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Women in Construction: Exploring the Barriers and Supportive Enablers of Wellbeing in the Workplace

VICTORIA State Government

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Part 1: Report Summary

1.1 Women in Construction Strategy

The Victorian Government has developed the state's first *Women in Construction Strategy: Building Gender Equality* (https://www.vic.gov.au/victorias-women-construction-strategy#rpl-skip-link) in conjunction with the Building Industry Consultative Council (BICC).

The BICC is a forum for dialogue between Government, employers, industry associations and unions on significant economic and industrial relations issues in the building and construction industry (Victorian Government, 2020).

The focus of the Strategy is on women in trades and semi-skilled roles who currently make up just 1% of trades and technician positions in the construction industry. The Government has invested $500,000 to create a strategy to diversify the male-dominated construction industry. The Strategy is based on three key themes:

- Attract: women need to be aware that construction is an attractive and viable career option.
- Recruit: Women must be proactively recruited and have access to strong career pathways.
- Retain: Workplaces must be inclusive and adaptive to ensure women want to stay.

According to industry stakeholders, the strength of this Strategy lies in its comprehensive Work Plan, which will deliver on a range of tangible positive outcomes which are industry-led and will lay the foundation for lasting change.

This research project responds directly to two points of intervention outlined in the Strategy: women's wellbeing and communities of practice, both of which are outlined under Priority 3: Retain.

Point of Intervention	Action
3.3: Map the wellbeing of women employed in trades and semi-skilled roles in the industry.	Support provided to assist in the rollout of the Resilient Women in Construction project commissioned by the CFMMEU.
3.2: Provide opportunities for women to create communities of practice and share experiences.	Create new (and engage with current) networks, structures and forums for women to come together to discuss their experience of working in trades and semi-skilled roles within the industry.

1.2 Establishing an evidence-base

To date, much of the research on gender inequality in the construction industry has focused on women in professional and management roles. Consequently, there is very limited research on women in trades and semi-skilled roles. According to key industry stakeholders, lack of an evidence-base has acted as a barrier to action for this group of women. This report helps to establish an evidence-base informed by the voices of women in trades and semi-skilled roles, founded on a rigorous and robust research design. Findings outlined in this report enable a move from anecdotal evidence to a strong evidence-base which can be used to inform targeted interventions aimed at improving gender equality in construction.

1.3 Wellbeing

To identify and explore the workplace characteristics and challenges that influence the wellbeing of women in construction, a survey was completed by 168 women working in trades and semi-skilled roles to assess their perception of workplace psychosocial safety climate, civility and respect, supervisor support, work-family conflict, and individual resilience. Interviews were later conducted with 43 women to explore the challenges they faced in greater detail and to understand how these issues informed their wellbeing. The majority of survey participants worked in the commercial sector (63%), with a smaller proportion working in the civil (20%) and domestic (12%) construction sectors.

Our findings confirm that women's experiences in the workplace are varied and nuanced. All the women interviewed expressed passion for the construction industry, regardless of the treatment they had experienced in the workplace. Some women had only ever experienced an extremely positive work environment. Many interviewees acknowledged their appreciation of supportive trades teachers, employers, and co-workers, as reflected in the survey's overall findings. However, a substantial proportion of women (almost one third) had experienced negative incidents, ranging from gender discrimination at one end of the continuum to alleged sexual assault at the other extreme. Our findings bring in to focus that some employers are not meeting their obligations under the *Occupational Health and Safety Act* 2004 and *Occupational Health and Safety Regulations 2017* to provide a safe workplace for women.

Of note is that trades and semi-skilled women working in construction have a high level of resilience which is considered essential for surviving in challenging work environments. Workplace hierarchies (referred to as a system in which individuals in an organisation are ranked according to their relative status and authority) served to impact on women's value in the workplace and influenced the treatment they received from their work co-workers. Importantly, this issue of hierarchy brings into focus that the number of women employed in construction should not be used as a success measure for equality. While women may be employed onsite, they may not be accepted, included, or treated well. Our findings highlight the complexity of reporting lines on construction-sites which act as a barrier when women attempt to raise their concerns over incidents of inappropriate behaviour.

Three inter-related themes emerged from the study capturing the critical challenges experienced by a substantial proportion of women in trades and semi-skilled roles in the construction industry:

(i) **Women are outsiders**: our results highlight how the culture of masculinity drives inappropriate behaviour; career pathway challenges and difficulty in accessing work aligned with skills and aptitude; being treated differently on-site due to gender; and the barriers faced around having family responsibilities and caring for children.

(ii) **Consequence-free behaviour**: our results identify how the masculine culture can be an enabler of inappropriate behaviour; the mistreatment of female apprentices; and the lack of workplace support for managing inappropriate behaviour.

(iii) **Culture of silence**: our results highlight the lack of transparent processes for reporting inappropriate behaviour; little to no consequences for co-workers who act inappropriately; and fear of punishment for reporting inappropriate behaviour.

Due to mistreatment in their workplace and a lack of formal support from their employer, many of our participants had to develop their own behavioural and psychological coping mechanisms in

order to manage workplace challenges. As mentioned, resilience was one of the key psychological coping mechanisms women deemed to be essential for managing workplace stressors.

1.4 Communities of practice

Document analysis was undertaken to identify existing communities of practice (networks, structures and forums) for women working in trades and semi-skilled roles within the construction industry. Publicly available materials were accessed and reviewed, as well as materials provided by conveners of the communities of practice (CoP). Seventeen CoP were identified, and their focus included a range of activities:

- supporting women currently working in the industry
- promotion of working in construction with an aim to attract more women into the industry
- raising the employment profile of women and connecting them to jobs

Five of the CoP conveners were interviewed to explore the origins and purpose of their groups. The findings revealed that in most cases the CoP had been established outside of the workplace in response to a lack of formal support structures offered on-site by their employers. The identified CoP had been designed by women to address a gap in the industry and have been driven by a reaction to personal challenges experienced in the workplace. Grassroots, member-led support groups provide spaces for women in construction to connect, affirm each other's value in the industry, offer mentoring relationships, and provide formal and informal opportunities for professional development. Women identified a lack of existing formal and informal support structures, programs, and strategies facilitated by employers and the industry to support women to thrive in their workplace.

1.5 Attraction into the industry

During our interviews, participants spoke about the factors which had initially attracted them to the industry, as well as sharing their preconceptions about the culture of the construction industry prior to entry. While this information may be useful to inform strategies for attracting women, it sits outside the retention focus of the current study and is therefore included as an *appendix.*

1.6 Recommendations

The **wellbeing** of trades and semi-skilled women in construction is **founded on multiple aspects,** as identified in this research. Our research revealed systemic issues at all levels of the construction ecosystem. Aside from having a serious impact on wellbeing, failure to provide a safe workplace for women contravenes occupational health and safety legislation and regulations. For meaningful and sustained improvement in gender equality, we recommend an integrated 'system-wide saturation' approach which leads to zero tolerance of inappropriate behaviour towards women. The system-wide approach must focus on changing the workplace by either reducing or removing stressors (work hazards) rather than relying on women to cope with the hostile workplaces they can experience.

Sustained change which supports women in construction will only occur if interventions to address gender inequality are:

i. genuinely supported at board and senior management level;

ii. targeted at implementing change across the entire construction industry

   ecosystem;

iii. monitored, reported, and audited.

Key recommendations consist of:

i.	Zero tolerance of inappropriate behaviour towards women
ii.	Adopting procurement practices to promote gender equality
iii.	Access to and quality of employment
iv.	Measurement of equality
v.	Pregnant workers and returning to work
vi.	Meeting occupational health and safety obligations
vii.	Focus on primary prevention

1.7 Commitment to change and next steps

Using the evidence-base and recommendations outlined in this report, forward action can include:

- Allocation of investment and resources to implement recommendations.
- Prioritisation of recommendations.
- Recommendations are developed into actionable initiatives.
- Initiatives are implemented are evaluated.

The voices of trades and semi-skilled women are integral and must be integrated into the whole-of-industry approach. A participatory approach is therefore imperative in the development and implementation of initiatives aligned with Victoria's Women in Construction Strategy: Building Gender Equality.

1.8 Report structure

The report is organised into 12 parts, as summarised:

Part 1: Report summary	A brief overview of the report is outlined.
Part 2: Research aim and objectives	The research is positioned according to the relevant sections of the Victorian Women in Construction Strategy 2019-2022: Building Gender Equality. Aim and objectives of the research are outlined.
Part 3: Literature review	Research related to gender equality in construction is described, along with key factors known to influence wellbeing in the workplace.

Part 4: Theoretical framework	Wellbeing is considered through a systems lens which considers how the work environment shapes worker wellbeing.
Part 5: Methods for wellbeing study	Data collection and analysis methods are outlined.
Part 6: Findings of wellbeing study	Findings are presented from surveys and interviews with trades and semi-skilled women working in construction.
Part 7: Methods for Communities of Practice study	Data collection and analysis methods are outlined.
Part 8: Findings of Communities of Practice study	Findings are presented on the communities of practice groups identified through the research along with interviews with group convenors and trades and semi-skilled women.
Part 9: Discussion	Key findings from the wellbeing and communities of practice studies are synthesised to examine why women experience ongoing and inappropriate behaviour in the workplace, and how it impacts on their wellbeing.
Part 10: Recommendations	Recommendations are outlined which seek to address work hazards impeding women's wellbeing as well as addressing broader systemic issues related to gender equality.
Part 11: References	All references used in the report are cited in this section.
Part 12: Appendices	Interview participants spoke about attraction to the industry and preconceptions about the industry culture prior to entry. While outside the aim and objectives of this study, the data has been analysed and included in the appendix as it directly relates to other sections of the Victorian Women in Construction Strategy 2019-2022.

Part 2: Research Aim and Objectives

2.1 Addressing gender inequality

The Victorian State Government has identified that the low levels of women employed in the construction industry are a consequence of the following factors:

- Women do not get or keep jobs in the industry;
- There is a discrepancy between the number of females in training and the number of women employed;
- Women employed in the industry have less job security than men, are likely to be employed in ancillary, lower paid positions, and have limited career progression;
- Women are excluded and made to feel unwelcome due to rigid work practices, masculine culture, gendered violence, and inadequate work facilities.

To increase the number of women in the construction industry, there is the need for a coordinated approach to attract, recruit and retain women. An integral component of this approach is the expectation by women that they will be encouraged and supported to have meaningful and satisfying long term careers in construction. To improve gender diversity, the construction workplace must become inclusive and adaptive so that women seek out and remain in employment. Importantly, this change cannot be solved by focusing on women alone, but through a systemic approach to culture change for all workers across the entire industry.

To address existing gender inequality and bring about systemic cultural change, the Victorian State Government has developed the Victorian Women in Construction Strategy 2019-2022: Building Gender Equality. The strategy aims to increase the proportion of women working in the construction industry by focusing on:

- Attraction and promotion of the industry to women;
- Improvement of workplace culture to attract and retain women in the construction industry;
- Identification of barriers to increasing women's participation in the industry.

2.2 Objectives and research questions

Initiative 3.3 Wellbeing

Research Objective:

To map the antecedents of wellbeing of trades and semi-skilled women employed in the industry and recommend opportunities to increase capability within the workplace environment and at the individual level.

Research Questions:

1) What are the harmful environmental factors experienced by trades and semi-skilled women working in construction?

2) How do women manage workplace hazards?

3) What workplace change is required to create a safe environment where women are accepted and supported in their pathway?

Initiative 3.2 Communities of Practice (networks, structures and forums)

Research Objective:

To identify the existing networks, structures and forums for women employed in trades and semi-skilled roles, and to make recommendations based on these findings about the level and type of further support required.

Research Question:

1) How do the existing networks, structures and forums in the construction industry provide support, mentoring and increased capacity to trades and semi-skilled women?

2) What initiatives can be developed to bridge any gaps?

Part 3: Literature Review

3.1 Introduction

Women are greatly under-represented in the Australian construction industry. Despite multiple previous gender equality initiatives and regulation at all levels of the Australian government over the last 35 years, the proportion of women employed in the construction industry has been steadily declining. In 2006, women occupied 17% of the entire construction workforce (Australian Bureau of Statistics, 2006), dropping to 12% in 2016 (Australian Bureau of Statistics, 2016), and decreasing further to 11% in 2020 (Master Builders' Association, 2020). While this figure is low, the proportion of women employed in the trades is even lower. In 2020, only 1% of the trades and technician positions in the construction industry were filled by women (Master Builders' Association, 2020). Large companies with over 100 employees employ slightly more, with women making up 3.1% of their trades workforce (Workplace Gender Equality Agency, 2020).

Most of the research on gender inequality in the construction industry has been conducted on women occupying professional and management roles (e.g., Lingard & Lin, 2004; Ness, 2012; Galea et al., 2018; Oo et al., 2020). While gender inequality is an issue for all women in construction, there are key differences around the type of work, particularly around gender stereotypes about manual labour and skilled trades, as well as in opportunities for self-employment available to tradespeople. It is important to recognise that inequality may be experienced differently by women in different types of roles in the construction industry. Therefore, the focus of this literature review will be on women in trades and semi-skilled manual work. Although the problem of gender inequality exists in multiple countries, due to national differences in culture, local environments and policies, this literature review will focus primarily on research in the Australian construction industry. This review will present research on apprenticeship training for women; barriers to the retention of women in construction and recommendations for addressing them; as well as research on the prevailing industry culture and the need for change. At a broad level, the review will then consider the literature on mental health in the construction industry, followed by an overview of tradeswomen's wellbeing. Finally, we review past initiatives that have been used to improve gender equality.

3.2 Gender inequality in trades in the Australian construction industry

Gender inequality in the construction industry presents a problem for both individual women employed in the construction industry and those who are excluded from stable, well-paid work available in the industry (Afolabi et al., 2019). Under UN frameworks, gender equality (non-discrimination and equity) is a fundamental human right (Afolabi et al., 2019). However, construction is one major industry where this human right is not being realised. Trades work for women, particularly economically disadvantaged women, could play an important part in supporting women to gain financial independence. Apprenticeships are particularly beneficial for women, allowing them to earn an income while learning (Callanan & Perri, 2020). As far back as 1985, the Australian Office of the Status of Women argued for the removal of structural barriers to enable women to participate in a more diverse range of careers (Simon, et al., 2016; Jones et al., 2017). The Office proposed developing female-friendly workplaces with a focus on providing mentors and networks for women to enable more women to gain access to secure and well-remunerated work.

3.3 Impact of gender inequality on productivity

While gender inequality and underrepresentation in construction is a problem for women, it also has a significant impact on the industry itself. The absence of women has been identified as a limiting factor for the industry, inhibiting productivity, and preventing economic growth (Callanan & Perri, 2020; Afolabi et al., 2019). Gender inequality also contributes to the skill shortage in the construction industry (Shewring 2009; Oo et al., 2020), which in turn places limits upon economic growth (Afolabi et al., 2019). Moreover, gender-diverse workplaces with a greater variety of perspectives have been found to be more productive and are therefore add value to companies (Afolabi et al., 2019). The employment of more women in the trades is likely to benefit regional communities as well. Jenkins and her colleagues (2019) argue that, in the rural context, skills shortages are a threat to the sustainability of communities. It is often overlooked that fostering skills in young local people, particularly young women, is one way of addressing this continuing problem.

3.4 Impact of gender inequality on industry culture

The benefits of gender equity are not just limited to construction growth and productivity, but also to the health of the industry's culture. Increasing the proportion of women in the industry can improve communication and problem solving as well as help to challenge and change the prevalent macho culture, especially around bullying. Recent research on the electrical trades in Australia conducted by Jones et al. (2017) highlighted the negative impacts of gender inequity for the construction industry as a whole. Excluding women from the workforce often leads to a deficit of skills such as effective communication, effective stakeholder relationships, team-work and problem-solving, among others. Their research found that workplace culture is the most critical issue impacting women's participation in trades roles, as well as influencing the health and wellbeing of both male and female trade workers. Their study found a connection between male-dominated industries, worker suicide rates, and tolerance of bullying, particularly of apprentices and new people in the industry. Jones et al. (2017) argued that the way to address these problems lay in creating a more inclusive culture and by increasing the participation of women in the industry.

3.5 Barriers to retention of women in construction

Gender inequality in the construction industry has been long identified as a problem and has been researched for an extended period in both Australia and overseas. Given that women's underrepresentation in the construction industry is such a significant issue, sections 3.5.1 – 3.5.3 summarise the current findings about why this problem is occurring.

3.5.1 Problems in apprenticeship training

Apprenticeship training for women has been identified as a key area for improvement (Bridges et al., 2019). In 2016, the Women in Adult and Vocational Education (WAVE) project (Simon et al., 2016) investigated women's experiences of apprenticeships in traditionally male-dominated industries in Australia. Their research involved a survey with follow up interviews with principals, teachers, career guidance professionals, researchers, vocational education and training (VET) coordinators, practitioners in the VET and higher education sector, industry representatives, mentors, and policymakers. They cast a wide net due to the complexity of the issue of attracting women to non-traditional roles and the number of stakeholders that can potentially influence

attraction. Simon et al.'s (2016) findings highlighted a need for strong industry partnerships to create female-friendly work experiences in apprenticeship programs. The need to change the sexist industry culture was also identified, however there were few suggestions to achieve this, except for a greater provision of more pathways for women to enter the industry. More than half of the interviewees identified female mentors as important in increasing uptake of apprenticeships by enabling girls to see women in these careers and creating opportunities to share strategies on managing the male-dominated culture.

A study of NSW female apprentices conducted by Shewring (2009) made recommendations on the need to give more attention to the structure of apprenticeships for women, including creating networks between tradeswomen, TAFE teachers, and employers as a way to link women to opportunities in the industry. Shewring (2009) argued that this would involve dedicated support from industry. Shewring (2009) also recommended that apprenticeship training for both females and males should include soft skills training on communication and emotional intelligence as well as providing information about industrial legislation about workplace bullying and sexual harassment. Both Shewring (2009) and Jones et al. (2017) proposed that apprenticeships should be restructured to value the previous workplace learning of women who move into the industry from other careers. Jones et al. (2017) highlighted the need for employers to be incentivised to take on mature-aged apprentices as this is a common pathway for women, and one that presents a disadvantage as employers often prefer young apprentices due to their lower wages. In addressing deficiencies in apprenticeship training to bring about gender equality, it is important to note the complexity of the construction industry and that each trade may be likely to respond to strategies for inclusion in different ways (Shewring, 2009).

3.5.2 Hostile work environment

Arguably, the key barrier to the retention of women in the construction industry is its prevailing masculine workplace culture (George & Loosemore, 2019) which fails to provide appropriate support for women and offers them limited career pathways. Whereas males in construction are automatically presumed to be capable, women find that their professional capability is scrutinised, questioned or devalued (Galea et al., 2018). Women in the industry often experience what Jenkins et al. (2019) call 'spotlighting' where they feel they are being constantly watched and subsequently feel the need to work harder than male co-workers to prove themselves. Further, if a woman makes a mistake, it is perceived as a "gender capability" issue rather than an individual mistake (Bridges et al., 2019). This perception adds further burdens on women to work harder than men as they often believe that their performance will influence whether more women are accepted into the industry. Jenkins et al. (2019) also identified that bullying, sexual harassment, and assault are major reasons why women leave male-dominated industries, along with a culture of targeting and victimising women who raise complaints about these incidents. Reluctance to report mistreatment is not just a characteristic of trades and semi-skilled women working in construction. One national survey of 10,000 people working in most Australian industries (Australian Human Rights Commission, 2018) found that two in five women had been sexually harassed at work over the previous five years (mainly by men), but only a small proportion of them (17%) had reported it.

More recently, quantitative studies have confirmed that sex discrimination and workplace culture are the most significant barriers to tradeswomen's careers. Oo and colleagues (2020) argued that there has been limited research into tradeswomen's experiences at work, and what little there is, has been qualitative and involved small numbers of participants. Their research took a different approach and used a quantitative survey of members of two tradeswomen's support networks,

Supporting And Linking Tradeswomen (SALT) and Lady Tradies Australia. Oo et al. (2020) found that the most influential factors in the womens career choice were the opportunity to develop new skills and to complete challenging tasks, self-derived motivation, and an interest in the trades. The main barriers to the retention of women in construction were discrimination and the masculine culture. Their survey was distributed widely and captured a diverse range of respondents, allowing Oo et al. (2020) to observe there may be specific differences in women's experiences based on context and location.

Although there has only been limited research on gender inequality with regard to trades and semi-skilled women working in construction in Australia, researchers agree on the recommendations for addressing the barriers that women face in the construction industry. In their report, 'A Trade of One's Own', Bridges and her colleagues (2019) recommend that employers create safe workplaces free from harassment and bullying by providing workplace education programs aimed at culture change. They also recommend education for employers, focused on improving the induction of trainees and apprentices. Oo et al.'s (2020) findings also support changes in cultural attitudes to create workplaces that are psychologically safe for women, as well as providing female mentorship programs.

3.5.3 Poor worker wellbeing

In recent years there has been growing concern over the poor levels of male mental health in the construction industry (Bowen et al. 2018; Cattell et al., 2018). However, emerging evidence suggests that female construction workers fare even worse than men (Alderson, 2017; Galea et al., 2018). A recent study of 5,000 Australian workers across multiple industries (Fry, 2019) found that women in construction reported lower wellbeing and experienced more than double the incidence of mental health disorders (25.5%) than their male counterparts (11.7%). In their review of research on mental health in construction, Nwaogu et al. (2019) identified the need for a better understanding of the mental health effects of gender-related discrimination in construction.

Unsatisfactory workplace conditions have been identified as a major contributor to poor employee wellbeing. Construction workers are exposed to a range of serious occupational hazards that cause stress and adversely affect their wellbeing (Cattell et al., 2016). Such conditions include long working hours under pressurised deadlines, limited job control (Bowen et al., 2018), high levels of conflict (Panahi et al., 2017), and job insecurity (Langdon & Sawang, 2018). While these risk factors impacting on wellbeing have been identified, research on how to address mental ill health in construction is still in its early stages (Beyond Blue, 2018). Nwaogu et al. (2019) argue that moving forward, research on construction worker mental health needs to focus on promoting health and identifying protective measures, rather than just looking at factors that create mental health risk.

Studies of female construction workers' mental health and wellbeing are rare. Therefore, research is needed to identify positive psychosocial factors in the workplace environment that may be protective of their wellbeing. After an extensive review of the wellbeing literature, we have identified a set of environmental factors that are known to foster employee wellbeing in other workplace settings. Absence or low levels of these factors will lead to high levels of worker stress and poor mental health outcomes. These environmental factors include psychosocial safety climate; civil and respectful workplaces; adequate employer support; low levels of work-family conflict; and individual resilience. These environmental support factors will be measured in our survey to assess how well the current workplace environment is supporting the wellbeing of women working in trades and semi-skilled roles in construction. These mental health promoting conditions are now outlined in greater detail.

Psychosocial safety climate

Recent research has found that a positive psychosocial safety climate (PSC), where employees feel comfortable to speak up about occupational hazards without fear of retribution, is extremely important for protecting workers' wellbeing (Rodriguez, 2020) and physical health (Zadow et al., 2017). PSC refers to an organisation-wide environment that eliminates psychological risk factors, adopts work stress prevention and fosters workers' wellbeing (Dollard et al., 2012). PSC can be defined as the ''policies, practices and procedures for the protection of worker psychological health and safety'' (Dollard & Bakker, 2010, p.580). At the organisational level, senior management play a crucial role in setting the tone of the workplace climate (Flin et al., 2000). Therefore, PSC is determined by the values and behaviours of the senior executives and managers. Positive PSC is created by executives and managers who i. are committed to stress prevention; ii. prioritise employee psychological health and safety over productivity; iii. are responsive to employee contributions and concerns; and iv. encourage active participation and consultation between employees, unions, and occupational health and safety representatives (Hall et al., 2010). Organisations with low PSC are characterised by high work stress levels (Afsharian et al., 2017) as they fail to protect workers from the stressful effects of occupational hazards like long working hours and pressurised deadlines (Bowen et al., 2018).

Incivility and disrespect

Civility at work refers to agreed standards of behaviour that foster positive relationships through displaying mutual respect and concern for the wellbeing of others in the workplace (Sypher, 2004). A climate for civility is defined as 'employee perceptions of norms supporting respectful treatment among workgroup members' that ensure uncivil behaviour does not occur (Walsh et al., 2012, p.410). Manager behaviour plays a pivotal role in creating a respectful work environment and in preventing and holding individuals accountable for uncivil behaviour (Walsh et al., 2018). Workplace incivility, on the other hand, refers to rude or disrespectful behaviours like demeaning or threatening remarks and actions that transgress the expected norms of mutual respect. Incivility is classed as 'low-intensity' mistreatment (Andersson & Pearson, 1999) and refers to subtle and sometimes ambiguous actions like failing to greet a colleague or ignoring what someone is saying (Walsh et al., 2018). Workplace incivility can be costly to both the individual and the organisation. It is known to have an adverse effect on workers' psychological well-being (Cortina et al., 2001), job satisfaction (Lim & Lee, 2011), motivation, creativity, and work performance (Cortina et al., 2001; Porath & Pearson, 2013), and can lead to disengagement and intention to leave (Cortina et al., 2001).

Lack of supervisor support

Supervisor support refers to an employee's perception of how much their immediate supervisor provides them with social support, cares about their wellbeing and values their contributions (Caplan et al., 1975). Since supervisors are in direct contact with workers and their tasks, they understand at first hand the work demands and job stressors and have access to resources (such as autonomy, social support and work flexibility) to address them (Sundin et al. 2011). Effective supervisor communication, clear job direction and timely information lowers workers' job stress by reducing role ambiguity (Thomas & Lankau, 2009). Supervisor support buffers against the demands of the job and against work and time pressures (Willemse et al., 2012), and also against work-family conflict (Selvarajan et al., 2013). A high level of supervisor support is therefore related to job satisfaction (Hämmig, 2017) and better work performance, and to less emotional exhaustion

(Willemse et al., 2012) and burnout (Hämmig, 2017). In contrast, lack of direct supervisor support for handling problems at work is related to poor worker health and lower performance (Hämmig, 2017). Low supervisor support increases the risk of worker anxiety and depression (Sinokki et al., 2009). Past research has shown that typically most construction workers suffer from low levels of management support (Love et al., 2010). A study of female apprentices training in male-dominated trades (Shewring, 2009) emphasised the need to improve employer support for women on-site. Therefore, positive supervisor support and responsiveness to complaints about workplace discrimination are considered essential for enabling tradeswomen to succeed in their careers (Skills ACT, 2018).

Work-family conflict

Work-family conflict refers to a worker's feeling of harmony and control over the time they spend to fulfil their role requirements at work and the responsibilities in their private life outside work. Good work-life balance fosters psychological wellbeing and productivity (Fitzpatrick et al., 2012). Many construction workers struggle to maintain a healthy work-life balance due to work-overload, lack of autonomy, long hours, shift work and time spent travelling to building sites (Bowen et al., 2018). This imbalance leads to work-life conflict which is defined as "job demands that interfere with performing home and family responsibilities" (Tominc et al., 2019, p.134). Work-life conflict increases pressure and stress on the worker, lowering their level of wellbeing and harming their job performance (Fotiadis, 2019; Obrenovic et al., 2020). Construction workers, particularly women (Lingard & Lim, 2004), frequently suffer from work-life conflict (Bowen et al., 2018; Langdon & Sawang, 2018). To counteract this, many tradeswomen choose to become sole traders due to the flexibility it offers for better work-life balance (Shewring, 2009). Other women rely heavily on their family and friendship networks for support in managing their home and family life (Fuhrer & Stansfeld, 2002).

Resilience

Resilience refers to the ability to adapt to changes and bounce back from shocks or stressors and has been used in research on employee wellbeing in multiple professions and industries. Calvard and Sang (2017) define resilience as the ability to survive or thrive under adversity. It is argued that resilience provides key psychological capital needed for employee wellbeing. Women's resilience in trades and semi-skilled roles has been under-researched (Bridges et al., 2019). Based on our literature review, only two studies have examined Australian tradeswomen's resilience, but they focussed only on rural areas: 'A Trade of One's Own' (Bridges et al.,2019) and 'Skills for Women Tradies in Regional Australia: A Global Future' (Jenkins et al., 2019). These studies examined individual resilience, socio-cultural factors, and workplace cultures in relation to women in manual trades, providing insights focused on resilience and overcoming barriers to retention. Bridges et al. (2019) drew attention to the importance of resilience and how employers, workplaces and the industry can support women's resilience in meaningful ways.

While beneficial for workers' wellbeing, resilience has faced criticism for placing too much responsibility on the individual employee, effectively shifting the responsibility for wellbeing onto the individual, while ignoring the impact of inequalities and obscuring the need to challenge workplace injustice (Calvard & Sang, 2017). This, critics argue, positions a lack of resilience as a deficit of the employee rather than a result of structural issues and deficient organisational practices. Similarly, MacKinnon and Derickson (2012) argue that the concept of resilience does not easily enable challenges to unjust systems. Despite this critique, Chan, et al. (2020), in their review of literature

on mental health in the construction industry, identified strategies focused on building resilience as promising secondary interventions.

In the literature on mental health and wellbeing there have been calls for a combination of approaches and more research into promoting wellbeing rather than reacting to existing problems. Chan et al. (2020) argue that both primary and secondary interventions are needed to respond to mental health issues experienced in the construction industry. They also note that there needs to be more research into skilled and unskilled workers in construction. They argue that future research should focus on promoting health and protective measures rather than just looking at factors that influence risk. Specifically, they call for more research into organisational injustice (including harassment and gender inequality) in order to identify ways to support construction workers. Although resilience has been identified as an important and under-researched factor in women's experience, it needs to be investigated in the context of enablers and barriers of wellbeing in the workplace, taking into account the organisational and cultural factors in promoting or inhibiting resilience for women in trades. Jones et al.'s (2017) highlights that preventive work undertaken around women's resilience can bring into focus the organisational and cultural factors that relate to and influence construction women's resilience and wellbeing.

3.6 Interventions for addressing inequality

3.6.1 Partially successful interventions

It is important to note that the gender equality issues in the Australian construction industry identified in recent literature (e.g., Jones et al., 2017; Jenkins et al., 2019; Simon et al., 2016) have remained resistant to change over many decades. A key research project on women in trades in Australia was undertaken by Jones et al. (2017) to understand the persistently low participation of women in the electrical trades. Their research focused on exploring the perceptions and experiences of female tradeswomen and their employers. Using a socio-ecological model to inform their research, they explored the complexity of the construction industry and the multiple factors and stakeholders that influence workplace culture. They found that interventions generally fail because they have not addressed the core problem, i.e., the behaviour of workers and the industry culture. Where interventions have attempted to address workplace culture, they have not been holistic and/or have been undertaken in isolation, rendering the intervention unsustainable.

From their research, Jones et al. (2017) developed several recommendations. On a practical level they highlighted the need for adequate physical provision for women in the workplace, including appropriate Personal and Protective Equipment (PPE), uniforms, and separate toilet facilities. In relation to retention, Jones et al. (2017) highlighted that employers need to offer flexible hours and paid parental leave. However, they emphasised that these changes alone are not enough to address gender inequality. They argued that previous strategies that have only focused on amenities and equipment have failed to increase the number of women in trades because they did not address the root of the problem. What is needed is cultural change to bring about meaningful progress towards gender equality. Specifically, they recommended training aimed at building respectful relationships. They argued that culture change must to be supported and reinforced by multiple stakeholders to create sustained change. The method they recommend is 'site-saturation' which involves different stakeholders engaging in collaborative efforts and mutually reinforcing programs and activities. They cited a successful Victorian initiative *Generating Equality and Respect* focused on domestic violence (VicHealth, 2016) as a model for this type of intervention.

3.6.2 Promising intervention models

Site-saturation and male manager champions

The Victorian Government's *Generating Equality and Respect* program (see VicHealth, 2016) is an innovative example of a primary prevention strategy for proactive cultural change to combat violence against women (Jones et al., 2017). Previously, primary prevention had been implemented in Victoria at an organisational level, however, *Generating Equality and Respect* focused on primary intervention in a specific location (Clayton, Victoria). The program underscored the importance of working with male-dominated corporate culture "where they are at" (VicHealth, 2016, p.99). The initiative was a collaborative effort that created mutually reinforcing co-occurring activities to reach 'site-saturation'. The evaluation noted the importance of engaged managers as 'champions' who were passionate about the project and able to foster engagement in others, teamwork and communication, and capacity-building for prevention strategies. An evaluation of this project found that it met, or partially met, most of its aims and that the participants indicated that they would continue with the activities after the project had ended. Given the complexity in the construction industry and the number of stakeholders involved, it is clear why Jones et al. (2017) highlighted this as a case study in their recommendations for changing the culture of the industry. Although this initiative was aimed at preventing violence against women in the community, primary interventions have been successful in relation to ameliorating occupational stress in the workplace.

