



Supporting careers of LGBTQIA+ students in Australian universities

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Abbreviations

LGBTQIA+	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual and others
COVID-19	Coronavirus Disease 2019
CSM	Career Self-Management
CCT	Career Construction Theory

Executive summary

Australians who identify as lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual and more (LGBTQIA+) face tremendous challenges in preparing careers through higher education. However, there is very limited knowledge on how they are being supported to achieve better career outcomes and what unique expectations they hold for university support systems.

While LGBTQIA+ students have emerged as a new equity group in the higher education sector, Australian Government Department of Education, Skills and Employment (2018) has historically excluded these students from the existing officially defined equity groups. However, the estimated number (>60,000) of domestic LGBTQIA+ students are comparable to (e.g., students with disability) or greater in number than (e.g., Indigenous students) some of the traditionally defined equity groups. Evidencing the unique vocational challenges LGBTQIA+ students face in general and in extreme conditions such as during COVID-19, our project has served to advocate for explicit policy attention for this emerging equity group.

Qualitative findings from this research indicated that there was specific need for additional or explicit career guidance for gender and/or sexuality diverse students in Australian universities. Findings also suggested the importance of visible role models in the workplace and the efficacy of providing specific mentoring for students. Other key factors identified were the importance of visible diversity-friendly workplaces and how highlighting these workplaces would be useful for gender and/or sexuality diverse students. Finally, the importance of considering the whole person and intersectionality was highlighted by participants during interviews. Specifically, regarding support during the global COVID-19 pandemic, interview findings highlight the impact of social isolation and housing security on gender and/or sexuality diverse students.

Quantitative findings from this project indicated the importance of supporting gender and/or sexuality diverse students to be their authentic selves, with self-acceptance found as a significant and positive predictor of a number of factors related to participants' career preparation. Similarly, the role of specific career guidance and support was demonstrated, with perceptions of support acting as a significant and positive predictor of many indicators of participants' career effectiveness, such as job search self-efficacy, career resilience, and networking self-efficacy.

This project generated new knowledge regarding the effectiveness of existing efforts by Australian universities in supporting LGBTQIA+ students' career development. In doing so, we identified LGBTQIA+ students' unique needs and expectations in terms of preparing for and seeking employment after graduation. By considering also the influence of the COVID-19 pandemic, this project further identified factors that hamper or strengthen LGBTQIA+ students' capabilities (e.g., resilience and adaptability) in navigating careers during crises, and uncovered the strengths and weaknesses of existing support initiatives. Altogether, it offered insights into how this group can be better supported to achieve sustainable and positive career outcomes, both in general and during extremely challenging circumstances.

Recommendations

Based on the qualitative and quantitative findings of this project (elaborated in detail in the “Discussion” section of this report), we recommend that Australian universities, government, and relevant policy makers consider undertaking the following actions to support LGBTQIA+ students in general as well as in their career development.

1. University career offices should establish specific or additional career guidance and support programs for gender and/or sexuality diverse students.
2. Career guidance and support programs for gender and/or sexuality diverse students need to be tailored to the specific needs of the relevant students. That is, a catch-all program for all LGBTQIA+ identities will not work.
3. University diversity and inclusion departments should further develop Ally programs to foster positive role models for gender and/or sexuality diverse students.
4. University career offices could partner with the university’s LGBTQIA+ alumni to start specific mentoring programs. Alternatively, career offices could build partnerships with advocacy groups that already offer such programs, such as Out for Australia, and provide support to these established programs.
5. University career offices in partnership with diversity and inclusion departments and queer alliances should develop resources for gender and/or sexuality diverse students regarding safe workplaces and being authentic. Resources could include links to accredited queer advocacy programs for reviews of friendly workplaces and/or career events with stalls from potential employers.
6. University diversity and inclusion departments in partnership with other university departments should identify students in insecure housing and provide appropriate support, particularly during times of crises.
7. Universities should establish accurate record keeping of any career specific programs for gender and/or sexuality diverse students for ongoing evaluation and refinement.
8. LGBTQIA+ students should be explicitly and formally acknowledged as an equity group in the government’s higher education policies.

Introduction

There are several difficulties in moving from studying at university into meaningful work and career. Although research has investigated the move to the workplace for students of Australian universities who are from ethnic minorities, low socioeconomic status backgrounds, regional areas, or women in non-traditional areas, substantially less attention has been directed at the careers of gender and sexuality diverse students. Dau and Strauss (2016) reported that Australian gender and/or sexuality diverse students are likely to perceive difficulties in their academic and career efforts and experience mental health challenges due to their gender and/or sexual diversity. McFarland (1998) found that gender and/or sexuality diverse students face heightened risks of career unpreparedness and experience more barriers to their career identity than cisgender heterosexual students. Cheng et al. (2017) confirmed that educational experiences and career progression of gender and/or sexuality diverse students could be diminished due to enduring and systematic discrimination.

Supporting the above arguments, research has found that gender and/or sexuality diverse students perceive a lack of: role models who are open about their gender and/or sexuality diversity; specific support; and positive representation, needing to outlay additional energy to cope with these and more additional challenges that hamper the development of a positive career outlook (Dodge & Crutcher, 2015; Lange et al., 2019). In summary, a poor appreciation of the needs and expectations of gender and/or sexuality diverse students has been credited for a lack of specific career guidance and support. Although some assistance can be provided through pre-existing general career support schemes, specific or additional assistance is likely needed for gender and/or sexuality diverse students to remain optimistic and prepare appropriately for the future careers they are planning through their higher education.

More recently, the global coronavirus disease 2019 (COVID-19) pandemic has amplified the lack of specific career support and guidance for gender and/or sexuality diverse university students. Certain gender and/or sexuality diverse groups are more likely to be at risk of (1) infection and complications of COVID-19 due to immunocompromised status (Operario et al., 2015; Phillips et al., 2020), and (2) additional stress in line with the minority stress model and more common mental health challenges (Meyer, 2003; Operario et al., 2015). Additionally, according to financial impact models of the COVID-19 pandemic, Australian universities could face revenue losses of upwards of \$17 billion in the short term (Thatcher et al., 2020). One likely impact of the loss of revenue is the cutting of support services, such as those offered to gender and sexuality diverse students. The removal of community support and cultural spaces on university campuses due to physical distancing requirements could lead to an increased experience of stress by gender and/or sexuality diverse students. In addition to the experienced stress, the critical development of informal career building and planning by gender and/or sexuality diverse students (Taber & Blankemeyer, 2015) are likely to be interrupted by the challenges associated with the COVID-19 pandemic.

In summary, our overarching research question is: How can Australian universities effectively support Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual (LGBTQIA+) students' careers generally and during COVID-19 specifically?

To address this focal question, we sought answers for a series of sub-questions.

1. What are Australian gender and/or sexuality diverse students' experiences and perceptions about their university's existing career guidance/support, as well as the Australian government's higher education policy specifically related to gender and/or sexuality diversity?

2. What specific or unique career support/guidance do gender and/or sexuality diverse students expect from their university in general as well as under crisis (i.e., COVID-19)?
3. How do universities' career supports contribute to gender and/or sexuality diverse students' career effectiveness?

In the next section, we review the academic literature on the challenges that gender and/or sexuality diverse students face and how effective supports may be put in place for them.

Challenges of Gender and/or Sexuality Diverse Students

Based on population estimates where 5.6 per cent of Australian adults identify as gender and/or sexuality diverse (Australian Institute of Health and Welfare, 2017), there would be over 60,000 gender and/or sexuality diverse students at Australian universities. There is a growing recognition of, and support for, gender and sexuality diversity at Australian universities, such as the presence of on-campus LGBTQIA+ societies and social groups (Brook, 2015). However, there is still a lot of room for improvement in the adequacy and effectiveness of support provided by Australian universities for gender and/or sexuality diverse students. As an example, Dau and Strauss (2016) found that 66 per cent of Lesbian, Gay, Bisexual, and Transgender (LGBT) students did not have confidence in their universities' management of gender and/or sexuality-based discrimination. Many universities were criticised for their lack of an authentic and deep understanding of LGBTQIA+ students' needs and interests, resulting in little meaningful specific support for this minority group (Brook, 2015).

Being a student at university is often associated with social adjustments, academic pressures and overall increased stress (Hunt & Eisenberg, 2010). While gender and/or sexuality diverse students share all the same needs and stressors as their heteronormative peers, they also face additional and unique barriers associated with their sexual orientation, gender identity, and/or gender expression (Sabato, 2016; Waling & Roffee, 2018).

Literature has shown that gender and/or sexuality diverse university students experience acts of sexual violence, harassment, and discrimination on campus at a rate that is disparate to their peers (Collier et al., 2013). These human-rights violations have been found to be committed by heterosexual students as well as academic and professional university staff (Oswalt & Wyatt, 2011; Tetreault et al., 2013). It has also been found that gender and/or sexuality diverse students face discrimination and/or harassment from other gender and/or sexuality diverse students, with some students reporting microaggressions, physical and sexual assaults (Waling & Roffee, 2018). In addition to stigma and discrimination-related human rights violations, widespread system-related barriers also exist, with gender and/or sexuality diverse students reporting feeling marginalised due to a lack of inclusive language, poor representation, and cisgender and heteronormative systems and processes within universities (Sears, 2005).

The impact of these challenges has been shown to negatively impact on the basic rights and needs of gender and/or sexuality diverse students including: the right to comfort, personal development opportunities and feelings of safety while on campus (Woodford et al., 2012). In addition, adverse experiences of human rights violations towards gender and/or sexuality diverse students lead to lower quality of life, reduced self-esteem, lower achievement outcomes, increased absenteeism, and sustained feelings of exclusion (Sabato, 2016). According to the Minority Stress Theory, the chronic stress related to discrimination, stigma, and marginalisation can increase the risk of gender and/or sexuality diverse students suffering negative physical, behavioural, and psychological outcomes (Meyer, 2003; Reed et al., 2010).

While steps to increase the safety and equity of gender and/or sexuality diverse students have been taken by many universities, research has shown that these students still

experience discrimination and marginalisation at greater rates than heteronormative peers (Tetreault et al., 2013). As universities move towards a holistic approach to student support via the integration of physical, behavioural, and mental health services, it is key that the unique barriers and needs of gender and sexuality diverse students are understood and supported (Sabato, 2016; Yost & Gilmore, 2011).

How to Support Gender and/or Sexuality Diverse Students?

Existing studies have shown that supportive university staff and campus-based student groups and resource centres could be beneficial to the educational viability and success of gender and/or sexuality diverse students (Garvey et al., 2015; Pitcher et al., 2018). Support and advocacy from staff were also noted as being the key in the classroom and in faculties where staff can redirect and end discriminatory dialogue (Garvey et al., 2015). That is, having environments where it is safe to be one's authentic self can increase the feelings of acceptance and belonging, especially in times of stress and crisis (Pitcher et al., 2018). In brief, success is seen in universities which have policies against discrimination, support all students against human rights violations, highlight gender and/or sexuality as a source of protection and support, and particularly involve those with lived experience in policy creation. This is in line with research showing that policy reflects an organisation's values and climate and helps to broadly communicate preferred norms (Dirks, 2012; Iverson, 2007).

Some insights from the results found in school age adolescents and youth who also face stigma, violence, discrimination and harassment (e.g., see Johns et al. [2019] for a review) can be extended to the university setting. For example, in gender and/or sexuality diverse adolescents, specifically for transgender youth, it has been shown that skills in self-advocacy, which refers to "standing up" for oneself (e.g., proactively solving problems) in challenging situations, were associated with a better ability to navigate negative environments such as unsafe, hostile social surroundings (Johns et al., 2018; Singh, 2013). This has highlighted the importance of supporting the development of self-advocacy skills among gender and/or sexuality diverse students (Singh, 2013). In addition, research indicated the potential utility of facilitating multiple identity development, offering training related to dealing with transprejudice, and supporting and/or advising on the appropriate use of social media to cope with challenges (e.g., Singh, 2013).

Furthermore, curricula that are inclusive of gender and/or sexuality diverse identities have been perceived as safer environments and linked to reduced absenteeism among transgender students (Greytak et al., 2013; Johns et al., 2018). Supporting findings by Garvey et al. (2015), it has been shown that having gender and/or sexuality diverse-related resources and peer support leads to increased academic success (Kosciw et al., 2013, 2016), improved mental health, and decreased absenteeism (Johns et al., 2018). The presence of supportive educators also has a positive impact on achievement (Greytak et al., 2013). This was found to be especially true when teachers are trained in relevant skills and can be viewed as role models to gender and/or sexuality diverse populations (Greytak et al., 2013). These positive resources and environments (Kosciw et al., 2016) lead to better educational experiences and outcomes.

Evidence from Organisation Studies and Career Literature

Similar results from the university and adolescent contexts have been found within the workplace context. In a review of the early literature of workplace gender and/or sexuality diversity, Croteau (1996) found that workers being open about their gender and/or sexuality diverse status was related to higher levels of discrimination than not being open. However, even being associated with higher levels of discrimination, being open was also related to higher levels of satisfaction with their openness than those who were less open about their identity.

More recent literature has found that support from colleagues, supervisors, and the organisation generally are positively related to job satisfaction, life satisfaction, and level of openness (Huffman et al., 2008). Trau and Härtel (2007) highlighted the importance of contextual factors in the quality of work life for individuals who are gender and/or sexuality diverse. Trau and Härtel (2007) found that support within the workplace, less homophobia, and fair treatment were all associated with the organisational commitment reported by gender and/or sexuality diverse employees. Further, in line with social identity theory (Sets & Burke, 2010; Tajfel & Turner, 1979; Turner et al., 1979), it has been found that lower levels of perceived discrimination within the workplace were related to gender and/or sexuality diverse individuals identifying more closely with their work networks, leading to higher job and career satisfaction. From an international perspective, Jiang et al. (2019) found that a perceived open climate, self-concealment, and self-acceptance of gender and/or sexuality diverse individuals was important in the workplace in China.

More generally, Lent and Brown (2013) outlined that effective career preparation can be credited for the employment success of all students. Such a career preparation aims to assist students to prevent the detrimental outcomes of underemployment or unemployment through the development of resources required to cope with the moving from studying to the workplace (Koen et al., 2012). The social cognitive model of career self-management (CSM) (Lent & Brown, 2013) and career construction theory (CCT) (Savickas, 2013) provide frameworks for summarising both the factors that are contained within career preparation and the factors that immediately precede it. The CSM (Lent & Brown, 2013) is an adaptation of the previous social cognitive career model and outlines the resources that are important for individuals to aid progress towards their own educational and occupational goals. These resources can originate from both the environment (e.g., various forms of support provided by others) and the self (e.g., one's self-concept). Such resources enable individuals to become psychologically and behaviourally positive in exploring, preparing, and developing careers. Similarly, the CCT (Savickas, 2013) outlines the processes whereby individuals actively construct their own career goals and agency through adapting to the environment and utilising personal and contextual resources. Importantly, these theoretical perspectives underscore that supporting resources and environments that ease concerns pertinent to one's forward movement could enhance overall career effectiveness manifested in various career attitudes, states, and behaviours (e.g., being effective in career planning, exploration, decidedness, and goal setting, and being vocationally adaptable, resilient, and self-efficacious).

Career outcomes such as those listed above have been found by the peer reviewed literature to be important for students to thrive. For example, Santilli et al. (2017) found that both career adaptability and career optimism were positive predictors of participants' life satisfaction. Furthermore, career optimism has been further linked with career decision self-efficacy (Chui et al., 2020), and career adaptability has been linked conceptually with resilience and coping (Lent, 2013). Finally, goal setting and planning have also long been established as important in career decision making and performance (Latham & Locke, 2007; Lent & Brown, 2013; Sheu et al., 2010).

Summary of Existing Literature

As highlighted above, research has examined some success factors for gender and/or sexuality diverse adolescents, tertiary students, and workers. Additionally, there are existing models and research findings that shed light on the factors that are important for students' career preparations. However, a specific area that has not been previously and purposefully studied for gender and/or sexuality diverse university students concerns the best practice career guidance and support for this group. Moving from a general career guidance and support perspective to a gender and/or sexuality diverse specific one, there are likely additional difficulties in the development of the above reviewed career resources. For example, perceived discrimination and prejudice requires additional mental energy and

resources when developing these career resources (Cheng, et al., 2017). The challenges in career preparation for gender and/or sexuality diverse students that are not faced by majority university students highlights the need for specific career support (Schmidt et al., 2011). For the development and implementation of specific career guidance and support to be successful, the input of the support providers and recipients is required (Winstone et al., 2017).

