

# Mental health in the construction industry

## Key points

- The construction industry is a high-risk industry for mental ill-health and suicide.
- The extant literature and interviews with industry leaders showed that job conditions and cultural characteristics of the construction industry are contributing factors to mental ill-health.
- These specific risk factors warrant industry-targeted initiatives.

## Introduction

The incidence of mental ill-health is recognised to be a significant national problem in Australia, prompting a comprehensive inquiry by the Australian Government Productivity Commission. The draft report from this inquiry was published in October 2019. The draft report was prepared for further consultation and input.

This paper discusses the issue of mental health in the construction industry. It combines evidence collected from two sources:

- a preliminary review of previous published research relating to work and mental health, including published research undertaken in the construction industry, and
- data collected from nine construction industry leaders representing construction contracting organisations and public sector client organisations in New South Wales and Victoria.

The paper briefly considers the relationship between work and mental health before presenting evidence pertaining to the mental health experiences of the construction industry's workforce. The paper identifies characteristics of the construction industry's structures, processes and ways of working that present particular challenges for the mental health of construction workers, including those in manual/non-managerial and managerial/professional roles. The paper then describes an industry-level initiative to reduce mental ill-health and promote mental wellbeing in the Australian construction industry's workforce.

## Mental ill-health in Australia

The Productivity Commission draft report on mental health describes the magnitude of the mental health problem facing Australia. The report states that "almost half of all Australian adults will meet the diagnostic criteria for a mental illness at some point in their lives, and one-in-five Australians will meet the criteria in a given year" (Productivity Commission, 2019, p. 4). The Productivity Commission identifies long-standing problems for the prevention of mental ill-health in Australia as:

- under-investment in prevention for mental ill-health
- a focus on clinical services which overlooks the determinants of and factors contributing to mental ill-health
- stigma and discrimination, and
- inadequacies in the provision of, or difficulties accessing, appropriate supports.

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The Productivity Commission draft report identifies difficulties inherent in estimating the costs of mental health. It also acknowledges the assignment of a monetary value to pain and suffering is problematic and – to some people – also objectionable.

However, the draft report identifies the costs of mental health and suicide in Australia as being large and pervasive. In 2018-19 it is estimated the costs of mental ill-health and suicide to the Australian economy ranged between \$43 and \$51 billion. This included the direct cost of healthcare and support services (\$18 billion), the cost of lost productivity due to lower employment, absenteeism and presenteeism (between \$10 billion and \$18 billion), and informal care provided by family and friends (\$15 billion) (Productivity Commission, 2019).

## **The relationship between work and mental health**

The Productivity Commission draft report on mental health identifies strong links between employment and mental health. Employment can improve mental health in several ways, including providing people with:

- a sense of identity and providing regular interaction and shared experiences with people outside of one's immediate family
- a sense of collective effort and achievement, and
- a structured routine, purpose and the need to plan and prioritise time and activities (Productivity Commission, 2019).

Notwithstanding the beneficial effect of work there is strong evidence indicating that an unfavourable working environment negatively impacts the mental health of workers (Niuwenhuijsen et al. 2010; Stansfeld and Candy, 2006; Netterstrom et al. 2008).

There is also a growing recognition that workplaces have important impacts on the mental health and wellbeing of workers, and that mental health promotion programs targeting workplaces can have significant positive impacts. For example, Roche et al. (2016) argue that:

- large numbers of people can be accessed through workplace interventions
- workplaces already contain existing infrastructure and frameworks to support the implementation of mental health and wellbeing programs, and
- addressing mental health as part of workplace occupational health and safety management activities reduces stigma and encourages help-seeking behaviour in relation to mental health.

Recent years have seen an increased focus on the creation of mentally healthy workplaces, defined as workplaces in which:

- “risk factors are acknowledged and appropriate action [is] taken to minimise their potential negative impact,” and
- “protective or resilience factors are fostered and maximized (Harvey et al. 2014, p.12).

