Park Perceptions and Racialized Realities:

Visualizing Social and Health Equity in Public Urban Greenspaces

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Abstract

The growing literature indicates that natural environments, such as urban greenspaces, can promote health and wellbeing. However, the pathways are still unclear. The tendency to romanticize nature, without considering issues of equity and marginalization, presumes that everyone experiences greenspaces in the same way, with universal positive impacts. *Park Perceptions and Racialized Realities* is a community-engaged and participatory photovoice study that critically examines the experiences of racialized people in public urban greenspaces in two underserved neighbourhoods in Toronto, Canada. This research took place during the unprecedented COVID-19 pandemic, a time when inequitable access to high-quality, safe urban greenspaces was amplified. Methods were adapted to take place online and grounded in feminist and anti-racist community-engaged principles. Participants attended online sessions, took photographs and videos on neighbourhood greenspace visits, and debriefed their experiences in individual interviews. First, a collaborative analysis process was facilitated with community residents and advisors. This process then informed a deeper thematic analysis of the photographs and narratives. Eight key themes are identified: (1) belonging and social connection, (2) exclusion, (3) mental health and wellbeing, (4) right to play and children's recreation, (5) maintenance inequities, (6) access and accessibility, (7) safety, and (8) gentrification and complex use of public space. These findings are outlined in a community report, alongside policy and practice recommendations. Furthermore, public urban greenspaces influence three dimensions of wellbeing for racialized residents: (1) mental, (2) physical, and (3) social. These dimensions are unpacked in nine key domains to posit an aspirational framework. However, there are social and structural barriers that hinder these pathways to wellbeing. Residents also described issues of inequitable urban greenspace distribution and maintenance, lack of meaningful participation for racialized communities in greenspace planning and design, the lack of understanding of the diverse needs of racialized communities and the macro-level forces that create complex inter and intra-racial dynamics in greenspaces. This dissertation provides novel qualitative and visual insights into the experiences of racialized people to support public health professionals, landscape architects, planners, parks professionals and others in related fields to center equity and justice in public urban greenspace scholarship, policy and practice.

Dedication

In loving memory of

my *Umamma* (Sithy Haneena Hassendeen, 1927 - 2002)

and

Rizvi Mama (Mohamed Rizvi Hassendeen, 1954 - 2019)

We are flying kites at the beach.

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CHAPTER ONE: INTRODUCTION

This doctoral work is an exploration of how people who are racialized experience, navigate, use and access public urban greenspaces, and the associated ramifications for social and health equity. Underlying the project is an investigation of the deeper connections between place, race, and health. The dissertation explores how intersecting identities influence a person's experiences as a human being, due to social constructs and broader systemic issues, and subsequently, how a person experiences (or is allowed to experience) public urban greenspaces.[1] For me, this project has been a process of questioning whether and why racialized people feel they belong in urban greenspaces, can use these spaces in the ways that they desire, and how these experiences influence access to health, wellbeing and equity.

This introductory chapter provides a summary of the research project, an account of my positionality and how I came to this doctoral topic, an outline of the dissertation format and the research questions posed, an overview of the theoretical frameworks and literature that informed this work and a description of the methodology and methods used.

The project is timely and felt urgent given the confluence of global issues in 2020. The COVID-19 pandemic rendered public spaces invaluable and prompted critical conversations about access to public greenspaces in the context of health and wellbeing. The murder of George Floyd, Breonna Taylor and other Black and Brown people catalyzed collective calls for action on racial justice and consciousness-raising. When Christian Cooper, a birdwatcher and a Black man,

[1] There are multiple definitions of greenspaces across disciplines (Taylor and Hochuli 2017). This dissertation focuses on publicly accessible urban greenspaces including parks, ravines, hydro corridors, and community gardens. This could also include publicly accessible open spaces that were not necessarily "green" such as underdeveloped public spaces. Depending on geographical location, these spaces are not necessarily always green, i.e., during the winter season in Toronto, Canada.

