace factor that has been found to influence worker wellbeing in similar contexts (Parker et al., 2018). Figure 8 shows further information about the changes in rosters that offshore workers experienced during Covid-19.

Figure 8. Covid-19 Impacts on Offshore Worker Rosters.



...54 different rosters were reported...



...most common rosters reported (days).

14 on / 14 off	21 on / 21 off	28 on / 28 off
21 on / 28 off	28 on / 56 off	21 on / 28 off / 21 on / 35 off

Moreover, there were 54 different rosters reported by respondents, including the six most common rosters shown above.

To investigate the impact of rosters on mental health and wellbeing, Figures 9 & 10 show the results of comparisons of K10 and wellbeing scores between individuals who were on the common rosters listed above. For both the K10 and the wellbeing scores, mean scores were used in the analysis.

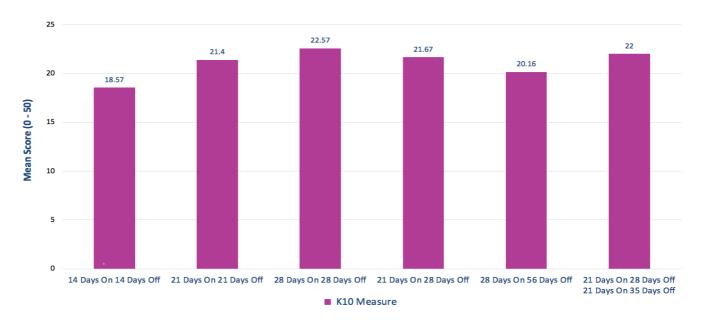








Figure 9. Psychological Distress Compared Between Common Rosters.



Comparison of psychological distress across the most common rosters showed no statistically significant differences. Overall, we judge the rosters included to be of good quality, as they are commonly even in time on and off the facility, or require workers to spend less time at work than at home. Previous research has found rosters of similar design in similar working contexts to be beneficial for mental health (Parker et al., 2018).

Next, the wellbeing scores were compared across the rosters (see Figure 10).

Figure 10. Wellbeing Compared Across Different Rosters.











Comparison of the wellbeing scores indicated offshore workers on the 21 on / 28 off roster had significantly lower scores across all three wellbeing dimensions compared to other rosters. Table 3 below highlights the specific rosters for which such differences were found for each wellbeing dimension.

Table 3. Wellbeing Scores for Rosters Significantly Different to 21 / 28 Roster.

Wellbeing Dimension	Roster compared to 21/28 Roster (Days On / Days Off)
Emotional Wellbeing	14 / 14 21 / 21
Psychological Wellbeing	14 / 14 21 / 21 28/28 28/56
Social Wellbeing	28 / 28

Compared to the respective rosters in Table 3, those on a 21 / 28 roster report experiencing fewer positive thoughts relating to overall happiness and life satisfaction (emotional wellbeing), themselves and their personal growth (psychological wellbeing), and social acceptance and integration (social wellbeing). Further analyses were conducted to examine the possible negative implications of the 21/28 roster compared to the other rosters. We found individuals on this roster reported a greater variation in self-isolation protocols compared to those on other rosters, which might explain the differences in wellbeing reported by those employed on a 21/28 roster. However, while variation in self-isolation protocols may explain lower wellbeing scores for this roster, we could not identify a definitive pattern that would explain this difference.

#### **Covid 19 and other Offshore Workplace Factors**

Other workplace factors that are relevant in the context of roster changes and Covid-19 were also considered. These factors include consultation on roster changes and changes to staffing levels. Figure 11 provides an overview of the extent to which workers were consulted on roster changes and staffing levels were reported to have changed due to Covid-19 (note that not all respondents answered these questions as not all respondents reported a roster change or change to their work, as such the number of those who did are presented in the figure).

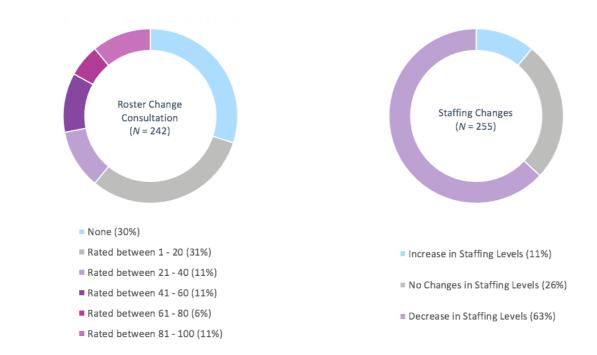








Figure 11. Workplace Changes Due to Covid-19.



