Article

Policymaker and Practitioner Perceptions of Parks for Health and Wellbeing: Scoping a Holistic Approach

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Abstract: Urban parks provide a multitude of health benefits for citizens navigating the challenges of 21st-century living. And while this is well known by both scholars and practitioners, there is less understanding about the differential impacts of park size, type of facilities, community accessibility, and management. This is the central concern of the research reported here, which is a part of a larger project titled 'Better Parks, Healthier for All?' funded under the UKRI-NHMRC Built Environment and Prevention Research Scheme 2019. Within this broader context, the current paper discusses the results of a focus group to better understand how different park qualities promote physical and mental health. Using a COVID-safe research approach, we brought key park providers, park policymakers, and green and open space designers from New South Wales, Australia, together to participate in an online focus group in May 2021. The recruitment was based on the domain expertise and practitioner knowledge of the issues at hand. The ensuing discussion canvassed three areas of interest: What is park quality? How is park quality associated with health? How can we assess park quality and its ability to deliver health outcomes? A thematic analysis of the group's deliberations reveals a very holistic appreciation of park quality. The ability of a park network to provide a range of health outcomes is central to this view, with each park playing a role in delivering different benefits across the network. Our findings indicate that there are many opportunities to enhance the myriad of benefits and multiple ways to gain them. Co-design is essential to ensure that parks best suit the local context and provide relevant benefits to all stakeholders. In this way, local communities can gain ownership and enhanced agency in relation to using and enjoying their parks. We conclude that delivering locally networked parks and associated spaces for community health and wellbeing are essential in the broader context of global environmental sustainability.

Keywords: public green space; network; equity; resilience; public health; qualitative research; COVID-19

1. Introduction

While there is a growing appreciation in the research community of the important role that green space has in supporting population wellbeing—both in terms of mental and physical health [1]—there is a lack of understanding and evidence as to what constitutes park quality in delivering positive health outcomes [2]. This is especially so in relation to

how policymakers, designers, and park providers appreciate and determine 'quality' and how, or whether, this information is subsequently used by decision makers as they invest in the creation and restoration of green space to enhance the quality to support health and wellbeing.

It is important, for the improvement in, and enhancement of health through the enjoyment of urban parks, to understand the conceptualisation of park quality among policy, design, and community stakeholders. This is the setting within which the current work is situated. Our paper is part of a UKRI-NHMRC Built Environment and Prevention Research Scheme project (2019) titled 'Better Parks, Healthier for All?' The requirement to better understand different dimensions of open space quality in terms of how this supports health and wellbeing is the driving force of the research. It has three main aims:

1. Co-produce a list of green space qualities, impact strategies, and policy options.
2. Measure green space qualities and the related contextual factors in cities.
3. Establish the 'prevention potential' of the green space qualities.

The study reported in this paper informs the first project aim (as stated above) of the larger research project by providing the criteria and in-depth understandings of what constitutes park quality from the perspectives of park planners, designers, practitioners, and strategic green space policymakers. Based in New South Wales (NSW), Australia, the attention is on the city of Sydney, its park system, and how the focus group participants define and assess park quality. Specifically, we explored how policymakers and practitioners view the ways in which urban residents gain health and wellbeing benefits through park use. During the focus group discussion, we explored these three issues:

4. How to better define and assess park quality.
5. How to increase equity in access and use.
6. How to design appropriate parks for the use of urban communities.

The paper now turns to an overview of the health and wellbeing benefits of parks documented in the literature. This is a prelude to detailing the qualitative methodology employed for the focus group reported here, including the carefully calibrated adjustments to accommodate the COVID-19 Global Pandemic (hereafter referred to as 'COVID'). This is followed by the thematic analysis of the focus group discussion. The paper concludes with a summation of the key findings and issues for further consideration in relation to park quality and health, environmental sustainability more broadly, and the links between human and planetary health.

2. Setting the Context: The Health and Wellbeing Benefits of Parks

Parks are critically important spaces for all communities. Not only does green space perform a multitude of functions in cities [3], but over the past few decades, increasing evidence has shown how natural areas within urban landscapes contribute to the quality of life. This ranges through providing environmental and ecological services, establishing locations for recreation and exercise, as well as creating spaces for people to interact with nature [4–6]. Health benefits can result through the provision of spaces for physical activity, such as trails for hiking and walking, sports fields, and playgrounds [7–10]. Other physical health benefits may be indirect, such as reduced air pollution through the capture of particulate matter from vegetation [11] or reduced temperatures from tree shade to protect cardiac and respiratory health during high-heat events [12]. Shade also provides protection in the outdoors from excessive ultraviolet radiation which contributes to skin cancer [13]. Urban parks and green spaces have also been noted for the mental health and wellbeing outcomes they provide, reducing stress, depression, and anxiety while increasing life satisfaction [14–16]. Because of this association with improved health and wellbeing, urban green spaces are being increasingly recognised as a mitigation measure to buffer adverse life events [17].

