# Safe, Connected, and Accessible: Young People Shaping the Healthy Streets Approach in Tauranga, Aotearoa New Zealand

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## Abstract

The Healthy Streets Approach is being progressively adopted both internationally and across Aotearoa New Zealand. It serves as an urban planning and transport framework prioritising people's health and wellbeing in the design and management of streets. The Tauranga City Council has adopted the Healthy Streets Approach to help achieve its urban vision and strategy for Tauranga, a rapidly growing city on the North Island of Aotearoa New Zealand. This study partnered with young people in Tauranga to explore their role in enhancing the implementation of the Healthy Streets Approaches in their city.

Given the emphasis on youth voice in the study, a participatory action research (PAR) methodology was employed. Six young people aged 22 to 27 partnered with the primary author - a young person living in Tauranga - to co-design the study. The young people actively participated as co-researchers in focus group discussions and various participatory methods including mapping, drawing, videoing, and journaling their journeys through Tauranga.

The co-researchers identified four themes: infrastructure and physical environment, alternatives to driving, the importance of the environment, and the contribution of services. Young people in the study value cities that make them feel safe, and connected to their community and the environment, encourage safe alternatives to driving, and provide easy access to services.

The study led to the development of an infographic tool for use by urban decision-makers and agencies. This infographic was co-designed with the young people and aims to communicate their findings from the study. The infographic is intended to serve as a knowledge-translation tool for decision makers providing practical steps when partnering with young people in the design of healthy cities.

The study emphasises the importance of youth engagement in urban design and planning, advocating for the inclusion of young people's perspectives in creating safer, more connected, healthier, and sustainable cities. Future research should investigate how cultural connections to urban spaces impact the health and wellbeing of young people. It should also explore how embedding cultural values

and worldviews into city planning can deepen young people's sense of connection to their environments and communities.

**Keywords:** Participatory action research, youth participatory action research, youth co-design, healthy streets approach, healthy cities

**First author:** This research was undertaken as part fulfilment of a Master of Public Health. Cath Conn and Julie Trafford were involved in this work as thesis supervisors. They share interests in healthy cities, youth participation and climate change action.

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## Introduction

Nearly 70 percent of people across the world are expected to live in cities by 2050 (World Bank, 2025). With growing populations, cities are constantly evolving to meet the needs and aspirations of their residents. Urban design plays a crucial role in shaping people's health and wellbeing. In addition, climate change is having profound effects on both the environment and urban communities (World Health Organization & United Nations Habitat, 2016). In response to these challenges, cities are exploring more eco- and people-centric approaches to urban design to help ensure the wellbeing of both the natural system and humans (Dannenberg & Jackson, 2012). The Healthy Streets Approach (HSA) is one framework that cities are adopting as it supports creating healthier, more inclusive, sustainable, and resilient urban environments.

The HSA aims to shift the design of cities away from the predominance of cars to designing them with an emphasis on the health and wellbeing of its residents (Healthy Streets Ltd, 2023). The HSA originates from the United Kingdom, where it was the framework for London's 25-year Transport Plan introduced in 2019. The HSA has been adopted globally in countries such as Spain, Australia, Ireland, and Aotearoa New Zealand (NZ) (Healthy Streets Ltd, 2024). The approach is based on 10 evidence-based indicators that guide the enhancement and adaptation of existing street conditions, promote active transport, create accessible spaces, encourage social interaction and physical activity, reduce pollution, encourage healthier living environments, and overall improve people's health and wellbeing (Healthy Streets Ltd, 2023) (Figure 1).

**Figure 1. Healthy Streets Diagram**

Existing studies have highlighted how the design of urban spaces impacts the physical, mental, and social health of young people (Benninger et al., 2021; Sallis et al., 2016; Thompson & Kent, 2014). While there is growing recognition of how urban spaces affect community wellbeing, more work is needed to ensure cities are designed to meet the unique needs of young people (Benninger et al., 2021; Jaffe & Loebach, 2023). This includes involving youth in urban planning and design, as their participation not only improves their health outcomes but also fosters a sense of ownership in shaping their communities. Although often overlooked, young people's insights are crucial to building healthy cities and communities. Understanding their experiences can help to create urban policies and environments that are more inclusive, accessible, sustainable, and responsive to the diverse needs of the community and future generations (Carroll-Scott, 2020; Jaffe & Loebach, 2023; Kontak et al., 2022).