Using the above reviewed theoretical perspectives, we aim to investigate the role of personal attributes (e.g., self-acceptance) of gender and/or sexuality diverse students and contextual factors that shape their future career effectiveness. Personal attributes include self-acceptance of their identity, while contextual factors include perceived campus climate, the university's current career support and guidance, and the threat of external crisis (i.e., COVID-19).

In brief, we focus on the career development of Australian higher education students who identify as LGBTQIA+ individuals. In particular, we intend to identify what LGBTQIA+ students expect from Australian universities in terms of career guidance and support, and to explore whether and how existing supports have benefited and/or hampered their career outcomes.

Specifically, ***we conducted a mixed-methods research program, with a combination of interviews and surveys, to investigate the under-explored career-related issues of LGBTQIA+ students***, a significantly marginalised group which has received insufficient attention from Australian higher education providers (Dau & Strauss, 2016). The first phase of the project involved interviews with students who identify as LGBTQIA+ on the topics of general support, career support, and challenges during the COVID-19 pandemic. Following completion and analysis of the qualitative interviews an online survey was used to recruit a wider sample on the same topics. The survey instrument was informed by both the peer reviewed academic literature and the findings from the qualitative interviews. The details of both phases of the project are presented in sequential order below.

Phase One – A Qualitative Inquiry

Epistemology

A contextual epistemology was adopted for this phase of the project in an attempt to explore all of the research questions stated above. From a contextual perspective our knowledge of the world is mediated by socio-cultural meaning (Clarke et al., 2015). As such, in this research we aimed to explore the socially mediated reality of tertiary students who identify as LGBTQIA+. It should be noted that the researchers were active participants in the collection and interpretation of the data, in that the researchers' own interpretative resources were part of the research process (Clarke et al., 2015).

Method

Design

Due to the exploratory nature of the research a qualitative study design was implemented with semi-structured interviews. A qualitative approach allowed for participants to elicit their own meaning of the topics being discussed. For example, it allowed participants to provide their own understanding of what career support was and their own understanding of gender and/or sexuality diversity, rather than the researchers forcing prescriptive definitions of these factors onto the participants. In addition, the semi-structured interviews allowed for the collection of contextualised data and the exploration of factors not considered by the research team. Furthermore, the qualitative approach allows for the identification of variables of interest in this area for the quantitative research to follow.

Participants

There were 25 participants in phase one. The sample size is comparable to or slightly larger than that of prior LGBTQIA+ research (e.g., Daley, 2010) and, according to qualitative methodologists (e.g., Guest et al., 2006), is usually enough to discover new phenomena and generate themes. Participants were current tertiary students who identify as LGBTQIA+ and were aged between 20 and 50 years old ($M = 28.27$, $SD = 6.84$). Further participant demographic details are provided in Figures 1 through 5. In terms of gender, 12 participants identified as male, four identified as female, and six identified as non-binary, the remaining participants either preferred not to say or identified as another unspecified gender. Seventeen of the participants identified as cisgender, while four identified as gender non-conforming, one identified as transgender male to female, and two identified as transgender female to male. Eight participants identified as gay, four as lesbian, six as bisexual, one as pansexual, two as asexual, and three identified as a sexual orientation not listed. Please note, no participants were born with an intersex variation.

Procedure

Ethical approval to conduct this research was obtained from Flinders University Human Research Ethics Committee (Project ID = 2567). Following ethical approval, key LGBTQIA+ community members and groups were contacted to refine the recruitment method of the study. Next, participants were recruited through advertisements in relevant social media groups and communities, for example, University Queer and Ally Facebook groups. Group or community moderators were contacted for permission to post the advertisement. Advertisements included a link through which interested participants submitted a short expression of interest, and participants were then contacted by a researcher to organise a mutually suitable time for an interview. All participants voluntarily took part in the study. Prior to the interview, they were provided with the information sheet and consent form for the research. Since the disclosure of stigmatised identities (e.g., LGBTQIA+ identities) is a highly sensitive issue (Kallschmidt & Eaton, 2019), we conducted private, one-on-one semi-

structured interviews (via phone/videoconferencing) to collect data. All interviews were conducted online via Cisco Webex and audio recorded. At the beginning of interviews participants were given the opportunity to ask any questions they had regarding the research and provided verbal consent. Interviews lasted between 30 to 60 minutes. Following each interview, a transcription was created and re-checked for accuracy. Once accuracy was confirmed, all identifying information was removed from the transcriptions.

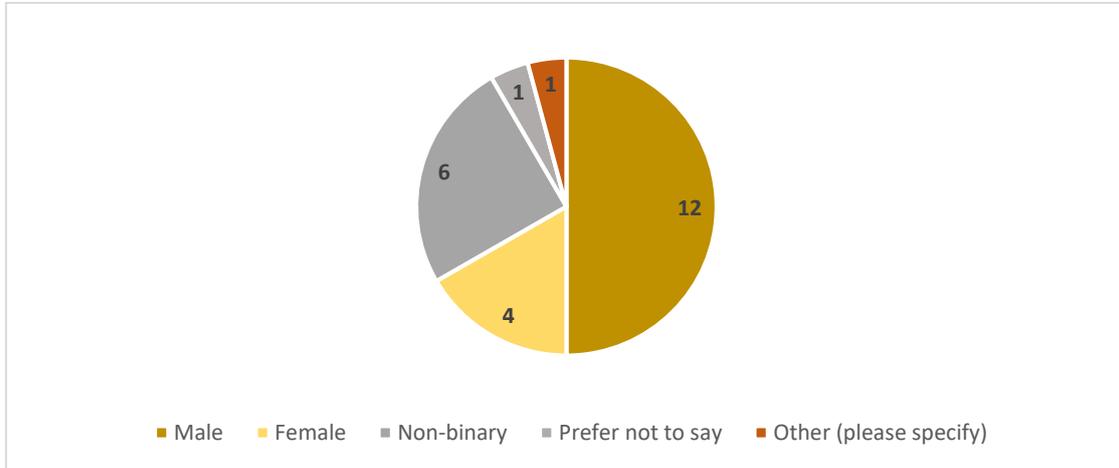


Figure 1. Qualitative participant responses to question: “What is your gender?”

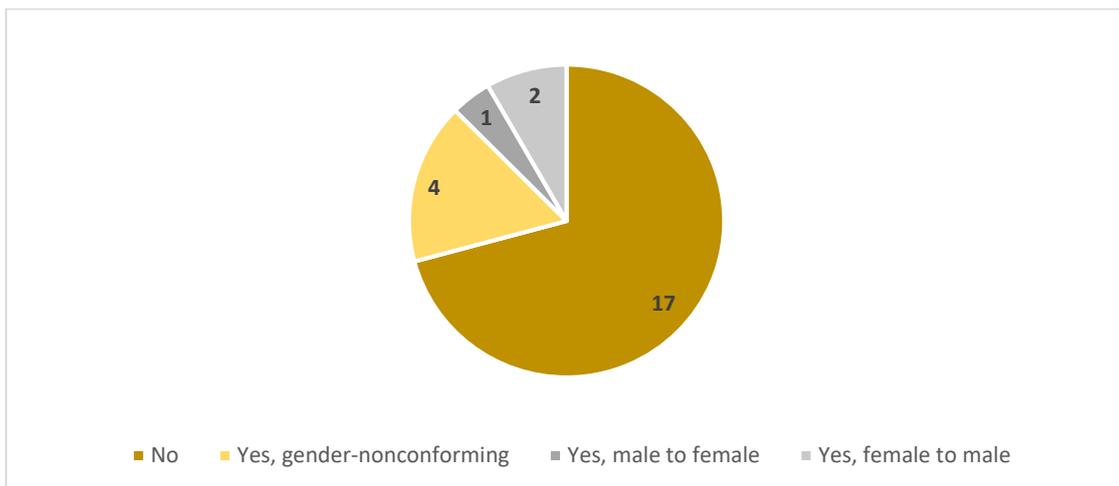


Figure 2. Qualitative participant responses to question: “Do you identify as transgender?”

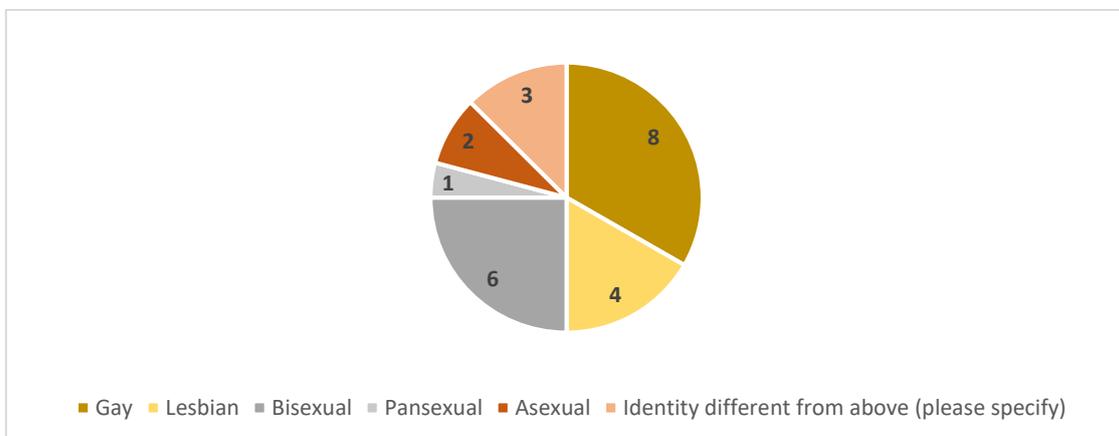


Figure 3. Qualitative participant responses to question: “What is your sexual orientation?”

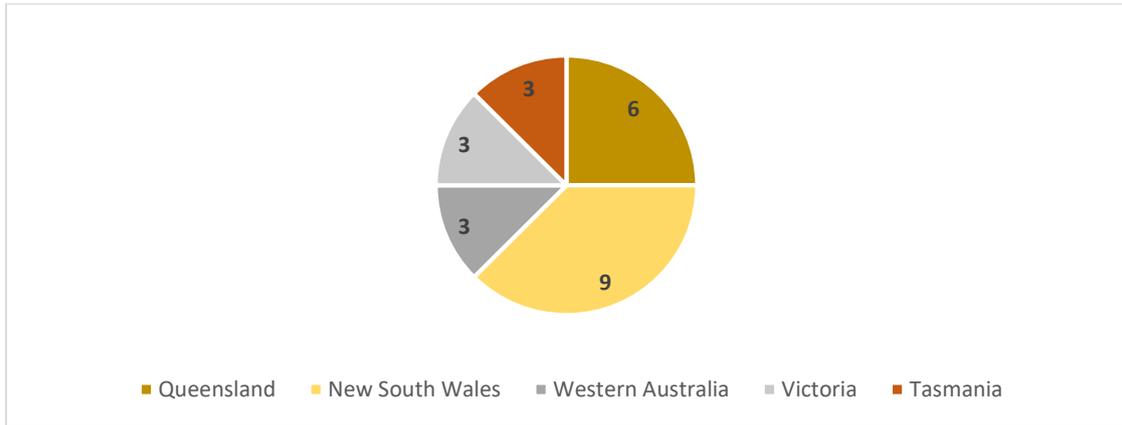


Figure 4. The state of the universities attended by qualitative participants.

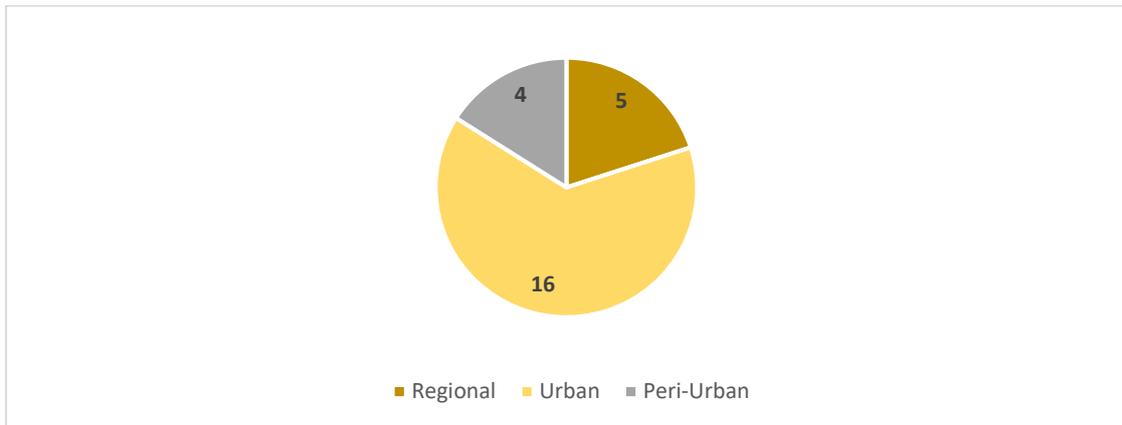


Figure 5. The regional status of universities attended by qualitative participants.

Interview Guide

A semi-structured interview schedule was developed through review within the research team and consultation with the existing literature. Additionally, five LGBTQIA+ community groups and members, as the advisors of this project, were consulted on the appropriateness of interview questions leading to further refinements. The interview schedule included 10 open ended questions on participants’ experiences of university support (e.g., “Thinking broadly, what kinds of support do you think people receive that is tailored to gender and/or sexuality diversity?”), career guidance (e.g., “In your view does the career support for people who identify as LGBTQIA+ students differ from general careers help? In what ways?”), and the impact of the COVID-19 pandemic (e.g., “What are some of the general challenges you might have experienced in terms of university life in terms of COVID-19?”).

Analytic Approach

A thematic analysis was used to identify, analyse, and report patterns or themes within the interview transcripts (Clarke et al. 2015). This method was chosen because it enables flexible analyses of complex data and condenses the bulk of data into themes, allowing us to summarise participants’ responses while keeping rich and detailed information (Braun & Clarke, 2006). Thematic analysis can accurately record individuals’ subjective experiences, thoughts, feelings, attitudes, and behaviours, providing an ideal way to understand the lived experience of sexual and gender minorities (Aguinaldo, 2012). The researchers coded recurring topics throughout the data set during multiple read throughs. Codes were created for descriptive, latent, and semantic meanings within the data and were collated, and themes of key analytic points relevant to the research questions were identified. Once themes were identified they were compared to the interview transcripts to check that they accurately

reflected the perspectives of participants. The following section presents the key themes identified through the above described analytic approach.

Findings

Below we detail the key themes that were identified from the semi-structured interviews. The themes illustrate the experience of barriers and challenges by tertiary LGBTQIA+ students and discussions around what support can be provided.

Theme 1: Need for Specific or Additional Career Guidance

In line with the need for additional or specific career guidance, some participants highlighted that there are specific challenges faced by gender and/or sexuality diverse students:

Look, I'll say, the community. We need a lot of resources available because I will say we've been, most of us we've been through a rough time of our life.

And having resources available, like mental health and also skill development resources will really help for our professional future.

(cis man, gay)

This participant outlined that there is a need to recognise the lived experiences of gender and/or sexuality diverse individuals that leads to a need for additional resources. Participants in general need social and community support within the university contexts that could help them to cope with challenges such as mental stress associated with their gender/sexual identity. They expected that these psychosocial resources would also be accompanied by LGBTQIA+ focused instrumental support, particularly career development resources, to facilitate preparation for their future careers.

Other participants also highlighted the potential disadvantages that gender and/or sexuality diverse individuals have experienced, including systematic discrimination. For example, a participant noted:

I think understanding that if you're part of any disadvantaged community, whether it is queer and gender diverse or anything of that sort, ... you experience barriers that people who aren't part of that community won't experience. And so creating a decent understanding that there are certain things that you may encounter that you may have to acknowledge or address, or ...

Understanding that the thing that you love may also be in an environment that's systemically homophobic or unwelcoming or unsupportive of, you know, your in person pronouns or being visible allies or anything like that.

(cis woman, queer)

For this participant, it is important for universities to be aware of the additional barriers that gender and/or sexuality diverse individuals face. This clearly indicates the need for specific advice and support on gender and/or sexuality diverse concerns. Related to the points above regarding the barriers and challenges that gender and/or sexuality diverse students face, the idea of intersectionality (e.g., intersecting identities/characteristics and/or compounding challenges) was discussed by the participants. That is, the importance of considering the whole person, their mental and physical health, their ethnicity, and any other characteristics along with their gender and/or sexuality diversity, was important. Although not directly expressed as commonly by participants in the interviews, the theme of intersectionality was present throughout with some specific examples, such as the need to be conscious of related health concerns:

And, so I think another aspect of advice or support for LGBTIQ people, a likely to need in the workplace is, or in terms of preparing for a career is, I think LGBTQ people are more likely to have experienced trauma and are more likely to have mental health conditions, are more likely to have chronic health conditions, more likely to have disabilities, and because of that I think they're more likely to need advice around how to work with those conditions when you're looking for work, when you're applying for work, when you're going through the interview process that if you've got anxiety or if you've got, like I've got migraines.