Because of the wide range of benefits that urban parks provide, there has been an increasing desire to reconsider park design in order to create multifunctional parks that

deliver many of these benefits [18]. Researchers have been attempting to quantify what is needed to make a park 'high quality' [19–21]. Some general guidelines have shown that aspects of access and nearness to homes and businesses is important [22,23], while others have emphasised the need to provide better facilities for recreation [24]. Research has also examined how parks can be designed to provide a way for users to socialise and create a stronger local community [15,25] while creating a safe environment. In some instances, sending signals of safety and care were important factors related to park use [26,27]. Audit instruments, such as POST, Public Open Space Tool, have been used to observe and quantify a range of factors that may contribute to park quality, but further validation is required [28].

Green open space has the potential to provide multiple benefits across the life course [29]. For children, benefits may include establishing health-supportive behaviours at an early age—this is especially important in embedding habits in undertaking regular physical activity. Green space has been positively associated with children's social cognitive development [30]. For adults, green space has been beneficially associated with a range of human health issues, such as heart conditions, stroke and type 2 diabetes, mental illness, birth weight, and general physical activity [31]. In the case of older adults, green open space can support social and neighbourly connections, something that is critical for everyone but particularly imperative in older age when other social supports are no longer in place (such as through employment) [32].

Increasingly, green space in urban centres is being considered in relation to broader parameters embracing the park service level (local to regional), geographic distribution, and interconnections between open green spaces [33,34]. Taking into account the spatial network of parks can be very important to end users for a number of reasons. First, accessibility to a park is not limited to its distance from a home but also associated with how easy it is to get there. Parks that are easily reached via the street network, pedestrian paths, or cycle ways can cater to a much broader range of people. Increased accessibility may also enhance equity in relation to access [35]. Second, environmental services are frequently measured and assessed at a larger city-wide scale. For example, biodiversity conservation of native species often relies on green corridors to connect habitat patches [36,37]. Ecological services, such as urban cooling and water-sensitive urban design, also require an understanding of air and water flows in conjunction with green space mapping to assess benefits [38,39]. Additionally, expansive park networks are linked to multiple aspects of health and wellbeing in cities, positively impacting the quality of life [40].

It is clear from the research literature that parks provide many health benefits to urban residents, ranging from reducing stress, fostering physical activity, and increasing social interaction to regulating air quality and temperature—all having beneficial impacts for the heart and mental state [41]. Nevertheless, there are gaps in understanding how parks can be better designed, refurbished, and managed over time to deliver positive health outcomes. This is the springboard for the first part of the current research project—examining how policymakers, designers, and park providers appreciate and determine park quality. We now turn to presenting the research approach and outcomes.

3. Research Methods

The 'Better Parks, Healthier for All?' research grant application proposed the use of the 'World Café' research method as the first research activity to collect data from policymakers, designers, and practitioners associated with green open space provision in both Australia and Scotland (our two research sites). The 'World Café' is a participatory method for collecting qualitative data in an interactive and conversational way (for more information, see [42]). The original grant application noted that the most effective means to deliver a list of green space qualities to be measured and tested, and to provide an effective plan for research engagement and translation, is through co-production. The 'World Café' method was proposed to achieve this outcome and included proposals for annual, in-depth interactions with an 'Impact Advisory Group' and invitees from the wider partnership network.

COVID reared its ugly head early at the commencement of the research project which resulted in several delays in starting the work. Further, the evolving COVID situation necessitated a complete reassessment of how to engage effectively (in terms of the research project objectives) with the stakeholders while complying with COVID rules and regulations—and also ensuring that researchers and participants felt safe and able to participate. Consequently, we decided to run an online in-depth focus group with key open space policy and practitioner stakeholders. While not as potentially interactive as the in-person World Café, focus groups are a powerful qualitative data collection method enabling researchers to engage relevant stakeholders in sharing their knowledge and experience about the issues under investigation. Focus groups enable a discussion to occur with a group of participants where the focus is not on individuals but rather the negotiation of views on a particular topic. The qualitative research methodological literature sets out how focus groups are non-threatening environments where participants feel comfortable sharing their opinions, expertise, and stories with both the researcher and the other participants [43].