Research has identified occupational differences in the experience of work characteristics and mental health outcomes (Bültmann et al., 2001). The prevalence of mental ill-health in male-dominated industries has also been linked to particular characteristics of work in these industries. For example, Roche et al. (2016) state that mental ill-health ‘clusters within’ particular industries and occupations (Roche et al. 2016, p. 280). Given this, high risk workforce groups can and should be identified and provided with targeted prevention strategies for mental ill-health.

We agree with this view and, in this paper, we argue for a targeted approach to the prevention of mental ill-health and promotion of mental wellbeing in the Australian construction industry. We suggest this targeted approach should focus on the elimination of specific risk factors associated with an adherence to unhealthy (but deeply entrenched) work practices and a hyper-masculine industry culture that has long been resistant to change.

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We also argue that the Australian construction industry's prevailing work practices are driven by structural characteristics of the construction industry (including competitive procurement practices and multi-level subcontracting arrangements) and that the health impacts of these work practices are currently exacerbated by unprecedented levels of demand for the construction industry's products and services.

## **The social and economic significance of the construction industry**

The construction industry is a significant driver of economic activity in Australia. It is Australia's third largest industry, behind only mining and finance, and produces around 8% of our Gross Domestic Product (GDP) in value added terms. It comprises over 330,000 businesses nationwide and directly employs over one million people (around 9% of the total workforce). The construction supply chain is complex and strongly interrelated, encompassing manufacturing (materials, equipment components), services (engineering, design, surveying, consulting, lease management) and traditional construction trades (Ai Group 2015).

The pipeline of public sector engineering construction projects is at record highs in NSW and Victoria – this work includes large road and rail projects as well as power and water utilities planned up to 2024. In other states, resources and renewable energy engineering pipeline is potentially large with many projects under consideration or in planning up to 2024 (Ai Group 2019).

In New South Wales and Victoria, the construction industry is facing a substantial boom in infrastructure construction. In Victoria there are currently 119 major road and rail projects being delivered (valued at \$70 billion) with significant planning underway for further projects. In NSW the government is investing \$41.4 billion into transport infrastructure over the next four years (NSW Government 2020). This unprecedented pipeline of projects has the potential to increase the pressure and intensity of work practices within the construction industry. The ability to deliver these projects will depend upon the industry attracting new workers and sustaining a healthy and productive workforce.

### **Previous research investigating mental health in construction**

Construction workers are a high-risk group for mental ill-health (Roche et al. 2016) and suicide (Milner et al. 2014; Turner et al. 2017). Every year 190 Australian construction workers take their own lives, which equates to one death by suicide every second day. Construction workers are six times more likely to die from suicide than an accident at work (Mates in Construction, 2020). There is strong evidence that young construction workers are particularly at risk of psychological distress, which has been linked to job stress, bullying and the use of 'avoidance' coping strategies (Pidd et al. 2017; McCormack et al. 2013). Young construction workers are more than twice as likely to take their own lives as other young Australian men (Mates in Construction, 2020).

The factors contributing to mental ill-health and suicide among construction workers are undoubtedly multi-faceted and complex. However, work conditions and the organisation and culture underpinning work within the construction industry have been identified as contributing factors.

Several systematic reviews of the academic literature have linked job conditions with stress disorders, mental disorders and depression (Nieuwenhuijsen et al. 2010; Stansfield and Candy 2006; Netterstrom et al. 2008). The job demand-control (JD-C) theory is often cited to explain the relationship between work conditions and mental health (Karasek, 1979). This theory posits that high psychological demands (such as workload and work pressure) and low decision latitude (i.e. control over the way work is performed) are risk factors for psychological distress.

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Specifically, the JD-C theory has been used to explain the relationship between conditions of work and occupational stress among construction industry workers (Bowen et al. 2014). A recent report undertaken on behalf of the Chartered Institute of Building revealed that construction industry workers are worse off than workers in other industries in terms of experiencing:

- poor work-life balance
- high workload
- excessive travel time
- technology overload, and
- unrealistic deadlines (Cattell et al. 2017).