(trans man, pansexual)

The participant here highlights the need to be conscious of health concerns for gender and/or sexuality diverse individuals, particularly around trauma history. He referred to his own health concerns (migraines), but also suggested that more generally, mental health and trauma would be important considerations for people who are gender and/or sexuality diverse. Similar concerns were raised by other participants:

I'm not very camp and people don't think I'm gay, so it makes it easy for me to navigate that. The tough stuff that I struggle to navigate, which is racial stuff because you can't hide that. And also I've got some sort of ASD so autism issues. Which means I'm very direct and I hit really hard so that's something that people don't recognize about me not purposefully doing that...just for me is it gets frustrating and I have to deal with it.

(cis man, gay)

Although this participant sees their sexuality diversity as easier to navigate, he raises two potential other considerations for career guidance and support. First, he mentions his race as something that stands out to other people. Second, he raises his interaction style as part of an Autism Spectrum Disorder (ASD) diagnosis that some others can find too direct.

However, the need for specific career guidance may not be endorsed universally in an open manner, with some participants suggesting they would be hesitant to suggest the idea within the LGBTQIA+ community:

Yes, I think so [that there is a need for specific LGBTQIA+ career support]. Yeah, I probably wouldn't say that in a room to people within the LGBTQ+ community.

Here the participant is implying that they are not sure the LGBTQIA+ community would all be supportive of additional or specific guidance. The same participant, however, continued:

OK, but yes, I do think so because I think in order to cater correctly, the differences need to be considered, and the differences are there you know, just in the way that people are treated in the workplace and finding work, especially people who don't fit within you know physical moulds and things like that.

The suggestion from the participant here is that even though they think specific additional career guidance would be useful, they would be hesitant to openly suggest that within their community.

While the first theme has been used to identify the need for specific additional career guidance for gender and/or sexuality diverse individuals, it is not very useful without indicating what that specific guidance actually includes. As such, the following themes expand on the first theme to highlight specific examples of both harmful and beneficial additions to career support and guidance.

Theme 2: Having Role Models

Throughout most interviews there was strong support for role models on gender and/or sexuality diverse topics. Role models could be visible members of the LGBTQIA+ community within the participant's chosen career path, or a key member of university staff standing up for gender and/or sexuality diverse issues. For the following participant, that role model was a member of the University executive:

And my direct boss is an openly gay man and senior executive for the University. Which was fantastic at the time he was the only openly gay person on the University senior executive. So yeah that was really fantastic.

(cis man, gay)

For the above participant, having gender and/or sexuality diversity within the university executive was an example of positive representation. With such an exemplar, influential role model, LGBTQIA+ students like this participant tend to feel psychologically positive and safe in the university context. Being made aware of the career success (e.g., being a senior executive) of the role model, LGBTQIA+ members may be encouraged to build and consolidate positive expectations regarding their own career futures as a gender/sexual minority.

Other participants commented on the positive impact that role models within their chosen career path could have, such as, providing an example of how to be a gender and/or sexuality diverse individual in their chosen career path:

Uh, well, role models would be good.... Because they would walk in and say, look at me, I'm a successful career person and this has been my challenges, and this is how I overcame them. And this is where I, you know, found strength in the community and weaknesses in the career. You know, just sharing their story of positives and negatives.

(non-binary person, lesbian)

The role modelling of successful behaviour was seen as beneficial for this participant. Further, having a roadmap of how to address common concerns experienced by gender and/or sexuality diverse professionals was a key part of the role modelling. Similarly, for participants who are not openly vocal or out about their identity, having those role models was seen as beneficial:

I think I've always been a bit concerned. Because I, personally, am not someone who is really out. But I think having someone I know in that profession would again help me a bit more with like self-acceptance and sort of being I guess, being okay with being more open so that I can, you know, do the same for other people following in my footsteps and be okay with that.

I think it's just more like a leading by example, sort of thing.

(cis woman, queer)

This participant suggests that having visible role models would allow them to be more comfortable being visible as gender and/or sexuality diverse people themselves. Given some of the pressures to conform to heteronormative behaviours within the workplace as discussed in a later theme (i.e., "Theme 4: Identifying LGBTQIA+ Friendly Workplaces and Navigating Workplaces"), the confidence gained to be oneself was seen as directly beneficial and would likely lead to a positive feedback loop where participants would become role models for others in the future. In the next theme we discuss mentors, which can be seen as a specific example of role models.

Theme 3: Having Targeted Mentoring based on Shared Experience

Although mentoring was again largely seen as beneficial by most participants, it was highlighted that it could not be approached in a general LGBTQIA+ sense. That is, specific advice from matched mentors to mentees was likely to be seen as more beneficial than general mentoring on gender and/or sexuality diversity. The following participant explained their positive experience of a mentoring program they were a part of, but identified the limitation in its success that the mentor was not matched in terms of sexuality:

I mean, I really have come to love my mentor and I wouldn't change him for anything but particularly one thing.

But I think it would have been... if I had a trans mentor I think, and it's something that you know. He kept checking in with me about over the course of my degree. Like do you need a specifically trans person talking to you about this? And while I think we're a very well matched pair mentor and mentee there are questions I could have asked a trans mentor that I just can't ask him.

(trans man, bisexual)

This participant was very appreciative of the positive experience he had with his mentor. However, he still noted that as his mentor was not trans, like himself, there were specific concerns and questions that his mentor could not address for him.

The participant below also talked about the importance of having teachers in her area of interest that identified as LGBTQIA+:

... because I hadn't really had like, teachers who were identified as such, and who would actually talk about the experience before, so that made me feel a lot more comfortable.

(cis woman, lesbian)

Highlighted here is the need to match career guidance and particularly mentorship related to specific areas of interest, not just the identity of the mentee. For this participant being matched on multiple characteristics allowed her teacher to provide detailed and specific guidance and support.

One participant suggested that the degree of openness about their identity was also an important consideration, indicating the need to match mentors based on shared personal experiences:

I do think it would be easier for me if I had a mentor, but I think it would be easier for me if they were not someone who is visible because I am not visible. Yeah, and so what's really valuable for me is having those personal relationships with people who are not visible because a lot of what I deal with is about the fact that I'm not visible....

Like the people who are very visible and are dealing with very different issues from me, so being able to kind of talk to someone else about the kinds of issues that I deal with as someone who is not visible, yeah, or whose gender history is not visible, would be really valuable, but I yeah, I don't have that.

(trans man, pansexual)

The different issues faced by individuals depending on their gender and/or sexuality diversity is highlighted by this participant. He is not visible or open, and thus having a mentor who shared that experience would be most beneficial for him. Overall, a common discussion point was around the need for specific examples of gender and/or sexuality diverse individuals who could help guide tertiary students on their chosen career path.

Theme 4: Identifying LGBTQIA+ Friendly Workplaces and Navigating Workplaces

Another key theme throughout the interviews was the need for advice on how to find gender and/or sexuality diverse friendly workplaces. Of similar importance was having advice on how to navigate being open about own gender and/or sexuality in the workplace while remaining safe. The following participant provided an example of this:

I think perhaps, knowing where, where one can be out and where one can't be [would be] really helpful. Because it's really hard to know if I need to apply for a job as my dead name just because, you know, I could be rejected as a trans person. And discrimination against that is not controlled, of course, because while there are laws against it, there's no reason you don't have to give a reason to reject an application. So they say there's no way of controlling it. So it's a sort of a quandary of do I apply as my dead name and then come out after I'm employed, or apply as my dead name and stay as my dead name, which is really unacceptable to me, or actually come out start with say who I am, ... to try and hope it works.

(non-binary person, bisexual)

For this participant, the need to avoid using their dead name was a key part of identifying safe workplaces. They identified advice on “where one can be out” as something that they would find beneficial in any specific career guidance or support. The next participant talked about a different concern with the phase of being introduced to a workplace:

I'm going to say all workplaces like, don't have a full understanding of what it means to be gender diverse, what it means to be sexually diverse how to promote and include that diversity in a workplace. So I guess advice that specifically targets navigating a workplace as a queer person, how to have those conversations with people who might not be so welcoming at first or aren't educated, don't have sort of previous exposure to the queer community and don't know about what it means to have and build an inclusive workplace.

(non-binary person, bisexual)

This participant would be seeking the skills needed to navigate workplaces as a gender and/or sexuality diverse individual. These could involve how to educate colleagues or supervisors on the queer community and how to promote diversity and inclusion. Both of the above examples illustrate participants taking ownership of their own safety in a new workplace, either by avoiding harmful environments or by being a leader for diversity in a new environment. The perceived need of participants to take ownership in this way may be due to previous experiences in the workplace or in higher education itself where they did not see diversity promoted. The following quote was in response to a question about previous career guidance the participant had received, which highlights that expression of diversity was not encouraged as it could hurt your career advancement:

...the first thing that comes to mind, it wasn't formal advice, but just sort of like a roundtable discussion with a couple of academics, so there seemed to be a general view that people trying to enter academia should try to control as much as possible, yeah?

Like in terms of gender presentation, in terms of professional presentation, ... it was briefly touched on not having weird coloured hair. ...then...once you've got a tenured position...then...Be a weird person...But in career development, just don't risk diversity, which wasn't very encouraging.

(trans man, bisexual)

The threat to his career from expressing his diversity was seen as particularly concerning for the participant. Another participant had had similar experiences in terms of assessments they had completed at his university:

So like I get an average grade for all other assignments, and then the three assignments that I've brought in my experiences of gender and/or sexuality. Those have been a grade below everything else that I've handed in and that that just makes me feel like I shouldn't be bringing those aspects of myself to my studies, to my professional life

that it's seen as unacademic, unprofessional to bring those parts of myself into my studies and into my professional life.

(trans man, pansexual)

This participant felt that anytime he brought his authentic self into his academic work it was valued less, as demonstrated by the lower grades. As highlighted by the above quotes the importance of safe workplaces is seen as key for a number of the participants. In the next sections we discuss some of the identified themes in terms of the COVID-19 pandemic.

Theme 5: Social Isolation During the COVID-19 Pandemic

A common theme raised by participants regarding the COVID-19 pandemic was an increase in social isolation, particularly isolation from other gender and/or sexuality diverse individuals. Many participants saw their university as a space to be able to connect to other members of the LGBTQIA+ community. As such, it was seen as a big loss to not be able to connect to peers in the university space through student union groups, social activities, or community events. The following examples illustrate the case with which participants felt they became isolated, but also the impact that the isolation had on them:

I found I very easily slipped into isolation. Not the like off down sense, but just not really talking to anyone outside of my immediate family and I think being at Uni in person enforced a certain level of social interaction, even just you know, walking around and then you say "sorry, thank you, thank you. Have a nice day." That's it. With small bits of contact. Yeah, I've missed that, and I know that my general mental health has certainly declined with not having social contact.

(trans man, bisexual)

This participant notes a general loss of contact with others. He highlights those everyday interactions have been lost and that the loss of that interaction has impacted his ongoing mental health. Some participants indicated isolation from the LGBTQIA+ community was of particular note for them:

Isolation. Yeah, a lot of isolation. Even though, like I have a good network and my partner and.... But I do miss the social aspect of it, like connecting with fellow queers, connecting with fellow gay guys. Yeah, so I would say the social element as well as the access to resources.

(cis man, gay)

The loss of connection to the queer community was particularly isolating for this participant. Even though he felt he had good support through his partner and network, being removed from others in the community was isolating for him. In the next theme we look further at the impacts of the COVID-19 pandemic on gender and/or sexuality diverse individuals, looking at one potential reason for the social isolation.

Theme 6: Housing Security During the COVID-19 Pandemic

Related to the theme of social isolation, some participants suggested that a major impact on the wellbeing of gender and/or sexuality diverse individuals during the COVID-19 pandemic was a lack of housing security. Although this theme is an example of another barrier or challenge that gender and/or sexuality diverse tertiary students face, we have included it as a separate theme in the findings due to the specific focus on the COVID-19 pandemic. It is true that housing insecurity is a concern for gender and/or sexuality diverse students outside of the pandemic, but these concerns have been exacerbated by the lack of safe spaces at universities. One participant highlighted the concern of not being able to be genuine with their family or at home:

And, the community that we make so the social connections that we make as queer people are that much more important and valuable than potentially other communities who might be diverse, and I think COVID really showed just how fragile those relationships can be. When you're not able to go in and hang out with a bunch of like-minded people who you can be yourself around and for a lot of students and for a lot of the people that are part of [university name omitted] pride they were stuck at home with family and quite a few of them went to their family and had over six months of not being able to be themselves and not being able to, you know, they couldn't go out on weekends and go to a club and express themselves there.

(cis man, gay)

It was noted by this participant that Pride organisations give a space for gender and/or sexuality diverse individuals to be authentic and genuine, when they might not have the same level of freedom in their family home. The following participant also noted that universities can be safe spaces for gender and/or sexuality diverse individuals:

I mean, I don't know exactly what it's like, so take my thoughts with a grain of salt, but essentially for University I know that for a lot of people it was their safe place if they went home to parents that were less than accepting or they weren't comfortable telling them, you know, they felt comfortable like they could be themselves with their teachers and with their friends.

(cis man, gay)

This participant further suggested that even though they felt safe in their housing situation, that was not always the case for gender and/or sexuality diverse individuals. That is, although most of the participants in this study were fortunate to have safe and secure housing, this was noted as a general concern within their community:

I would say that there have been a number of [people] who have been either. Who have either like left their homes over the COVID shut down. Because they couldn't deal with homophobia in the home environment and have either lived in their car or moved in with a friend or something like that. And I've also seen two individuals that I know have been like kicked out of their homes because of that over COVID specifically.

And I feel like there maybe has not been enough information about sort of like emergency shelter options for a variety of different reasons like people could be experiencing domestic violence as well. Yeah, but I haven't really seen that at the forefront really of COVID signalling. It's been more like look at our like online stuff rather than like here are places you can go if your home environment is no longer viable.

(cis woman, lesbian)

For this participant, the need for emergency housing support has not been visible enough. They note that a supportive home environment cannot always be guaranteed for gender and/or sexuality diverse individuals and that more should be provided to those communities in terms of housing security, particularly during crises like the COVID-19 pandemic. However, housing support was also raised as an ongoing issue for gender and/or sexuality diverse individuals, not just something to be aware of during the COVID-19 pandemic.

Any University even at the best of times LGBT people often get disowned or have to basically assimilate to their family. It's the 'my way or the highway' approach, and I don't know what the situation with rent in WA but in Sydney and Melbourne it's very cost prohibitive. ... it really entrenches the inequality, because then LGBT people not only do they need to OK, let's say they do work well. Not only do they need to work longer hours, they're going to need to take longer on their degree or get poor grades, which then just entrenches the problem.

(cis man, gay)

Overall, the qualitative phase in this study allowed us to gain rich insights into LGBTQIA+ students' unique challenges in terms of their career development, both in a general sense as well as during COVID-19 – a crisis that have amplified some of these challenges. Informed by the knowledge generated from this phase, we developed Phase 2 – a quantitative study, to further gauge some of these issues by using more representative data collected nationwide.

Phase Two – A Quantitative Exploration

Method

Design and Analysis

Phase Two used a quantitative design in order to explore the relationship between LGBTQIA+ students' university experiences (e.g., including perceived university support, resources, and climates) and their career outcomes (e.g., career psychological states and behaviours that are beneficial to vocational development). We developed a survey to measure a list of variables situated in the university/higher education context and psychological variables that represent career effectiveness, mostly using or informed by established measurement instruments from published research. The findings from the qualitative interviews helped inform the choices on the measures that were needed regarding the university environment, such as felt hostility, and higher education policy neglect. The detail of each measure is provided in the *measures* section below.