As experienced focus group facilitators (authors Lin and Thompson), together with the professional attitudes and behaviour of the participants, we were able to conduct an expansive and informed discussion using our question guide. There were no obvious tensions in managing the group dynamics nor any need to intervene as facilitators to ensure that all voices were heard. We ensured that everyone answered different questions and that no one was silent by methodically including every participant in the discussion. The feedback from participants at the conclusion of the focus group was that it had been a positive, enjoyable, and productive experience.

4. Focus Group Approach—Preparatory Activities

In accordance with rigorous qualitative research reporting protocols [44], this section documents in detail the preparatory activities performed to set up the focus group.

4.1. Research Ethics Approval

The first step was obtaining UNSW ethics approval (approval number HC210134) for 'low risk research'. As part of the ethics application, interview questions for the focus group were determined. Due to the ethics approval conditions and the guaranteed anonymity of responses, data collected from the focus groups cannot be shared publicly. This process was led by authors Lin and Thompson—both CIs from the Australian research team. The initial draft questions were shared and reworked with the full team, including the Scottish research partners. Table 1 presents the topic themes and specific prompt questions finally agreed on across the entire research team and subsequently used in the focus group. The prompt questions were developed to use if participants required greater clarity or ideas of what could be discussed.

Table 1. Focus group questions and prompts for the discussion.

Focus Group Questions and Prompts
Theme one: What is park quality?

QUESTION PROMPTS:
• From your perspective (policy maker/park provider), what are the qualities of a good park?
   ○ What is quality—what makes it a park that people want to go to?
   ○ Do qualities include—landscape/natural env; facilities provided; social programs in the park?
• Do you think about quality from the perspective of the user?
• On the other hand, what are the characteristics of a bad quality park?

Theme two: Park quality and health
QUESTION PROMPTS: • Do you design parks with the idea of contributing to people's health? • What qualities of parks contribute to people's health? • Specifically to mental health? • Specifically to heart health?
Theme three: Assessing park quality
QUESTION PROMPTS: • Is it possible to measure park quality? • If so, how? • If not, why? • Are some qualities easier to measure than others? • What data or processes are out there now to measure (or might be used to measure) park quality?

4.2. Recruitment of Focus Group Participants

Using the research team's knowledge of key stakeholders in the areas of park provision, policy making on open space provision, and public health, we listed relevant categories from where we subsequently identified suitable participants to recruit for the focus group:

- Park policymakers.
- Park providers.
- Public health policymakers.
- Officers associated with park policy, provision, and future trends.
- Park designers.
- Park advocates.
- Private, NGO, and state and local government sectors.

We identified 20 potential focus group participants across the relevant categories and sent out email invitations with the formal recruitment letter and relevant consent documents as approved under our ethics application. We cannot list the names of invited participants due to the ethics approval conditions and subsequent communication with focus group participants, some of whom did not agree to being identified in any way at all (by individual name or organisational affiliation). As a result, to ensure compliance with this request, it was determined necessary to keep all invitees and actual participants anonymous to ensure that no one would be inappropriately identified. This is also the case in reporting the findings of the focus group—no identifying details whatsoever are included.

There were 13 acceptances and attendees for the focus group. A reminder email was sent to all participants on the day prior to the focus group. Participants were reminded of the event timing and the Zoom link and were asked that the research participant's consent form be signed and returned if outstanding. Details of the agenda were also communicated in the reminder email.

4.3. A Note about Research Participants' Location

The focus group participants were all from Sydney, and for an international readership, a few comments are in order to contextualise the location. Sydney is the capital of NSW and the most densely populated city in Australia. It has a population of approximately 5.35 million over an area of 12,000 km^2 [45]. Sydney has a density of about 390 people