First, respondents were asked to rate the extent to which they were consulted regarding roster changes in the context of Covid-19 (0 = Not at all - 100 = A Lot). Of note, 60% of those who experienced a roster change reported little to no consultation about this change from their employer. This absence of change consultation is concerning given that poor change communication in itself contributes to employee anxiety and uncertainty (McHugh, 1997). Moreover, Safe Work Australia (2019) identifies poor communication with workers related to workplace changes may increase stress, leading to psychological injury. The lack of consultation and communication around changes represents a missed opportunity to protect worker mental health in the context of the changes that Covid-19 necessitated in the offshore industry.

Second, over 60% of respondents reported fewer workers to be present on offshore facilities during Covid-19 than before the pandemic. The reduced number of workers may have indirectly affected work-related pressure and overall workload. These factors have been suggested to negatively impact employees (Bakker & Demerouti, 2007). This suggestion aligns with the analysis of qualitative responses which shows a large number of respondents mentioned a reduction in staff numbers, along with longer working hours/swings, and an overall increase in work-related pressure and workload.





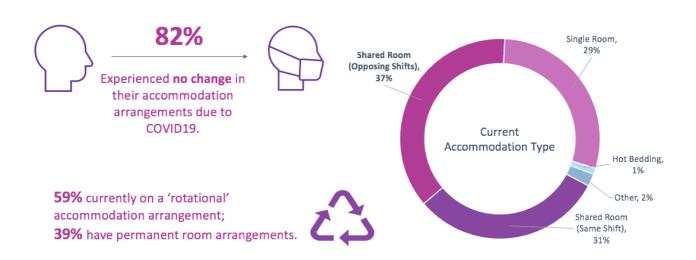




#### Impact of Covid-19 on Accommodation

Another key factor potentially impacted by Covid-19 is accommodation arrangements for workers on offshore facilities. Figure 12 shows the types of accommodation arrangement for offshore workers during Covid-19 and the extent to which they have changed due to Covid-19.

Figure 12. Current Offshore Worker Accommodation Arrangements.



The majority of respondents experienced no change to their on-facility accommodation arrangements due to Covid-19. Moreover, 59% reported to be on a 'rotational' arrangement (i.e., workers are in different rooms for each roster cycle). The majority of respondents also reported being in a 'shared room' arrangement, the opposite individual either working the same or opposite shift.

Accordingly, it appears that Covid-19 has had little impact on accommodation arrangements for offshore workers on the facilities where they work. However, the responses highlight a potential risk factor for mental-ill health and wellbeing, as 61% of the offshore workers reported being in a different room for each roster cycle. Previous research involving FIFO workers suggests same accommodation (e.g., permanent room) over roster cycles is linked to better mental health outcomes (Parker et al., 2018). This is recognized as best practice to minimise psychosocial risk for resource sector employees (Commission for Occupational Safety and Health, 2019).

#### Other Key Factors During Covid-19 and their Impact on Mental Health and Wellbeing

The experience of offshore workers during Covid-19 is multifaceted, and therefore requires a multifaceted investigation. In addition to rosters, communication of organisational changes, and accommodation arrangements, further workplace factors that may be important for offshore



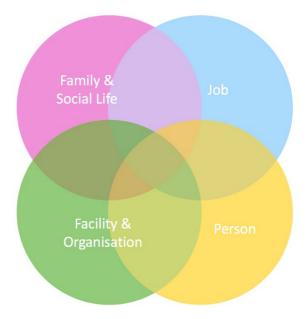






workers mental health and wellbeing were captured. These are displayed in the following Figure 13. To investigate the connection of the various factors within family and social life, job, facility and organisation and the offshore worker's personal attributes with mental health and wellbeing statistical analyses were used to identify possible links.

Figure 13. Integration of Multiple Areas Influencing Mental Health and Wellbeing.



Figures 14 & 15 highlight the results for these links with a focus on *threatening* and *protective* factors for mental health and wellbeing. Threatening factors show factors that were associated with worse mental health or wellbeing, whereas protective factors were those that were linked with better mental health and wellbeing outcomes. The larger the text, the stronger the association that a factor has with mental health outcomes. Italicized text represents factors commonly reported by respondents in the qualitative responses.