In recent years, health policy-making in NZ has increasingly moved towards community-led, whānau (family)-driven approaches (Ministry of Health, 2024). This shift in policy-making, alongside the adoption of the HSA framework, highlights the need for strong citizen participation (Pyett, 2002). Despite recent changes in the political landscape in NZ, which are hostile to climate change actions and 'bottom-up' approaches, many local initiatives and community-led projects continue to champion participatory, equity-driven urban development. Genuine citizen participation in NZ remains critical to ensure that decisions truly

reflect the lived realities and aspirations of diverse communities, rather than top-down or national-level agendas (Carroll-Scott, 2020).

Tauranga was chosen as the place for this study, as it is where the primary researcher-author both resides and connects. In the Bay of Plenty region on the east coast of NZ, Tauranga has been NZ's fastest-growing city, doubling in size in the last 30 years (Tauranga City Council, 2018a). It is now the fifth-largest city in the country and is continuing to grow (Stats NZ, 2018; Tauranga City Council, 2018a). This rapid growth is creating challenges such as urban sprawl, traffic congestion, and climate change effects (climate-related effects include rising sea levels, more extreme weather events, and increased transmission of infectious diseases) (Pineo, 2022). In response to these challenges, Tauranga City Council has implemented a strong strategic urban vision and strategy (Tauranga City Council, 2018a).

This study aimed to understand how young people experience their environments and it explored how they can be enabled to shape them. To align with the Council's strategy, the definition of young people in this study follows the Council's parameters defining them as aged 15-29 years (Tauranga City Council, 2018a). As a 26-year-old, the primary author has a personal and professional passion for creating healthy cities, not only as a researcher but also as a young person trying to navigate through cities that often felt inaccessible and disconnected. She has worked in the health sector for five years, over the last two years, commissioning youth mental health services, which has further shaped her passion; providing insight into the real-world challenges young people face. These perspectives have given her a sense of responsibility to ensure that young people's voices are heard, valued, and central to the decisions that affect their lives. The primary author's insider status as a young person created both opportunities and challenges to the research process, as it influenced the power dynamic between herself and the co-researchers. At times, it enabled a stronger rapport but also required careful reflection to avoid building assumptions based on shared experiences. To mitigate potential bias, reflexive journaling and peer debriefing were employed throughout the study to ensure that the co-researchers' perspectives remained at the forefront and were not overshadowed by her own interpretations.

Using Participatory Action Research (PAR) with a focus on youth (Youth Participatory Action Research - YPAR), this study aimed to amplify youth voices in city decision-making processes and enable them to contribute to the design of streets that are safer, more connected, and environmentally sustainable for them and future generations (Nind, 2011; Pyett, 2002; Smith et al., 2024). Focusing on the implementation of the HSA in Tauranga, NZ, the study sought to explore how youth participation can positively influence urban design to promote healthy, inclusive, and sustainable futures.

Despite the increase in climate youth activism and the growing interest in the role of young people in policy and decision-making, research in this area is still limited. This is especially true in NZ, where few studies have applied youth-led methodologies such as YPAR within the context of a HSA. The study aimed to bridge this gap by enabling young people's lived experiences to be expressed through the use of creative participatory tools. By positioning the young participants as co-researchers, the study demonstrates how youth voices can help inform place-based solutions for healthier, more climate-resilient cities. It also offers practical approaches to genuinely engage with young people in urban planning and policy processes.

**Using youth-based participatory action research**

The goal of this study was not just to examine how young people navigate their daily journeys through Tauranga City, but to engage them in creating healthier street environments that reflect their needs and aspirations. PAR methodology was used to help encourage collaboration, community engagement, and the co-construction of knowledge (Coyne & Carter, 2018). To more effectively centre the voices and perspectives of young people, the study specifically adopted YPAR (Cammarota & Fine, 2008; Ozer et al., 2022; Smith et al., 2024). Unlike more traditional research methods, which often position participants as subjects, YPAR positions young people as co-researchers, enabling them to shape the research project, data collection, and analysis. Applying this approach meant the young co-researchers worked in partnership with the primary author throughout the entire research process, helping to acknowledge and genuinely value them as experts of their own experiences, and in relation to the role they can play in shaping their communities. The iterative, participatory nature of YPAR also supported reflexivity, allowing critical reflection on power dynamics, the primary author's positionality, and the co-construction of knowledge (Coyne & Carter, 2018; Ozer et al., 2022).

