



Groundswell
F O U N D A T I O N

Connections Matter: Tackling Loneliness in Australian Youth

June 2025

Foreword

The Groundswell Foundation brings together expertise from diverse perspectives on the topic of loneliness.

The release of our *Connections Matter* (2022) report kickstarted our work to advance the understanding of loneliness and highlighted innovative initiatives to build social connections. We have been particularly vocal about the burning platform to address loneliness in young people – who sit at the nexus of coalescing trends that make building in-person connections more challenging.

This latest research project provides an important contribution to the body of knowledge about loneliness, and insight on how to design and promote loneliness interventions for young people. Importantly, the research has sharpened the Groundswell Foundation's investment thesis to provide financial support for the most impactful initiatives.

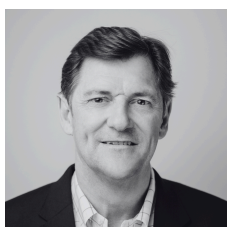
We are grateful to Professor Brock Bastian for his professionalism and expertise as the lead partner in undertaking this research. Utilising best practice survey techniques and analysis, Brock has:

1. assembled a comprehensive list of available interventions that young people currently access to reduce loneliness
2. surveyed over 2000 young people to assess activity preferences and expectations of those activities to reduce loneliness
3. analysed the survey results to reveal key insights around the most (and least) promising initiatives for different demographic sub-groups.

This research was made possible through the generous support of The Fred P Archer Charitable Trust. We hope policy-makers and practitioners find immediate value in this research.

Our future depends on what we do today.

Sincerely,



Martin Blake
Chairman
Groundswell Foundation



Johanna Pitman
Chair, Research Sub-Committee
Groundswell Foundation

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Executive Summary

A national crisis

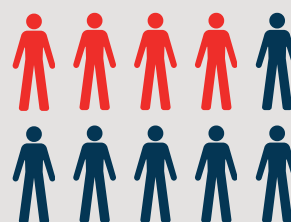
Loneliness is hitting young Australians hard, and it's only getting worse. While older generations have traditionally been seen as the loneliest, research now shows that young people aged **16–25 are struggling the most with social disconnection**. Nearly **two in five young Australians report feeling lonely**, and more than one in five experience it frequently or constantly.

Youth loneliness isn't just a personal struggle—it's a national issue with serious social, economic, and health impacts for our nation. **Isolated young people face higher risks of mental health challenges, poor education and employment outcomes, and lower workforce participation**. This strains healthcare systems, reduces productivity, and weakens community engagement.

And the problem is getting worse. Loneliness is fueling the **rise of extremist views and counter-cultures**, as disconnected young people seek belonging in harmful online spaces. Meanwhile, Gen Alpha is growing up with even **fewer face-to-face communication opportunities**, making future social anxiety even more severe. On top of this, **workplace flexibility and remote work** trends are further reducing opportunities for in-person interaction, leaving young professionals with fewer chances to build meaningful relationships.

While the need to act is clear, clarity is needed on which evidence-based solutions actually appeal to young people. While research has explored different interventions, there's little insight into which ones young people would actually use.

2 in 5



Young Australians
(16-25) report feeling
lonely

1 in 5



Young Australians
experience it frequently
or constantly

Key Impact Areas



Mental Health



Education and
Employment



Lower workforce
participation

Loneliness Interventions

- 1 Direct Support Interventions
- 2 Activity-Based Interventions
- 3 Skills-Building Interventions
- 4 Digital Interventions

Assessing youth loneliness in Australia

Our survey of over 2000 young Australians (16-25 years old) was conducted in November 2024, with representation from across Australia, including regional and rural areas. The survey confirmed existing national research on the high prevalence of youth loneliness, with 27.7% of respondents experiencing high levels of loneliness.

Findings reveal that loneliness disproportionately affects certain groups, with significantly higher levels reported among women, regional youth, those not in education or employment, and neurodiverse young people.

Reviewing available loneliness interventions

Many participants had prior experience with loneliness interventions. Prior participation in community sports leagues, social skills training workshops, and volunteer groups was highest, while intergenerational programs, virtual reality social spaces, and counselling had the lowest levels of prior engagement.

Understanding what works

The Groundswell Foundation set out to understand what types of “loneliness interventions”—initiatives and programs that directly or indirectly build social connections—resonate most with young Australians. The research paid particular attention to regional versus urban contexts so governments, businesses, and not-for-profits can invest in strategies that will make a real impact across geographical contexts.

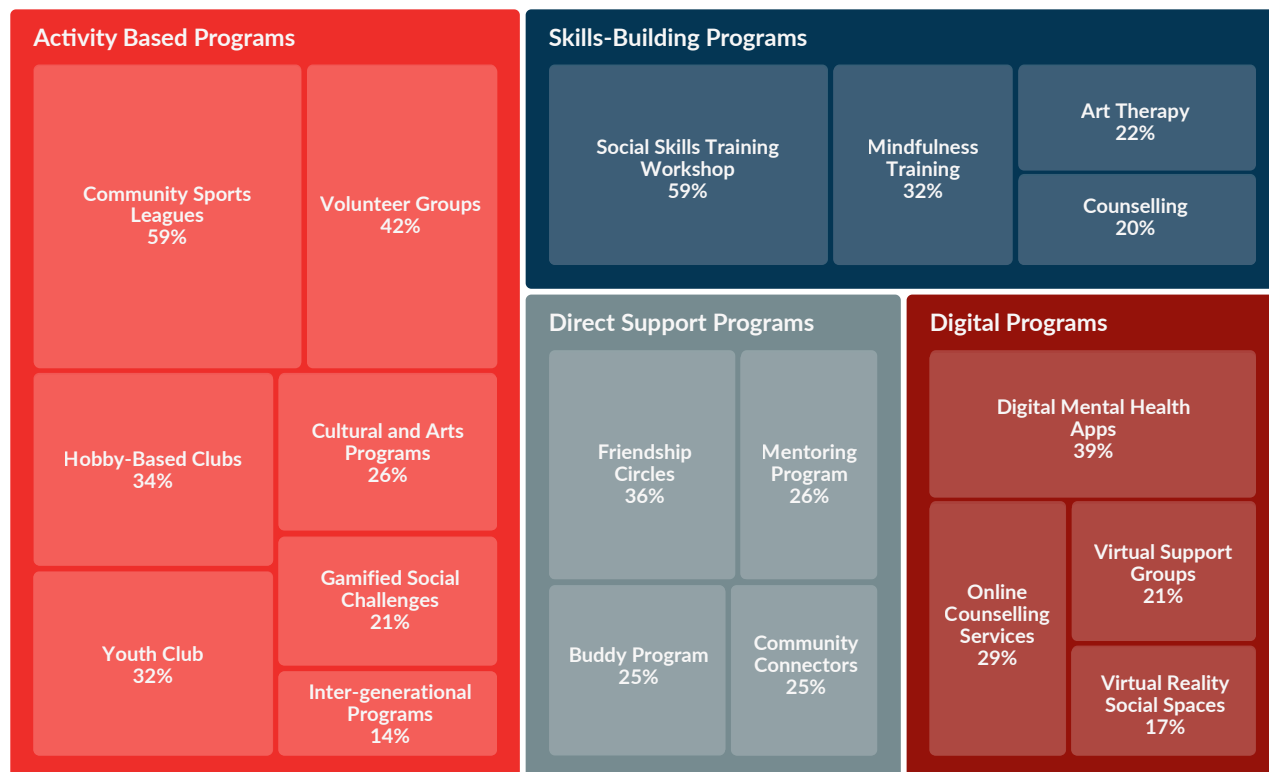
These findings are the first consumer-driven insights into tackling youth loneliness in Australia. They offer a roadmap for developing targeted, effective, and cost-efficient interventions that are both evidence-based and aligned with what young people actually want. If decision-makers act on this now, we have a real chance to turn the tide on loneliness and build a more connected future.



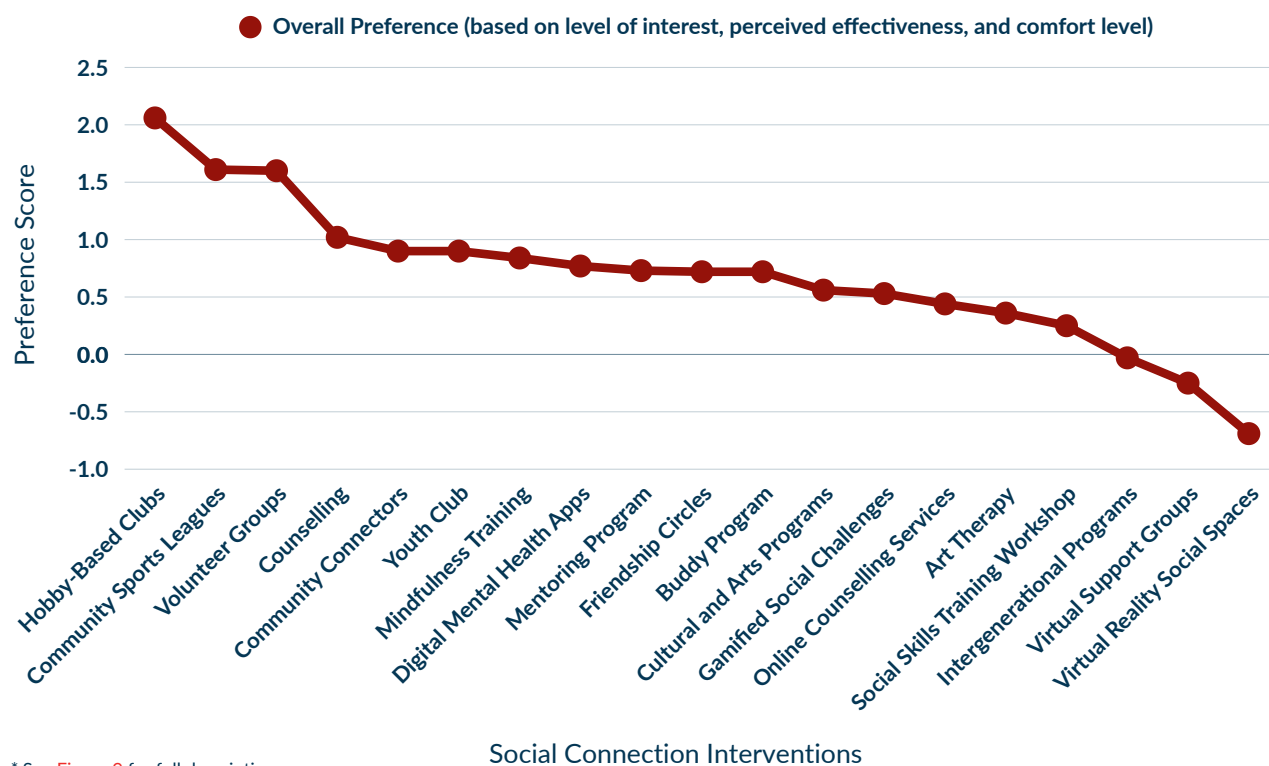
Higher levels of loneliness have been reported among:

- Women
- Regional youth
- Those not in education or employment
- Neurodiverse young people

Social Connection Intervention Activities (% of respondents who have tried it)*



Ranking of Social Connection Interventions (in order of preference)^



* See [Figure 9](#) for full description

^ Adapted from [Figure 11](#)

What we've learnt about young Australians and loneliness



Activity-based programs—such as hobby clubs, community sports leagues, and volunteer groups—are the **most appealing**, as they foster organic connections through shared interests.



Digital programs like virtual reality social spaces and virtual support groups were the **least favoured**, with participants questioning their effectiveness in forming “real” friendships.



Young Australians seek **safe, accessible spaces** to connect with their communities, and third spaces play a crucial role in fostering meaningful interactions.



Enthusiasm for some programs doesn't always align with prior participation, suggesting **room for improvement** in existing offerings. Notably, counselling and community connectors—despite low engagement—emerged as promising interventions that warrant greater accessibility.



Technology presents challenges as a medium for delivery but it also offers potential for raising awareness and organising social initiatives.



Financial constraints limit opportunities to socialise, highlighting the need for affordable and inclusive programs.



A persistent divide emerges between those who regularly use **green spaces** and those who either lack access or do not engage with them.



The **highest levels of loneliness** are experienced by regional youth, neurodiverse youth, those earning low incomes, and those not in education or employment



The **most lonely young Australians** are **least receptive to any interventions and least likely to access green spaces**, suggesting entrenched patterns of social isolation that will require additional resources and attention.

Recommendations

These insights guide which programs to pursue to address loneliness for young Australians. Policy-makers and practitioners can leverage this research to prioritise young people and support better outcomes for all citizens. For the Groundswell Foundation, the research findings are influencing which initiatives we support financially, and our future research projects.

For policy-makers and practitioners:

Activity-Based Programs

Identify and prioritise the delivery of activity-based programs that attract young people. These activities should embody a component of learning and/or exercise and be welcoming new participants.

Invest in Green Spaces

Leverage investment in new housing developments and infrastructure projects to design out loneliness by:

- Reviewing planning policies to ensure green spaces are connected and accessible for youth and young adults
- Encouraging novel activation of natural assets and public spaces by local councils, community housing providers, universities, and not-for-profit organisations
- Recognising high levels of dog-ownership amongst young people and its ability to increase use of green spaces

Increase Activity Promotion

Allocate additional resources for activity-based initiatives, so service providers can creatively target younger participants.

This might include:

- Engaging local influencers to promote/ appear at activities
- Subsidising the cost of delivery to reduce financial barriers to participation
- Advertising activities via non-English-speaking social media channels
- Promoting these activities at locations where youth gather (eg transport hubs, shopping centres)
- Funding third party researchers to assess the qualitative impact of these activities, so that service providers can focus on program delivery

Accessible Locations

Continue to invest in libraries as accessible, wi-fi-enabled locations for community activities, with particular attention to creating youth-friendly hubs.

For

For the Groundswell Foundation

Action 1

With confirmation of the value of activity-based interventions, the Groundswell Foundation will launch a new pickleball program at universities in partnership with RALLY4EVER.



40 million+ players
in the U.S. with a
growing presence in
Australia

Since launching in
2020, the Pickleball
Australia Association
now boasts 13,200
members across 220+
clubs

13,200
Members

25,000
Casual players

It is estimated there
are 25,000 casual
pickleball players
nationwide.

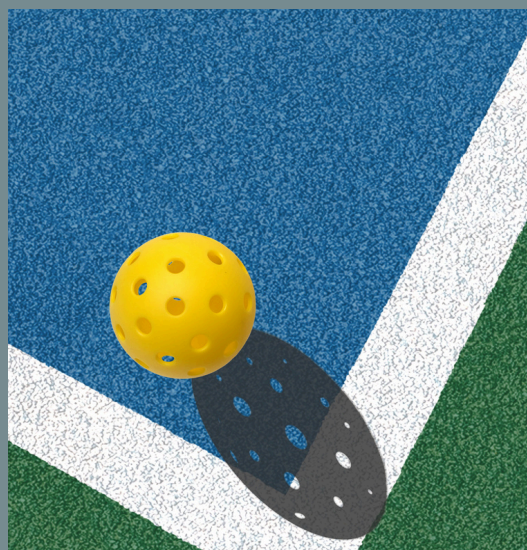
“Green public spaces like pickleball courts are antidotes to our 'lonelygenic environment' by transforming urban landscapes that lock-in loneliness into convivial hubs for community, camaraderie, and connection.”

Professor Xiaohu Feng (UNSW)

UniPickle: Rallying Students, Building Connections

Beyond sport, pickleball presents an opportunity to tackle Australia's growing loneliness crisis. The game's social nature fosters connection, activating local communities by transforming underutilized spaces into hubs of interaction.

The Groundswell Foundation, in partnership with RALLY4EVER, is launching a pioneering program across five universities in greater Sydney to combat student loneliness and anxiety. With up to 60% of students reporting mental health struggles and 1 in 4 experiencing loneliness, this initiative will use pickleball to promote social connection, physical activity, and mental well-being. Designed as a scalable pilot, the program aims to expand across Australia and, in the future, to universities in the U.S..



Action 2

The Groundswell Foundation will support research into public space activations most likely to foster social engagement in a range of Australian settings. Building on evidence of the negative impact of lonelygenic environments, this research will synthesise international best practice, including a significant body of research from the NSW Productivity Commission, NSW Government Architect, Western Sydney Local Health District and the Loneliness Lab. Together with local council insights, the research will result in a guide for placemakers on design features to attract young people.



From Isolation to Interaction: How Urban Design Can Foster Community

Lonelygenic environments are settings that contribute to social isolation and loneliness by limiting opportunities for meaningful human connection. Research by Groundswell Foundation Reference Group member, Professor Thomas Astell-Burt, shows that poorly designed urban spaces, lack of access to quality green spaces, and environments that discourage social interaction can make people feel disconnected.

His research has shown how different types of green spaces can help break this cycle - but simply having parks isn't enough; they need to be inviting, well-maintained, and designed in a way that encourages people to interact. This means things like walking paths, seating areas, and community events that bring people together.

With unprecedented building of residential housing around Australia, the Groundswell Foundation pushes for cities and communities to think beyond just providing housing and infrastructure and instead incorporating design features that foster real human connection.

Only 19% of young people (16-24) live in neighbourhoods with the most access to green space, compared to 31% of people aged over 64.

"The Health Foundation (UK, 2024)

Action 3

The Groundswell Foundation will support further research to understand why young people experiencing high levels of loneliness may not engage with available supports. Specifically, social prescribing has shown promise as a method to foster connection, yet engagement rates are often low, and our research confirms that individuals experiencing chronic or severe loneliness are least interested in all available interventions.



Overcoming Barriers to Youth Engagement in Loneliness Support

Barriers to engagement in loneliness-alleviation interventions are numerous - doubts about enjoyment, fear of rejection, stigma around loneliness and mental health, or economic and structural barriers. Cultural differences, gender or gender roles, or a lack of trust in formal institutions may also be implicated.

Recognising these known barriers, this proposed project will analyse perspectives from three main sources:

- (1) An in-depth survey of 1,000 young people aged 16-25 across urban and regional areas to explore specific barriers, such as cognitive beliefs, social expectations, cultural considerations, gender specific concerns, or economic and structural factors;
- (2) In-depth interviews with young people who experience loneliness, to gain a deeper understanding of personal experiences, perspectives on barriers to engagement, and their experience with social prescribing or other interventions to address loneliness; and
- (3) In depth interviews with Link Workers (social prescribers) to understand the practical challenges they observe in patient engagement.

Insights will be shared with organizations such as the Royal Australian College of General Practitioners (RACGP), Primary Health Networks (PHNs), and other key stakeholders who promote social prescribing, and will inform the roll out of loneliness interventions by identifying key barriers to uptake.

In their words | Participant insights

In open-ended responses, participants described what they perceived to be the most effective ways to support young people who experience loneliness and want to build more social connections.

1

Hobby- or interest-based clubs allow like-minded people to easily connect.

Participants liked that hobby- or interest-based clubs could connect people with pre-existing shared interests. Some mentioned that this form of intervention would be less intimidating because it would reduce the pressure of having to find common ground with others.

“The activity groups interest me the most because there's less pressure on ‘having to connect’ with everyone, the focus is on the activity which takes the pressure off of making friends.” – *Female, 19 years old, NSW*

“I agree that hobby groups would be a great place to start as I would be around like minded people where we have something in common already. I also think that public events would help increase social connections.” – *Male, 20 years old, QLD*

2

Technology can act as both a barrier to and facilitator of social connections.

Many participants preferred in-person – rather than online – events and interventions. However, others suggested that young people may find it easier to connect online. Social media and digital apps were highlighted as tools for increasing awareness of opportunities to form social connections with others.

“Create groups or programs that would get people into nature and off their phones and social media. Technology is a huge barrier to making friendships and feeling connected.”
– *Female, 21 years old, WA*

“I think creating more internet-based community spaces is very appealing for young people. Young people often find it easier to connect online. It can be less daunting.” – *Male, 21 years old, VIC*

“[I]f we used social media or local apps to let people know about these events, it would be easier for them to find something they're into and start building real connections.” – *Female, 24 years old, NSW*

3

Young people seek opportunities to connect within their local communities.

Participants expressed a desire for community-based events that would allow them to connect with other people in their local area.

“I think that organising youth events/games at community centres would be effective, as often there is not much to do in a suburb for young people.” – *Female, 18 years old, QLD*

“I think more groups in different areas. I’ve tried searching countless of times of different groups to try out and they are always so far away and meet up on a weeknight which is almost impossible for me to go to. [...] I just want to be able to meet people in my area as well.” – *Female, 25 years old, NSW*

4

Third spaces provide opportunities for organic social interactions.

Respondents described a need for shared spaces outside of home, school, and work, where they could connect with others in a more natural way.

“Having third spaces to hang out in that has resources of interest to youth. People tend to meet during school or work and don’t socialise outside of these places. Having third spaces would improve and assist youth to connect with others naturally.” – *Female, 25 years old, VIC*

5

Cost is a key barrier to socialising and forming social connections.

Participants frequently highlighted a need for low-cost opportunities to connect with others. High cost of living and a lack of affordable options were described as important barriers to socialising.

“We need more places that act as a free/cheap meeting place. When I want to meet with my friends, our options are limited to pretty much just restaurants which creates an economic barrier to the social connection. Having sit down areas that aren’t tied to buying a product or service would incentivise us to be more social.” – *Male, 21 years old, NSW*

“I believe young people are reaching out for connection and community, but are held back by barriers like time constraints, rising cost of living and generational divides. Young people need something low cost and low effort that can fit into their lives, not something that they have to fit their lives around.” – *Female, 23 years old, NSW*

6

Young people seek inclusive and accessible spaces where they feel safe to socially interact with others.

Respondents emphasised the need for safe spaces that cater to diverse needs, foster a sense of belonging, and provide a comfortable environment to socially connect with others.

“Offering safe spaces for the neurodiverse that actually cater to them in a non-stereotypical way. Having targeted spaces/groups where everyone knows everyone is open to connection so that the fear of rejection is lessened.” – *Female, 23 years old, QLD*

“The most effective way to increase social connection among young people is by creating inclusive, safe spaces for them to engage in shared activities, such as community events, sports, or creative workshops. Providing opportunities for collaboration and fostering a sense of belonging can help build meaningful relationships.” – *Male, 25 years old, QLD*

“Creating more spaces where there are activities that are accessible and safe, meaning that they are cheap and accessible to people with disabilities as well as being queer friendly.” – *Male, 19 years old, VIC*

7 Education and mental health support is needed to reduce the stigma of loneliness.

Participants described a need for increased awareness about loneliness and more mental health support for young people. Many highlighted the importance of normalising the issue to reduce stigma. Others described issues with accessing mental health support.

“To improve support, it's essential to promote mental health awareness and make mental health resources more accessible. Schools, community centers, and youth organizations can offer workshops or seminars on managing loneliness, building resilience, and developing social skills.” – Female, 25 years old, NSW

“[N]ormalising and teaching mental health in schools at a young age helps to reduce the stigma around reaching out and things not always being ok.” – Female, 20 years old, WA

“I think online counselling is the best option as the options I have in my town are limited and I receive great counselling through this however it is expensive” – Female, 23 years old, QLD

8 More needs to be done to increase awareness of existing programs.

Many participants were unaware of existing programs and highlighted a need for increased advertisements about opportunities to socially connect with others.