Descriptive statistics and correlations between all study variables were conducted and examined in an exploratory manner. Inferential analyses were run with two main purposes. First, in line with CSM (Lent & Brown, 2013) and CCT (Savickas, 2013), the individual factor of self-acceptance and environmental factors of general LGBTQIA+ support, LGBTQIA+ career support, discriminatory campus climate, experience hostility, and university LGBTQIA+ resources were examined as predictors of nine different career preparedness factors. The nine career preparedness criterion factors were: career adaptability, career resilience, career exploration, career planning, career decidedness, career optimism, job search self-efficacy, and networking self-efficacy. In each of the nine models, all predictors were entered in one block as no previous literature has established the importance of these specific factors for LGBTQIA+ students career preparedness. Second, inferential analyses were conducted to examine the role of perceived neglect by higher education policy on LGBTQIA+ students' university experience. That is, higher education policy neglect was examined as a predictor of the criteria: university's general and career-oriented support, climates, and accessible resources that are specifically relevant to the gender/sexual identities of LGBTQIA+ students. This group of analyses were informed by the interviews and open-ended survey questions, which indicated the potential negative influence of feeling neglect by policy on LGBTQIA+ students; as well as the observation that higher education policy neglect was rated very high by LGBTQIA+ students. Finally, based on the findings from the qualitative phase of this research that regional and urban students may have differential experiences of the university environment, regionality was examined as a moderator of the higher education policy and university experience relationships. That is, it was investigated whether the relationships between higher education policy neglect and the university experience factors were dependent on whether students were urban or regional based. With the increasing concern that the use of control variables (e.g., demographics which may be proxies for variables of theoretical interest) could distort results (e.g., Spector & Brannick, 2011) and informed by recent methodological advice (Aguinis & Edwards, 2014; Li, 2021; Spector & Brannick, 2011), we included no other factors such as personal characteristics, state, or demographic factors as predictors in regression analyses.

Participants

A similar recruitment strategy for student participants to that proposed for the qualitative study was used, and target sample size was 300 participants across Australian states and territories. Based on our experience in LGBTQIA+ research (e.g., Fuller & Riggs, 2018; Riggs et al., 2009) and prior Australia-focused studies (e.g., Lea, De Wit, & Reynolds, 2015), this sample size we originally planned for was adequate and realistic for this minority, hidden community.

Inclusion and diversity departments, queer departments, and diverse genders, sexes, and sexualities departments across Australian universities were emailed requesting that they share advertisements for the study across their networks. Additionally, LGBTQIA+ advocacy and community groups (e.g., Gender Diversity Australia and Out for Australia) promoted the study through their networks. These groups aim to empower gender and/or sexuality diverse individuals in the workplace, allowing everyone to bring their authentic self to the work.

We received complete responses from 378 current LGBTQIA+ students studying across different Australian universities. Participants had a mean age of 25.97 ($SD = 8.05$). Of the 378 participants, 171 identified as women (45.2%), 92 identified as men (24.3%), 82 identified as non-binary or a third gender (21.7%), and 24 identified as another gender (6.3%). Please note that for the gender proportions above and for each of the demographics below some participants either (1) selected a “prefer not to say” option, or (2) did not answer that question. As such, most of these demographic proportions do not add up to 100 per cent of the total sample. Furthermore, 109 participants identified as transgender (28.8%), while 248 identified as cisgender (65.6%). Most participants were not born intersex, 329 (87%), while 12 participants were born intersex (3.2%). In terms of sexual orientation, 63 participants identified as gay (16.7%), 80 identified as lesbians (21.2%), 106 identified as bisexual (28%), nine identified as heterosexual (2.4%), 31 identified as pansexual (8.2%), and another 31 identified as asexual (8.2%). Demographic details of the sample are summarised in Figures 6 through 12. Given the largely hidden nature of LGBTQIA+ tertiary students and a lack of convincing representative data nationally for universities, it is hard to determine the representativeness of our sample. However, we believe that our sample might at least offer a tentative benchmark for future studies on Australian LGBTQIA+ university students.

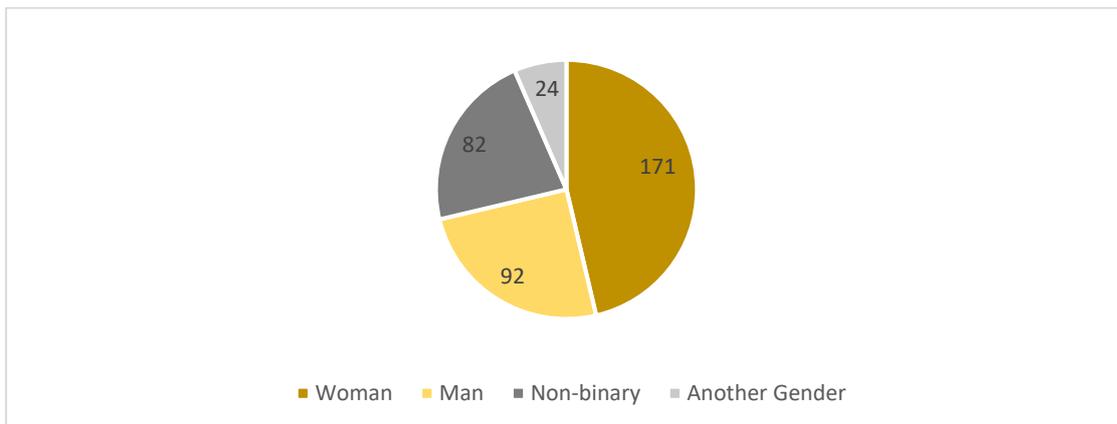


Figure 6. Quantitative study participants' gender.

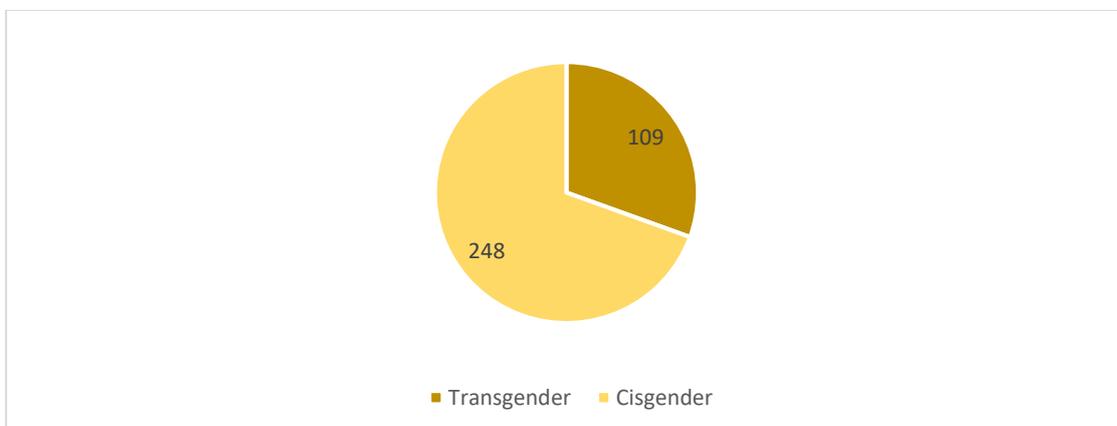


Figure 7. Quantitative study participants' transgender status.

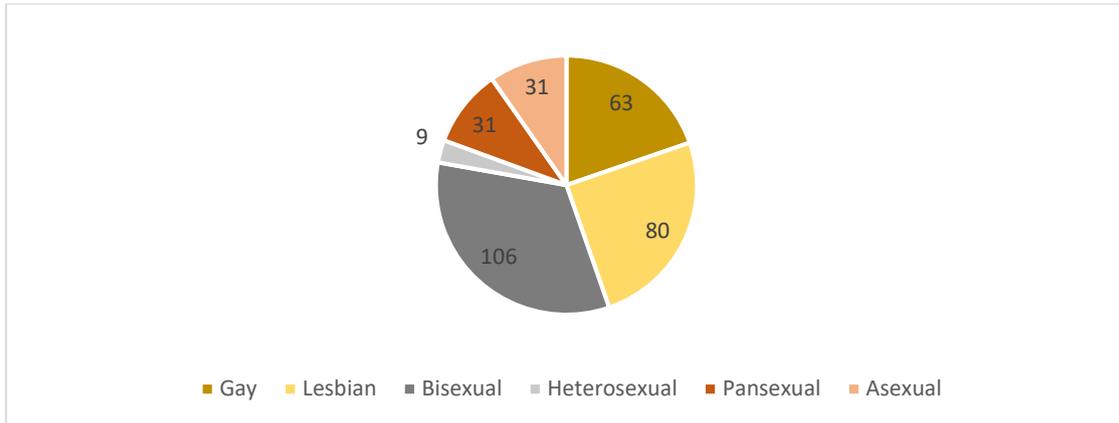


Figure 8. Quantitative participants' sexual orientation.

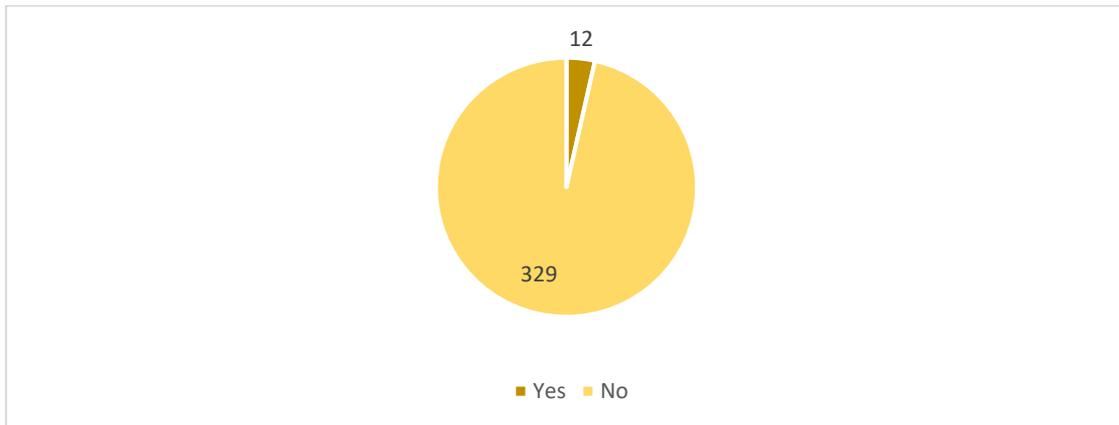


Figure 9. Quantitative participants' that were born with an intersex variation.

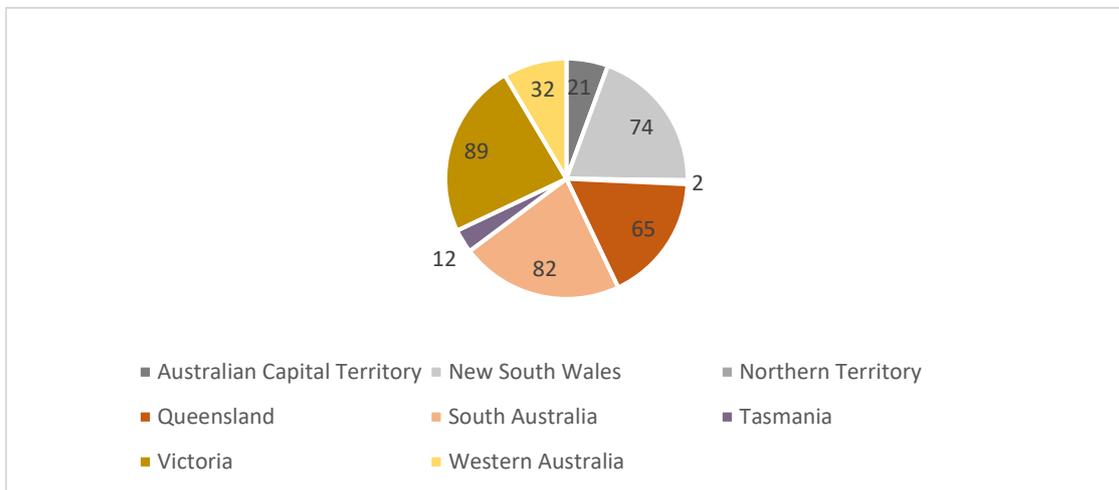


Figure 10. The home state of the quantitative participants.

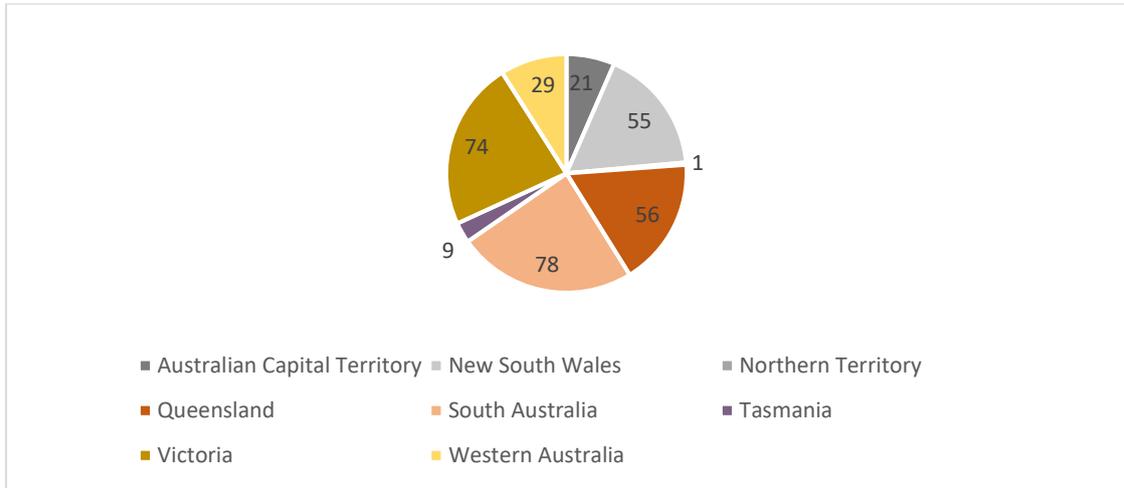


Figure 11. The state of the universities attended by quantitative participants.

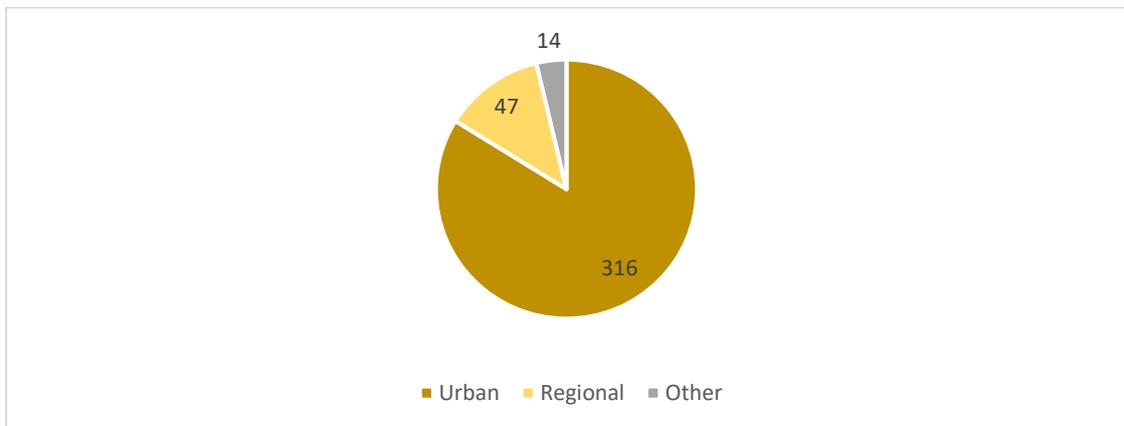


Figure 12. The regional status of universities attended by quantitative participants.

Procedure

Ethical approval for the research was provided by Flinders University Human Research Ethics Committee (approval number: 2567). All participants completed an online survey hosted in Qualtrics. At the beginning of the online survey, participants were provided with an information sheet, consent form, and contact details for the research team; continuing with the survey was taken as implied consent.

Measures

The qualitative interviews helped to identify the types of measures on personal characteristics, such as self-acceptance, and the university environment, such as felt hostility and general university support that should be measured. Additionally, any modifications or new measures that should be included due to the threats of crisis (i.e., COVID-19) were also informed by the qualitative data. Each of the measures used in quantitative survey is outlined in more detail below.

Career-Related Outcomes

Regarding career outcomes, we used instruments well established in the literature to measure career-related variables. All the career-related measures have previously demonstrated good reliability and validity. Furthermore, the reliability of measures was confirmed in the current study with acceptable ($> .60$) internal consistency as calculated using Cronbach's alpha found for all scales.