Public procurement process

Public procurement is a valuable mechanism to address employment inequality in the private sector (McCrudden, 2007; 2012). An example of an effective British intervention to advance women in the construction industry involved local government using its public procurement process to make gender equality a requirement for construction contracts for London's Olympic Park (Wright & Conley, 2018). In that project, business leaders and industry bodies supported a partnership between the public and private sectors to address the problem of occupational gender segregation in construction (Wright & Conley, 2018). The project increased the number of women on-site and later led either to apprenticeships or permanent employment for most of the tradeswomen who had worked on the site. After studying this initiative, Wright & Conley (2018) argued for more involvement of civil society stakeholder groups, like trade unions and Women into Construction to improve the process. They argue that these groups could provide independent contractual compliance monitoring as well as providing training and support throughout the entire supply chain. From their detailed case study of Olympic Park, Wright & Conley (2018, p.1) concluded that "public procurement is a potentially powerful tool for breaking down gender segregation". The use of public procurement and contract compliance to advance diversity and inclusion in this project serves as an example of 'responsible procurement' (McCrudden, 2012).

3.7 Summary

There have been longstanding and persistent problems in gender equality in the Australian construction industry, and a growing recognition that previous attempts to address this problem have largely failed (Jones et al., 2017). This review found that most research on women in the construction industry has focused on women in professional roles, which indicates a pressing need for more research into women in trades and semi-skilled roles. The review has highlighted research that found that women's experiences in construction trades and semi-skilled roles are shaped not

just by the nature of the work, but additionally by intransigent gender discrimination and inappropriate conduct in the workplace. Researchers are now calling for further research into promoting wellbeing and addressing organisational injustices around gender inequality and harassment (Chan et al., 2019). Jones et al. (2017) have highlighted the importance of focusing on holistic cultural change that is mutually reinforced by multiple stakeholders. The importance of employer support in championing and supporting system-wide changes in workplace attitudes and behaviour towards women is also highlighted (Shewring, 2009; Jones et al., 2017). However, the construction industry is complex (Shewring, 2009) and each trade will be likely to have its own unique barriers and challenges. Therefore, there is a need for an in-depth understanding of women's experiences, and the experiences of people who support women, across all trades in the construction industry. More insight into the experiences of women in trades and manual labour roles is needed to inform decisive strategies that can succeed in both supporting and promoting the wellbeing and resilience of women and in creating workplace culture change to foster gender equality in construction.

Part 4: Theoretical Framework

4.1   Promoting and protecting worker wellbeing

Models of work, stress, and health recognise the interplay between environmental, social, organisational, and individual factors as they influence workers' wellbeing, and suggest multiple points for promoting and protecting worker health (Heaney, 2011). Given these multiple factors, Heaney (2011) highlights the complexity of implementing successful interventions to improve workers' health. Importantly, a growing body of evidence identifies the central role that leaders and managers play in fostering workplace wellbeing and health (Mullen & Kelloway, 2011). Such an approach challenges the notion that wellbeing is the sole responsibility of the individual worker. Instead, leaders and managers play a critical role in creating and shaping a safe working environment for individuals to enable wellbeing.

Hurrell (2005) identified three intervention typologies which can promote and protect worker health and enable wellbeing: primary, secondary and tertiary (Kelloway & Dimoff, 2017).

- Primary interventions focus on changing the workplace
- Secondary interventions focus on mitigating the effects of workplace stressors on workers
- Tertiary interventions focus on treating the effects on stress

Workplaces are identified as environments in which changes can result in significant health improvements through health promotion and disease prevention (World Health Organisation, 2008). Health promotion and disease prevention programs are interventions put in place by employers to improve the lifestyle choices and health of workers as ways of preventing chronic illness (Heaney, 2011). Individual choice is important in shaping health and wellbeing however it is subject to the environmental context. In addition, organisations must also consider the broader work environment to identify and remove organisational hazards and practices that contribute to poor health, in addition to individual factors (Ettner & Grzywacz, 2001; McLeroy et al., 1988).

The social ecological theoretical framework (McLeroy et al., 1988) positions the physical and organisational work environments as important factors that significantly shape workers' wellbeing and health (Ettner & Grzywacz, 2001). Health promotion and protection interventions implemented in an unsupportive work environment will produce weak or short-lived benefits (Sallis et al., 2008). Hence this study will focus on identifying the factors in the construction workplace that either promote or hinder the wellbeing of women working in trades and semi-skilled roles. In this study, resilience is positioned as a multi-faceted process which incorporates both individual capacity, and the availability and access to workplace resources.

Part 5: Methods for Wellbeing Study

5.1 Sample and recruitment method

Trades and semi-skilled women working in construction were invited to take part in a survey (either online or paper-based). Participants were recruited through networks associated with the Building Industry Consultancy Committee's (BICC) Implementation Advisory Team (IAT). BICC-IAT members, as well as the Construction, Forestry, Maritime, Mining and Energy Union (CFMMEU) and the Electrical Trades Union (ETU) posted a hardcopy survey accompanied by an invitation to participate in an interview to 450 members including members of the Plumbers Trade Union (PTU). Each member was followed up with a reminder email, and in the case of the CFMMEU, an additional reminder text message. Master Builders Victoria and Multiplex advertised the survey and interview invitation on their social media pages. Multiplex additionally placed a hardcopy poster on-site. The following women in construction support groups posted the invitation to participate in the project on their website and/or Facebook page: Women in Trades Network, LadyTradies, SALT, Tradeswomen Australia, and TradeUP. The Vocational Education and Training Development Centre also advertised the research.

5.2 Data collection and analysis

The research was conducted in two phases consisting of a survey and a semi-structured interview. Ethics approval was obtained from RMIT University's Human Ethics Committee.

The survey was open for a period of 7 weeks, commencing the week beginning Monday 22nd June and ending Wednesday 12th August 2020. Interviews were conducted over the same period of time over the telephone due to COVID-19 restrictions

5.2.1 Survey

The survey was comprised of individual demographic questions and established measures of:

  i.   Psychosocial safety climate

  ii. Respect

  iii. Supervisor support

  iv. Work-family conflict

  v.   Resilience

Participants were also invited to provide free-text comments relating to their experiences working in construction.

Specific details of the measures are provided below.

Psychosocial safety climate (PSC): The psychosocial safety climate (PSC) scale (Dollard et al., 2010) was used to measure organisational climate for employee psychological safety and health.

The scale consists of 12 items and 4 factors: 1) management commitment to PSC; 2) management priority for PSC; 3) organisational communication about PSC; and 4) employee participation and involvement in OHS initiatives. Items associated with three factors (management commitment, management priority, and organisational communication) were adapted by replacing 'organisation' with 'head contractor' and 'my direct employer'. The three items making up the fourth factor (organisational participation and involvement) were used as originally developed. Scale item examples include "onsite management from the head contractor acts quickly to correct problems/issues that affect employees' psychological health" and "my contributions to resolving occupational health and safety concerns onsite are listened to by management from my organisation (my direct employer)". Using the scale of strongly disagree (1) to strongly agree (7), participants were asked to respond according to their experiences in the workplace.

Civility and respect: A climate for civility and respect was measured using the Civility Norms Questionnaire-Brief (Walsh et al., 2012). The scale consists of four items which are summed into one factor representing 'employee perceptions of norms supporting respectful treatment among workgroup members' (Walsh et al., 2012, p.410). The scale was modified to include perceptions of norms for each gender. Examples items include "my male co-workers make sure everyone in my unit/workgroup is treated with respect" and "my female co-workers make sure everyone in my unit/workgroup is treated with respect". Participants were asked to indicate their agreement with the items on a seven-point Likert scale from "strongly disagree" (1) to "strongly agree" (7).

Supervisor support: The Social Support from Supervisor Index (Caplan et al., 1975) was used to measure supervisor support. This scale consists of four items which are summed into one factor representing perceptions of workers regarding the degree to which their supervisor(s) value their contributions and care about their wellbeing. The measure incorporates elements of both emotional support and instrumental (task-related, practical) support. An example item is "how much can your supervisor/manager be relied upon when things get tough at work?". Participants were asked to indicate their agreement with the items on a four-point Likert scale from "not at all" (1) to "a lot" (4).

Work-family conflict: Work-family conflict was measured using a three-item scale by Tominc et al. (2017). The items are summed into one factor that identifies job demands that interfere with performing home and family responsibilities (Tominc et al., 2017, p.134). Two of the items were amended to include 'home' in addition to family. This ensured that the scale was relevant to all participants, irrespective of family structure (e.g., single or partnered, with or without children). An example item is "the demands of my work interfere with my home and family life". Participants were asked to indicate their agreement with the items on a seven-point Likert scale from "strongly disagree" (1) to "strongly agree" (7).

Resilience: Resilience was measured using the Employee Resilience Scale (Näswall et al., 2015). The scale consists of nine items which are summed into one factor representing "employee capability, facilitated and supported by the organisation, to utilise resources to continually adapt and flourish at work, even if/when faced with challenging circumstances" (Näswall et al., 2015, p.1). An example item is "I seek assistance to work when I need specific resources". Using the scale of never (1) to almost always (7), participants were asked to indicate how often they displayed the behaviours listed.

Survey pilot

The online survey was piloted for usability and readability with four site-based, civil, sub-contracting construction workers on-site using their mobile phones. In addition, the paper-based and online

versions of the survey were tested by members of the BICC-IAT. Feedback was provided and incorporated into the final version of the survey.

5.2.2 Interviews

Semi-structured interviews were conducted with female trades and semi-skilled women who volunteered their names and contact details at the end of the survey or contacted the research team directly. The aim of the interviews was to identify both the challenges and facilitating factors associated with the development of construction women's resilience and wellbeing. Semi-structured interviews were conducted over the phone and ranged from 30 minutes to 2.5 hours in length. Interviews were recorded with permission and transcribed. The transcript data were then subjected to thematic analysis. Given the exploratory nature of the research, thematic analysis was deemed a suitable method from which themes could emerge a priori (Boyatzis, 1998). Qualitative data from the interviews were independently analysed by two of the research team members who cross-checked for agreement on the emergent themes, thereby ensuring interrater reliability (Ballinger et al., 2004). Quantitative content analysis (Joffe & Yardley, 2004) was applied to the data to identify the frequency of occurrence of the emergent themes.

Part 6: Findings of Wellbeing Study

6.1   Survey participants

One hundred and sixty-eight surveys met the requirements of the study and were retained for analysis i.e., females working in trades and semi-skilled roles in the construction industry. The age of participants ranged from 20 to 64 years. The mean age was 36 years and the median age was 33 years. The living arrangements of participants varied, with 20% living alone, 35.9% living with their partner, 16.5% living with their partner and children, 5.9% were single parents living with their children, 12.9% lived with their parents, and 8.2% lived with friends or house mates. One third (34.1%) of participants did not have a partner, while 2.9% of participants did not indicate their relationship status. Of the 63% of participants who had a partner, 4.7% of their partners did not work, 11.8% were in part-time employment, and 46.5% of partners were in full-time employment. Participants were asked how much responsibility for other people (outside of the workplace) they had inclusive of children, parents, and others. Overall, responsibility for others ranged from below-average to average.

6.2   Survey participant work characteristics

Participants' years working in construction ranged from 1 to 42, with a mean of 9 years. For most participants (78.8%), construction was not their first career. The majority of participants (63.5%) worked in the commercial sector, while 20% worked in the civil sector, and 12.4% worked in the domestic sector. Type of employment varied between full-time (71.8%), casual (22.4%), and part-time (4.7%). Weekly working hours ranged from 8 to 70 hours. On average, full-time participants worked 44.5 hours per week, part-time participants worked 31 hours per week, and casual participants worked 44 hours per week. Participants were asked what type of business they worked for. Ten percent were sole traders, 5.9% worked for a micro-business (headcount fewer than 10), 13.5% worked for a small business (headcount fewer than 50), 24.7% worked for a medium-sized business (headcount fewer than 250), and the majority (45.3%) worked for a large business (headcount over 250). Participants held a wide range of roles, as summarised in Table 6.1. Job roles in the "other" category included: plasterer, tower crane crew, emergency electrician, water plumber, caulker, electrical line worker, and rope access technician.

Table 6.1 Survey participant work roles

Role	Number of participants (N=168)	% of participants
Traffic controller	26	15.5
Labourer	23	13.7
Carpenter/Joiner	12	7.1
Industrial electrician	10	6.0
Commercial electrician	10	6.0
Specialist electrician	8	4.8
Construction electrician	8	4.8
Residential electrician	5	3.0
Painter	5	3.0
Rigger	4	2.4
Mobile Crane Operator	3	1.8
Plant Operator	3	1.8
Dogman	2	1.2
Hoist/Winch	2	1.2
Fire Services Plumber	2	1.2
Other	45	26.5

6.3 Survey findings

6.3.1 Psychosocial safety climate

Psychosocial climate (PSC) was measured using the PSC scale (Hall et al., 2010) comprising of 12 items and four components:

(1) senior management support and commitment for stress prevention through involvement and commitment;

(2) management priority to psychological health and safety versus productivity goals;

(3) organisational communication, that is, the organisation listens to contributions from employees;

(4) organisational participation and involvement, for example, participation and consultation occurs with unions, and occupational health and safety representatives (Hall et al., 2010, p.355).

Participants responded on a 5-point scale where a higher score indicated a better climate for employee psychological safety and health. Mean scores were calculated by summing and averaging the 3 items of each component. Participants responded to PSC items related to their head contractor, direct employer, and overall experience. Mean and median scores are outlined in Table 6.2. The results suggest that PCS was slightly higher in direct employer organisations compared with head contactor organisations.

Table 6.2 Mean and median scores of psychosocial safety climate (PSC)

PSC Component	Head Contractor (Mean/Median score)	Direct Employer (Mean//Median score)	Industry-wide (Mean//Median score)
Senior management support and commitment for stress prevention through involvement and commitment	Mean = 3.4 Median = 3.6 See Figure 6.1 for the distribution of means	Mean = 3.6 Median = 4.0 See Figure 6.4 for the distribution of means	Not measured
Management priority for psychological health and safety versus productivity goals	Mean = 3.2 Median = 3.3 See Figure 6.2 for the distribution of means	Mean = 3.5 Median = 4.0 See Figure 6.5 for the distribution of means	Not measured
Organisational communication about psychological health and safety	Mean = 3.2 Median = 3.3 See Figure 6.3 for the distribution of means	Mean = 3.5 Median = 3.6 See Figure 6.6 for the distribution of means	Not measured
Employee participation and involvement in OHS-related matters	Not measured	Not measured	Mean = 3.7 Median = 4.0 See Figure 6.7 for the distribution of means

Head contractor: The distribution of mean scores for all participants for the three PSC components is shown in the following Figures.

Mean = 3.42
Std. Dev. = 1.103
N = 156
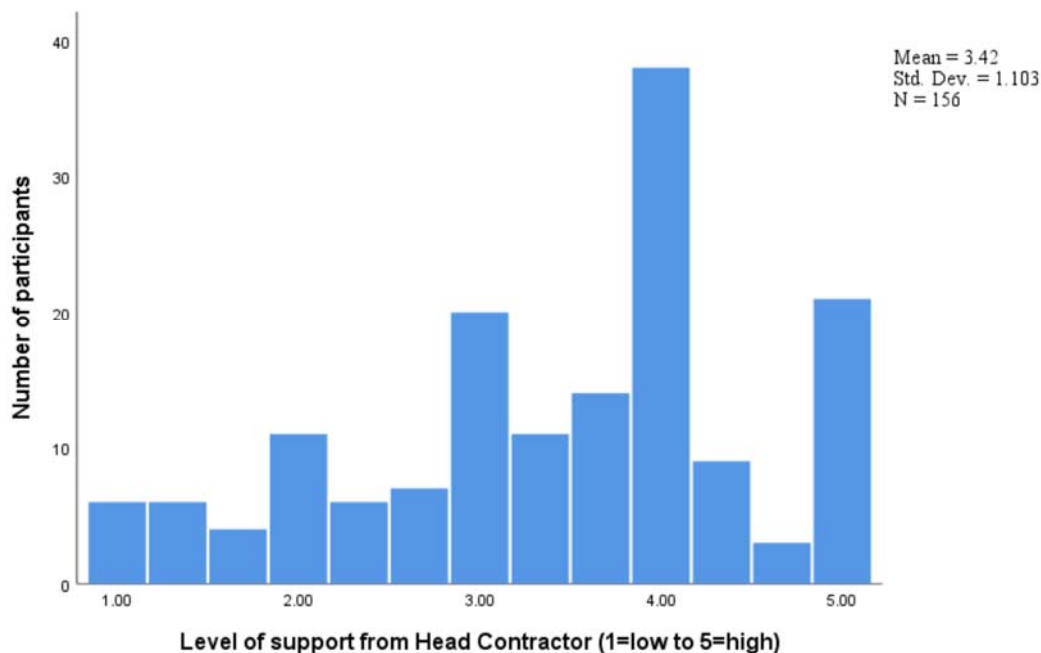
Figure 6.1 Distribution of mean scores of participants for senior management priority to psychological health and safety versus productivity goals for Head Contractor

Mean = 3.27
Std. Dev. = 1.107
N = 156
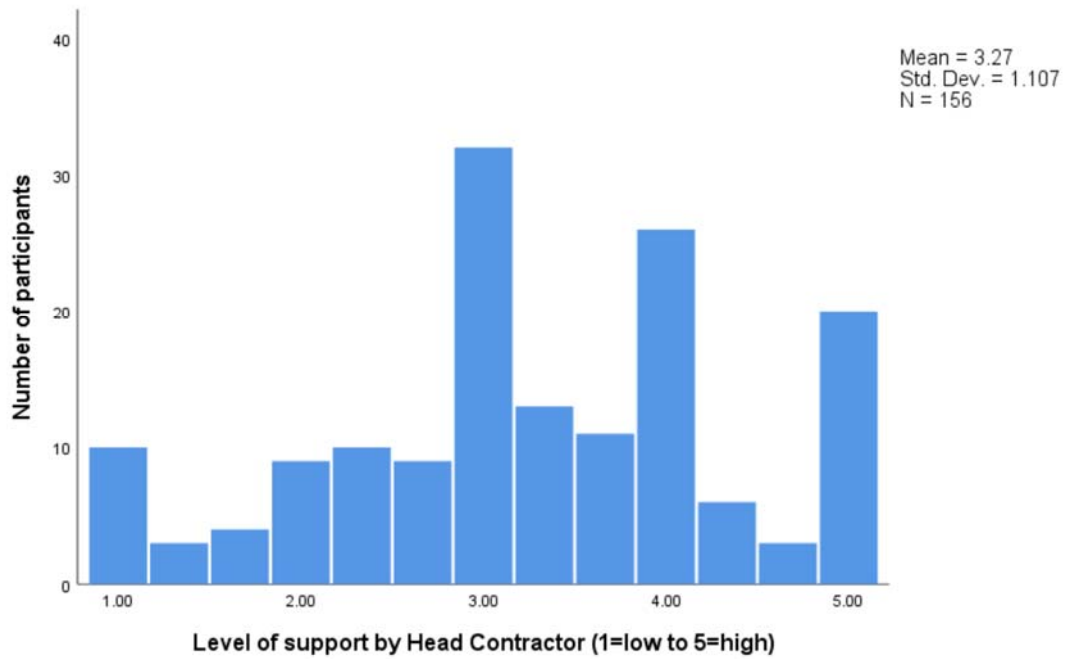
Figure 6.2 Distribution of mean scores of participants for management communication from Head Contractor

Mean = 3.26
Std. Dev. = 1.066
N = 155
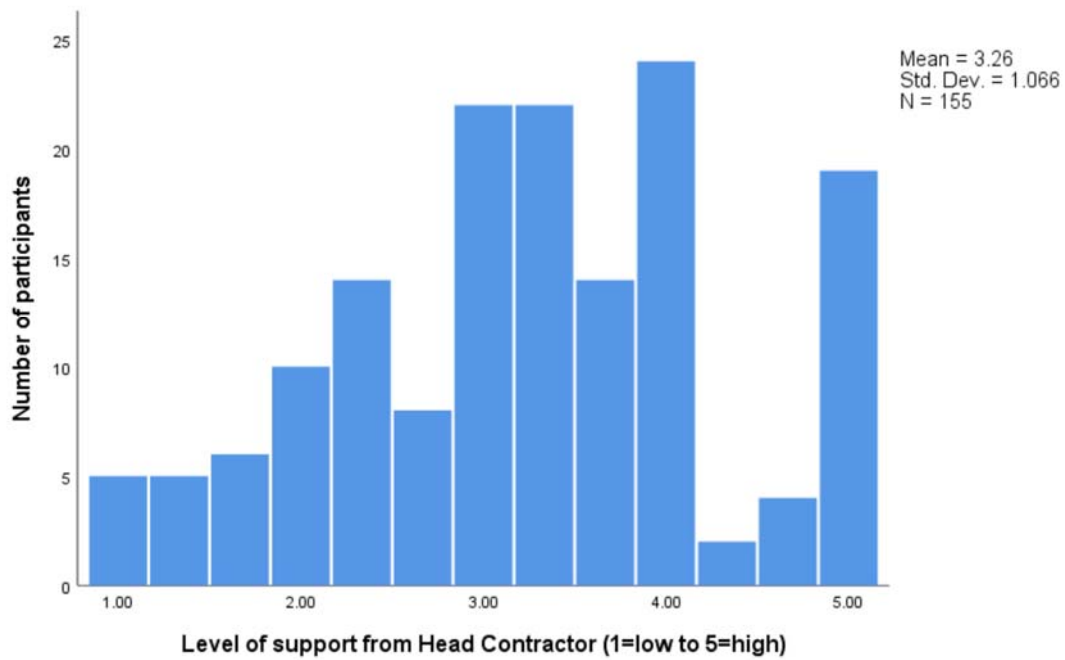
Figure 6.3 Distribution of mean scores of participants for organisational communication from Head Contractor

An opportunity was provided in the survey for respondents to make comments in addition to their numerical responses to the different scales. Twenty-two participants provided comments about head contractor organisations in the free-text box. Analysis of these comments, with examples, is presented in Table 6.3. Twenty-two percent (n=5) of those who commented reported the Head Contractor's psychosocial safety climate was supportive of worker wellbeing. However, the majority (68%, n=15) felt the Head Contractor ignored worker wellbeing. A further 27% (n=6) believed the Head Contractor merely paid lip service to workplace wellbeing, with 9% (n=2) asserting that the Head Contractor prioritised productivity over wellbeing. Thirteen percent (n=3) reported adverse reactions to reporting wellbeing issues. One participant felt pessimistic about the probability of the Head Contractor's psychosocial climate ever improving: "*the culture on a lot of sites is still toxic and damaging, and the cost of changing it and the necks that will have to be put on the line to make it happen, mean it's very unlikely any change will eventuate.*"

Table 6.3 Head contractor's psychosocial safety climate

	Percent (No.)
Ignored *"Management don't care. They fob it off all the time." "I have brought up safety and health issues and am often disregarded." "Mental health is basically ignored." "I asked 9 different people from the head contractor and all 3 shop stewards. Nobody would help."*	68% (n=15/22)
Lip service *"Although a lot of HSR reps make noise about wellbeing at work, the reality is that genuine efforts to look after the crew slow down works and cost money that none of them want to spend." "All of these practices are in writing/EBAs etc., but not put into practice in my experience."*	27% (n=6/22)
Supportive *"In my current workplace, mental health is a big point and is well looked after."*	22% (n=5/22)
Adverse reaction *"The men's bathrooms had great big bottles of heavy-duty soap. After raising the issue many times and being ignored, when we finally received soap, they bought us bars of soap which were so filthy it would have been more hygienic not to use the soap at all."*	13% (n=3/22)
Productivity prioritised over wellbeing *"Head contractor applies too much pressure and doesn't care about anything but meeting dates."*	9% (n=2/22)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Direct employer: The distribution of mean scores for all participants for the three PSC components is shown in the figures below.
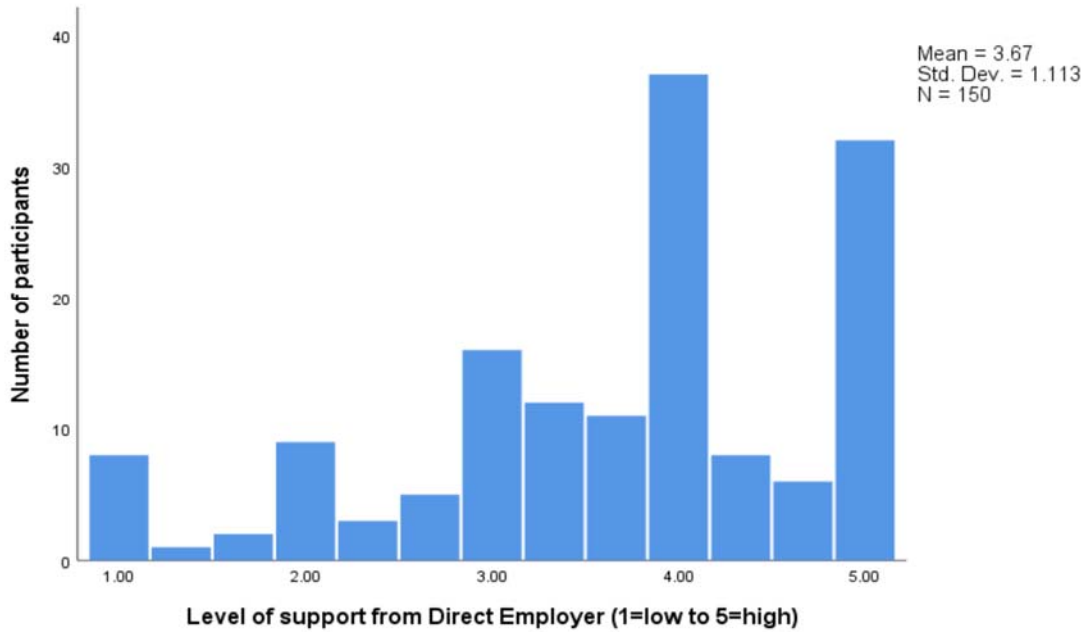
Figure 6.4 Distribution of mean scores of participants for senior management support and commitment for stress prevention for Direct Employer
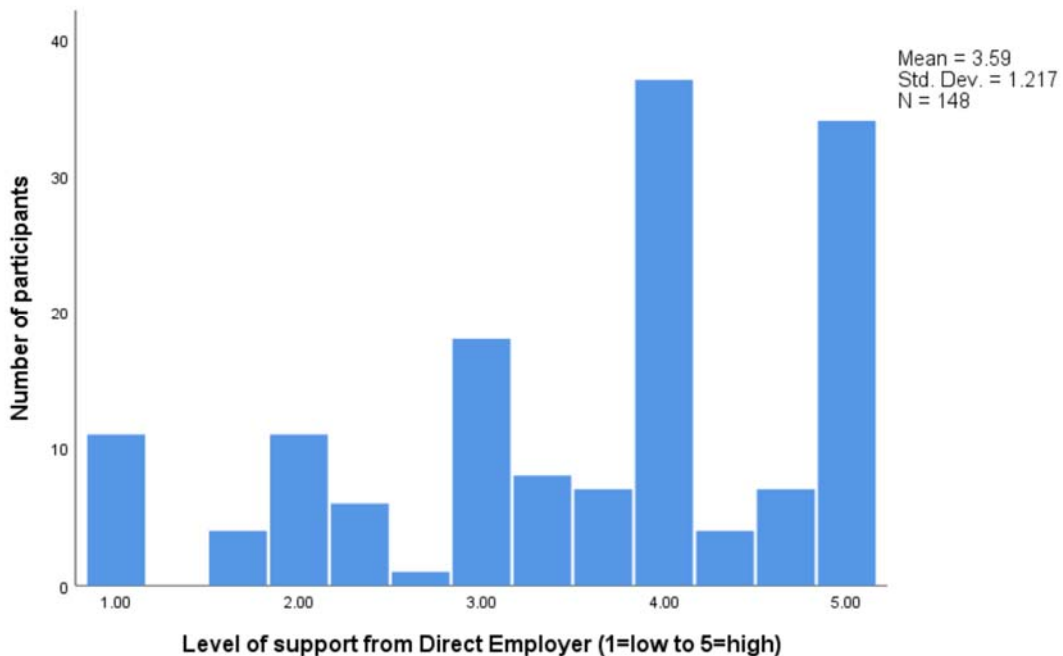
Figure 6.5 Distribution of mean scores of participants for management priority to psychological health and safety versus productivity goals from Direct Employer
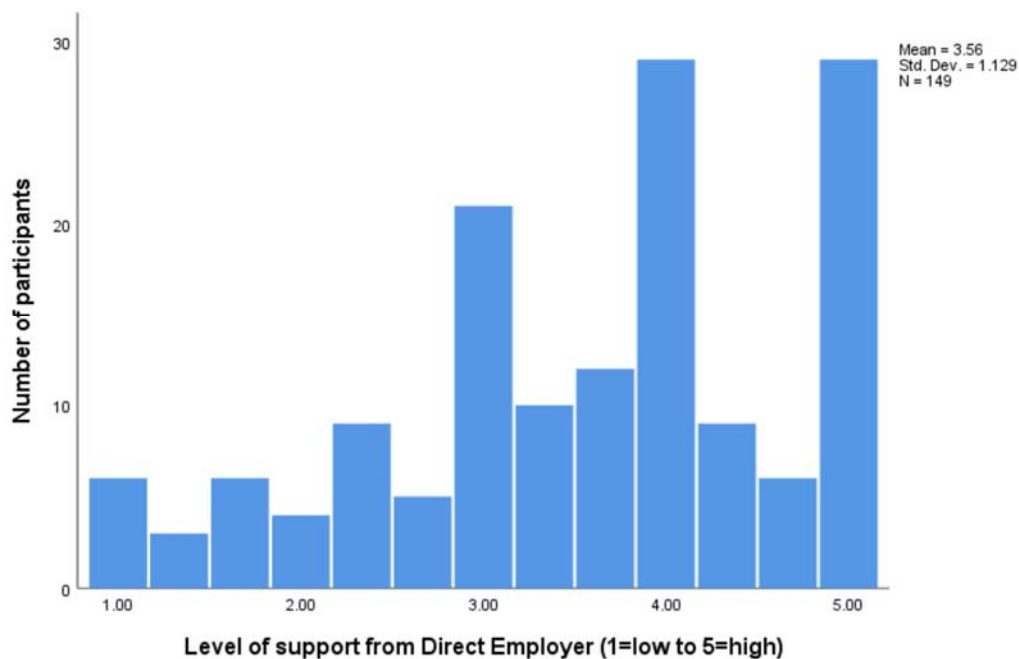
Figure 6.6 Distribution of mean scores of participants for organisational communication from Direct Employer

Fewer participants (N=11) made free text comments about the PSC provided by their direct employer (see Table 6.4 for a summary and examples). Similar to the comments on the Head Contractor organisation, most participants (55%, n=6) believed workplace wellbeing was ignored, with a small number reporting lip service (9%, n=1) and adverse reactions (9%, n=1). Eighteen percent (n=2) commented that their direct employer provided a positive psychosocial safety climate. A further 18% (n=2) reported that employees felt fearful of speaking up about wellbeing issues in case they lose their job. Thirty-six percent (n=4) raised the issue that opposing attitudes to wellbeing can exist within the same organisation, with some managers and co-workers being supportive, while others are not.

Table 6.4 Direct employer psychosocial climate

	Percent (No.)
Ignored *"I've known people that have directly told my boss they are struggling mentally, and they have done nothing to assist." "Management don't accept a diary as evidence in disputes/investigations, but don't tell you. In some cases, a diary had been kept for years until we realised it won't count."*	55% (n=6/11)
Good and bad can coexist within the same organisation *"Our head office staff are really good with mental health issues, but onsite staff are not good at all." "Apart from 2 men, nobody else in management have ever shown me any kind of support." "I'm to keep my mouth shut. However, my manager is happy for me to take days off if I'm feeling a bit burnt out."*	36% (n=4/11)
Fear of speaking up *"Always feeling as though speaking up can be detrimental to your employment." "I work in labour hire. If you identify as having a mental health issue that may impact on your productivity, you don't get work."*	18% (n=2/11)
Positive environment *"My direct employer is fantastic." "My commissioning manager was very supportive of mental health, that was his priority."*	18% (n=2/11)
Lip service *"Management put on a big deal about Are You Ok Day, Men's Health Week and International Women's Day, to look good, but really they don't care for the majority of the year."*	9% (n=1/11)
Adverse reaction *"Human resources bullied and intimidated me every day for 3 months. I couldn't breathe properly most days because my anxiety was so bad."*	9% (n=1/11)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Industry-wide psychosocial safety climate: The distribution of mean scores for all participants for the fourth component of PSC, employee participation and involvement in OHS and psychological safety matters, is shown in the Figure below.