“I wish there was more advertising for social groups that support people in making connections with others. Most of the time it doesn't seem like these things exist and most people think of places like sporting clubs which a lot of people do not have an interest in. So more advertising for different kinds of groups would definitely bring more traction.” – Female, 20 years old, VIC

“ I am not aware of the different programs that are available to help me connect with others.

Female, 25 years old, VIC

Survey Context

Connections Matter

Social isolation and loneliness are pressing issues for Australian youth. While social isolation relates to the objective number of social relationships or amount of social contact one experiences, loneliness is the subjective experience of lacking connection to others and desiring more meaningful social relationships (Badcock et al., 2022). Loneliness has been linked to poorer physical and mental health outcomes (Holt-Lunstad et al., 2015), dissatisfaction with life (Schumaker et al., 1993), and psychological distress (Manera et al., 2022). Although it was already an important issue affecting Australians' health before the COVID-19 pandemic, its impacts have exacerbated in recent years.

The Groundswell Foundation's report *Connections Matter* (2022), a comprehensive review of loneliness in Australia researched and written by KPMG, confirmed that despite a growing body of evidence on its detrimental impacts, loneliness remains an overlooked priority in Australian policy. Further, the research highlighted a demographic group - young Australians (16-25 years old) - who are caught in the crosshairs of the loneliness epidemic.

A focus on youth

Although loneliness has historically been associated with older people, young people are the loneliest age group in Australia (Morgan et al., 2024). The prevalence of loneliness in Australian youth has steadily increased since 2008 (Wilkins et al., 2024), with approximately two in five young Australians reporting experiences of loneliness and more than one in five reporting frequent or constant feelings of loneliness (Ending Loneliness Together, 2023). This cohort has the greatest potential to contribute to the future of Australia, as well as to drive long-term costs associated with the negative impacts of loneliness.

A focus on solutions

The prevalence and impact of loneliness has been well-established within the Australian context and has been identified as a significant public health issue by the Surgeon General (USA). The next step for Australia is to develop effective interventions to reduce loneliness. Currently, however, there is little evidence on which to base investment decisions. And where there is research examining the effectiveness of different loneliness interventions, we still need to understand what is not only effective, but attractive to consumers as well.


By understanding young Australians' experiences of social isolation and loneliness, as well as their preferences for social connection interventions, this research explores the most desirable initiatives to support their social needs. The research focuses on what loneliness interventions work from a consumer perspective.

Understanding what types of interventions are most likely to gain traction amongst young adults provides a critical evidence-base from which to guide government and private investment with consumer-informed strategies to combat loneliness.

Beyond 'fixing' the individual

Interventions to build social connection require some degree of effort on the part of the individual - signing up, showing up, joining in and then coming back for more. As such, there are multiple points at which the individual may discontinue or opt out of an intervention - either by choice or due to other circumstances. In addition to actions for the individual to take, finding ways to 'fix' the environment is equally important.

Research by Groundswell Foundation Reference Group member, Professor Thomas Astell-Burt (Sydney), together with Professor Xiaoqi Feng (UNSW), defines lonelygenic environments as settings that contribute to social isolation and loneliness by limiting opportunities for meaningful human connection.



“ Cheaper activities. The main barrier to social participation for young people is the cost of living compared to our wages, and so we struggle to afford to socialise. ”

Male, 23 years old, TAS

Why is loneliness particularly prevalent among young Australians (16–25 years)?



Life Transitions & Instability

Major transitions (moving out of home, starting university or a job, shifting social circles) can disrupt existing relationships and create feelings of isolation.



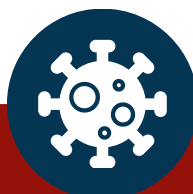
Digital vs. Real-World Interaction

While social media and digital communication keep young people connected, they can also lead to superficial interactions, social comparison, and a decline in face-to-face social skills, deepening loneliness.



Mental Health Challenges

Youth are at higher risk for anxiety, depression, and other mental health struggles, which can make it harder to reach out, maintain friendships, or feel socially included.



Post-Pandemic Effects

The COVID-19 pandemic disrupted key social development years for young people, contributing to increased social anxiety. Continued reliance on online learning and remote work has limited opportunities to build face-to-face communication skills.



Barriers to Social Participation

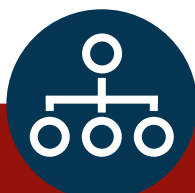
Financial constraints, lack of accessible social spaces, and geographic isolation (especially in regional areas) limit opportunities to engage in social activities, increasing feelings of loneliness.

What will be the key impacts if youth loneliness is not addressed?



Declining Educational and Employment Outcomes

Loneliness can negatively impact academic performance by reducing motivation, concentration, and engagement. In the workplace, it can hinder relationship-building, leading to lower productivity, increased absenteeism, and fewer opportunities for advancement.



Long-Term Generational Impact

The spiralling challenge to policy-makers will come from intergenerational transmission of loneliness - where loneliness persists into adulthood, affecting future relationships, birth-rates and parenting.



Social and Community Disconnection

An erosion of social skills can make it harder for young people to develop and maintain healthy relationships, potentially leading to lifelong social withdrawal, anti-social behavior, belonging to harmful groups, and disconnection from social institutions and local communities.



Economic Costs

Loneliness drives increases in public health expenditure, lost productivity, and strain on social services, when loneliness contributes to homelessness, unemployment, or crime.



Mental and Physical Health Decline

Loneliness is strongly linked to depression, anxiety, suicidal ideation, and turning to alcohol or drugs as coping mechanisms, leading to long-term addiction risks. It can also weaken immune functions, increase inflammation, and increase risk of cardiovascular disease.

Fostering connection through greener places

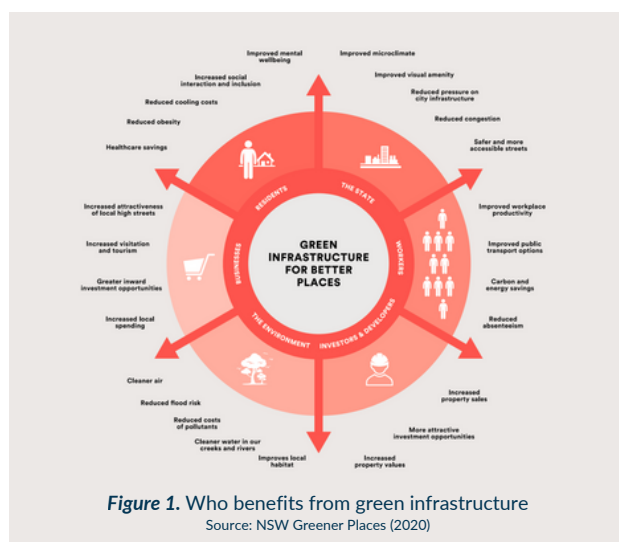
Different types of green spaces can help reduce loneliness - but simply having parks isn't enough; they need to be inviting, well-maintained, and designed in a way that encourages people to interact. This means things like walking paths, seating areas, and community events that bring people together. There is significant momentum pushing for cities and communities to think beyond just providing housing and infrastructure and instead incorporating design features that foster real human connection. For example, the NSW Government Architect's Greener Places Framework is focused on helping to create a healthier, more liveable, and sustainable urban environment. By improving community access to recreation and exercise, walking and cycling connections are embedded, and the ecological resilience of our urban areas is enhanced. It identifies sports and recreational facilities as a key component of green infrastructure and shows how green infrastructure can help NSW respond to health challenges, and bring numerous benefits (see Figure 1).

Understanding how young people access green spaces

While young people value green spaces, their preferences and usage patterns often differ from other age groups (Arnberger et al., 2024). Indeed, the quality of green space can vary greatly and may unintentionally fail to address the needs of those most prone to loneliness. Amidst this context, the research considered the role of green spaces, such as parks, gardens, and nature reserves, and surveyed young people about their access to the type of green spaces where they might interact with others.

Research objectives

The findings reported from this research represent the first consumer-based insights into potential interventions to address loneliness within the Australian context, with a specific focus on young people living in regional vs. urban centres. It is expected these findings will be of particular interest to key decision makers within the federal and state governments and key philanthropic bodies dedicated to solving the problem of loneliness. The Groundswell Foundation's aim is to ensure that investment in interventions to address loneliness, as well as the design of cities and communities, be effective, consumer-informed, and therefore both cost effective and most likely to create impact.



“Green public space can halve the odds of becoming lonely for people living alone, and accumulating one to two hours per week in these spaces may help to relieve feelings of loneliness by 69% within just four months.”

Professor Thomas Astell-Burt

Intervention Types and Programs

Addressing loneliness requires a diverse range of evidence-based interventions that target different aspects of social connection. As awareness of loneliness has grown, numerous interventions have been developed and tested to help individuals build social connections and reduce feelings of isolation. These interventions range from direct support programs, such as mentoring and buddy systems, to community-based activities, skills-building workshops, and digital solutions.

While no single approach works for everyone, the variety of available interventions reflects the complexity of loneliness and the need for tailored strategies to support different individuals and groups effectively. Available interventions are categorised and defined as the foundation for our survey to determine their relative effectiveness for young people in Australia.

Direct Support Interventions

Interpersonal skills allow people to effectively communicate, socialize, connect, and cooperate with others. These skills include (but are not limited to) emotional regulation, conflict resolution, active listening, and body language. Direct support interventions help people to connect with others and build these skills, allowing participants to meet new people, build friendships, and/or receive support from peers and mentors. This type of intervention aims to create one-on-one or small group connections that allow participants to feel more understood and less alone (Orygen, 2017). We describe some examples of interpersonal interventions below.

Friendship Circle

Friendships are important for wellbeing, particularly among young people (Manchanda et al., 2023). In a study conducted by Jansson and Pitkälä (2021), participants were grouped with 6-8 others and engaged in weekly meetings over a three-month period. At the end of the intervention, 90% of participants felt their loneliness had alleviated, and some friendship circles continued to connect even after the

intervention was completed. Likewise, Manchanda et al.'s (2023) review found that friendship-building interventions alleviated feelings of loneliness and improved mental health.

Mentoring Programs

Mentors share their experiences and expertise to help mentees develop, thereby encouraging personal development and relations within society (Fallavollita & Lyons, 2023). Often delivered through coaching, counselling, or structured guidance, mentorship can improve the confidence and wellbeing of the mentee and thus reduce feelings of loneliness (Osborn et al., 2021).

Buddy Programs

Buddy programs are structured initiatives designed to bring two individuals together through shared activities and experiences. Through regular interactions and shared goals, buddy programs build confidence, enhance participants' social skills, foster a sense of belonging, and reduce feelings of loneliness, stress, and anxiety (Plotnikoff et al. 2015; Kirby et al., 2022).

Community Connectors

Living alone can cause feelings of loneliness (Snell, 2017). Moreover, people may face obstacles joining activities within their own communities because of affordability, health issues, or other limitations. Community connectors help people find and join social activities in their communities, providing opportunities to meet others and thereby improve wellbeing by alleviating feelings of loneliness (Giebel et al. 2022).

Activity-Based Interventions

Activity-based interventions aim to create supportive environments where people can engage with one another, join group activities, and experience a sense of belonging (Cattan et al., 2005; Pearce et al., 2021). This intervention type allows participants to interact with a shared purpose or goal, enabling them to feel part of a larger community. We present some examples of activity-based interventions below.

Community Sports Leagues

Community sports leagues, particularly for team sports, provide opportunities for participants to foster a sense of community while working towards a shared goal. Studies have found that the positive impacts of physical activity are dependent, in part, on quality social interactions (Pels & Kleinert, 2016). Moreover, feelings of loneliness can hinder participation in physical exercise. Creating a supportive social environment may thus help to maximize the benefits of physical activities.

Volunteering

Volunteering is an effective intervention for reducing loneliness, fostering social connections, and enhancing well-being (Warner et al., 2024). By participating in volunteer activities, individuals engage with like-minded peers,

creating opportunities for positive social interactions and friendship development. Additionally, volunteering offers a sense of purpose and fulfillment by allowing participants to develop new skills while contributing to meaningful causes.

Youth Clubs

Youth clubs provide structured environments for social engagement, personal development, and community involvement. Through a variety of activities (e.g., sports, arts, educational workshops, and social events), youth clubs cater to and bring together people with diverse interests. As a result, youth clubs can help to build social networks and foster a sense of belonging (Allison & Catts, 2012), thereby mitigating experiences of loneliness (Holt-Lunstad, 2021). Additionally, youth clubs often encourage leadership and teamwork, which can empower participants and strengthen their connection to the community (Turner et al., 2024).

Cultural Arts Programs

Cultural and arts programs provide structured, meaningful opportunities for social engagement and creative expression (Dadswell et al., 2017). These programs can include activities such as painting classes, theatre workshops, music groups, or cultural festivals, which foster a sense of belonging and community and reduce feelings of isolation (Rhodes & Schechter, 2014). Additionally, engaging in creative processes can enhance self-esteem and emotional well-being by reducing stress and offering participants an outlet for self-expression (Moran 2023).

Hobby-Based Clubs

Hobby-based clubs are structured social groups centred around shared hobbies or interests (e.g., literature, outdoor activities, or gaming). These clubs engage participants in regular, meaningful

activities that encourage social interaction and foster collaboration among members (Morrish et al., 2023; MacDonald et al., 2020). By bringing together people with common interests, these clubs provide an organic platform for building connections and forming friendships. Additionally, creating a collective sense of purpose enhances social engagement and sense of community, thereby improving well-being (Williams et al., 2022).

Intergenerational Programs

Intergenerational programs foster meaningful connections between different age groups, typically between younger and older individuals (Peterson 2023). By leveraging the unique strengths and experiences of each age group, intergenerational programs allow participants to learn from each other and build relationships (Pinazo-Hernandis & Carrascosa, 2024). Older adults often provide wisdom, guidance, and support, which can enhance young people's social skills, emotional development, and sense of belonging (Phang, et al., 2023). Meanwhile, younger participants bring energy, new perspectives, and technological know-how, which can help older adults stay socially engaged and mentally stimulated. The reciprocal nature of these interactions helps reduce feelings of loneliness and isolation in both age groups by expanding social networks and fostering mutual support (Campbell et al., 2024). These programs have been shown to reduce loneliness and social exclusion, improve mental health, and address issues such as ageism (Parkinson & Turner 2019).

Gamified Social Challenges

Gamified social challenges are designed to foster social connections and enhance engagement by integrating game-like elements into social activities (Casabianca & Nurminen 2022). Such programs use themed challenges,

point systems, and rewards to motivate participation, encouraging individuals to interact more frequently and meaningfully. Challenges can be either collaborative or competitive, promoting teamwork or friendly competition, which helps to build a sense of community and belonging among participants. By transforming ordinary social interactions into engaging, playful experiences, gamified challenges leverage the principles of gamification to increase motivation and commitment (Lim et al., 2019). These strategies are particularly effective for building social connections because they create opportunities for shared experiences, collaborative problem-solving, and mutual support – all of which are key to forming and maintaining social bonds (Gkintoni et al., 2024).

Skills-Building Interventions

Skills-building interventions aim to reduce loneliness by enhancing self-awareness, emotional regulation, and personal growth. These interventions may include activities such as mindfulness training, reflective practices, or journaling to increase self-awareness and help individuals recognize patterns that may contribute to loneliness (Kok, 2024; Lindsay et al., 2019; Matthaeus et al., 2024). Skills-building interventions may also teach emotional regulation strategies to manage emotions more effectively and reduce negative affect associated with loneliness (Kok, 2024). By developing resilience and coping skills, these interventions also enhance participants' ability to handle social adversity (Arteaga-Checa et al., 2023). We describe key examples of skills-building interventions below.

Mindfulness Training

Mindfulness training guides participants through practices that enhance awareness and presence in the moment with the goal of improving emotional regulation and reducing stress (Shonin

& Van Gordon 2014). These programs may include exercises such as mindful breathing, guided meditations, body scans, and mindful movement practices, such as yoga or tai chi. Participants learn to observe their thoughts and emotions without judgment, fostering a non-reactive awareness that can decrease the impact of negative thoughts. By emphasizing regular practice and the integration of mindfulness in daily activities, these programs help individuals manage stress more effectively and enhance overall well-being through improved focus, emotional regulation, and a more balanced approach to life (Frewen et al., 2008).

Social Skills Training

Social skills training teaches individuals essential interpersonal skills for effective interactions and communication (Gresham, 2002). These skills may include conversation initiation, active listening, non-verbal communication, assertiveness, and conflict resolution (Gresham, 2017). Cognitive restructuring techniques can also be used to address negative thought patterns that hinder social interactions while role-playing and simulations allow participants to practice their skills and receive immediate feedback. Social skills training primarily seeks to enhance social competence, build confidence, and promote social integration (Płatos et al., 2023). Such training may be particularly helpful for those who face social challenges, such as loneliness, social anxiety, or a lack of experience in social contexts (Spain & Blainey, 2015).

Counselling

Counselling offers individuals a structured environment to explore and understand their emotions, thoughts, and behaviours (Weisz & Bearman, 2020). Trained professionals create a safe, confidential space for individuals to learn essential communication skills, such as active

listening, empathy, and assertiveness.

Counsellors can also guide emotion management, helping participants to respond more appropriately in social situations and reducing feelings of anxiety or insecurity (Weisz & Bearman 2020). Additionally, counselling can help build confidence by providing strategies for overcoming social anxiety and fear of judgment, which are common barriers to forming new connections (Erford et al., 2015). By learning to approach social interactions with a more positive and confident mindset through counselling, individuals may be better equipped to establish and nurture meaningful relationships (Weisz & Bearman 2020).

Art Therapy

Art therapy fosters emotional expression and enhances social connection by engaging intrapersonal processes that are important for social development (Arteaga-Checa et al. 2023). Expressive arts therapy encourages creative exploration, helping participants attune to their emotions and recognize patterns contributing to their isolation. Activities like painting, music, and drama facilitate emotional insight, offering a safe space for self-expression and regulation. Moreover, expressive arts therapy cultivates shared experiences, fostering trust and empathy in group settings. As individuals engage in artistic collaboration, they may build confidence, strengthen social bonds, and enhance self-esteem.

Digital Interventions

Digital interventions use technology (e.g., social media, online support groups, video conferencing, and smartphone apps) to facilitate social interaction, foster community, and provide support (Shah & Househ, 2023; Eccles & Qualter, 2021). By overcoming geographical barriers, they enable participants to engage in social activities regardless of location. Features such as real-time

communication, virtual meetups, and interactive content encourage active participation and engagement. Research suggests digital interventions reduce loneliness by strengthening social networks, promoting regular contact, and offering accessible resources for those who might otherwise be isolated (Grace et al. 2014). Below, we outline key examples of digital interventions.

Virtual Support Groups

Virtual support groups use secure digital tools (e.g., video conferencing, chat rooms, and dedicated apps) to facilitate real-time discussions and access to mutual support (Braithewaite et al., 1999). Led by trained facilitators, virtual support groups address topics that are tailored to participants' needs to ensure discussions are constructive and supportive. This technology-based intervention effectively reduces barriers to participation, such as geographical distance or mobility issues, making social support accessible to a wider audience (e.g., Shapira et al., 2021).

Digital Mental Health Apps

Digital mental health apps provide users with resources, exercises, and tools to support mental health through either a smartphone or web application, thereby reducing barriers to access (Lim et al., 2019; Balcombe & De Leo, 2022). Personalized support can include features such as mood tracking, guided meditations, cognitive-behavioural therapy exercises, and interactive content tailored to individual needs. Social features such as peer support groups, chat rooms, and discussion forums can also foster a sense of community and enable users to find support from others experiencing similar challenges (Boucher et al., 2021).

Online Counselling Services

Online counselling services use technology to provide remote mental health support. Delivered through secure digital platforms, these services offer flexibility and convenience, reducing barriers to accessing care (Eccles & Qualter, 2022). Online counselling is particularly beneficial for individuals who may face challenges in attending in-person sessions due to geographical distance, mobility issues, or social anxiety (Rice et al., 2018). Additionally, platforms often offer interactive tools such as mood tracking, journaling, and guided exercises, which help reinforce therapeutic practices between sessions. Regular follow-ups and check-ins ensure ongoing support and adaptation, promoting sustained engagement and effectiveness.

Virtual Reality Social Spaces

These interventions use virtual reality (VR) technology to create immersive, simulated environments where individuals can interact and build social connections (Casabianca & Nurminen, 2022). VR headsets and software allow users to enter 3D digital worlds as customizable avatars, enabling real-time communication and engagement with others. These virtual environments can include various social activities, such as meetups, games, workshops, and group discussions, which foster shared experiences among participants (Della et al., 2022). VR social spaces are accessible for people who might struggle to engage in traditional social settings due to mobility issues, social anxiety, or distance (Lai et al., 2023).

Survey Findings | Assessing Loneliness

Key Findings

The level of loneliness amongst the survey cohort (2047 participants) was broadly consistent with prior national research, with 28% of participants acknowledging the highest levels of loneliness. Within the cohort, there were statistically higher levels of loneliness amongst:

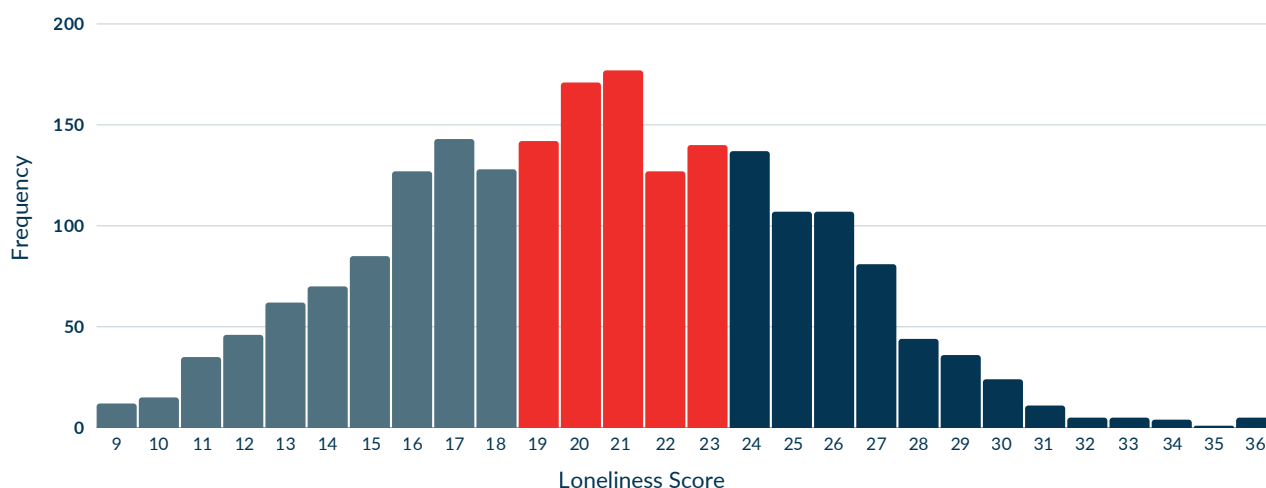
1. Women
2. Those identifying as non-binary
3. Regional youth
4. Those who are unemployed, seeking employment, or on a pension
5. Neurodiverse youth

There was no statistical difference shown in levels of loneliness by age – teenagers (16-19) vs young adults (20-25) - or income levels.