Figure 14. Threatening Factors Associated with Worse Mental Health and Wellbeing in Offshore workers

Loneliness on

facility

Low support from friends, family, significant other

Long and unpredictable rosters

Unmanageable Lowworkload

Low

Loneliness at home

Family & Social Life

Job

Low supervisor and coworker support Roster dissatisfaction Dissatisfaction with job

Perceived workfamily conflict

Threatening Factors

Job insecurity Being a contractor

Separation from family

Poor internet and communication facilities

Facility & Organisation

Person

Perceived dehumanisation at work

Perceived stigma at work

Continuance commitment to offshore work (i.e. golden handcuffs)

Results regarding threatening factors indicated that loneliness on facility, perceived stigma at work, and perceived work-family conflict were strongly associated with mental-ill health related outcomes. Further, long and unpredictable rosters, poor internet and communication facilities, and separation from family were factors most commonly reported as emphasized in the qualitative responses.

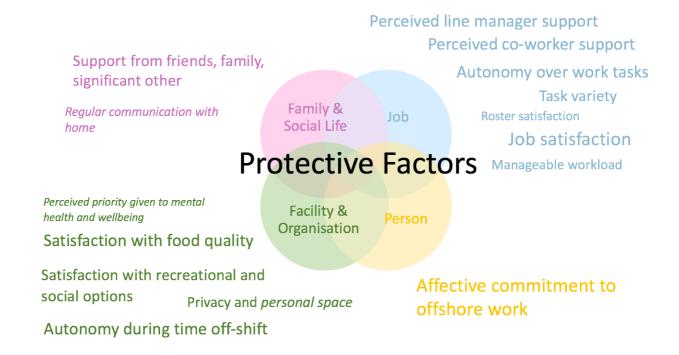








Figure 15. Protective Factors Associated with Worse Mental Health and Wellbeing in Offshore workers



Key protective factors of mental health and wellbeing were perceived line manager support, job satisfaction, satisfaction with food quality, and autonomy during time off-shift. In addition, regular communication with home and perceived priority given to mental health and wellbeing were common factors reported by workers in the qualitative responses that were described as beneficial for mental health and wellbeing.

#### Helpful Actions Taken by Employers during Covid-19 to Support Workers

Participants described support provided by their employer that was helpful in managing the impacts and challenges associated with Covid-19 and safety protocols in the open ended questions. These responses illustrate helpful practices that were appreciated by offshore workers. These supports pertained to the rosters, recognising the importance of family connection, social support, and humane management practices.

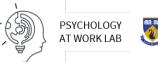








Table 4: Qualitative Response Highlighting Helpful Actions Taken by Employers.

Theme	Content	Quotes
Preferred rosters	<ul> <li>Accounting for self-isolation in roster</li> </ul>	Extending our roster from 3on ,3off, 3on, 6off to 4on, 8off to allow for quarantine if required with no loss of pay. Also offered temporary and permanent relocation packages for interstate workers.
	<ul> <li>Flexibility with travel arrangements to support mental health</li> </ul>	The introduction of the MOU covering 4 weeks on/8 weeks of with Quarantine done in our 8 weeks off. That being 6 on 6 off in the event of quarantine. They have also flown us to states or territories with open borders to WA for 2 weeks instead of directly to WA and self isolation. This allows us social freedoms in those states and lessening the mental health impacts of self isolation away from family.
Acknowledging importance of	Supporting communication     with family	Thank you phone call and dinner paid for my partner & myself following an unplanned extended hitch.
family relationships	<ul><li>with family</li><li>Acknowledging impacts on</li></ul>	Time to call family anytime needed
,	families at home	Care packages and baskets sent to families
Responsive and supportive management	<ul><li>Genuine concern for workers</li><li>Humane management</li><li>Treating workers as</li></ul>	My line Managers at [company] have a genuine interest in making our work campaigns/scopes smooth and to set us up for success. Usually a phone call with issues/or requests specific to the project are sorted out well and in a timely manner.
J	individuals	My employer has been very generous in financial terms, they have treated people as individuals and accommodated for their individual needs.
		Work was reduced to production only during our long covid swings meaning we had days off while offshore and sleep ins.
		Open discussion with workgroup regarding roster changes and other challenges faced during that time.
		Manage workloads to minimise unnecessary tasks and associated stress.
Management of COVID protocols and facilities	<ul> <li>Transparency and consistency of protocols</li> <li>Attending to social needs</li> <li>Ensure worker safety</li> </ul>	Consistent improvements in isolation area offshore, with new equipment provided to improve living conditions. After 6 months of negotiations, company have agreed that 2 weeks of isolation after every swing (due to be specific nature of my work) will not be included in our leave period. New roster, with better leave periods, and additional staff has been implemented.