per square kilometre [46]. The Greater Sydney area exhibits considerable variation in the amount of tree cover within the city, with an average of about 20% tree cover for the region (Figure 1). There is currently an aim to increase this cover to 40% [47]. Annual average temperatures range from 13.8 °C (mean minimum) to 21.8 °C (mean maximum) with an annual average rainfall of 1213.4 mm [48].
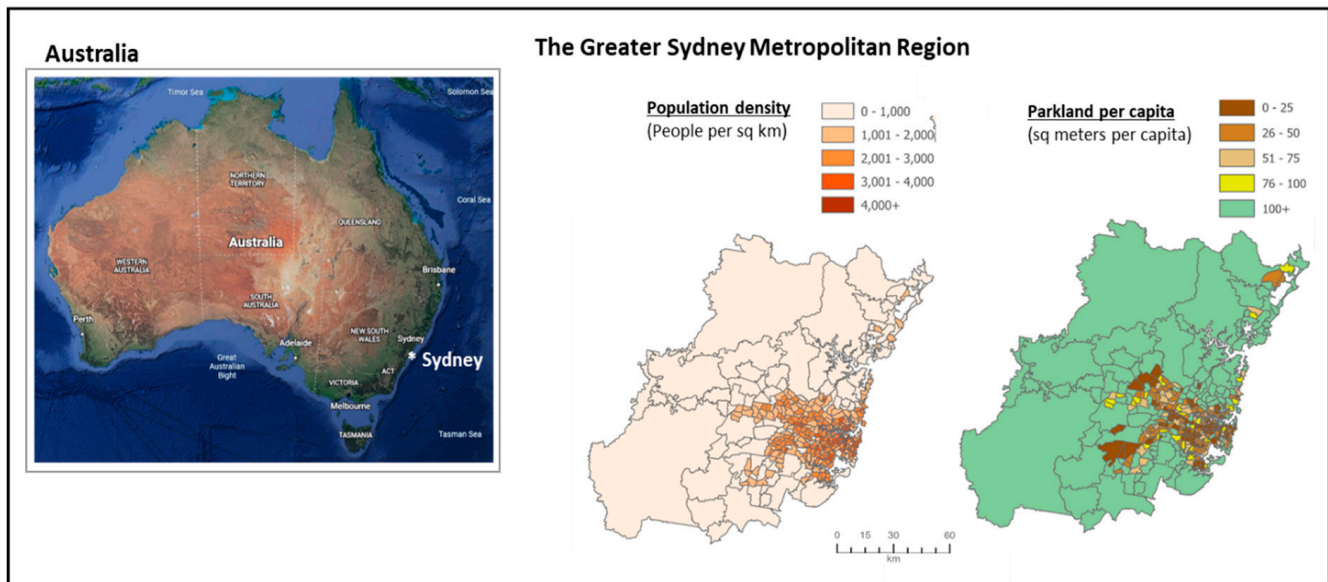

Figure 1. Map of Australia and the location of Sydney along with population density and parkland per capita spatial maps of the Greater Sydney Metropolitan Region. Australia image from Google Earth.

5. Focus Group Approach—Execution

The focus group was conducted online via the computer platform Zoom on 12 May 2021 and lasted for two hours. Timing was strict and followed the pre-circulated agenda. Participants were first welcomed and introduced to each other. Following reiteration of the ethics approval, the focus group schedule was provided, along with protocols for responding to questions to ensure that everyone had an equal opportunity to contribute in an orderly manner. Lin and Thompson then went through the three themes (see Table 1), initially asking the first prompt question for each to get the discussion underway, and then asking other prompts as needed. At the conclusion of the very rich and full discussion, focus group participants were each asked to make a summary statement with their most important point in relation to park quality and health.

Following the focus group, attendees were thanked via email for their contributions to the research. Outstanding signed consent forms were collected and subsequently participants were asked if they were comfortable with being identified in the reporting of the focus group. As stated above, some participants did not agree to being identified in any way at all (by individual name or organisational affiliation). Accordingly, to ensure compliance with this request, it was determined necessary to keep all focus group participants anonymous to ensure that no one would be inappropriately identified. Accordingly, in this paper, all quotes from the focus group are unattributed.

6. Focus Group Approach—Analysis

The transcript of the focus group generated by Zoom was first cleaned up with mistakenly recorded words and sentences corrected. The next step was to go through the transcript, carefully reading the text and assigning codes to label the data. We were guided by our experience as qualitative researchers in the approach to coding. This is well summarised by MacCallum, Babb, and Curtis ([49], p. 145):

> *Coding refers to the systemic labelling of qualitative data by linking of words, phrases or images to distinct tags or codes. Coding allows a data set (. . . a transcribed interview . . .) to be broken down into manageable parts to assist with analysis and interpretation.*

The interview transcript was labelled with descriptive codes as the first step in organising the data, with researchers working together to check consistency across coding. Reviewing codes revealed the rigour of our initial categorisations with some minor adjustments. Given the relatively small dataset (one focus group over two hours, and a 15,000-word transcript), it was not necessary to use any computer software to organise or manage the data.

Related codes fell quite logically under each of the topic themes explored in the focus group. This was relatively straightforward as themes were clearly identified in the question list (via topic themes) and the focus group discussion was orderly and easy to follow—participants spoke sequentially and did not interrupt or speak over each other. In presenting the results of the focus group discussion, we illustrate each code with numerous participant quotes, of which there were many rich examples. And as noted previously, all quotes are unattributed—including disciplinary background, sector affiliation, or role across policy formulation to park provision—due to confidentiality requirements. It should also be noted that any reference to specific places has been anonymised using a generic term in square brackets within the quote (e.g., [. . .]). Further, any explanatory words required for clarification in a quote are placed in square brackets.