Levels of Loneliness

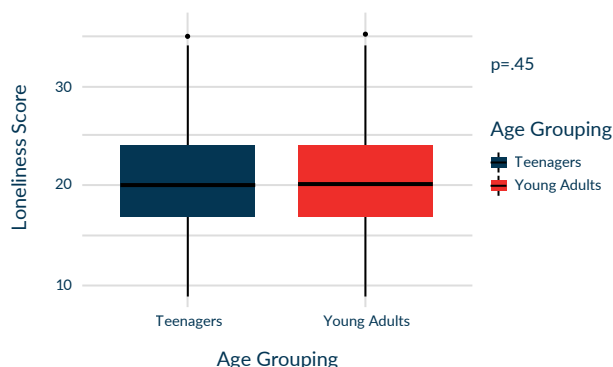
Participants' loneliness was scored on the UCLA loneliness scale (Hawkley et al., 2005), as shown in Figures 2. Scores ranged from 9-36 ($M = 20.43$, $SD = 4.84$), where higher scores represent higher levels of loneliness. Participants were categorised into three groups based on their loneliness scores: 35.32% had low levels of loneliness (scores below the 33rd percentile), 36.98% had moderate levels of loneliness (scores between the 33rd and 66th percentiles), and 27.70% experienced high levels of loneliness (scores above the 66th percentile).

Figure 2. Frequency Distribution of Participants' Loneliness Scores



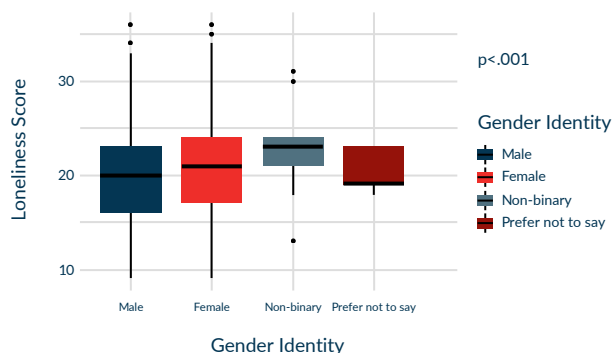
Comparisons across age groupings did not find statistically significant differences in the loneliness scores of teenagers and young adults (see Figure 3).

Figure 3. Comparison of Loneliness Scores Across Age Groupings



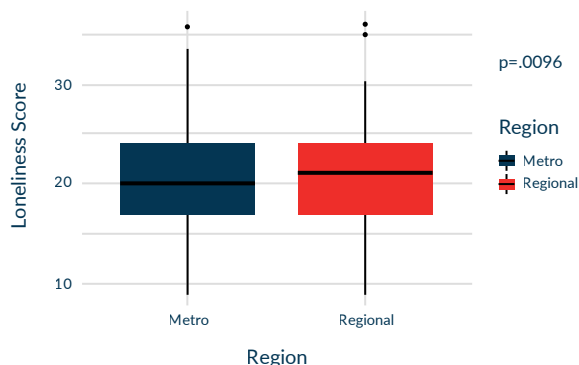
Comparisons across gender identities found that loneliness scores were significantly higher for women compared to men (see Figure 4). Pairwise comparisons found no statistically significant differences between any other groups. However, the smaller sample size for non-binary participants may have impacted these results.

Figure 4. Comparison of Loneliness Scores Across Gender Identities



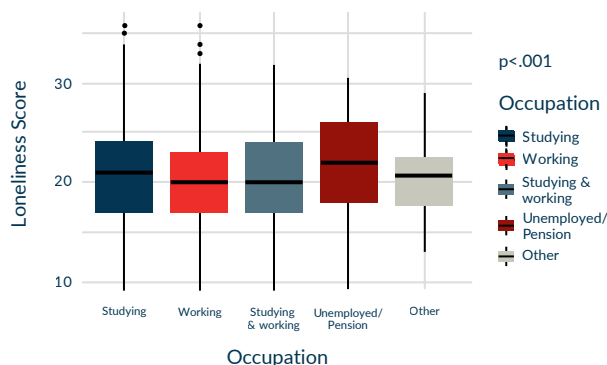
Comparisons of loneliness scores across regions also found statistically significant differences, with participants from regional areas scoring higher than participants from metropolitan areas. Results are presented in Figure 5.

Figure 5. Comparison of Loneliness Scores Across Regions



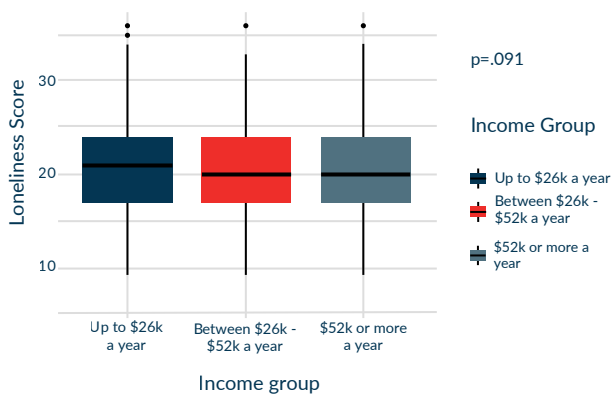
There were no statistically significant differences in the loneliness scores of participants engaged in study, work, or a combination of both. However, participants who were unemployed, seeking employment, or on a pension had significantly higher loneliness scores.

Figure 6. Comparison of Loneliness Scores Across Occupations



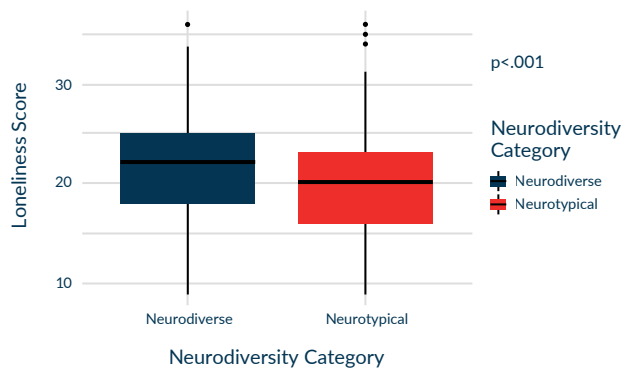
Comparisons across income groups did not find significant differences in loneliness scores for participants who earned up to \$26,000, between \$26,000-52,000, and more than \$52,000 annually (see Figure 7).

Figure 7. Comparison of Loneliness Scores Across Income Groups



As shown in Figure 8, neurodiverse participants had significantly higher loneliness scores compared to neurotypical participants.

Figure 8. Comparison of Loneliness Scores Across Neurodiversity Conditions



Survey Findings | Loneliness Interventions

Key Findings

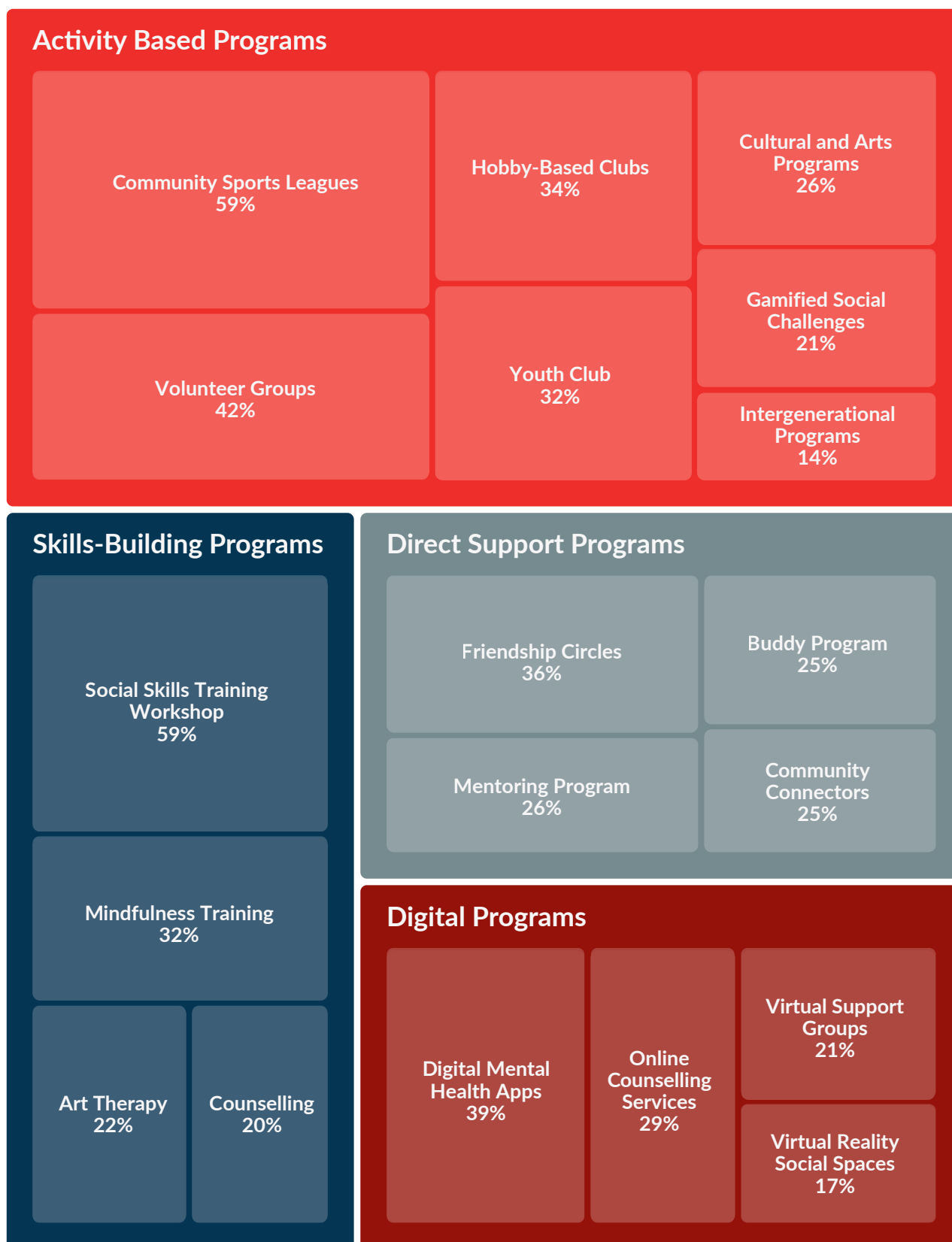
1. Many survey participants had **prior experience with a range of interventions** to alleviate loneliness
2. **Activity-based programs were most appealing** overall for participants
3. Participants perceived **direct support programs** to be most **effective**, but regarded them as less **comfortable** to join
4. **Digital programs were rated the least favourably**
5. **Women and men having significantly different interest and comfort ratings** across interventions, especially for community sports leagues, youth club, gamified social challenges, social skills training workshop, virtual support groups, and virtual reality social spaces
6. **Weaker enthusiasm for all social connection intervention types** was shown by:
 - individuals experiencing **high levels of loneliness**
 - **neurodiverse participants**, suggesting that discomfort may be an obstacle to participation
 - participants **out of education or employment**, possibly due to reduced opportunities to develop or practice interpersonal skills outside of formal education or employment contexts
 - **regional participants** compared to their metropolitan peers
 - **teenagers (16-19 years old)**, highlighting the importance of designing interventions that would spark the interest of teenagers and allow them to comfortably engage.
7. Participants were also asked **how they would feel about participating** in social connection interventions, because **negative expectations can become cognitive barriers that inhibit social engagement** with others.
 - **Lower expectations** were held by those with **higher levels of loneliness, teenagers, those on lower incomes, and neurodiverse individuals.**

Social Connection Intervention Options

An array of structured and unstructured programs which can alleviate loneliness were reviewed to create a nomenclature and categorisation of known “social connection interventions” (as defined in [Part 2](#)). Across four broad categories (**Activity-based interventions, Skills-building programs, Direct support programs, and Digital programs**), each intervention type was reviewed by survey participants.

As shown in Figure 9, the percentage and size of each box indicate the degree to which participants had previously engaged in similar interventions, with higher percentages and larger boxes indicating higher levels of prior engagement. Participants had the highest levels of prior engagement with community sports leagues, social skills training workshops, and volunteer groups. Intergenerational programs, virtual reality social spaces, and counselling had the lowest levels of prior engagement.

Figure 9. Social Connection Intervention Activities by Program Type



Intervention Preferences Across All Participants

Figure 10 presents participants' ratings for each program type, ranked in order of preference. Preference was measured through an overall score reflecting the total sum of mean interest, perceived effectiveness, and comfort ratings across participants. Mean scores for interest, perceived effectiveness, and comfort (between -2 to 2) are based on the response options detailed above. Negative ratings indicate disinterest, perceived ineffectiveness, and discomfort towards an intervention.

Participants displayed a clear preference for activity-based programs, which had the highest mean interest and comfort ratings. Meanwhile, participants rated direct support programs highest in terms of perceived effectiveness but relatively lower in terms of comfort. Digital programs were rated the least favourably, with a negative mean interest score suggesting participants generally lacked interest in these types of programs. They also rated digital programs as being less effective, on average.

Figure 11 displays participants' preferences for each intervention program. Overall, participants had the most favourable ratings for hobby-based clubs, community sports leagues, and volunteer groups. These interventions received the highest mean scores for interest, perceived effectiveness, and comfort. Meanwhile, participants rated virtual reality social spaces, virtual support groups, and intergenerational programs least favourably. These interventions had the lowest mean ratings for interest, perceived effectiveness, and comfort.

Certain interventions were rated highly on one dimension but relatively less on others. For example, friendship circles and youth club received high mean perceived effectiveness scores but average scores on interest and comfort. These findings highlight the importance of examining interventions across multiple dimensions, rather than merely prioritising effectiveness of building social connections.

Intervention Preference Scores

Participants were asked to rate various social connection interventions on three dimensions:

1 **Interest:** "Would this be of interest to you?"

- Very uncomfortable (-2)
- Uncomfortable (-1)
- Neutral (0)
- Comfortable (1)
- Very comfortable (2)

2 **Effectiveness:** "How effective do you think would this be in helping to build more social connections into your life?"

- Very uncomfortable (-2)
- Uncomfortable (-1)
- Neutral (0)
- Comfortable (1)
- Very comfortable (2)

3 **Comfort:** "How comfortable would you personally feel participating in this type of program?"

- Very uncomfortable (-2)
- Uncomfortable (-1)
- Neutral (0)
- Comfortable (1)
- Very comfortable (2)

The three dimensions were highly correlated ($r^3 \geq 0.80$), suggesting participants generally expressed interest in intervention activities that they perceived to be effective and felt comfortable engaging in.

Figure 10. Type of Program Ranked in Order of Participant Preference

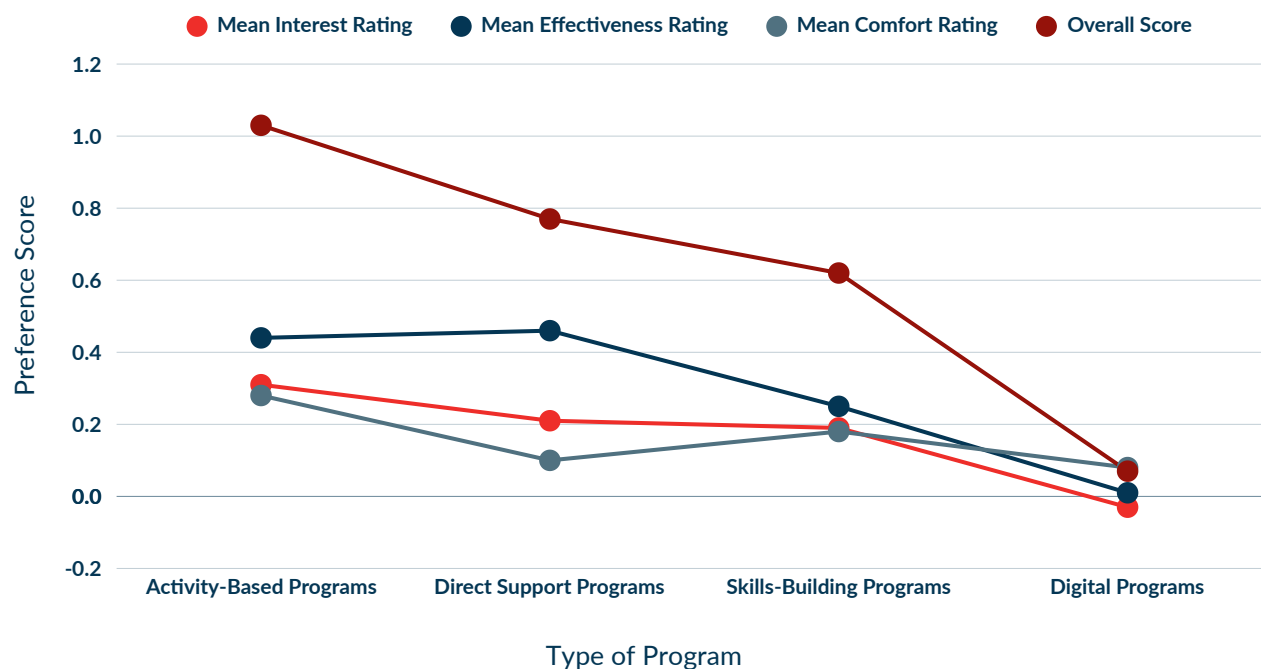
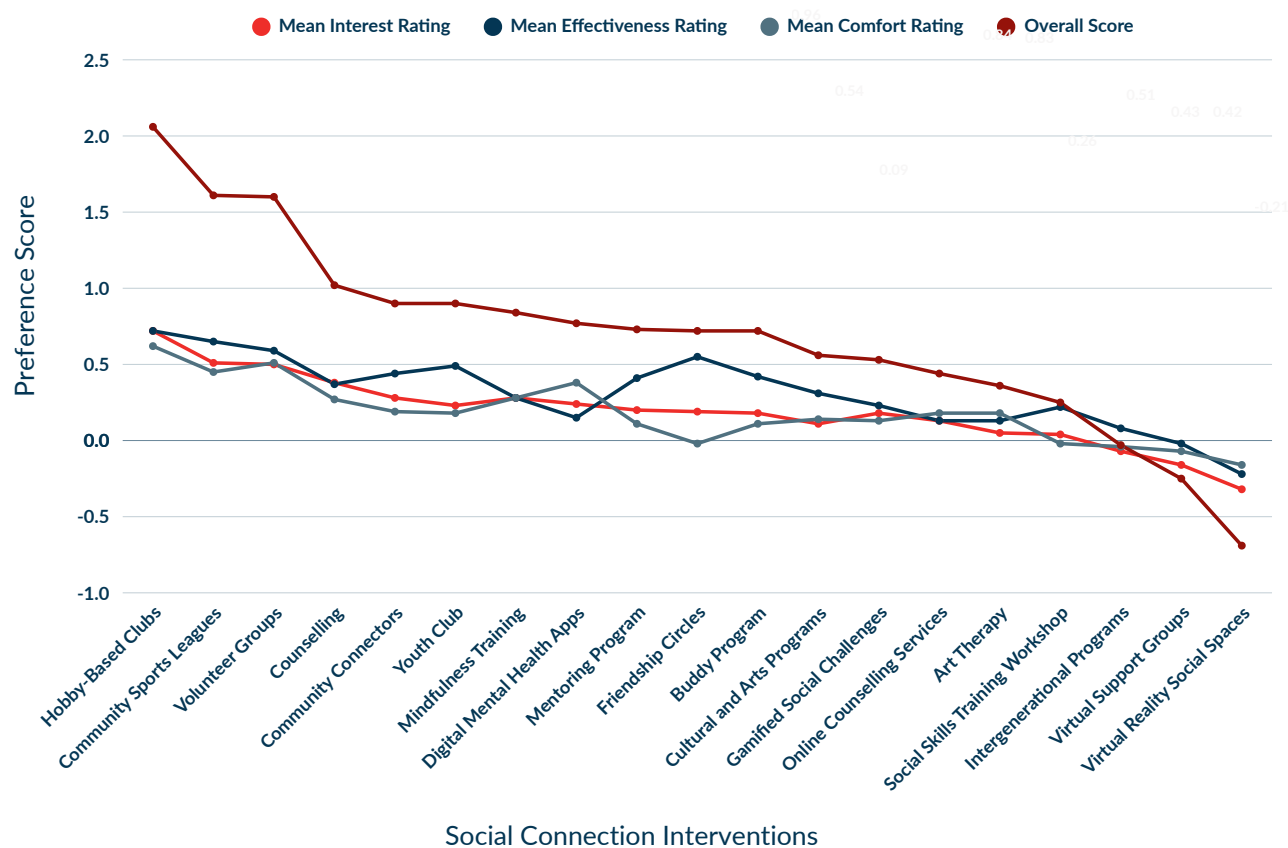


Figure 11. Social Connection Interventions Ranked in Order of Participant Preference



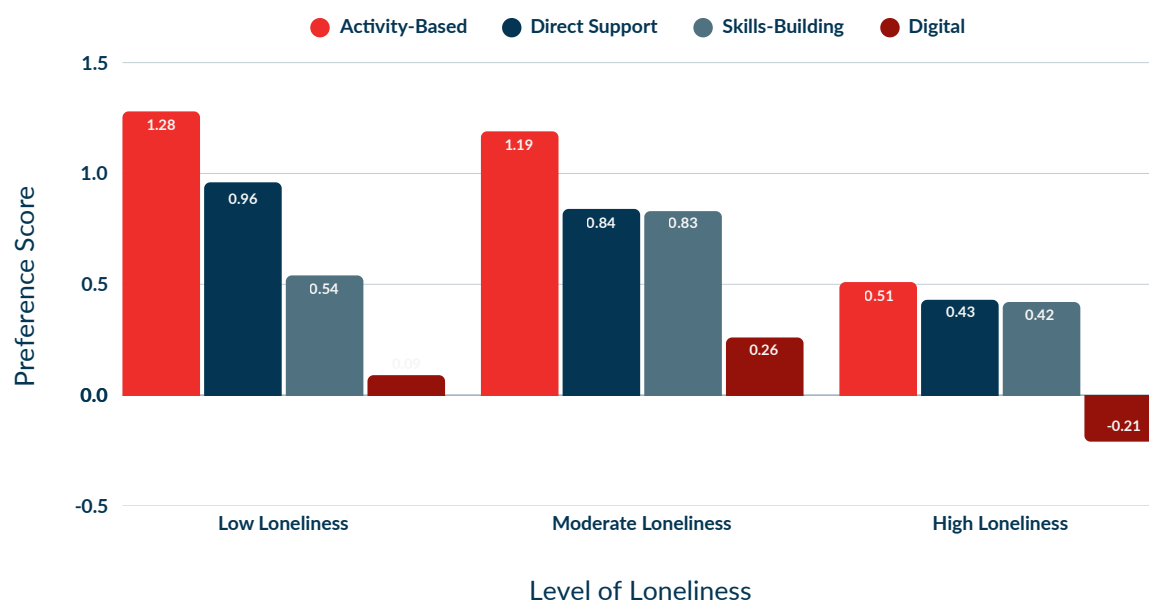
Intervention Preferences Across All Levels of Loneliness

We conducted comparative analyses to see if participants who experienced different levels of loneliness expressed varying preferences for interventions.