Theme	Content	Quotes
	Balance of restrictions and freedoms	Covid test everyone before joining. Action plan in place if a suspected covid individual could be onboard. Ensuring info from APPEA is available immediately.
		They paid for all accommodation, food and paid a daily allowance.
		[Company] have been exceptional during my Isolation periods. Providing a very pleasant Apartment and meals provided at their expense and a delicious basket of food the second day of isolation and paying \$200 per day. I've never had it so good. Ensure that we remain free of Covid by having strict rules to maintain our Health. Constant communication from my Manager to ensure I was OK.
Access to health	Companies promoting better	On site medic. Yoga, mindfulness exercises. Access to a doctor.
and wellbeing	access to services and	Social interaction and activities. Wellness programs and engagement. Counsellors and psychologist.
professionals	supports was appreciated	More frequent visits from the Employee Assistance Provider representative.
		Regular visits by a psychologist who is a very nice lady and always available to those who need to talk.
Consultation and	Regular updates	Open discussion with workgroup regarding roster changes and other challenges faced during that time.
communication	<ul><li>Openness about decision making and reasoning</li><li>Workers' input sought after</li></ul>	Plenty of communication and updates about how they are handling Covid-19 issues.
		Open and constructive dialogue with employees through their respective unions. This has seen both parties confident to operate through covid and both happy with the arrangements.
		Increased the awareness of mental health problems.
Social support	<ul> <li>Sense of mateship and 'being</li> </ul>	Everyone out here goes through the same problems and feelings so we are all here for each other.
•	<ul><li>in this together'</li><li>Social activities to decompress and unwind</li></ul>	Organisation of quiz nights and things to get co-workers together after work.









#### **Future Employer Actions suggested by Offshore Workers**

Workers described a range of ideas for 'quick wins' that would benefit mental health and wellbeing in the short term:

- Increase food quality
- Roster preferences to be considered in rostering practices (many suggested 21 days on and off)
- Boost quality of internet/communication facilities
- Limit room sharing
- Personal space/limit crowding (essential staff only)
- Recreation and leisure options to decompress after shift (with social element)

As longer-term improvements, qualitative responses indicated that offshore workers are looking for relational repair between employer and workers as an overarching theme. In the qualitative responses, there was evidence of a potential breach or damage to the psychological contract between workers and their employers. A psychological contract is the relationship between an employee and an employer where there are unwritten mutual expectations for each party. It is characterised through qualities like respect, compassion, objectivity, and trust, and is based on the fulfillment and follow through of promises and assurances (Rousseau, 1998). Further detail is provided in Table 5 for key themes identified in workers responses, which illustrate how such a relationship repair could be undertaken.

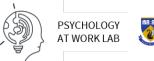








Table 5. Qualitative Responses Highlighting Future Suggested Actions for Employers

Theme	Content	Exemplar Quotes
Need for relational repair	Genuine support from company	Stop treating us as if we are expendable. Compensate us for our time spent either in quarantine or anytime away from our homes door to door.
	<ul> <li>Workers seek to feel valued, respected, and heard</li> </ul>	Listen and act on employees concerns and troubles. All we have received are directives as to what we are to do. Interstate employees have been isolated from families for nearly 12 months now as they were directed to relocate to Perth with or without their families.
	<ul> <li>Opportunity for</li> </ul>	More support, assistance for families instead of just giving a phone number to sort it out yourself.
	employers and companies to repair trust, demonstrate	Show some compassion about the length of time interstate personnel spend away from their family, rather than threaten them with disciplinary action.
	empathy, and	Treat contractors with the same respect as company employees, as well as receive the same benefits financially
	compassion	Have respect for the workforce.
	<ul> <li>Workers seek humane practices</li> </ul>	Treat all as humans and not machines.
	and management styles	There is a severe disconnect between our office people and our offshore workers, a basic understanding of the sacrifices we make would go a long way, we are away from our families for a month at a time or more, working 13 hour days 7 days a week. the attitude of we get paid too much is ridiculous, they cannot compare an 8 hour day in town with a 12 hour day plus pretour and safety meeting.
		Listen to the crew and be flexible and willing to change for the benefit and mental health of the crew.
Open, honest, transparent:	<ul> <li>Open and honest communication</li> </ul>	Be more transparent with information it had in relation to what it intended to do with our rosters after it had passed.
Reciprocal	<ul> <li>Regular updates</li> <li>Reciprocal lines of communication with</li> </ul>	Better communication and listening to the crew.
communication		Better communications around travel, payment for impacted flights/rosters
	workers voices heard	Be more honest on their plans to reduce time away from family and get back to our contract conditions.
	and listened to	Ask for feedback and listen to their employees, not just pretend to ask or "consult" with their employees.
	<ul> <li>Demonstrate value of workers by</li> </ul>	Be open and honest