7. Results of the Focus Group Analysis: Park Quality and Health

The results from the focus group discussion revealed several main themes associated with park quality and how to design parks to better serve the health and wellbeing needs of the public. Three main points were highlighted in the design of quality parks that could provide multiple benefits to people. First, most practitioners do not view parks individually. Rather, they judge the ability of the park network as a whole to provide benefits for communities. Individuals do not use one single park exclusively—they tend to use a range of parks for a variety of reasons, and this must be considered when thinking about designing quality parks that deliver benefits. Second, there was common agreement that parks sit within the context of the community. Accordingly, parks must be developed with the community. Their needs must be carefully calibrated to provide the benefits they require and in the manner most desired by them. Third, benefits are gained in a myriad of ways because people have diverse needs and acquire benefits from parks in varying ways. This must be accounted for when thinking about the range of benefits that practitioners want to see in the network of parks and the subsequent assessment of park qualities to deliver those benefits.

7.1. Parks as a Network

One of the first and main outcomes of the focus group was a robust discussion about how to define parks—especially in terms of how the qualities of parks deliver benefits to communities. There was general participant agreement that parks should not be considered in isolation.

> *It's important not to think of parks as the green square island in a city with a hard line around it, that sits somehow separate from the city. You know, parks don't operate in that way; they are very much part of their context.*

Viewing parks as single entities in isolation from other green spaces does not present an accurate picture of how the benefits of parks become available to urban residents. Instead, the focus group participants pointed out that residents, in reality, use a wide variety of green spaces at different points in their day, week, and across their lifetime for various reasons. Green spaces cannot provide every single type of benefit available. Instead, each green space provides a range of benefits, and they can be designed to cater for different uses. As a result, green spaces need to be assessed as a collective, or a networked system,

that provide urban residents with the full range of benefits when considered as a whole. The focus group participants said the following:

> *We are looking at what creates, you know, a high performing open space network. So it's not only just about one space, but it's about the collection of spaces that actually make up the built environment.*

> *As we've been developing the greener place design guide, we've identified a range of performance criteria, and they include accessibility and connectivity. The idea is to have an interconnected network of open space parks of various sizes, which have different performance criteria and quality.*

The focus group participants agreed wholeheartedly that to assess the extent to which community groups were receiving multifunctional benefits, practitioners first had to understand how the network of parks provides the range of services and benefits required. This necessitates delivering a diversity of parks to support a variety of uses that people can access easily.

> *They [parks] don't all have to serve the same function, and I think that if people have access to a range of open spaces that meet the diverse needs of that community, then that's great.*

While one park may serve a certain segment of the population, such as having good playgrounds and children's facilities, another park may provide walking trails through an area of remnant bushland, while other parks may offer manicured gardens and places to sit and enjoy the surroundings. Everyone across the life spectrum needs to be accommodated in the park system. As one participant said,

> *We shouldn't forget our elder citizens, particularly in that health spectrum. We talked about play spaces, which are generally for the younger. But active senior citizen engagement and spaces and connection is terribly important too, especially in an ageing population.*

But not all community members are well served.

> *Youth well-being and youth mental health is a resilience challenge—and the importance of connecting youth to green space, which is free, is a really important challenge for us.*

Each type of park brings benefits to urban residents in different ways and serves communities at different points in their lives. Some parks aim to have multiple functions.

> *[Name] Park is a great example. Not only does it have all the social capital, the coming together of people, but it's capturing all that stormwater from that park, reusing it, and creating an incredible habitat, which is attracting thousands of birds, rare and endangered species. There is artwork incorporated into that water body. So what that to me really represents is a fantastic, high quality space. It's got children's playgrounds and all those other things, community gardens—it shows the range—the environmental, social and economic in terms of what they are saving on water use to keep that park irrigated as well. And the overall water quality benefits of the entire system, because that water is purified before it actually goes up.*

7.2. Co-Design with Communities

Another recurring theme was the importance of the context in which a park is designed, planned, and created. Practitioners discussed the importance of understanding the sociodemographic and cultural make-up of the community, along with appreciating the general land-use composition of the locality. This is essential in order to design parks that respond to the needs and desires of the community.

> *I think one of the underlying things of this whole discussion is really about the importance of a place-based approach to parks . . . whether they're a very small scrappy little park, [or] a big regional park . . . really making sure that parks respond to the local context, both the local community, the local historical and cultural context, connections to place, and connections to country.*

Co-design is vital in order to create a green space that is appropriate to the unique needs of local users. This necessitates active engagement by practitioners with community members to understand what facilities are required, who uses (and wants to use) the park, and how the community envisions the park will play a role in their lives as they age and their locality evolves and changes.