Work speed and quantity of work have also been linked to symptoms of depression in bricklayers and construction supervisors (foremen/leading hands), while low participation in decision-making and low levels of supervisor support were linked with symptoms of depression in supervisors (Boschman et al. 2013). Job autonomy is reported to be especially beneficial for older construction workers as a protective factor for mental ill-health (Zaniboni et al. 2016). Low job control and high demands have also been identified as risk factors for suicide among Australian men (Milner et al. 2016).

The construction industry possesses characteristics with the potential to amplify the impact of work on mental ill-health. Construction work is project-based, and work hours are long and inflexible. Since 1985 the proportion of people in the Australian construction industry working more than 44 hours per week increased by 11% - one of the largest increases in any industry (Van Wanrooy and Wilson, 2006). Lingard and Francis (2004) report the average number of hours worked each week is 63 among site-based workers in direct construction activity, 56 hours among site office-based workers and 49 hours in corporate office-based roles. Long work hours are a risk factor for poor mental health, depression and anxiety (Artazcoz et al. 2009; Bannai and Tamakoshi, 2014). Research, based on Australian data, reveals that work hours are positively related to mental health until they reach a 'tipping point' beyond which they become damaging (Dinh et al. 2017). This analysis reveals that mental health begins to decline when work hours exceed a tipping point of 39 hours per week. Assuming similar resources and time constraints, there is a five-hour gender gap in this tipping point (43.5 for men and 38 for women). However, when resources and time constraints (such as time spent in domestic work and caring roles) are taken into consideration, the gender gap increases (46.7 for men and 34.1 for women). These tipping points are currently exceeded in the majority of construction industry roles, which is likely to negatively impact mental health and create a barrier to gender equality.

Long, inflexible and antisocial hours typical of work in the construction industry are linked to high levels of work-family conflict (WFC) (Lingard et al. 2010a). Research demonstrates that project-based workers' ability to manage work-life balance and satisfactorily meet demands at home and at work is substantially impacted by project schedule demands that can dramatically increase required work quantity and pace at critical pressure points in a project lifecycle (Lingard et al. 2010b). WFC is strongly and consistently linked to psychological distress, depression, anxiety, sleep problems and negative attitudes towards mental health in international samples of construction industry workers (Bowen et al. 2018; Kotera et al. 2019). In the Australian construction context, WFC has also been identified as the mechanism through which job schedule demands are related to employee burnout (Lingard and Francis, 2005).

Co-worker/supervisor support and job insecurity have also been linked to stress-related disorders in male workers (Niewenhuisen et al. 2010). The delivery of construction projects is heavily reliant on winning competitive tendering opportunities and projects are delivered through a complicated multi-tiered subcontracting system. Intense competition for contracts, coupled with low profit margins and incentive payment systems increase the pressure experiences throughout the supply chain. Flexible employment practices have increased workforce casualisation and concerns about job security have been linked to construction workers' mental wellbeing (Turner and Lingard, 2016). Mayhew and Quinlan (2006) report long working hours, stressed and chronically fatigued workers in similar multi-

tiered subcontracting arrangements in the Australian trucking industry. The health impacts of subcontracting have also been reported in international studies in which subcontracted workers are reported to be three times more likely to experience anxiety or depression, and to miss work due to illness, compared to directly employed workers (Min et al. 2013). Milner et al. (2017) analysed coronial findings to identify the stressors precipitating death by suicide in a sample of Australian construction workers. Transient work conditions, concerns about job insecurity and feelings of pressure were all identified as precipitating factors in these deaths (Milner et al. 2017).