Theme	Content	Exemplar Quotes
	including them in	Transparency when it comes to possible changes that may affect our future on the facility.
	<ul><li>decision making processes</li><li>Transparency in decision making and organisational changes</li></ul>	More communication with the work group and more mental health meetings with the offshore crew.
Reliable and balanced roster	<ul> <li>Provide rosters that fulfill workers needs to be at home</li> </ul>	21 day on 21 day off roster would help out a lot, people not being away from home and their loved ones for such a long period of time. would help a lot with mental health, morale and fatigue management but especially mental health.
	<ul> <li>The 3 weeks on, 3 weeks off roster was commonly described</li> </ul>	Return to direct flights from [City] to facility same day. Overnighting in [regional town] as a "fatigue management" basis is incorrect for the majority of personnel as it takes away a day of RnR and offers no fatigue management.
	<ul><li>as the preferred</li><li>Provide sense of</li></ul>	Make our roster shorter to 3 on 3 off instead of 4 on 4 off, its affecting my mental health being away for so long.
	security for workers through rosters	Include half the quarantine time in my roster.
	being reliable (consistent, on time,	Increase certainty of rosters and limit last minute changes. also improve facilities onboard for recreation such as gyms etc.
	regular flights)	Reliable rosters, we never feel secure here.
		Change our roster to 3 weeks on 3 weeks off. COVID has really proven that FIFO and working away is a serious physical and mental health issue and longer rosters/shift hours and being away from family/friends are not a sustainable future plan or way of operating.
		We need to go to 3 on 3 off roster instead of 4 on 4 off. 4 weeks away is taking a mental toll on too many people. the 4th week is torture.
		Better flight times so more time is spent at home instead of enroute.









Theme	Content	Exemplar Quotes
Resources and environment	<ul> <li>Increased access to quality internet to support communication with family back home</li> <li>Limit crowding on platform</li> <li>Provide options for entertainment and leisure activities</li> <li>Limit room sharing where practicable</li> <li>Provide leave options so workers who are unwell do not come to work</li> </ul>	Better Internet and TV reception while offshore.  Cut back the POB until we get through this Covid pandemic. It's bad enough living through Covid, but being packed into this small contained environment with no room to swing a cat does nothing for anybody's mental health or well being.  Have wifi so we can face time our wife and children, shorter roster (3 on 3 off) 4 weeks away is too long.  Having your own room, so that if you require to have a sleep in for fatigue management you don't have to move rooms.  No room share.  Having a place to unwind as a group after a swing.  Better communication with home, with the downturn in the industry and money tight. For the last 3 weeks the only time I have spoken with my wife, was the time briefly in port on my own phone. I spend hours waiting for a decent internet connection to receive emails let alone a phone call.  Sick leave for casuals, so they don't have financial pressure to come to work and infect the whole facility.
Food quality	<ul> <li>Fresh, quality food with healthy options</li> </ul>	Make the food better  Make the catering budget worth getting out of bed for!  During covid the food budget increased and quality improved. We also had additional time added to the plan to ensure we had rest breaks and social activities. These have all since been removed. Food quality is the biggest downer.









#### **Conclusion and Recommendations**

#### Conclusion

Covid-19 has changed our lives to a significant degree and has had wide reaching impacts for offshore workers and the industry more broadly. The results reported in this document illustrate that during Covid-19, offshore workers were found to have high levels of psychological distress and are experiencing a social disconnection from support networks and family. Attention is needed to address mental health as well as loneliness and social connection. Further a key theme emerged of a need for relational repair between workers and employers. Decisions regarding the management of Covid-19 protocols and ensuring safety of workers were necessary. However the findings from this research suggest that some of the decisions that have been made and the way they have ben communicated have resulted in damage to the psychological contract. As Covid-19 is an evolving situation, managing the emerging issues in a way that protects worker mental health and wellbeing is important.

#### Recommendations

The identified issues regarding mental health and wellbeing in workers, together with a pattern of reduced staffing and longer rosters and other tendencies towards worse work design during Covid-19 identified suggest there is a need for action. In particular a key message from the qualitative findings was a need for **relational repair**. Workers described suspicion, as well as breaches of trust, that were characterising tension between workers and their employers. The responses from workers reflected potential damage to the **psychological contract** between workers and employer, which is an important factor to maintain to support workers, organisational commitment, limit turnover, and support mental health, physical safety, and productivity (Newaz et al., 2019; Rousseau et al., 2018; Solinger et al., 2016).