> *In [our Council], for example, high density is a relatively new thing and so we're just starting to look at parks as public lounge room spaces, I guess, for people who don't have that larger space in their homes or yards. In some of our new release areas, the lots are a lot smaller than we'd traditionally see so those open space areas are used like a public backyard and communal space, which is yeah, as I said, historically fairly new for [Name] area. Obviously, there's a need for that. People need a space to socialise, and for that connection, whether it's the people they already know or incidental connection with neighbours and connecting with the people who live around them.*

This type of engagement in designing a new park, as well as redesigning an existing open space, is critical to ensure that communities feel a sense of belonging to the space that is finally established. Ownership evolves through the shared development of the park design and its facilities so that it becomes a living part of the community. This sense of ownership encourages and supports stewardship of the open space, as well as care-taking behaviours that assist with ongoing maintenance and safety within the park.

> *I think it's really important to view that sense of ownership for parks and the local community; and that way, if you involve community in the development, you're going to involve them to take care of it . . . I think a sense of community ownership really important.*

Being able to help co-design the park also provides a process for the community to feel connected to the space. This is relevant to the physical design as well as the programmatic management of the park, which can then become a destination rather than merely a space in which to be.

> *It's not just physical form—so it's not just about the barbecues or bubblers. It's about the programming and activities, and then how people feel about the space, and how they can connect to it and to each other in that place. Those three things together are what helps create the quality of a public space.*

> *We need to almost shift away from a facilities thinking to a usage thinking . . . we aren't just looking for barbecues and toilets. We're also looking for destination and place and connection to country and all of those other elements.*

7.3. Benefits Are Gained in a Myriad of Ways

The discussion about the variety of experiences in parks was mirrored by the focus group participants reflecting on the diversity of ways that individuals benefit when using numerous parks. This was a major theme to emerge. Interestingly, the benefits were often multiple, which we outline below.

Providing space for physical activity: The participants noted that in urban settings, parks can provide valuable space for outdoor exercise focussed on sports, as well as general physical activity. Parks that are designed with sporting fields (or informal areas for games) can have a primary role as exercise facilities. Walking or running trails that are well maintained and with good lighting can also provide a valuable resource for urban dwellers to exercise in a pleasant natural setting away from vehicles and the associated exhaust fumes. Fitness equipment in outdoor gyms, some specifically designed for older people, or more generally, also support bodily exercise and physical health.

> *A couple of things that I wanted to talk [about] is the importance of having active open space. From an active living point of view, from a physical health point of view, we need to be able to go out and interact with the open space. People are happy to travel a little bit further if it means they can go for a really long walk. Like, for example, the [Name] Walk that people actually travel to; that gives them the physical activity benefit. But in*

terms of the social connectivity or getting the kids out and being active locally, the small parks work.

Incidental exercise was also noted as an essential way to encourage physical health in the population. Providing paths that are well lit, with smooth and even surfaces, and along corridors of movement within the neighbourhood can encourage community members to walk instead of drive. For example, if suitable paths are available, individuals can walk from home to the train station or bus stop instead of driving. Providing opportunities for incidental exercise can be a significant part of the daily physical activity for many.

If we can promote access through active transport like walking or cycling, you know, or even public transport, that would be great.

. . . another issue within [our Council] is that people commute a long way to work, and they don't have the time to be spending at destinations that aren't along their travel routes or part of their daily life. It's about the incidental activity that we can build into people's lives, and in terms of new [residential] release areas, it's things like having shops close to home, so that people don't have to drive to the big Woolies [supermarket] a suburb over to pack the boot and drive home.

Providing a place of solace and quietude: An important role of urban parks is that they offer spaces away from the busy-ness of the city. The participants talked about trees helping to block out city views and green space more generally providing a place away from other people and diminishing noises from the cacophony of the urban setting. More secluded and natural spaces deliver restorative benefits, as well as opportunities for nature connection. Such spaces can be therapeutic for urban dwellers who are fatigued from the sensory overload of urban life.

There's also the role that open space plays in people getting away from crowds and getting away from the feel, that urban feel, especially if they live in high density or a crowded area; and it's about finding some peace and the mental health benefits that come with that as well, and being in touch with nature rather than other people.

In terms of the more passive open space and the spaces in nature that have been protected from development and design, I think it's quite important too, obviously for environmental reasons, but also for people's health and well-being—spaces that aren't built, not part of the built environment, and are an escape from the built environment for communities and people.

Escaping the busy-ness of everyday life, whether it be with their families or on their own, I think that was a really important thing for people to do at a time when there was a lot of stress and uncertainty in their lives, but it was also a really positive thing for people to be able to do and be able to access those things freely as well.