As shown in Figure 12, all participants consistently preferred activity-based and direct-support programs over skills-building or digital programs, regardless of their levels of loneliness. However, participants who experienced moderate or high levels of loneliness only expressed a clear preference for activity-based interventions and weaker inclinations towards digital programs.

Overall, participants who experienced high levels of loneliness expressed lower levels of support for each intervention type compared to those who experienced low or moderate levels of loneliness. They displayed greatest aversion towards digital programs, which received negative mean ratings across all three dimensions (interest, perceived effectiveness, and comfort). These results suggest digital interventions may not be appropriate for this cohort.

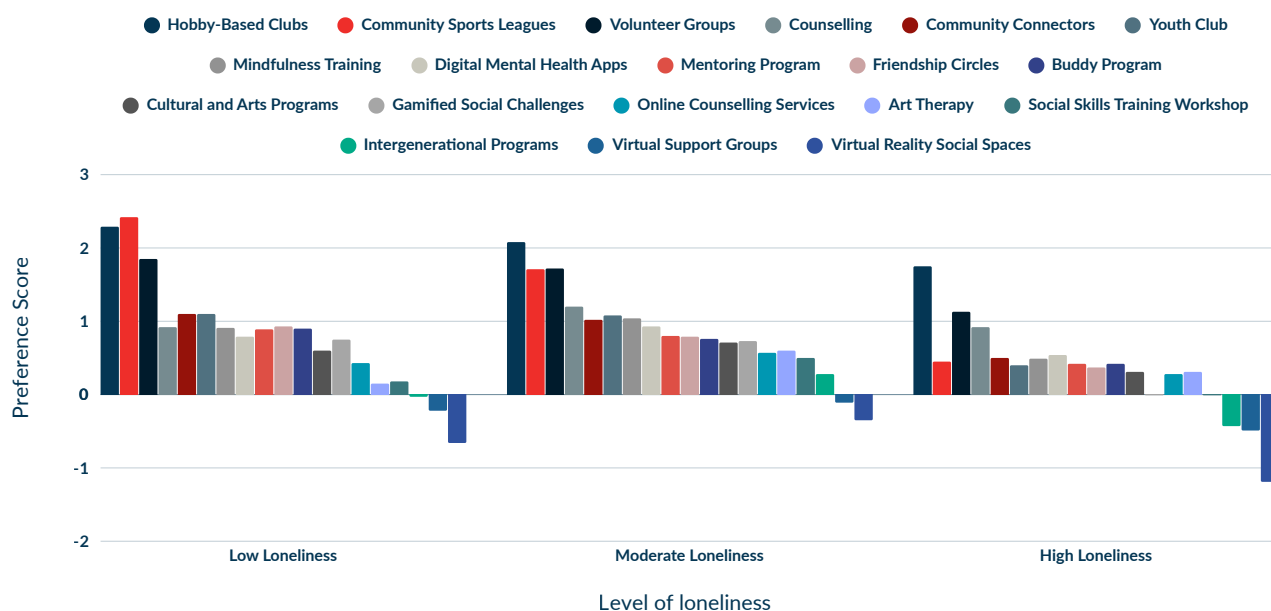
Figure 12. Preferred Types of Intervention Programs by Levels of Loneliness



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants at each level of loneliness.

Figure 13 presents the overall preference scores for specific intervention programs across levels of loneliness. Figure 14 then breaks down the mean interest, perceived effectiveness, and comfort ratings for each intervention across the three loneliness categories.

Figure 13. Preferred Intervention Programs by Levels of Loneliness



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants at each level of loneliness.

Figure 14. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Levels of Loneliness



Intervention preferences were more consistent between participants with low and moderate loneliness than between either group and those with high loneliness. Participants experiencing low and moderate loneliness gave relatively consistent scores for each intervention activity across the three rating dimensions.

By contrast, the high-loneliness group's intervention preferences stood out, with mean ratings across all three dimensions significantly differing from those of the other groups. This trend was especially pronounced in comfort ratings: participants who experienced the highest levels of loneliness had significantly lower comfort ratings compared to other groups for 15 of the 19 interventions (friendship circle, mentoring program, community connectors, community sports leagues, volunteer groups, youth club, cultural and arts programs, hobby-based clubs, intergenerational programs, gamified social challenges, mindfulness training, social skills training workshop, virtual support groups, digital mental health apps, and virtual reality social spaces).

Differences in interest and effectiveness ratings were also primarily driven by participants who experienced high levels of loneliness. The high-loneliness group had significantly lower mean interest ratings than other groups for volunteer groups and gamified social challenges. They also had significantly lower mean perceived effectiveness ratings for mentoring programs, community connectors, volunteer groups, youth clubs, intergenerational programs, gamified social challenges, mindfulness training, digital mental health apps, and virtual reality social spaces.

Overall, these findings suggest potential difficulties combatting loneliness in young Australians who experience high levels of loneliness. Future research should more intricately investigate optimal solutions for

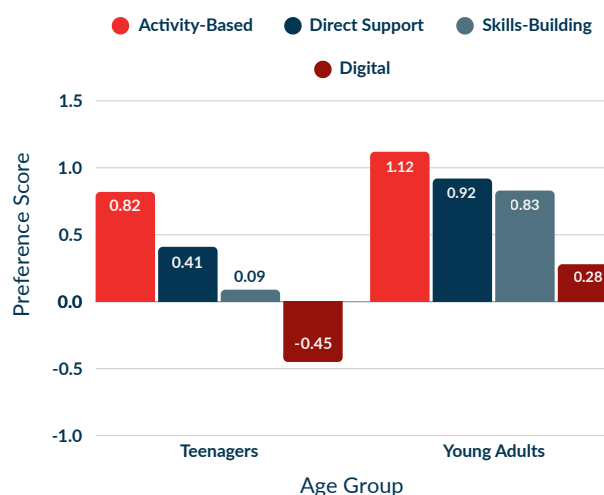
targeting this group.

Intervention Preferences Across Age Group

Comparative analyses were conducted to test whether intervention preferences differed depending on participants' age group. As shown in Figure 15, all participants preferred activity-based and direct support interventions over skills-building and digital interventions, regardless of age group.

Compared to young adults, however, teenage participants expressed less enthusiasm for all intervention types. This finding suggests that practitioners may face greater challenges engaging with this group. Teenagers were most averse to digital interventions, expressing disinterest, perceived ineffectiveness, and discomfort engaging in this intervention type.

Figure 15. Preferred Types of Intervention Programs by Age Group

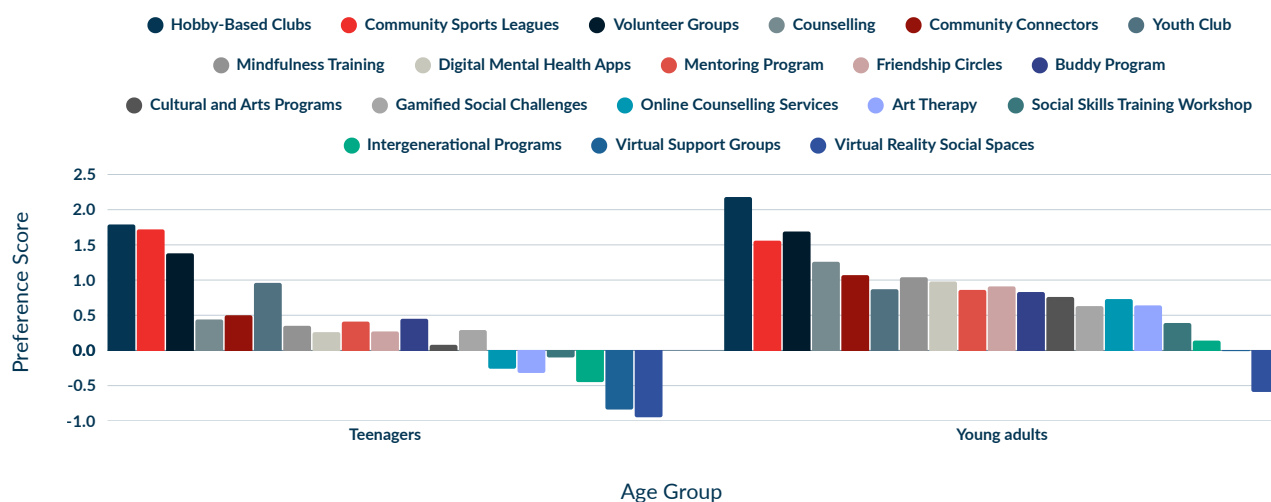


Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants for each age group.

Figure 16 presents the overall preference scores for specific activities across age groups. Figure

17 then details the mean interest, perceived effectiveness, and comfort ratings for teenage and young adult participants.

Figure 16. Preferred Intervention Programs by Age Group



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants for each age group.

Figure 17. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Age Group



Regardless of age group, all participants expressed greatest enthusiasm for hobby-based clubs, community sports leagues, and volunteer groups and weakest support for virtual reality social spaces, virtual support groups, and intergenerational programs. Hobby-based clubs, in particular, received the highest mean scores for interest, perceived effectiveness, and comfort for both teenage and young adult participants.

Group differences emerge when we evaluate participants' mean scores across the rating dimensions. In general, teenage participants gave lower scores compared to their young adult counterparts, particularly for interest and comfort. Their ratings across these dimensions were statistically significantly lower than that of young adults for 15 of the 19 interventions. As a result, teenagers' overall scores for almost all interventions were substantially lower than their young adult peers.

These findings suggest that young adults may be more open to engaging in a greater variety of social connection interventions compared to teenagers. Moreover, they highlight the importance of designing interventions that would spark the interest of teenagers and allow them to comfortably engage.

Intervention Preferences Across Gender Identities

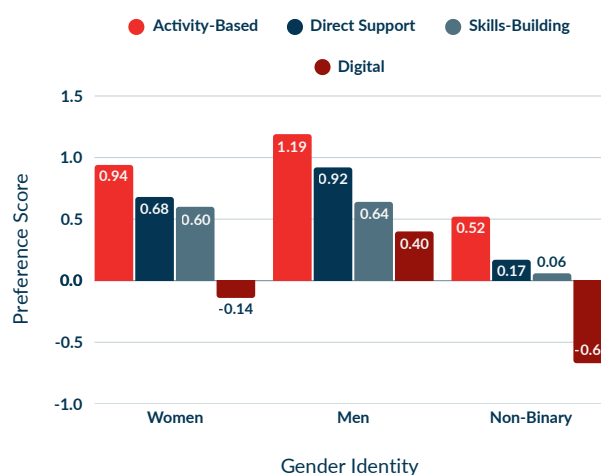
Comparative analyses were also conducted to test whether preferences for interventions differed depending on gender identity. However, it is important to note that our sample featured very few non-binary participants, and a larger sample of this gender identity would be required for more reliable results. Although we include non-binary participants in our comparative analyses, we advise appropriate

caution when interpreting findings related to this group.

Figure 18 shows that all participants preferred activity-based and direct support interventions over skills-building and digital interventions, regardless of their gender identity. Although participants across all gender identities gave the lowest overall scores to digital interventions, men expressed less aversion towards this intervention type compared to women or non-binary participants. The latter groups gave negative mean scores across all three rating dimensions, indicating disinterest, perceived ineffectiveness, and discomfort towards digital interventions.

Of the three groups, non-binary participants expressed the lowest levels of support for each intervention type. This was seen even in their mean overall rating for activity-based interventions, which were their preferred type.

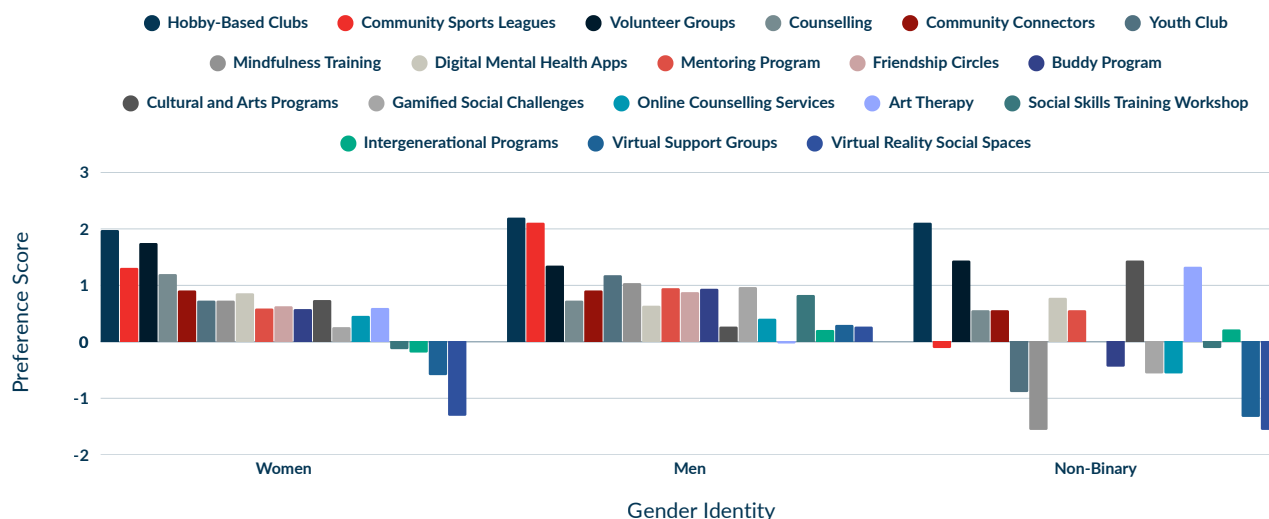
Figure 18. Preferred Types of Intervention Programs by Gender Identity



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants for each gender identification.

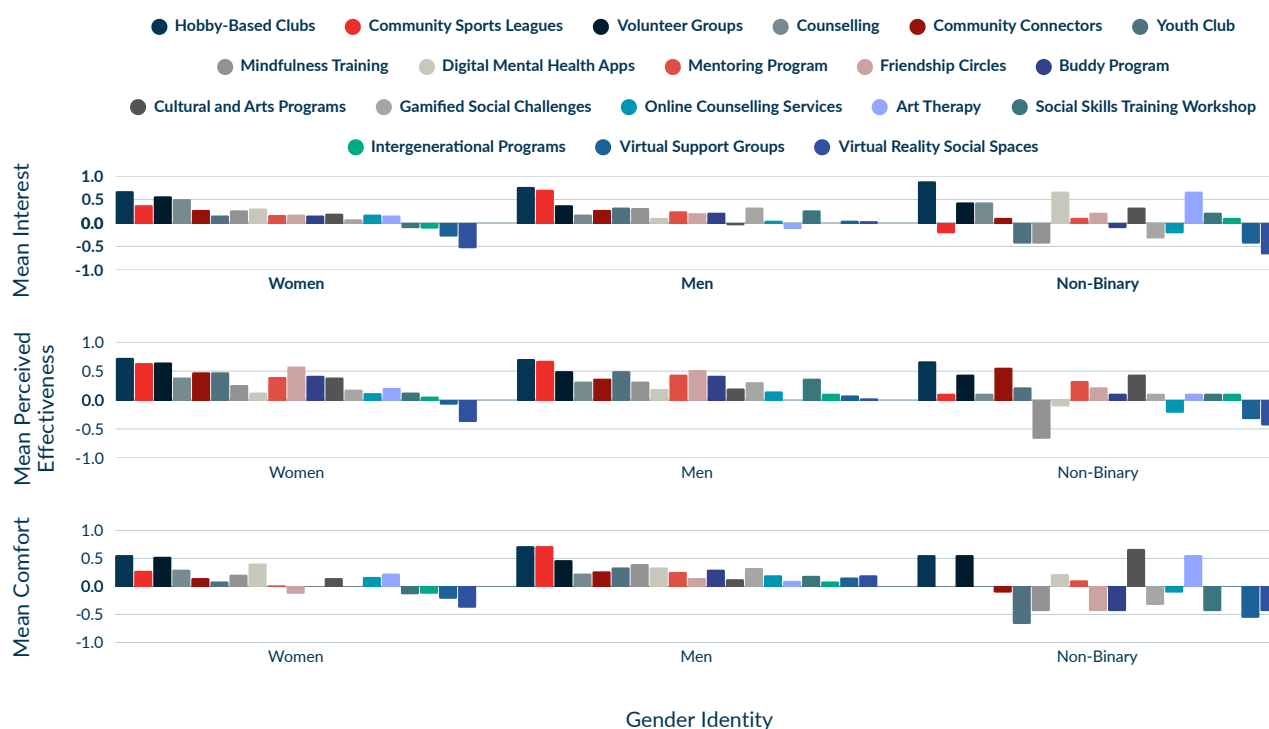
Figure 19 presents the overall preference scores for specific interventions across gender identities. Figure 20 then details the mean interest, perceived effectiveness, and comfort ratings for participants across gender identities.

Figure 19. Preferred Intervention Programs by Gender Identity



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants for each gender identity.

Figure 20. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Gender Identity



Across gender identities, there was a clear preference for hobby-based clubs, which had the highest mean scores for interest and effectiveness and were also highly rated in terms of comfort. Volunteer groups were also favourably rated, regardless of gender identity.

Meanwhile, all groups displayed weaker preferences for digital interventions such as virtual reality social spaces and virtual support groups. Participants who identified as women and non-binary expressed a stronger disinclination towards these interventions than participants who identified as men. Women and non-binary participants generally did not view these interventions as interesting, effective, or comfortable to engage in.

Relative to other groups, non-binary participants displayed aversion to a greater variety of interventions. They were the only group with negative overall ratings towards community sports leagues, youth club, mindfulness training, buddy program, gamified social challenges, and online counselling services. This trend appeared to be driven by the group's comfort ratings, which were often statistically significantly lower than the ratings of peers who identified as women or men. This finding highlights the importance of designing inclusive interventions that provide a safe space for building social connections, regardless of one's gender identity.

Statistical analyses also found that women and men often differed in meaningful ways across rating dimensions for numerous interventions. Specifically, participants who identified as men and women had significantly different interest and comfort ratings for community sports leagues, youth club, gamified social challenges, social skills training workshop, virtual support groups, and virtual reality social spaces. These findings underscore potential ways in which gender may influence young people's

inclinations towards certain intervention activities over others.

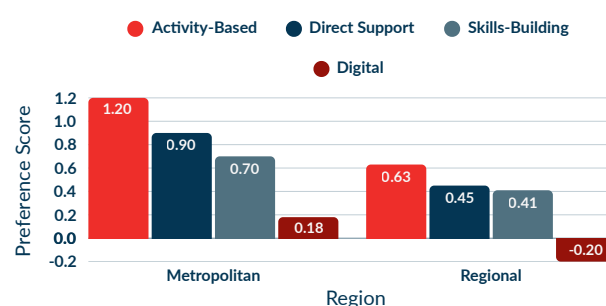
Intervention Preferences Across Regions

Analyses were also conducted to compare intervention preferences across regions. As shown in Figure 21, all participants favoured activity-based and direct support interventions over skills-building and digital interventions, regardless of whether they were in metropolitan or regional areas.

However, regional participants expressed a relatively stronger disinclination towards digital intervention programs compared to their metropolitan peers. Regional participants generally expressed disinterest, perceived ineffectiveness, and discomfort towards this intervention type.

In general, participants in regional areas expressed lower enthusiasm for each intervention type compared to their metropolitan peers. Further research investigating the needs and preferences of regional Australian youth would assist practitioners in developing social connection initiatives that effectively target this group.

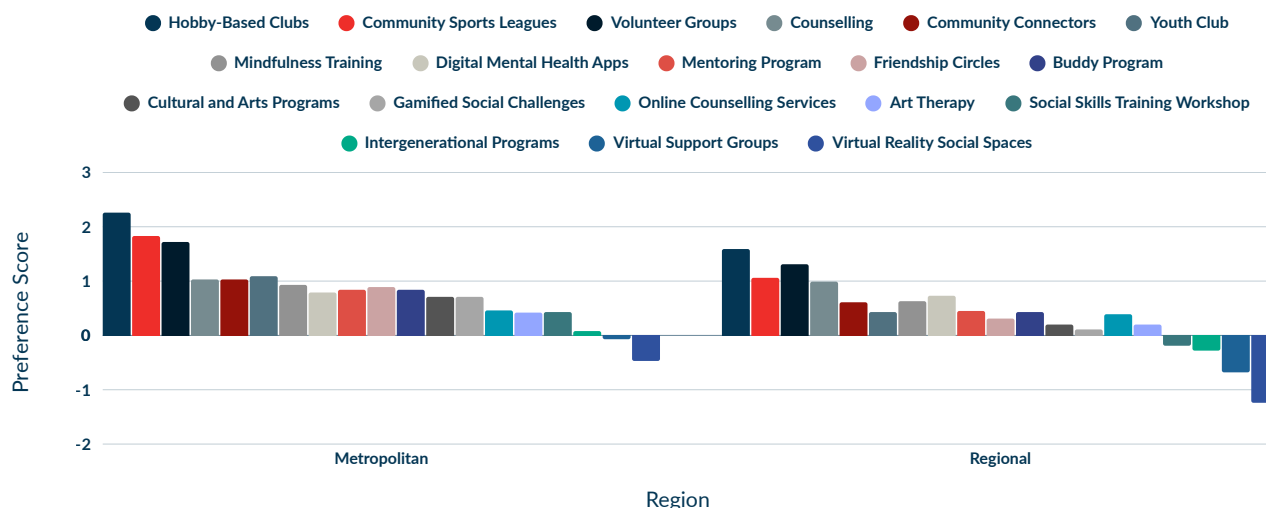
Figure 21. Preferred Types of Intervention Programs by Region



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants in each region

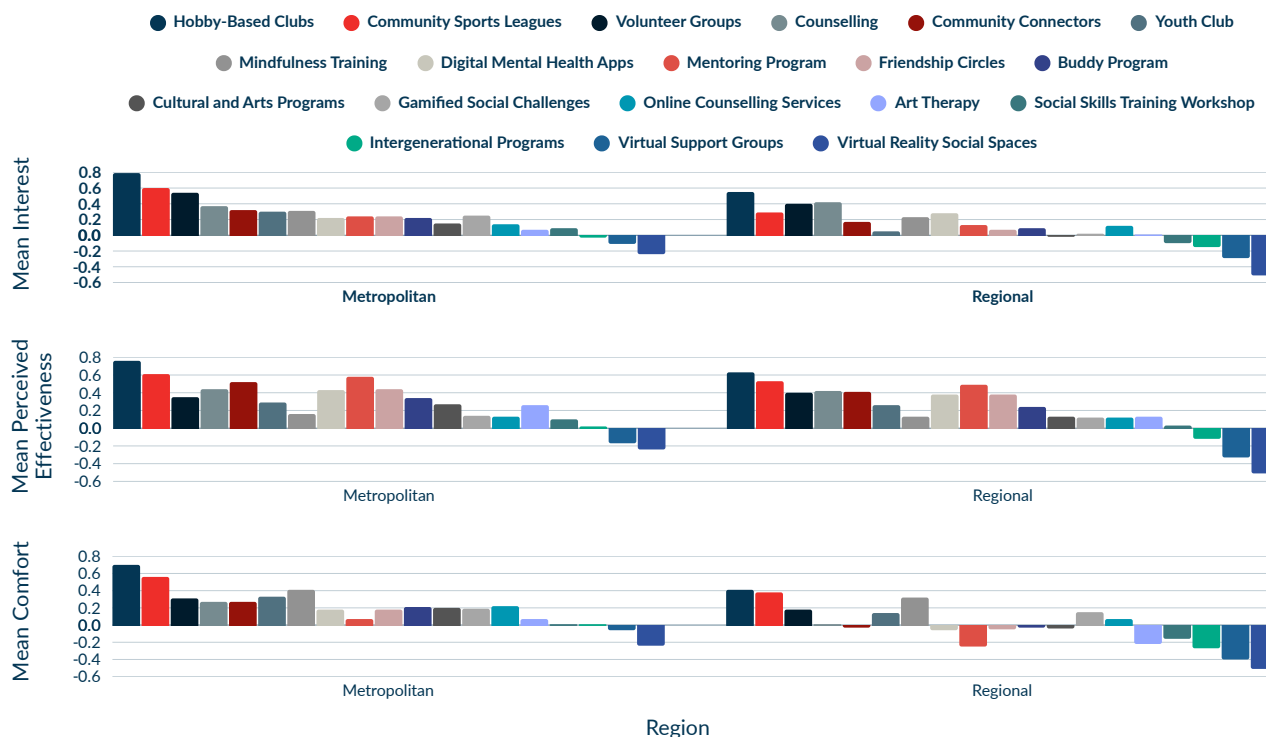
Figure 22 presents the overall preference scores for specific interventions across regions. Figure 26 then details the mean interest, perceived effectiveness, and comfort ratings for participants residing in metropolitan versus regional areas.