The study used action-oriented Focus Group Discussions (FGDs) in a setting that was designed to be comfortable for all, creating a safe space for co-researchers to express their ideas and opinions. The role of the primary author as the facilitator was to present the purpose of the research, help manage the group dynamic, and ensure all voices were heard and respected. The FGDs not only allowed the co-researchers to brainstorm and collect data but they also enabled a collaborative process, including participatory analysis of the data. This approach encouraged the co-researchers to reflect on Tauranga's urban spaces, identify areas for improvement, and generate solutions together.

Recognising the importance of power dynamics when working with young people, the study aimed to reduce the traditional hierarchies that often see older adults' or decision-makers (power-holders) views overshadow those of younger people (power-less) (Hart, 2008). In practice, continuous communication and feedback

between the co-researchers and the primary author were key strategies to reduce the power disparities.

The young people who participated in the study were aged 22 to 27 years and lived in Tauranga. The group consisted of one male and five females. No additional demographic data (such as ethnicity, education, or socioeconomic status) were collected as part of this study. The co-researchers were recruited through a local sports club's social media pages (Instagram and Facebook). Once the co-researchers expressed interest, a Facebook group was created to facilitate communication, organise the FGDs, and provide a space for ongoing discussion.

Ethical principles guided the entire research process, with approval granted by the Auckland University of Technology Ethics Committee (AUTEC) on 17 October 2023 (reference number #23/214). Informed consent was obtained in writing from all co-researchers before any involvement in the study. An information sheet was provided and explained to all co-researchers at the first FGD outlining the purpose of the research, their right to withdraw at any time, and how their data would be used. The co-researchers were not anonymous to the primary author or the other co-researchers. However, due to the small cohort, additional care was taken to ensure confidentiality by removing identifying details, using pseudonyms, and presenting the findings in a way that prevents linking responses to individuals.

The FGDs were held across two sessions; the first FGD was an introduction session held at a local cafe chosen by one of the co-researchers. This session served as a meet-and-greet where participants were introduced to each other and given a clear outline of the study's aim and their roles within it. The co-researchers were also introduced to a range of participatory data collection methods such as mapping, photovoice, journaling, and video (Nind, 2011; Omer, 2017; Wang & Burris, 1997). A practice brainstorming and mapping exercise was conducted to help the co-researchers start thinking about what methods would best suit them and their needs. Various methods were used by the co-researchers to capture their journeys through Tauranga. Each co-researcher captured their journey differently, with some presenting their journey through electronic mapping or video-making, while others hand drew their journey or journaled it. The co-researchers either shared their journeys with the primary author before the second FGD or brought their findings to the session. This flexibility helps to align with the principles of PAR as it promotes a dynamic research process that can be adapted to fit the needs of the co-researchers (Baum et al., 2006).

In the second FGD, the co-researchers shared the data they had collected and identified themes from their findings (Figure 2). They discussed the positive and negative aspects of their journeys and worked together to brainstorm potential solutions for improving their journeys through Tauranga. The thematic analysis followed an inductive approach, with the themes identified collaboratively

through discussion and reflection (Braun & Clarke, 2022). The data was coded manually during the FGD with categories refined iteratively as the co-researchers compared experiences and perspectives. The final themes were collectively agreed upon by all co-researchers, ensuring that a consensus was reached across the group and no single perspective dominated the analysis. Due to the collaborative approach to the thematic analysis process, some themes overlap. This reflects the interconnectedness of the co-researchers' experiences and perspectives. The co-researchers then individually ranked the themes that emerged based on what they considered most to least important (Ager et al., 2010; Schubotz, 2020). This participatory analysis provided insight into how the co-researchers viewed their urban environment (Nind, 2011). This was an essential part of the empirical process and is integral to the research validity, as it ensured the themes remained grounded in the co-researchers' lived experiences and allowed insight into how young people view and relate to their world (Nind, 2011).

**Figure 2. Co-researchers findings themed**

A key outcome of the study was the creation of an infographic (refer to Figure 8). The infographic was created from the co-researchers' findings and serves as a tool to help organisations genuinely partner with young people to play an active role in shaping the streets and cities where they reside.

## Experiences and strategies of young people of Tauranga through the HSA lens

The results of this study highlighted the experiences of young people navigating their streets and the strategies they proposed through the lens of a Healthy Streets Approach (HSA). Four key themes were identified from the co-researchers' discussions: Infrastructure and Physical Environment, Alternatives to Driving, The Environment, and Services. Each of these themes reflects the aspirations and concerns of the co-researchers.