Social connectivity: In high-density cities, where apartments and small housing lots dominate, the participants noted that parks are important spaces where people choose to meet and socialise. Parks which are freely accessible and have cooking and seating facilities, along with clean toilets and drinking water, allow for intentional and unintentional social interaction. This is particularly important for vulnerable individuals across the age and ability spectrum, whether visiting alone or with others, with or without assistance.

In terms of social benefits . . . [the park] is a place where I can go and interact with other people, where my children can meet other children, where my family can interact with many different kinds of other people.

People need a space to socialise, and for that connection—whether it's the people they already know or incidental connection with neighbours and connecting with the people who live around them.

Providing a cool place to spend time: The focus group participants agreed that creating climate-adaptive spaces may not only attract people to parks, but that shaded and cool

areas have benefits for human health and liveability. High temperatures, especially over a prolonged time, can adversely affect physical health, including cardiac and pulmonary issues. Mental health stress is also highly related to extended heat exposure. Parks and green spaces will become increasingly important as a community health strategy in the face of extreme temperatures and commonly occurring heat waves. This is especially the case for vulnerable communities without air conditioning at home or the resources to run cooling systems regularly.

> *. . . we're seeing here, increasing . . . pressure from our community to deliver more climate adaptive green space . . . particularly the inclusion of shade. But use of materials in terms of reflective materials, things like water misting, and those kinds of considerations to make sure that we're not just delivering open space, but quality open space that's usable and liveable as well.*

> *It's another dimension of understanding what these influences are [for increasing dwell time], and particularly in heat stressed suburbs, where even access walking to the local school or the streetscapes or access to natural open space systems are all part of this broader grid . . . human health and well-being in those spaces, has just really been highlighted by some research . . . particularly thermal comfort.*

8. Discussion

This research provides insight into the ways that park providers, designers, and planners are considering the beneficial role of parks in cities. These insights will initially be used to inform the next stage of the larger research project in which the current study is situated—the measurement and assessment of green space quality. We are optimistic that practitioners in other geographic locations, working alongside urban communities, will find the understandings reported here beneficial in delivering a quality green space for health and wellbeing. As well, we anticipate that researchers will similarly benefit from the work as they further explore notions of quality in urban parkland settings. We now turn to summarise the key insights from our study.

The focus group importantly highlighted that thinking about parks individually is too narrow in addressing quality and assessing how green spaces can deliver multiple benefits for urban residents. Further, the focus group challenged the notion that park quality can readily be measured. Rather, parks as a network, at a larger scale, have to be thought of as holistically for the range of benefits that can be provided across the city. Increasingly, there is recognition of a gap in the literature in relation to viewing parks in this way, especially regarding socio-ecological research [50]. The results reported here flag a need to move away from examining park quality on a park-by-park basis to a more systematic view of quality across a network of parks. One focus group participant pointed out that 'everywhere is a park' and we need to 'optimise the use of the public domain, and that includes streets and schools'. All these spaces represent opportunities for providing benefits to urban residents, especially designing public spaces that allow people to use active transport to move from one location to another with the emphasis that 'we should be starting from the pedestrian, then the cyclist, and then, and only then, the car'.

Additionally, the focus group participants were highly cognisant of the diversity and variation in the need and desired outcomes of parks depending on the neighbourhood location and context of place. This aligns with the congruence concept in the domain pathways model where qualities are contingent upon personal needs, preferences, and capacities [51]. This heterogeneity in how people want their parks to look and feel is especially challenging for authorities because there are local details that need to be factored into the overall diversity and variation at the city scale. Nevertheless, engagement with the local community is necessary if financial investments in the park are to result in a design that suits and provides benefit to the community. Engagement with users is also critical in creating a sense of ownership of the space. This was demonstrated in a study of a park as a community asset in a low-income neighbourhood in Philadelphia. In this example, the increased participation of the community also led to a sense of enhanced

ownership and feelings of inclusion in using the park [52]. Another instance, this time from Massachusetts, USA, showed that engaging with youth in local parks with health-promoting activities helped them to learn how to use the parks to participate in physical activity. Further, the young adult users were inspired to take care of the parks and advocate for their improvements [53].