The research conducted in the construction industry is consistent with studies linking conditions of work with job strain with mental ill-health in other industries (Cohidon et al. 2012). However, the industry's characteristics (discussed above) create conditions in which workers are at a particularly high risk of mental ill-health. Research has found that adverse work conditions (high demands, low control and job insecurity) influence mental health independently of one another. This means that jobs that combine two or three adverse conditions present a higher mental health risk, than jobs in which only one risk factor is present (Strazdins et al., 2011). Thus, the combination of risk factors in construction jobs is likely to amplify the risk of mental ill-health to workers.

There is also an increasing emphasis on the workplace as a point of intervention for targeting the prevention of mental illness and the promotion of wellbeing (Harvey et al. 2014). The workplace is seen to be an effective point of intervention for mental health, particularly among men who are reported to have lower levels of mental health literacy and be less likely to seek help for personal difficulties than women (Roche et al. 2016).

Given the available evidence indicating that construction workers are a high-risk group for mental ill-health and that adverse conditions of work are a significant contributing factor, we suggest that industry-specific initiatives focused on the creation of mentally healthy construction workplaces are warranted. Some initiatives have already been implemented and are having a positive impact. For example, the Mates in Construction program provides a training/peer support program that is widely accepted in the construction industry and is effectively changing attitudes towards mental health and help-seeking behaviour (Ross et al. 2019).

However, we suggest more needs to be done to address the underlying (or latent) factors contributing to mental ill-health in the Australian construction workforce. In particular, we suggest there is a need to directly target the construction industry's culture. Dextras-Gauthier et al. (2012) argue that the behaviours, structures and processes that produce adverse conditions of work are shaped by the values, assumptions and beliefs inherent in an industry or organisational culture. They argue that "...when dealing with mental health issues, including burnout, depression, and psychological distress, managers need to tread further upstream to identify those elements of organizational culture that are ultimately causing ill health" (Dextras-Gauthier et al. 2012, p.97).

We agree with this view and believe that the harmful conditions under which people work in the construction industry can be traced back to underlying values, assumptions and beliefs operating within the broader systems of construction procurement and project management. Cultural features of the construction industry have also been identified as acting as barriers to reducing the prevalence and impact of mental ill-health; for example, Ross et al. (2019) note the industry's masculine norms stigmatise mental health and discourage help-seeking. Milner et al. (2017) similarly describe the industry's cultural norms as 'latent factors' that combine with other risk factors to create an environment in which workers are at increased risk of suicide.

We argue that, in order to provide mentally healthy workplaces in the construction industry, there is a need to rethink and redesign culturally entrenched ways of working, including a strict adherence to a six day work week and the expectation that time spent at work equates to productivity.

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# Observations from Australian construction industry leaders

Semi-structured interviews were conducted with nine construction industry leaders representing construction contracting organisations and public sector client organisations in New South Wales and Victoria. Key themes emerging from these interviews are presented below.

The industry leaders believe that mental ill-health and suicide are significant problems for the Australian construction industry, as reflected in the following quotations.

*“...we have some of the worst statistics in terms of mental health amongst all sectors, the suicide rates in particular are very high, you know. You’re more likely to die of suicide as a young person in construction than you are of any other type of accident.”*

*“...the mental health issues we have are rife.”*

The industry leaders observed that industry participants (clients and contractors) typically pay considerable attention to the management of workplace safety, but do not pay the same attention to mental health: *“...for many companies in the sector, I’m not sure that they’re as aware ... I’m not sure that many of them are bringing mental health up their risk register...Safety is very much the priority, of course, as we all know .... They want to see safe practices apply, but unless there are also mentally safe practices applied, they risk reputations for clients, but they also risk serious liability for contractors.”*

The need for the provision of mentally healthy workplaces to be placed on an equal footing with the management of workplace safety was identified: *“We’d like mental health and physical health to be elevated to the same level with the same concentration and the same frameworks that occupational safety enjoys, and that’s going to take a big culture shift too...it’s getting the balance right and shouting health and wellbeing as loudly as we shout safety.”*

The industry leaders identified a range of factors that they believe contribute to mental ill-health in the Australian construction industry. These are summarised below with example quotations to illustrate key themes and points.