Mean = 3.76
Std. Dev. = .873
N = 145
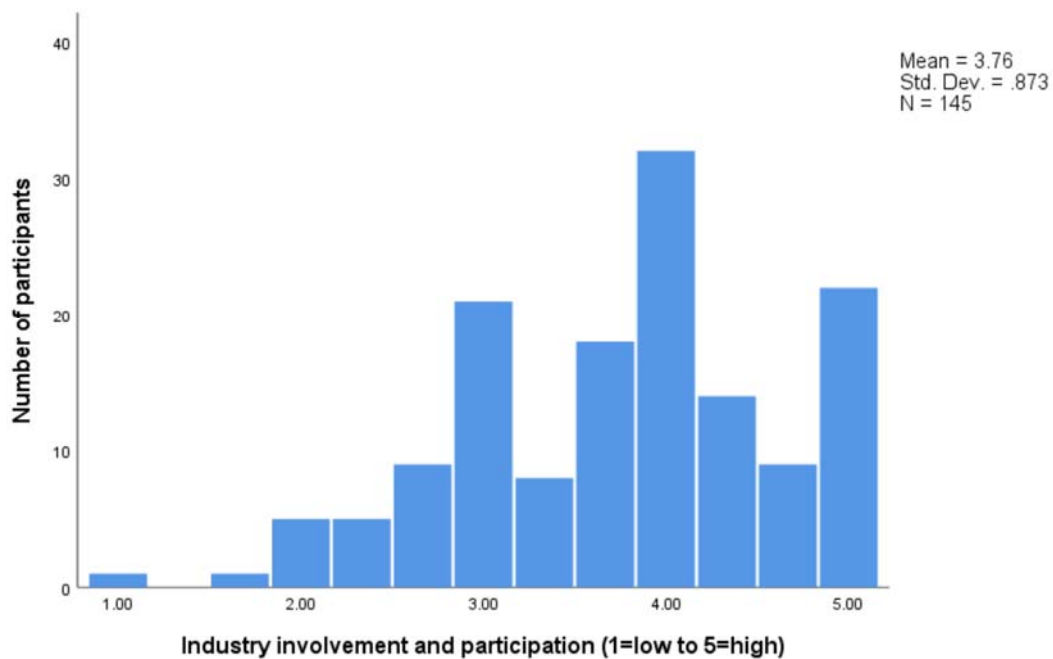
Figure 6.7 Mean scores of participants for employee participation and involvement

Very few participants (N=7) made free text comments about employee involvement and consultation on OHS and workplace wellbeing issues (see Table 6.5). While 14% (n=1) reported good consultation in their workplace, the majority of commenters (43%, n=3) reported that consultation was either ignored by both management and union representatives, or only lip service was paid (29%, n=2). In contrast, 14% (n=1) reported that the OHS and union representatives were the best source of support. A further 29% (n=2) feared speaking up in case they were viewed as difficult and were replaced.

Table 6.5 Comments about employee involvement in consultation on OHS issues

	Percentage (No.)
Ignored by management and union representatives *"There isn't very much encouragement. A lot of people in our management, and the union all have the same attitude of "you'll be right" and pat you on the back. Which is cr*p."*	43% (n=3/7)
Lip service *"Although visible efforts are made to consult, and rewards offered to participate in consultation, everyone knows consultation is a hoax and if you raise genuine issues, you're labelled a troublemaker." "Our union rep announced that [co-worker] had committed suicide. He just said, "... Man, there's f***ing support out there, just go get it. Suicide shouldn't be an option.""*	29% (n=2/7)
Fear of speaking up *"I think everyone is aware of these issues, but to come forward and say you're not OK or that you need assistance is very difficult. I can't help but feel you will be seen as dramatic, or a troublemaker and to replace you with someone else is easier."*	29% (n=2/7)
Union and Safety Representatives are more effective than management *"The culture is still there. The use of our Union Health and Safety Reps I feel is the best way to go for better outcomes."*	14% (n=1/7)
Good employee participation and consultation on OHS *"Very good company."*	14% (n=1/7)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Psychosocial Safety Climate and sector and organisation size: PSC was further examined according to sector and organisation size.

Sector: No significant differences emerged from the results. There was very little difference in PSC between head contractor organisations in the commercial, domestic, and civil sectors. Similarly, there was very little difference in PSC between direct employer organisations in the commercial, domestic, and civil sectors. When comparing the level of PSC between head contactor and direct employer organisations across the commercial, domestic, and civil sectors, directly employing organisations had slightly higher levels across all PSC components.

Organisation size: The results suggest that PSC is slightly higher in medium-sized head contractor organisations compared to micro, small and large head contractor organisations across the three PCS components. In directly employing organisations, results suggest that PSC is slightly higher at small directly employing organisations. Results are summarised in Table 6.6.

Further analysis indicated one significant difference in PSC according to organisation size. There was a significant difference for management priority to psychological health and safety versus productivity goals between small (mean = 4.2) and large (mean = 3.4) direct employer organisations.

Table 6.6 Psychosocial climate (PSC) according to organisation size

PSC component	Micro	Small	Medium	Large
			Mean score	
Head Contractor:				
Senior management support and commitment for stress prevention through involvement and commitment	3.0	3.3	3.8	3.3
Management priority to psychological health and safety versus productivity goals	3.0	3.2	3.6	3.2
Organisational communication	3.0	3.1	3.5	3.1
Direct Employer:				
Senior management support and commitment for stress prevention through involvement and commitment	3.6	4.0	3.8	3.5
Management priority to psychological health and safety versus productivity goals	3.4	4.2	3.8	3.4
Organisational communication	3.5	4.0	3.6	3.4
Industry-wide	3.1	3.9	3.8	3.7

6.3.2 Civility and respect

The workplace climate for civility and respect was measured using a 4-item scale (Walsh et al., 2012) which was summed and averaged to give an overall measure of the participants' perceptions of norms supporting respectful treatment in the workplace. Participants responded on a 7-point scale where a higher score is indicative of a more positive climate for civility and respect.

Civility and respect by males in the workplace: The distribution of mean scores for all participants is shown in Figure 6.8, ranging from 1 (very poor climate for civility and respect by males) right through to 7 (very strong climate for civility and respect by males). The results show that the climate for civility and respect by males towards women varied widely from very poor to very strong. However, the overall mean score for all participants was 5.3, suggesting a moderately positive climate that supports civility and respect by males towards women in the workplace.
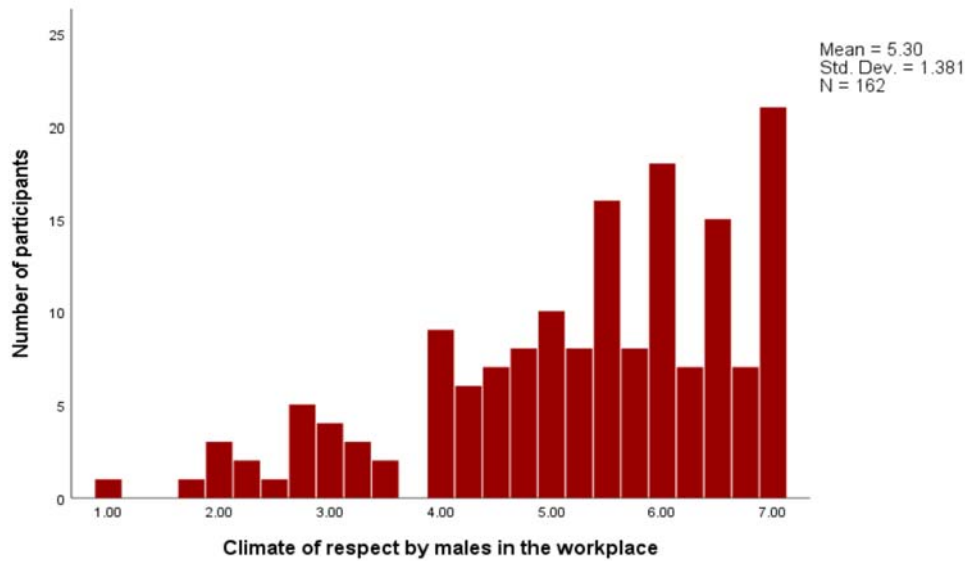
Figure 6.8 Distribution of mean scores for respect by males in the workplace

Despite most respondents reporting a moderately positive climate of civility and respect by males, 38% (64) of all survey respondents wrote open text comments providing examples of the uncivil or rude behaviour they had experienced from men in their workplace. These experiences are classified into behaviour types in Table 6.7, with illustrative quotations provided. Although incivility is defined as a low-level form of mistreatment, the commenters took the opportunity to describe moderate to high-level types of mistreatment by men. The behaviours they experienced ranged widely in severity and included alleged sexual violence (sexual harassment, humiliation and disrespect), bullying (verbal and physical aggression, negation/dismissal by male co-workers, supervisors and customers, and exclusion/ being ignored) and sexism.

Table 6.7 Types of disrespectful behaviour by men

Behaviour	Percent (No.)
Sexual harassment *"He was constantly asking me things about my sex life...he would make jokes about my sex life, by either saying things about me never having sex, or insinuating that I'm a sl*t." "Consistently being shown pornographic material on phones in crowded elevators." Filthy texts." "Someone flashed their genitals."*	31% (n=21/68)
Verbal aggression *"I had 2 males stand over me and yell in my face because I didn't want to do something out of my permit." "One of the supervisors would scream, swear, and call me things like: you stupid f**cking c*nt!"*	25% (n=17/68)
Negated/dismissed by co-workers/supervisors/customers *"Being asked to give an opinion and then having it dismissed." "Customers thinking you don't know what you are doing." "I wouldn't be able to make it and that I should get a 'girls' job'", "Belittling, assuming I know nothing." "Often people will address a male in my presence, even when I'm superior to that worker and that worker cannot answer anyway."*	19% (n=13/68)
Humiliation/disrespect *"Derogatory remarks about women." "You would earn more working on a street corner than as a sparky." "One man constantly calling me derogatory names over the intercom that went on for months for everybody to hear."*	19% (n=13/68)
Excluded/ignored *"Excluded from conversations that were work related due to 'secret men's business'." "Being isolated and not spoken to by other workers."*	15% (n=10/68)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Civility and respect by females in the workplace: The distribution of the mean scores for all participants is shown in Figure 6.8, ranging from 1 (very poor climate for civility and respect by females) right through to 7 (very strong climate for civility and respect by females). The results suggest that the climate for civility and respect by females also varied widely between our participants. The overall mean score for all participants was 5.6, suggesting a moderately positive climate that supports civility and respect by females towards females in the workplace.
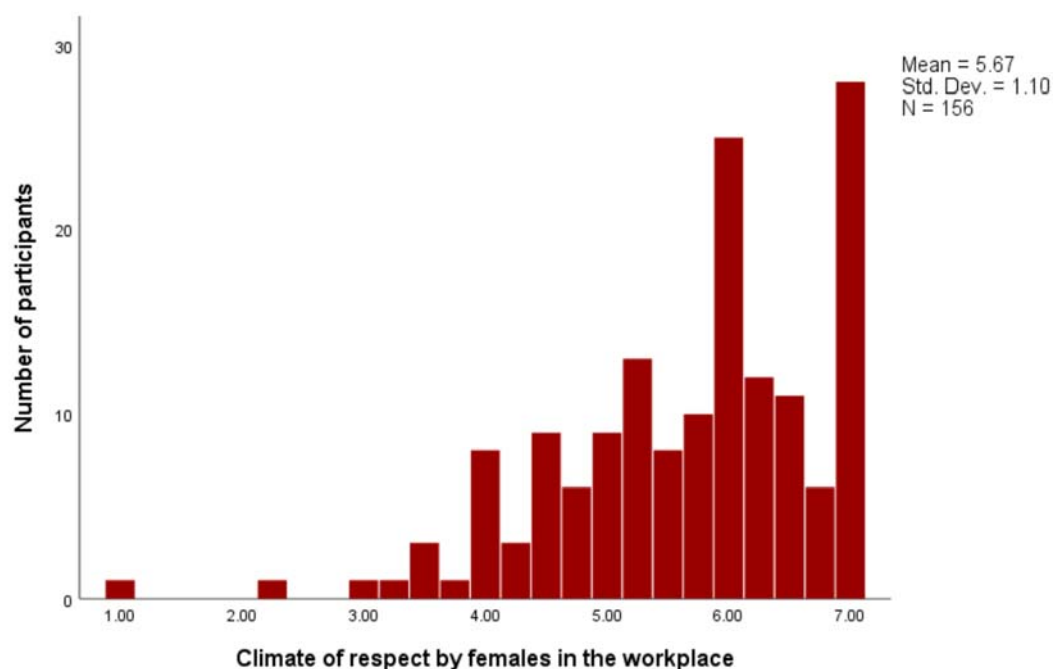
Figure 6.9 Distribution of participants mean scores for respect by females in the workplace

Although women generally experienced respectful treatment from other women, 15 participants qualified their responses by providing examples of rude behaviour from women in their workplace. A further 10 participants commented that they had never experienced rudeness from women in their workplace. The comments of these 25 women were thematically analysed and grouped into the behaviour types listed in Table 6.8. The most common form of female rudeness was "b**chiness", followed by bullying, undermining, and standoffish behaviour.

Table 6.8 Types of incivility and rude behaviour by women

Behaviour	Percent (No.)
None *"I have not witnessed rude behaviour from female to female."*	40% (n=10/25)
B**chiness *"My female co-worker is extremely rude." "B**chy atmosphere." "She would stand there smirking at me...the guys would laugh at her stupid jokes about me."*	32% (n=8/25)
Bullying *"She used to publicly humiliate me in front of her work colleagues." "What makes things worse was another woman was the one who was bullying me."*	16% (n=4/25)
Undermining *"One female in my workplace will sabotage other women, so she looks better." "I had a female manager who made me attend a doctor to prove I was mentally fit to work with men."*	8% (n=2/25)
Standoffish *"Woman in other work groups can seem to have their walls up probably due to the constant grind of proving themselves."*	4% (n=1/25)

Comparison of incivility and rudeness by males with similar behaviour by females

When we contrasted the findings for males and females, it emerged that survey respondents perceived that females promoted a slightly higher climate for civility and respect than did their male counterparts. This was supported by the median score, which tells us that 50% of participants scored 6.0 or higher on the 'climate of civility and respect by females' scale, whereas 50% of participants scored 5.5 or higher on the 'climate of civility and respect by males' scale.

Sector, organisation size, and employment status: Respect was further examined according to sector, organisation size, and employment status, however no significant differences were found. Results are summarised in Table 6.9. Overall, the results indicate that our female survey respondents perceived that females promoted a slightly higher climate for civility and respect than males in the workplace.

Table 6.9 Mean score for civility and respect according to workplace characteristics and employment status

Workplace characteristics and employment status	Civility by males (Mean)	Civility by females (Mean)
Organisation size:		
Micro	5.0	5.5
Small	5.6	5.5
Medium	5.4	5.8
Large	5.1	5.6
Sector:		
Commercial	5.3	5.7
Domestic	5.2	5.6
Civil	5.0	5.4
Employment status of women:		
Full-time	5.1	5.5
Part-time	5.3	5.3
Casual	5.6	5.8

6.3.3 Supervisor support

Supervisor support was measured using a 4-item scale (Caplan et al., 1975) which was summed and averaged to give an overall measure of support. Participants responded on a 4-point scale where a higher score indicated a better level of supervisor support. The distribution of mean scores for all participants is shown in Figure 6.10, ranging from 1 (a very low level of support) through to 4 (a high level of support). The overall mean score for all participants was 2.9 and the median score was 3.0, indicating a medium level of supervisor support, though some women experienced high levels of support, while others were unsupported.
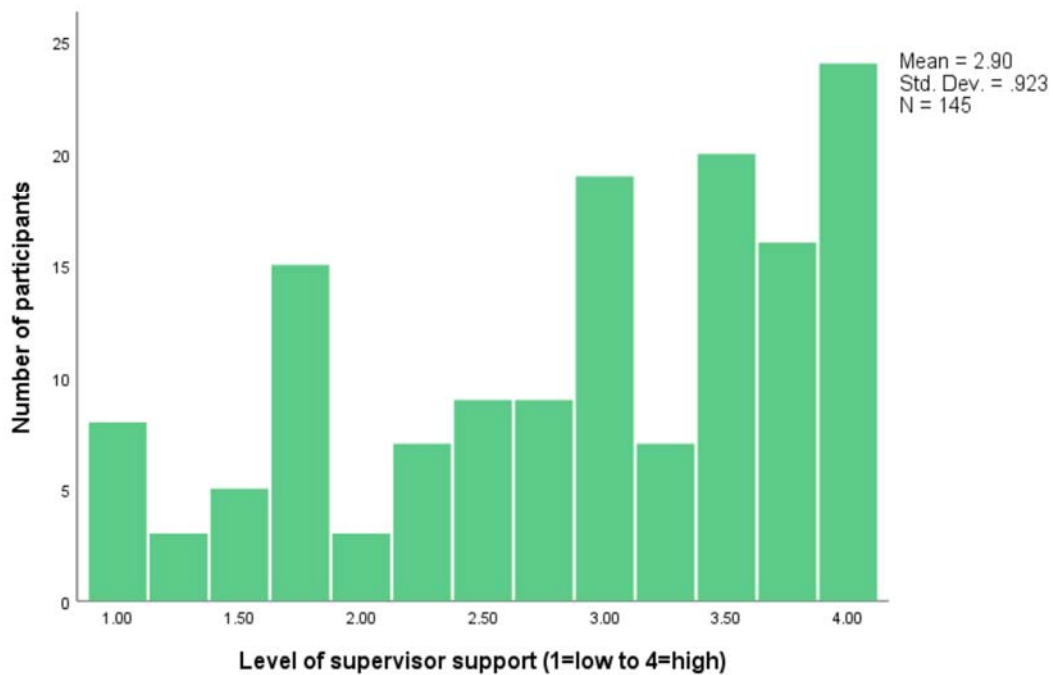
Figure 6.10 Distribution of mean scores for social support

The free text comments about supervisor support (n=17) revealed that only 29% (5 women) felt well-supported by their supervisor, while the remainder did not (see Table 6.10). Forty-one percent (7 women) considered that their problems at work were ignored, while 29% (5 women) believed their supervisor was uncaring. Some women preferred to manage on their own without seeking supervisor support. Others chose to seek external help for fear that at work they would be either ignored or "labelled as a trouble-maker".

Table 6.10 Comments about supervisor support

Behaviour	Percentage (No.)
Willful ignoring of workplace problems *"Bad behaviour from men- I'm told to let it go and to ignore it." "He always prefers assuming things by himself rather than listen to my problems." "If you need to discuss an issue at work as a woman, you're labelled a trouble-maker or difficult."*	41% (n=7/17)
Supervisor is uncaring *"I've found it is a lot to do with the hierarchy of being a manager or supervisor. To them you're the bottom of the food chain -any excuse to come to tell you you're doing the wrong thing or not doing it the right way, rather than encouragement. Or when you're doing an excellent job, there's no praise." "Some days I felt invisible." "With labour hire, you are just a number."*	29% (n=5/17)
Supervisor is supportive *"Traffic super is very approachable and yes ability to discuss issues." "My work has been so supportive of my mental illness."*	29% (n=5/17)
Manage on own *'I keep my personal problems to myself." "I wouldn't talk to him about problems."*	24% (n=4/17)
Seek external sources of support *"Better to shut your mouth and look for help outside of the workplace. Hence why online forums for women in trades are flooded with posts looking for support on workplace issues."*	18% (n=3/17)
Both good and bad managers in same workplace *"Some managers are fantastic at dealing with issues. Some have been nothing short of atrocious."*	18% (n=3/17)
Fearful to ask for support *"If my supervisor is stressed, I feel scared to talk to him. It looks like his head is about to explode."*	6% (n=1/17)
Supervisor holds back career *"I'm patronised and held back. My main issue is being underestimated and treated unequally. It's draining. Constantly overlooked and swapped out of physical jobs."*	6% (n=1/17)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Sector, organisation size, and employment status: Supervisor support was examined according to sector, organisation size, and employment status, and results are summarised in Table 6.11. Only one statistically significant difference was found. Participants working in the commercial sector (2.9) experienced a higher level of supervisor support than those working in the domestic sector (2.3).

Table 6.11 Mean score of supervisor support according to workplace characteristics and employment status

Workplace characteristics and employment status	Supervisor support (Mean)
Organisation size:	
Micro	2.6
Small	3.3
Medium	3.0
Large	2.8
Sector:	
Commercial	2.9
Domestic	2.3
Civil	2.8
Employment status of women:	
Full-time	3.0
Part-time	2.8
Casual	2.9

Note: Bolded figures indicate a significant difference in mean scores

6.3.4 Work-family conflict

Work-family conflict (WFC) was measured using a 3-item scale (Tominc et al., 2017) which was summed and averaged to give an overall measure of WFC. Participants responded on a 7-point scale where a higher score indicated a higher level of WFC. The distribution of mean scores for all participants is shown in Figure 6.11, ranging from 1 (low level of WFC) through to 7 (high level of WFC). The overall mean score for all participants was 4.1, and the median score was 4.3. The results suggest that overall, participants experienced a moderate level of WFC. Results also indicated that as work hours increased, so did the likelihood of WFC.
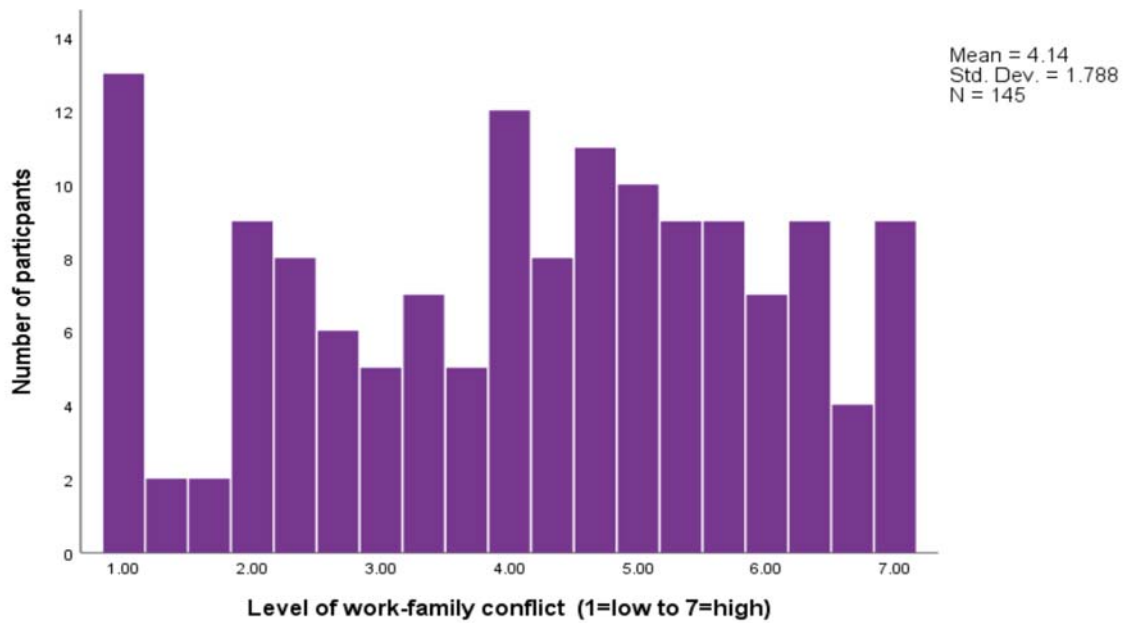
Figure 6.11 Distribution of participants mean scores for work-family conflict

Seventy-eight percent (22) of the 28 women who wrote comments about WFC in the survey reported poor life-balance. A further 3 women (11%) experienced WFC, but they were happy to trade off their work-life balance for the level of pay they received. Most of the women's comments related to long working hours and shift work which disrupted both their social life and their relationships. Their work often led to exhaustion, which meant they were unable to perform household duties like cooking, cleaning, and shopping. Some reported having no time at all for personal relaxation. However, a small proportion of the commenters (18%, n=5) reported good work-life balance which they attributed to the regular working hours negotiated in their EBA. A thematic analysis of the women's comments is presented in Table 6.12.

Table 6.12 Participant comments on work-family conflict

Negative	Percent (No.)
Work interferes with relationships/home duties *"I work 6 days a week usually, so it's hard when you only have 1 day to get everything done. Plus, I'm exhausted when I get home. When you're so tired all the time, it makes your personal life suffer."*	50% (n=14/28)
Unpredictability interferes with plans *"We are expected to move appointments/commitments to suit work needs. Personal life is not important to my boss." "When a job requires a lot of overtime then it can make it hard to have time for socialising and gym"*	14% (n=4/28)
Could not work without support of partner or friends *"10 hours per day plus driving time is around 12 hours per day. I am exhausted every day and can't cook or do any housework. But I am lucky to have a good husband to do all these for me." "I have no close family for any day to day help. I would be lost without my friends."*	14% (n=4/28)
Positive	
Flexible workplace/good hours *"The early hours and early finish allow me to fit in afternoon/night activities."*	18% (n=5/28)
Sacrifice work-life balance for good money *"I am happy to sacrifice those things for the money over-time brings in."*	11% (n=3/28)

Note: Percentages do not add to 100 as some respondents reported multiple issues

Work-family conflict and workplace characteristics and employment status

WFC was further examined according to workplace characteristics and employment status, as outlined in Table 6.13. Results suggest that WFC is lower in small organisations within the domestic sector and for part-time employment status. However, no significant differences between means were found.

Table 6.13 Mean score of work-family conflict according to workplace characteristics and employment status

Workplace characteristics and employment status	Work-family conflict (Mean)
Organisation size:	
Micro	4.4
Small	3.5
Medium	3.9
Large	4.3
Sector:	
Commercial	4.2
Domestic	3.7
Civil	3.9
Employment status of women:	
Full-time	4.1
Part-time	3.0
Casual	4.1

Living arrangement and carer responsibilities

In most cases, participants' level of WFC increased according to their level of caring responsibility for others. Participants who lived with their parents had a lower level of WFC (mean=3.9), as did participants who lived with their housemates or friends (mean=3.7), and those who lived with their partner (mean=3.8). WFC was higher for women who lived with their partner and children (mean=4.4) and for those who were single parents living with children (mean=4.7). Of the 28 women who responded in the free text box relating to WFC, many women living with children emphasised that they would be unable to perform their work role without the support of their partner or friends. However, WFC was also high for the 34.1% of participants who lived alone (mean=4.5). Analysis of the comments made in the free text box, revealed that many women maintained that being single and childless was the only way they were able to manage their heavy workload. One woman observed *"if I had anyone to look after aside from myself, I would not be able to do my job."* Another woman commented *"if you're a female, wanting to have kids while in the industry, I think it's very hard."*

6.3.5 Resilience

Individual resilience was measured using a 9-item scale (Näswall et al., 2015) which was summed and averaged to give an overall measure. Participants responded on a 7-point scale where a higher score indicated a higher level of resilience. The distribution of mean scores for all participants is shown in Figure 6.12, ranging from 3 (below average level of resilience) through to 7 (a high level of resilience). This finding suggests while there was a spread of scores, the majority of participants reported an above average level of resilience. The mean score for all participants was 6.0, and the median score was 6.2, indicating a very high level of resilience overall. These findings

suggest that participants had a strong ability to cope and successfully deal with change, learn from it and adapt accordingly to thrive in the challenging environment.
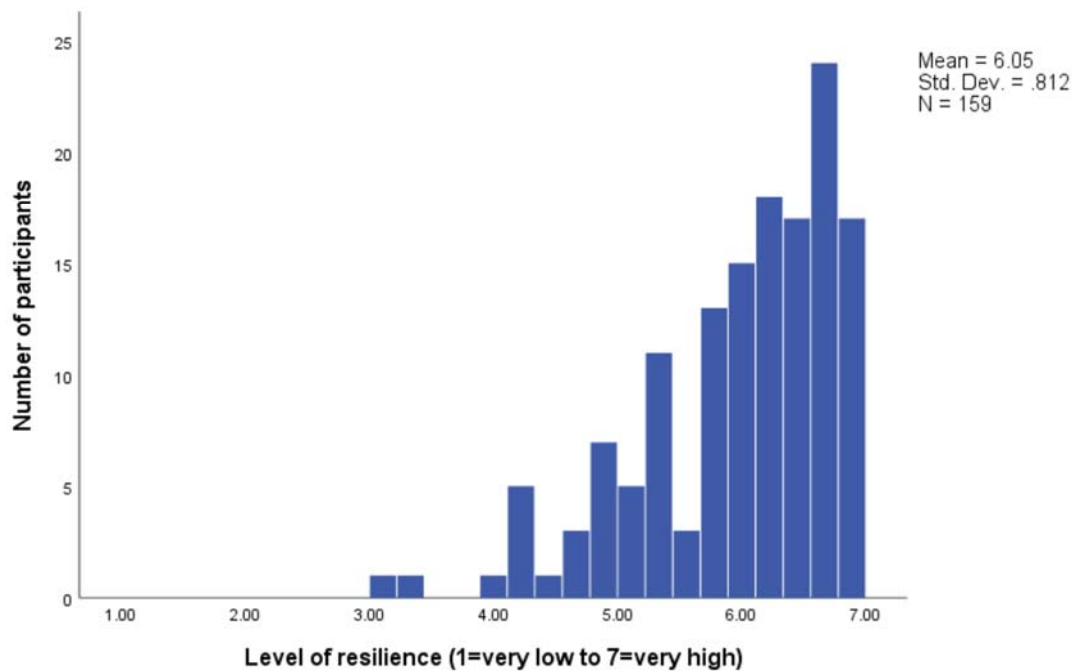
Figure 6.12 Distribution of participants mean scores for resilience in the workplace

Resilience was further examined according to experience and workplace characteristics, as outlined in Table 6.14.

- There was no significant difference in the level of resilience between those for whom construction was their first career or not.
- There was no significant difference in the level of resilience for workers in differing sized organisations.
- There was a significant difference in the level of resilience between participants working in civil (6.5) and domestic (5.9), and between participants working in civil (6.5) and commercial (5.9). The results suggest that workers in the civil sector have a slightly higher level of resilience than those who work in the commercial or domestic sectors.
- There was a significant difference in the level of resilience between full-time (6.0) and casual (6.3) workers. This suggests that casually employed workers had a slightly higher level of resilience than those working full-time.

Table 6.14 Resilience according to experience and workplace characteristics

Experience and workplace characteristics	Resilience (mean score)
Construction first career:	
Yes	6.0
No	6.0
Organisation size:	
Sole trader	5.9
Micro	6.0
Small	6.1
Medium	5.7
Large	6.0
Sector:	
Commercial	5.9
Domestic	5.9
Civil	6.5
Employment status of women:	
Full-time	6.0
Part-time	5.6
Casual	6.3

6.4 Interview participants

Forty-three women participated in an interview. Of these, 81% (n=35) were from Victoria, 9% (n=4) were from Western Australia, 5% (n=2) were from New South Wales, 2.5% (n=1) were from Queensland and 2.5% (n=1) South Australia. Eighty-four percent of participants worked in metropolitan centres and 16% worked in rural areas. Participants age is presented in Table 6.15.

Table 6.15 Age of interview participants

Age	Participant number
20-24 years	4
25-29 years	6
30-34 years	11
35-39 years	5
40-44 years	4
45-49 years	6
50-54 years	3
55-59 years	2
60+	1

Note: One person did not give their age.

Twenty-three percent of participants lived alone, 19% lived with a partner, 18% lived with a partner and children, 11% lived with their parents and or sibling(s), 9% lived with a partner and were pregnant, 2% lived with their parents and their child, while a further 2% lived with their partner and parents. Forty-two percent of women worked in commercial construction, 23% worked across commercial construction and infrastructure; 19% worked in infrastructure/civil works, 9% worked in rail, 5% worked in domestic and 2% worked in the TAFE sector. Thirty-five percent of participants had worked in the construction industry for 1-4 years, 21% had worked in the industry for 5-10 years, 14% of participants had worked in the industry for 11-15 years, 12% had worked in the industry for 16-20 years, and 16% had worked in the industry for more the 21 years. At the time of the interview, participants were employed by a trade union (2%), header contractors (building and engineering companies) (19%), sub-contracting companies (44%), government organisations (12%) and 16% were sole traders or ran their own small business.