Figure 22. Preferred Intervention Programs by Region



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants in each region.

Figure 23. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Region



Metropolitan and regional participants largely agreed on their most and least preferred activities. Across both groups, hobby-based clubs, community sports leagues, and volunteer groups were the most favoured, while virtual reality social spaces, virtual support groups, and intergenerational programs were the least preferred.

Beyond these interventions, however, there was some variability in preferences across regions, driven by statistically significant differences in mean comfort, interest, and perceived effectiveness ratings. Differences were most apparent in mean comfort ratings: regional participants were significantly less comfortable engaging in 17 of the 19 interventions (89%), with digital mental health apps and online counselling services being the only exceptions.

Interest ratings also differed substantially, with regional participants expressing significantly lower interest in 14 of the 19 interventions presented (74%). These included friendship circle, mentoring program, buddy program, community connectors, community sports leagues, volunteer groups, cultural and art programs, hobby-based clubs, intergenerational programs, gamified social challenges, social skills training workshop, virtual support groups, and virtual reality social spaces.

Perceived effectiveness ratings showed the most similarity, though regional participants still rated 10 interventions (53%) significantly lower: friendship circle, community sports leagues, volunteer groups, youth club, cultural and art programs, hobby-based clubs, gamified social challenges, social skills training workshop, virtual support groups, and virtual reality social spaces.

Overall, regional differences in intervention preferences highlight how geographic and

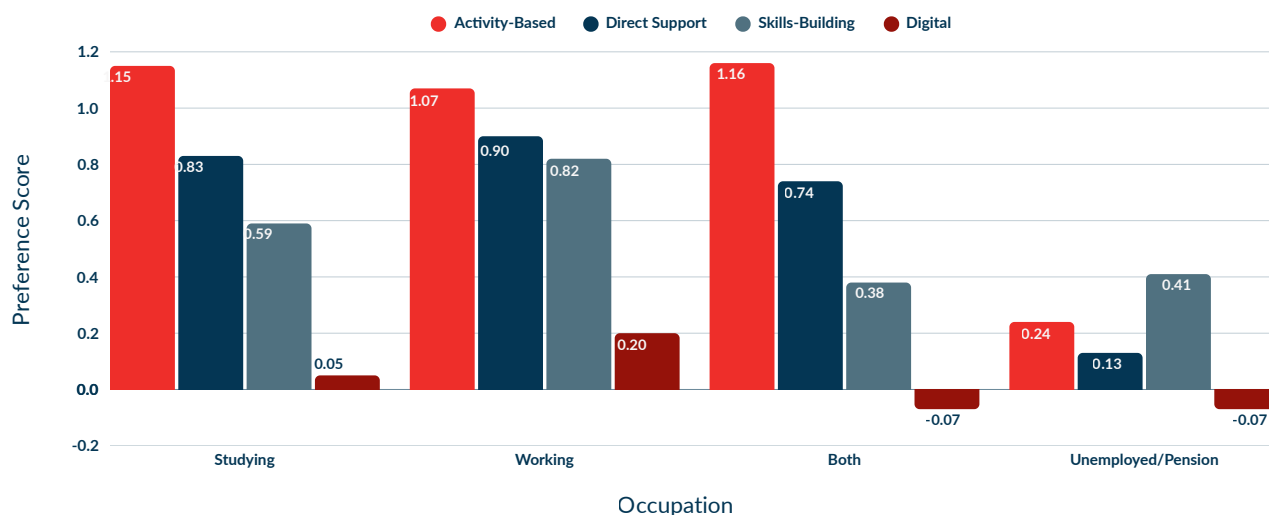
contextual factors may shape young people's interest in and comfort with various activities, as well as their perceived effectiveness in facilitating social connections.

Intervention Preferences Across Occupations

Comparisons of intervention preferences across occupations (see Figure 24) revealed differences between participants who were engaged in education, employment, or both, and participants who were unemployed, seeking employment, or on a pension. The former group showed greater enthusiasm for activity-based and direct support interventions over skills-building and digital interventions. By contrast, participants who were unemployed, seeking employment, or on a pension preferred skills-building and activity-based interventions over direct support and digital interventions.

Overall, participants who were not engaged in education or employment displayed weaker enthusiasm for all intervention types, except skills-building interventions. This may be due to reduced opportunities to develop or practice interpersonal skills outside of formal education or employment contexts. Their lack of support for the different intervention types suggests potential challenges in effectively engaging this group, despite their higher loneliness scores.

Figure 24. Preferred Types of Intervention Programs by Occupation



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants in different occupations.

Figure 25 presents the overall preference scores for specific interventions across occupations. Figure 26 then details the mean interest, perceived effectiveness, and comfort ratings of participants with different occupations.

Figure 25. Preferred Intervention Programs by Occupation



Figure 26. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Occupation



Participants who were engaged in education, employment, or both had considerably different intervention preferences to those who were not engaged in education or employment. They expressed strongest enthusiasm for hobby-based clubs, community sports leagues, and volunteer groups and weakest support for intergenerational programs, virtual support groups, and virtual reality social spaces. Meanwhile, participants who were unemployed, seeking employment, or on a pension preferred hobby-based clubs, volunteer groups, and counselling, and displayed strongest aversion towards gamified social challenges, intergenerational programs, and virtual reality social spaces.

Interestingly, participants who were unemployed, seeking employment, or on a pension gave a negative overall score to

community sports leagues, which was driven by a lack of interest and comfort. Unlike other groups, they were also disinclined towards buddy programs and gamified social challenges.

In general, this group gave statistically significantly lower scores across rating dimensions compared to those engaged in education, employment, or both. This was the case even for the activities that they preferred, such as hobby-based clubs and volunteer groups.

Overall, these findings suggest potential challenges designing social connection interventions that appeal to young Australians who may not be engaged in conventional occupations such as education or employment. Further research should be conducted to better understand the needs of this cohort.

Intervention Preferences Across Income Groups

Comparisons of intervention preferences across income groups revealed greatest enthusiasm for activity-based interventions and weakest support for digital interventions. Participants who earned less than \$26,000/year or more than \$52,000/year both preferred direct support interventions over skills-building interventions. However, participants who earned between \$26,000-\$52,000/year displayed similar levels of preference for these intervention types.

Only participants who earned less than \$26,000/year gave negative scores for digital interventions across all three rating dimensions. Participants who earned between \$26,000-\$52,000/year were most open to digital interventions, though it was their least preferred intervention type.

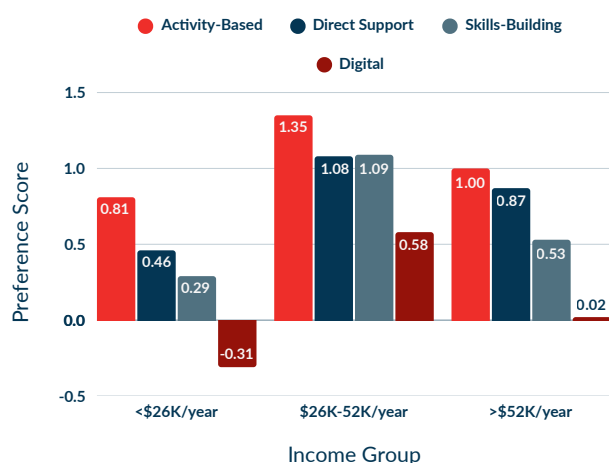


Figure 27. Preferred Types of Intervention Programs by Income Group

Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants in each region.

Figure 28 presents the overall preference scores for specific interventions across income groups. Figure 29 then details the mean interest, perceived effectiveness, and comfort ratings for participants across income groups.

Figure 28. Preferred Intervention Programs by Income Group

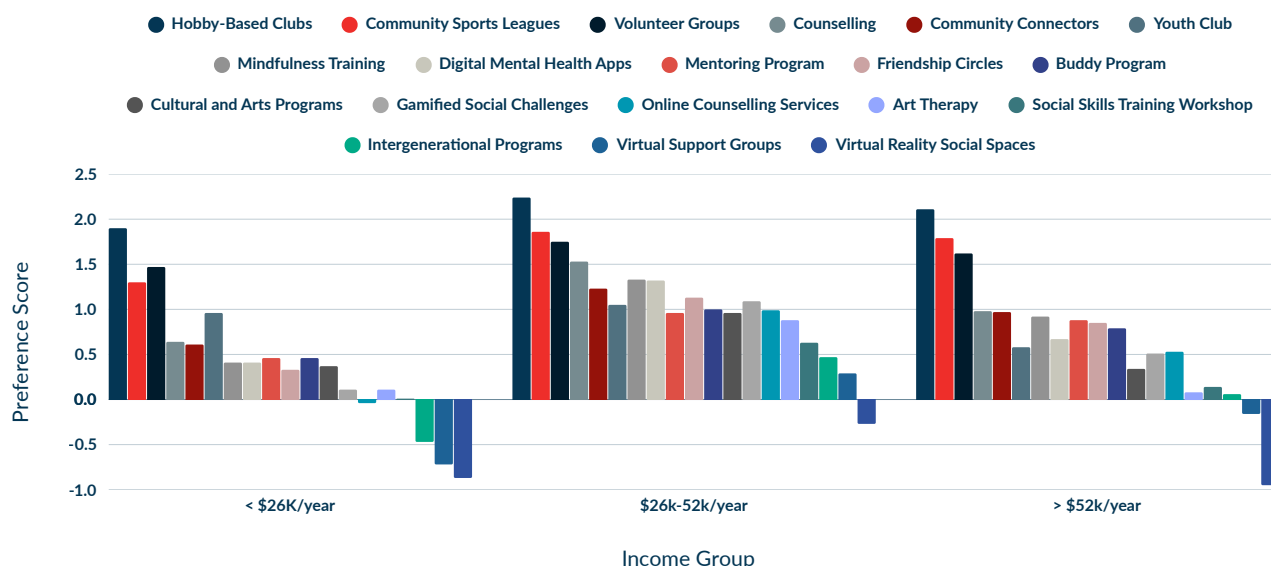
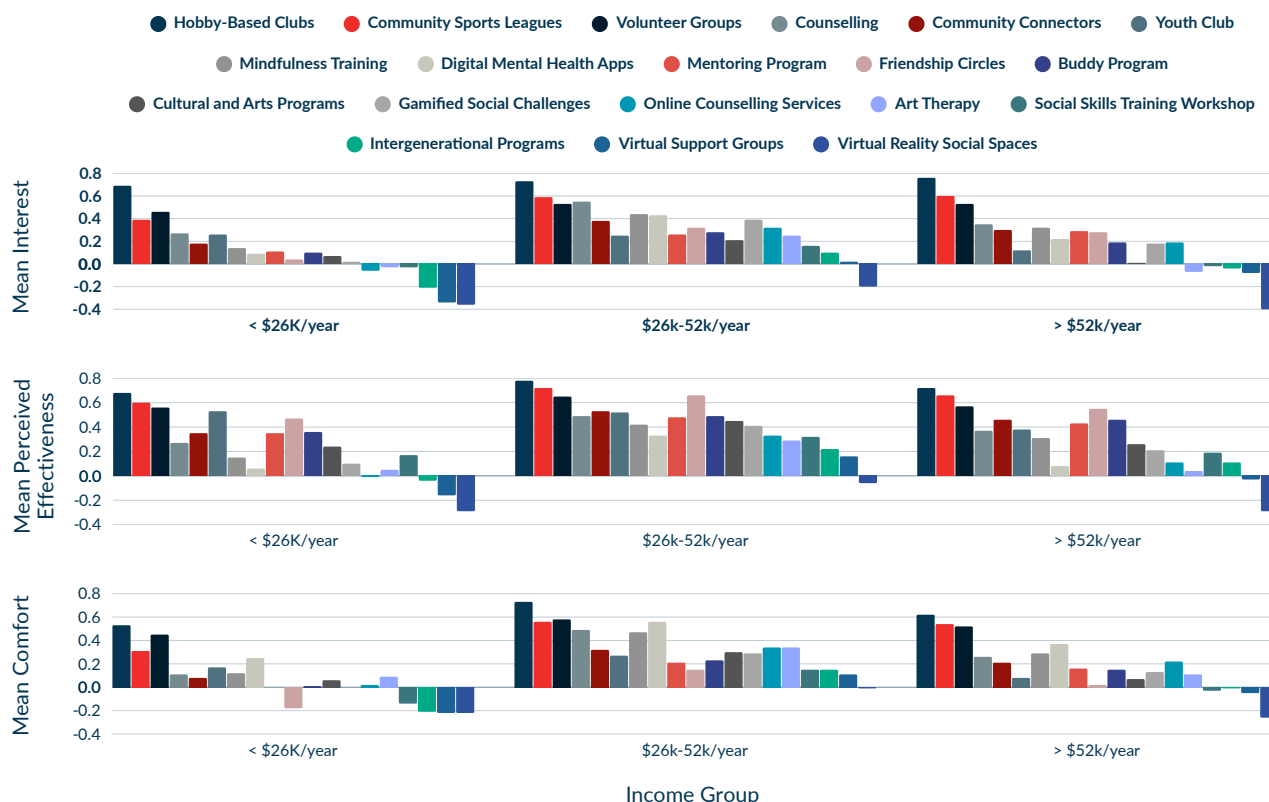


Figure 29. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Income Group



Across all income groups, hobby-based clubs, community sports leagues, and volunteer groups were the preferred activities. Virtual reality social spaces, virtual support groups, and intergenerational programs were the least preferred. Participants who earned up to \$26,000/year expressed the strongest aversion to these intervention activities, giving negative overall scores for all three. However, all three income groups expressed strong aversion towards virtual reality social groups, as seen in their negative overall scores for this activity type.

In general, participants who earned the lowest annual income appeared to express the weakest enthusiasm for the different intervention activities. This group gave the lowest overall ratings for almost every activity except youth club and virtual reality social spaces. Unlike other income groups, participants who earned

up to \$26,000/year expressed stronger relative enthusiasm for youth club, which was largely driven by high mean perceived effectiveness scores.

Meanwhile, the middle-income group expressed the strongest support for most activities, suggesting greatest openness to trying different social connection interventions. They gave statistically significantly higher mean interest ratings than their peers on five interventions, as well as higher mean perceived effectiveness ratings for half of the interventions, and higher mean comfort ratings for seven interventions. As a result, their overall scores for digital mental health apps, art therapy, social skills training workshops, and virtual reality social spaces differed considerably compared to their lower and higher income peers.

Intervention Preferences Across Neurodiversity Conditions

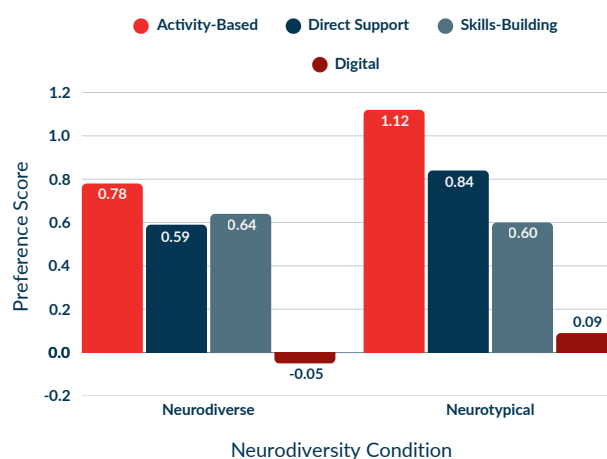
Analyses were also conducted to compare intervention preferences between participants who identified as neurodiverse or neurotypical.

As shown in Figure 30, neurodiverse participants preferred activity-based and skills-building programs over direct support and digital interventions. Neurodiverse participants expressed a disinclination towards digital programs in particular. Meanwhile, neurotypical participants preferred activity-based and direct support programs over skills-building and digital programs.

In general, neurodiverse participants tended to express weaker enthusiasm for all intervention types compared to neurotypical peers, with the

exception of skills-building interventions.

Figure 30. Preferred Types of Intervention Programs by Neurodiversity Condition

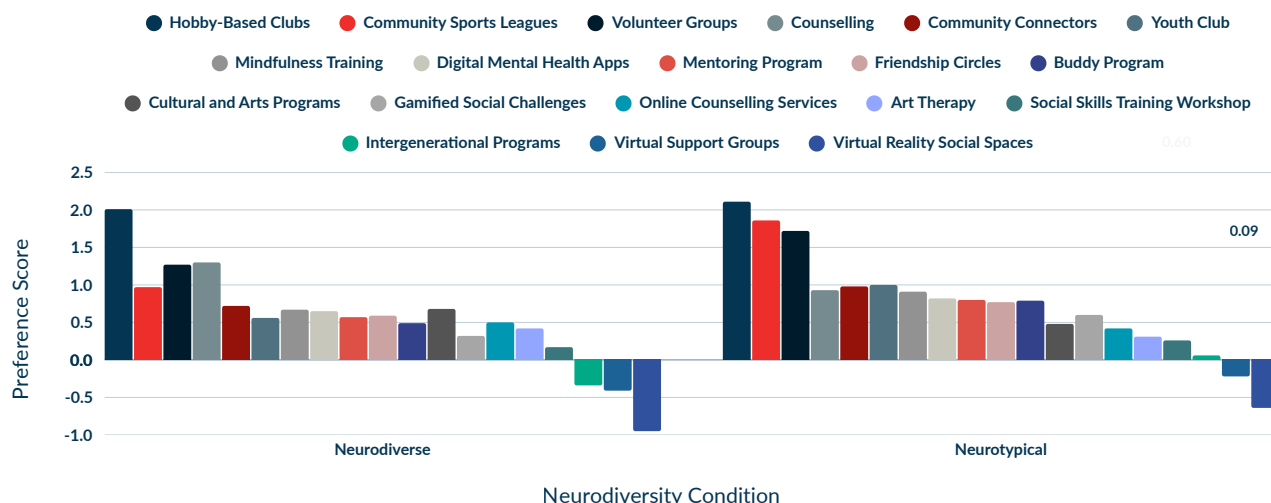


Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants from each linguistic background.



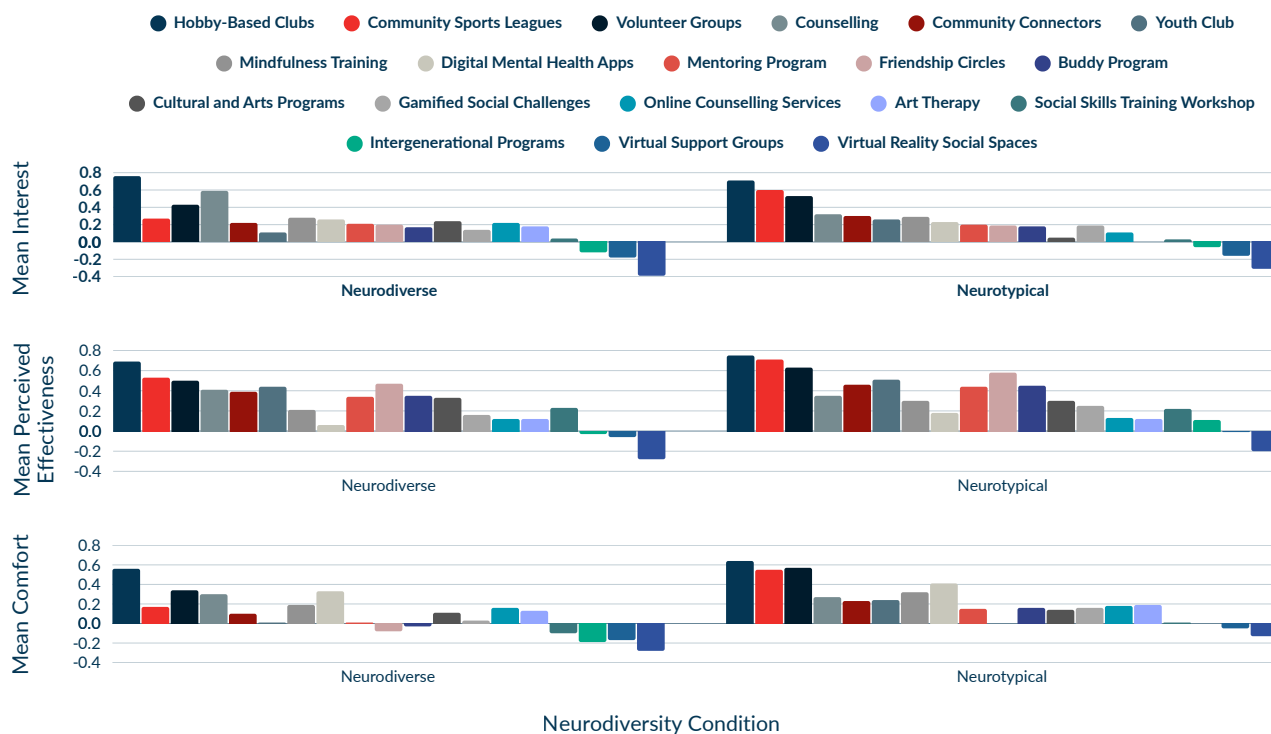
Figure 31 presents overall preference scores for specific interventions across neurodiversity conditions. Figure 32 then details the mean interest, perceived effectiveness, and comfort ratings for neurodiverse and neurotypical participants.