## Demand for the construction industry’s products and services

The industry leaders observed that workload and resourcing pressures experienced by the construction industry at the present time have been intensified by the volume of construction work and the pipeline of large scale infrastructure construction projects underway or in planning: *“...if you look at it in temporal terms, projects are under tighter deadlines, the demands, physical and intellectual, on people and the budgetary pressures are enormous. So, you know, just given the huge pipeline of infrastructure projects in Australia at the moment, not only construction but specifically infrastructure, there’s an unprecedented supply problem in the construction industry and that’s a stressor.”*

The industry leaders observed that the current level of demand is unprecedented: *“There are so many big unprecedented projects that are trying to get done in tight deadlines and under tight budgetary conditions for governments, that it is a very, very stressful occupation at all levels.”*

*“...in the construction industry, the demand for this work has just gone through the roof in such a relatively short period of time really for such an industry, and that the pressure on deliveries is something that I haven’t witnessed before.”*

The industry leaders believe that the high level of demand for the construction industry’s products and services has intensified the pressures experienced by the industry’s workforce: *“...there’s multiple reasons for that pressure and right now, because of the huge demand, I think there’s increasing*

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*pressures. There's a lot of businesses that are saying they're not making a lot of money in the construction industry at the moment because it's a very competitive environment and they put in very low bids. And so, in order to get productivity improvements, a lot of that is put on the workers on the front line working more productively and often, that means when they've got an unknown risk that causes delay on a project, they're expected to try and make up that time."*

Industry leaders also observed that the construction supply chain is under considerable strain in trying to respond to the current demand: *"...it's relentless, and the big companies and the smaller contractors in this space are just finding it, you know, incredibly hard to keep up with the demands" And, for the supply chain, for the contractors too, you know, responsibilities and work practices are becoming more complex. The demands are more sophisticated, the community expectations are more sophisticated, and these are all layers of stress that are put on management companies that, you know, get cascaded through organisations."*

## Procurement and tendering

Industry leaders identified the procurement environment and competitive tendering processes as contributing factors to a variety of stressful work conditions experienced in project delivery project delivery.

In the context of competition to win work, the leaders observed that construction organisations sometimes commit to delivering projects under conditions of considerable commercial risk: *"Firstly, is the competitive process that we go through in procurement, so I think the fact that we probably have an optimism bias in our industry along with many others, that we think we can achieve more than the evidence might suggest we can."*

*"We're [construction contractors] our own worst enemy in terms of bidding for work ... and because you've got a big workforce and you want to win the job you can convince yourself that the risks are, you know, manageable."*

The industry leaders observed that contracts have increasingly been tightened creating incremental increases in the pressure experienced by project delivery teams: *"...contracts get more and more complex and tight so that the consequences that weren't foreseen on contract A get picked up in contract B and it's tighter and tighter... If you were asked from a different market to engage in this contract, you'd say, "No way, that's crazy." Because we're all in it already, it's just a slight tweak from a previous position so people keep saying, "Okay, we can manage it." And then when it goes wrong, the contract goes out the window anyway."*

*"...I get told all the time 'you have to take this risk or that risk, and that's the market.' And I say to them, 'it's not the market, it's what the last nut agreed to.'"*

One substantial area of project risk that contractors routinely accept is the commitment to timelines that may be arbitrarily set. In some cases, the industry leaders suggest that: *"promises are made and the consequences of those sometimes mean that programs are unrealistic or very challenging."*

*"...if a project's got to be completed in three years, but if you didn't have that three year timeframe and you said to the industry 'you give me a contract program that you are 90% sure of delivering on' they might have said four years and lo and behold it did take four years...So there's an artificial timeline that's put on these contracts that is quite difficult to fathom."*