*Theme 1: Infrastructure and Physical Environment*

The co-researchers highlighted the physical and built aspects of Tauranga's streets that were important to their experience, including "access for people", "helps me feel safe", "community feel", and "helping the city grow". These priorities shaped the Infrastructure and Physical Environment theme as it focuses on developing safe, accessible, and connected urban infrastructure. This supports the Sustainable Development Goal (SDG) 11.2 (safe, affordable, and sustainable transport systems) and SDG 11.7 (inclusive and accessible public spaces) (United Nations, 2015).

### Access for People

The co-researchers emphasised the importance of well-maintained footpaths and dedicated bike lanes to improve accessibility and safety for cyclists and pedestrians. One co-researcher demonstrated this concern in their findings, highlighting *"Uneven footpaths decrease access for people."* Another highlighted a conflict they observed: *"Shared footpath creates conflict between cyclists and pedestrians/ people swimming, especially in summer*". Ensuring accessible, clearly marked, and well-maintained pathways was a priority, as it directly affected the ease with which co-researchers moved through their city. Young people's physical, mental, and social well-being is significantly shaped by the design and accessibility of the physical environment (Benninger et al., 2021; Sallis et al., 2015; Thompson & Kent, 2014). Infrastructure that is pedestrian and cycle-friendly has been shown to help improve physical health by enhancing the accessibility of outdoor activities and alternative transport options (Thompson & Kent, 2014; WHO, 2020). The co-researchers emphasised the need for accessible cities and highlighted how important the role of well-designed infrastructure is when creating a healthier, more accessible city.

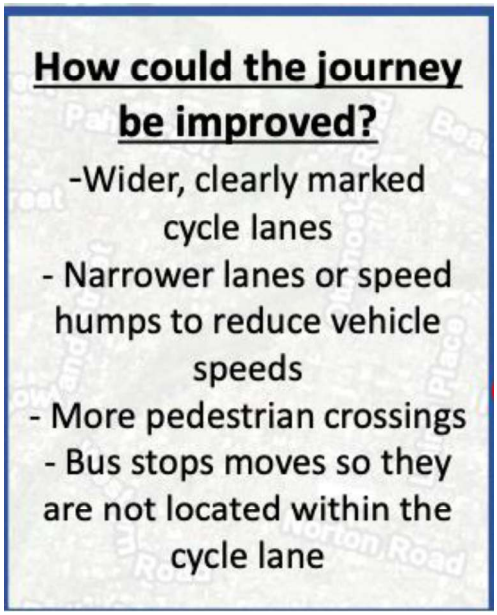
### "Helps me feel safe"

Safety was another major concern highlighted within the "Infrastructure and Physical Environment" theme, with co-researchers suggesting infrastructure changes like narrower traffic lanes and speed humps to better protect non-motorised users. One co-researcher expressed the need for safer bike lanes, noting, *"New bike/walkway means no riding next to cars, which means it is safe."*

Another echoed this idea by saying, "*Maintained safe bike lines – I felt safe on the road, and no one was going to sideswipe me*". This insight underscores the importance of designing cities with infrastructure that prioritises the safety and wellbeing of cyclists and pedestrians.

Safety from the driver's perspective was also highlighted as they navigated roads with cyclists. A co-researcher highlighted *"Cars feel too close to cyclists, which is dangerous"*, while another added, *"Yeah, inconsistent bike/walk paths can be annoying and dangerous for everyone involved."* To address the safety concerns highlighted above, the co-researchers proposed several solutions such as wider, clearly marked cycle lanes, narrower lanes or speed humps to reduce vehicle speeds, more pedestrian crossings, and bus stops separate from cycle lanes (Figure 3). This suggests that traffic safety, both perceived and actual, is critical when influencing young people's mode of transport. Separation from cars through wide footpaths and bike lanes, street trees, and fences is found to influence the perception of traffic safety and reduce traffic speed, which was also a concern of some co-researchers. These inventions highlight the importance of controlling traffic speed to ensure cyclists and pedestrians feel safe when navigating their city. It also highlights how urban design can directly shape behaviour, accessibility, and the willingness to engage in active transport. This emphasises the role of urban design in promoting healthier and more sustainable city living.