Career adaptability was measured using a shortened version (Maggiori et al., 2017) of the career adapt-abilities scale by Savickas and Porfeli (2012). Participants rated their career flexibility and relevant strengths with 12 items on a 5-point Likert scale ranging from *Not strong at all* to *Strongest*. An example item is “Learning new skills.” The 12 items were averaged for an overall scale score of career adaptability.

Career resilience was measured with items used by Jiang et al. (2021). Participants rated their resilience to career difficulties on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I can deal with whatever comes in my career.” The five items were averaged for an overall scale of career resilience.

Career exploration was measured using an adapted version of Stumpf et al. (1983) items for environmental exploration and self-exploration. Participants rated their career exploration on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I have tried to find out about my vocational interests.” The six items were averaged for an overall scale score of career exploration.

Career identity was measured with a four-item scale by Dobrow and Higgins (2005). Participants rated their career identity on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I know who I am, professionally and in my career.” The four items were averaged for an overall scale score of career identity.

Career planning was measured using a shortened version of the measure from Gould (1979). Participants rated their career planning on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I have a plan for my career.” The three items were averaged for an overall scale score of career planning.

Career decidedness was measured using a shortened version of the career indecision/decidedness scale (Jones, 1989). Participants rated whether they had decided on a career path on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I have decided on the occupation I want to enter.” The two items were averaged for an overall scale score of career decision.

Career optimism was measured using a shortened version of the measure from Rottinghaus et al. (2005). Participants rated their level of optimism about their career on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. An example item is “I am eager to pursue my career dreams.” The three items were averaged for an overall scale score of career optimism.

Job search self-efficacy was measured employing a six-item scale by van Ryn and Vinokur (1992). Participants responded to how confident they felt about being able to do a good job of the activities described in these items on a 5-point Likert scale ranging from *Not confident at all* to *Completely confident*. An example item is “Contacting and persuading employers to consider you for the job”. These six items were averaged for an overall scale score of job search self-efficacy.

Networking self-efficacy was measured using Wanberg et al.'s (2020) measure. Participants rated their level of confidence regarding creating networks on a 5-point Likert scale ranging from *Not confident at all* to *Completely confident*. An example item is “Using networking in my job search.” The five items were averaged for an overall scale score of career optimism.

Personal Attributes

Self-acceptance of LGBTQIA+ identity was measured using a shortened version of the measure from Mohr and Fassinger (2000). Participants rated their level of self-acceptance on a 5-point Likert scale ranging from *Not at all true* to *Very true*. An example item is “I am accepting of my gender and/or sexuality diversity.” The two items were averaged for an overall scale score of self-acceptance.

University Resources, Policies, Practices and Environment

We also measured university/higher education factors that have been suggested to be particularly relevant for LGBTQIA+ students, such as negative aspects indicating discrimination/prejudice and hostility (Williams, 1997) and perceived neglect by Australian higher education policy, as well as positive aspects reflecting LGBTQIA+ support. Again, all the measures have been previously established in the literature, except for higher education policy neglect, experienced hostility, and university LGBTQIA+ resources, which were created by researchers based on the literature and the qualitative interviews. The reliability of measures was confirmed in the current study with acceptable (> 0.6) internal consistency found for all scales.

Higher education policy neglect was measured with three items developed by the researchers to collect to what extent LGBTQIA+ students believed the government's higher education policy had neglected them as gender/sexual minorities. Example items were: "I feel that the government's higher education policy has neglected LGBTQIA+ students", "I feel that LGBTQIA+ students are not openly mentioned in the government's higher education policy", and "I think that the government's higher education policy has not seriously attended to LGBTQIA+ students". The mean of these three items was used as the overall score for this variable.

General LGBTQIA+ support was measured using an adapted version of the measure from Westring and Ryan (2010). This measure assessed participants' perceptions of LGBTQIA+ relevant general support they received from diversity and inclusion staff and of the university's systems and processes that are LGBTQIA+ supportive. Participants rated their level of perceived general support on 5-point Likert scales ranging from *Strongly disagree* to *Strongly agree*. Example items for general support included "University staff in the diversity and inclusion department help me find ways to meet the challenges of being a gender and/or sexual minority student" and "The administration at this university is supportive of LGBTQIA+ students." The six items were averaged for an overall scale score of general university support.

LGBTQIA+ career support was also measured with items adapted from Westring and Ryan (2010). This measure included eight items asking participants about their perceptions of the university's career support for LGBTQIA+ students specifically on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. Example items for career support included "At my university, I get career-specific support from the office or centre dedicated to the needs of LGBTQIA+ students" and "The career centre at this university is supportive of LGBTQIA students." The eight items were averaged for an overall scale score of career specific university support.

Discriminatory campus climate was measured using an instrument by Dugan et al. (2012). Participants were asked to what extent they agreed with items within the university context, such as "I have observed discriminatory words, behaviours, or gestures directed at people like me". The response was based on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. The average of the five items was used as the overall score for discriminatory campus climate.

Experienced hostility toward LGBTQIA+ students was measured by seven items created by the researchers. Participants rated how frequently they experienced the situations such as anti-LGBTQIA+ remarks and harassment/assault towards gender/sexual minorities. They rated instrument items such as "...experienced physical assault (e.g., punched, kicked, or injured with a weapon etc.)" and "...experienced verbal harassment (e.g., called names, threatened, or laughed at etc.)". The response format was a 5-point Likert scale ranging from *Never* to *Frequently*. The mean of these seven items was used as the score for experienced hostility.

University LGBTQIA+ resources was measured using five items developed by the researchers to evaluate to what extent LGBTQIA+ students were accessible to various supportive resources such as information, clubs, and faculty support, which were not captured in the variable *LGBTQIA+ career support*. Participants responded to these items based on a 5-point Likert scale ranging from *Strongly disagree* to *Strongly agree*. Example items included “In my university, LGBTQIA+ related information is included in the curriculum” and “In my university, I am able to access supportive LGBTQIA+ student clubs”. The average of the five items was used as the overall score of university LGBTQIA+ resources.

In addition to the above listed measures, demographic items were included for age, gender, transgender identity, intersex status, sexual orientation, and university location.

Statistical Analysis

We performed correlational analysis among the key study variables as indicated above as a first step to assessing the relationships both between the groups of variables (individual characteristics, university environment factors, and career effectiveness factors), and across those groups also. Then, we performed nine exploratory linear regression analyses to understand what variables would predict participants’ career development effectiveness. Specifically, career adaptability, career resilience, career exploration, career planning, career identity, career decision, career optimism, job search self-efficacy, and networking self-efficacy were posited as the criterion variables. The predictor variables were higher education policy neglect, self-acceptance, general LGBTQIA+ support, LGBTQIA+ career support, discriminatory campus climate, experienced hostility towards LGBTQIA+ students, and accessibility to university LGBTQIA+ resources. Furthermore, we performed additional regression analyses to explore the impact of higher education policy neglect on LGBTQIA+ students’ university experiences characterised by their perceptions of support, resources, and climates on campus. Since a few advisors pointed out the potential of urban-regional difference in terms of these students’ university experience (e.g., accessibility to support), we conducted a moderation regression analysis to further explore this conjecture. In the next section the findings of the quantitative survey analyses are reported.

Quantitative Findings

All variables were confirmed to be appropriately normally distributed with no extreme outliers (> 3 SD away from the mean) through visual inspections of boxplots. Residuals from all regression analyses were determined to be normally distributed through normal P-P plots and homoscedastic through scatterplots of the standardised predicted and standardised residual values. Tolerance values for predictors were all above 0.2 in regression analyses indicating that multicollinearity was not a concern. The subsections below present study variables by demographics; aggregated descriptive statistics including means, standard deviations, reliabilities and correlations; and regression results.

Study Variables by Demographic Variable

Each of the main study variables were explored across the different demographic variables in the project and are summarised in figures below.

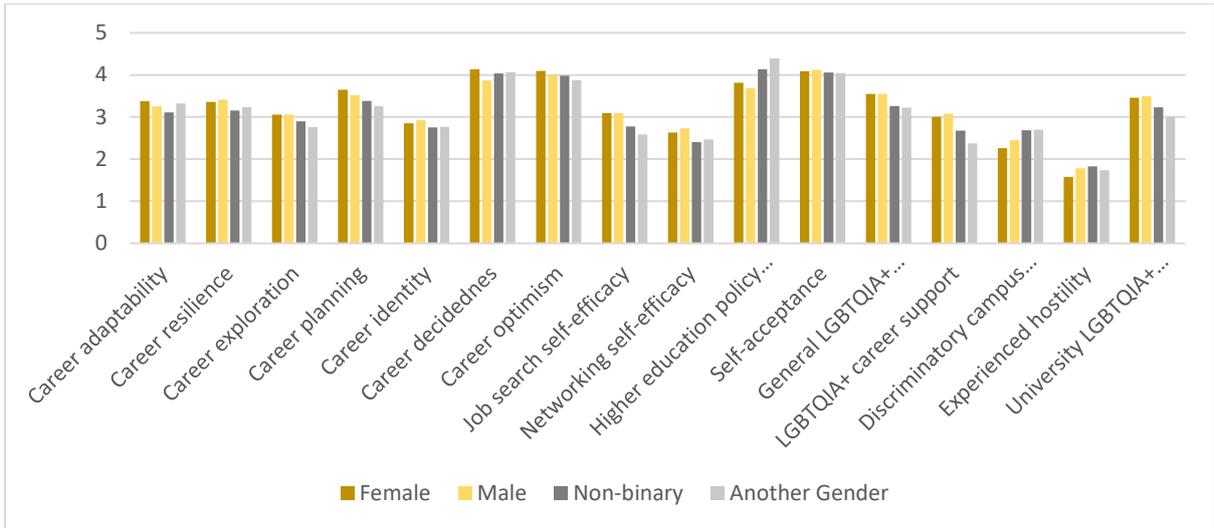


Figure 13. Study variable means by gender.

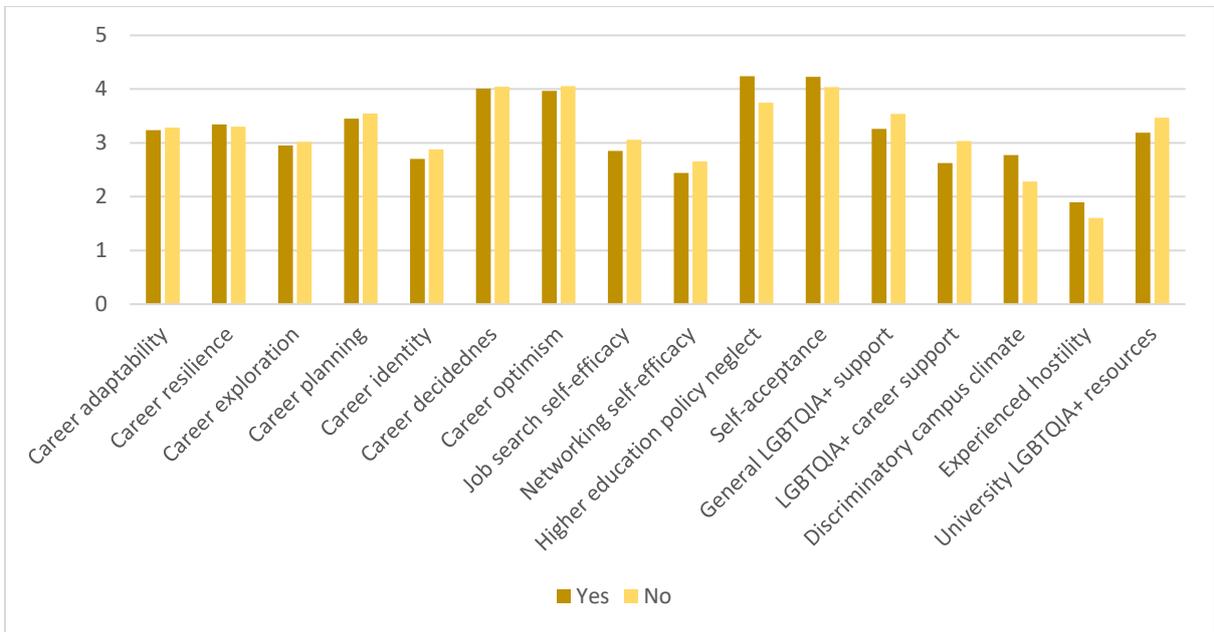


Figure 14. Study variable means by transgender status.

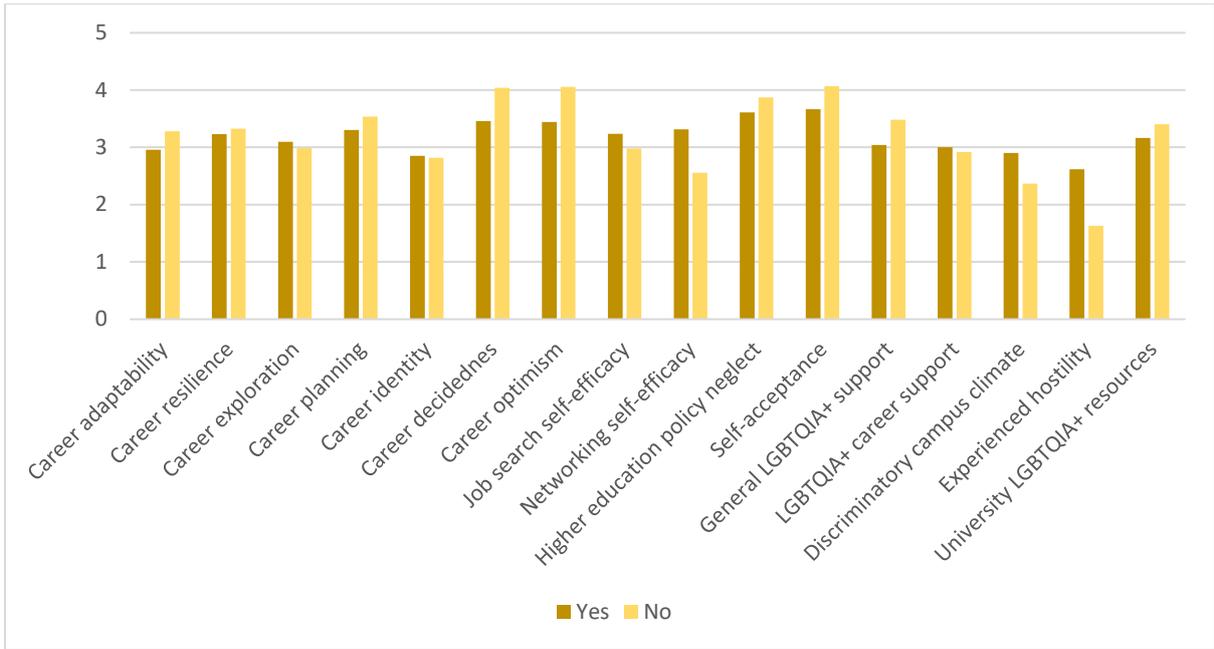


Figure 15. Study variable means by intersex status

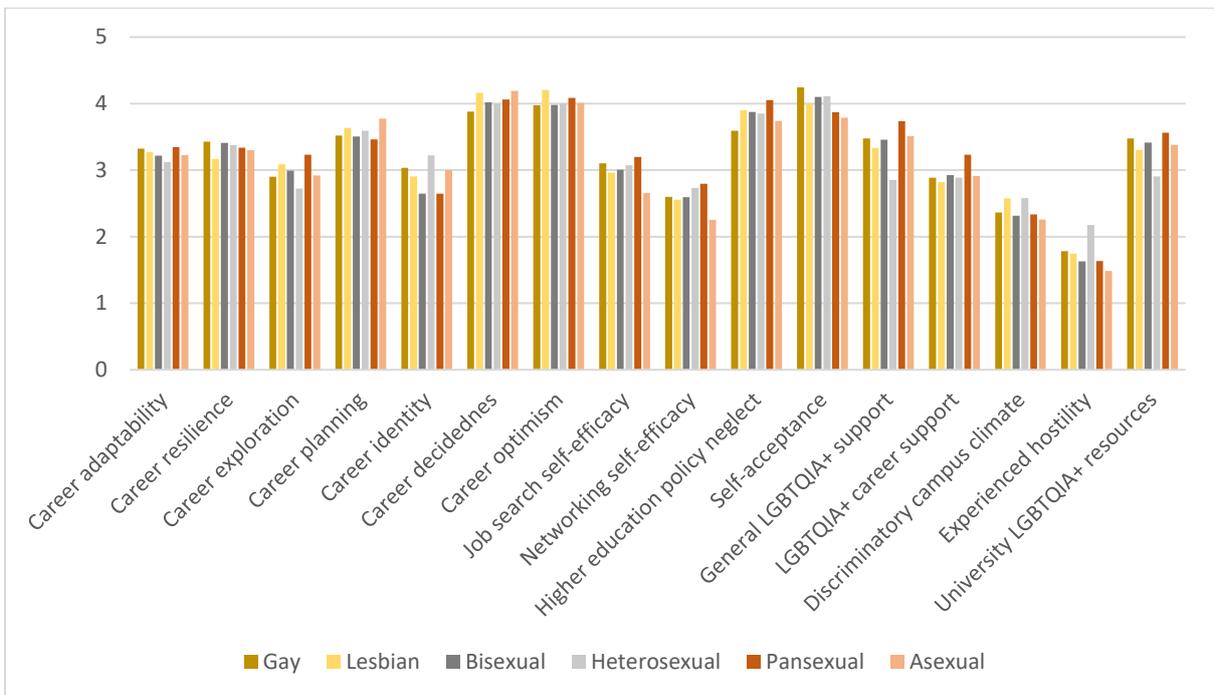


Figure 16. Study variable means by sexual orientation.