6.5 Interview findings

Interviews ranged in duration from 30 minutes to 134 minutes. The average interview duration was 72 minutes, and the total duration for all interviews was 52 hours. In this section we present the key findings from the interviews. We start by outlining the key challenges participants experienced in their workplace which directly and indirectly impacted on their wellbeing. Three key areas emerged:

- Lack of acceptance of women in the workplace.
- Lack of accountability and deterrents for inappropriate behaviour.
- Culture of silence where poor behaviour remains under-reported or not reported at all.

These three key areas are detailed in Table 6.16.

Table 6.16 Key workplace challenges

Key workplace challenges	Frequency
1. Lack of acceptance of women in the workplace	**91% (n=39/43)**
Employment	**74% (n=32/43)**
a) Gaining employment	51% (n=22/43
• Lack of professional networks	23% (n=10/43)
• Employer perceptions of non-work gender issues	12% (n=5/43)
• Employer perceptions of women's capabilities and commitment	21% (n= 9/43)
• Lack of acceptance of women in apprenticeships	72% (n=31/43)
b) Career progression	30% (n=13/43)
• Work that aligns with skills or opportunity to learn	19% (n=8/43)
• Lack of acceptance of women in senior roles on-site	16% (n=7/43)
• Insecure and short-term employment	12% (n=5/43)
c) Treated differently	**95% (n=41/43)**
• Belittled and intimidated	44% (n=19/43)
• Ostracized in the workplace	51% (n=22/43)
○ Ignored	37% (n=16/43)
○ Isolated	23% (n=10/43)
○ Excluded	19% (n=8/43)
• Perceived as a threat or liability	26% (n=11/43)
• Pressure to perform	42% (n=18/43)
• Denied basic amenity and entitlements	28% (n=12/43)
• Inappropriate female behaviour towards women	37% (n=16/43)
• Work and family conflicts	47% (n=20/43)
2. Lack of accountability and deterrents for inappropriate actions	**81% (n=35/43)**
d) Inappropriate language and behaviour towards women	**79% (n=28/43)**
Types of inappropriate language and behaviour	
• Co-workers	63% (n=27/43)
○ physical behaviour	30% (n=13/43)
○ language	53% (n=23/43)
• Students and teachers	19% (n=7/43)
e) Punished or labelled for speaking out	**40% (n=17/43)**
f) Lack of support for women in the workplace	**60% (n=26/43)**
• Lack of support from co-workers	21% (n=9/43)
• Lack of support from manager/superior or teacher	51% (n=22/43)
• Lack of support from organisation	37% (n=16/43)
• Lack of support from representatives tasked with representing worker rights or supporting wellbeing	23% (n=10/43)
3. Culture of silence	**19% (n=8/43)**

6.5.1 Lack of acceptance of women in the workplace

While many men in the industry have embraced working with women and recognise the need to employ individuals with the capabilities appropriate to carry out the task, there remains a prevalent belief that women do not belong in the industry. This belief has impacted the participants' ability to secure meaningful employment, as well as shaping their treatment by co-workers, supervisors and managers. Participants reported being treated as unequal to men and experiencing behaviour that is belittling or intimidating as well as being ostracized in the workplace. Participants also reported that men perceived women on-site as a threat or liability and denied them basic amenities and entitlements. Each of these consequences is explored in detail below.

a) Gaining employment

Of the women interviewed, 51% (n=22/43) reflected on their difficulties in gaining work in construction. Key obstacles included: a lack of access to professional networks needed to secure work that is often advertised informally; employers' negative perceptions of women, specifically that they perceived the work as too challenging for women; and as a poor investment since women would not remain in the industry. The barriers to gaining employment will be now examined in further detail, as they were reported to be a key barrier for women when entering the industry.

Gaining employment: Lack of professional network

Twenty-three percent (n=10/43) of participants cited professional networks as central to gaining work, since opportunities in construction are *"all word of mouth. That's how all the blokes get the work... know somebody who works at that company. It's not ever advertised openly anywhere"* (Participant 6). Participant 30 agreed that *"[male employees] all know each other. They all employ each other. All the last names are the same".* The reliance on professional networks is problematic for women wanting to enter the industry, as explained by Participant 6: *"those gendered connections you tend to have as a man in the industry, and that just comes because you're a man. "*Women in a position to employ others, such as business owners, address this barrier by creating employment opportunities. However, female business owners are viewed in a dismissive, negative way by men in the industry. Participant 6 reported that when women employ other women, they develop a reputation for "*only hiring women "*not*" quality tradespeople".* Here, the assumption about capability is that both the woman who is hiring and the women who are hired are not competent in their roles. Further challenges for women in positions of leadership will be discussed later.

Gaining employment: Employer's perceptions of gender-related issues

Another challenge that women faced is employer expectations that their employment will create problems in the workplace. By taking this position, employers assume that they should not have to create an inclusive workplace. Their attitude assumes that the culture need not change. Participant 10 felt that *"they [men] always assume that at some point in time you're going to turn into a b***ch or you're going to play favourites, or sexuality is going to come into it."* In addition, Participant 10 reflected on some of the reasons she has heard employers use for not employing women: "*I'll have to put in a special toilet… Someone will bump them, and then I'll get charged for sexual harassment."*

Participant 3 recognised that some employers view women as difficult to work with as they require additional amenities and they lack commitment. These beliefs act as barriers to women's employment:

> *"The challenges are definitely still out there. You still get the old school organisations that go 'we don't even have a female toilet'…She's probably going to flirt with the guys. She's here to get a boyfriend, she's going to end up pregnant one day and I'm going to have to pay her maternity leave, or she's never going to be able to do it the same way the guy does."*

Gaining employment: Employers perceptions of women's capabilities and commitment

Employers were perceived by participants as holding negative views of women's capabilities and commitment, which resulted in fewer opportunities for women. Participant 37 explained that this is because: *"a lot of men think women shouldn't be in the job and don't have the ability. I hear it all the time".* Participant 3 reflected on the fact that while *"there are very supportive workplaces out there, I've had colleagues who have openly said to me, I've had two candidates. One said she was looking at starting a family and the other wasn't, and I had to take on the male from a business perspective".* These assumptions then go on to shape how women are viewed once they are employed. For example, Participant 13 reflected: *"there is still this attitude that you're only here because you're a quota, or you're only here because you shagged the boss, or because you know someone".* These assumptions undermine women's efforts to gain employment in the industry as well as to secure apprenticeships.

The negative perceptions held by employers are not just a barrier to entering the industry, but also present a challenge for women on the job. Participant 42 stated that she often faced questions like: *"What are you doing here? You're taking a job off a fella".* Maintaining employment is difficult as there is a perception that women are *"going to get married and fall pregnant and never come back again."* The belief that women are not committed to the workplace often lead to women being the first to be made redundant: *"not because of your skill or your attributes that you bring, but because of your gender" (*Participant 42). Participant 3 explained that women trying to return to work after having a baby were viewed as a potential liability: *"They'll probably have more sick days, or need to take time off in the afternoon, and things like that, to look after the kids."*

Employers' perceptions of women's capabilities as well as the gender stereotypes act as a barrier to women securing on-going work. Participants felt some employers viewed women as a burden, rather than recognising the opportunity to develop and maintain inclusive workplaces and fair hiring practices.

Gaining employment: Lack of acceptance of women in apprenticeships

The participants in skilled trades (n=31) experienced similar barriers when trying to secure employment after completing their apprenticeships. Twenty-five of the interview participants had completed apprenticeships, and six were undertaking an apprenticeship at the time of the interview. These participants described accessing apprenticeship opportunities through:

- established relationships with the organisation that delivered their pre-apprenticeship training course;
- employment opportunities facilitated through school, family, and friendship networks;
- reliance on the Group Training Organisations (GTOs).

Table 6.17 presents a break-down of the number of participants for each type of apprenticeship.

Table 6.17 Type of Apprenticeship

Type of Apprenticeship	Number of participants
Group Training Organisation	11
Registered Building Practitioner (domestic sector)	5
Sub-contractor (commercial sector and rail organisations)	3
Private Company (petrochemical industry)	1
Private Company (construction industry)	1
Government infrastructure organisation	3

The different employment models influenced the type, continuity, and quality of training experience afforded to each apprentice. This is important as the quality of the training provided to apprentices is connected to their later employability. If their training does not offer scaffolded and relevant work experience, apprentices may find the post-award transition to employment difficult.

Participants currently completing their apprenticeship with private, government and trade sub-contracting organisations recognised the training they received was of consistent good quality and provided diverse experiences. Working directly for a large private organisation which intended to continue to employ the apprentice upon completion was reported to provide the most positive learning experience with the most significant career progression opportunities. If partnered with a compatible builder, apprenticeships within the domestic building sector were also reported to facilitate enriched learning experiences. Participant 42 reflected on her experiences, citing how fortunate she was to work with a *"one-man-band"* who *"demonstrated a lot of respect for women"*. Participant 31 also described her positive experience of working for a sub-contractor, explaining that she was *"lucky enough to see through my first two jobs from start to finish. I was the first apprentice there; last apprentice too... that really helped with my learning."* However, not all companies nurtured their apprentices in such a positive way. Participant 33 described a friend who *"worked for a company and all they did was maintenance, so for most of her apprenticeship all she did was clean filters. So, although she's four years qualified, she's nowhere near as competent as some of the other guys."*

Participants employed by a Group Training Organisation (GTO) experienced work across multiple organisations, and this resulted in participants experiencing different levels and quality of training. Participant 13 explained that *"with group training, instead of working directly for one employer and with the same crew all the time, you're employed by what is essentially a labour hire company who put you on permanent full-time, but then send you to a host employer."* Some participants reported that they consciously pursued an apprenticeship with a GTO as they believed diverse workplace experiences would improve their learning outcomes. Participant 13 explained that she *"wanted to get experience in commercial building, commercial [stated trade], which is quite hard to do when you work for a smaller domestic business or somebody who does smaller commercial jobs."* Some participants found the GTO model successful. Participant 39 explained that she *"was very fortunate and spent most of my time with the one company."* Others were not so fortunate and believed that they were working as labour hire and that their training was not adequately supported. Participant 19 described working on commercial construction as *"having to hit the ground running. The mentality was to figure it out or get out, and so you follow, and you learn, and if you can't do that, then you can't stay. It's that ruthless. I thought it was disgusting, and I thought that you know, people don't really care about teaching you the fundamentals of what you were doing."* The lack of

care for apprentices was further described as *"a lot of companies that didn't give a s**t. They didn't care, and they'd be like - a lot of them would get you to do really s****y jobs like a ten-year-old could do".* This lack of a consistent workplaces resulted in limited guidance and learning experiences. As participant 18 noted:

> *"Some places were good and other places were not good at all, and some places you're literally just used for labour, and other places they actually want to nurture you and teach you."*

Participant 35 reflected on her experience of witnessing how GTO apprentices were treated on-site:

> *"I pity the labour hire apprentices… they get the s**t jobs because they weren't worth teaching because they were going to back…In my early years, I wished I was a labour hire apprentice, because I thought I'd know everything…have experience in all areas… work for all these companies and make all these connections. But the reality was that you never really made that close a connection. You'd have to pick up and start again, and you'd have to prove yourself over and over again."*

Participants who experienced difficulty gaining work as an apprentice recognized GTOs as the only viable way to commence an apprenticeship. For them, GTOs offered a pathway to overcoming employer resistance to taking on a female apprentice. Participant 20 observed *"nobody wants to hire a girl [apprentice]."* Others saw GTOs as a way of entering the industry without the necessary family or friendship connections to secure an apprenticeship. Difficulties in securing apprenticeships form a significant barrier to women seeking to pursue a trade.

b) Career progression

Thirty percent of participants reported feeling frustrated by the lack of opportunities to progress their careers. Key barriers to women's progression in the industry were: being prevented from completing work appropriate to their skills; co-worker resistance to supporting their professional development; employer resistance to promoting women; and the casual or temporary nature of work they gained.

Career progression: Work assigned that fails to align with skills and ability

Developing skills and gaining relevant experience is key to being able to demonstrate capability and suitability for continued employment and promotion; however, some participants reported not being able to access work aligned to their capabilities because of their gender. Participants reported that they were not assigned work that reflected their education and skills. Further, participants acknowledged that they were not trained or provided with information required to complete their roles successfully. Participant 8 explained a situation where information relevant to the progression of her role was withheld because she was female, and that she was not an accepted member of the workplace:

> *"I've walked up to someone I didn't know very well and he's kind of a guru. He had more tickets and more qualifications than anybody in our depot. There was this tricky piece of equipment, so I walked up to a small group of them and I said, 'What's this?' I was curious as to this new equipment that we were installing. His response was 'Secret men's business'."*

In this instance, there is a demarcation between roles and gender, as Participant 8 was not viewed as needing to be provided with an explanation about the equipment due to her gender. Participant 1 identified that she was often asked to complete work that was determined as gender-appropriate: *"If the secretary is away, you'll be asked to go sit in the office and answer the phone for the day, or if there's paperwork that needs to be done."* Many women working on-site were not taken seriously with regards to the work they have been employed to undertake. Participant 37 stated that she needed *"to fight to be given a go at what's in her job description."*

Career progression: Lack of acceptance of women in senior roles on-site

The opportunity for employment in leadership roles was also cited as problematic, again as a result of perceived capability and employers' perceptions, and a cultural resistance to women in leadership roles. Participants reported that they were prevented from taking on leadership roles, despite having the appropriate experience and training. Promotion to a leadership role was often denied due to employers' perception of cultural barriers for women to successfully manage male workers. Participant 39 reports that she was denied opportunities to lead, stating *"I don't feel I'm respected at work at all…women can't run a shift. It has to be a boy. So, if it's my turn to step up, they will bring a boy in from another shift to cover me."* Participant 10 recalled: "*I have been looked over for higher roles, leadership roles, because I'm a girl and I've been openly told 'You were the best candidate for this position, but boys won't listen to a girl. They won't listen to you'.*" These quotes indicate that the employer was aware of a cultural problem in the workplace, but rather than acting to address the problem, his response was to deny a promotion to a woman due to the exclusionary behaviour of male workers.

Further, participants noted that opportunities for promotion were discussed in informal social settings which impacted on women's ability to progress in an organisation. Participant 35 stated that she was excluded from social activities outside work hours *"like going to the pub on Friday and… there's also other things like guy's golf trips, which is the way they bond and mateship grows, therefore their position within the company also grows."* Participants who were or had been in positions of leadership reported instances where they were not accepted in their roles by male workers. Participant 43 discussed her experience of undertaking her daily tasks in a leadership role, reporting:

> *"If I walk the job and say, 'Do you mind fixing this issue and this issue and this has to be done,' they'll [male co-workers] be like, 'Why? Who said that needs to be done?' And I'll say 'me' and they'll take forever to do it [the task] because I've said it. If it's one of the other guys, they'll do it straight away. But because I'm asking them, they'll argue back and ask questions…basically my role isn't taken seriously at all."*

The problem of a lack of acceptance of women in the workplace becomes more apparent when women are in roles that require them to provide direction or give instructions to male co-workers. Further, participants recognised that some employers are aware of this problem and choose to prevent the career progression of women rather than work to change the culture of disrespect and lack of acceptance.

Career progression: insecure and short-term employment

Participants identified that the insecure nature of their employment inhibited the development of their career pathway. Casual work and short to medium-term contracts were cited as problematic:

> *"With contract work that's always in the back of your head. I mean, especially on EBA sites. I mean you make quite substantial money, but you don't know how long it's going to last because you could only be contracted for six months to a year and you've got to be able to back that up after it."* (Participant 28)

And

> *"It can definitely be a struggle not knowing if you don't have a job next week."* (Participant 9)

Further, the very definition of a casual employee was addressed by Participant 13, who explained that despite working the same full-time hours in the same location, she was not considered a full-time employee and did not benefit from the associated job security and benefits such as annual leave, sick leave, and maternity leave.

c) Treated differently as a result of gender

Ninety-five percent (n=41/43) of participants believed that they were treated differently by men in the industry because of their gender. Participants recognised that the perception of gender and "gendered roles" in the industry meant that they were not treated as equals. Participant 19 explained *"as people recognised that I was a woman, their attitude would change. The challenges I face surround how women are not perceived as equals in this world and especially in the industry."* Gender stereotypes were reported to be part of this unequal treatment.

Treated differently: Belittled and intimidated

Participants reported being belittled and intimidated by male workers whom they viewed as being motivated by gender stereotypes about construction work. The belief that women did not belong on-site was reflected in the experience of Participant 5, who detailed some of the comments she had received working on-site:

> *"'Chicks are for cooking and cleaning. They're not supposed to be on-site. Get back in your own space.' Those sorts of things and 'You don't belong here. You're not going to last. You couldn't handle it.' All these things were being said to my face, or worse, whispered to me so that other people couldn't hear them."*

This perception that women do belong on-site often resulted in the adaption of work tasks that failed to reflect their acquired training and ability. Participant 10 recalled an employer instructing her: *" 'All I want you to do today is talk to clients. Don't pick up a ladder, don't do anything.' So, every time I worked with this guy, he would run around. A 65-year-old guy, he'd run around, do whatever he needed to do, and I would sit there and talk to clients."* For some women, this left them feeling like they had been employed simply because it was the politically correct thing to do. Participant 7 explained: *"I think maybe he [my boss] thinks I'm some novelty, some political correctness gone wrong".*

Given the perceived doubt about a women's capability, many participants noted that their male co-workers *"watched me a little bit more, everything that I did, but it was not 'she can't do this', it was 'I wonder, can she do this?' "* (Participant 17). Women reported that their demonstrated ability was often met with genuine surprise, with male co-workers commenting, *"it's amazing to see a female doing this"* (Participant 17). Participate 37 suggested there was an *"unconscious bias"* about women as incapable.

> "*Every time I start a new job as an [stated trade], the first question that the guy I'm working with asks me is, 'Are you an apprentice?'... I was working with a guy who would have been about twenty-four, twenty-five, on my last job, and the first thing he said to me was 'Are you an apprentice?'...No mate, I've been doing this for 24 years.*"

Women interviewed also identified that male co-workers *"don't know how to behave around you"* (Participant 39). Participant 7 stated that men *"are on very, very high alert at the start, even to the point where some of them don't even want to make eye contact with me"* and in some situations, "*men refused to work with me*" for fear of being reported for inappropriate behaviour. Participant 37 explained that:

> "*I just think they [male co-workers] think if anyone's going to run off and complain and go to HR, it's going to be the woman, so they don't want to be around you. They don't want to brush past you in case you say that you've been assaulted. They don't want to swear in case you complain. I think they just have this fear that you're going to get them in trouble, so they don't want to be near you.*"

Participants also reported being sexualised and objectified by their co-workers. Participant 19 commented: *"people would be nicer to me if I was wearing shorts…they would treat me differently depending on how tight my clothes were."* Participant 24 also recalled the impact of this behaviour in the workplace: *"I think if they're more attracted to a female, they're going to show them more respect and be a lot nicer… than to a girl that, who A, either rejects them, or B, they don't find attractive. Then they're just going to be a complete a***hole to them."* This behaviour undermined women's abilities, and resulted in their work and skills being judged on something other than merit. This behaviour was reported to have a corrosive effect on their self-esteem and confidence. Participant 19 shared her strategy for overcoming the demoralising effect of this behaviour: *"The fact is that we're treated like girls, so we just need to remind ourselves that we're women and capable of absolutely everything that they can do… we're really powerful, and I think they do everything in their control to make us forget that".*

Treated differently: Viewed as a threat to male employment and workplace productivity

Twenty-six percent of participants believed that men within the industry saw women as a threat to their employment. *"I had one place where the guy, the whole time I was there, he was saying how women are taking jobs of men"* (Participant 17*).* Participant 21 felt that capable women left male co-workers feeling vulnerable as *"it's more that they don't know what else they're good at, and it frightens them if a girl can do the same."* Some participants suggested that the idea that a woman was as good or better skilled than a man threatened their ego and potentially their employment. Participant 38 explained that *"I actually think they feel extremely threatened by us. Because he did say to me – one of the remarks he threw was, 'You females are going to come in here and think you know it all'."* Similarly, Participant 43 commented: *"It's more of an ego thing, like girls shouldn't make as much money as them."* This attitude resonates with the treatment of women in leadership roles that was discussed earlier.

Conversely, other participants articulated that men were concerned that women presented a liability to workplace productivity as they may not be capable. Participant 13 explained *"there's still this attitude that women are a hindrance. Because women are perceived as she's not going to be strong enough to do this [the set task]."* Participant 13 further identified that men felt women threatened the way they behaved on-site, which would force them to adjust their behaviour. For example, *"[women are perceived to] get all hysterical about showing some porn in the lift."*

Participant 32 reflected that rather *"than actually admit that they feel threatened or challenged by our opinions, or by what we see as unsafe, they'll spin it around and make it, we can't possibly be able to make those judgments, or we're women."* As such, women were then labeled as troublemakers, again presenting a threat to productivity. For example, Participant 13 reflected on the impact associated with raising complaints or concerns about inappropriate behaviour:

> *"You're seen as a risk for causing trouble… because at the first sign of trouble you'll be jumping up and down."*

Labeling women as troublemakers for standing up for their rights contributed to women finding it difficult not only to get a job, but also to keep one. Participant 19 explained how she, as an apprentice, lost her job placement: *"The first time that I ever told somebody that I worked with that I was struggling with anxiety, I got fired because they thought I was a liability. So, I got handed back to my employer, which is the GTO".* Women in insecure employment are in an even more vulnerable position, given the preference for male workers and the lack of employment protection which comes with casual and short-term contracted work.

Treated differently: Ostracised from the workplace by being ignored, excluded and isolated

Thirty-seven percent (n=16/43) of participants stated that they were not acknowledged by male co-workers in their workplace. Failure to be acknowledged took the form of being ignored when seeking guidance, as explained by Participant 31: *"I would ask 'Why are you doing that?' or 'How do I do this?' You'd be right next to someone and they would completely just pretend that they hadn't heard you… it really hurt my feelings."* Participant 37 explained that being ignored by males occurred across all levels of the organisation: *"Even my supervisor would come in the morning, and he'd shake everyone's hand, but he wouldn't shake my hand… Even management was so awkward and uncomfortable around me."* Participants also identified that any serious workplace risks raised were also ignored. Participant 42 stated that she *"always just felt like whenever I raised issues of health and safety... a better way of solving the problem or delivering the project... it was always disregarded."*

Participants suggested that male co-workers acted in this manner as they did not know how to behave around a woman in a workplace that had been long dominated by men. Participant 37 explained that she thought this was because there is a perception that *"there's a woman onsite. We all have to change the way we behave."*

Nineteen percent (n=8/43) of participants had been excluded from completing meaningful work tasks. Participant P37 stated that she *is "always overlooked… to the point now with my supervisor, I don't ask him what he wants me to do because I know he's going to give me some menial job. I'll go and find the work."* Participants were also excluded from social functions. Participant 13 stated that her male co-workers would *"often go off to eat together or leave together, and there was a very, very clear social click amongst those guys that I was never invited to participate in."* As a result of male's exclusionary behaviour, women felt alienated and alone.

Twenty-three percent (n=10/43) of participants felt isolated in the workplace, and this was compounded by being a member of a minority group. For example, Participant 9 described her experience: *"It was just crazy to be one female of 1300 people onsite".* In addition to feeling alone because she was the only female on-site, Participant 9 also felt isolated and this left her feeling vulnerable. Participant 9 explained:

> *"I had guys hiding in scaffolds, watching me work. To them it may seem harmless, but when there's one of you and a thousand of them, it probably just does put a bit of a crazy thought in the back of your mind."*

Treated differently: Pressure to out-perform to challenge gender-stereotypes

Forty-two percent (n=18/43) of women interviewed felt the need to consistently prove themselves as highly skilled, committed, and capable. The pressure to perform was recognised as necessary given the perception, identified in the preceding section, of women not being able, capable, or suitable for the industry. Participant 4 explained:

> *"I remember going on a lot of sites, and they either had the expectation that I'd be great - or had the expectation that I'd be s**t. There was all this pre-expectation on me while no one gave a s**t what that guy that I often worked with did."*

Female workers in the construction industry reported working harder than their male co-workers *"because we just don't want someone to question why we're there"* (Participant 12). The desire to work harder was motivated by the need to prove they were capable and therefore, deserved to be accepted and allowed to do the work they were employed to complete. Participant 35 recognised the critical relationship between respect and successful workplace experiences: *"I earned that respect so that I could say something and people would listen, as opposed to me being dramatic, or me being a troublemaker."* Having to prove themselves was exhausting, but women believed it was required, regardless of their age and experience. Participant 8 explained that:

> *"When a new person starts, although I've been with the company for seven years and it's their second week, I still feel like I have to prove myself to them."*

This pressure women felt to prove themselves was also experienced while they were apprentices. Participant 10 explained: *"as a girl in TAFE, especially in [stated trade], I made sure I knew more than everyone else and then if anyone tried to give me s**t, I used to say 'Beat me in an exam and then talk to me'…"*. Challenging gender stereotypes was seen as important, not just for the woman in question, but also for all women who followed. Participants reported a sense of responsibility to set a positive example in order to make it easier for other women to enter the industry. Participant 4 stated *"in construction when you're the only female on the crew, your reputation then affects the next reputation of the woman that comes in after you."* Participant 37 recognised that she felt it was her responsibility to lead change by *"very slowly and tactfully changing the way men perceive me and think of me or women in general… reprogramming the way men think"*. These insights demonstrate that participants felt that they needed to challenge gender stereotypes to be able to succeed in their roles and they believed that by doing so they could make entry into the industry easier for other women.

Treated differently: Behaviour of female co-workers

Thirty-seven percent (n=16/43) of participants reported finding some female co-workers' behaviour inappropriate, which sometimes created tensions between female co-workers. Inappropriate behaviours in this context were considered as perpetuating the negative stereotypes of women in construction. For example, Participant 10 explained that some women turn up to site with a *"full face and make-up, tight a** pants that split their a**e cheeks and then walk around and don't want to do anything."* This behaviour was described as reinforcing the existing gendered stereotype,

which Participant 22 described as making it *"harder for the rest of us [women] who do an incredibly good job to garner any respect, because they destroy it for all of us."*

Another form of behaviour that participants described as inappropriate was women behaving in an overly aggressive and territorial manner. Participant 29 explained *"there's a couple of women with bigger egos than the men, to be honest."* Participants reported that they expected to find support from other women, but instead sometimes they were either bullied or dismissed. Participants suggested that this behaviour was a result of an industry which created an aggressive competitiveness in some women who felt the need to defend their territory from other women. Participant 1 recalled:

> *"Another female [TAFE] teacher came on board, and I was really excited… and then she actually started talking about some pornographic material and really offensive things, and we were all just shocked. It was like she's gone so far the opposite way…"*

These insights demonstrate the complexity of navigating a male dominated workplace and highlights that having women in senior/leaderships positions may not always be effective in challenging the culture or supporting other women in the industry.

Treated differently: Denied basic amenities and entitlements

Twenty-eight percent (n=12/43) of women interviewed felt they were denied basic amenities and entitlements while undertaking their day-to-day professional activities, specifically separate women's toilets and sanitary bins. For example, Participant 22 commented:

> *"The single biggest issue in four years that I've ever faced on a construction-site is every single construction-site caters only to men…You never get a toilet. The first thing I would do [when arriving to site] is try and find a toilet…and make sure it's not down a dark alley or in a position where the girls wouldn't be safe. We have our personal safety to take care of as well."*

Some women were prevented from accessing their workplace entitlements. For example, breaks were not always provided, as explained by Participant 24: *" sometimes you won't even get to have a break. You have to just suck it up. It's like, I don't actually need to be standing on my feet working for 10 hours, because it's actually illegal to not have a break."* Finally, appropriately designed work clothes for women were often not available. Participant 6 explained: *"If a company cares about gender equality and all that sort of stuff with women, provide women in trades with clothing that fits."*

Treated differently: Work and family conflict

Forty-seven percent (n=20/43) of the women interviewed recognised that the construction industry presented a challenge in terms of inflexible work hours that prevented them from having children or returning to the workplace after having a baby (n=7/43); lack of access to maternity leave that would enable them to spend the time with their newborn infant (n=6/43); and loss of work (n=6/43). Some younger women planning to have a family expressed the need to identify alternative roles in the sector to enable them to continue working in their profession (n=5/43).

More than half of the women interviewed did not have children (58%, n=25); 14 of these women shared their views on working in the industry and having a family. Many of these participants stated

that their hours of work would not be achievable if they had children. Participant 34 commented that *"if you had a baby, that [the work hours] would be very, very difficult."* At the same time, Participant 31 reflected, *"I guess if I had kids, I would not be able to do the work that I do now."* This participant was particularly mindful of her early starts (sometimes as early as 4.30 AM), the dangerous nature of the work, and the inflexible hours, commenting that *"you can't go till that's [the job is] finished."* Like other participant, participant 31 believed that working in her role and having children would very difficult *"unless you had a nanny, or you had a partner, older kids or something, that you had people to get them to and from school."* Participant 23 expressed the difference between her expectation and the reality of having children while working in the industry: *"Until I was actually pregnant, I thought I would make it work. It's definitely not going to happen like that."*

Three participants felt that working in the industry as a single mother without additional support would almost be impossible. These participants thought it was essential to address the challenges women with children face without relying on partners to provide support. Participant 3 stated, *"assuming that there is another parent involved to deal with the concerns that women in the industry may have, I think is a little bit short-sighted."*

Nineteen percent of participants who worked in trades and semi-skilled roles expressed their concern that working conditions and work demands did not support women with children. If they were to have children, these women would be unlikely to return to work. In highlighting this point, Participant 43 noted that she could undertake her work demands because she was single and did not have children, stating that "*my life pretty much revolves around work."* Participant 31 reported that she did not know any other women specialising in her trade who had children. She was unsure if she could return to work if she were to start a family due to the labour-intensive nature of the industry. Participant 39 reported wanting to have children but identified that the nature of her work hours created a high level of stress had made her reconsider this possibility: "*I do shift work, which puts a big stress on the day-to-day running of my life".* For this participant, having children would add an additional layer of stress which she was not sure she could manage*.* Key issues identified by these participants as needing to be addressed to create a workplace more conducive to work-family balance included rotating rosters, long hours, the dominance of casual contracts, lack of job-sharing, and lack of flexible hours.

Twelve percent of participants who had children, or were planning to have children, cited actively seeking alternative work that was more family-friendly. Tradeswomen identified that within different trades, there were specialist roles they could move into that would better position them to negotiate the demands of the workplace and raise a young family successfully. Participant 20 explained that she had spent the past year training in a specialised role as it is *"easier if you ever want to have children."* Participant 25 reported undertaking a diploma of Work Health and Safety to become a safety officer, which she saw as being more family-friendly and would better enable her to start a family in the future. Additionally, women interviewed expressed their concern that there was a perception that they were overlooked for work as they approached child-bearing years.

Nine percent (N=4) of women interviewed were pregnant. Two of these participants were registered tradeswomen, and the other two worked in semi-skilled roles. The tradeswomen identified that safety issues associated with their job could put their unborn children at risk. Both women cited a lack of support in their proactive attempt to organise alternate work arrangements while pregnant within their workplaces. The nature of their employment contract influenced their ability to identify appropriate work and retain employment throughout their pregnancy. The tradeswoman employed on a permanent contract was transferred into a temporary administrative role. However, the other, a sole trader, was forced to stop work as she could not find more

appropriate work. The organisation that she contracted to was not obligated to provide such opportunities. The women casually employed in semi-skilled roles both reported a positive experience discussing alternative tasks with their foreman. In these instances, the work undertaken did not compromise the pregnancy. However, as a casual employee, post-pregnancy work was not guaranteed. Participants recognised a lack of experience, understanding, and guidance from managers and supervisors to support pregnant women undertaking work activities that presented significant OHS risks to both mother and child.

All four pregnant women expressed their desire to return to work after having their child, however they identified that workplace flexibility was not the norm. Because of the long hours, they were exploring alternative opportunities within the industry. Tradeswomen recognised that their training provided an opportunity to work for themselves, or with family already in the industry, or in alternative workplaces outside of commercial or civil construction. Each of these options would provide them with more control over the hours they worked. One participant employed casually in a semi-skilled role in the civil sector was optimistic about returning to work as she aimed to move into an office-based role on site. This career path change was enabled by well-established professional relationships with managers in her existing workplace and also by free training courses provided by her union, who were also acting as key supporters in this transition. However, the other woman working in a semi-skilled role without and alternate role to return to viewed returning to the industry as impossible due to the short notice for shifts and early starts, making it difficult to place her child into childcare. She also noted that her partner and extended family were also in the construction industry, meaning that the work demands of long and inflexible working hours would prohibit them from providing support.