**Figure 3. An example of a co-researcher highlighting solutions to help improve their safety while navigating their city on their bicycle**




Co-researchers also discussed safety in terms of the general feel of the city. Comments were made particularly by the females in the group, such as "*Tagging*

*makes spaces feel unsafe.*" Public transport also came up in the discussion, though it was met with hesitation. Co-researchers expressed concerns about the public transport, stating, *"Bus stops feel unsafe, has lots of people under the influence hanging round*". They also raised concerns about the reliability and safety of public transport in Tauranga, calling for improvements in design and dependability to make it a viable option for more people's daily commute. This highlights the importance that co-researchers place on safety and autonomy. There is a need for urban planners and designers to ensure diverse community representation during the engagement stages of implementing HSA. This is particularly important when determining how to create safer urban environments for all, especially young women. By addressing these safety concerns through well-designed infrastructure and reliable public transport, cities can encourage more young people to use alternative transport options. This will, in turn, promote healthier, safer, and more sustainable environments.

**"Community Feel"**

The co-researchers also recognised that infrastructure played a significant role in their mental and social wellbeing. They noted that well-designed public spaces foster community engagement and contribute to positive social interactions, which in turn can improve people's moods. One co-researcher reflected on the positive impact of a new bike and walkway: "*There are good views, it is more relaxing and enjoyable and improves moods. People enjoying their commutes will likely increase positivity and impact the community.*" This statement speaks to the broader psychological benefits of urban design, demonstrating how safe, pleasant spaces can contribute to a stronger sense of community and wellbeing.

How well-designed infrastructure contributes to improved moods, fosters social connection, and positively impacts communities is well-supported in the literature (Benninger et al., 2021; Carmona, 2019; Thompson & Kent, 2014). Infrastructure can influence mental health through social interactions, safety, and a sense of community (Benninger et al., 2021; Carmona, 2019). This was an important aspect for co-researchers, as one described their area: "*School in area is good for community feel*". The co-researchers' emphasis on the importance of a "*community feel*" demonstrates the need to ensure that infrastructure and physical environments connect and support young people.

City growth was also discussed, particularly the development of new apartments and the reduction in parking. Some co-researchers felt that removing parking would negatively impact both the accessibility of the city and local businesses. One co-researcher mentioned, *"Parking taken away means taken away business for the city, and it's hard to find parking when you are working in the city. Have to pay for parking, which is expensive."* Another echoed this by saying *"The council has taken away lots of car parks and lots of roadworks impacts parking which is annoying and impacts people using the city and business".* However, there were differing opinions about the necessity of free parking in the city, as

some co-researchers preferred alternative transportation to access the city. HSAs that have been implemented globally have shown that walkable and bikeable cities with well-designed public spaces can benefit the local economy by attracting tourism and new businesses (Public Health England, 2018).

*Theme 2: Alternatives to Driving*

The co-researchers used a variety of transport types, including walking, biking, and driving, and their perspectives on alternatives to driving highlighted both the benefits and challenges of the different modes. These include how safe they feel using alternatives to driving, the ease of using alternative modes, and the environmental benefits of alternatives to driving. These insights shaped the 'Alternatives to Driving' theme, which aligns with SDG 11.2 (sustainable transport) and contributes to SDG 13.2 (integrating climate change measures into policy and planning) (United Nations, 2015).

**"Helps me feel safe"**

In the 'Infrastructure and Physical Environment' theme, similar to the safety sub-theme, a central concern among the group was the need for safe, consistent cycling infrastructure. One co-researcher noted, *"Wide cycle lanes help me feel safe,"* highlighting the importance of dedicated cycling space to ensure safety and comfort for cyclists and drivers. Inconsistent bike paths, however, were seen as a source of stress and frustration, with one co-researcher noting, *"Inconsistent bike/walk paths are more stressful and slow, it can be more dangerous, and I arrive at work anxious and annoyed."* This reiterates the importance of designing cities that prioritise the safety and wellbeing of cyclists and pedestrians.