Figure 31. Preferred Intervention Programs by Neurodiversity Condition



Note. Scores reflect the total sum of mean interest, perceived effectiveness, and comfort scores across participants from the neurodiversity conditions.

Figure 32. Mean Interest, Perceived Effectiveness, and Comfort Ratings for Each Intervention Program by Neurodiversity Condition



Both neurodiverse and neurotypical participants gave high overall scores to hobby-based clubs and volunteer groups, and low overall scores to virtual reality social spaces, virtual support groups, and intergenerational programs.

However, beyond these intervention preferences, there were some notable differences between the two groups. Neurodiverse participants expressed weaker preference for community sports leagues, giving statistically significantly lower mean interest, comfort, and effectiveness ratings for this activity. Neurodiverse participants also expressed a stronger preference for counselling, largely driven by significantly higher mean interest ratings.

Group differences were most apparent in mean comfort ratings. There was a statistically significant difference in the two groups' ratings for 11 of the 19 interventions presented (57.89%). As shown in Figure 32, neurodiverse participants were more likely to give negative mean comfort ratings and expressed discomfort towards 6 of the 19 interventions presented (31.58%): friendship circles, buddy program, social skills training workshop, intergenerational programs, virtual support groups, and virtual reality social spaces. This finding suggests that discomfort may be an obstacle for neurodiverse young people seeking to participate in social connection interventions.

Expectations about Social Connection Interventions

Participants were asked to rate how they feel, in general, about participating in the types of social connection interventions described in the survey. These questions aimed to gauge their expectations about how others would react to their participation and about the social outcomes of participating in the programs. This is important because negative expectations can become cognitive barriers that inhibit socially engagement with others (Epley et al., 2022).

As shown in Figure 33, of the 1936 participants who responded to these questions, 557 participants had negative expectation scores (28.77%), 293 participants had neutral expectation scores (15.13%), and 1086 participants had positive expectation scores (56.10%).

Figure 33. Participants' Expectation Scores

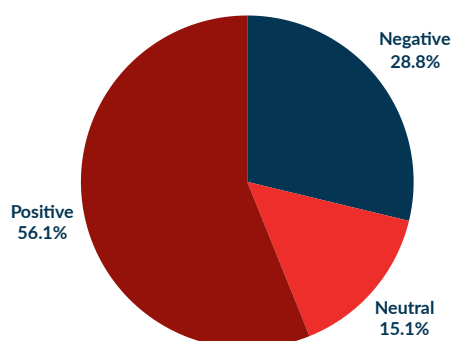


Figure 34. Frequency Distribution of Participants' Scores

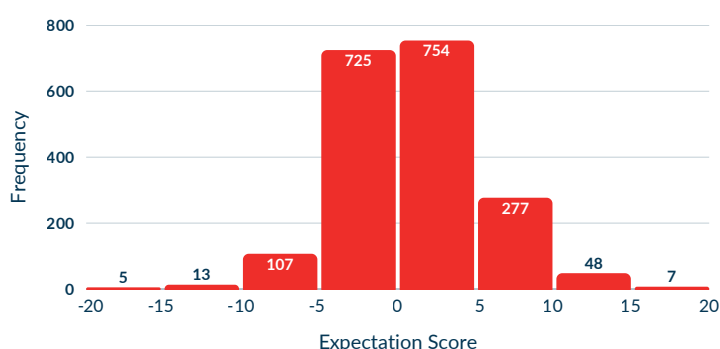


Figure 34 presents participants' expectation scores ($M = 1.57$, $SD = 4.38$). Negative scores indicate negative expectations about their participation (e.g., not receiving meaningful support or feeling concerned that others will judge them), while positive scores indicate positive expectations about their

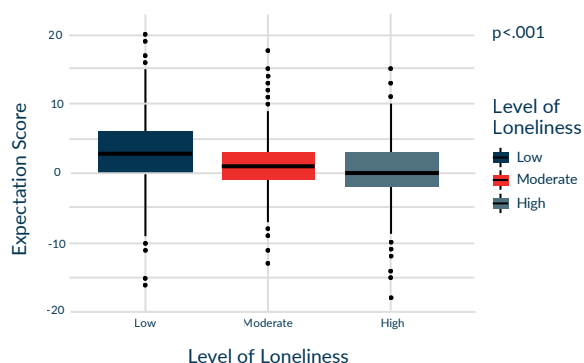
participation (e.g., reduced feelings of loneliness or feeling confident in social situations after participating in the programs).

Participants' expectation scores were significantly and positively correlated with their endorsement of different interventions. Although the strength of correlation was weak to moderate ($0.33 \geq r \geq 0.16$), this finding suggests that participants who had lower expectations generally expressed weaker support for interventions. Meanwhile, participants who had more positive expectations generally expressed stronger support for the programs.

Across the three rating dimensions – interest, perceived effectiveness, and comfort – comfort ratings were most strongly correlated with participants' expectation scores.

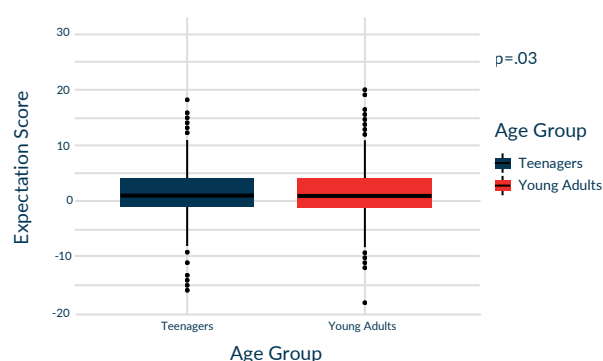
Comparative analyses found significant differences between participants' mean expectation scores depending on their level of loneliness (Figure 35). Participants experiencing high levels of loneliness had statistically significantly lower mean expectation scores compared to participants who experienced moderate or low levels of loneliness. Participants who experienced moderate levels of loneliness also had significantly lower mean expectation scores compared to participants who experienced low levels of loneliness.

Figure 35. Comparison of Expectation Scores Across Levels of Loneliness



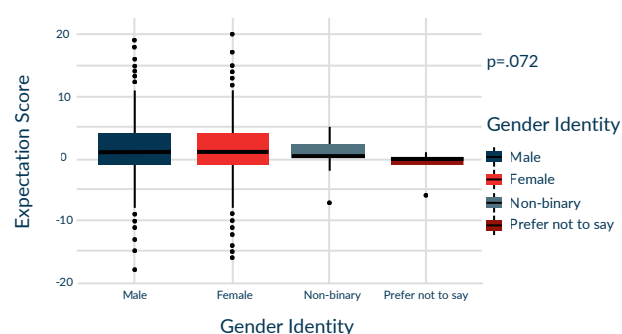
As shown in Figure 36, teenage participants also had significantly lower expectations about interventions than their young adult peers.

Figure 36. Comparison of Expectation Scores Across Age Groups



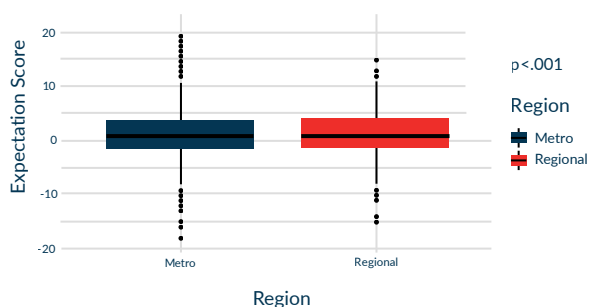
Comparisons of expectation scores across gender identities found no statistically significant differences across groups. Results are presented in Figure 37.

Figure 37. Comparison of Expectation Scores Across Gender Identities



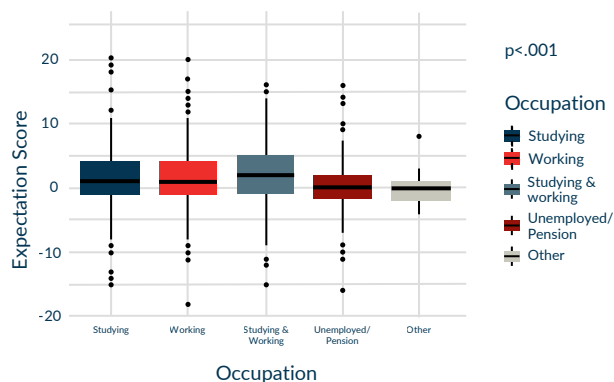
Participants from metropolitan areas had statistically significantly higher mean expectation scores than participants from regional areas (see Figure 38).

Figure 38. Comparison of Expectation Scores Across Regions



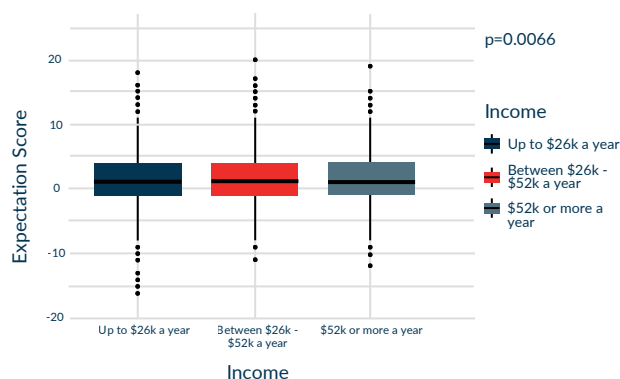
As shown in Figure 39, participants who were not engaged in education or employment had significantly lower expectation scores compared to participants who were engaged in either occupation (or both).

Figure 39. Comparison of Expectation Scores Across Occupations



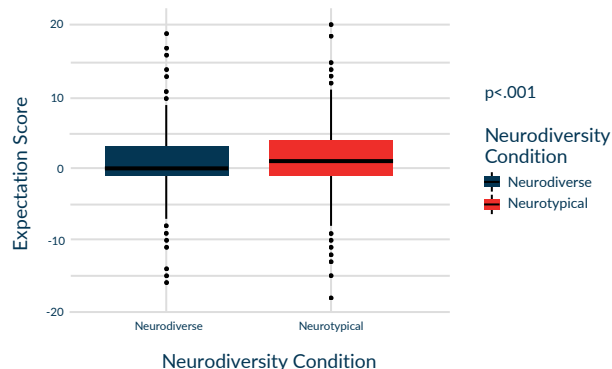
Comparisons across income groups found that participants with the lowest incomes had significantly lower expectation scores compared to participants with the highest incomes. Other pairwise comparisons were not statistically significant.

Figure 40. Comparison of Expectation Scores Across Incomes



Comparisons across neurodiversity conditions also found statistically significant differences. As shown in Figure 41, neurodiverse participants had significantly lower expectation scores compared to their neurotypical peers.

Figure 41. Comparison of Expectation Scores Across Neurodiversity Conditions



Survey Findings | Access to Green Spaces

Key Findings

1. A **persistent divide** emerges between those who regularly use green spaces, and those who either lack access or do not seek out green spaces.
 - Despite being **accessible for the majority of respondents**, 21% face some difficulty accessing green spaces, and 4% had no access at all.
 - Around half of the respondents use green spaces to hang out, enjoy nature, and potentially meet new people, but **15% of participants stated they were unlikely or very unlikely to use green spaces**.
2. Many of the same **sub-groups who expressed lower enthusiasm towards social connection interventions (see Part 4)** are also less likely to access green spaces
 - Those experiencing **high levels of loneliness, teenagers, as well as regional, lower-income, or neurodiverse youth** were less likely to use green spaces.
3. The majority (54%) of young people who participated in the survey **own a dog**, and in turn, were significantly **more likely to use green spaces** than their peers.

In addition to their preferences for different social connection interventions, participants were asked about their access to and likelihood of using green spaces.

As shown in Figure 42, most participants could access green spaces somewhat or very easily. However, more than a fifth of participants faced difficulties accessing green spaces, and a small minority had no access at all.

Figure 42. Participants' Ease of Accessing Green Spaces

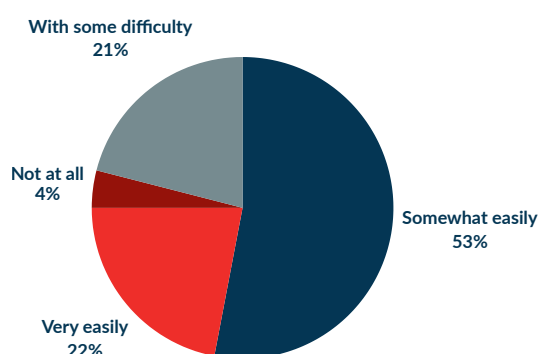
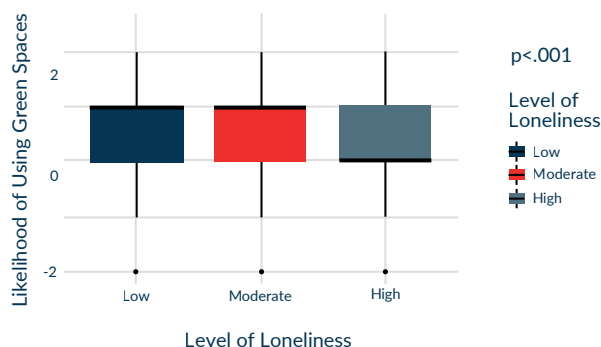


Figure 43 presents participants' likelihood of using green spaces. Most participants stated that they were likely or very likely to use green spaces to hang out, enjoy nature, and potentially meet new people. However, almost a third of participants responded neutrally while approximately 15% of participants stated they were unlikely or very unlikely to use green spaces.

Figure 44. Likelihood of Using Green Spaces Across Levels of Loneliness



Analyses comparing likelihood of using green spaces across age groups found that teenagers were significantly less likely to access green spaces (see Figure 45). However, as shown in Figure 46, there were no significant differences in accessing green spaces across gender identities.

Figure 45. Likelihood of Using Green Spaces Across Age Groups

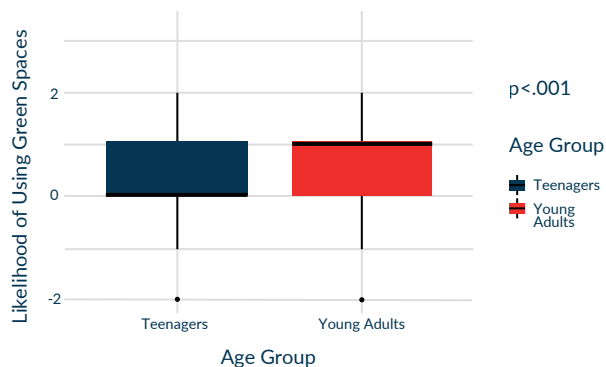
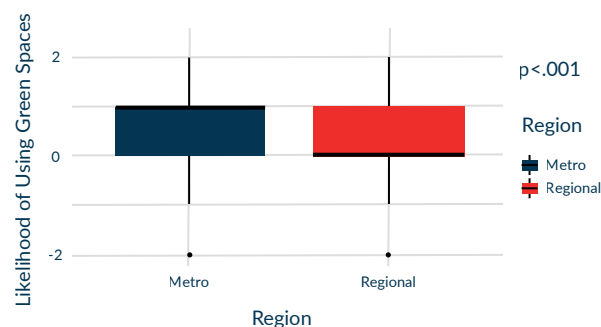


Figure 46. Likelihood of Using Green Spaces Across Gender Identities



Analyses across regions found that participants in metropolitan areas were significantly more likely to use green spaces compared to their regional peers. Results from these analyses are presented in Figure 47.

Figure 47. Likelihood of Using Green Spaces Across Regions



Analyses across occupations found no statistically significant differences between participants who were studying, working, engaged in both activities, or engaged in neither activity (see Figure 48). However, participants earning the lowest incomes (< \$26,000/year) were significantly less likely to access green spaces than middle-income or higher-income participants (see Figure 49).

Figure 48. Likelihood of Using Green Spaces Across Occupations

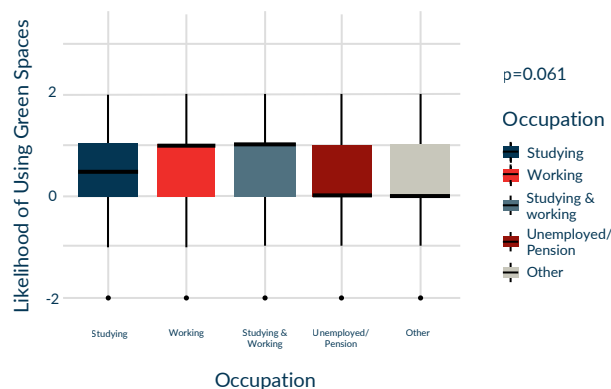
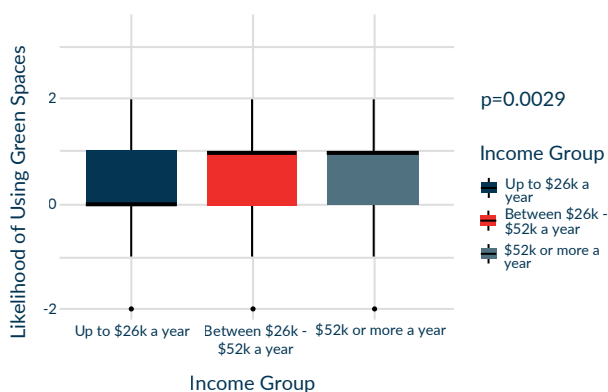
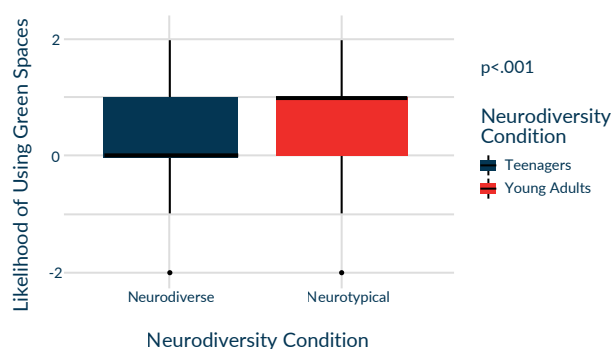


Figure 49. Likelihood of Using Green Spaces Across Income Groups



Comparative analyses were also conducted to see if participants' mean likelihood of accessing green spaces differed depending on whether they associated with any neurodiversity conditions (Figure 50). Neurodiverse participants were significantly less likely to use green spaces than their neurotypical counterparts.

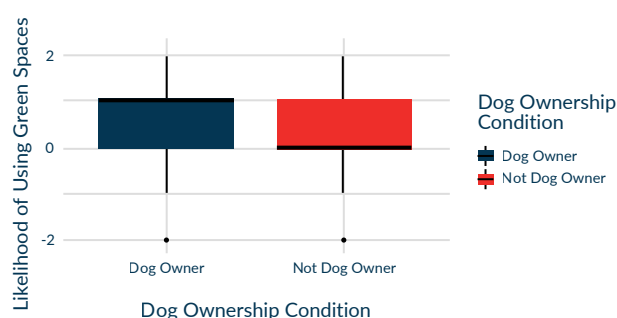
Figure 50. Likelihood of Using Green Spaces Across Neurodiversity Conditions



Finally, analyses were conducted to compare participants' likelihood of accessing green spaces depending on dog ownership. More than half of the young people who participated in the survey owned a dog (53.67%). This aligns with past research that has found that 79% of Australians aged 18-24 years are pet owners and almost half of all Australian households (48%) own pet dogs (Animal Medicines Australia, 2022).

As shown in Figure 51, dog owners were significantly more likely to use green spaces than their peers who did not own a dog.

Figure 51. Likelihood of Using Green Spaces Across Dog Ownership Conditions



Overall, these findings suggest that many of the groups who expressed lower enthusiasm towards social connection interventions may also be less likely to access green spaces: those experiencing high levels of loneliness, teenagers, as well as regional, lower-income, or neurodiverse youth.



Appendix A - Research Methodology

To understand how loneliness interventions impact individuals, particularly adolescents, we undertook a comprehensive review of existing literature, comprising peer-reviewed studies and reports. This literature review provided insights about both successful and less effective strategies used to reduce loneliness around the world (Jefferson et al., 2021; Osborn et al., 2021; Casabianca & Nurminen 2022; Eager et al., 2024; Morrish et al., 2023; Nice et al., 2021; Theurer et al., 2021; Macintyre & Musella, 2023).

Importantly, we found that a multifaceted approach including interpersonal, social, and intrapersonal interventions appears to substantially reduce both short- and long-term feelings of loneliness (Eccles & Qualter, 2021, Morrish et al., 2023). The literature also highlighted the importance of engagement strategies and appropriate use of technology in reducing feelings of loneliness in young people (Watson et al., 2021).

We drew on these findings to design a survey that measures both subjective experiences of loneliness and receptiveness towards various social connection interventions. The survey included the UCLA Loneliness Scale (Hawkley et al., 2005), which is widely recognized for its validity in measuring perceived isolation. Additional sections assessed individuals' willingness to participate in various social programs and their expectations of these initiatives (see the Appendix for a detailed overview of the social programs and survey questions). Survey validation was conducted in consultation with psychologists, academics, and members of the Groundswell Foundation, whose feedback ensured the survey would be both relevant and approachable for young Australians.

The survey was conducted between during the month of November 2024. It was delivered to a target audience of 16-25 year olds living in both metropolitan and regional areas, with the aim to better understand any differences in preferences or needs according to these geographic differences. Pureprofile was engaged to deliver the survey to the target audience.

Together, this approach allowed us to ground our investigation in past research, while addressing gaps identified in the current literature. Our literature review provided a comprehensive understanding of intervention strategies, while the survey captured perceptions and experiences from young people, to ensure our findings would be both practical and actionable.

Ethical considerations were handled in accordance with the National Statement on Ethical Conduct in Human Research, and the Groundswell Foundation compiled a research sub-committee to provide governance and oversight.

The research was overseen by the research subcommittee and undertaken by Brock Bastian, with Moseni Mulemba and Amy Lee.



Brock Bastian

Professor of Social Psychology

Brock is a Professor in the School of Psychological Sciences at the University of Melbourne, researcher and consultant. He is trained as a social psychologist and his research seeks to understand the various social and cultural factors that impact decision-making and wellbeing.

In his research on wellbeing, he has addressed questions such as why promoting happiness may have a downside, the cultural factors leading to depression, and why valuing our negative and painful experiences in life is a critical pathway to achieving happiness. Brock's research on behavioural ethics broadly focuses on the various motivations that shape our ethical decision making around important social issues and how people resolve conflicts of interest. This extends to issues such as the treatment of animals and the environment. Broadly, Brock's research seeks to understand the link between ethical behaviour and personal wellbeing, and why this link is critical to meaning and fulfillment in life.