The industry leaders commented that a more 'realistic' sharing of risk between client and contractor organisations would reduce pressures experienced in the delivery of projects that have the potential to impact mental health: *"...clients will often want to push down risk to the contractors...you convince yourself that it's never going to be as bad as you actually think it could be and therefore you do take a lot of risk because your competitors are going to take that risk as well... that itself brings an enormous*

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*amount of pressure. So the way that jobs are procured and having more realistic timeframes about the delivery and less onerous contracts would certainly help [mental health]."*

On a positive note, the industry leaders did also observe that this situation is beginning to change: *"I think we've probably been through a time in government where we took the view that in these projects we should be trying to transfer all these risks over to the private sector and I think there's probably evidence to demonstrate that that's not really benefiting anybody to be so aggressive in that risk transfer."*

*"...[clients] are beginning to look at how they procure work so it's not all pushing down risk onto the contractors and hopefully, you know, one of the things they can do is make it a lot more collaborative."*

## Project timelines and time pressures

In the competitive construction environment, timelines established for project delivery may not always be realistic or achievable. The industry leaders emphasised that these timelines can create conditions in which people are required to work harder and faster to satisfy project requirements.

Moreover, commercial arrangements and contracts entered into between clients and contractors can increase the psychological (and physical) work demands experienced by project-based workers: *"...the industry is characterised by high pressured timelines, quite aggressive contracts and therefore most contractors on receiving a contract are under a degree of pressure to complete the piece of infrastructure or the building ... but margins are thin, risk is high and that contributes to quite a high pressurised environment."*

This situation is made worse by the threat of financial penalties for time over-runs: *"So then you've got the pressure of time, you've got the pressure of liquidated damages if you're late. And you've got nasty, nasty contracts."*

The financial penalties faced by contractors can be large and damaging, increasing the pressure on workers to prioritise work over other aspects of their lives: *"So that then puts a whole lot of pressure into the supply chain because you have to finish on time...If we do a job wrong, the client can sue us up to 50% of the contract sum, that destroys your entire business. If you do one job wrong, they have the ability to take enough money off you so that your business is no longer viable. I mean, who would do that? It's a ridiculous risk profile."*

These pressures are felt at all levels within projects and affect the way people work: *"Well, I think there's a lot of expectations put on those workers to meet tight deadlines."*

In some circumstances, long work hours are seen as an inevitable consequence of project timelines and conditions: *"...there's such consequences in our industry for lateness from a financial perspective, organisations then drive time as such an imperative, but it puts a lot of pressure onto individuals. Now that means longer [work] days."*

The industry leaders also observed that the pressures to deliver projects to tight timelines is amplified by the uncertainty inherent in project-based construction work. In some instances, unexpected events can disrupt production and create unanticipated delays. These unanticipated delays contribute to time pressure in project delivery: *"...you've got a client who obviously want their products delivered on time but generally to win a job you have to win it on the right price and time, and sometimes I'd say we have an optimism bias. You know you never say to yourself 'oh we're going to have all these challenges' but obviously in the delivery you do. It rains, it doesn't rain, unions, designs not delivered on time, you know, there's a number of different factors that contribute to being under pressure for time delivery."*

Pressures associated with project timelines are experienced as stressful and are potentially damaging to the mental health of workers engaged in project-based work in the construction industry:

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*“Well, I think there’s a lot of expectations put on those workers to meet tight deadlines.”*

*“And we have seen on some of our projects, people have mental health episodes, often as a result of the extreme pressures of the job.”*

Further, the industry leaders observed that working under such time-pressured conditions is not sustainable for long periods of time without mental health impacts: *“You know, people just can’t work in these conditions for extended periods, many people can’t, because the pressure is too great. It does affect their mental health.”*

## Work hours

The industry leaders identified long work hours as a critical risk factor for mental ill-health in the Australian construction industry: *“...and obviously you’re either completing a building or a piece of infrastructure that is, you know, going to be used by the public or by the private sector and there’s a lot of pressure on time and therefore work hours are quite long, they’re very long.”*