At the time of the interview, 20% of participants had dependent children under 18. Eight of these participants lived with their children and a partner, and one participant lived with her child and her parents. Of these participants, 6 were tradeswomen, and 3 worked in semi-skilled roles. To return to work in the construction industry, three tradeswomen explained that they had become sole traders or small business owners. This change in working arrangement provided them with school/childcare friendly hours, flexibility, and family time. Two of these women cited commercial construction as incredibly unsupportive of working women with children. Participant 37 reflected on the way in which work is structured in the industry, and commented that *"as far as I'm aware, there's no part-time work in construction. So, I started working for myself"*. The conflict between long hours and family responsibilities experienced by women in semi-skilled casual roles is explained by Participant 34: *"You have to be on-site at 7 am. That is hard for a lot of people because a lot of kids don't start school till 8 o'clock or 9 o'clock."*

Further, the lack of set shifts and short notice of work opportunities was identified by those employed on a casual contract, as explained by Participant 38: *"it's not as flexible in terms of the times you'd like to work, whether it's an afternoon shift or day shift…you've got to take whatever you can to try and sort of get into the industry first and then work from there."* In contrast, two women working in semi-skilled roles reported having flexible work arrangements that enabled them to balance family and work. This flexibility is not the norm and directly resulted from positive professional relationships with site management. Many participants believed that work-family conflict was not as problematic for their male co-workers. Participant 34 explained that *"men have stay-at-home partners."*

Many participants described the potential impact of negative workplace experiences and the pressure of working long hours on their family life. Women recognised the need to process the inappropriate behaviour experienced in their workplace before returning home, to ensure this did

not negatively impact their home lives. Participant 24 stated that *"…he [her child] doesn't need to feel the burden of what I've just felt today."* According to participants, male co-workers do not generally recognise the additional pressure women experience when working full-time alongside their role of parent. The women interviewed felt that there was not enough understanding from co-workers and managers and suggested that more education was required to create a more family-friendly and supportive atmosphere.

Thirty-two percent of the participants identified difficulty in accessing paid parental leave. Two participants identified that their earning potential helped compensate for the lack of paid leave and would enable them to fund their own leave. Three participants reported not receiving maternity leave, as their employment arrangement prevented them from accessing paid parental leave. Access to paid parental leave is dependent employment arrangement and employer. For women, this then became an issue of both retention and attraction to working in the industry.

6.5.2 Lack of accountability and deterrents for inappropriate language and behaviour

d) Inappropriate language and behaviour

Seventy-nine percent (n=28/43) of interview participants reported that they had directly experienced inappropriate and offensive language and behaviour by some male co-workers. The following section breaks this down further and provides examples cited by participants.

Language

More than half of the interview participants (53%) had experienced inappropriate language of three kinds: offensive workplace banter; offensive personal comments about appearance or capability; and highly confrontational, aggressive, and threatening communication. Offensive workplace banter was described as dirty jokes, mild swearing, and sexist humour. Participant 36 explained that her boss used *"pretty sexist"* humour in an unfortunate attempt to *"relate to me in a way that I found inappropriate, and he didn't understand that."* Participants also described examples of humiliating and embarrassing comments directed at them in front of other co-workers, such as being asked in front of junior co-workers *" what Weetbix box did you get your [trade] license out of?"* (Participant 17).

Of the participants interviewed, 18% had experienced inappropriate language from male students and teachers while at trade school. Participant 36 stated that: *"in class guys talking about disgusting, inappropriate stuff, yeah, that still happens sometimes".* Participant 36 was able to: *"speak with the teachers at school about that [inappropriate language], and most of them pulled up the students".* This is counter to the experience of Participant 42 who recalled that: *"on my first day at trade school I was looking for the department, and I came across my trade teacher for the year…I said I was looking for the construction department and he said, "you must be [name removed]. You have me for the year, and if I've got anything to do with it, you won't be here… by the end of the week".* The language used by the trade teacher was both threatening and unsupportive. Similarly, Participant 1 commented on the poor behaviour she had experienced from her teacher who consistently used demeaning language to describe her work, commenting in front of other teachers and students that it was *"rubbish...a dog's breakfast. "* Participant 1 describes that the teacher *"made your life miserable" t*o the point that she *"decided to go to [Organisation B] the second year [of her apprenticeship] "* and that this behaviour was in her opinion was a result of her being female *"…it was definitely a female thing".*

Sexual innuendo

Participants experienced comments with sexual undertones.

As explained by Participant 11:

> "I was showing an apprentice how to bend metal conduit pipe, so I was on my hands and knees and my two apprentices were there…so the boss turns up…there is the superintendent, my supervisor, the other leading hand, and all the new guys, plus all the old guys who are on this crew, and this one smart a** says 'Oh look, a woman on her knees!'."

Participant 29 recalled:

> "A guy, the other week, goes 'Geez, you make those pants look good' and I was like 'What?'. I was like, oh my God, I don't know how to respond to this. That was wrong, he shouldn't have said that."

Such behaviour was uncomfortable and difficult for women and undermined women's worth and ability.

Unwanted sexual advances

Women also had experienced unwanted sexual advances which left them feeling vulnerable. Participant 5 described being inappropriately propositioned in the workplace: *"I've been flat out asked for sex on-site. I was shocked, and I was really uncomfortable."* Participant 19 reported: *"People were showing me pictures of their wives and asking me for threesomes."*

Participant 35 reflected on her experience as an apprentice:

> "I had a guy who basically blackmailed me and said that he would [provide a negative performance review to the employer] because I [did not accept his advances] … I'd only been in my apprenticeship for a few months. I was scared for that what would mean for my future career:"

Threats of sexual violence

Many of our participants had experienced extreme threats of sexual violence by males trying to assert control over them to gain compliance. Participant 12 reported that once when she asked a colleague for assistance with a task, he *"started screaming at me all kinds of offensive things, along the lines of 'You're a woman, you have no right to tell me what to do, you're a piece of s**t' and he threatened to kill me. He threatened to rape me. He threatened to beat me to death."*

Participant 19 had also experienced verbal threats: "There've been times where people straight out threatened to rape me if I didn't do something." In Participant 19's experience "many people cross the line with threats and touching me... They pull out their genitals and tell you to touch it or suck it…"

Acts of sexual harassment

Inappropriate acts of harassment in the workplace included both verbal and alleged physical abuse, with thirty percent of interview participants experiencing such behaviour. For example, Participant 12 explained that she had been: *"locked in an on-site toilet…in the middle of summer for three hours, because they [male co-workers] thought it was funny."* Incidences of alleged

physical assault ranged in severity and harm. Participant 11 described being: *"physically tipped me out of the chair"* in the site shed.

Another example of sexual harassment was described by Participant 10:

> *"I saw there was a girl there that was bending over to do up her shoe, and he [the construction manager] was behind her pretending to f**k her from behind. She didn't know, but that's the construction manager who thinks that behaviour is acceptable."*

Acts of sexual violence

A number of participants reported being a victim of sexual violence. Participant 20 described an incident she experienced with a male co-worker: "*He and I had to go to this smaller site one day, and then he tried to like grab me and kiss me and stuff"*. Participant 10 explained: *"My first year in my apprenticeship, I was sexually assaulted."*

e) Women punished or labelled for reporting inappropriate language and behaviour

Forty percent (n=17/43) of interview participants feared that if they reported inappropriate language or behaviour, they would be labelled as troublemakers and potentially lose their jobs Participant 30 explained:

> *"You just shut your mouth…because I'm subcontracted so I can be told to f**k off within seconds and I've got no recourse on that. If it's something that they don't want to know about they'll just tell my office to move me on. It makes it harder to be able to speak up sometimes. "*

Further, if a report was made it would often be ignored. The individual who acted inappropriately would often be regarded as the victim in the situation. Participant 22 explained:

> *"I can't even begin to tell you the number of times I've watched absolute meltdowns, physical fights and stood there thinking you just can't behave like that. You can't speak to people like that. You can't treat people like that. You can't act like that. And when you put in complaints about that, you're the one that is chastised…punished. The person that's actually doing the wrong thing just seems to get whitewashed and, in the end that is the industry standard."*

In addition to the fear of retribution for reporting, women also stated that they were not always believed. Participant 24 reported an incident of sexual harassment to senior management, however it was *"swept under the rug"* due to a lack of evidence. This type of treatment of women is biased and paints women out to be troublemakers and problematic, while men's behaviour is ignored or seen as not being a problem. This is compounded by the fact that some male workers are protected by their connections.

The consequences to women reporting unethical language and behaviour can have lasting impacts even after leaving the organization, given existing relationships between the small number of companies in the industry. The reputation assigned to women who report misconduct may follow them from one site to the next and from one employer to the next. Participant 16 reported that she was aware that employers could potentially smear women's reputations in ways that could jeopardise their future employment:

> *"I mean all he needs to do is pick up the phone to my new boss and trash me to bits until I'm not employable anymore…There's a lot that people can do. He's powerful and he's got a lot of reach so you really can't touch him … and a lot of people are in that position."*

Participant 39 stated that she chose to request a transfer rather than make a complaint due to the culture of labelling and punishing women. However, even with this strategy, her decision to move still resulted in negative reactions:

> *"Rumours had been spread that I'd complained about some comment… I hadn't actually made a complaint about the harassment, but I think my new co-workers were worried about them swearing in front of me or saying something that I would take offence to."*

f) Lack of support

Participants were asked what support they felt was lacking with regard to the many challenges they had experienced while working in the construction industry (as described in the preceding sections). Support in this context was understood as both the words and actions displayed by co-workers, management/supervisors, their employing organisations, and by support roles including the Health and Safety Representative (HSR), Trade Union Shop Stewards (SS), and their organisation's Human Resource group and policies. Of the participants interviewed 60% (n=26/43) reported that they did not receive the workplace support they required for a successful workplace experience.

Participants identified five specific areas in which support was lacking:

- 21% cited a lack of support from co-workers;
- 51% cited a lack of support from manager/superior or teacher with their workplace;
- 37% cited lack of support from organisation; and,
- 23% cited a lack of support from representatives tasked with representing worker rights or supporting wellbeing.

Each of these five areas is explored in more detail below.

Lack of support from co-workers

Twenty-one percent (n=9/43) of participants reported a lack of support from their co-workers. Women expressed disappointment in their male co-workers for not intervening when they were the victim of inappropriate behaviour or language. Participant 20 explained: *"it's not very often someone would stand up for me and be like don't talk to her like that."*

Ironically, many male co-workers recognised and disapproved of women being treated badly; however, the women perceived men as lacking the courage and conviction to speak up, as explained by Participant 37:

> *"Other guys would notice when I've been treated badly on-site, and would come and say to me 'Hey, that was pretty average, the way he just spoke to you.' And I did say to them, 'Look, I get that it's really confronting to call that out when it's happening. It's very comforting that you come and say to me afterward that you noted that that happened, and that was out of line. But it would be even better if you could call it out when it's happening'."*

Women were frustrated by the lack of support displayed by the male co-workers in their crew when treated badly by other men on-site. Participant 42 described: *"what I recall most is how disappointed I was in my mates that they wouldn't call it [inappropriate behaviour] out, because they didn't want to be seen as weak".* This frustration was often conflated when women were asked

by male co-workers to stand up to behaviour or language they found offensive. Participant 42 explained:

> *"When somebody uses a particular dirty - say the word 'c**t', for example, lots of men are actually offended by that word, and so often they would say, '[name removed] I cringe every time he f**king says it. Why don't you say something?'."*

Participant 42 pointed out the power that men have on-site over women and emphasised the importance of male co-workers calling out inappropriate language and behaviour, not just in the moment as support of solidarity, but also in challenging the culture and standing up for acceptance of women more generally across the industry.

Lack of support or guidance from manager/superior or trade teacher

Participant 42 identified the role of management in setting the standard of behaviour*: "I think it's demonstrated from the top, so led by example. And I'm not saying that management was bad, but they didn't call it out when it was obvious."* As men hold most management positions, it is not surprising that 51% (n=22/43) of participants identified a lack of support by their management/supervisor or trade teachers.

Failure to appropriately recognise and punish inappropriate behaviour was considered to be endemic across the industry. Participant 13, a sub-contractor, experienced days of verbal harassment followed by an incident of sexual harassment by a male co-worker who was also a sub-contractor, but from a different organisation. She reported his inappropriate behaviour to her HSR, who subsequently reported the issue to the main contractor's management team. Initial action was taken and the individual was removed from the workspace, but within a few hours the co-worker was returned to work in her proximity as if nothing had happened:

> *"I went downstairs and found the HSR rep. I was quite shaken. Told him what had happened. They sat the guy down and said 'Don't do this'. He sat down with his boss and was told 'Don't do this'. Half an hour later he was back working within 5 feet from me. Nothing was done about it, and his mate continued to make comments to me the whole time."'*

Lack of support or guidance from organisation

A number of participants (n=16/43) felt that their organisation did not support them appropriately. Participants raised the issue of a lack of organisational governance and the absence of both policy and procedures to address the challenges that women face. Participant 39 pointed out that her organisation did not have a sexual harassment policy which she found concerning given the organisation was, at the time of the interview, actively recruiting women to *"balance their gender numbers"*. This participant was concerned that women entering this workplace would face challenges. These concerns were based on the lack of support she experienced in this organisation, as described in the next paragraph.

Participant 39 reported that she was threatened by a co-worker in her crew and requested to be separated from him. This request was initially agreed to, however, the week after she was moved, she was notified that on the next job she was going to be placed in a work crew with that same co-worker. She discovered that this had been arranged by the co-worker who had threatened her, as a punishment for her complaining about his behaviour. Participant 30 shared a similar experience

after having a male co-worker removed from her work area for inappropriate behaviour. He too was returned to her worksite. This inappropriate staff allocation was not addressed by the organisation as there were insufficient procedures in place to prevent such instances from occurring, despite the threat presented to women's wellbeing. Participant 30 explained:

> *"So they've actually brought him over to my side. So now I have to look at him every day and that pisses me off. However, they probably think it's over and done with. Whereas every time he looks at me, I get creeped out, but I won't allow him to intimidate me."*

Participant 16 stated that if she expressed concern for her safety on the job, she would simply lose work. In this instance, her organisation did have an equal opportunity policy in place; however, Participant 16 felt that it *"is just a piece of paper that doesn't mean anything."* She highlighted the absence of support from head contractors as a reason that workers who behave inappropriately are not adequately disciplined, and further, that this lack of support enables the punishment of women who report their male co-workers inappropriate behaviour.

> *"I was kicked off both jobs because of somebody else's behaviour and punished severely for it. What can you do when you're doing a good job? What else can you do if that's the consequences of just coming up against one of the boss's favourite men? It's kind of unbelievable."* (Participant 16)

Lack of support or guidance from representatives tasked with representing worker rights or supporting wellbeing

Participants identified that the established support services such as the Health and Safety Representative or Shop Steward did not always provide them with the required information or assistance. Participant 13 perceived that the only reason they had a health and safety representative on-site *"was because they had to tick a box. But his job was essentially to intimidate you into being quiet."* Such experiences of being unsupported leave new and junior workers in vulnerable positions since they have very little power on-site. Participant 32 felt that the level of assistance provided by the on-site union delegate reflected the unspoken hierarchy of value assigned to different trades and semi-skilled workers, which left workers feeling less valued and represented. This is illustrated by the following statement:

> *"There are certain union members that tend to avoid us, or don't stop and have the longer conversations like they used to, since we've highlighted that they neglect to have some of the important conversations with us. Because they value or put some of the men before us. "*

Reasons for lack of accountability

This laissez-faire attitude to inappropriate language and behaviour creates a culture where male workers believe they can treat women as they like even when it is recognised as illegal.

Participants cited several reasons for the lack of accountability:
1. Skills shortages: *"It was more important to not lose a skilled worker."* (Participant 15)
2. Management employed by the Head Contractor were *"scared of the tradesmen."* (Participant 20)
3. A lack of education across most of the workforce.

4. Not wanting to investigate or punish inappropriate behaviour as it would reflect poorly on the organisation (main contractor) or may mean that the sub-contractor may lose work/existing contract.
5. Labour hire staff have no organisational support on-site.
6. A women's voice is secondary to a man's on-site as they are viewed as inferior: *"Because it hasn't come from them [a man], it's not their idea, they haven't seen it, so, therefore, they can't see it that way."* (Participant 32)

6.5.3 Culture of silence

Nineteen percent of participants identified that the failure of male co-workers to speak up when witnessing inappropriate behaviour is a significant challenge. Participant 19 stated: *"Nobody would stand up for me as a woman and that was a very sobering thing".* The consequence of a lack of accountability is illustrated in the following exchange between the researcher (interviewer) and the participant:

> *Interviewer: "Do you have any inkling as to why people in your workplace feel that they can talk to you like that?"*

> *Participant 24: "I think because they know that they can get away with it."*

Participant 8 suggested that the lack of intervention is a consequence of the *"bystander effect… they just don't feel it's their place to intervene".* Further, Participant 13 suggests that the reason why nothing was said was that even though male co-workers know that the behaviour women experience is inappropriate, *"nobody wants to be the guy who stands up and says 'I agree with her, that's inappropriate', because you're singling yourself out as a target, and you get put in that category of hysterical."* By acknowledging inappropriate behaviour, men are fearful of appearing weak, as different from the majority, and of being excluded from the "in" group.

6.5.4 Behavioural coping strategies

Fifty-six percent of interview participants indicated that they modified their behaviour to cope with the challenges they experienced at their workplace. Participants described four key approaches as important to gaining acceptance or alerting co-workers to the inappropriateness of certain behaviours:

- Not showing weakness. This minimized the opportunity for male co-workers to conflate weakness with a lack of ability;
- Use of humour and sarcasm;
- Ignoring the behaviour. Eventually the message that it is unacceptable will be received and the behaviour will cease. For example, Participant 24 commented: *"Just pretend that it really doesn't bother you. So, after a while, it does eventually go away."* However, for behaviour that is prolific and endemic, like swearing, women recognised that ignoring it would not have any effect at all.
- Acting professionally to maintain a respectful relationship with male co-workers. This was explained by Participant 10: *"My work life and my personal life don't cross at all. Zero percent."* She emphasized this is important as it is easy for friendly behaviour to be misinterpreted as sexual interest. Participant 24 explained *"if you set a boundary that this is a workplace, and I'm happy to be your mate, but don't push it any further than that, then they're quite respectful".* Important to the maintenance of a respectful workplace was to

clearly let co-workers know when they had crossed the line. Clearly establishing a boundary about what is acceptable ensures that women are not mistreated on-site as explained by Participant 27:

> *"They're just normal people. You can't be intimidated by them because the more that you're intimidated, the more that they know they can push you around. So, you hold your ground and then they start to appreciate you more."*

When establishing behavioural boundaries, women asserted that moderating the way they communicated was vital for being heard. Participants recognised that male co-workers did not appreciate overly aggressive or emotional women; consequently, women modified their language when giving instructions to male co-workers.

6.5.5 Psychological coping strategies

The psychological coping mechanisms used by participants to manage their workplace challenges are now discussed.

Resilience

Individual resilience was considered to be a critical capability for coping with the challenges that participants faced in their workplace. Participants described resilience in terms of drawing on their capability, recognising limits and seeking guidance where necessary in the face of adversity and setbacks, while persisting and moving forward.

For example:

> *"I think resilience is having the determination and focus on what I need to do to get where I have to go, and that's not always easy, but it's also recognising my limitations and trying to work out other ways to reach my goal, and recognising that you can't fix everything." (Participant 42)*

And

> *"Being able to keep just coming back. Getting up the next day and saying, okay, that day is done, let's move on, get up and do it all again kind of thing. Being able to come back, get knocked down and get back up again." (Participant 11)*

And

> *"I think resilience to me is putting up with unusual circumstances and being able to manage that in a way, you know, that's suitable for you… being able to put your own coping mechanism into place and managing the situation where you feel, you know, safe and comfortable. You know it's about knowing, where your limits are and knowing how far you can push yourself in all aspects, physically, emotionally, mentally, and job-wise, to do what you need to do while you're there. And managing all those things." (Participant 3)*

Seventy-two percent of participants commented that they believed resilience was an essential capability for working in the construction industry. Participant 10 assumed all women who worked in the industry were resilient given the workplace challenges they faced. Participant 8 stated that resilience is *"a strong adjective required for women in a male dominated industry"*. Some of the reasons for viewing resilience as an essential capability included:

1. The hard and direct way business tasks are communicated

   "Even just the dialogue of how men talk to each other, it's black and white. If you f**ked up, you know that you've f**ked up, where a girl won't say that. They'll deliver it nicely. They'll try and make you feel good when you leave the conversation." (Participant 10)

2. Women are a minority in the industry and are trailblazing a new pathway for others to follow. Changing the way the construction industry has traditionally operated is confronting and difficult, with women facing many setbacks along the way.

   "Nobody's going to help you achieve what you want. So, I think having that resilience there so that you can always bounce back, it's almost your number one necessity in trades." (Participant 12)

And

   "Because there's a lot of old school mentality, the culture is restrictive. So, if you want to succeed, or you want to progress and grow in the industry, resilience or sticking with what you're doing and pushing through is something that I think, yeah most definitely is part of the deal." (Participant 32)

3. The physicality, tight deadlines and margins, diversity of stakeholders and the evolving design and constructability of buildings require a level of resilience to successfully practice.

   "I think the job requires a physical resilience. There aren't those office luxuries. Like I don't have a toilet. We're out in the harsh sun. We're out in the weather, sometimes in the rain. There's a resilience, not even with the nature of the other workers, but just the resilience with the work in general, from my line of work I would say." (Participant 8)

4. The casualised nature of employment

   "If you're coming from the construction industry where you can find yourself employed one week and not employed the next, I think resilience plays a massive, massive part." (Participant 9)

However, it is important to note that just because the women working in the industry are resilient and are coping, this does not mean that a change in workplace culture is not required. As Participant 13 highlights:

   "People always tell you 'Oh, you've got to be resilient. Yeah, you are resilient. Wow, you're really tough.' Being told you're resilient doesn't stop the s**t things happening to you that require you to be resilient. I think all of us would like to be in a position where being told that you're resilient is not necessarily something that you have to celebrate, because you don't need to do it anymore.'

Strategies for developing and maintaining resilience

Eighty-six percent of participants identified key strategies they had adopted to help them successfully manage the challenges they faced in the workplace. These five strategies are presented in Table 6.18 and are outlined in more detail in the next section.

Table 6.18 Strategies to manage workplace challenges

Resilience strategies adopted in the workplace	Percent (No.)
Emotional regulation	37% (n=16/43)
Maintaining perspective	33% (n=14/43)
Support networks within and outside the workplace	33% (n=14/43)
Invest in mental and physical wellness	26% (n=11/43)
Capability enhancement by asking for help/seeking feedback	21% (n=9/43)

Women recognised the need to decouple the challenging situation from their emotional reaction. This was important from the participants' perspective given they are already stereotyped as being emotional. An emotional reaction to a situation was akin to not coping and reinforced the perception that women did not belong in the industry. Managing emotion was also perceived as vital for earning and maintaining respect and acceptance from male co-workers and ensuring ongoing work. Strategies for managing emotions included:

1. Taking time out from the situation momentarily or away from the site:

> *"I just jump in the car to listen to some music. And by the time I get home, I've left it, I leave it behind in the car."* (Participant 24)

And

> *"When I'm having my lunch, I take some time out for myself before I do whatever else I have to do. I really think it's a very personal thing. It's knowing where you are and where you're at, at the time".* (Participant 29)

And

> *"If they want to continue with an argument or they want to be upset about something, I will normally just direct them to management."* (Participant 23)

2. Maintaining perspective

Thirty-three percent of interview participants identified the need to maintain perspective was an essential element of resilience. Key to maintaining perspective was the ability to reframe the experience and move forward after experiencing a setback. Women believed that much of their mistreatment was designed to test or put them in their place. Therefore, maintaining perspective was central to ensuring they were able to focus on what was important to their career progression and experience. This was explained by Participant 19:

> *"I think it's just being yourself outside of the situation and recognising that instances do not define your work no matter how they make you feel in the moment. It is important to remember how to exist outside the perspective of other people."*

Participants also identified the importance of reflecting on their personal growth and achievements. This allowed them to move beyond the immediate setback and to refocus on moving forward. Participant 20 explained:

"When people do say positive things and supportive things, I also kind of write them down, but then I keep them somewhere where I can sometimes look at them. And so, there's days where I'm like a failure, I get them out and I read them which, yeah - so they help a bit."

Additionally, reflection on priorities was used as a tool to determine what needed readjustment in order to regain some perspective. Participant 29 commented:

"I like to stop every now and then and go, right, where am I at? How am I actually feeling beyond the emotions so, how's my body feeling? Am I tired? Am I feeling tight? Am I tense? And if so just taking a break and letting it all go and relaxing. Sometimes stretching it out; I do all sorts of things like that."

3. Investing in mental and physical wellness

Twenty-six percent of participants identified the need to invest in activities that would improve their mental or physical health. Participants cited physical activity like yoga, running, pilates or weights to improve their physicality to undertake workplace activities. As explained by Participant 21: "*I do running and yoga because it's the best for tradies for back pain."* Participants also identified the need to maintain their physical health by regularly seeing a healthcare professional e.g., a chiropractor or masseuse. Participants also mentioned yoga and other mindfulness activities as healthy ways they managed stress or processed emotion. As explained by Participant 33:

"I took up yoga and I started meditating… Every time I'd have a horrible day my partner would just grab me and we'd go for a walk…. I found myself drinking probably too much through the week…The walks helped and stuff, but towards the end I was so burnt out and emotionally exhausted."

Other participants had sought professional help to address mental health issues. Participants' experiences of industry-based support for mental health is discussed in more detail in Section 8.2.

4. Capability enhancement by asking for help/seeking feedback

Another strategy that participants adopted was to actively focus on the development of their skills and capability to prove their value. Many participants felt that they were often not heard so developing the confidence to speak up was central to gaining acceptance and being able to undertake their job. Confidence also evolved with the on-going development and awareness of their professional skill and capability. Confidence in the first instance came from their increased technical proficiency and later through the development of their interpersonal skills. Participant 17 believed that *"there's a certain amount of confidence in your own ability. You've got to be confident in your own knowledge and ability and not need to get that from other people. You've got to get it from within yourself."* This self-awareness was especially important as women were not always taught on the job. However, participants noted that the culture of the industry and inappropriate behaviours present a challenge to developing confidence. Entering a male-dominated industry is intimidating for women, which can have a negative impact on women's confidence. Participant 27 recalled being intimidated at first, but she worked closely with some supportive men in her crew who helped her to develop her confidence. She stated *"you've got to be confident and comfortable with yourself and others around you. Especially because it's a man's world, unfortunately. You have to be aware that your confidence is key."*

However, not all male co-workers were supportive. Some actively worked to undermine women's confidence. Participant 20 reflected on the nature of inappropriate comments she received. She believed that some comments were unintentional, while others were intended to undermine her:

"…I think there are some people who think they're being funny, but others just are a**holes and when they see someone look upset or like their confidence has gone, they feel good."

5. Support networks within and outside the workplace

Thirty-three percent of participants identified the importance of a having a support network both within and outside of the workplace. Support networks enabled participants the opportunity to process experiences with co-workers, family and friends, which then allowed them to move forward. As explained by Participant 8:

"I really like to talk about things and I like to extract the thoughts from my head by talking about them and then I'm sort of done with it, so I can move forward... talking with a fellow colleague or my husband or a friend or something has been a helpful strategy for me."

Friendship networks also allowed participants to see the joy in life when a work situation was getting the better of them. The ability to see positives in their surroundings allowed them to return, tolerate and negotiate difficult situations in their workplace This process was described by Participant 14:

"You just ignore the noise and you spend time with the people you know care for you or want the best outcome for you. So, you surround yourself with the people that will support and help you improve yourself and you just don't listen to all the other noise."

Participants raised the importance of support from other women in the industry given their unique understanding of the challenges that women face. Understanding and sharing their experiences with other construction women was identified as an essential requirement since they felt that male co-workers could not fully understand their situation. This need for industry support networks is discussed in greater detail in Part 8.

Part 7: Methods for Communities of Practice Study

7.1 Data collection and analysis

7.2.1 Document analysis

Desk research and subsequent document analysis was undertaken to identify existing communities of practice (networks, structures and forums) for female construction workers. Publicly available materials were accessed and reviewed, along with materials provided by conveners of current networks, structures and forums.

7.2.2 Interviews

Participant recruitment

A purposive sampling strategy was used to recruit participants for the second study. The target research population included i. women who had developed and coordinated a support group for women in trades or semi-skilled roles in construction, and ii. women who had participated in these support networks. Support networks and associated conveners were identified based on a desktop review and were invited to participate in an interview. To recruit women who had participated in these support groups, network conveners were asked to forward an invitation to participate in the research via their networks. Women working in the industry were also identified using the earlier survey and interview recruitment process described in Part 5 of this report. Approval for this second study was obtained from RMIT University's Human Ethics Committee.

Semi-structured interviews were conducted with five women who had each initiated and convened support groups for tradeswomen and semi-skilled workers. Eleven more interviews were conducted with women who had participated in one or more of these networks. An additional 27 interviews were conducted with female trades and semi-skilled women who completed the wellbeing survey in the first study. The interviews provided an understanding of the motivations, objectives and operation of existing support structures, and how participants experienced these networks. The interviews also explored how these networks supported women at their different career and family stages.

The use of semi-structured interviews ensured that access was gained to the interviewees' individual meanings and hence the way they viewed their social world. The semi-structured interviews involved a series of open-ended questions to gather 'a wide variety of different views to a particular issue' (Bryman, 2004, p. 348) and enabled participants to raise issues or express ideas and knowledge that they felt were important. The interviews were conducted one-on-one to provide anonymity and ensure the confidentiality of any sensitive or potentially damaging information that arose. The interviews were held over the telephone and ranged from 1 to 2.5 hours in length.

7.2 Data analysis

All interviews were recorded with the participants permission and were later transcribed verbatim by a university-accredited service. The transcripts were then examined to identify patterns (or "themes"). Given the exploratory nature of the research, thematic analysis was deemed a suitable method to allow themes to emerge from the participants' responses (Boyatzis, 1998).

Qualitative data from the interviews were independently analysed by two of the researchers who later compared and discussed their results to agree on the emergent themes, thereby ensuring interrater reliability (Ballinger, Yardley, & Payne, 2004). Quantitative content analysis (Joffe & Yardley, 2004) was then conducted using Nvivo software to identify the frequency of the emergent themes. The findings are presented in Part 8 of the report.

Part 8: Findings of Communities of Practice Study

8.1 Document analysis

The desktop review found that there are a wide range of support groups operating across Australia that focus on promoting and supporting women who work in the construction industry. These support organisations undertake a wide range of activities including the development of online support communities, training activities, as well as undertaking research to promote gender equality in the construction workplace.

The organisations varied in their objectives, which included:
- promotion of construction with an aim to attract more women into the industry
- supporting women currently working in the industry
- raising the employment profile of women in construction and connecting them to jobs

Table 8.1 lists the organisations identified through the desktop review and provides an overview of each organisation's focus. As indicated in Table 8.1, some of the organisations address all three of these objectives (promote, support, connect).

Table 8.1 Support organisations established for women working in construction

Organisation Name	Focus of Organisation			Location of organisation
	Promoting industry to Women	Supporting women in the industry	Connecting employers and women (recruitment)	
Awesome Women in Construction	✓	✓		National (non-specified)
Hi-Vis Women Australia	✓	✓	✓	National
Individual advocacy (e.g., Aimee Adventures and The Plumbette)	✓	✓		Open online or social media platforms
Master Builders Association's Women Building Australia initiative	✓	✓		National
National Association of Women in Construction (NAWIC)	✓	✓		National
National Institute for Painting and Decorating	✓	✓		National

Organisation Name	Focus of Organisation			Location of organisation
	Promoting industry to Women	Supporting women in the industry	Connecting employers and women (recruitment)	
Women in White Initiative				
Supporting And Linking Tradeswomen (SALT)	✓	✓		National
The BCW	✓	✓		National
The Lady Tradies Australia		✓	✓	National
The Sparkettes	✓	✓		National, based in Darwin
Tradeswomen Australia	✓	✓	✓	National
TradeUP Australia	✓	✓		WA-based
Tradies Wives		✓		National
Tradies Lady Club	✓	✓		National
Women in Male Dominated Occupations and Trades	✓	✓		National
Women's Plumbing Alliance	✓	✓		Queensland-based
Women in Trades Network		✓		Melbourne-based

The next section provides a summary of the aims and objectives of each organisation as well as an outline of their activities.