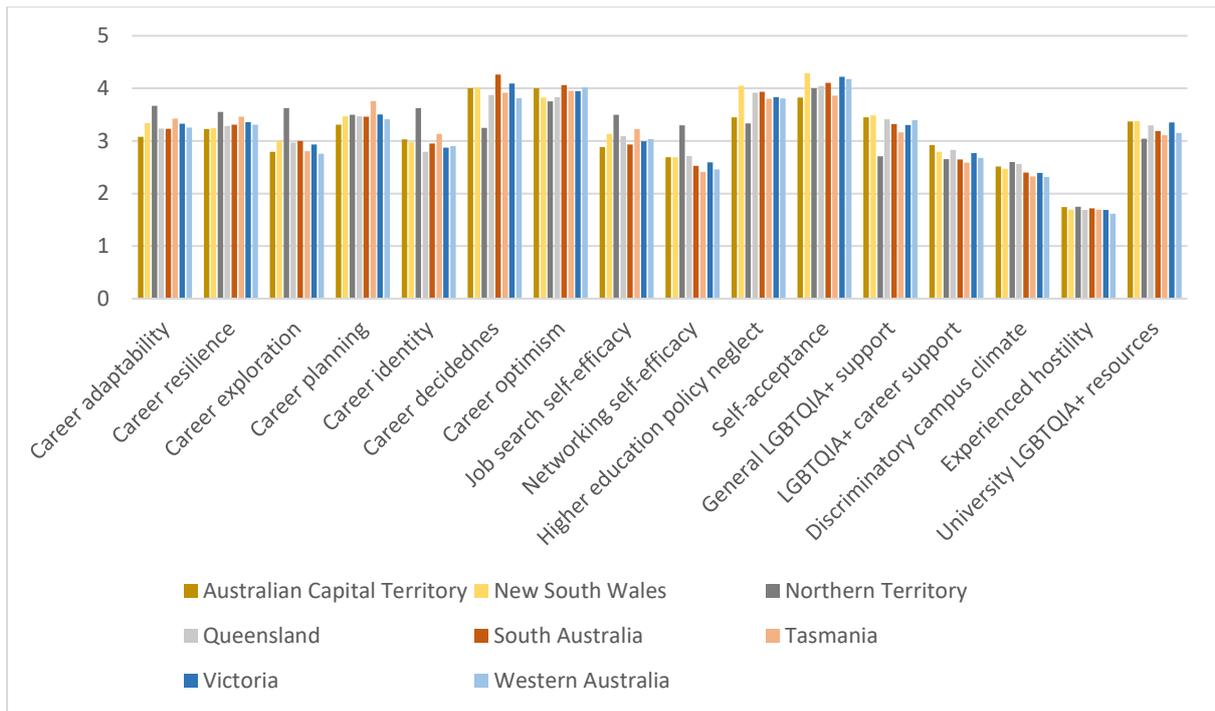


Figure 17. Study variable means by home states of participants.

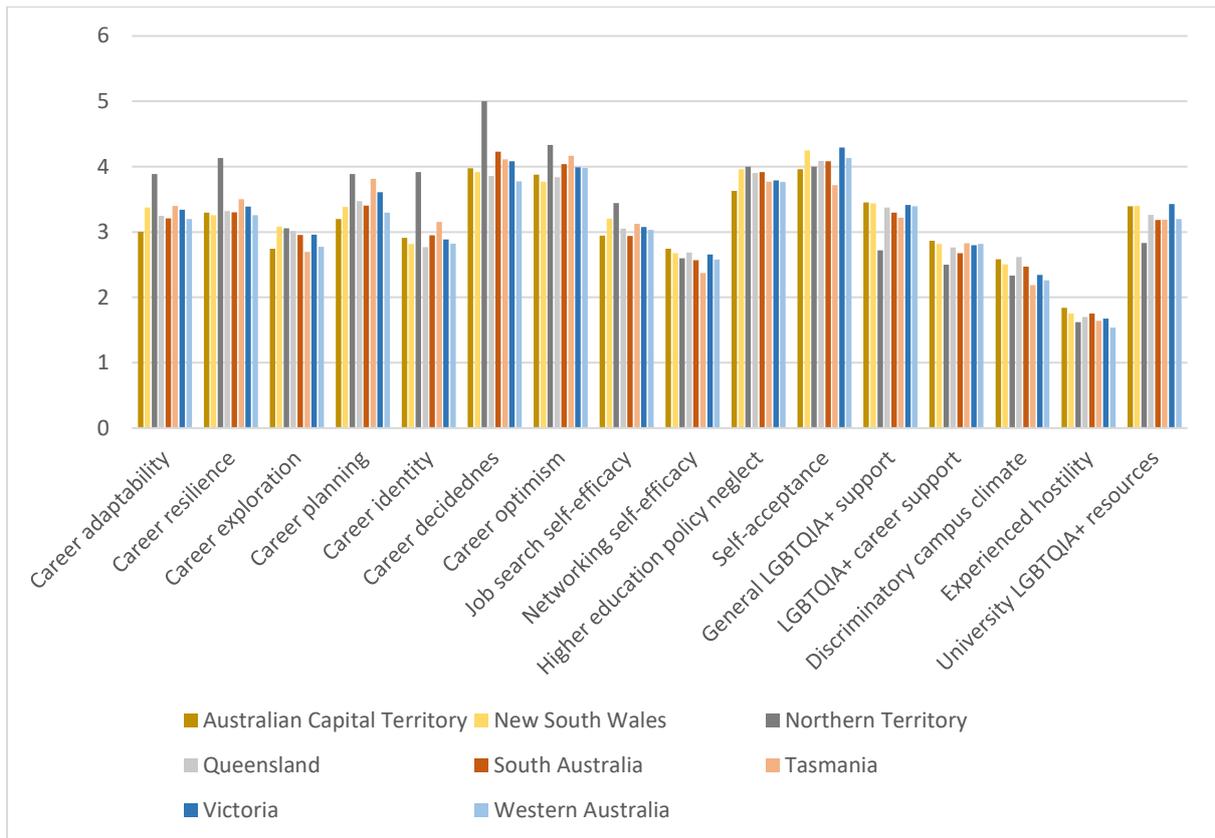


Figure 18. Study variable means by state of the universities attended.

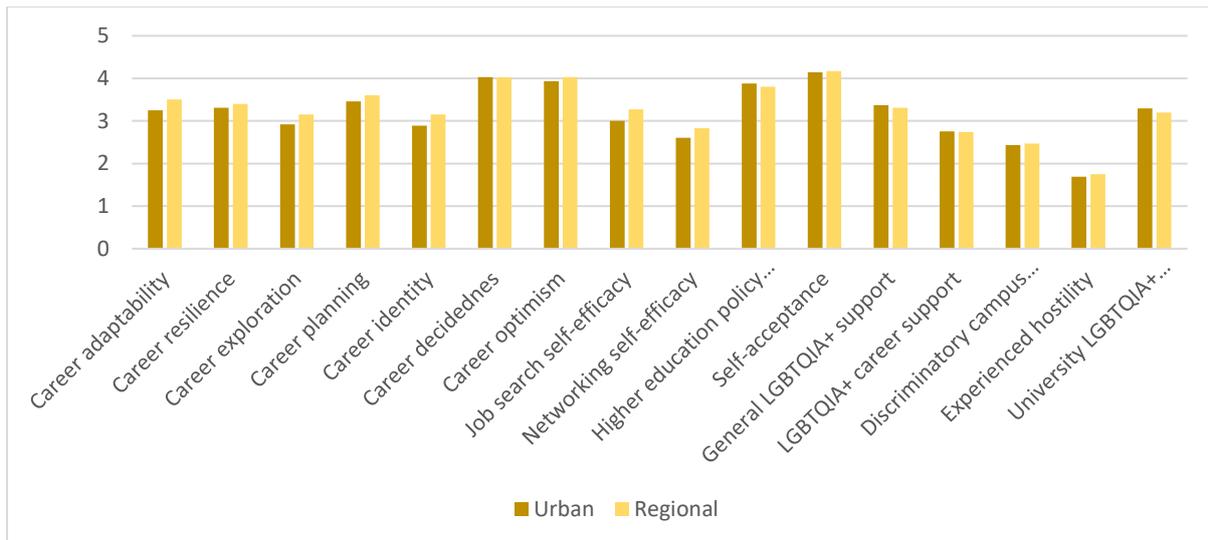


Figure 19. Study variable means by regional status of university attended.

Overall, the study variable means were largely consistent across the demographic variables with some variations noted here. Those born with an intersex status were found to have lower levels than those not born with an intersex variation of career decidedness ($M = 3.45$ vs. 4.06) and career optimism ($M = 3.44$ vs. 4.06). Conversely, those born with an intersex variation were found to have higher levels than those not born with an intersex variation of networking self-efficacy ($M = 3.32$ vs. 2.55) and experience hostility ($M = 2.62$ vs. 1.63). In terms of sexual orientation, those with a heterosexual orientation were found to have higher levels of career identity ($M = 3.22$) and experience hostility ($M = 2.17$) than most other orientations. However, those with an asexual orientation were found to have relatively lower levels of networking self-efficacy ($M = 2.52$) and experienced hostility ($M = 1.48$) than most other orientations. In terms of home state and state of attended university, the Northern Territory was found to have more volatile averages.

Descriptive Statistics

The means of all the career-related outcomes were found to be around the midpoint of their scales, suggesting that ceiling or floor effects were not an issue with this sample. Interestingly, within career-related outcomes, career decidedness ($M = 4.04$, $SD = 0.87$) and career optimism ($M = 4.04$, $SD = 0.84$) both had the highest mean values and networking self-efficacy had the lowest ($M = 2.59$, $SD = 0.90$). Like these career outcomes, most of the personal attributes and university resources, policies, practices, and environment factors' mean values were around the midpoint of their scales. However, experienced hostility was found to have the lowest mean value ($M = 1.70$, $SD = 0.65$), perhaps suggesting that negative experiences by participants within the university environment were not frequent. The personal attributes and university resources, policies, practices, and environment factors with the highest mean value was self-acceptance ($M = 4.07$, $SD = 0.95$).

All career measures were found to have significant correlations with each other. The strength of the correlations ranged from weak to strong. Similarly, most gender and/or sexuality diversity support variables were significantly correlated, ranging from moderate to strong. In line with the theory of CSM (Lent & Brown, 2013) and CCT (Savickas, 2013), personal attributes (i.e., self-acceptance) and most environment (contextual) factors within the university context did demonstrate significant correlations with career-related outcomes.

All of career adaptability, career resilience, career planning, career identity, career optimism, and job search self-efficacy were found to have significant, weak to moderate, positive correlations with self-acceptance and the three positive contextual factors (i.e., general LGBTQIA+ support, LGBTQIA+ career support, and accessibility to university LGBTQIA+

resources). These implied that support focussed on the personal attribute (i.e., self-acceptance) and positive contextual factors could be meaningfully related to LGBTQIA+ tertiary students in career preparation.

Like most other career-related outcomes, career exploration demonstrated the same significant, weak, and positive correlations with self-acceptance, general LGBTQIA+ support, LGBTQIA+ career support, and university LGBTQIA+ resources. However, career exploration was also found to have a significant positive correlation with experienced hostility, although this correlation was weak. Given that experienced hostility was coded such that higher scores indicate more perceived hostility within the environment, this result might suggest that more negative experiences by participants is related to greater career exploration.

Career decidedness was found to have significant, weak, and positive relationships with self-acceptance, general LGBTQIA+ support, and university LGBTQIA+ resources. However, career decidedness was the only factor in the study that was not significantly related to LGBTQIA+ career support, suggesting that the current career support within Australian universities may not be helpful for participants to make decisions about their future careers.

Networking self-efficacy was found to have significant, weak, and positive relationships with general LGBTQIA+ support, LGBTQIA+ career support, and university LGBTQIA+ resources. However, networking self-efficacy was the only career factor that was found to be not significantly related to self-acceptance, suggesting that participants' personal characteristic of self-acceptance may not be important for their felt competence when networking for a career. Means and standard deviations of key study variables, their Cronbach's alpha coefficients and correlations are shown in Table 1.

Table 1. Correlations between the career variables and the gender and/or sexuality diversity variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Career adaptability	3.27	0.62	.83															
2. Career resilience	3.31	0.77	.44**	.78														
3. Career exploration	2.99	0.83	.45**	.26**	.83													
4. Career planning	3.53	1.05	.32**	.31**	.39**	.88												
5. Career identity	2.83	0.99	.27**	.24**	.29**	.53**	.84											
6. Career decidedness	4.04	0.87	.18**	.16**	.22**	.56**	.42**	.68										
7. Career optimism	4.04	0.84	.30**	.29**	.37**	.54**	.27**	.51**	.88									
8. Job search self-efficacy	2.98	0.87	.44**	.45**	.39**	.30**	.28**	.13*	.19**	.83								
9. Networking self-efficacy	2.59	0.90	.38**	.41**	.33**	.28**	.27**	.13*	.17**	.70**	.76							
10. Higher education policy neglect	3.89	0.87	.03	-.08	-.03	-.08	-.07	.07	.00	-.05	-.04	.88						
11. Self-acceptance	4.07	0.95	.22**	.19**	.11*	.16**	.15**	.17**	.21**	.11*	.08	.09	.64					
12. General LGBTQIA+ support	3.47	0.81	.11*	.12*	.11*	.19**	.12*	.15**	.24**	.17**	.15**	-.20**	.15**	.86				
13. LGBTQIA+ career support	2.91	0.77	.14**	.22**	.17**	.20**	.13*	.08	.20**	.26**	.30**	-.33**	.11*	.70**	.88			
14. Discriminatory campus climate	2.43	1.02	.02	-.01	.10*	.01	.02	-.01	-.10	.03	-.05	.30**	-.09	-.38*	-.26**	.86		
15. Experienced hostility	1.70	0.65	.00	-.01	.16**	-.01	.00	-.07	-.07	.09	.07	.19**	-.11*	-.37**	-.20**	.71**	.82	
16. University LGBTQIA+ resources	3.39	0.76	.13*	.15**	.13*	.18**	.16**	.15**	.24**	.21**	.19**	-.26**	.13*	.71**	.69**	-.32**	-.28**	.78

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Notes: Cronbach's alpha values for each measure in the current study is shown on the diagonal of the matrix

Regression Results

The results of the nine linear regression analysis are summarised below in tables.

Career Adaptability

Career adaptability concerns “an individual’s readiness and resources for coping with current and imminent vocational development tasks, occupational transitions, and personal traumas” (Savickas, 2005, p. 51). Having high career adaptability indicates that individuals are more capable of adapting to challenges in career development processes. The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 368) = 3.77, p = .001$, explaining 7% of the variance in career adaptability. Self-acceptance ($b = 0.13, se = 0.03, p < .001$) was the only significant positive predictor of career adaptivity, explaining 4% unique variance.