For several of the industry leaders, these long hours were attributed to an inherent ‘optimism bias’ which leads participants to commit to project timelines that may not be realistic or achievable: *“I think at times that creates a dynamic where people overcommit, but then when it comes to doing the delivery it can cause pressure points that then invariably end up with a personal and human impact that either when it’s very long hours and lots of stress...and then the financial penalties that sit with that drive a certain amount of behaviours.”*

The industry leaders argued that, although tight timelines result in people needing to work long hours, long working hours should not be regarded as an inevitable feature of project-based construction work: *“... working hours can be programmed in a much more flexible and balanced way, and that clients can see that this ultimately is in the best interests of a construction industry workforce that is bigger, that is much more attractive to diverse employees.”*

The industry leaders also believed that current working time arrangements in the construction industry are unsustainable because new (younger) entrants to the industry do not want to work a six day week: *“I think one of the things that helps us is the millennials joining us, the graduates joining us, are actually pushing back. You know when I joined the industry, I was told that I had to work six days a week. When people join us after university now, they tell us that they’re not going to work six days a week. So, I think they’re agents of change so they’re important to listen to.”*

The industry leaders commented that long hours also affect mental health indirectly, through affecting sleep, rest, physical health and fitness: *“...we know that people have their sleep patterns disturbed, that affects their biochemistry, we know that people typically don’t have as good a quality diet which impacts physical health, they don’t necessarily have access to health and fitness if they’re working non-standard hours so they may not be as fit. All of those things impact mental health and you get caught up in a bit of a spiral. It’s a challenge to see how sustainable that is for most people.”*

It was observed that long hours of work can also limit workers’ ability to seek help in the event of personal difficulties: *“... so, when you’re working long hours, even access to something like counselling is not easily accessible.”*

The industry leaders believed that long term workforce sustainability should be an important consideration in determining working time arrangements in the industry: *“So we’re encouraging people to just relax a little bit about not being there all the time and recognise that you’re making a contribution but for you to be successful in that contribution we need you there for the long haul not just for the short term.”*

Long and inflexible work hours have impacts on work-family interaction and the workforce participation of people with significant family/caring commitments.

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## Work-family conflict

The industry leaders observed that working time arrangements in the construction industry negatively impact workers' ability to actively participate in family life: *"The hours are not really 9:00 to 5:00; there is weekend work, so there's an element around being out-of-step with family patterns, there's certainly a degree of inflexibility – people not being able to participate in things like school events or that type of thing."*

This can be particularly challenging for women in project-based roles: *"I think it stops women entering the industry because they look at it and go, why do I want to work in that industry when I can work somewhere else. And I can't see that I can have a family and be on site and do the hours and still be a mum, which is really sad."*

*"So our women report that they love working on site but they cannot see how they can continue to do site-based roles and be a parent."*

The industry leaders noted some companies flexible work arrangements. These flexible working arrangements are important for both male and female workers but the industry leaders noted a cultural barrier to men asking for flexibility to fulfil family obligations: *"...we're making sure that the men feel that they can adopt the flexibility programs as much as the females because...if you're a female and you say I have to leave work to pick up the kids or be with the kids it's a somewhat more socially acceptable thing to do than, rather than the male that says I'm leaving work so I can have dinner with my family...So we're trying to break down those barriers."*

The industry leaders also observed that construction workers experience high instances of marital and relationship problems, commenting that *"It's not only the stress, but it's the stress that it places on family relationships. So, you know, it's a cocktail of causation..."*

## Subcontracting

The industry's system of delivering projects through a multi-level system of subcontracting was identified as contributing to job insecurity and anxiety: *"...if you're a subcontractor, it's very up and down. So you're only as good as the job you're on and after that job's finished, there's no guarantee of the next one. So there's an anxiety that comes with that job insecurity."*