8.1.1 Awesome Women in Construction

Awesome Women in Construction (AWIC) (https://awic.org.au) is a not-for-profit association that aims to support women in the industry through personal and professional development (Awesome Women in Construction, 2020). More than 900 people follow AWIC's Facebook page. The association also produces a regular podcast that highlights a range of relevant issues and positive strategies for women in the industry. AWIC received a grant from the Queensland Government to run "Scaffolding the Future for Women in Construction", an event co-organised with TAFE Queensland (2020). This event aimed to show women and girls the career options available in the construction industry and involved hands-on workshops, information on apprenticeships, and discussion panels with a range of construction industry speakers (TAFE Queensland, 2020).

8.1.2 Hi-Vis Women Australia

Hi-Vis Women Australia (hiviswomenaustralia.com.au) is a social enterprise focused on gender equality in the construction industry (Hi-Vis Women Australia, 2020). This enterprise promotes the construction industry to girls and is specifically focused on at-risk young people. The organisation seeks to foster cultural change through action and women-only builds. They receive support from all levels of the industry.

8.1.3 Individual advocacy

There are a number of individual women in construction who promote the industry and provide advice through blogs and social networks. Rebecca Senyard is a former plumber who uses her blog, the Plumbette (http://www.theplumbette.com.au) to promote the construction industry and to inspire women by showcasing the stories of women in plumbing (Senyard, 2020). Aimee Stanton is another plumber with a media presence called Aimee Adventures (https://www.aimeeadventures.com). She uses her platform to promote a range of lifestyle approaches, but also focuses on promoting the construction industry to women (Aimee Adventures, 2020).

8.1.4 Master Builders Association's Women Building Australia initiative

Master Builders Association's Women Building Australia initiative (https://www.masterbuilders.com.au/Resources/Career-Centre/Women-Building-Australia) aims to increase the number of women in the industry (Master Builders, 2020). This is done by providing information to women and girls who are considering a career in the industry. They also provide information on gendered issues for employees and for employers as well. In addition, they conduct mentoring programs for women in the industry. Participants are matched with mentors based on information they provide in their applications. The mentoring programs run for eight months and involve attending online events and the completion of a training program.

8.1.5 National Association of Women in Construction (NAWIC)

The National Association of Women in Construction (NAWIC) (www.nawic.com.au) is a not-for-profit organisation formed in 1995. The association advocates for change in construction and related industries with the aim of creating an equitable industry in which women are fully able to participate (NAWIC, 2020). This organisation focusses on women in all areas of the industry, not just trades. Membership is open to engineers, architects, project managers, builders, quantity surveyors, women in trades, interior designers, women running a small business, marketing professionals, and lawyers. NAWIC offers members a range of programs such as mentoring and scholarships in addition to organising social events, providing Awards of Excellence, and professional development seminars. These activities are open to all members. NAWIC has undertaken activities specific to trades, such as the Tradeswomen Australia Conference in 2018 (NAWIC, 2018), which brought together representatives and founders of multiple organisations focused on supporting women in trades. In 2019, NAWIC, together with Melbourne East Group Training (MEGT) and TAFE Queensland, conducted a seminar to promote careers in trades to female school leavers (NAWIC, 2019).

8.1.6 National Institute for Painting and Decorating —Women in White initiative

The National Institute for Painting and Decorating is the peak body for the Pacific region and runs Women in White (https://painters.edu.au/Business-Development/Women-in-White). This initiative aims to promote the painting and decorating trades to girls making choices about future careers. The association supports women in the industry by connecting them together and facilitating mentorships. They also promote other construction industry support networks, such as SALT (discussed below). This initiative shares a similar name to a female-run Victorian painting and decorating business, however they are not connected.

8.1.7 Supporting And Linking Tradeswomen (SALT)

Supporting And Linking Tradeswomen (SALT) (https://saltaustralia.org.au) is a non-profit incorporated organisation, which was established in 2009 to promote trades to women and support tradeswomen (SALT, 2020). One of the key activities that SALT undertakes is running SkillWomen Workshops which aim to teach women how to use tools to empower women from diverse backgrounds to feel comfortable working with tools. The workshops also aim to demonstrate that trades are an attractive option for women (SALT, 2020). The workshops are run in a variety of settings including primary schools, high schools, and community venues and have had thousands of participants across five states in Australia. SALT organisers also give career choice talks at schools. They also collaborate on projects with business and government departments. SALT holds regular meetings for members and uses social media to connect and create networks (SALT, 2020).

In 2018, SALT received a grant from the Department of Education, Skills, and Employment to assist the Australian Government to increase awareness and raise the profile of the range of VET opportunities and career pathways (GrantConnect, 2020). The organisation also received a grant from the Department of the Prime Minister and Cabinet for their 'From DV to Trades, a New Perspective for Women's Lives' program (GrantConnect, 2020). They have also been awarded a grant through the ACT Women in Trades Grants program to deliver initiatives that support women. The founder of SALT, Fi Shewring, is recognised for her contributions to the Australian construction industry. She received HIA's Construction Woman of the Year Award in 2016 and was a recipient of the Australian Trades Teacher of the Year Award (Australian VET Alumni, 2020). Shewring has also conducted and published research on women in trades, which was discussed in Part 3 of this report.

8.1.8 The BCW

The BCW (https://www.thebcw.com.au) is a coaching and consultancy company founded in 2012 by Teagan Dowler. The BCW focuses on male-dominated heavy industries and supports businesses and organisations to become more diverse and inclusive. The company has many high-profile businesses as clients. The BWC also provide coaching services for women in these industries (The BCW, 2020). Teagan Dowler has published a book that outlines strategies for succeeding in male-dominated industries, and the associated website contains educational videos. Dowler has also appeared on podcasts focused on gender equality as well as commenting on related matters in the press.

8.1.9 The Lady Tradies Australia

The Lady Tradies (www.theladytradies.com.au) is a recruitment organisation founded in 2011 to "promote, support, connect and encourage women and girls in trades and non-traditional roles" (https://www.facebook.com/LadyTradies). Their Facebook page has over 8,000 followers. The company is focused on increasing female representation in non-traditional roles (The Lady Tradies Australia, 2020). Employers can advertise opportunities for apprenticeships and qualified tradeswomen. Tradeswomen and apprentices are also able to register to connect with employers looking to hire. Tradeswomen who own companies or work as sole traders can also advertise directly to contractors and the public. As well as recruitment, The Lady Tradies Australia focusses on providing advice to tradeswomen and the opportunity to connect with other women in the construction industry. This is done with the aim of supporting women through the challenges experienced in the building and construction industry.

The Lady Tradies organisation has been widely recognised as a key support for young women wishing to enter a trade. Their work has been highlighted by the Tasmanian Education Department (2018) to encourage young women interested in pursuing trades, but who may be feeling uncomfortable about being the only woman. Schools such as Ulladulla High School (2020) promote The Lady Tradies as support for female students considering trades. A 2019 report from the Victorian Skills Commissioner recommended that RTOs and employers need to be more aware of existing organisations that focus on improving the underrepresentation of women in the industry, identifying The Lady Tradies as an example.

8.1.10 The Sparkettes

The Sparkettes provide support groups to connect women in the electrical trades and facilitate mentorships. The initial group was the Darwin Sparkettes, founded in 2013 by two electrical tradeswomen Marnie Scobie and Sarah Brunton. The group now has over 400 members on Facebook (www.facebook.com/DarwinSparkettes). Additional Sparkettes networks have been set up in Queensland, New South Wales, Western Australia and Victoria. These groups are grassroots and member-run, but are encouraged and supported by the Electrical Trades Union in some states. The Sparkettes are open to all women in the trades and also to women who may be considering a career as an electrician.

8.1.11 Tradeswomen Australia

The Tradeswomen Australia Foundation (https://tradeswomenaustralia.com.au) is a registered charity established in 2018 which undertakes a range of activities focused on attracting women to trades as well as providing support for women working in trades (Australian Charities and Not-for-profits Commission, 2020). Tradeswomen Australia identify and respond to challenges in the industry and support women's professional development. They also run seminars and provide a service for employers to list job vacancies.

The foundation received a grant in 2018 from the Department of Education, Skills, and Employment as part of their Industry Workforce Training program to assist the Australian Government to increase awareness and raise the profile of the range of VET opportunities and career pathways (GrantConnect, 2020). Their Strategy Council is comprised of advisors from RMIT and Victoria Universities, Jesuit Social Services, a Senior Policy Officer from the Department of Education and Training, as well as representatives from apprenticeship organisations such as the Apprenticeship

Employment Network (AEN) and the Global Apprentice Network (GAN) among others (Tradeswomen Australia, 2020).

The foundation undertakes research to understand how more women can be attracted and retained in trades. They released a report in May of 2019 that consolidated research into gender segregation in the trades (Tradeswomen Australia, 2020). They are also piloting a two-year program to promote diversity and inclusion in the automotive industry to improve wellbeing and mental health (Tradeswomen Australia, 2020). This pilot program has been funded through Worksafe's WorkWell Mental Health Improvement fund which supports programs focused on prevention and systems-level change (WorkSafe Victoria, 2020).

The Tradeswomen Australia Foundation launched an initiative called "Operation Protect and Preserve" to support female apprentices during the COVID-19 pandemic (Tradeswomen Australia, 2020). COVID-19 had disrupted many apprenticeships and those that remained in work were faced with reduced numbers of co-workers on-site. As a result, female apprentices were experiencing less connection than they were used to, which the organisation recognised as a mental health risk.

8.1.12 TradesUP Australia

TradesUP Australia (https://tradesupaustralia.com.au) is a volunteer-based association that aims to support and connect women in the industry by facilitating mentorships and hosting forums and events. Another of their aims is to encourage and empower women to see themselves as capable of having a career in the trades (TradesUP Australia, 2020). TradesUp Australia runs skills workshops aimed at helping women develop practical skills on the tools and to empower participants by creating useful items that they can keep after the workshop. Their 'Inspire Initiative' involves delivering talks to community groups, businesses, and providing events for young people aimed at promoting the industry to women.

In 2017 this association partnered with the Government of Western Australia Department of Communities to run a stall at Skills West Expo promoting STEM and trades careers to women (Government of Western Australia Department of Community, 2020). TradesUP Australia is also part of the Economic Security 4 Women Alliance which is funded by the Australian Government through the Office for Women in the Commonwealth Department of Prime Minister and Cabinet and aims to find ways to help women achieve financial security and economic wellbeing (Economic S4W, 2020).

8.1.13 Tradie Wives

Tradie Wives began as a Facebook group (https://www.facebook.com/TradieWives) with the aim of providing support and advice to the partners of tradespeople who were working with their partners in running a business (TradieWives, 2020). This organisation was developed in response to some women finding this experience of managing a trades business overwhelming and isolating. The Facebook group now has over 9,000 members. The strong demand for this type of support and tailored business advice led to the development of their website (https://tradiewives.com.au) and expanded their role. The website now has a business directory to help people running a trades business to connect with relevant services and products. Their website also enables members to advertise their own businesses and availability for subcontractor and labourer work.

8.1.14 Tradies Lady Club (TLC)

The Tradies Lady Club is a group that connects women in trades together using social media. The club aims to promote the industry and support women in trades to change the perception that trades are for men. TLC also runs events for women in trades to connect and its members offer support and advice. They have an online shop for trades-related clothes and their own branded merchandise (Tradie Lady Club, 2020). Their Facebook group has over 900 members. Tradies Lady Club founder, Stefanie Apostolidis, promotes the industry through her own Instagram account, under the name of Melbourne Chippy Chick (https://melbournechippychick.com.au). TLC's Instagram account (https://www.instagram.com/tlcbymcc/?hl=en) has over 15,000 followers.

8.1.15 Women in Male-Dominated Occupations and Industries (WIMDOI)

Women In Male Dominated Occupations and Industries (WIMDOI) is an affirmative action initiative within the union movement. WIMDOI was formed over 20 years ago to actively recruit and involve union women from across male dominated industries, with the aim to build networks and support structures for women. With 2,000 followers on its Facebook page (https://www.facebook.com/WIMDOI), women from across industries, across states and across countries participate in a bi-annual National WIMDOI Conference. These conferences are held in different states to allow for maximum inclusion of women. State based WIMDOI Conferences are also held bi-annually to support and grow the WIMDOI networks locally. WIMDOI also acts as a political avenue for women to lobby government regarding the issues that affect the lives of women and the rights of working women. The group also aims to provide women with the tools to successfully thrive in their workplaces.

8.1.16 Women's Plumbing Alliance (WPA)

The Master Plumbers Association of Queensland formed the Women's Plumbing Alliance (WPA) (formerly called Partners in Plumbing). The WPA aims to acknowledge the work and value of women in plumbing, facilitate the formation of meaningful support networks, and to provide tools for women to continue to develop their skills and businesses (Master Plumbers' Association of Queensland, 2020).

8.1.17 Women in Trades Network

The Women in Trades Network (www.facebook.com/groups/womenintradessocialnetwork) is a social network for tradeswomen and has over 500 members (Women in Trades Network, 2020). This network aims to provide a space that connects women in trades through social media and events.

8.2 Interviews: Communities of Practice

8.2.1 Support networks developed by women for women

Five participants who had developed support networks for women working in the construction industry were interviewed. The support groups/networks aimed to increase the attraction and retention of women in the construction industry. The participants interviewed cited their motivation to develop a support network for women as follows:

- A lack of support services available to them when they started working in the industry.
- An observation that other tradeswomen working in the industry shared similar challenges owing to gendered stereotypes and shared a desire to connect with other women.
- Connecting women to job opportunities.
- To encourage more women to be financially independent.

The preceding sections of this report have identified the many challenges faced by women working in construction. The support group founders all expressed the value of sharing stories and experiences to help overcome the challenges faced. Their belief in the value of women sharing their experiences was a critical motivating factor in establishing their support groups. Participant 2 reflected on her early experiences working in construction, stating:

> "I would have liked to have just met other women… to hear their stories, exchange things that were happening to me, and see if they had the same thing."

Participants spoke of a desire to enable others who felt isolated in their work to connect to other women. Sharing experiences with others in similar circumstances was recognised as essential to prevent women from exiting the industry and this acted as a motivator for the development of the five networks. By supporting others through shared experiences, women were able to put into perspective the confronting nature of their experiences. Participant 35 explained:

> "What actually tipped me was that one girl, she was a first-year [apprentice], had exactly the same thing happening to her [as I had]…it took me right back to what had happened to me, and I was like, Argh! This can't still be happening… So, I started a Facebook group…"

This ability to network with other women in the construction industry played an essential role in allowing participants to determine if their experiences were the "norm" and if their reactions were constructive in improving their circumstances. As stated by Participant 2:

> "So, it was hard to know whether I was having the right reactions or whether I was dealing with it well or not. You know, I had no benchmark to go by and no one to bounce things off."

It was also recognised that given the unique nature of the experiences that women face, connecting with other women in the same situation was important. Participant 35 recognised that men often lacked the ability to empathise: *"just actually having someone who's in that same position, that knows, I think is good."* Not only had men not experienced these challenges, but they were also unlikely to openly communicate their shared vulnerability and any strategies used to nurture and strengthen self-worth. As identified by Participant 4: *"There is nothing like telling a woman a problem… You can have the vulnerability in a group of women that you can't have with men."*

Some of the support networks that were established by the women interviewed, additionally, focused on teaching women and girls how to use tools and exposed them to the opportunities that exist in the industry.

8.2.2 Women's experiences in networks

Eleven of the women interviewed for the Communities of Practice study were members of one or more of the groups discussed in Section 8.1. The interviews with these women identified that from a participant's perspective, the aim and objective of these networks were achieved and valued. Membership and engagement in these groups connected the participants with other women working in trades and enabled them to share experiences, seek feedback and advice, as well as give back to the industry by helping others. Participant 12 explained the value she gained from engaging in the support network she belonged to:

> *"It was like having your experiences validated… so you know that you're not being overly emotional as men like to call it. You weren't being hysterical. Those things genuinely happen, and they genuinely happen all the time. Just having that level of networking and support did help me a lot. "*

Participant 13 echoed similar sentiments about her membership in a different network:

> *"These informal networks give me an avenue to talk about what had happened… and to work out whether or not what was going on was acceptable…"*

Participants in other groups agreed that women's networking groups provided them with a

> *"I don't know many women in trades. It was more about making connections." (Participant 7)*

And

> *"You just ask a question and there'll be three or four different answers as to how they deal with it." (Participant 15)*

Participant 15 added that advice from a woman is important, as concerns are legitimatised by others with similar experiences, whereas male co-workers tended to trivialise women's concerns: *"The thing is, you try and bring that up [with a male co-worker], right? You say, "Well, it's different because I'm a woman." There's a feeling of eye-rolly-ness- here we go again."*

Participants also noted that these support networks allow women to identify individual mentors and develop more personal relationships with others in the industry. Participant 36 described using one support group to ask if anyone was *"willing to be sort of an informal mentor"* and then explained how delighted she was when *"30 women put their hands up"*. This has subsequently developed into *"an informal mentorship program where you can apply and select a mentor"*. Mentoring was identified as critical to retaining female tradeswomen and semi-skilled workers. Participant 36 described the impact of her mentor:

> *"I have far more confidence in myself and just in being myself, and it's okay to be a little bit different. It's okay if I question. And you know, we're still the minority, so we're going to have that struggle. And if I do struggle, if it's a bit more than I can handle, I've got a lot of people that I can talk to now."*

Participant 19 noted that it is important to *"encourage and empower people because there are many people who aren't very comfortable with confrontation. It's important that there is somebody*

to tell them that they can stick up for themselves". Participants also identified that helping other women by sharing their experiences was empowering, as expressed by Participant 36: *"it's rewarding for me as well, to be able to provide that support."*

8.2.3 Other forms of support required by women

In addition to the grassroots support groups women in construction discussed in the preceding section, twenty-nine other interview participants discussed drawing on alternative forms of support to assist them to work through the challenges of working in construction as presented earlier in this report. The additional forms of support that women drew on are presented in Table 8.2 below. Support from co-workers was the most frequently cited method to assist women to deal with workplace challenges. Twenty-nine percent of participants drew on the support of Trade Union representatives in Head Office, and 17% of participants sought support from the site Shop Steward or Health and Safety Representative. Twenty-four percent had sought assistance from management; 12% cited external organisations such as Mates in Construction, and 26% percent used the services of Incolink.

Table 8.2 Support resources utilised by women

Support resources used by women working in construction	Percent (No.)
Co-workers	38% (n=16/42)
Trade unions	29% (n=12/42)
Management	24% (n=10/42)
Organisations external to company: Mates in Construction (n=1), JobWatch (n=1), RUOK day (n=1), Mental Health conference (n=1), own psychologist (n=2)	12% (n=6/42)
Incolink: counselling (n=9), Blue Hat program (n=4)	26% (n=11/42)
Health and Safety Representative; Shop Steward	17% (n=7/42)

Note: out of the 43 participants one participant did not comment.

Many participants recognised the value of working on-site with a team whom they had well-established positive relationships. By working with trusted co-workers, it was evident to other trades and crews working around them that they were an accepted member of the crew, and this helped to dilute any pre-existing prejudice. Participant 11 explained:

> *"You would get other groups of trades who would look at you strangely, but then they would see you with your crew and they would be watching me and thinking, OK, she is just doing her job."*

Positive work relationships within their work crew such as those described by Participant 11 resulted in women feeling included even though they might be being singled out by others around them:

> *"It [being accepted by direct male co-workers] allowed me to work across different workplaces and still feel like you are part of your team and to work efficiently, even though you recognised other people might be looking at you because [as a woman] you were a point of difference."*

Furthermore, working within a crew with a strong level of respect and trust afforded women the opportunity to draw on their male co-workers' assistance and support when facing inappropriate behaviour. Participant 27 explained:

> "There's been times when the boys push it too far. I would make sure I could speak to the right people and say 'Hey, can you speak to this person for me and just let them know that you were in the room at the time of the situation and you weren't even comfortable with what they were saying to me.' And then it makes them open their eyes and ears up a little bit more."

Participant 28 pointed out the benefits that come with working closely with the same crew over time:

> "The people who have worked with me for years and years on end, I have a lot of respect for them, and they have a lot of respect for me. So, everyone sticks up for each other."

Twenty-nine percent of women cited the role of trade unions in providing them with support. Participant 27 recalls a female union delegate saying *"Hey, if you need me, give me a call. Even if you just need to have a chat about how the boys are treating you bad or something. I'm more than happy to talk to you".* Many women had been able to seek help for specific issues related to their wellbeing. Participant 25 stated that *"they've [trade union] even got actual people that you can speak to through the [union] that specifically focus on mental health, which is good."* Participants recognised that trade unions provided apprentices as well as employed women with assistance relating to employment law and with general advice about treatment on-site, as well as helping them to find work.

Participants identified management as an important source of support on-site and within their organisation. Women recognised that having a supportive manager influenced how they were valued and consequently treated on-site by their male co-workers. Participant 33 explained how her manager ensured that she felt safe on-site and supported in the early stages of her career while an apprentice:

> "I've been working on a site with 200 guys, I'm the only girl, I've never felt unsafe, I've never felt intimidated. The first week I was a little nervous being the only girl on-site and I said to the guys, 'Please don't leave me alone here' and they've always had my back. They would always have someone with me."

Participant 12 recognised the importance of management support for those in the early stages of their career. She explained how her organisation had set up a mentoring program between managers and apprentices to help guide their learning and support them while navigating the workplace:

> "One of the good things that my business has done is that they've got mentors. So, all apprentices are assigned a head of section or a higher-level manager who's just your mentor and they mentor you through your apprenticeship. They basically just check in, make sure that you're learning stuff."

In addition, supportive management were viewed as essential to changing the culture of the industry so that people accept and assume accountability for behaviour. The influence of management support in providing a positive role model to other men is illustrated by Participant 5:

> "I've been flat out asked for sex on-site, and I was shocked. If I hadn't told one of the other bosses what had happened, they [my co-workers] would just have gone 'Toughen up and get used to it', so I

definitely think it depends who you're around and then if they show you respect and that flows on to the rest of the people. They're like, 'OK, the top boss is showing her respect, so maybe I should too' kind of thing."

Support from management is vital in deterring inappropriate treatment of women as it demonstrates to others the type of workplace culture that is expected. The role modelling of respectful treatment of women is not only the responsibility of a woman's direct manager, but also is the responsibility of the head contractor on-site. Participants emphasised the role of the head contractor in setting a standard of respectful practice and publicly communicating behavioural expectations at weekly toolbox meetings and site inductions attended by all staff regardless of their tenure. This is explained by Participant 21:

"You learn about it. If there are long inductions and stuff, they always have something about women and respect. I've seen on Monday when everyone comes together on building sites, I've seen them having a go at the person that was unwantedly flirting with the [named role] or something. 'We're going to find you, and you're going to be kicked off-site', so there is, in that regard, there's a lot of support from companies and from the other boys."

However, Participant 21 later clarified that on-site follow up is not always undertaken if the behaviour is committed by an individual not directly employed by the head contractor:

"Because the [semi-skilled worker, Company A] works for [head contractor A], so they're addressing it to some [head contractor A] guy. While if I [semi-skilled worker, Company B] have an encounter somewhere in the building ground with a semi-skilled worker from [sub-contractor, Company C], that's where it doesn't go anywhere; it's between maybe his company [sub-contractor Company C] and my company [sub-contractor Company B]."

Participant 21's comments draw attention to an important problem regarding management on-site. Depending on the projects size and scale, there might be multiple sub-contractors representing a variety of trades and semi-skilled workers. The head contractor will engage a series of managers to oversee the site's financial and procurement aspects as well as a site manager and a series of foremen supervising stages of work. Each sub-contractor may have their own foreman and supervisor to manage their own workers or areas of activities, and workers from labour hire companies may have a "leader" who will report to the various levels of supervision. This complex management structure can pose a barrier to women's ability to access support as required.

Participant 23 explains that while her manager is very supportive, he is infrequently on-site as she works for a labour hire organisation:

"Management are always good. Most of the time they will be really supportive, but they are not there all the time."

Participant 36 pointed out that different support opportunities were available for women depending on whom they were employed by:

"I know that [head contractor company] has a women's support network. And I asked my boss about it. And he said that that's for head contractor's employees, not the sub-contracted/casual workers. And like if I ever have any issue, I could come to him."

Participant 33 further explained the complex management structure that exists on a construction site and the different managers/supervisors she would approach depending on the issue she was facing.

> *"I'd go to the foreman of install. I have a lot of respect for him, and I know he wouldn't tolerate any s**t behaviour towards me, so I would feel more than confident going to him. I also feel confident going to the shoppie if it was another trade that I was having a problem with, but also I'm more than comfortable going straight to my directors as well because I know they won't tolerate s**t."*

Women identified that support services external to their organisation were highly valuable in clarifying their rights as workers. Participant 16 explained:

> *"In preparing for that meeting I called Job Watch and got a good hour and a half of amazing advice."*

Participants also recognised the important role of external organisations such as Incolink for providing support to improve their mental health. Participant 32 explained:

> *"it's an amazing service, it's free counselling to us directly. Direct family members and partner. So, it's incredible, there's a number of colleagues that have either used them in family crisis, just personal development, or just needing to talk to somebody. I think everyone can benefit from that."*

In addition to the trade union workers at head office, Shop Stewards and Health and Safety Representatives were also mentioned as key supports for women working on-site, as reflected in the following statement:

> *"My shop steward for the union, he is fantastic too. He's someone else I can approach, and I feel comfortable enough to know."* (Participant 27)

From the 43 participants interviewed, five areas were identified as critical to supporting women in construction yet were often lacking in the workplace. These areas are summarised in Table 8.3.

Table 8.3 Workplace resources and strategies to support women

Workplace resources and strategies to support women	Percent (No.)
Better workplace policies and better understanding of existing policies	19% (n=8/43)
Accountability for breaches of workplace legislation	5% (n=2/43)
Design of effective support structures	12% (n=5/43)
Education for men at all levels	9% (n=4/43)
Connection to other women in construction: communication and mentoring	30% (n=13/43)

Thirty percent of participants suggested that an increased connection with women working in construction would help them to counter the workplace challenges described in Section 6 of this report. Participants identified that use of informal relationships and mentoring would be of benefit. Connecting with other women can decrease the isolation often experienced on-site: *"just to talk to another female who had been in the trades, worked in the trades. That would have been huge"* (Participant 1). Participant 36 identified the isolation she experienced and how her adjustment to the workplace culture would have benefited from a formal mentoring program:

> *"So it's like - doing the trades, there's no women, there's no one to talk to… it's daunting because you don't have somebody to [talk to] - it would've been really good for me to have a female mentor."*

Other women interviewed also recognised the value of a mentor in handling the day-to-day realities of working in construction. Mentoring was identified as helping participants to manage inappropriate behaviour, providing knowledge to inform decisions about career progression, and workplace tasks. Participant 38 explained she would appreciate advice for progressing her career:

> *"If someone can say to me, 'Well, these are your options. If you don't want to do labouring – but I can see you doing a shop steward role or a health safety rep role.' Something. Or a site supervisor. I would love to do that."*

Participant 5 added that in some cases, female mentors would play a valuable role in simply providing an understanding and empathic ear for debriefing:

> *"Just someone that understood my point of view, and just having someone check in and ask 'how are you going?'"*

It was also recognised that mentoring for apprentices would be valuable for assisting their transition into work, especially given their age and level of experience, as explained by Participant 13:

> *"For me, having somebody who was a female mentor who would have said 'Yep, blokes who show you porn in the lift, this is how you deal with it.' Or, 'In my experience we've seen this, and this is a particular resource that we can provide you with'. … Having somebody that I could talk to about that and say 'Is that fair? What have you done in the past?' would have been really a very, very useful asset."*

Participants also recognised the importance of women in senior positions acting as mentors, however in order to increase the number of senior women in the industry there needed to be more training, as expressed by Participant 38:

> *"I think if there was more training – more training, but supported training for women on-site – if we actually had more women on-site who were supervisors, or in management in construction or as blue hats… who would encourage and who would support us, I actually believe there would be a better support network…I think the dynamics might actually change on-site."*

Education and training specifically designed to explore inappropriate workplace behaviour and its impacts on women was also identified as an important requirement for supporting women, as explained by Participant 41:

> *"More education and training of managers, even labourers, the whole lot. It just needs to be looked at differently."*

Participants recognised the importance of understanding workplace legislation and the influence that it has on their rights for recourse. The women interviewed acknowledged that while there were many workplace laws to protect their rights, it was often difficult to relate these to their circumstances, and even harder to identify ways to address any breaches they may have experienced. Participant 20 reflected on this in the context of providing improved support for women on-site, *"I think that if people knew what their rights were and if there were actually people out there that would help them."* Expanding on the role of legislation and workers' rights, participants identified the need for construction organisations to develop workplace policies that

advise how legislation informs behaviour. In addition, participants felt the need for a clearer process to be in place that would guide them on how to address individuals whose behaviour deviated from workplace policy and/or legislation.

Policy and process gaps identified by women in their organisations included the lack of a process for guiding work activities for pregnant workers, maternity leave, and return to work policies. They also identified a critical need for sexual harassment policies that are meaningfully enforced, and processes to manage inappropriate behaviour that fails to align with State and Federal legislation. Participant 42 explained there was a lack of procedures in her organisation to manage situations where women experienced discrimination, sexual harassment, or gendered violence. Further, Participant 42 argued that organisations need to punish the perpetrator, not the victim. She expressed the urgent need for women to be *"heard"* and to be believed: "*her story is credible".* As discussed in Part 6, women are frequently labelled as troublemakers and risk losing work if they report inappropriate behaviour. A lack of formal processes for dealing with such matters maintains a culture where *"the reporting of illegal behaviour is something that doesn't happen"* (Participant 42).

Furthermore, Participant 42 articulated the need for policies around procurement where women are employed in meaningful work that aligns to their skills as this will influence the existing culture:

> *"Government needs to seek those builders that can demonstrate that they have best practice policies and procedures in place, that they have a genuine commitment to changing culture….procurement policies need to include all of those culture training issues, good EBA practices that include stuff around retention for women, that include good family work practices, that include good discrimination, harassment policies and procedures."*

Finally, participants recognised that while existing support structures were helpful, they could be strengthened by ensuring that they were anonymous and available to women outside work hours and on-site if required.

Part 9: Discussion

The first aim of our study was to identify and explore the workplace characteristics and challenges that influence the wellbeing of women in construction. To achieve this aim, a survey was completed by women working in trades and semi-skilled roles to assess their perception of workplace psychosocial safety climate, civility and respect, supervisor support, work-family conflict, and individual resilience. Interviews were then conducted with volunteers from the survey participants to explore the challenges they faced in greater detail and to understand how these informed their wellbeing. The second aim of our study was to identify the existing support structures and networks available to trades and semi-skilled women working in construction. A desktop analysis of networks, forums and support and groups was undertaken, along with interviews of support group facilitators and participants. These interviews revealed key workplace resources and strategies required by women to feel supported.

We start this discussion by acknowledging that trades and semi-skilled women's experiences in the construction industry are varied and nuanced. We then briefly identify some of the reasons why women are attracted to construction. We then describe the workplace hierarchies that exist within construction, as well as the complex ways in which construction-sites are organised. This provides a framework for understanding the key challenges that many women have experienced and continue to face. While each challenge is reported separately in the discussion, it is important to clarify that these challenges are interdependent. The discussion then considers the coping mechanisms women use to address the many challenges they face in their male-dominated workplaces. Areas considered important by women requiring further support are then explored. The discussion concludes with the identification of opportunities to improve the workplace for all workers.

9.1 Women's workplace experience is varied and nuanced

All the women interviewed expressed their passion for the construction industry, regardless of the treatment they had experienced. Some women had only ever experienced an extremely positive work environment. Their experience is reflected in our quantitative survey scales, which showed that many workplaces provide a healthy psychosocial safety climate for women; marked by respect and civility, supportive supervisors and good work-family balance. Many interviewees acknowledged their appreciation of supportive trades teachers, employers, and co-workers, as reflected in the survey's quantitative findings. However, the survey and subsequent interviews also revealed that a substantial proportion of women (about one third) had experienced negative incidents, ranging from gender discrimination at one end of the continuum to alleged sexual assault at the other extreme. Participants recognised that the challenges they experienced were not a consequence of the attitudes and behaviours of all members of the industry. Even those who had experienced mistreatment acknowledged and appreciated the support and guidance that they received on-site from managers and co-workers. It emerged that in many workplaces, there are a few 'bad apples' at all levels of the organisation, who are not held to account for their bad behaviour, and who cause unacceptable distress and damage to their female co-workers' wellbeing.