**"Less stressful"**

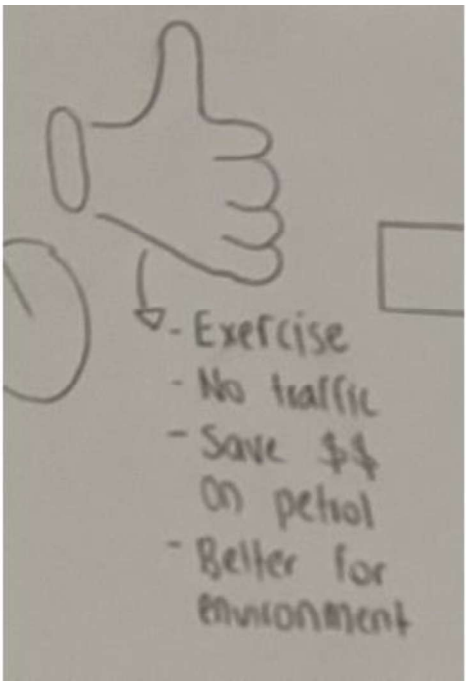
Biking emerged as a preferred mode of transport for a few of the co-researchers as it offered not only a more convenient option than driving but also contributed to better mental health outcomes. One co-researcher explained, "*Biking is easier/less stressful/more convenient than parking at the mall, a quick commute (by biking) to work makes me happy and sets me up for a productive day,"* another shared, "*Being physically active on the way to work is healthy and good for my body and mind."* These insights support research showing that active transport can contribute to reducing stress, improving mood, and promoting physical health (Dorji et al., 2023; Stark et al., 2018). This discussion suggests that the mental impacts of transport choices significantly influence how young people navigate their cities. By promoting active transport, city planners can help young people develop sustainable and healthy habits to carry into the future (WHO, 2018).

**"Better for the environment"**

The co-researchers also touched on the environmental benefits of alternatives to driving. A couple of co-researchers highlighted it was *"Better for the environment"*

(Figure 4), acknowledging the impact that using alternative transport options can have in helping to reduce air pollution and mitigate climate change. The environmental benefits of alternative transport options are well-documented in the literature. However, these benefits were recognised, while they were not the primary motivators for choosing alternative transport. Instead, personal convenience, cost, and health benefits were recognised as stronger motivations for biking over driving. For planners and policymakers, hearing, understanding, and addressing young people's motivations can help lead to more effective strategies for promoting healthy cities, especially in terms of encouraging sustainable transport options.

**Figure 4. A co-researcher's perspectives on the positive impacts of cycling**



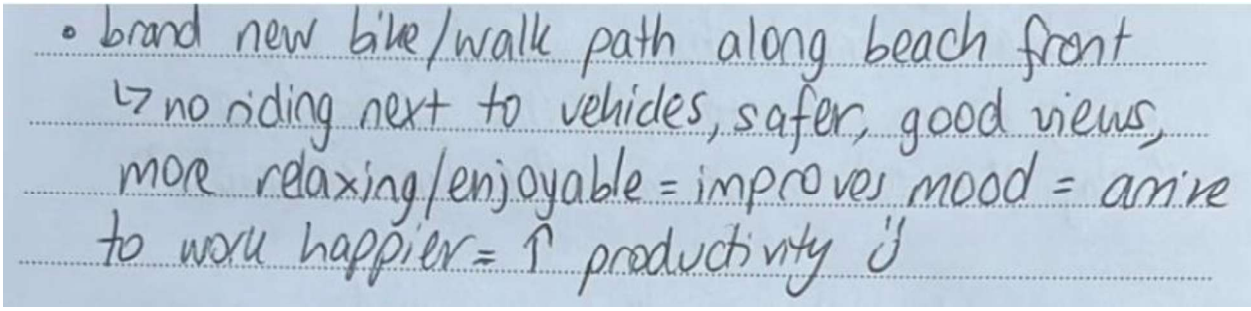

*Theme 3: The Environment*

The role of the environment in terms of green spaces and water in urban settings was a strong theme. The environment emerged as a key determinant of the co-researchers' mental wellbeing, highlighting how it helped reduce stress, foster a sense of community, and escape from the built environment. One co-researcher noted, *"Greenery and trees are nice on the eyes, breaks up the concrete vibes,"* emphasising the importance of incorporating natural elements into urban planning. This theme contributes to SDGs 13.1 (strengthen resilience and adaptive capacity to climate-related hazards) and SDG 11.6 (reducing the environmental impact of cities, including air quality) (United Nations, 2015).

Access to green spaces, like parks and nature trails, were viewed as critical for fostering community and social connections. One co-researcher observed, "*Parks create community feel,"* and another said, *"Walking through nature is nice, mostly clean, lots of people using tracks for walking and biking."* This highlights the role of accessible green spaces in creating a sense of belonging within the community. Studies show that green spaces not only improve mental wellbeing by reducing stress but also encourage social cohesion by providing spaces for people to meet and interact (Benninger et al., 2021; Carmona, 2019; Thompson & Kent, 2014). Cities that include green spaces can help mitigate the negative impacts of urban environments, such as high traffic noise and a lack of visual appeal (Thompson & Kent, 2014). By prioritising green space, cities can work to enhance mental health, promote social cohesion, and create safer, more enjoyable environments for the community.