*"The structure of [the construction] industry is quite fragmented ... quite a lot of the work is subcontracted out through this quite complex web of subcontracting arrangements. So ... under that sort of structure there doesn't tend to be a lot of guarantees of continuity of work tenure."*

Project delivery risks taken on by principal contractors are also passed down the subcontracting chain potentially onto organisations ill-equipped to manage these risks: *"...we're often required or requested to meet ridiculous timetables and timeframes which, in an effort to win the work, you will say yes to, and then you just simply pass it down onto your subcontractor workforce"*

Consequently, the industry leaders observed that workers face uncertainty regarding their ongoing employment once a project is complete: *"...the project driven time-based deliver nature of the job. It's different to being in a factory where there's a consistency and a regularity to it. Construction is project based. So, that's a time pressure that comes with that, and then the unique potential that you won't have a job after the project's finished."*

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## Male-dominated work context

The masculine culture of work in the predominantly male construction industry was identified as having the potential to impact men's mental health in two respects:

- first, in creating pressures to accept highly demanding conditions of work to satisfy responsibilities as a family 'breadwinner', and
- second, in discouraging help-seeking behaviour in the event of psychological distress or emerging mental health issues.

The industry leaders commented that Australian male construction workers are resigned to working long hours and stressful working conditions : “... *the thing I think that plays into it is it [construction] is a very male-dominated industry and it's a blokey culture where, 'It'll be fine,' and, 'Don't complain. Just suck it up and get on with it.'* I think the Australian version of, ‘She'll be right, give it a go,’ and all that stuff, I don't think that helps people really address the issue [of mental health <sup>1</sup>].”

The masculine work culture was also evident in comments made about men's role as the family breadwinner, which was also perceived to impact their willingness to seek help for personal difficulties: “...*in a very male-dominated world where seeking help is a sign of weakness ...The expectation that often they're the breadwinner or major contributor to a household income, at a time when house prices have skyrocketed.*”

“...*the notion of, 'Well, I'm not coping in this job, but I can't afford to quit because I'm up to my eyeballs with a mortgage.'* For many people in that situation, they feel trapped. There's no way out. They've got to keep going and if they're dealing with early mental health issues that go untreated for some time, then they end up between a rock and a hard place.”

It was also observed that long hours of work perpetuate the masculine culture of the construction industry, because they make it difficult for women – who typically take a higher level of responsibility for family caregiving – to participate in project-based roles: “*The hours have bred this very macho culture. Traditionally, construction has been a very male dominated industry, and it's become self-fulfilling that because the hours include Saturdays and are quite difficult for a lot of women who are carers of children to see themselves in that context, I think that is a major part of the problem.*”

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<sup>1</sup> It is noteworthy that much of the mental health research conducted in the construction industry has focused on men. However, Goldenhar et al. (1998) report that the psychological health of women in construction may be influenced by additional risk factors including skill underutilisation, experiencing sexual harassment and gender-based discrimination from supervisors and coworkers, and having to overcompensate at work.

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# The need for industry-level reform

## Construction Industry Culture Taskforce (CICT)

The CICT is a collaboration between the NSW and Victorian public sectors and leaders from industry and academia. Its purpose is to create the impetus to make fundamental changes in the culture of Australian construction and infrastructure contracting to address industry characteristics and practices that have a detrimental impact on mental health.

The CICT has drafted a national Culture Standard for the construction industry intended to:

- give people back their weekends to spend with their family and friends, as well as making construction an industry in which workers can be active parents
- ensure that organisations effectively address issues of mental and physical health and provide mentally healthy workplaces, and
- improve gender equality in the Australian construction workforce.

Importantly, the CICT seeks to reduce the industry's incidence of mental ill-health and suicide rates that are currently among the highest in the country.

We argue that the construction industry's cultural characteristics and entrenched processes of procurement and project delivery warrant industry-targeted interventions to specifically address the risk factors for mental ill-health and suicide within the industry.

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