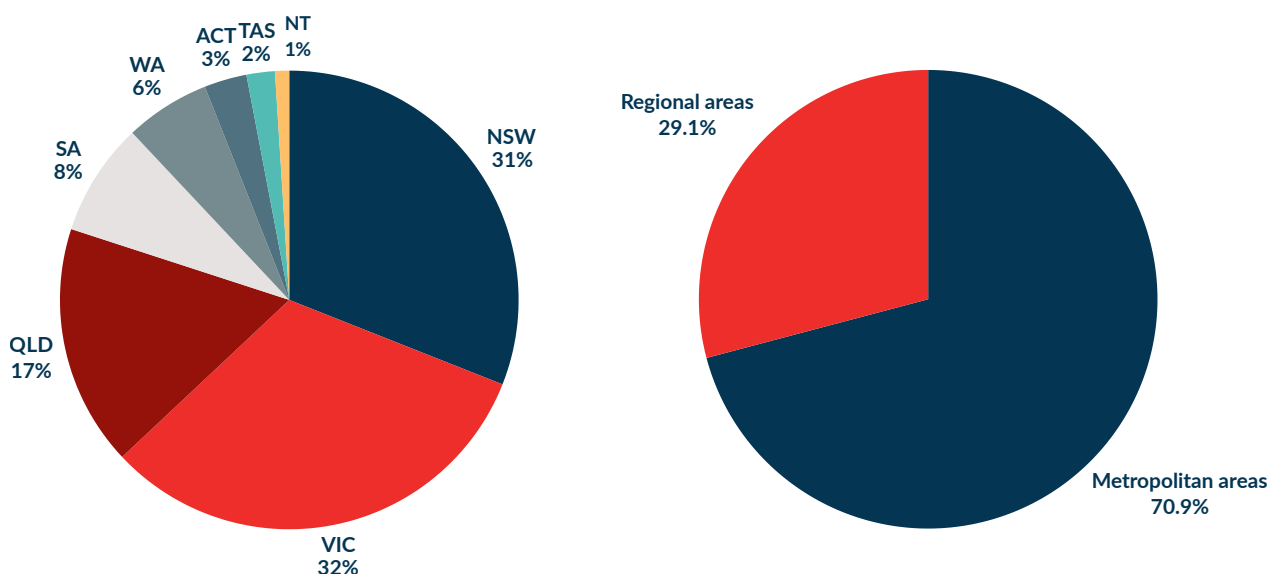
Brock completed his Ph.D. in 2007 and since then has published more than 150 peer-reviewed journal articles and book chapters. His work has been featured in outlets such as The Economist, The New Yorker, TIME, New Scientist, Scientific American, Harvard Business Review, and The Huffington Post, among many others. His innovative approach to research has been acknowledged with the Wegner Theoretical Innovation Prize, and his contribution to psychology has been recognized by the Australian Psychological Society and Society of Australasian Social Psychologists early career researcher awards. Brock's research has been supported by over \$3 million in research funding.

Brock is not only passionate about building scientific knowledge, but also about communicating that knowledge. He has written for popular press outlets, such as The Conversation; delivered popular talks, such as at TEDx StKilda, The Ethics Centre Sydney, and Workplace Wellbeing Festival; and appeared on television programs, such as Insight and the Today Show, and radio shows such as The Minefield and All in The Mind. His first book, The Other Side of Happiness, was published in January 2018.

Appendix B - Survey Demographics

We surveyed 2047 young Australians between 16-25 years old ($M = 21.42$, $SD = 2.74$). Most participants identified as women (60.77%) while 38.54% identified as men, 0.44% as non-binary, and 0.24% preferred not to answer. As shown in Figure 52, participants resided across all Australian States and Territories. Most participants (70.88%) were in metropolitan areas, while 29.12% were located regionally.

Figure 52. Location of Participants



As shown in Table 1, our sample closely matched the state/territory and location breakdown of the broader population of Australian young people. However, compared to the population, our sample had fewer young people between 16-19 years old and a greater proportion between 20-25 years old.

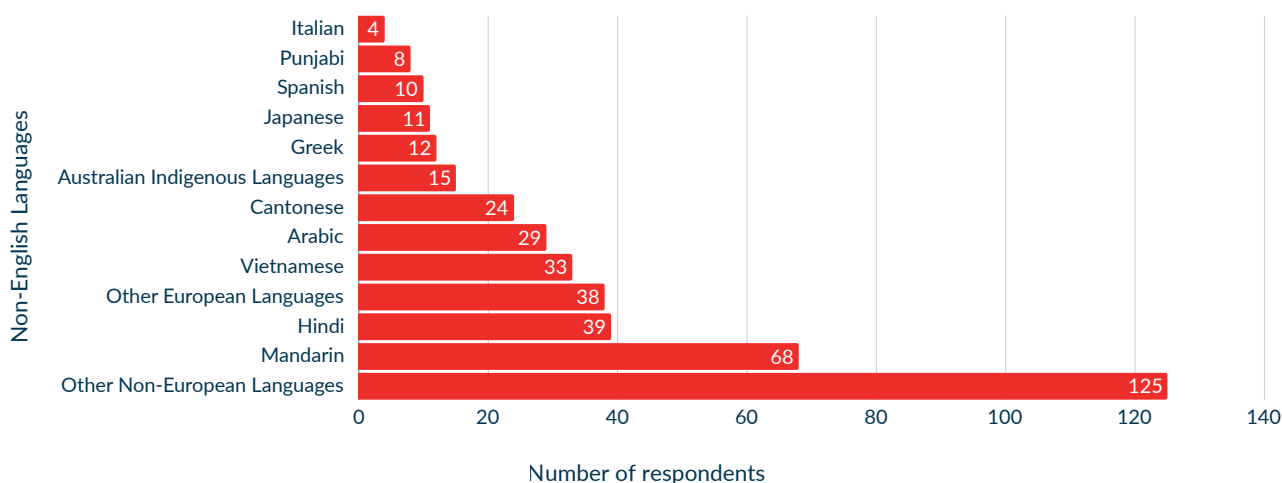
Table 1. Comparison of Sample and Population Demographics

Demographic	Category	Sample	Australian Population*
Age	16-19	29%	47%
	20-25	71%	53%
State/Territory	NSW	31%	31%
	VIC	32%	27%
	QLD	18%	21%
	WA	6%	10%
	SA	8%	7%
	TAS	2%	2%
	ACT	3%	2%
	NT	1%	1%
Location	Metropolitan	71%	75%
	Regional	29%	25%

Note. *Population-level demographics were obtained from the Australian Institute of Health and Welfare (AIHW) (<https://www.aihw.gov.au/reports/children-youth/australias-youth/contents/demographics>) and are based on census data by the Australian Bureau of Statistics (ABS). AIHW defines young people as those aged between 15-24 years. As a result, there is a slight discrepancy in the age categories for the population. Specifically, age categories pertain to 15-19-year-olds and 20-24-year-olds (versus 16-19-year-olds and 20-25-year-olds in our sample). Comparisons of gender across the sample and broader Australian population were not possible because the ABS records biological sex rather than gender.

Most participants spoke only English at home (82.02%) but 17.89% spoke one or more other languages. Figure 53 presents the number of participants who primarily spoke various non-English languages at home.

Figure 53. Count of Main Non-English Languages Spoken by Participants at Home



As shown in Figure 54, most participants spoke English very well or well, although a small minority did not speak English well or at all.

Figure 54. Participants' Self-Described English Proficiency

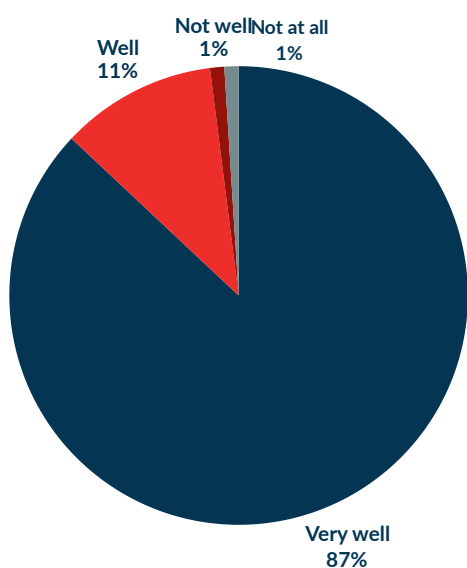
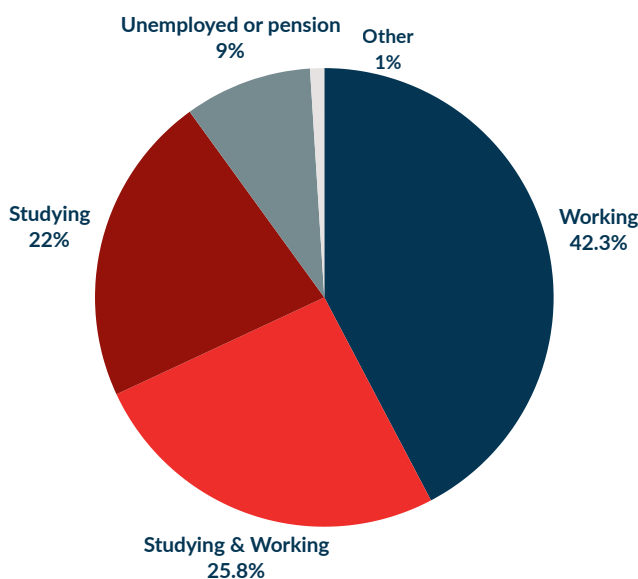


Figure 55. Participants' Occupation



Most participants were working (42.35% or both studying and working (25.79%). About a fifth of participants were studying (21.98%), while 9% were unemployed, seeking employment, or on a pension.

In terms of income, 42.31% of participants earned less than \$500 a week (up to \$26,000/year), 33.22% earned more than \$500 but less than \$1000 a week (between \$26,000-52,000/year), and 24.47% earned more than \$1000 per week (more than \$52,000/year).

Most participants did not consider themselves to be neurodiverse (70.15%). Of those who did, 486 participants (23.74%) associated with a single condition, while 14 participants associated with multiple conditions (0.68%). Of those who associated with a single condition, most participants associated with Attention-Deficit/Hyperactivity Disorder (ADHD; 61.32%), followed by Autism/Asperger's/Autism Spectrum Disorder (ASD; 25.72%), Dyslexia (11.52%) and Dyspraxia (1.23%).

Appendix C - Survey Questions

Demographic Information

Age

Drop-down menu (16-25)

Gender

I identify my gender as:

- ☐ Male ☐ Female ☐ Non-binary ☐ I identify my gender as ☐ Prefer not to say

Location

What is your postcode?

Do you live in a Major City?

- ☐ Yes ☐ No

Do you live in a Regional Area?

- ☐ Yes ☐ No

Do you live in a Rural Area?

- ☐ Yes ☐ No

UCLA Loneliness Scale

Indicate how often you feel the way described in each of the following statements. Choose one for each.

How often do you feel that you lack companionship?

- ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel that you are “in tune” with the people around you?

- ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel that there are people you can talk to?

- ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel left out?

- ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel that there are people you can turn to?

- ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel that you have a lot in common with the people around you?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel close to people?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel isolated from others?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often

How often do you feel part of a group of friends?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often

Intervention Preferences

Sometimes, we all feel a bit lonely and might look for ways to engage with people to feel better. We're going to describe a few different types of activities or interventions that aim to help people build social connection.

We'd love to know what you think about some of these ideas and whether some might be of interest to you. We'll then ask some questions about your selections.

Some of the examples might not feel relevant to you or like things you would feel comfortable engaging with or would be likely to engage with, if so, just indicate 'very unlikely' or 'unlikely'. If you are unsure about whether it would be something you would like to engage with, then indicate 'neutral'. Otherwise, if it feels like something you would feel like engaging with or would be useful, indicate 'likely' or 'very likely' depending on your level of enthusiasm.

"Preference Questions" - asked for each activity / program to assess interest, effectiveness and comfort

Would this be of interest to you?

☐ Very unlikely (-2) ☐ Unlikely (-1) ☐ Neutral (0) ☐ Likely (1) ☐ Very Likely (2)

How effective do you think would this be in helping to build more social connections into your life

☐ Very ineffective (-2) ☐ Ineffective (-1) ☐ Undecided (0) ☐ Effective (1) ☐ Very effective (2)

How comfortable would you personally feel participating in this type of program?

☐ Very uncomfortable (-2) ☐ Uncomfortable (-1) ☐ Neutral (0) ☐ Comfortable (1) ☐ Very comfortable (2)

Direct Support Programs

Some interventions are all about connecting with others on a personal level. These could involve programs where you get to meet new people, build friendships, or receive support from peers and mentors. It's about creating those one-on-one or small group connections that can make you feel more understood and less alone.

Please indicate how likely you would be to engage in each example [using "preference questions"].

- 1. Friendship circle:** Friendship circles are coordinated groups that meet regularly with the aid of a coordinator, to share experiences and build friendships. It's a small, face-to-face group of six to eight people who meet once a week for three months.
- 2. Mentoring program:** A mentoring program is a structured setup where you get to connect with someone who can offer guidance, advice, and support based on their experience, perhaps helping you identify opportunities for connecting with others.
- 3. Buddy program:** Buddies are paired and generally share something in common. Buddies are expected to then regularly check in and support each other, often with a particular focus on a shared activity. It's an opportunity to share experiences and support each other
- 4. Community connectors:** Community Connectors are people who make it easier to find and join activities in your community. Community Connectors start by getting to know each person's unique situation, interests, and needs ensuring the support offered is relevant and meaningful.

Prior engagement: Have you ever engaged in any of the above programs or supports described? Even if it is not exactly the same, but something similar, indicate 'Yes' next to the most relevant program from the list below. If you have never engaged with anything like this before, then just select 'No'.

Friendship circles

☐ Yes ☐ No

Mentoring programs

☐ Yes ☐ No

Buddy Programs

☐ Yes ☐ No

Community Connectors

☐ Yes ☐ No

Activity-Based Programs

Next, we are going to describe some social programs that involve group settings and community settings where there is a central activity. The focus is on engaging in activities that bring people together and foster a sense of belonging.

Please indicate how likely you would be to engage in each example [using "preference questions"].

1. **Community sports leagues:** Participating in a local team sport like soccer or basketball, not only helps you stay active but being part of a team encourages social ties and provides the opportunity to connect with others.
2. **Volunteer groups:** By joining volunteer activities, you meet new people with similar interests, giving you the chance to make friends and be part of a community. It provides a sense of purpose as you contribute to something meaningful and learn new skills.
3. **Youth club:** Youth clubs are targeted to 16–25-year-olds and offer a mix of activities, like sports, arts, workshops, and social events, that cater to different interests and encourage social connection through regular meetings and events.
4. **Cultural and arts programs:** Cultural and art programs offer the opportunity to connect with others while expressing yourself creatively, whether it's a painting class, a theatre group, or a music workshop.
5. **Hobby-based clubs:** Hobby-Based Clubs are social groups formed around shared hobbies or interests, such as reading, hiking, or gaming. Clubs meet regularly, providing consistent opportunities for members to engage in social activities and build their connections.
6. **Intergenerational programs:** Intergenerational programs bring together people from different age groups to hang out and learn from each other. In these programs, younger and older people might do activities like storytelling, gardening, or tech workshops together.
7. **Gamified social challenges:** Gamified Social Challenges are activities that use different challenges, from fitness contests to cooking competitions or online trivia quizzes, to encourage people to connect, either by teaming up for collaborative challenges or competing in friendly competitions.

Prior engagement: Have you ever engaged in any of the above programs or supports described? Even if it is not exactly the same, but something similar, indicate 'Yes' next to the most relevant program from the list below. If you have never engaged with anything like this before, then just select 'No'.

Community sports leagues

☐ Yes ☐ No

Volunteer groups

☐ Yes ☐ No

Youth club

☐ Yes ☐ No

Cultural and arts programs

☐ Yes ☐ No

Hobby-based clubs

☐ Yes ☐ No

Intergenerational programs

☐ Yes ☐ No

Gamified social challenges

☐ Yes ☐ No

Skills-Building Programs

Skills building programs focus on personal growth and self-awareness. These activities help you understand yourself better, manage your emotions, and build inner strength. These techniques build resilience and boost confidence, encouraging you to engage more in social activities and form meaningful connections with others.

Please indicate how likely you would be to engage in each example [using “preference questions”].

1. **Mindfulness training:** Mindfulness training programs can help you make more social connections by teaching you to be more present and aware in your interactions with others. It's all about training your mind to focus on what's happening right now, instead of getting lost in worries or distractions.
2. **Social skills training workshop:** A social skills training workshop is designed to help you feel more comfortable in social situations by teaching essential communication skills like starting conversations, listening, reading body language, and handling conflicts. These workshops are great if you're feeling shy, anxious, or unsure around others.
3. **Counselling:** It is not unusual for anyone at some point in their life to speak to a counsellor. Seeing a counsellor can be helpful for building social connections. They can teach you how to communicate more effectively, manage your emotions, and boost your confidence in social situations.
4. **Art therapy:** Art therapy is a type of therapy that uses creative activities, like drawing, painting, or sculpting, to help people express their feelings and thoughts. Art therapy can be a great way to build connections with others because it often involves group sessions where everyone creates and shares their art.

Prior engagement: Have you ever engaged in any of the above programs or supports described? Even if it is not exactly the same, but something similar, indicate 'Yes' next to the most relevant program from the list below. If you have never engaged with anything like this before, then just select 'No'.

Mindfulness training

☐ Yes ☐ No

Social skills training

☐ Yes ☐ No

Counselling

☐ Yes ☐ No

Art therapy

☐ Yes ☐ No

Digital Programs

Digital tools can help people connect and feel less lonely. These can include social media, online support groups, and apps designed to bring people together who have similar interests or experiences. These tools make it easy to join virtual hangouts, participate in group chats, or find communities that share your hobbies. By using technology, you can keep in touch with friends, make new ones, and have

regular social interactions.

Here are a few examples, please choose any that appeal to you [using “preference questions”].

1. **Virtual support groups:** Virtual Support Groups use online platforms to help people connect and support each other from anywhere. These groups, led by trained facilitators, meet regularly through video calls, chat rooms, or apps, making it easy to join and talk with others who understand what you’re going through.
2. **Digital mental health apps:** Digital Mental Health Apps provide personalized resources like articles, videos, and exercises, including guided meditations and activities. These apps also have social features, like chat rooms and peer support groups, where you can form meaningful bonds with people who understand what you're going through.
3. **Online counselling services:** Online Counselling Services let you connect with counsellors from home using your phone or computer, and provide support to manage feelings like loneliness, anxiety, or stress, and include tools like mood tracking and journaling to help between sessions.
4. **Virtual reality social spaces:** Virtual Reality (VR) Social Spaces are digital environments where you can hang out and interact with others using VR headsets. You create a customizable avatar and enter a 3D world where you can join virtual meetups, play games, attend workshops, and chat with people in real-time.

Prior engagement: Have you ever engaged in any of the above programs or supports described? Even if it is not exactly the same, but something similar, indicate ‘Yes’ next to the most relevant program from the list below. If you have never engaged with anything like this before, then just select ‘No’.

Virtual support groups

☐ Yes ☐ No

Online counselling services

☐ Yes ☐ No

Digital mental health apps

☐ Yes ☐ No

Virtual reality social spaces

☐ Yes ☐ No

Expectations

Thank you for considering and responding to all the above examples. We would like you to take a minute and think about your impression about all these activities and programs and how you feel about them in general. Please let us know your general thoughts on how you think these might work out, and how you would feel about participating in general. This might be hard to do, as there are many different programs described, but we would just like your gut response to each of the questions below.

The following options will be available for each of the below questions.

☐ Strongly disagree (-2) ☐ Disagree (-1) ☐ Neutral (0) ☐ Agree (1) ☐ Strongly agree (2)

- Overall, I expect these programs and supports would make me feel more connected.
- Overall, I believe I would be understood and would receive meaningful support.
- Overall, I would worry that others may not respond positively to my efforts to connect.
- Overall, I am unsure if I would receive the level of understanding or support that I need.
- Overall, I would expect to feel more confident and comfortable in social situations because of participating in the programs.
- Overall, I think people would be friendly and create a welcoming environment.
- Overall, I would feel anxious about interacting with new people or participating in social settings.
- Overall, I think participating would help reduce any feelings of loneliness and isolation.
- Overall, I would be concerned that others may judge or misunderstand me.
- Overall, I do not think I would enjoy engaging in these programs.

Access to Green Spaces

Green spaces provide a communal space where you can hang out, enjoy nature, and potentially meet new people. This might even involve organised activities like outdoor yoga or community garden projects where you can meet likeminded others. We are interested in whether you have access to green spaces, such as parks, reserves, or community gardens where you can interact with others, even informally, but where others from your community also tend to congregate to walk, relax, or do other activities.

How easily can you access a greenspace like this?

- ☐ Not at all (1) ☐ With some difficulty (2) ☐ Somewhat easily (3) ☐ Very easily (4)

How likely are you, or would you be, to use a greenspace like this?

- ☐ Very unlikely (-2) ☐ Unlikely (-1) ☐ Neutral (0) ☐ Likely (1) ☐ Very Likely (2)

What might make it more likely for you to use the greenspaces that are available to you?

Do you own a dog?

- ☐ Yes ☐ No

Open Response Questions

We would like to hear directly from you around things that you believe would help build more social connection in your community. Please take some time to describe in your own words what you think would work, and why.

Using your own words what do you believe is the most effective way to increase social connections among young people in your area?

Do you have any additional suggestions for how to improve support for young people who experience loneliness and want to build more social connections?

Have you engaged with any activities like the ones you have seen above that you have found particularly useful?

Demographic Information (2)

Income

What is your total income each week, before any deductions or tax?

- ☐ Less than \$500 a week (\$26k a year)
- ☐ More than \$500 but less than \$1000 a week (between \$26k and \$52k a year)
- ☐ \$1000 or more a week (\$52k or more a year)

Language

Do you speak a language other than English at home?

- ☐ No, English only
- ☐ Yes, one or more other languages

If Yes: What is the main other language you speak at home?

- | | | |
|--|--------------------------------|--|
| <input type="radio"/> Australian Indigenous language | <input type="radio"/> Japanese | <input type="radio"/> Spanish |
| <input type="radio"/> Mandarin | <input type="radio"/> Italian | <input type="radio"/> Punjabi |
| <input type="radio"/> Arabic | <input type="radio"/> Greek | <input type="radio"/> Other European |
| <input type="radio"/> Cantonese | <input type="radio"/> Hindi | <input type="radio"/> Other non-European |
| <input type="radio"/> Vietnamese | | |

If Yes: How well do you speak English?

- | | |
|---------------------------------|----------------------------------|
| <input type="radio"/> Very well | <input type="radio"/> Not well |
| <input type="radio"/> Well | <input type="radio"/> Not at all |

Relationship status

What is your relationship status (select any that apply):

- | | |
|---------------------------------|---|
| <input type="radio"/> Married | <input type="radio"/> Never married |
| <input type="radio"/> Widowed | <input type="radio"/> In a relationship |
| <input type="radio"/> Divorced | <input type="radio"/> Other |
| <input type="radio"/> Separated | <input type="radio"/> Prefer not to say |

Education

What is the highest level of school you have completed or the highest degree you have received?

- | | |
|---|---|
| <input type="radio"/> Masters, Doctorate, Graduate Diploma or Certificate | |
| <input type="radio"/> Bachelor's degree | <input type="radio"/> School Year 10 or below |
| <input type="radio"/> Certificate training | <input type="radio"/> Still in education |
| <input type="radio"/> School Year 12 or equivalent | <input type="radio"/> Prefer not to say |

Living arrangements

Which of the following describes your current living situation?