9.2 Attraction to the construction industry

Our findings identified that there are a variety of reasons why women are initially attracted to a career in the construction industry. Women expressed their desire to follow in a family member's footsteps or to pursue a career which entailed working with their hands on creative, tangible projects, or to work in diverse and active workplaces. It is interesting to note that almost 80% of our survey respondents entered the construction industry later in life as part of a planned career change. Prior to entering the construction industry, our participants had a significant amount of work experience, albeit from another industry. Most of the women we interviewed, however, had given little, if any, consideration to the culture of the industry before entering. When asked about their preconceptions of the industry prior to entry, some participants articulated the dominant stereotype of a masculine workplace where men were employed in the majority of roles and held significant power. Women's pursuit of a career in the construction industry was underpinned by a self-belief that gender would not hold them back as they were confident in their capability to succeed. Our finding contrasts with Naoum et al. (2020, p.2), who cited the industry's masculine culture 'as one of the most widely cited barriers to women entering and working in the construction industry'. It is acknowledged that while the culture may continue to present as a barrier for entry, the present study did not include women who had chosen to overlook the industry due to the industry's masculine culture.

9.3 Workplace hierarchies

Workplace hierarchies refer to a system in which individuals in an organisation are ranked according to their relative status and authority. In our study, treatment of women in the workplace and access to work that aligned with skills and aptitude can be understood in the context of workplace hierarchies which are prevalent in construction. Workplace hierarchies define which trades are of most to least value, and additionally, which trades are 'appropriate' for women. Trades deemed appropriate for women are often considered to be lower in value than trades predominantly occupied by men. Importantly, our study identified that the value assigned to a woman in her workplace directly influenced her treatment by male co-workers. Employment status was also linked to value in the workplace as assigned by hierarchy. We address these key points in more detail below.

Our study found that in construction the most accepted trade role for women is an electrician and the most accepted role of a semi-skilled worker is in traffic management. Participants indicated that stepping outside this established hierarchy into other trades such as carpentry could result in respect and acceptance into a male work crew if the appropriate level of skill was displayed. Women working in traffic management who displayed a strong work ethic and could 'get on with the boys', received encouragement and support from male co-workers or supervisors which enabled them to transition into other more desirable "ticketed" roles. Our study identified that hierarchies also exist in relation to employment status, with some GTO apprentices and labour-hire workers received less respect than their counterparts who were directly employed by the head contractor.

The gendered work stereotype described by participants operates to dictate which roles are appropriate for women and which women are appropriate for these roles. While some participants reported positive experiences working within this hierarchy, e.g. through choosing a 'challenging' role and being received more respectfully for this choice, it was also reported that some women

experienced adverse outcomes as they were met with defensiveness from male co-workers when they sought to move away from roles seen as stereotypically appropriate for women on-site. Additionally, some participants reported support from management to further their portfolio of education and skills; however, they were met with gendered resistance from male co-workers when undertaking associated tasks on-site. This resistance ranged from verbal aggression through to physical intimidation. This aggressive behaviour was motivated by the men's belief that they should not have to answer to a woman in their day-to-day activities on the job, nor that a woman should take such a role.

The influence of this gendered stereotype of women in construction aligns with research undertaken in the UK that examined the culture of the construction industry. Ness (2012, p.654) described construction as 'the most gender-segregated sector of the UK economy'. Ness explored the identity of workers in the industry, noting that men identified construction work as a man's job and associated 'physical labour, dirt, discomfort, and even danger' with manhood. Ness (2012, p.662) identified a dual hierarchy in the industry where the rougher and dirtier trades e.g., bricklayers, were considered lower status, but more masculine, while the more intellectual trades e.g., electricians, were considered of higher status, but were not considered to be for 'real men'. This, Ness speculated, is why most of the small portion of women in trades in construction are electricians. Having women on-site and in trades is a threat to the masculine identity as it essentially challenges the male gender myth of big strong macho men. This challenge to their masculinity results in behaviour designed to exclude women, such as inappropriate jokes, dangerous physical actions, and threats of rape (Ness, 2012), all of which were mentioned by participants in our research.

The way in which work is organised in construction is not straightforward, as is shown in Figure 9.1. Work organisation taken together with workplace hierarchies prevalent in construction creates a dynamic and complex working environment. This reporting complexity acted as barrier when our study participants attempted to raise issues and concerns related to poor behaviour on-site. Figure 9.1 illustrates the various reporting relationships inherent within construction projects, as summarised below:

- Multiple sub-contracting organisations provide trades and semi-skilled workers who are employed and managed by a head contractor or builder.
- Head contractor has a management team based on-site and designated foremen to manage trades or specific areas of work.
- Trades and semi-skilled workers sub-contracted to a job will be supervised by their own company's foreman and potentially a leading-hand (depending on the size of the job) who is an employee of the same organization. However, they will also be supervised by the head contractor's foreman and (potentially) other members of the head contractor's management team.
- When labour is short, a labour hire company might provide additional trades and/or semi-skilled workers to the site. These workers report to the leading-hand and foremen working for the sub-contractors and the head contractor.
- All sub-contractors report not only to site management, but to their organisational management team.
- In addition, the head contractor may directly employ semi-skilled workers (e.g., builder's labourers) and carpenters.
- All organisations identified may also employ apprentices.

- In the case of a large infrastructure project, there may be more than one head contractor, and management are often called superintendents or intendants.
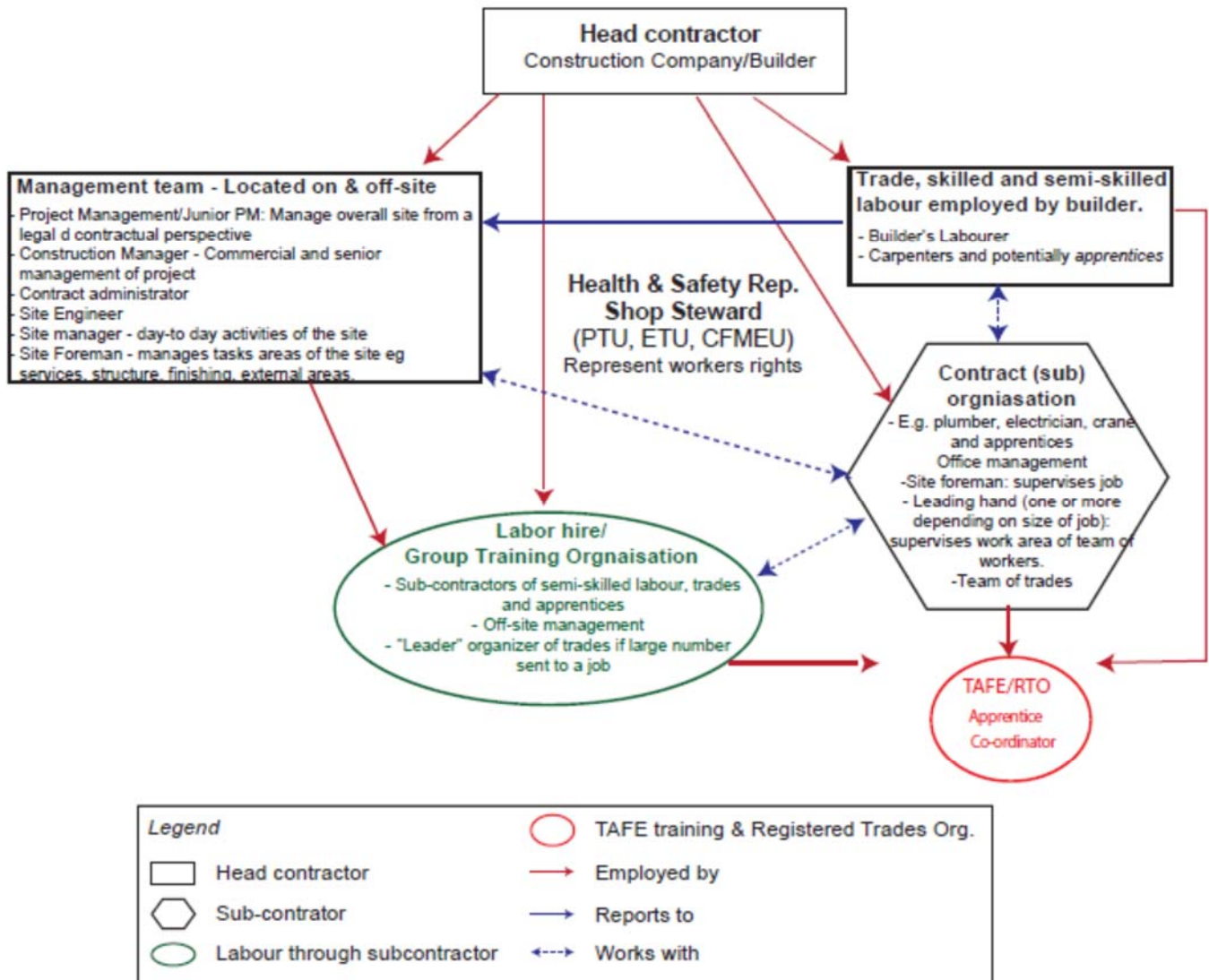
Figure 9.1 The organisation of a commercial construction site

While Figure 9.1 is relatively simplistic in its representation of site-based work and may not reflect all sites, it serves to illustrate the complexity of reporting lines on a construction-site. Women operating in a such a workplace hierarchy are often not highly valued, and the complexity of reporting lines means that accessing formal organisational support to address inappropriate behaviour was challenging for women.

Importantly, the issue of hierarchy brings into focus that the number of women employed in construction should not be used as a success measure for diversity, equality, and equity. While women may be employed onsite, they may not be accepted and their work may not be commensurate with their training and skillset. Culture change programs need to be aware of these gendered hierarchies and how they impact and shape the industry's culture if they are to provide effective interventions as discussed later in this chapter. Future research which seeks to explore

women's experiences in these roles should be aware of these hierarchies and must give greater attention to differences, commonalities, and nuances.

9.4 Challenges experienced by some trades and semi-skilled women

Three inter-related themes emerging from our study capture the critical challenges experienced by a substantial proportion of women in trades and semi-skilled roles in the construction industry, which are:

- Women are outsiders
- Consequence-free behaviour
- Culture of silence

Each of these themes is now considered in the context of the findings from both the survey and the interviews, and within the context of the broader literature.

9.5 Women are outsiders

9.5.1 Culture of masculinity

Our results are consistent with previous studies which identify that the workplace culture perpetuates social stereotypes and norms, and reinforces the perception of construction as a gendered masculine industry that fails to accept women (Naoum et al., 2020). The exclusion of women in the workplace can be understood in the context of a *'systemic gendered injustice'* as a consequence of 'male behaviours that self-interestedly structure the practices and cultures to make these workplaces unwelcoming to women' (Clarsen, 2019, p.35). Clarsen recognises that construction is a place 'where men produce and reproduce a kind of masculinity that is yoked to a particular male body and a particular kind of masculine culture, which is used to justify the exclusion of women.' (p35). In contrast to Clarsen (2019), Galea and Loosemore (2006) suggest that this masculine culture has successfully been challenged for decades in Australia through socialisation and education. As a result, women have successfully entered and carved out successful careers in the construction industry. Contrasting views regarding the influence of the existing masculine culture and differing evaluations of cultural change within the Australian construction industry reflect the complexity of the issues (Jones et al., 2017) faced by Australian trades and semi-skilled women. However, such broad industry-wide generalisations fail to identify the nuanced experiences of women in a workplace structured upon multiple layers of supervision and contractual relationships.

9.5.2 Career pathway: Entry and progress

Women identified that a lack of employer acceptance presented a series of challenges to their ability to gain employment and forge a successful career pathway. Similar to other Australian research on tradeswomen's career entry (e.g., Shewring, 2009; Simon et al., 2016; Bridges et al., 2019), the women in our study reflected that their limited professional networks put them at a comparative disadvantage with males in terms of the identification of potential employment opportunities and in securing employment. This disadvantage was recognised by women in relation to all points of their career development: in gaining employment as part of their apprenticeship; upon completion of their apprenticeship; when seeking a change in career; or when attempting to

progress into more senior leadership positions. Participants recognised that access to jobs in the construction industry was primarily by "who" rather than "what" you know. Participants identified a deeper underlying barrier to their career prospects: many men in construction perceived women as not capable or "fit" for the industry. This male perception was informed by a gendered work stereotype. The engrained masculine stereotype of construction work perpetuated the myth that women did not have the skills, physicality, or the emotional ability to cope with the associated requirements of the task and the workplace. This finding concurs with the conclusions of research conducted by Quay Connection (2014), Bridges et al. (2019), Clarsen (2019), and George and Loosemore (2019).

9.5.3 Difficulty accessing work aligned to skills and aptitude

This lack of acceptance of women in the workplace challenged their ability to access work that aligned with their skills. Apprentices found it difficult to negotiate work tasks in relation to their learning outcomes when employed by a Group Training Organisation (GTO). Central to their concern was an inability to access a progressive learning pathway with continuity, given their sometimes-inconsistent work locations and supervisors as a result of working on multiple job sites for numerous organisations. Many female apprentices simply referred to their employment as "labour hire", reflecting their experiences and the decoupling of "working" and "working as learning". It was also noted that many women articulated that when they were not working, they were not being paid or accruing days toward their qualifications. This issue is conflated for women as many female apprentices identified that GTOs were their only tangible option for employment, again due to the gendered stereotypes associated with construction work and the workplace culture. The lack of continuity of supervision, coupled with the gendered work stereotypes, resulted in inadequate workplace training. This finding is consistent with the research of Bridges et al. (2019). The women interviewees cited that once they had completed their apprenticeship, regardless of their age, it was always assumed that upon commencing a job they were an apprentice. Once their co-workers became aware that they were qualified, there was a firmly held skepticism about their capability to complete the work aligned to their qualifications. Furthermore, women in semi-skilled roles cited difficulty in moving out of entry-level roles such as traffic management, again due to the broad acceptance that this was a role most suitable for a woman working in construction, regardless of their qualification.

9.5.4 Being treated differently

A further consequence of not being accepted in the workplace is that women are treated differently from their male co-workers. It is important to note that most participants reported that many of their male co-workers were supportive, inclusive and treated them with respect. However, 95% of the interview participants had been treated differently at some point because they were female. For some, this treatment included being intimidated by aggressive and threatening language and behaviour. While some of the language and behaviour was intentionally intimidating, as pointed out by Galea and Loosemore (2006), men are often more direct and confrontational in their communication style, which is exacerbated when in large groups. Women often prefer a more indirect, less physical style of communication. Women also felt ostracized by being deliberately ignored (37% of participants) when asking for help, being issued instructions, or by being totally excluded (19% of participants) from workplace conversations or social interactions. This exclusion had a consequence for their ability to perform their tasks adequately and to feel part of the work crew. Many women also reported feeling alone in the workplace (23% of participants). Despite the large numbers of co-workers on-site, many women felt isolated from the rest of the male work

crew. Wright and Silar (2020) identify that feeling alone and marginalised in the workplace has a negative impact on employee wellbeing. Being ostracised was often in response to gendered work stereotypes and a perceived lack of ability to perform tasks appropriately, or from concern that a woman would compete against men for work on-site, where men were seen as entitled to the work and women as undeserving.

Some of our survey and interview participants revealed that at times they had been treated poorly by other female co-workers. They interpreted female aggressive behaviour as a misguided strategy to win acceptance by male co-workers. As Bennett et al. (1999) identified, some women who enter the industry adopt more masculine and aggressive behaviour to fit in. However, many participants cited that this strategy did not sit well with themselves or their male co-workers and often did not bring any advantage to these women.

As a consequence of being ostracised in the workplace and in the face of gendered stereotypes that questioned their ability, women reported feeling pressure to perform to standards well above those of their male co-workers. Women believed that the demonstration of a strong skill set, outstanding ability and work ethic challenged the gendered stereotype, and this could result in their acceptance by co-workers, supervisors and management. These women reported that their acceptance by their work crew resulted in a broad acceptance on-site and helped to deter inappropriate behaviour from other sub-contractors. However, regardless of how skilled they were, the barrier to progression into leadership positions persisted, as women stated that many male co-workers do not want to report to a woman. Due to their co-workers' attitudes, many participants had been passed over for leadership positions despite their employer's open recognition of their capability.

Our findings identified that many women were denied appropriate physical amenities in their workplace. Many were also denied any flexibility around work hours for reasons such as parental responsibilities. The lack of provision for women devalued their contribution to the workplace, and further constrained their career progression (Galea and Loosemore, 2006). Given that women are the minority in the workplace, and due to gendered cultural stereotypes that men do not take on caring roles, policies in this male-dominated industry are not family-friendly, leaving women with inadequate access to parental leave arrangements and flexible work hours. Our survey findings revealed that many women were exhausted by their long work hours and relied heavily on others to perform family caring and household duties. It is of concern that the majority of females in our survey felt they needed to sacrifice the opportunity for a family life with a partner and children in order to work in the career they loved.

9.5.5 Family responsibilities and caring for children

Participants identified that having a family and caring for children was an additional barrier that limited their employment opportunities and career progression. It is interesting to note that a large proportion of our survey participants (77%) did not have dependent-aged children and a third (34%) lived alone and did not have a partner. Several survey respondents commented that the only way they could manage their workload was to be childless and to live alone. Women who experienced both high and low work-family conflict were spread across the domestic, commercial and civil sectors. However, the commercial sector figured most prominently in self-reported work-family conflict.

Interview participants perceived that male co-workers did not believe women with children would return to the industry, or if they did, they would not be fully committed and therefore would be

labeled as a liability to organisational productivity. Barreto et al. (2017, p.8) found similar barriers, stating that professional 'women face invisible barriers throughout their careers and have fewer professional opportunities than men. The main perceptual dissimilarities between men and women indicate that men interpret womanhood as a form of positive discrimination, which, far from being a professional barrier, is considered an advantage by them.' Our findings indicated that having children could be career limiting for working women of a certain age, regardless of their role in construction. Our results supported Barreto et al.'s (2017) claim since women with children experienced higher levels of work-family conflict (compared to women without children) and reported a need to rely heavily on their partners or friends for support on the home front. Participants' level of work-family conflict increased according to their level of caring responsibilities for others outside of the workplace.

9.5.6 The casualised nature of the workplace

The reliance on casual labour within the construction contributes to many of the issues women face in the industry. Casually employed semi-skilled workers reported that the workforce's casualised nature results in inconsistent, inflexible, insecure working hours across a range of different locations, site conditions, and management structures. Shifts are often offered the afternoon of the day before they are to commence, are often 12 hours in length, and could be at any location in Melbourne. Many casual roles also involve nightshift, and casual workers needed to be available for both day and night shift work. Women reported that declining work when offered a shift would significantly decrease future work opportunities. Financial benefits, such as paid parental leave was also not available to women in casual roles as they were to women working within existing EBA arrangements. This inflexible and inequitable approach to work resulted in an inability to plan in both the long and the short-term and increased stress and conflict between work and home.

The casual nature of the workplace, additionally, failed to support women in their pursuit of a long-term career in the industry. Casual roles were often an entry point for women to enter or re-enter the workforce after having a family. The inability to form relationships with co-workers or management left women in these roles pigeon-holed in entry-level positions since opportunities were not offered nor support provided when women sought to pursue other industry roles. Further, an inability to access consistent work, aside from the financial insecurity or excessive hours, also influenced their treatment on-site by male co-workers. This research identified the existing dominant gender stereotype which fails to recognise and value women can be overcome when women demonstrate their ability leading to their acceptance on-site. Acceptance in the workplace affords women better workplace experiences and career opportunities.

9.6 Consequence-free behaviour

9.6.1 The masculine culture as an enabler of poor behaviour

The second theme that emerged from our study was a lack of accountability for inappropriate behaviour and a lack of policy and procedures to discourage, punish, or stop the perpetuation of such behaviour. Some of our survey participants reported a very poor climate of respect by males in their workplace, thus enabling and perpetuating offensive language and poor behaviour. Sixty-three percent of interview participants had experienced inappropriate language and behaviour from their male co-workers. Verbal and physical abuse ranged from disrespectful language such as being called "girly" or "darling" through to bullying, discrimination, harassment and gender violence

(both physical and sexual). Participants reported that inappropriate language and behaviour was experienced across all levels of the organisation: at the hands of co-workers, supervisors, managers, senior managers, trade union representatives, the nominated HSR, trades teachers, apprentice support coordinators, and in some instances, from other women. This is of concern, as workplace harassment and bullying is a known cause of poor mental health and lower wellbeing (Einarsen and Nielsen, 2015).

Inappropriate or abusive behaviour (again not exhibited by all male co-workers but experienced by 63% of women interviewed) was informed and influenced by the masculine culture that dominates the Australian construction industry and the associated attitudes and ideologies held by its workers, such as aggression and competitive behaviour (Galea et al., 2020; George and Loosemore, 2019). George and Loosemore (2019) identified that the masculinity of construction workers in the Australian context is related to the physical and high-risk nature of work, and that male identity might additionally be drawn from sexuality which is sometimes expressed through 'sexually explicit imagery, language and so-called humour on construction-sites' (p. 429). Seventy-nine percent of the women interviewed as part of our research experienced an environment of unpleasant, inappropriate, and on rare occasions, criminal workplace place behaviour – generally involving bullying, discrimination or sexual harassment.

Our findings are consistent with those of George and Loosemore (2019) who argue that male construction workers should not be treated as a homogenous group when it comes to attitudes towards masculinity. While the majority of our participants had experienced incidents of inappropriate behaviour by men (as was also found by the Australian Human Rights Commission, 2018), such mistreatment was by no means exhibited, nor tolerated by all men on-site. In fact, the perpetrators formed a minority of the workforce (i.e., a few 'bad apples'). However, mistreatment was conducted by men from across all levels of the industry, ranging from co-workers, to supervisors, and to senior management (i.e. across all layers in the system).

9.6.2 Mistreatment of apprentices

As with other tradeswomen and women in semi-skilled positions, female apprentices also reported being challenged by toxic elements in the construction industry's workplace culture. Apprentices who participated in the study had all experienced some level of inappropriate workplace behaviour and this is consistent with other studies (e.g., Quay Connection, 2014). However, going beyond the findings of Quay Connection (2014), our research has identified that some participants also experienced mistreatment from trades teachers and apprenticeship coordinators. Women also experienced poor behaviour from male students in the classroom, which acted to reinforce and perpetuate the industry's gendered stereotypes and mistreatment for emerging tradesmen and women.

9.6.3 Workplace support for managing inappropriate behaviour

Sixty percent of women interviewed felt that when experiencing inappropriate and challenging behaviour in their workplace, they were not supported by their co-workers, managers, trades teachers, the organisations they worked for or were directly employed by, or by individuals in positions designed to support them such as a Health and Safety Representative (HSR) or on-site union delegates (shop stewards). Many of our survey participants also indicated that they received a low level of support from their immediate supervisor.

Women most frequently cited management followed by their organisation as the two main groups that failed to provide appropriate support for them in their workplace. Additionally, women felt that their workplaces did not provide them with consequence-free communication pathways that allowed them to "speak up" when experiencing inappropriate behaviour, or to report illegal behaviour they had been subjected to, without fear of judgment or punishment, especially by those in senior or leadership positions. Women reported that this was a consequence of the complexity of reporting structures on-site due to labour procurement contracts, coupled with the dominant masculine culture and gendered work stereotypes. A complex workplace characterised by multiple layers of supervision and management reporting lines manifested differently in each of their workplaces. The multiple layers of management, while presenting multiple opportunities for potential support for women, resulted in significant challenges, given the widely varying levels of acceptance of women in the industry.

The lack of managerial and organisational support identified in our study contradicts the findings of George and Loosemore (2019), who argue that attitudes towards masculinity in the 'Australian construction industry may be adapting to contemporary changes in attitudes towards masculinity in wider society, given the greater scrutiny given to gender diversity and equality initiatives at the professional level compared to site level in Australia' (p.429). Our study suggests that the social norms informing workplace culture are nuanced and vary across the industry. The social norms that exist on particular worksites are dependent on the particular values and practices led from the top (i.e., senior management) of each organisation present on the site and are reflected on the ground by workers relative to each organisation and worker in the worksite. This complexity and difference in organisational cultures is essential to recognise as it shapes and informs the hierarchies that exist on-site and the treatment of women that ensues. Further, the differences in diversity and inclusion attitudes across the industry presents challenges concerning how management "creates" on-site culture.

George and Loosemore (2019) found that male dominance of leadership positions in the Australian construction industry was no longer desired as the norm. The women we interviewed, however, identified a considerable imbalance in gender equity and power within the industry because of the dominance of men in most leadership positions. Of concern, and as pointed out by Styhre (2011), is that the traditional masculine ideology embodied in the construction industry is perpetuated by the paternalistic role of management and site managers in reproducing gender ideologies and generating barriers for women. If a change in culture is to continue to evolve to ensure equality for all women, senior management and leadership in all organisations within the industry must be proactive and accountable in demonstrating and guiding what is acceptable. Other organisations that help shape and inform site practices such as unions and governments through contractual relationships also must pay a role.

Despite the identified lack of support from management and the organisation when poor behaviour occurred, women reported that support was provided by their male co-workers once they had "proved themselves". The development of trust and subsequent acceptance concurs with the findings of Quay Connection (2014) who reported that extremes of unacceptable behaviour were easily identifiable; however, determining what is okay and what is not, and where to draw the line is subjective. Men who are not used to working with women experience uncertainty about the appropriateness of their established patterns of behaviour, and until trust is established, boundaries are difficult to negotiate. Employers are equally uncertain about what is acceptable, what is unreasonable, and when they should step in, all of which points to the need for greater training, clear policies, and appropriate consequences for poor behaviour.

9.7 Culture of silence

Victoria's occupational health and safety laws aim to make workplaces safe and prevent work-related deaths, injury and disease. The Occupational Health and Safety Regulations (2017) specifies that wherever "health" is referred to in the Act or the regulations, it includes psychological as well as physical health. Psychosocial safety climate (PSC) is a dimension of organisational climate that refers to shared perceptions regarding 'policies, practices and procedures for the protection of worker psychological health and safety' (Dollard & Bakker, 2010, p. 580). Some of our survey respondents experienced very low levels of PSC in their work place, and this was reiterated by our interview participants who identified a lack of clear policies and procedures in their workplace for reporting illegal behaviours or for seeking confirmation about the appropriateness of the behaviour they had experienced.

Participants highlighted the need for increased support in navigating workplace legislation and understanding its relationship to their rights and grounds for recourse. Participants acknowledged that while there were many workplace laws to protect their rights, it was often difficult to relate these to their circumstances and it was even harder to identify ways to address breaches. Our study also identified that women required more support from their organisations through the development of policies that respond to legislation as it manifests in the workplace and procedures that communicate appropriate behaviour. Women also felt that in order to nurture more supportive behaviours from their male co-workers, more industry-wide education and training initiatives should be undertaken.

Without clear and transparent processes and consequences, women felt fearful of reporting the unacceptable behaviour they had experienced. Compounding their fear of reporting was a fear of retribution. Forty percent of interview participants believed that they would be punished if inappropriate behaviour was reported. The likely punishments they feared were:

- being labelled as 'difficult';
- placing a strain on working relationships;
- being stood down from work;
- the woman's sub-contractor organisation potentially losing future contracts; and
- the women being removed from their workplace, and the perpetrator of illegal, abusive, or discriminatory behaviour going unpunished.

Our findings suggest that many male co-workers failed to speak up when witnessing inappropriate behaviour. The lack of intervention by male co-workers can be attributed to several factors including the bystander effect, apathy, social norms that women are not valued or accepted, and the existing ambiguity associated with behaviour aligned with a masculine culture.

Our study identified that women expressed a need for workplace support when they had been overwhelmed by rude, disrespectful or aggressive behaviour. Women recognised the value and importance of services such as Beyond Blue, Incolink's counseling services, and Blue Hats on-site. However, concerns about privacy and the need for on-site and immediate support were expressed.

Participants noted that signage and posters related to mental wellbeing varied between sites and sector, with these materials having high visibility in civic and infrastructure projects and being mostly absent in the domestic sector. This finding suggests there is a need for uniform requirements around displaying such support information across worksites.

A culture of silence is damaging for women, does not support a strong psychosocial safety climate in the workplace, and potentially hampers an organisation's capacity to meet the requirements of the Occupational Health and Safety Act and Regulations. As a result of the lack of acceptance of women, there exists a significant failure by a number of male workers in the industry to assume responsibility for their poor behaviour towards women. There is also a lack of management accountability and duty of care for the welfare on women on their sites. In many of our participants' organisations, there is a demonstrable failure of moral will to punish those who behave inappropriately or illegally in the workplace. To be treated with dignity in the workplace is the right of every human being.

9.8 Psychological coping mechanisms

Given the mistreatment that many women experience along with the lack of formal support from their employer, our participants had no choice but to adopt psychological and behavioural coping mechanisms in order to survive. As many of the challenges experienced by women are classified as psychosocial hazards, we focus our discussion on psychological coping mechanisms. All the women we interviewed believed that resilience is an essential capability that allows them to successfully navigate the negative aspects of the construction industry. This clearly emerged from the survey in which the majority of participants showed a high level of resilience. Participants described resilience as it manifests in the construction workplace as: emotional regulation; maintaining perspective; along with seeking support from both within the workplace and from a trusted network of friends and family. In addition, some of our participants invested in mental and physical wellness and capability enhancement at their own expense. These mechanisms enabled our participants to manage the challenging and stressful situations they had (and continued) to experience.

Resilience is known as an interplay between the individual and his/her workplace. Internal protective factors are individual qualities responsible for fostering resilience and are specific to the individual. External protective factors are positive environmental support structures originating from the workplace. An individual may be strong in one or both depending on their cumulative capabilities and workplace context. Resilience was described by our participants as a capacity which they had developed with marginal support from their workplace. Yet, the workplace plays an important role in removing hazards considered harmful, and in providing resources which enable resilience (Leadbeater et al., 2005). According to Johnson (2011, p.6), some of the important external protective factors that contribute to the development of resilience include 'caring relationships, high expectations and opportunities for meaningful contributions' all of which were raised by our participants as being largely lacking in construction.

Winwood, Colon, and McEwen (2013) identified seven components of resilience in a work setting which consist of both internal and external protective factors:

- Living authentically: knowing and holding onto personal values, deploying personal strengths, and having a good level of emotional awareness and regulation.
- Finding one's calling: seeking work that has purpose, a sense of belonging, and a fit with core values and beliefs.
- Maintaining perspective: the capacity to reframe setbacks, maintain a solution focus, and manage negativity.
- Managing stress: using work and life routines that help manage everyday stressors, maintain work–life balance, and ensure time for relaxation.

- Interacting cooperatively: workplace style that includes seeking feedback, advice, and support as well as providing support to others.
- Staying healthy: maintaining a good level of physical fitness and a healthy diet.
- Building networks: developing and maintaining personal support networks (which might be both within and outside the workplace).

Findings from our interviews indicated that women working in construction utilised many of the strategies aligned with Winwood et al.'s (2013) framework. It is important to note that a high level of resilience does not necessarily reflect a positive workplace culture or a high level of wellbeing.

9.9   Communities of Practice

A range of support networks have been established outside the workplace in response to a lack of formal support structures offered by construction employers. As outlined in our results, these networks have been designed by women to address the gap and have been driven by their personal experience of working in construction. Grassroots, member-led support groups provide space for women in construction to connect, affirm each other's value in the industry, enter into mentoring relationships, and provide formal and informal opportunities for professional development. Some of these networks have a more dominant focus on attracting women to the industry through events that involve learning hands-on practical skills with tools to demonstrate that women are capable and to identify future career possibilities. In contrast, trade union-initiated networks focus on a specific trade or sector in the industry and facilitate connections between women in that area.

From our interviews, we learned that women who had established and convened support networks did so with the objective of providing other women with the support they lacked when they first began their careers. Conveners of these networks reported feeling unsupported when they entered the industry and identified a need for women to connect with other women working in the industry. The participants we interviewed who were members of some of these support groups recognised their value and assistance in navigating the challenges presented by the industry's culture, and in the development of new skills and knowledge useful for progressing their careers. The participants reported that they too had felt isolated, undermined by male co-workers, treated differently, or had been subjected to inappropriate behaviour. These support groups were recognised as providing women with safe spaces where they could connect, engage, and discuss their passion for their career without being judged or critiqued against gendered work stereotypes.

Participants also articulated that the inappropriate behaviour they experienced, coupled with the social isolation, left them feeling like their experiences were trivialised and dismissed by their male co-workers. These external support groups offered women the chance to share their experiences in a trustworthy and safe setting, and to receive confirmation and validation both that their assessment of the behaviour was correct and that their reaction was legitimate. This validation is vital as women can have difficulty classifying men's behaviour and often express doubt about how to determine what is and is not appropriate co-worker conduct (Bridges et al., 2020). Bridges et al.'s (2020) findings are consistent with the findings that emerged from our study: the value of sharing experiences with women who understand and have experienced similar conduct in the construction industry. Further, the establishment of a safe space to share experiences through connectivity with those who have similar experiences is recognised as vital for the attraction and retention of women in construction (Afolabi et al., 2019).