Table 2. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Adaptability

	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.13	0.03	.000	0.06	0.19	0.19	.04
Higher education policy neglect	0.03	0.04	.497	-0.05	0.10	0.04	.00
General LGBTQIA+ support	-0.03	0.06	.631	-0.15	0.09	-0.04	.00
LGBTQIA+ career support	0.10	0.06	.129	-0.03	0.22	0.12	.01
Discriminatory campus climate	0.04	0.04	.326	-0.04	0.13	0.07	.00
Experienced hostility	0.00	0.07	.975	-0.14	0.13	0.00	.00
University LGBTQIA+ resources	0.07	0.06	.278	-0.06	0.19	0.08	.00

Career Resilience

Career resilience refers to “the ability to ‘bounce back’ from less optimal or encouraging career circumstances” (Jiang et al., 2021, p. 145). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 367) = 4.81, p < .001$, explaining 8% of the variance in career resilience. Self-acceptance ($b = 0.14, se = 0.04, p = .001$) and LGBTQIA+ career support ($b = 0.25, se = 0.08, p = .001$) were both significant positive predictors of career adaptivity, each explaining 3% unique variance.

Table 3. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Resilience

	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.14	0.04	.001	0.06	0.22	0.17	.03
Higher education policy neglect	-0.04	0.05	.393	-0.14	0.05	-0.05	.00
General LGBTQIA+ support	-0.09	0.08	.272	-0.24	0.07	-0.09	.00
LGBTQIA+ career support	0.25	0.08	.001	0.10	0.41	0.25	.03
Discriminatory campus climate	0.06	0.06	.318	-0.05	0.16	0.07	.00
Experienced hostility	-0.02	0.09	.862	-0.18	0.15	-0.01	.00
University LGBTQIA+ resources	0.03	0.08	.745	-0.13	0.18	0.03	.00

Career Exploration

Career exploration is “a process characterized by exploratory behaviors and cognitions that relate to vocational development” (Jiang, Newman, et al., 2019, p. 339). The final regression

model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 368) = 4.69, p < .001$, explaining 8% of the variance in career exploration. Self-acceptance ($b = 0.09, se = 0.04, p = .043$) and the experienced hostility ($b = 0.25, se = 0.09, p = .008$) were found as significant positive predictors of career exploration, explaining 1% and 2% unique variance respectively. LGBTQIA+ career support ($b = 0.14, se = 0.08, p = .088$) also showed a marginally significant effect in predicting this outcome, explaining 1% of the unique variance.

Table 4. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Exploration

	B	STD. ERROR	p	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.09	0.04	.043	0.00	0.18	0.10	.01
Higher education policy neglect	-0.03	0.05	.592	-0.13	0.08	-0.03	.00
General LGBTQIA+ support	0.04	0.08	.674	-0.13	0.20	0.03	.00
LGBTQIA+ career support	0.14	0.08	.088	-0.02	0.31	0.13	.01
Discriminatory campus climate	0.05	0.06	.452	-0.07	0.16	0.06	.00
Experienced hostility	0.25	0.09	.008	0.06	0.43	0.19	.02
University LGBTQIA+ resources	0.07	0.08	.406	-0.10	0.24	0.06	.00

Career Planning

Career planning is defined as “individuals’ outlining future career developments and to their setting and pursuing career goals” (Zikic & Klehe, 2006, p. 193). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 368) = 4.13, p < .001$, explaining 7% of the variance in career planning. Self-acceptance ($b = 0.15, se = 0.06, p = .007$) was the only significant positive predictor of career planning, explaining 2% unique variance.

Table 5. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Planning

	B	STD. ERROR	p	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.15	0.06	.007	0.04	0.27	0.14	.02
Higher education policy neglect	-0.08	0.07	.212	-0.22	0.05	-0.07	.00
General LGBTQIA+ support	0.11	0.11	.309	-0.10	0.32	0.08	.00
LGBTQIA+ career support	0.12	0.11	.259	-0.09	0.33	0.09	.00
Discriminatory campus climate	0.13	0.08	.097	-0.02	0.28	0.12	.01
Experienced hostility	0.00	0.12	.996	-0.23	0.23	0.00	.00
University LGBTQIA+ resources	0.09	0.11	.404	-0.12	0.30	0.06	.00

Career Identity

Career identity means how central one’s career is to his or her identity (London, 1983). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 367) = 2.96, p = .005$, explaining 5% of the variance in career identity. Self-acceptance ($b = 0.15, se = 0.05, p = .005$) was the only significant positive predictors of career identity, explaining 2% unique variance.

Table 6. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Identity

	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.15	0.05	.005	0.05	0.26	0.15	.02
Higher education policy neglect	-0.08	0.06	.210	-0.20	0.05	-0.07	.00
General LGBTQIA+ support	0.02	0.10	.875	-0.18	0.22	0.01	.00
LGBTQIA+ career support	0.02	0.10	.822	-0.18	0.22	0.02	.00
Discriminatory campus climate	0.10	0.07	.186	-0.05	0.24	0.10	.00
Experienced hostility	0.01	0.11	.935	-0.21	0.23	0.01	.00
University LGBTQIA+ resources	0.17	0.10	.093	-0.03	0.37	0.13	.01

Career Decidedness

Career decidedness concerns how one has conformed and committed to a career choice (Parmentier et al., 2021). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 368) = 3.34$, $p = .002$, explaining 6% of the variance in career decision. Self-acceptance ($b = 0.12$, $se = 0.05$, $p = .012$) was the only significant positive predictor of career decidedness, explaining 2% unique variance. University LGBTQIA+ resources ($b = 0.15$, $se = 0.09$, $p = .087$) also showed a marginally significant effect in predicting this outcome, explaining 1% of the unique variance.

Table 7. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Decidedness

	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.12	0.05	.012	0.03	0.21	0.13	.02
Higher education policy neglect	0.07	0.06	.200	-0.04	0.18	0.07	.00
General LGBTQIA+ support	0.11	0.09	.209	-0.06	0.29	0.10	.00
LGBTQIA+ career support	-0.08	0.09	.381	-0.25	0.10	-0.07	.00
Discriminatory campus climate	0.09	0.06	.168	-0.04	0.21	0.10	.00
Experienced hostility	-0.11	0.10	.272	-0.30	0.09	-0.08	.00
University LGBTQIA+ resources	0.15	0.09	.087	-0.02	0.33	0.13	.01

Career Optimism

Career optimism refers to an individual's tendency to "expect the best possible outcome or to emphasize the most positive aspects of one's future career development" (Rottinghaus et al., 2005, p. 11). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 367) = 5.65$, $p < .001$, explaining 10% of the variance in career Optimism. Self-acceptance ($b = 0.15$, $se = 0.04$, $p = .001$) and university LGBTQIA+ resources ($b = 0.17$, $se = 0.08$, $p = .050$) were found as significant positive predictors of career optimism, explaining 3% and 1% unique variance respectively.

Table 8. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Career Optimism

	B	STD. ERROR	p	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.15	0.04	.001	0.06	0.23	0.17	0.03
Higher education policy neglect	0.04	0.05	.453	-0.06	0.14	0.04	0.00
General LGBTQIA+ support	0.11	0.08	.199	-0.06	0.28	0.10	0.00
LGBTQIA+ career support	0.02	0.08	.835	-0.15	0.18	0.02	0.00
Discriminatory campus climate	-0.03	0.06	.615	-0.15	0.09	-0.04	0.00
Experienced hostility	0.06	0.09	.494	-0.12	0.25	0.05	0.00
University LGBTQIA+ resources	0.17	0.08	.050	0.00	0.33	0.15	0.01

Job Search Self-Efficacy

Job search self-efficacy refers to “a job seeker's confidence in his or her ability to successfully perform a variety of job search activities” (Saks, 2006, p. 404). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 367) = 5.93, p < .001$, explaining 10% of the variance in job search self-efficacy. LGBTQIA+ career support ($b = 0.27, se = 0.09, p = .002$) and experienced hostility ($b = 0.20, se = 0.10, p = .034$) were found as significant positive predictors of job search self-efficacy, explaining 3% and 1% unique variance respectively. Self-acceptance ($b = 0.08, se = 0.05, p = .084$) also showed a marginally significant effect in predicting this outcome, explaining 1% of the unique variance.

Table 9. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Job Search Self-Efficacy

	B	STD. ERROR	p	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.08	0.05	.084	-0.01	0.17	0.09	.01
Higher education policy neglect	0.00	0.05	.984	-0.11	0.11	0.00	.00
General LGBTQIA+ support	-0.03	0.09	.746	-0.20	0.14	-0.03	.00
LGBTQIA+ career support	0.27	0.09	.002	0.10	0.44	0.24	.02
Discriminatory campus climate	0.01	0.06	.848	-0.11	0.13	0.01	.00
Experienced hostility	0.20	0.10	.034	0.02	0.39	0.15	.01
University LGBTQIA+ resources	0.11	0.09	.210	-0.06	0.28	0.10	.00

Networking Self-Efficacy

Networking self-efficacy denotes one’s “confidence about engaging in networking activities” (Wanberg et al., 2020, p. 560). The final regression model including all gender and/or sexuality diversity factors had overall predictive utility, $F(7, 367) = 7.24, p < .001$, explaining 12% of the variance in networking self-efficacy. LGBTQIA+ career support ($b = 0.44, se = 0.09, p < .001$) and experienced hostility ($b = 0.27, se = 0.10, p = .006$) were found as significant positive predictors of networking self-efficacy, explaining 6% and 2% unique variance respectively. Discriminatory campus climate ($b = -0.12, se = 0.06, p = .066$) also showed a marginally significant negative effect in predicting this outcome, explaining 1% of the unique variance.

Table 10. Partial Regression Coefficients, Standard Errors, Squared Semi-Partial Correlations (sr^2) for Predictors of Networking Self-Efficacy

	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA	sr^2
Self-acceptance	0.05	0.05	.280	-0.04	0.14	0.05	.00
Higher education policy neglect	0.06	0.06	.263	-0.05	0.17	0.06	.00
General LGBTQIA+ support	-0.11	0.09	.222	-0.29	0.07	-0.10	.00
LGBTQIA+ career support	0.44	0.09	.000	0.26	0.61	0.38	.06
Discriminatory campus climate	-0.12	0.06	.066	-0.24	0.01	-0.13	.01
Experienced hostility	0.27	0.10	.006	0.08	0.47	0.19	.02
University LGBTQIA+ resources	0.02	0.09	.845	-0.16	0.19	0.01	.00

Since for most of these regression analyses, self-acceptance emerged as a strong factor that affected the criterion variable, we also ran regression for all nine career-related outcomes without including self-acceptance as a predictor. Results remained essentially the same. For each regression analysis, the significance of predictors (i.e., higher education policy neglect, general LGBTQIA+ support, LGBTQIA+ career support, discriminatory campus climate, experienced hostility, and university LGBTQIA+ resources) did not change.

Additional Analysis

Consequences of Perceived Neglect by Higher Education Policy

Further exploratory regression analyses were conducted to probe the influence of perceived neglect by higher education policy on LGBTQIA+ students' university experience, as manifested by their perceptions on the university's general and career-oriented support, climates, and accessible resources that are specifically relevant to the gender/sexual identities of LGBTQIA+ students. While perceived neglect by higher education policy did not have direct impact on LGBTQIA+ students' attitudes, psychological states, and behaviours related to their career development, such a neglect had a significant negative impact on students' on-campus experience. Regression results are presented in Table 11, in which each row represents a separate regression analysis.

Table 11. Partial Regression Coefficients and Standard Errors for the Effects of Higher Education Policy Neglect on LGBTQIA+ Students

Dependent Variable	B	STD. ERROR	<i>p</i>	LOWER BOUND	UPPER BOUND	BETA
General LGBTQIA+ support	-0.19	0.05	0.000	-0.28	-0.10	-0.20
LGBTQIA+ career support	-0.29	0.04	0.000	-0.38	-0.20	-0.33
Discriminatory campus climate	0.34	0.06	0.000	0.23	0.46	0.30
Experienced hostility	0.14	0.04	0.000	0.06	0.21	0.18
University LGBTQIA+ resources	-0.23	0.04	0.000	-0.31	-0.14	-0.26

Independent variable: Higher education policy neglect.

General LGBTQIA+ Support: The regression model for general LGBTQIA+ support with higher education policy neglect as a predictor had overall predictive utility, $F(1, 376) = 16.12$, $p < .001$, explaining 4% of the variance in general LGBTQIA+ support. Higher education policy neglect was a significant negatively predictor of general LGBTQIA+ support ($b = -0.19$, $se = 0.05$, $p < 0.001$).

LGBTQIA+ Career Support: When LGBTQIA+ career support was regressed on higher education policy neglect, the regression model showed overall predictive utility, $F(1, 374) =$

44.40, $p < .001$, explaining 11% variance in LGBTQIA+ career support. Higher education policy neglect negatively predicted LGBTQIA+ career support ($b = -0.29$, $se = 0.04$, $p < 0.001$).

Discriminatory Campus Climate: The regression model for discriminatory campus climate in which higher education policy neglect was a predictor demonstrated overall predictive utility, $F(1, 375) = 35.81$, $p < .001$, explaining 9% variance in discriminatory campus climate. Higher education policy neglect was positively related to discriminatory campus climate ($b = 0.34$, $se = 0.06$, $p < 0.001$).

Experienced Hostility towards LGBTQIA+ Students: The regression model for experienced hostility with higher education policy neglect as a predictor achieved overall predictive validity, $F(1, 375) = 13.24$, $p < .001$, explaining 3% variance in experienced hostility. Higher education policy neglect positively predicted experienced hostility ($b = 0.14$, $se = 0.04$, $p < 0.001$).

Accessibility to University LGBTQIA+ Resources: The regression model for university LGBTQIA+ resources with higher education policy neglect as an independent variable had sufficient predictive utility, $F(1, 375)$, $p < .001$, explaining 7% variance in accessibility to LGBTQIA+ resources. Higher education policy neglect was a negative predictor ($b = -0.23$, $se = 0.04$, $p < 0.001$).

Variation in the Effects of Higher Education Policy Neglect between Urban and Regional Areas

As mentioned earlier, since a point raised by a few advisors of this project is related to potentially more disadvantage experienced by LGBTQIA+ students in rural/regional areas, a series of moderated regression analyses were carried out with PROCESS macro code in SPSS (Hayes, 2013) to explore the urban-regional differences in the extent to which higher education policy neglect impacted LGBTQIA+ students' campus experience. We wanted to know if the policy neglect, which was rated very high (4.1/5.0) by LGBTQIA+ students in the survey, had any impact on the support and resources that university offered to them.

This sub-section reports significant results that emerged from these exploratory analyses. Results showed that for LGBTQIA+ students studying in urban and regional areas, the relationship between higher education policy neglect and received career support specific to gender/sexual minorities varied significantly (policy neglect x location: $b = -.243$, $se = 0.12$, $p < 0.05$); $F(3, 358)$, $p < .000$, the entire regression model explaining 12% variance in received career support from the university. Although higher education policy neglect generally had a negative impact on received LGBTQIA-specific career support, this impact was significantly more negative in students studying in regional areas ($b = 0.50$, $se = 0.11$, $p < 0.001$) than those studying in urban Australia ($b = -0.26$, $se = 0.05$, $p < 0.001$).

No significant differences were found between urban and regional LGBTQIA+ students in terms of the effects of higher education policy neglect on university's general support, discriminatory campus climate, experienced hostility, and accessibility to LGBTQIA+ resources.

Summary of Phase 2 results

In summary, self-acceptance, LGBTQIA+ career support, experienced hostility, and university LGBTQIA+ resources were consistently found to be positive predictors of the career-related outcomes. Self-acceptance was found as a significant or marginally significant positive predictor of all career-related outcomes except for networking self-efficacy. LGBTQIA+ career support was found as a significant or marginally significant positive predictor of career resilience, career exploration, and job search self-efficacy. University LGBTQIA+ resources was a significant or marginally significant positive predictor of career

decidedness and career optimism. Interestingly, while all other predictors were in an expected direction, experienced hostility (as a detrimental experience) was found to be a significant or marginally significant positive predictor of career exploration, job search self-efficacy, and networking self-efficacy, all of which were variables reflecting career search. While it is worth further investigation, this might indicate that LGBTQIA+ students experiencing hostility have a greater tendency to explore careers (outside of the university) so as to escape negative university environments.

The additional analyses revealed that higher education policy neglect was found as a potential barrier to university LGBTQIA+ experiences, acting as a significant negative predictor of general LGBTQIA+ support, LGBTQIA+ career support, and university LGBTQIA+ resources, and a positive predictor of discriminatory campus climate and experienced hostility. The relationship between higher education policy neglect and LGBTQIA+ career support was also found to be moderated by whether the university was in a regional or urban setting. The prediction of LGBTQIA+ career support by higher education policy was significantly more negative for regional students than urban students. In the following section we will interpret the findings of both the qualitative and quantitative phases of our project and discuss the theoretical and practical implications of our research.