Although the idea of the network of parks was highlighted as a fundamental aspect of park design (e.g., 'not just bubblers and barbecues'), the participants stressed that the provision of infrastructure is still important to support park users. Programs that help people understand how to use a space can attract individuals to parks [24]. This may include after-work exercise programs, musical concerts, food truck events, and other social activities that provide a community feeling to the space. This activation and programming of space requires essential facilities such as garbage receptacles, bathroom facilities, and disability access ramps to ensure equity in gaining entry to the park (see, for example, [54]). As one focus group participant pointed out, 'I know we've said earlier, it's not all about toilet blocks and barbecues, but obviously toilet blocks are really important for a large part of the population as well, and accessible toilets. Aside from people with a disability, there's a whole range of people that need toilets more frequently than others, people with children or older people'. This reinforces the importance of community input into both the physical design of the space, as well as ongoing park management.

The overall value of parks is often underappreciated and underfunded compared to the significance of the benefits provided, and quantifying all the benefits is clearly complex and difficult [55]. The participants felt that despite all the well-recognised benefits that urban residents receive from parks, they were still constrained by (as one participant put it) 'the need to prove and quantify and monetise these benefits'. Many of the benefits require longer time periods to come to fruition in communities and a much more complex understanding of how people use parks and gain benefits in order to quantify the benefits economically. Rather, the focus group participants felt that there needed to be a 'cultural shift to think of these places as special places even if they are not special in some particular way'. These places offer so much benefit that they should not have to make an economic case to exist but should be an essentially funded part of the government, just in the same way as hospitals and medical care facilities.

Green space played an especially relevant role for health and wellbeing during COVID, providing communities with a safe space for interacting with neighbours, exercising outdoors, and other therapeutic purposes in a stressful time. During the COVID period, similar to many other countries, Australian residents experienced lockdowns, working from home mandates, online learning, and travel limits. Visiting parks was a fundamental part of the COVID restrictions and provided a new appreciation of being able to access their local parks for many. For other people, there was a reduction in use, with one study reporting this for older residents in the city of Brisbane, Australia [56]. Other research revealed that individuals may have changed the way they used green space to meet their needs during COVID (see, for example, [57,58]).

Nevertheless, there is widespread acknowledgment that COVID has reinforced the importance of public spaces for health and wellbeing [59–63]. Finding a pleasant outdoor space, including green parks and reserves, to undertake exercise and mentally relax while maintaining physical distance was paramount. Global surveys also revealed high patronage and an appreciation of open space during this time [64]. In Australia, the state government of NSW found that '45 per cent of people spent more time in public space than they did before the COVID-19 restrictions' [59]. The need to have access to public spaces was further heightened due to 'lockdowns' and the resulting prohibitions on travelling, orders to work from home, and limitations on visiting others.

The focus group participants agreed:

> *I think that was a really important thing for people to do at a time when there was a lot of stress and uncertainty in their lives, but it was also a really positive thing for people to be able to do and be able to access those things freely as well.*

We would never have predicted its role in resilient communities through COVID.

Post COVID, it will be essential to consider green space as a health strategy as it proved to be a critically important space for communities during lockdown periods. COVID has highlighted the need to consider multiple Sustainable Development Goals at once, including providing good health and wellbeing (Goal 3), decent work and economic growth (Goal 8), building sustainable communities and cities (Goal 11), creating inclusive institutions at all levels (Goal 16), and more [65–67]. Green spaces are also important not only for supporting community health and wellbeing but also for biodiversity conservation (Goal 14 and 15) and clean water and sanitation (Goal 6) [68,69]. It will be interesting to see how the associations between healthy people and the planet evolve through the synergies of the various UN Sustainability Development Goals.

9. Conclusions

The results of this research emphasise the importance of viewing parks as a network of spaces, the importance of engaging with communities, and the crucial role of context in terms of open space provision and design. Only by working alongside local communities to understand their locational and demographic contexts, as well as their varying and multiple open space needs, will we be able to appropriately adjust park design, implementation, and ongoing management to deliver value to urban groups. Thus, park quality must be assessed in the context of local community needs and in consideration of the network of parks and benefits available across a city that come together to meet those requirements. This type of engagement involves effort to bring together diverse groups of people who have varying needs in relation to public green space. Although the myriad of benefits provided by green spaces is difficult to quantify based on individual life circumstances, needs, and behaviours, green spaces warrant greater funding and development, especially if that means we can increase the quality of life and health outcomes for urban residents. Not only does the physical and mental health of our population rely on this, the sustainability of our planet is also dependent on the retention, rejuvenation, and re-creation of green space across the globe. This reinforces the urgency of considering the UN's Sustainable Development Goals in this context and how the SDGs can be brought to bear to create more liveable and sustainable urban communities. Without this there is no life on earth.

> *You can't have enough multi-purpose green ways, particularly in established urban areas . . . to highlight the essential role that open space plays in maintaining and building community resilience, which covers health, equity, vulnerability, personal safety, social cohesion—really important things.*

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