had the police falsely called on him while in a greenspace in New York City, the publicized event highlighted the complexities at play between race and the natural environment. The COVID-19 pandemic has highlighted the intricate dynamics and predominant notions of *who belongs where,* further uncovering the underlying issues that impact how racialized people navigate public space and the impacts on their health and wellbeing. If urban greenspaces have the potential to positively impact health and wellbeing, why doesn't it work for everyone? While this is a larger question, my dissertation research aims to specifically unpack the experiences of people who are racialized in two neighbourhoods in Toronto, Canada and contribute to exploring and theorizing why and how this might be the case.

Reflexivity and my narrative as an entry point to this work

The personal is political, and in many ways it was my own embodied experiences across space and place that lead me to the research topic for my dissertation (hooks 1989). I am a woman of colour, a first-generation Sri Lankan immigrant, and settler who migrated to Canada as a teenager. It has been a process coming to terms with my hyphenated intersecting identities, and unpacking what place means to me, geographically as well as relationally in terms of community. While navigating public spaces, I have experienced misogynistic, racist, and xenophobic comments. I have also experienced othering and exclusion in different ways. When I began reading the works of Black and Brown feminist scholars, their words resonated deeply with me and I began to make sense of how my intersecting identities influence my everyday realities (Ahmed 2017; hooks 1989; Lorde 2012; Piepzna-Samarasinha 2018). For my dissertation, I sought to take up issues of identity, intersecting social locations and social structures in understanding how people navigate and use public greenspaces.

I am neither a planner nor a geographer nor a landscape architect by profession. However, I am particularly interested in urban greenspaces. My interest in urban space stems from an interdisciplinary education including a degree in architectural design. My Master of Public Health degree enabled me to ground this knowledge of urban spaces and places within the context of health promotion. This interdisciplinary formal education is coupled with an innate, lifelong yearning for more nature and greenspace – a longing that perhaps exists in someone who has grown up in dense urban environments all her life. Throughout my childhood and adolescence, I lived in an apartment in Abu Dhabi, in the United Arab Emirates with limited access to outdoor space, greenspace, or natural environments. Access was further complicated by my identity as a female, as there were deeply embedded (often unspoken) issues of misogyny that rendered public spaces unsafe for women.

Since moving to Toronto, I have engaged more freely in various ways with Toronto's public greenspaces, which include parks, ravines, hydro corridors, and other publicly accessible open spaces. I increasingly sought out greenspaces after a cancer diagnosis in my twenties and as I learned to navigate my new normal with chronic symptoms. While public urban greenspaces have been sites of healing, escape, and reflection, they have also been riddled with questions of belonging.

I am not a legal scholar. My entry point into the field of Critical Race Theory (CRT) comes from a keen interest in how to address issues of racism in different contexts. As someone who is racialized and has been involved in anti-racism work in different contexts, both academic and in praxis, I sought to further my understanding of the historical context of what is often referred to as the "movement" behind Critical Race Theory (Valdes, Culp, and Harris 2002, 9). Furthermore, intersectionality is a framework that resonated for me the instant I was introduced

to it. As I simultaneously occupy multiple identities, I have always had a sense that these mutually constitutive identities impact how I move through the world. Through my undergraduate and master's degrees, and in reading the scholarly literature, there were ways in which I was confronted with being forced to choose one aspect of my identity over others. There was limited space to exist in complexity and in my full self, both professionally and personally.