Additionally, bodies of water, such as beaches and lakes, were also recognised for their positive effects on wellbeing. Many co-researchers described the calming, restorative effects of being near water. One co-researcher commented, "*Access to the beach is important to me for my mental health."* Another noted the benefits of having a bike and walkway path along the beach, which created a safer and more enjoyable commute and improved their mood and increased their productivity at work (Figure 5). This highlights how well-designed, accessible environments can create a cascade of positive effects, enhancing mental health, emotional wellbeing, and daily function. These insights demonstrate the interconnectedness of urban design, health, and social outcomes. This also suggests that prioritising natural and active spaces in city planning can have broader societal impacts supporting both individual and community well-being and engagement.

**Figure 5. A co-researcher's perspective on how the environment can have flow-on effects improving other areas of life**




Like green space, incorporating water elements into a city's design can positively affect people's mental well-being. Studies have linked access to water bodies with lower stress levels, enhanced mood, and increased physical activity (Benninger et al., 2021; Sallis et al., 2016). However, concerns about the cleanliness of water bodies were raised, with some co-researchers expressing unease about pollution

and water safety (Figure 6). This highlights the need for urban planners to ensure that urban spaces are of high quality and are well-maintained to ensure young people's engagement. It suggests that urban planning must not only consider the infrastructure but also the health of the natural environments within the city to support community health and enjoyment.

**Figure 6. A co-researcher's perspective on water**

*Theme 4: Services*

'Services' that support daily life was the last theme identified, with co-researchers suggesting several strategies to improve the safety and convenience of their journeys. This theme presented practical ways to address the co-researchers' negative experiences on their journeys. Most of the ideas discussed under the 'services' theme shared the underlying concept of safety, highlighting how important it is for the co-researchers to feel safe in their city. Ensuring accessible, equitable services for young people supports SDG 3.4 (health and wellbeing, including mental health) and SDG 10.2 (empowering and promoting social, economic, and political inclusion) (United Nations, 2015).

Road safety was a key concern. One co-researcher suggested the implementation of public awareness campaigns similar to those for speeding, saying, "*I have suggested public driving conditions campaigns on TV or something. Yeah, you know how they have the speeding ones? Do something like that.*" This idea aimed to educate drivers about sharing the road more responsibly with pedestrians and cyclists. Another suggested increasing the number of speed cameras to reduce speeding and improve safety for non-motorised users. The importance of improving lighting and security, particularly in areas accessed at night, was discussed. Ensuring the streets are well-lit and safe is essential for making the city feel secure for young people, particularly when navigating after dark.

Access to essential services like shopping and bike repair facilities was highlighted as an important factor in creating a convenient journey. One co-researcher's map identified the proximity of shopping facilities and bike repair services as key factors that contributed to a smoother, more convenient journey for them (see Figure 7). These practical considerations reflect the need for urban environments that not only prioritise safety but also integrate essential services to make daily life easier and more accessible. Beyond convenience, the findings highlight how the built environment interacts with young people's mobility choices, influencing whether they are able to adopt active or sustainable transport options.

**Figure 7. A co-researcher's journey highlighting access to key services**

Overall, the co-researchers identified that the four themes are strongly interconnected. This is highlighted in the interaction between co-researchers: "*This is about commuting? Would it be transport." "But it could be down to your physical environment and infrastructure that you live close to work. Could we put that in the middle?*" When viewed together, these findings emphasise the importance of planning cities with a holistic approach that is sustainable and responsive to people's needs and the needs of future generations. By integrating safe transportation options, green spaces, and accessible services, urban environments can be transformed to support not only physical safety but also mental health, social cohesion, and environmental sustainability. The co-researchers' insights provide a compelling case for adopting a HSA, to prioritise the wellbeing of communities over car-centric designs.

**Limitations**

A key limitation of the study was the small sample size, which limits the generalisability of the findings beyond the co-researchers involved. The sample also consisted of predominantly female co-researchers, which may have influenced the key themes that emerged. Recruitment relied heavily on social media, which may have excluded young people who have limited access to digital or online networks. This potentially narrowed the diversity of the perspective

captured. Another limitation was the absence of wider demographic data, which restricted the ability to examine how factors such as ethnicity, education, or socioeconomic status may have shaped perspectives. These factors influenced the transferability of the findings. While the findings provide valuable indications of the experiences of the co-researchers, they may not fully represent the broader population of young people in Tauranga, NZ. Acknowledging these limitations emphasises the need for further studies in different contexts with larger, more diverse samples and broader recruitment strategies to truly elevate a diverse range of youth voices.