The support networks were also found to offer women the opportunity to continue to develop knowledge of their trades as the networks provided a safe space to ask questions and share skills and techniques relating to the technical elements of their job. This support is essential as participants experienced being watched, questioned, and undermined by male co-workers and often were unable to ask questions and access positive and constructive feedback related to their work tasks. The need for this type of support is important to tradeswomen and female semi-skilled worker's on-going development. As Wright (2016) identifies, co-workers play an essential role in workplace learning by sharing knowledge that leads to an increased development of know-how and skills. If women are excluded on-site by their male co-workers, this opportunity for on-going skill development is lost. Wright (2016) argues that this is well-researched in relation to women in professional roles, but less so with women in manual trades.

Women in professional roles have received their qualification and foundational knowledge through higher education institutions, whereas women in trades rely much more on co-workers on-site. Wright's (2016) findings highlight that the refusal of male co-workers to share their knowledge with females acts as a significant barrier for women working in the trades. This is even more problematic for apprentices and presents a significant barrier for women progressing from apprenticeships to qualified roles. As experienced by our participants, external female networks provide support for women in their transition from training into the workplace as well as assisting with the retention of qualified tradeswomen.

An additional function of these external support networks cited by participants was the opportunity to identify suitable mentors. The importance of mentorships in supporting women has been noted in multiple studies and identified as vital to retaining women in the industry. Research highlights the benefits of mentoring in developing women's confidence and skills to progress their careers (Fernando et al., 2014).

9.9.1 Opportunities to strengthen communities of practice

While many of the external support groups identified in this study focused on women working in trades, there is an identified gap in the support offered to women working in non-trades roles, such as traffic management. Participants who worked in traffic management roles recognised this role as an entry point and intended to further develop their skills so they could move into other areas of the industry. Some participants noted that they were able to build their career plans based on knowledge of the industry shared by a family or friend. In contrast, others expressed feeling unsupported in their pursuit of career progression. Further, our research identified that women in non-trades roles experience different challenges and were treated differently on-site because of workplace hierarchies. This suggests that this group of women may be under-served and could benefit from appropriately tailored support.

Participants expressed some concern over the privacy of sharing their experiences on social media. Given the nature of the industry, relationships between employers, and the culture of punishing women for speaking up about mistreatment, many women felt there was a risk in sharing experiences of conflicts or incidents of inappropriate behaviour online. Nevertheless, participants reported enjoying these external support groups. However, some found that the discussions were sometimes not constructive – through either excessive focus on negative experiences, or else through posturing rather than providing advice i.e., undermining people's work practice rather than offering genuine advice. This suggests that some opportunities exist to provide focused support within these communities and provide insights from research in this area as well as tapping into the insights of professionals with experience in supporting women in the industry.

Part 10: Recommendations

The **wellbeing** of trades and semi-skilled women in construction is **founded on multiple aspects**, as identified in this research. Our research revealed systemic issues at all levels of the construction ecosystem. Aside from having a serious impact on wellbeing, failure to provide a safe workplace for women contravenes occupational health and safety regulations.

For meaningful and sustained improvement in wellbeing and gender equality, we recommend an integrated 'system-wide saturation' approach which leads to zero tolerance of inappropriate behaviour towards women. The system-wide approach must focus on changing the workplace by either reducing or removing stressors (work hazards) rather than relying on women to cope with hostile workplaces.

In this section we map our high-level recommendations onto the solutions identified in the Strategy. We then outline more specific recommendations for advancing women's wellbeing and communities of practice. The section finishes with identification of next steps which will contribute to the achievement of gender equality in construction.

10.1 Alignment of recommendations with Victoria's Women in Construction Strategy

The Victoria's Women in Construction Strategy: Building Gender Equality (https://www.vic.gov.au/victorias-women-construction-strategy) outlines three priority areas:

- Priority 1: Attract
- Priority 2: Recruit
- Priority 3: Retain

The Strategy identifies the barriers and solutions for each priority area. While our study focused on wellbeing in the context of retention (Priority 3), the recommendations from our study are also applicable to aspects of Priority 1 (attraction) and 2 (recruitment). In considering the recommendations, it is important to note that the focus of this research was on the experience of women working in construction. Inclusion of potential aspirants and those that have left the industry was beyond the scope of this research. It is recommended that the experience of these two critical cohorts be captured in future work and used to inform interventions underpinning the Strategy.

Priority 1: Attract: How can we attract more women and girls to take up a trades or job within the construction industry?

Strategies to attract women and girls	Recommendations from this study
Schools giving more vocal and positive encouragement for girls about STEM subjects and trades	
Emphasis on unpacking the gender bias of careers counsellors and trades teachers in schools and Technical and Further Education (TAFE)	√
Promotion of female role models for girls	
Funding of apprenticeships, training and education should be gender sensitive. It should acknowledge the unique barriers women face gaining access to the construction industry, and identify practical solutions to overcome these barriers	
A campaign to eliminate the attitudes that underpin the culture of gender inequality, involving all construction workers, including managers and employers	√

Priority 2: Recruit: How can recruitment practices be improved to help more women obtain trades and semi-skilled roles in the industry?

Strategies to recruit more women	Recommendations from this study
A more independent and formalised hiring process, including an audit of metrics such as cultural fit to ensure it is not exclusionary or gendered	
Programs that provide targeted support to women apprentices seeking employment in their trades	√
Increase the prominence and visibility of female role models in the industry	√
A holistic approach to cultural change to build support throughout the entire workforce	√

Priority 3: Retain: How do we retain women within the industry?

Strategies to assist in the retention of women	Recommendations from this study
Widespread industry, workplace and social change to abolish gendered violence at work and traditional ideas of women's work	√
Introduction of job-sharing, flexible work arrangements, provision of childcare, and changes to other workplace practices to accommodate caring responsibilities	√
Women's networks for tradeswomen, mentoring programs, and a greater number and visibility of female role models in the construction industry	√
Support of employers, managers and the wider workforce, as part of a widespread, long-term campaign to affect social and workplace culture	√
Implementing a strong accountability mechanism that allows women and men (from the construction industry) to report and provide feedback on progress towards achieving systemic cultural change	√

10.2 Zero tolerance of inappropriate behaviour towards women

We now provide a set of more fine-grained set of recommendations specific to zero tolerance of inappropriate behaviour towards women. Recommendations are presented according to key stakeholder groups: the State Government; the Construction Industry (peak bodies); Unions; Construction Organisations; Registered Training Organisations (RTOs) and TAFE, and Group Training Organisations (GTOs).

While it may appear that recommendations are stand-alone, they are fundamentally related both within and across stakeholder groups. For example, an industry-led code of conduct should align closely with employer policies and procedures.

10.2.1 Construction industry

Industry peak bodies can lead change through the facilitation and implementation of the following recommendations:

Standards of behaviour:
- Establish a code of conduct which sets out appropriate standards of behaviour for the construction industry.
- Support the development of policies and procedures with construction organisations that are aligned with the code of conduct.

Policies and procedures:
- Facilitate external and internal auditing for compliance with employers' policies and procedures supporting trades and semi-skilled women.

Education:
- Facilitate the development and implementation of an industry wide training and induction program on 'Safe and Respectful Workplaces'. The training modules should include information about occupational health and safety responsibilities and workplace rights. The content should also include content on gender-based conscious and unconscious bias.
- Training for registered building practitioners on safe and respectful workplaces.
- Facilitate the development of case studies which identify and describe best practice for supporting trades and semi-skilled women in construction which can supplement training and education resources.

Pilot project:
- Implementation of a pilot project (or multiple pilot projects) which takes a site-specific 'saturation' approach, based on the model trialled at Clayton (referenced in Section 3.6.2 of the report – detailed information available from the cited VicHealth report). This initiative can be driven by industry peak bodies and facilitated through government procurement or the private sector.

10.2.2 Unions

Health and Safety Representatives (HSR):
- Increased numbers of women in HSR delegate and workplace delegate roles.
- Training for male HSR delegates on gender equality.

EBA Agreement:
- EBA agreements with requirements for meaningful procurement which include employing women across a range of roles; educating women for increased skill capacity; and auditing across the life cycle of the job, including sub-contractors.

10.2.3 Construction organisations (employers)

The way in which work is organised in construction can be complex, as illustrated in Figure 9.1. Together with this, the number of construction organisations in Victoria is vast, and it is imperative that this is taken into account as recommendations are implemented. According to Master Builders Association Victoria (2019), there were 104,031 building and construction firms in the Victorian construction industry at the end of June 2018. These businesses work within and across various sectors of the industry. The industry is overwhelmingly comprised of small businesses with fewer than 20 employees, and sole operators make up a large proportion. Most of these small businesses operate in the trades services sector of the building industry that includes plumbers, electricians, plasterers and other specialist building trades. Small businesses may require support from industry peak bodies and key stakeholders to implement recommendations outlined in this report given potential resourcing limitations. Medium sized businesses (employing between 20 and 200 employees) made up just 1.3% of the total number of businesses in the Australian construction industry, while medium to large businesses (employing 200 or more persons) accounted for just 0.1% of the total (AI Group, 2015). Medium and medium to large businesses may also require support from key stakeholders to address recommendations.

At the site level, recommendations are relevant for all organisations (eg., head contractor, sub-contractors).

Leadership:
- Senior management, head contractor and business owners to lead culture change from the top, acting as spokespeople and role models for gender equality.
- Establish gender equality KPIs for all executives, business owners, and managers.

Policies and procedures:
- Development of clear, accessible, and transparent policies, procedures and practices around diversity and inclusion, gender equality, discrimination, bullying, sexual harassment, and gendered violence.

Standards of behaviour:
- Facilitate education for management and employees at all levels on the construction industry code of conduct.
- Training of WHS representatives on the industry code of conduct.
- Educate all workers on what types of behaviours constitute a criminal offence and the penalties that can be imposed.

Accountability:
- Consequences for inappropriate behaviour towards women.
- Zero tolerance of retribution for women reporting inappropriate behaviour.

Reporting inappropriate behaviour:
- Establish policies and confidential processes for people to feel safe and supported to report incidents that occur without negative impacts on their employment and wellbeing.

- Establish anonymous hotlines for reporting discrimination, sexual harassment and bullying.
- Consequences for supervisors and managers for non-reporting.

10.2.4 Registered Training Organisations (RTOs) and TAFE

Female apprentices must be educated on their work rights. Together with this, male apprentices must be educated in appropriate and respectful behaviour towards women. To address this, content can be incorporated into apprenticeship training, such as:

- Adding a core capability standard in training packages.
- All accredited building and construction courses to incorporate safe and respectful relationships and workplaces into OHS competency core units.
- The education package on respectful relationships and workplaces should be included in the nationally recognised skills training packages delivered by RTOs/TAFEs in apprenticeships and traineeships.
- Training of educators on safe and respectful classroom behaviour.

10.2.5 Group Training Organisations (GTOs)

GTOs should ensure that host employers of apprentices adhere to the recommendations outlined in Section 10.2.3.

10.3 Procurement

Procurement is identified in the Strategy as an important element for leveraging change through adopting procurement practices to promote gender equality. The findings of our study support this recommendation. Government procurement practices, inclusive of Commonwealth, State, and Local Governments, can be utilised to set mandatory rather than voluntary or soft targets or requirements to affect change.

It is recommended that socially responsible public procurement is adopted, and further suggest that:

- Consideration must be given to the way in which the employment and subsequent inclusion and treatment of women is framed within the procurement process. It is recommended that contracts (as outlined in Section 10.4) stipulate that all companies within the supply chain be required to demonstrate the acceptance and inclusion of women along with the provision of a positive working environment free from discrimination, sexual harassment and bullying.
- Contractual compliance monitoring to be augmented by externally provided training and support throughout the entire supply chain.

10.4 Access to and quality of employment

A whole-of-industry approach is required to ensure that women have access to jobs in construction, have opportunities for skill development and deployment, and that their skillset is aligned with their role onsite. Contract managers (government), employers, RTOs, TAFE, GTOs and the union can all play an active role through:

- Procurement requirements with women employed in skilled areas of construction with structured training plans in place.
- Employment of women across a range of roles, and commitment to education to increase their skill and capacity.
- Establish meaningful career pathways for women in trades and semi-skilled roles.
- Create mentoring programs and buddy systems for women within and across organisations.
- Resources for women, including an online portal which consolidates information on the Communities of Practice and targeted resources and supports available for women.

10.5 Measurement of equality

The number of women employed on a construction site, in a construction organisation, or in apprenticeship programs should not be used as a metric of success for equality. Women who are employed in construction are not always accepted or valued by their co-workers, and they may not be meaningfully employed. The way gender equality is measured in construction requires careful consideration to encompass more than just the number of women employed. It must also take into account the quality of employment.

- Measuring "equality" must move beyond setting and reaching targets for the number of women employed. The measure must encompass the quality of employment. Quality includes, but is not limited to, appropriate treatment at work by managers and co-workers, support and opportunities for progress, and employment that is commensurate with training and skills.

10.6 Pregnant workers and returning to work

- Development of policies which equip employers to support pregnant women to stay safe while also enabling them to remain employed in a role aligned with their trade and skillset throughout their pregnancy.
- Implement flexible work practices such as part-time work, job share, and flexible work hours so that women with carer responsibilities can return to work and continue in roles aligned with their skillset.
- Fair and equitable access to parental leave for all workers, irrespective of employment contract.

10.7 Meeting occupational health and safety obligations

According to the law **employers** have an obligation to ensure the health, safety and welfare of employees. This includes putting in place safe systems of work, and providing a safe working environment. **Employees** also have an obligation to take reasonable care for the health and safety of others who may be affected by what they do or don't do. Our research brings into sharp focus that some employers and employees are not meeting their occupational health and safety obligations.

- Moving forward, it is recommended that the regulator work in partnership with employers and OHS representatives to ensure all workers and employers are aware of, and uphold their health and safety legislative obligations so that women feel safe at work.

- Providing women employed on a casual basis the opportunity to work hours which are considered reasonable and which do not cause them harm. Furthermore, reasonable working hours and conditions of employment are important for the health and wellbeing of all workers and should not be dependent upon employment contract (secure versus insecure employment).

10.8 Focus on primary prevention

While we have presented a range of recommendations that include primary, secondary and tertiary level interventions, we emphasise that transformative interventions are most effective when they are positioned at the primary level. Primary interventions focus on changing the workplace by either reducing or removing the risk factors or changing the nature of the job stressors. We note that recommendations are most effective when they seek to either remove or re-design harmful work practices.

Our primary prevention intervention approach has identified i. procurement, ii. organisational culture change, iii. preventative education and training, and iv. support mechanisms as key initiatives for controlling job stress for construction women working in trades and semi-skilled roles. Such primary prevention initiatives focus on reducing or eliminating the root causes of gender inequality problems in the construction work environment and are aligned with the mandate of the Strategy.

- Sustained systemic change will only occur if interventions are targeted at the primary prevention level and are integrated in a holistic manner across the entire construction industry ecosystem.

10.9 Commitment to change and next steps

A whole-of-industry approach is required to improve working conditions and support the wellbeing of trades and semi-skilled women working in the Victorian construction industry. Using the evidence-base and recommendations outlined in this report, forward action can include:

- Allocation of investment and resources to implement recommendations.
- Prioritisation of recommendations.
- Recommendations are developed into actionable initiatives.
- Initiatives are implemented are evaluated.

The voices of trades and semi-skilled women are essential and must be integrated into the whole-of-industry approach. A participatory approach is therefore imperative.

This research focused on *Exploring the Barriers and Supportive Enablers of Wellbeing in the Workplace*. The wellbeing of trades and semi-skilled women in construction is founded on multiple aspects which have been identified in this research and which inform the implementation of Victoria's Women in Construction Strategy: Building Gender Equality.

Part 11:   References

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Part 12: Appendices

12.1 Attraction to the industry

The participants viewed the construction industry as providing opportunities to work in an active and dynamic workplace, use their hands and technical skills, and contribute to tangible, creative projects that provide them with a high level of secure employability and financial gain. Table 12.1 below presents nine key reasons cited by trades and semi-skilled women that attracted them to working in this non-traditional profession. This section then explores participants' attraction to the industry in more detail according to each of the nine key reasons.

Table 12.1 Attraction to working in construction

Attraction to working in construction	Percent (No.)
Practical and hands on nature of the work in diverse workplaces	51% (n=22/43)
Considered because of family connections to industry and support from family	40% (n=17/43)
Encouraged by friends working in the industry	21% (n=9/43)
Earning potential	40% (n=17/43)
Ability to manage future/current family responsibilities alongside work responsibilities	21% (n=9/43)
Industry accessibility and diversity of roles	19% (n=8/43)
Flexibility and hours	14% (n=6/43)
Physically sustainable role over the long term	9% (n=4/43)
Encouraged by school	7% (n=3/43)

Practical and hands on nature of the work in diverse workplaces

More than half of the participants (51% n=22/43) explained that they chose to work in construction due to the practical and hands-on nature of the work and its diverse locations and workplaces. Participants stated that they enjoyed the work's physical nature and did not want a career that bound them to work in an office environment. The diverse nature of work was an attraction to the industry, as was the potential opportunity to undertake physical, creative and tangible work. Additionally, participants cited the diversity of people and relationships on-site was also an attraction to pursuing a career in the construction industry.

> *"I was attracted by the fact that I wasn't going to be sitting at a desk, that I was going to be up and active and that you would see finished products at the end of the day."* (Participant 15)

And

> *"I just completely and still do just adore working with timber. I'm very, very practically minded."* (Participant 1)

And

"I guess doing something practical, like physical. I like being physically active and busy, and I liked creating or building things." (Participant 36)

And

"There's also something about just being on-site too, it's quite interesting, there are lots of characters on-site, you come across some really amazing people, people come, people go, everyone's got a story." (Participant 29)

These comments illustrate that the nature of the work and workplace was a key attraction for participants.

Considered because of family connections to industry and support from family

Forty percent of participants were drawn to a career path in construction as a result of exposure to the industry through family connections as well as encouragement by family members (n=17/43). Supportive family members empowered participants to view themselves as capable of the work involved in a career in construction, to believe there was a place for them in the industry and a viable long-term career. Family connections to the construction industry both sparked an interest in the industry and opened employment opportunities.

Participant 27 recalled that her father took her around to sites as a child which influenced her desire to pursue a career in a trade. When she was old enough to start an apprenticeship, she discussed her plans with her father:

"I spoke to my dad, and I said, 'You know I'm going to be a [stated trade]. You know I've been talking about it since year seven. I want a good course. I want to be able to do something that will evolve for me.' Dad said, 'Just leave it to me, I'll find a good contact for you…' And then he managed to speak to someone that was looking for women and that's how it evolved. "

Participant 9 also recognised that having family in the industry normalised her pursuit of a non-traditional career as a tradeswoman: *"It's in the family. My old man's a [stated trade], my grandfather's a [stated trade], so I just thought I'd give that a crack."* This comment recognises the influence of family tradition regardless of existing gender stereotypes, which is similar to Participant 14's aim to follow the career pathway of her grandfather: *"I'm doing this for him. It's given me the motivation. I'm going to be like him. I need to, not for him, but for me to be like him."* This sentiment is reflected in the following comment made by Participant 31, who recalled the influence of her father in choosing a trade as a profession:

"No one tells you, 'Hey you can do a trades'. My dad was a tradie, and I grew up kind of pretty hands-on... he used to take us to work with him and [he] didn't really think, 'Oh, no, youse are girls so you're not going to do this or that with me'… I think having those skills really allowed me to be like, look, I know if a girl can do a trade, then I'd be the type of girl that could do it because… of my dad."

The influence of family and friends was also identified by women moving into the construction industry from more traditional gendered industries, such as hospitality and childcare, or returning to work once their children were old enough to go to school. For participant 29, entry into construction came later in life when she became aware of the financial benefits associated with the industry through her husband, who had been in the industry for years. Her husband provided support and encouragement as well as helped her to identify the type of work that she might be interested in. Participant 29 explained that in addition to her husband identifying the job opportunity, he was also

required to reassure the potential employer of her capability, she recalled *"my husband said [to the potential employer], She can handle herself, she's fine, she'll be okay, she can do this."* This experience highlights the benefit of women knowing someone in the industry to assist them in gaining employment or training.

Not all participants had the support of their families for their choice of a trade as a career pathway. Some families actively discouraged participants from entering construction. This occurred even in families with connections to the industry. Participant 21 recognised that her parents, who were both architects, disapproved of her decision, stating that they: *"were not a big fan at the beginning… they wanted me to go to university."* Participant 17 experienced the same hesitation from her mother until a family friend illustrated the benefits a trade could provide: *"My mum had a friend and her daughter had done an [stated trade] apprenticeship. So, I guess I was lucky in that way that I knew of a female who had done something like that."*

From these insights, it is clear that family support can provide positive encouragement and where this occurs in families with connections to the industry, it can also result in help in securing work. Where support was not initially forthcoming, participants actively persuaded their families of the benefits a career in construction would have.

Encouraged by friends working in the industry or co-workers

Of the participants interviewed, 21% (n=9/43) stated that encouragement by friends working in the industry led them to work in construction. Like participants attracted to industry through family connections, friends of women working in the industry shared their knowledge of the industry and belief that the women would be both capable of work and able to carve out a successful career pathway.

Earning potential

Seventeen participants (40%) stated that the earning potential and associated financial security attracted them to work in construction. Participant 4 explained her attraction to the industry, by stating: *"The financial security. The practical independence that I have that a lot of other women I know don't have".* Participant 22 also valued the increased earning potential: "*The construction industry does pay far, far better than almost any other industry and there is stability too. You might be waiting for that phone call to see if you're working tomorrow, but there is always work."* Participant 22 commented that the pay scale compensates for the uncertainty that accompanies casual work. Further, the construction industry presented a significantly higher earning potential than traditional female roles, as explained by Participant 13 when comparing construction with hospitality:

> *"[A friend] said to me 'I cannot believe how little you get paid [working in hospitability] for the level of responsibility that you have. You know, you're dealing with multimillion-dollar businesses, and yet you're paid like an apprentice in our industry'…at that point, I was really shocked."*

For these participants, a career in the industry offered the potential for financial independence and security which was seen as lacking in more traditional career pathways for women.

Ability to manage future/current family responsibilities with work

Seventy-six percent of participants gave no consideration to current and future family responsibilities when deciding to pursue a career in the construction industry. The 21% (n=9/43) of

participants who considered managing family and work responsibilities thought the two were compatible. Participants concluded that working in the construction industry would provide them with the flexibility, employment and financial security they viewed as important in relation to the planning, nurturing and managing of their family. Women working in trades explained that flexibility was afforded in the form of rostered days off, as stated by Participant 10: "*Work/life balance was the main reason I picked a trade. What other job gives you paid days off? Rostered days off?*". The perceived benefits of working in construction and raising a family are highlight by the Participant 21, who stated:

> *"When it comes to things like how I will balance with work and maybe starting a family, I know that at least if the worst thing happened and my relationship disintegrated, and I had children, I know for a fact that I can completely support myself, my mortgage, and my children by choosing a trade."*

Participants also viewed regular hours, as stipulated in their EBAs as compatible with the requirements of family responsibility, as explained by Participant 13:

> *"The hours in most of the trades are actually pretty good for having kids because you usually start work at either 6:30, 7:00, 7:30 am, so you'd be mostly done with your day at work by 4:00 pm which means that you've got time in the afternoon to look after kids. You're not going to rely too much on too many hours of daycare if you need to use daycare or after-school care or before school care. "*

Participants also expected that their high earning potential would allow them to self-fund their maternity leave. Participants felt this was important as they believed they would not have access to maternity leave, as explained by Participant 27: *"If I end up having kids at least I have the money to sort of take that maternity leave or leave and be able to come back. I want to be able to be there for my kids".* Although only twenty four percent of participants considered current and future family responsibilities, those that did believed that the high wages, diverse roles and regulated hours for those on EBAs would enable them to manage these responsibilities. For those who considered starting a family in the future, these advantages were seen as sufficient to mitigate the absence of specific policies such as paid parental leave. As discussed in section 6.5 on challenges faced by women in the industry, paid maternity leave and part-time work is not always available to women working in the industry.

Industry accessibility and diversity of roles

Nineteen percent (n=8/43) of participants recognised that the construction industry provided diverse job opportunities with many entry roles requiring minimal training, and which provided future career opportunities in an industry that has a secure supply of on-going work. Participants identified that gender equity initiatives presented many job opportunities, as explained by Participant 11: *"I was a recipient of, how can I put it, of gender equity"*. However, she qualified this by stating that once on the job, *"I proved myself."* While gender equity programs have successfully employed women in non-traditional roles, women must prove their ability to be treated with respect by their male co-workers. This experience is explained in more detail in section 6.5. Participants acknowledged that a variety of semi-skilled roles allowed women to enter the industry with little to no training. Participant 12 stated she started working in traffic management to get a better understanding of the industry: *"I needed to get my foot in the door in building and construction and without any prior experiences…So that's where I started".* This then allowed her to identify additional roles and training she could undertake to step into different positions on-site.

The tradeswomen interviewed recognized that a trade provided a variety of job opportunities. One participant stated that she became an electrician because: "there's a lot of different pathways… you don't have to be an electrician. You can do security, data programming, or you can do electronics. There are lots of different avenues." The variety of work opportunities described by this electrician was also discussed by participant whose trade was in plumbing this participant stated: "there are so many different types of plumbing I could choose from and so many different avenues and you could do it anywhere in the world. I could start my own company. I could work for a bigger organisation." Finally, participants recognised that the industry provided a secure supply of work: "there are always a hundred companies out there looking for people, so you're always guaranteed of a job" (Participant 22) and "I'll always be in work" (Participant 4).

Participants in both trades and non-trades roles saw the construction industry as providing opportunities for diverse work roles with many different job opportunities within their career depending on their personal needs and future career aspirations.

Flexibility and hours

Fourteen percent (n=6/43) of respondents observed that flexibility and consistent hours were an attraction to work in construction. There were three main reasons that these participants saw these as potential benefits. Some participants were aware of EBA conditions and understood that these conditions *"protect us from being overworked"* (Participant 8). This was particularly valued by women transitioning from industries without these protections, such as the hospitality industry. Others saw trades as a pathway for self-employment, with Participant 7 noting that her trade enabled a high level of independence, stating that she *"pretty much can work for myself now, which is really convenient"*. Others saw the option of casual shift work as offering flexibility and a way to support themselves whilst undertaking other pursuits such as education. Participant 24 recalled her decision to join the industry: *"I was studying at the time, and I just needed a casual job, just to fit in around the hours of my schooling."*

Casual work, however, is reported by some participants not to offer genuine flexibility as discussed in section 6.5. Participants working for labour hire organisations noted that while they worked full-time hours, notification of start times and locations were only provided on a day-to-day basis the afternoon before the shift started. If they refused the offered hours, participants stated they would be placed at the bottom of the staff list and be the last person offered work.

Physically sustainable role over the long term

Nine percent of participants (n=4/43) considered their long-term physical wellbeing when choosing between career options in the construction industry. Participants who were considering beginning a trade reported being aware of differences between trades in terms the physical nature of the work and chose pathways they saw as sustainable for their long-term health and wellbeing. Participant 13 explained the process she undertook when considering which trades to pursue:

> *"The majority of apprenticeships in the trades or non-female traditional trades were plumbing and electrical and carpentry. So, I looked at the award for carpentry, electrical and plumbing. Electrical and plumbing is pretty close [in pay]. Carpentry was a little bit below [the pay rates of the other trades]. And I thought, well, financially, I would probably survive on that award. So, I thought about it from the financial side of things. Looked at some EBAs and was like, wow, I can definitely live on that, and kind of weighed up between the three and thought, well, which one is going to be the most physically manageable until I'm 65 or 70. "*

This comment shows that this participant was aware of the physical nature of the roles and their impact on an individual over the long-term on not only earning potential but also on the quality of life.

Encouraged by school

Only three participants (7%) were encouraged to pursue a trade by staff at their secondary school, indicating that work in the construction industry is still very much considered as a male profession. Those that had support from a teacher at school reported that it was confidence building and empowering. Participant 27 recalled the positive effect that encouragement from her woodwork teacher had on her choice of career:

> *"And I started doing woodwork in year seven at my school and my teacher in year seven said, 'You're either going to be an interior designer or you're going to do something with the tools.' And then it started – in my head I said maybe I could do this."*

Participant 18 contrasted her experiences at two different high schools, and noted that a supportive school environment was beneficial:

> *"I went to a pretty academic school and the teacher there was really nasty... because I wanted to do more like VET courses... So, my mum decided to move schools... and yeah it changed my life"*

These experiences indicate the importance and value of supporting girls' interest in trades in schools. The low number of participants who reported receiving this support as well as the number who reported being discouraged from pursuing construction indicates that this type of support may be lacking in many schools.

12.2 Preconception of industry culture before entering

Half of the women interviewed stated that they had some preconceptions of the construction industry's culture before entering, while others either did not consider culture before entering the industry or reported having no expectations. The participants who did have preconceptions about the culture expected the industry to be patriarchal, dominated and controlled by men, or like "a boys club". Participants expected that the work would be physically hard and that men in the industry would believe that women were not capable of doing this work. Table 12.2 below presents the frequency of citations against the three preconceptions of the industry's culture held by participants before they entered. This section then goes on to explore participants' perceptions of culture before entering the industry.

Table 12.2 Preconception of workplace culture before entering

Perception of workplace culture before entering	Percent (No.)
Patriarchal i.e. dominated and controlled by men	23% (n=10/43)
Boys club culture which excludes women	16% (n=7/43)
Masculine approach to physical work and belief that women are not physically capable of work	12% (n=5/43)

Preconception of industry culture before entering: Patriarchal

Twenty-three percent (n=10/43) of participants perceived that the construction industry would be dominated and controlled by men. Some participants found the idea of entering into a male-dominated industry initially intimidating. Participant 27, when working on her first job as an apprentice, recognised that: "I was probably going to be one of the only females on the job". The reality was: "I was the only woman, and there were 365 men".

In contrast to being hesitant about entering a male-dominated workplace, some participants were drawn to working in such an environment. These participants explained that their comfort in working with men originated from having brothers, preferring the company of male friends, or possessing character traits that were associated with men, such as direct communication. Participants who had worked in female-dominated industries considered transitioning into construction as a way of avoiding the challenges they had experienced with female co-workers. Participant 33 explained:

> "I suppose that's what drew me towards it, being a tomboy, and I've grown up with my big brother and around all his mates and stuff, so I suppose the male-dominated industry was never a deterrence for me. It was more of a drawcard. And [had] also being bullied by women a lot in my life, which is why I gravitate more towards the male industries."

Participate 13 echoed similar sentiments, explaining that:

> "Being a woman in a non-traditional trades was a relief because in a female-dominated work environments you couldn't just say, look, this is bulls**t, let's get it sorted out, because that was quite threatening to other women. In a female-dominated industry, you have to constantly moderate yourself."

However, Participant 13 reported that the culture of the workplace varied significantly from her expectations. Participant 13 describes that as a woman the adoption of male mannerisms was not accepted by men: *"One of the things that I've learned is that in a male-dominated industry, you have to moderate yourself twice as much because it's twice as threatening to men".* So, although she expected to enjoy the communication style in the industry, Participant 13 had to modify her approach as a result of her gender.

Preconception of industry culture before entering: Boys club culture which excludes women

Of the women interviewed, 16% (n=7/43) perceived the industry's culture reflected a *"a real boys' club…a very male dominant industry. That hasn't changed, and it's going to take a lot for it to change"* (Participant 38). Participant 32 suggested that the boys club culture would result in a *"macho male environment"* with plenty of male *"ego"* influencing *"real blokey situations"*. As such, Participant 25 felt that she would *"get a lot of s**t for being a girl"* and Participant 12 believed *"there would be a lot of sexism"*. Participant 35 explained *"I think that I expected walking into a male-dominated industry, to be treated differently as a female. I expected to be disrespected. I had all these expectations that were met and then probably passed".*

Preconception of industry culture before entering: Masculine approach to physical work and belief that women are not physically capable of work

Twelve percent (n=5/43) of women perceived roles in the industry as hard work that women were not capable of successfully completing. Participant 19 stated that she *had "mostly just heard how hard it was going to be, but I only heard that as sort of people just trying to project their own capacity onto me."* Participant 15 stated that *"they [friends and family] said I wouldn't be able to do it, you know physically. Like the reason that it is a male-dominated industry is, in my opinion, because we're considered weak, and we can't physically do the things that men can do".* In contrast, Participant 31 was concerned she did not have a place in the industry *"because of my gender and because I thought my strength as in being a woman."*

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