Workers reflected they are looking for relational repair through these measures:

- Engagement (doing 'with', rather than 'to')
- Open communication, including facilitated avenues for feedback that is genuinely 'listened to'
- Workers are looking for 'compassion', 'understanding', and 'empathy' from employers during a difficult time (Covid-19)
- Workers are looking to feel valued, respected, and shown that they make a meaningful contribution to the team and in their work









For a summary of strategies for mending relationships post a psychological contract breach, see Kähkönen et al. (2021) and Guest and Conway (2002) in the reference list at the end of this report.

Further to addressing the relational repair directly the below recommendations outline further actions, based on the quantitative and qualitative results:

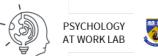
Results indicated support was a key protective factor for offshore worker mental health and wellbeing. Social support from friends and family, as well as from co-workers and particularly from leadership is important for supporting wellbeing and buffering stress (Cohen & Hoberman, 1983; Handley et al., 2012). Employers may promote social opportunities for offshore workers to engage with each other on the facility, providing leisure activities with a social element. Leaders need to be made aware of the need for social support and practice to communicate openly with their team members to facilitate support.

#### Recommendation Two: Provide opportunities to connect with home, and be at home

Results indicated that loneliness and social isolation were threatening factors to mental health and wellbeing. With fewer opportunities to be at home, being away for longer, and in some instances having no possibility of getting home due to border closures, workers reported a sense of struggle, stress, and uncertainty with this situation. One way to address the issues around connection with home is to offer preferred rosters to workers (21 days on and 21 days off in many cases) and to consider options with isolation protocols in the arrangements that are made. Further, poor internet and phone connections can also be addressed in order to help workers feel better connected with home, enabling daily communication with their families.

# Recommendation Three: Consider workload, accommodation factors, and management of Covid-19 protocols

Results indicated the management of workload and how specific Covid-19 protocols such as self-isolation, interstate travel (considering border restrictions), rosters and flight availabilities, have had an impact on offshore worker mental health and wellbeing. In addition, workers described difficulties with some accommodation factors with lack of space, poor quality food, and lack of informal leisure and social options to occupy time after shift while on the facility. It is recommended that employers engage with workers to assess workload, and how Covid-19 protocols will be implemented in order to ensure consistency and practicality (e.g., social distancing in dining areas vs transports), and manage their impacts on workers. Accommodation factors such as food quality, and social leisure options, can be made available by employers. Workers may also benefit from having ownership and responsibility for organising social activities (e.g., quiz nights or similar).









#### **Recommendation Four: Communicate decisions with transparency**

When any decisions are made in a workplace, the workers' overall experiences and evaluation of the decision and its consequences is driven by the actual change it initiates and the process with which that change is communicated. The results identified lack of clear communication as an issue that affects offshore workers. The wider loss of trust and suspicion that was reflected in the workers' responses further shows such issues as some of the consequences of lack of transparency in communication of the changes. Better communication about decisions and transparency in such communication will be critical for employers to address these issues. This can be achieved by clearly conveying what has been decided, and also spelling out the rationale for particular decisions.

#### Recommendation Five: Engage workers in decision-making processes

Somewhat related to Recommendation 4, we put forward a specific recommendation about worker engagement in the decision-making process around changes and their work more broadly. Many offshore workers reported to not have been consulted on changes. Lack of worker involvement and engagement in decision-making processed can result in organisations missing out on useful and important information, and can lead to workers being disengaged, feeling undervalued and not respected (Morrison, 2014; Tangirala & Ramanujam, 2012). We highlight this issue as the results suggest it to be critical to the current situation in the offshore work context. Importantly, engaging workers in the decision-making process requires good communication, but goes beyond it. It means consulting workers by actively soliciting their input and feedback on solutions and ways forward, sharing with them why particular decisions are being made, and for what purposes or goals. It also requires transparency in the processes that are being followed.









#### References

- Assarroudi, A., Heshmati Nabavi, F., Armat, M. R., Ebadi, A., & Vaismoradi, M. (2018). Directed qualitative content analysis: The description and elaboration of its underpinning methods and data analysis process. *Journal of Research in Nursing*, 23(1), 42-55. https://doi.org/10.1177/1744987117741667
- Australian Bureau of Statistics. (2012). 4817.0.55.001 Information Paper: Use of the Kessler Psychological Distress Scale in ABS Health Surveys, Australia, 2007–08. http://www.abs.gov.au/ausstats/abs@.nsf/lookup/4817.0.55.001Chapter92007-08
- Australian Bureau of Statistics. (2021). *Table 06. Employed persons by industry sub-division of main job (ANZSIC) and sex.* .