Recognising the context of NZ, this project highlighted the need for additional skills and knowledge to integrate Māori culture and context in urban planning, designing, and implementing city changes. Research emphasises the importance of incorporating te ao Māori in planning processes to ensure city designs align with their communities' cultures and values (Public Health Agency, 2022). Due to the cultural background and positionality of the primary author and the nature of an individual research project, there was a lack of scope for cultural adaptations. However, we acknowledge and understand the importance of embedding te ao Māori (Māori worldview) and mātauranga Māori (Māori knowledge) in urban development processes, and there is strong advocacy for future iterations to prioritise these adaptations when interpreting findings. There are potential synergies between the HSA and Māori urban-design principles, such as engaging mana-whenua (Māori tribe of the area) in decision-making, recognising whakapapa (genealogy) in place-based design, and ensuring spaces reflect tīkanga (Māori values) and connection to the whenua (land) (Kake & Paul, 2018). Applying a cultural lens in this way ensures that the research process and outcomes are culturally relevant and appropriate to local young people, enabling their values and voice to facilitate positive change in their communities.

**An Infographic tool for urban decision-makers**

Reflecting on the PAR process with the co-researchers and listening to their discussions about what is important to them in their neighbourhoods and cities, an infographic was created to support partnerships with young people (Figure 8). Infographics are a common tool used in public health and other social sectors that effectively communicates findings and processes and ensures that information is accessible and easily distributable (Baxter et al., 2021). Designed using YPAR principles, the infographic serves both as a reflection of the co-researchers' insights and as a practical tool for organisations such as local government, non-government organisations, and community groups to genuinely partner with young people (Baxter et al., 2021).

The infographic outlines where and how organisations can engage young people, highlighting the importance of using youth-friendly spaces and creative, flexible methods of participation. Rooted in a cyclical YPAR process, the approach emphasises youth partnership across all research stages, including design, data

collection, analysis, and implementation (Smith et al., 2024). Unlike wider community PAR, this youth-specific model encourages peer-led, collaborative methods that reflect young people's lifestyles and preferences, moving away from traditional, expert-driven formats (Kim, 2016; Smith et al., 2024).

Although developed in a city, the infographic is adaptable for smaller or larger towns and cities, with its core principles scalable to suit different local contexts. It demonstrates how youth-led or -partnered research enhances data quality and youth agency, fostering a sense of ownership in shaping their communities. Future development should explore embedding cultural values and worldviews and emerging platforms like TikTok to deepen engagement. While this project could not lead to those cultural adaptations, they are essential for ensuring the process aligns with diverse community values and experiences.

**Figure 8. Infographic final draft**

## Conclusion

The study focused on demonstrating that a space can be created for young people's voices to meaningfully contribute to developing healthier, safer, and more inclusive cities. It highlighted the importance of involving young people in urban planning and broadened the understanding of YPAR within the NZ context. By engaging young people in decision-making processes, the study aimed to demonstrate the potential for creating more sustainable, community-centred urban environments that are place-based and respond to the needs of diverse populations.

Future research should prioritise partnering with young people to create and share tools or strategies that emerge from participatory processes. Cultural integration should be a key focus, especially in contexts like NZ, where it is essential to incorporate indigenous knowledge and perspectives. While the project team did not undertake cultural adaptations of the study due to their own cultural background, the authors acknowledge the importance of ensuring te ao Māori (Māori worldviews), mātauranga Māori (Māori knowledge), and tīkanga (Māori customs, values, and traditions) are meaningfully embedded in shaping urban spaces in NZ. Future research should also incorporate broader demographic data and differing contexts to enable a more nuanced understanding of how different population groups engage with and are affected by the issues under investigation. Future iterations of this study must prioritise collaboration with cultural experts to ensure Indigenous perspectives are fully integrated and embedded, contributing to more inclusive and culturally relevant cities.

This study offers a replicable model for other communities, demonstrating how the YPAR approach can be adapted to engage young people in urban planning in diverse contexts. By replicating this framework, communities can foster more inclusive, youth-driven urban development and encourage systemic changes to how cities are planned and developed. The infographic developed as part of the study further supports replication, offering a clear, accessible tool to communicate the process and outcomes of YPAR. Future development should involve emerging platforms and integrate cultural knowledge and practices to ensure the process resonates with and supports local communities.

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