- | | |
|---|---|
| <input type="radio"/> Own my home | <input type="radio"/> Living with relatives (extended) own home |
| <input type="radio"/> Rent my home | <input type="radio"/> Living with non-relatives in rent home |
| <input type="radio"/> Residential assisted living | <input type="radio"/> Living with non-relatives in own home |
| <input type="radio"/> Living with my family (mum and dad) rent home | <input type="radio"/> Other (please specify) |
| <input type="radio"/> Living with my family (mum and dad) own home | <input type="radio"/> Prefer not to say |
| <input type="radio"/> Living with relatives (extended) rent home | |

Neurodiversity

Which named conditions do you associate with?

- | | |
|---|--|
| <input type="radio"/> Autism/Asperger's/ASD | <input type="radio"/> None of the Above |
| <input type="radio"/> Dyslexia | <input type="radio"/> Other (please specify) |
| <input type="radio"/> Dyspraxia | <input type="radio"/> Prefer not to say |
| <input type="radio"/> ADHD | |

Appendix D: References

Allison, M., & Catts, R. (2012). Youth club connections. In J. Allan & R. Catts (Eds.), *Social capital, children and young people: Implications for practice, policy and research* (pp. 77-98). Policy Press.
<https://doi.org/10.1332/policypress/9781847429285.003.0005>

Animal Medicines Australia (2022). *Pets in Australia: A national survey of pets and people*.
https://animalmedicinesaustralia.org.au/wp-content/uploads/2022/11/AMAU008-Pet-Ownership22-Report_v1.6_WEB.pdf

Arnberger, A., Eder, R., Alex, B., Wallner, P., Weitensfelder, L., Hutter, H. (2024). Urban green space preferences for various health-related psychological benefits of adolescent pupils, university students and adults. *Urban Forestry & Urban Greening*, 98, 128396. <https://doi.org/10.1016/j.ufug.2024.128396>

Arriaga, P., Simoes, M. P., Marques, S., Freitas, R., Pinto, H. D., Prior, M. P., Candeias, S., & Rodrigues, M. (2024). From art to insight: The role of a creative arts therapies group workshop on college students' well-being, self-awareness, and loneliness. *The Arts in Psychotherapy*, 90, 102188. <https://doi.org/10.1016/j.aip.2024.102188>

Arteaga-Checa, M., Manzano-Sánchez, D., & Belando-Pedreño, N. (2023). "Know yourself" intervention program for the development of intrapersonal intelligence in university students. *Sustainability*, 15(20), 14802.
<https://doi.org/10.3390/su152014802>

Astell-Burt, T., Hartig, T., Eckermann, S., Nieuwenhuijsen, M., McMunn, A., Frumkin, H., Feng, X. (2022). More green, less lonely? A longitudinal cohort study. *International Journal of Epidemiology*, 51 (1). <https://doi.org/10.1093/ije/dyab089>

Australian Institute of Health and Welfare (2021). *Australia's youth*. <https://www.aihw.gov.au/reports/children-youth/australias-youth/contents/demographics>

Badcock, J. C., Holt-Lunstad, J., Garcia, E., Bombaci, P., & Lim, M. H. (2022). Position statement: Addressing social isolation and loneliness and the power of human connection. *Global Initiative on Loneliness and Connection (GILC)*.
<http://www.gilc.global/general-6>

Balcombe, L., & De Leo, D. (2022). Evaluation of the use of digital mental health platforms and interventions: scoping review. *International Journal of Environmental Research and Public Health*, 20(1), 362.
<https://doi.org/10.3390/ijerph20010362>

Bold Science (2024). Loneliness in young people should not be ignored. *Bold Science*.
<https://boldscience.org/loneliness-in-young-people-should-not-be-ignored/>

Boucher, E. M., McNaughton, E. C., Harake, N., Stafford, J. L., & Parks, A. C. (2021). The impact of a digital intervention (Happify) on loneliness during COVID-19: Qualitative focus group. *JMIR Mental Health*, 8(2), e26617.
<https://doi.org/10.2196/26617>

Braithwaite, D. O., Waldron, V. R., & Finn, J. (1999). Communication of social support in computer-mediated groups for people with disabilities. *Health Communication*, 11(2), 123-151. https://doi.org/10.1207/s15327027hc1102_2

Campbell, F., Whear, R., Rogers, M., Sutton, A., Robinson-Carter, E., Barlow, J., ... & Thompson-Coon, J. (2023). Non-familial intergenerational interventions and their impact on social and mental wellbeing of both younger and older people—A mapping review and evidence and gap map. *Campbell systematic reviews*, 19(1), e1306.
<https://doi.org/10.1002/cl2.1306>

Casabianca, E. J., & Nurminen, M. (2022). Interventions to reduce loneliness among youth. Office of the European Union. <https://dx.doi.org/10.2760/793941>

Cattan, M., White, M., Bond, J., & Learmouth, A. (2005). Preventing social isolation and loneliness among older people: A systematic review of health promotion interventions. *Ageing and Society*, 25(1), 41-67. <https://doi.org/10.1017/S0144686X04002594>

Dadswell, A., Wilson, C., Bungay, H., & Munn-Giddings, C. (2017). The role of participatory arts in addressing the loneliness and social isolation of older people: A conceptual review of the literature. *Journal of Arts and Communities*, 9(2), 109-128. https://doi.org/10.1386/jaac.9.2.109_1

Della Longa, L., Valori, I., & Farroni, T. (2022). Interpersonal affective touch in a virtual world: Feeling the social presence of others to overcome loneliness. *Frontiers in Psychology*, 12, Article 795283. <https://doi.org/10.3389/fpsyg.2021.795283>

Eager, S., Johnson, S., Pitman, A., et al. (2024). Young people's views on the acceptability and feasibility of loneliness interventions for their age group. *BMC Psychiatry*, 24(308). <https://doi.org/10.1186/s12888-024-05751-x>

Eccles, A. M., & Qualter, P. (2021). Review: Alleviating loneliness in young people - a meta-analysis of interventions. *Child and Adolescent Mental Health*, 26(1), 17-33. <https://doi.org/10.1111/camh.12389>

Ending Loneliness Together. (2023). State of the Nation Report: Social connection in Australia 2023. <https://lonelinessawarenessweek.com.au/wp-content/uploads/2023/08/state-of-nation-social-connection-2023.pdf>

Erford, B., Kress, V., Giguere, M., Cieri, D., & Erford, B. (2015). Meta-analysis: Counseling outcomes for youth with anxiety disorders. *Journal of Mental Health Counseling*, 37(1), 63-94. <http://dx.doi.org/10.17744/mehc.37.1.mgj66326868u33g2>

Fallavollita, W. L., & Lyons, M. D. (2023). Social acceptance from peers and youth mentoring: Implications for addressing loneliness and social isolation. *Journal of Community Psychology*, 51(5), 2065-2082. <https://doi.org/10.1002/jcop.23002>

Feng, X., Astell-Burt, T., (2022). Lonelygenic environments: a call for research on multilevel determinants of loneliness. *The Lancet Planetary Health*, 6 (12), e933 - e934. [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(22\)00306-0/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(22)00306-0/fulltext)

Frewen, P. A., Evans, E. M., Maraj, N., Dozois, D. J., & Partridge, K. (2008). Letting go: Mindfulness and negative automatic thinking. *Cognitive Therapy and Research*, 32(6), 758-774. <http://dx.doi.org/10.1007/s10608-007-9142-1>

Giebel, C., Hassan, S., Harvey, G., Devitt, C., Harper, L., & Simmill-Binning, C. (2022). Enabling middle-aged and older adults accessing community services to reduce social isolation: Community Connectors. *Health and Social Care in the Community*, 30(2), e461-e468. <https://doi.org/10.1111/hsc.13228>

Gkintoni, E., Vantaraki, F., Skoulidi, C., Anastassopoulos, P., & Vantarakis, A. (2024). Promoting physical and mental health among children and adolescents via gamification-a conceptual systematic review. *Behavioral Sciences*, 14(2), 102. <https://doi.org/10.3390/bs14020102>

Grace, E., Raghavendra, P., Newman, L., Wood, D., & Connell, T. (2014). Learning to use the Internet and online social media: What is the effectiveness of home-based intervention for youth with complex communication needs? *Child Language Teaching and Therapy*, 30(2), 141-157. <https://doi.org/10.1177/0265659013518565>

Gresham, F. M. (2002). Best Practices in Social Skills Training. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 1029-1040). National Association of School Psychologists.

Gresham, F. M. (2017). Evidence-based interventions for social skill deficits in children and adolescents. In L. A. Theodore (Ed.), *Handbook of evidence-based interventions for children and adolescents* (pp. 365–376). Springer Publishing Company.

Hawkey, L. C., Browne, M. W., & Cacioppo, J. T. (2005). How can I connect with thee?: Let me count the ways. *Psychological Science*, 16(10), 798–804. <https://doi.org/10.1111/j.1467-9280.2005.01617.x>

Holt-Lunstad, J., Smith, T., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science*, 10(2), 227–237. <https://doi.org/10.1177/1745691614568352>

Jansson, A., & Pitkälä, K. H. (2021). Circle of Friends, an encouraging intervention for alleviating loneliness. *The Journal of Nutrition, Health and Aging*, 25(6), 714–715. <https://doi.org/10.1007/s12603-021-1615-5>

Jefferson, R., Barreto, M., Qualter, P., & Verity, L. (2021). Are we going enough to address loneliness in adolescence? Fit to Belong. <https://fit2belong.eu/sites/default/files/resources/Are%20we%20doing%20enough%20to%20address%20loneliness%20in%20adolescence%20.pdf>

Kirby, J. B., Babkes Stellino, M., Lewis, C., Humphrey, K., Gordon, K., & Lindsay, K. G. (2022). You've got a friend in me: Fostering social connection among college students through peer-led physical activity. *Health Promotion Practice*, 23(6), 907–911. <https://doi.org/10.1177/15248399211072535>

Kok, S. (2024). You can be your tool to loneliness: A qualitative study on intrapersonal solutions for loneliness among young adults (Master's thesis). Utrecht University.

Lai, B., Young, R., Craig, M., Chaviano, K., Swanson-Kimani, E., Wozow, C., Davis, D., & Rimmer, J. H. (2023). Improving social isolation and loneliness among adolescents with physical disabilities through group-based virtual reality gaming: Feasibility pre-post trial study. *JMIR Formative Research*, 7, e47630. <https://doi.org/10.2196/47630>

Lim, M. H., Rodebaugh, T. L., Eres, R., Long, K. M., Penn, D. L., & Gleeson, J. F. (2019). A pilot digital intervention targeting loneliness in youth mental health. *Frontiers in psychiatry*, 10, 453345. <https://doi.org/10.3389/fpsy.2019.00604>

Lim, M. H., Gleeson, J. F. M., Rodebaugh, T. L., Eres, R., Long, K. M., Casey, K., Abbott, J. M., Thomas, N., & Penn, D. L. (2020). A pilot digital intervention targeting loneliness in young people with psychosis. *Social Psychiatry and Psychiatric Epidemiology*, 55(7), 877–889. <https://doi.org/10.1007/s00127-019-01681-2>

Lindsay, E. K., Young, S., Brown, K. W., Smyth, J. M., & Creswell, J. D. (2019). Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial. *Proceedings of the National Academy of Sciences of the United States of America*, 116(9), 3488–3493. <https://doi.org/10.1073/pnas.1813588116>

Live Healthily. Why loneliness is affecting young people and how to tackle it. Live Healthily. <https://www.livehealthily.com/health-library/why-loneliness-is-affecting-young-people-and-how-to-tackle-it>

MacDonald, K. J., Willemsen, G., Boomsma, D. I., & Schermer, J. A. (2020). Predicting Loneliness from Where and What People Do. *Social Sciences*, 9(4), 51. <https://doi.org/10.3390/socsci9040051>

MacIntyre, H., & Musella, M. (2023). Tackling loneliness interventions: Insights on the current landscape, evidence and evaluation practice. What Works Centre for Wellbeing, Campaign to End Loneliness. <https://whatworkswellbeing.org/resources/tackling-loneliness-interventions/>

Manchanda, T., Stein, A., & Fazel, M. (2023). Investigating the role of friendship interventions on the mental health outcomes of adolescents: A scoping review of range and a systematic review of effectiveness. *International Journal Of Environmental Research and Public Health*, 20(3), 2160. <https://doi.org/10.3390/ijerph20032160>

Manera, K. E., Smith, B. J., Owen, K. B., et al. (2022). Psychometric assessment of scales for measuring loneliness and social isolation: An analysis of the Household, Income and Labour Dynamics in Australia (HILDA) survey. *Health and Quality of Life Outcomes*, 20, 40. <https://doi.org/10.1186/s12955-022-01946-6>

Matthaeus, H., Godara, M., Silveira, S., Hecht, M., Voelke, M., & Singer, T. (2024). Reducing loneliness through the power of practicing together: A randomized controlled trial of online dyadic socio-emotional vs. mindfulness-based training. *International Journal of Environmental Research and Public Health*, 21(5), 570. <https://doi.org/10.3390/ijerph21050570>

Moran, P. (2023). Do we belong? Promoting a sense of belonging in LGBTQ youth through artistic community engagement: A literature review. *Expressive Therapies Capstone Theses*, 619. https://digitalcommons.lesley.edu/expressive_theses/619

Morrish, N., Choudhury, S., & Medina-Lara, A. (2023). What works in interventions targeting loneliness: a systematic review of intervention characteristics. *BMC Public Health*, 23(1), 2214. <https://doi.org/10.1186/s12889-023-17097-2>

Morgan, R., Filia, K., Lim, M. H., & Baker, D. (2024). Young people and loneliness. *Orygen and Ending Loneliness Together*. <https://endingloneliness.com.au/wp-content/uploads/2024/11/Orygen-young-people-and-loneliness-report-November-2024.pdf>

Newport Institute (2024). Loneliness and depression in young adults. Newport Institute. <https://www.newportinstitute.com/resources/mental-health/loneliness-and-depression-in-young-adults/>

Nice, A., Davies, S., & Thorpe, L. (2021). Loneliness in young people. Mental Health Foundation UK. <https://www.mentalhealth.org.uk/sites/default/files/2022-06/mhf-Loneliness-policy-recommendations-young-people.pdf>

Orygen (2007). Youth peer work tool kit. <https://www.orygen.org.au/About/Youth-Engagement/Resources/youth-peer-work-toolkit.aspx>

Osborn, T., Weatherburn, P., & French, R. S. (2021). Interventions to address loneliness and social isolation in young people: A systematic review of the evidence on acceptability and effectiveness. *Journal of Adolescence*, 93, 53–79. <https://doi.org/10.1016/j.adolescence.2021.09.007>

Parkinson, D., & Turner, J. (2019). Alleviating social isolation through intergenerational programming: DOROT's summer teen internship program. *Journal of Intergenerational Relationships*, 17(3), 388-395. <https://doi.org/10.1080/15350770.2019.1617606>

Pearce, E., Myles-Hooton, P., Johnson, S., Hards, E., Olsen, S., Clisu, D., Pais, S. M. A., Chesters, H. A., Shah, S., Jerwood, G., Politis, M., Melwani, J., Andersson, G., & Shafran, R. (2021). Loneliness as an active ingredient in preventing or alleviating youth anxiety and depression: A critical interpretative synthesis incorporating principles from rapid realist reviews. *Translational Psychiatry*, 11(1), 628. <https://doi.org/10.1038/s41398-021-01740-w>

Pels, F., & Kleinert, J. (2016). Loneliness and physical activity: A systematic review. *International Review of Sport and Exercise Psychology*, 9(1), 231-260. <https://doi.org/10.1080/1750984X.2016.1177849>

Petersen, J. (2023). A meta-analytic review of the effects of intergenerational programs for youth and older adults. *Educational Gerontology*, 49(3), 175-189. <https://doi.org/10.1080/03601277.2022.2102340>

Phang, J. K., Kwan, Y. H., Yoon, S., Goh, H., Yee, W. Q., Tan, C. S., & Low, L. L. (2023). Digital intergenerational program to reduce loneliness and social isolation among older adults: Realist review. *JMIR Aging*, 6(1), e39848.

<https://doi.org/10.1080/03601277.2022.2102340>

Pinazo-Hernandis, S., & Carrascosa, C. (2024). Effectiveness of intergenerational programs to reduce loneliness: A scoping review and reflections. *Journal of Intergenerational Relationships*, 1-18.

<https://doi.org/10.1080/15350770.2024.2400278>

Płatos, M., Wojaczek, K., & Laugeson, E. A. (2023). Effects of social skills training for adolescents on the autism spectrum: A randomized controlled trial of the Polish adaptation of the PEERS intervention via hybrid and in-person delivery. *Journal of Autism and Developmental Disorders*, 53(11), 4132–4146. <https://doi.org/10.1007/s10803-022-05714-9>

Plotnikoff, R. C., Costigan, S. A., Williams, R. L., Hutchesson, M. J., Kennedy, S. G., Robards, S. L., Allen, J., Collins, C. E., Callister, R., & Germov, J. (2015). Effectiveness of interventions targeting physical activity, nutrition and healthy weight for university and college students: A systematic review and meta-analysis. *The International Journal of Behavioral Nutrition and Physical Activity*, 12, 45. <https://doi.org/10.1186/s12966-015-0203-7>

Project Evergreen (2025). Engaging youth in green space initiatives. Project Evergreen.

<https://projectevergreen.org/engaging-youth-in-green-space-initiatives/>

Psychology Today (2019). Why are teens so lonely, and what can they do about it? Psychology Today.

<https://www.psychologytoday.com/intl/blog/teen-angst/201907/why-are-teens-so-lonely-and-what-can-they-do-about-it>

Publica (2024). The silent epidemic: Unravelling the complexities of loneliness among young people. Publica.

<https://publica.org.au/the-silent-epidemic-unravelling-the-complexities-of-loneliness-among-young-people/>

Publica (2024). Research report: Reasons for loneliness among young people in Australia. Publica.

<https://publica.org.au/research-report-reasons-for-loneliness-among-young-people-in-australia/>

Relationships Australia Queensland (2024). Why are Australia's young people so lonely?

<https://www.raq.org.au/blog/why-are-australias-young-people-so-lonely>

Rice, S., Gleeson, J., Leicester, S., Bendall, S., D'Alfonso, S., Gilbertson, T., Killackey, E., Parker, A., Lederman, R., Wadley, G., Santesteban-Echarri, O., Pryor, I., Mawren, D., Ratheesh, A., & Alvarez-Jimenez, M. (2018). Implementation of the Enhanced Moderated Online Social Therapy (MOST+) model within a national youth e-mental health service (eheadspace): Protocol for a single group pilot study for help-seeking young people. *JMIR Research Protocols*, 7(2), e48. <https://doi.org/10.2196/resprot.8813>

Rhodes, A. M., & Schechter, R. (2014). Fostering resilience among youth in inner city community arts centers: The case of the artists collective. *Education and Urban Society*, 46(7), 826–848. <https://doi.org/10.1177/0013124512469816>

Royal Australian College of General Practitioners (2019). One in three young adults is lonely – and it affects mental health. RACGP. <https://www1.racgp.org.au/newsgp/clinical/one-in-three-young-adults-is-lonely-and-it-affects-mental-health>

Schumaker, J. F., Shea, J. D., Monfries, M. M., & Groth-Marnat, G. (1993). Loneliness and life satisfaction in Japan and Australia. *The Journal of Psychology*, 127(1), 65–71. <https://doi.org/10.1080/00223980.1993.9915543>

Shah, H. A., & Househ, M. (2023). Understanding loneliness in younger people: Review of the opportunities and challenges for loneliness interventions. *Interactive Journal of Medical Research*, 12(1), e45197. <https://doi.org/10.2196/45197>

Shapira, S., Yeshua-Katz, D., Cohn-Schwartz, E., Aharonson-Daniel, L., Sarid, O., & Clarfield, A. M. (2021). A pilot randomized controlled trial of a group intervention via Zoom to relieve loneliness and depressive symptoms among older persons during the COVID-19 outbreak. *Internet Interventions*, 24, 100368. <https://doi.org/10.1016/j.invent.2021.100368>

Shonin, E., & Van Gordon, W. (2014). Using mindfulness and insight to transform loneliness. *Mindfulness*, 5, 771-773. <https://dx.doi.org/10.1007/s12671-014-0303-5>

Snell, K. D. M. (2017). The rise of living alone and loneliness in history. *Social History*, 42(1), 2-28. <https://doi.org/10.1080/03071022.2017.1256093>

Spain, D., & Blainey, S. H. (2015). Group social skills interventions for adults with high-functioning autism spectrum disorders: A systematic review. *Autism*, 19(7), 874-886. <https://doi.org/10.1177/1362361315587659>

Theurer, K. A., Stone, R. I., Suto, M. J., Timonen, V., Brown, S. G., & Mortenson, W. B. (2021). The impact of peer mentoring on loneliness, depression, and social engagement in long-term care. *Journal of Applied Gerontology*, 40(9), 1144-1152. <https://doi.org/10.1177/0733464820910939>

Turner, S., Fulop, A., & Woodcock, K. A. (2024). Loneliness: Adolescents' perspectives on what causes it, and ways youth services can prevent it. *Children and Youth Services Review*, 157, 107442. <https://doi.org/10.1016/j.childyouth.2024.107442>

UNICEF (2025). The necessity of urban green space for children's optimal development. UNICEF. <https://www.unicef.org/documents/necessity-urban-green-space-childrens-optimal-development>

Warner, L. M., Yeung, D. Y., Jiang, D., Choi, N. G., Ho, R. T. H., Kwok, J. Y. Y., & Chou, K. L. (2024). Effects of volunteering over six months on loneliness, social and mental health outcomes among older adults: The HEAL-HOA Dual Randomized Controlled Trial. *The American Journal of Geriatric Psychiatry*, 32(5), 598-610. <https://doi.org/10.1016/j.jagp.2023.12.022>

Watson, R., Sellars, E., Qualter, P., Loades, M., Shafran, R., Pearce, E., Pitman, A., Geulayov, G., Demkowicz, O., Dewa, L., & Creswell, C., (2021). Brief: Evidence-informed recommendations for supporting young people with feeling lonely, isolated and disconnected. *Manchester Institute of Education*. <https://emergingminds.org.uk/wp-content/uploads/2021/01/Co-RAY-Briefing-Loneliness-Isolation-Version-1.0.pdf>

Weisz, J. R., & Bearman, S. K. (2020). *Principle-guided psychotherapy for children and adolescents: The FIRST program for behavioral and emotional problems*. Guilford Publications.

Wilkins, R., Vera-Toscano, E., & Botha, F. (2024). *The Household, Income and Labour Dynamics in Australia Survey: Selected findings from waves 1 to 21*. Applied Economic & Social Research, The University of Melbourne.

Williams, S., & Brown, K. (2024). Young people's participation in urban landscape planning and design. Springer. <https://link.springer.com/article/10.1007/s42532-024-00200-1>

Williams, T., Lakhani, A., & Spelten, E. (2022). Interventions to reduce loneliness and social isolation in rural settings: A mixed-methods review. *Journal of Rural Studies*, 90, 76-92. <https://dx.doi.org/10.1016/j.jrurstud.2022.02.001>

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