  <a href="https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release#industry-occupation-and-sector">https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release#industry-occupation-and-sector</a>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328. <a href="https://doi.org/10.1108/02683940710733115">https://doi.org/10.1108/02683940710733115</a>
- Bastian, B., & Haslam, N. (2011). Experiencing Dehumanization: Cognitive and Emotional Effects of Everyday Dehumanization. *Basic and Applied Social Psychology, 33*(4), 295-303. https://doi.org/10.1080/01973533.2011.614132
- Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, *13*(2), 99-125. https://doi.org/10.1111/j.1559-1816.1983.tb02325.x
- Commission for Occupational Safety and Health. (2019). *Mentally healthy workplaces for fly-in fly-out (FIFO) workers in the resources and construction sectors: Code of practice*. http://www.dmp.wa.gov.au/Documents/Safety/MSH\_MHW\_FIFO\_COP.pdf
- Cousins, R., MacKay, C. J., Clarke, S. D., Kelly, C., Kelly, P. J., & McCaig, R. H. (2004). 'Management Standards' work-related stress in the UK: practical development. *Work and stress, 18*(2), 113-136. https://doi.org/10.1080/02678370410001734322
- Dahlem, N. W., Zimet, G. D., & Walker, R. R. (1991). The multidimensional scale of perceived social support: A confirmation study. *Journal of Clinical Psychology*, *47*(6), 756-761.



international-trade







# https://doi.org/10.1002/1097-4679(199111)47:6<756::AID-JCLP2270470605>3.0.CO;2-L

- Department of Jobs Tourism Science and Innovation. (2021). Western Australia Economic Profile - November 2021. https://www.wa.gov.au/government/publications/western-australias-economy-and-
- Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology, 83*(3), 579-599. https://doi.org/10.1348/096317909X470690
- Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*, *33*(2), 357-362. https://doi.org/10.1017/S0033291702006700
- Gilbert, J. M., Fruhen, L., & Parker, S. K. (2020). FIFO worker mental health and wellbeing:

  The impact of Covid-19 (summary of findings). Curtin University.

  https://www.transformativeworkdesign.com/fifo-mental-health-survey
- Gould, M., Adler, A., Zamorski, M., Castro, C., Hanily, N., Steele, N., Kearney, S., & Greenberg, N. (2010). Do stigma and other perceived barriers to mental health care differ across Armed Forces? *Journal of the Royal Society of Medicine, 103*(4), 148-156. https://doi.org/10.1258/jrsm.2010.090426
- Guest, D. E., & Conway, N. (2002). Communicating the psychological contract: an employer perspective. *Human Resource Management Journal*, *12*(2), 22-38. https://doi.org/10.1111/j.1748-8583.2002.tb00062.x
- Handley, T. E., Inder, K. J., Kelly, B. J., Attia, J. R., Lewin, T. J., Fitzgerald, M. N., & Kay-Lambkin, F. J. (2012). You've got to have friends: The predictive value of social integration and support in suicidal ideation among rural communities. *Social Psychiatry Psychiatric Epidemiology, 47*, 1281-1290. <a href="https://doi.org/10.1007/s00127-011-0436-y">https://doi.org/10.1007/s00127-011-0436-y</a>
- Kähkönen, T., Blomqvist, K., Gillespie, N., & Vanhala, M. (2021). Employee trust repair: A systematic review of 20 years of empirical research and future research directions. *Journal of Business Research*, 130, 98-109.

  <a href="https://doi.org/10.1016/j.jbusres.2021.03.019">https://doi.org/10.1016/j.jbusres.2021.03.019</a>









- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959-976. Kessler2002. <a href="https://doi.org/10.1017/s0033291702006074">https://doi.org/10.1017/s0033291702006074</a>
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., Howes, M. J., Normand, S.-L. T., Manderscheid, R. W., Walters, E. E., & Zaslavsky, A. M. (2003). Screening for Serious Mental Illness in the General Population. *Archives of General Psychiatry*, 60(2), 184-189. <a href="https://doi.org/10.1001/archpsyc.60.2.184">https://doi.org/10.1001/archpsyc.60.2.184</a>
- Kessler, R. C., Demyttenaere, K., Bruffaerts, R., Posada-Villa, J., Gasquet, Kovess, Lepine, J. P., Angermeyer, M. C., Bernert, S., de Girolamo, G., Morosini, P., Polidori, G., Kikkawa, T., Kawakami, N., Ono, Y., Takeshima, T., Uda, H., Karam, E. G., Fayyad, J. A., Karam, A. N., Mneimneh, Z. N., Medina-Mora, M. E., Borges, G., Lara, C., de Graaf, R., Ormel, J., Gureje, O., Shen, Y. C., Huang, Y. Q., Zhang, M. Y., Alonso, J., Haro, J. M., Vilagut, G., Bromet, E. J., Gluzman, S., Webb, C., Merikangas, K. R., Anthony, J. C., Von Korff, M. R., Wang, P. S., Brugha, T. S., Aguilar-Gaxiola, S., Lee, S., Heeringa, S., Pennell, B. E., Zaslavsky, A. M., Ustun, T. B., & Chatterji, S. (2004). Prevalence, Severity, and Unmet Need for Treatment of Mental Disorders in the World Health Organization World Mental Health Surveys. JAMA, 291(21), 2581-2590. https://doi.org/10.1001/jama.291.21.2581
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology*, *67*(1), 99-110. https://doi.org/10.1002/jclp.20741
- McHugh, M. (1997). The stress factor: another item for the change management agenda? *Journal of Organizational Change Management, 10,* 345-362. <a href="https://doi.org/10.1108/09534819710175866">https://doi.org/10.1108/09534819710175866</a>
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78(4), 538-551. https://doi.org/10.1037/0021-9010.78.4.538
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, *91*(6), 1321. <a href="https://doi.org/10.1037/0021-9010.91.6.1321">https://doi.org/10.1037/0021-9010.91.6.1321</a>
- Morrison, E. W. (2014). Employee voice and silence. *Annual Review of Organizational Psychology and Organizational Behavior, 1*(1), 173-197. https://doi.org/10.1146/annurev-orgpsych-031413-091328









- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family—work conflict scales. *Journal of Applied Psychology, 81*(4), 400-410. https://doi.org/10.1037/0021-9010.81.4.400
- Newaz, M. T., Davis, P., Jefferies, M., & Pillay, M. (2019). Using a psychological contract of safety to predict safety climate on construction sites. *Journal of Safety Research*, 68, 9-19. <a href="https://doi.org/10.1016/j.jsr.2018.10.012">https://doi.org/10.1016/j.jsr.2018.10.012</a>
- Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D. (2007). Self-injurious thoughts and behaviors interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment*, *19*, 309-317. https://doi.org/10.1037/1040-3590.19.3.309
- Parker, S., Fruhen, L., Burton, C., McQuade, S., Loveny, J., Griffin, M., Page, A., Chikritzhs, T., Crock, S., Jorritsma, K., & Esmond, J. (2018). *Impact of FIFO work arrangements on the mental health and wellbeing of FIFO workers*. Centre for Transformative Work Design. <a href="https://www.mhc.wa.gov.au/media/2547/impact-of-fifo-work-arrangement-on-the-mental-health-and-wellbeing-of-fifo-workers-full-report.pdf">https://www.mhc.wa.gov.au/media/2547/impact-of-fifo-work-arrangement-on-the-mental-health-and-wellbeing-of-fifo-workers-full-report.pdf</a>
- Parker, S. K. (2014). Beyond motivation: Job and work design for development, health, ambidexterity, and more. *Annual Review of Psychology, 65*, 661-691. https://doi.org/10.1146/annurev-psych-010213-115208
- Rousseau, D. M. (1998). The 'problem' of the psychological contract considered. *Journal of Organizational Behavior*, 19, 665-671. <a href="http://www.jstor.org/stable/3100282">http://www.jstor.org/stable/3100282</a>
- Rousseau, D. M., Hansen, S. D., & Tomprou, M. (2018). A dynamic phase model of psychological contract processes. *Journal of Organizational Behavior*, *39*(9), 1081-1098. https://doi.org/https://doi.org/10.1002/job.2284
- Safe Work Australia. (2019). Work related psychological health and safety: A systematic approach to meeting your duties.

  https://www.safeworkaustralia.gov.au/system/files/documents/1911/work-related psychological health and safety a systematic approach to meeting you r duties.pdf
- Solinger, O. N., Hofmans, J., Bal, P. M., & Jansen, P. G. W. (2016). Bouncing back from psychological contract breach: How commitment recovers over time. *Journal of Organizational Behavior*, 37(4), 494-514. https://doi.org/https://doi.org/10.1002/job.2047
- Tangirala, S., & Ramanujam, R. (2012). Ask and you shall hear (but not always): Examining the relationship between manager consultation and employee voice. *Personnel Psychology*, 65(2), 251-282. <a href="https://doi.org/10.1111/j.1744-6570.2012.01248.x">https://doi.org/10.1111/j.1744-6570.2012.01248.x</a>









World Health Organisation. (2014). *Mental health: A state of wellbeing*. Retrieved 10 May, from <a href="https://www.who.int/features/factfiles/mental health/en/">https://www.who.int/features/factfiles/mental health/en/</a>