Discussion

While more Australian universities have paid increasing attention to LGBTQIA+ students as part of their diversity and inclusion strategies over the past decade, research shows that the needs and expectations of LGBTQIA+ students have not been fully understood in the higher education context (Brook, 2015; Dau & Strauss, 2016). Most existing support has been focused on minimising and eliminating discrimination toward gender/sexuality diverse students. As one of the many diversity groups, LGBTQIA+ students fall within a larger umbrella of universities' mission to respect and embrace differences. This has led universities to consider creating a positive campus environment that helps enhance LGBTQIA+ students' university experience.

However, due to the tremendous psychological and unique identity challenges facing these students, they usually need more than a positive campus climate that is friendly to their gender/sexuality diversity. For many of them, studying a higher education qualification means more than engaging in a university life but, more importantly, serves as a key pathway to a meaningful future career (Jang et al., 2021; Scott et al., 2011). This raises the need to provide them with appropriate career-specific support and guidance that takes into account the challenges associated with their identity. Unfortunately, although general support and resources for LGBTQIA+ students are accumulating in Australia, there is not much knowledge about career-specific support targeting this cohort. In addition, the outbreak and long-lasting impact of the COVID-19 crisis have heightened the risk that LGBTQIA+ students lack appropriate support due to the temporary and permanent closure of resources and facilities that are essential to their wellbeing. It is not clear how their university experiences and career circumstances have been impacted by this crisis, and what support would be more demanded to help them cope with associated difficulties.

Within this context, this research sought to answer the overarching question: *How can Australian universities effectively support LGBTQIA+ students' careers generally and during COVID-19 specifically?*

To unpack this focal research question, this project investigated a series of applied questions, which address three broad areas, including:

1. LGBTQIA+ students' experiences and perceptions about Australian universities' existing career support and their views regarding their status in Australian Government's higher education policy;
2. The specific career support that LGBTQIA+ students would expect from Australian universities; and
3. The impact of the university's support for LGBTQIA+ students on their career effectiveness.

We then carried out a research study with a qualitative phase and a quantitative phase to explore these questions. Interview data from 25 participants and survey data from 378 participants identifying as LGBTQIA+ individuals recruited across Australian universities provided informative results. In the sections below, we discuss our findings in relation to each of the three applied questions.

LGBTQIA+ Students' Experiences of Universities' Career Guidance/Support and Higher Education Policies

(a) The University's Existing Career Guidance/Support

The findings from the qualitative interviews suggested that specific or additional career support that is targeted at gender and/or sexuality diverse individuals appeared generally lacking within Australian universities. While there were some diverging views in the

perceptions of how useful these specific or additional career supports would be, beyond general careers support, there was strong endorsement of taking an individualised approach in providing support for gender and/or sexuality diverse individuals. Some participants spoke about current career support and events not catering to and/or not recognising the lived experience of gender and/or sexuality diverse students. Within the quantitative data, the average levels of career specific support for gender and/or sexuality diverse students was found to be just below a midpoint position (i.e., below 3, which equals to “not sure”) on the five-point scale.

The findings of our study on specific career support are in line with findings on a range of support initiatives for gender and/or sexuality diverse people. As outlined in the background section, it has previously been found that programs specifically addressing the needs of transgender youth have been associated with decreased absenteeism and lower levels of victimisation of transgender youth (Greytak et al., 2013; Johns et al., 2018). Furthermore, the safe environments created by these specific support services have been associated with better educational outcomes and higher attendance rates of students (Kosciw et al., 2016). As such, we *recommend* that university career offices should establish specific or additional career guidance and support programs for gender and/or sexuality diverse students. Further, the career guidance and support programs for gender and/or sexuality diverse students need to be tailored to the specific needs of the relevant students. That is, a catch-all program for all LGBTQIA+ identities will not work.

However, according to our study, even though some Australian universities have provided career-specific support targeted at LGBTQIA+ students, the current level of career support that LGBTQIA+ students receive from their universities has been perceived as largely ineffective. In the nine indicators of career effectiveness, as per the regression results, only four of them (i.e., career resilience, career exploration, job search self-efficacy and networking self-efficacy) were found to benefit somewhat from the university’s existing support and the remaining were not significantly related to the university’s career support. For example, as per the quantitative results, Australian universities’ current LGBTQIA+ career support has not been able to meaningfully help LGBTQIA+ students to develop or enhance career adaptability, career planning, career identity, career decidedness, and career optimism.

(b) Australian Government’s Higher Education Policy Specifically Related to Gender and/or Sexuality Diversity

The results indicate the importance of being recognised by higher education policy in improving university experience of gender and/or sexuality diverse students. This recognition could take the form of formal inclusion of them as an equity group. Perceptions towards the current higher education policy was concerning, with an average rating of 4.1, which is between ‘agree’ and “strongly agree”, on items suggesting that higher education policy was neglecting LGBTQIA+ students. Furthermore, results indicated that higher education policy neglect was a significant predictor among all university environment factors in the study. That is, this neglect by the government’s policy was found to be negatively related to university support and resources available to LGBTQIA+ students while positively related to on-campus discrimination and hostility toward this minority group. It is worth noting that this research asked participants in general how they perceive Australian government’s higher education policy. These include to what extent they feel the policy neglects, does not seriously attend to, and does not openly mention LGBTQIA+ students. While the rating for these questions has flagged a policy concern, it is still unclear what (more specific) aspects of the LGBTQIA+ student experience is being neglected. As such, future research should investigate more explicitly the specific needs of gender and/or sexuality diverse students and how they can be better represented and supported through higher education policy. Beyond the main relationships reported above, a moderation analysis shows that the negative prediction of LGBTQIA+ career support by higher education policy neglect was stronger for

regional students than urban students. That is, the effects of policy neglect may be differential for regional and urban students. As this neglect could influence whether and how the specific support is implemented by regional versus urban universities, it is important to consider the role of higher education policy within specific contexts.

Given these findings, as mentioned above, one area that may assist LGBTQIA+ tertiary students is formal recognition in higher education policy. Currently, there are six formally defined equity groups in Australia, referring to students that: are from non-English speaking backgrounds; have a disability; are women in non-traditional areas; identify as Indigenous, are from low socioeconomic status locations; and/or are from regional or remote locations (Department of Education, Skills and Employment, 2020). However, the scope for inclusion within these groups appears less clear and these groups were identified in the early 1990s, a long time ago. Within gender and/or sexuality diverse advocacy groups, there has been a concerted focus on the needs of LGBTIQ+ university students in Australia (Australian Human Rights Commission, 2015). Such a focus would warrant the inclusion of LGBTIQ+ students as an equity group. Additionally, as discussed above, the previous research highlights that gender and/or sexuality diverse tertiary students are more vulnerable to discrimination and prejudice in educational contexts than non-diverse students. Finally, a key consideration for this project is the linkages between universities and workplaces, with the development of career preparations for higher education students. Within workplaces in Australia, LGBTQIA+ employees have often been explicitly and well considered as a key equity group by the Diversity Council Australia (2021), and LGBTQIA+ concerns are included within the diversity and inclusion agenda across Australian organisations, including governments (e.g., Department of Health, 2021).

LGBTQIA+ Students' Specific and Unique Expectations from University Support

Based on the findings of both the qualitative and quantitative phases of the research, specific role models and mentors, advice on being authentic and safe workplaces, and secure housing were all identified as unique needs of gender and/or sexuality diverse individuals. A key theme from the qualitative findings was the importance of intersectionality. That is, the need to recognise the whole person, their mental and physical health, their ethnicity, and any other characteristics along with their gender and/or sexuality diversity. Other key themes that emerged from the qualitative findings included the need for targeted mentoring programs. Role models and mentoring in general were seen as a positive option for providing career specific guidance for gender and/or sexuality diverse students. However, participants identified that mentoring was likely to be most beneficial when provided by matched mentors for each mentee. Matched mentors were referred to as beneficial both in terms of gender and/or sexuality identity, but also in terms of shared personal experience and the subjects/disciplines studied and chosen career path. As such, it is likely that any developed intervention and support programs would need to be tailored to individuals so as to achieve maximum benefits. We *recommend* that university career offices could partner with the university's LGBTQIA+ alumni to start specific mentoring programs. Alternatively, career offices could build partnership with advocacy groups that already offer such programs, such as Out for Australia, and provide support to these established programs.

Related to the first research question above, the importance of specificity, such as intersectionality concerns and targeted mentoring, can be seen in the literature that discussed gender and/or sexuality diverse support programs (Greytak et al., 2013; Johns et al., 2018; Kosciw et al., 2016). The finding that highlighted the importance of role models and mentors is also in line with research conducted among gender and/or sexuality diverse youth, where a lack of LGBTQIA+ role models and positive representation was seen to represent a lack of guidance (González-Álvarez et al., 2021). Similarly, a safe environment can be created by supportive educators, particularly those trained in relevant skills (Greytak et al., 2013; Kosciw et al., 2013; Pitcher et al., 2018). As such, we *recommend* that

university diversity and inclusion departments should further develop Ally programs to foster positive role models for gender and/or sexuality diverse students.

Also, within the qualitative interviews, participants highlighted the need for advice on how to identify safe workplaces for gender and/or sexuality diverse people. The need for safety was discussed specifically related to the COVID-19 pandemic. Participants discussed two important considerations for gender and/or sexuality diverse students during the COVID-19 pandemic: social isolation due to being removed from safe spaces and friends on university campuses, and housing security due to less stable or safe family environments.

The role of safe spaces for gender and/or sexuality diverse students was also highlighted in the introduction of this report. In line with minority stress theory, discrimination, stigma, and marginalisation that are associated with unsafe environments for gender and/or sexuality diverse students often lead to negative well-being outcomes (Meyer, 2003; Reed et al., 2010). Conversely as highlighted above for the first research question, safe environments are associated with beneficial outcomes, such as better performance and health (Kosciw et al., 2016).

Lastly, participants mentioned in the qualitative interviews that advice on being open and authentic in the workplace was needed within any career specific guidance. Similar to the qualitative findings, the quantitative analyses demonstrated the importance of authenticity in career preparations for gender and/or sexuality diverse students. The linear regression analyses found self-acceptance to be a significant positive predictor of most career-related outcomes, including, career adaptability, career resilience, career exploration, career planning, career identity, career decidedness, and career optimism. The effect of this factor appears much larger than most of the contextual variables that concern universities' support. Based on these findings, we *recommend* that university career offices in partnership with diversity and inclusion departments and queer alliances should develop resources for gender and/or sexuality students regarding safe workplaces and being authentic. Resources could include links to accredited queer advocacy programs for reviews of friendly workplaces and/or career events with stalls from potential employers.

The importance of being able to be one's authentic self can be seen in previous research, where it has been found to be related to increased feelings of acceptance and belonging, particularly during times of stress and crisis (Pitcher et al., 2018). Within the workplace, being open and authentic has been found to be related to greater satisfaction with their openness, even in the face of higher levels of discrimination for gender and/or sexuality diverse workers (Croteau, 1996). Overall, it is important for universities to identify a set of uniquely crucial support schemes for LGBTQIA+ students, such as identifying suitable role models and mentors, providing guidance on locating LGBTQIA+ friendly workplaces, while continuing the focus on creating psychologically safe places on campus and beyond.

Universities' Career Support and LGBTQIA+ Students' Career Effectiveness

Career specific support for gender and/or sexuality diverse students (i.e., LGBTQIA+ career support) was found to be a significant positive predictor of career resilience, career exploration, job search self-efficacy, and networking self-efficacy. Such roles of career support remained when other contextual variables reflecting university environments (e.g., general support and resources for LGBTQIA+ students and discriminatory/hostile climates) were controlled. As such, the results highlighted that providing career specific support to LGBTQIA+ students is an important factor that better prepares LGBTQIA+ students for their future careers.

From a career preparedness perspective, the above findings support the social cognitive model of career self-management (CSM) (Lent & Brown, 2013). The CSM model outlines that learning experiences and sources of career-related information, such as specific career

support, should act as direct predictors of self-efficacy expectations, and as distal predictors of positive career outcomes or attainments. Career psychological outcomes such as resilience, adaptability and self-efficacy are likely to be particularly important during periods of high strain such as the COVID-19 pandemic. This is because being flexible, robust, and confident of your own competence should thus help with the challenges of unemployment, underemployment, or insecure employment during challenging times (Taber & Blankemeyer, 2015).

These positive career psychological states (e.g., resilience, adaptability, and self-efficacy) that can be fostered by the university's career support specifically for LGBTQIA+ students are also likely to impact on their lives, study, work and balance among them. This is particularly likely in the time of crisis (e.g., COVID-19) when students depending on part-time or casual work for living need to be psychologically strong in both employment and study contexts. Our qualitative data demonstrated that during COVID-19 some LGBTQIA+ students encountered additional, multiple layers of difficulties that were disruptive to the balance among critical aspects of their life. For example, LGBTQIA+ students lacking proper housing may need to work longer hours in the unstable labour market caused by the crisis to strive for accommodation safer for their gender/sexual identities. This challenge, if not effectively coped with, is likely to lead them into a worsening path that hampers their academic success and subsequently their career pursuits. As one of our interviewees pointed out, this "just entrenches the problem". If LGBTQIA+ career support is well received, these students may be better able to avoid such an unbalanced path through more effectively adapting to work-related challenges and trauma.

However, as we highlighted above, the benefits of career support are currently only observed on a few rather than the majority of psychological constructs that indicate career effectiveness. These results imply that there is great room for improvement in universities' LGBTQIA+ career support. We believe that there is a further need to evaluate, (re)design, refine and implement career-specific support for LGBTQIA+ students (e.g., from the perspective of the university actors such as career services departments and diversity and inclusion departments) to broaden and consolidate its positive effects on students' career outcomes.

Conclusion

This project was a first of its kind in investigating the perceptions of gender and/or sexuality diverse university students on career specific guidance and support within universities. Focusing on LGBTQIA+ students, it contributes to identifying emerging equity issues and groups among university students and addressing associated challenges. A mixed-methods approach to the project allowed for an in-depth examination of current perspectives of career support for gender and/or sexuality diverse students, while at the same time providing representative data by drawing on responses from a wide range of students. A key finding from this research is that LGBTQIA+ students face additional challenges and barriers in navigating the tertiary education sector generally and within the career preparedness or effectiveness domain specifically. As such, we *recommend* that LGBTQIA+ students should be explicitly and formally acknowledged as an equity group in the government's higher education policies.

The qualitative interviews highlighted the need for specific or additional career guidance for gender and/or sexuality diverse university students. The additional barriers or challenges of LGBTQIA+ students were discussed, such as specific health concerns, varied backgrounds, and open hostility and/or discrimination. Additionally, the specific challenges of social isolation and housing insecurity during the COVID-19 pandemic were raised by participants. Due to these barriers and challenges that LGBTQIA+ students face the need for specific career guidance and support was highlighted within the interviews. Some suggestions for specific guidance included specific visible role models and mentoring programs, and advice on how to find safe workplaces and on being authentic in the workplace.

The quantitative analyses supported the finding from the interviews regarding the need to be open and authentic as well as career-specific for the university's support targeting LGBTQIA+ students. Self-acceptance was the most consistent positive predictor of career preparation factors, such as adaptability, resilience, planning, identity, optimism and self-efficacy. Furthermore, the quantitative analyses showed that LGBTQIA+ career support was important for career effectiveness, such that it was found to be a positive predictor of career resilience, career exploration, job search self-efficacy, and networking self-efficacy. That is, it was found that there were some current benefits of career specific support for LGBTQIA+ students, but that more work was needed to increase the benefits of career specific guidance and support into the future.

Finally, we note the limitations of this study. Despite the quantitative data yielding representative results across a large number of participants, the cross-sectional, self-reported nature of the data suggests areas for future research to further strengthen and support the findings of this study. That is, it would be useful for future research to further confirm the above results, possibly using longitudinal design and by collecting objective career outcomes from study participants. Future projects could also include evaluations of specific interventions into the LGBTQIA+ career guidance and support within universities. Additionally, the current study did not include support staff, such as careers services or diversity and inclusion employees as participants. Such staff within universities would provide more insights into the services that are available and effective for gender and/or sexuality diverse students. As such, future research should expand on the current project by including a wider range of participants, such as university staff. Finally, the current project relied on self-report perceptions from participants on their universities' policies and current support services. Although it is important to consider the lived experience of gender and/or sexuality diverse students, these subjective experiences could be expanded by some objective measures of university policy and support. Future research could extend on this project by again including university support staff for another perspective of the provided support and by reviewing and assessing universities' policies.

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