Within my realities of being occasionally othered and exoticized and navigating the complexities of what it meant to be a "Sri Lankan-Canadian," I am also unlearning the false histories that I was taught. I have sought to understand the historical contexts of anti-Black racism and anti-Indigenous racism, and how hierarchies of racism in North America are perpetuated by notions such as South Asians as a "model minority" (Banerjee and Tan 2022). Although I identify as a racialized person and am a person of colour, I am aware of the relative privilege I hold as someone who is neither Indigenous nor Black and cognizant of how structural racism and colonialism has resulted in complicated intra and interracial dynamics that are often glossed over. On Turtle Island, the continent of North America, the histories of the genocide of Indigenous people and slavery of Black people has left a legacy of a specific type of racism that permeates society and systems today and has ongoing intergenerational impacts. While there is undoubtedly racism against other people of colour from elsewhere in the world, there persists a "hierarchy" of racism and I strive to be conscious of this.

There are also overlapping "isms" when it comes to racism. There are nuances that include religion, immigration, gender and the connection between racism and the concept of "nativism" (Valdes, Culp, and Harris 2002, 91). The latter is evident in a situation where I was walking to Union Station in Toronto with a suitcase, and a stranger felt he could boldly proclaim "yeah, go back to where you came from" or on another occasion where a white female called me

a “paki slut” on the street. The exploration of racial identity in navigating public space is a thread that weaves throughout this dissertation, but I will pick up on this notion specifically in Chapter 5 when I explore the complexity behind racial dynamics, problematize the idea of inclusivity and examine how to move towards more racially just environments.

As a public health professional, I was aware that the field was lacking an intersectional lens. Until this aspect is addressed, there can be no truly critical public health. This narrative is exacerbated by the push for objectivity in a positivist culture that relegates storytelling to “unscientific.” I have grappled with the predominant notion that “good” academic scholarship is objective and neutral. This position arises from my education in the health sciences and public health, where although I was introduced to qualitative research, it was held in lower regard than its quantitative counterpart. I have become increasingly comfortable with the postmodernist view of socially constructed realities and the notion that there are multiple truths. This worldview is aligned with the frameworks that guide this dissertation. As such, I strive to do the work of unpacking my own biases and experiences to acknowledge the personal lenses that I inevitably bring to my work. I choose not to extricate myself from these narratives, instead I reflexively locate myself.

In this journey across the world, with stopovers along the way, and in trying to find a sense of place and belonging, my migration journey mirrors those of many others while also standing in stark contrast to those who were forced to move through slavery, genocide, and colonization. It is this multitude of stories and journeys that weaves messy, contextual realities with varying levels of choice, autonomy and opportunity. It is from this positioning and place – combining my interdisciplinary academic pursuits and my lived experiences – that I embarked on my dissertation and formed the *Park Perceptions and Racialized Realities* project.

Project Overview

This dissertation *Park Perceptions and Racialized Realities* is a community-based participatory action research (CBPAR) project that explores the experiences of racialized and Black, Indigenous and People of Colour in public, urban greenspaces using photovoice. The research project was conducted in two under-resourced Toronto neighbourhoods, Jane-Finch and St. James Town and in collaboration with Greenchange, Jane/Finch Centre (2023) and the St. James Town Community Co-operative (2023).

Toronto is divided into 158 neighbourhoods; the structure was changed from 140 neighbourhoods in April 2022 (City of Toronto 2022). The neighbourhoods are varied with respect to demographics, size, infrastructure and resources, and physical and mental health metrics (Centre for Research in Inner City Health 2014; City of Toronto 2022). The City of Toronto is also divided along racial and income lines (Hulchanski 2011). In Canada and elsewhere, complex health inequities have been exacerbated between neighbourhoods in cities due to the COVID-19 pandemic (Mulligan 2022). To engage with the broad contextual factors at a neighbourhood-level and facilitate this analysis, I chose to structure the project around neighbourhoods. The focus on selected neighbourhoods allowed for a greater focus on community, neighbourhood and structural factors, barriers and solutions. While conceptualizing the research, my selection criteria for Toronto neighbourhoods was: (1) to have a high racialized population (at least above 50% “visible minority”) [2] and (2) to be considered underserved and face structural barriers.

[2] Canada’s Employment Equity Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour" (Government of Canada 2021). The term is still used but has been debated and problematized.

As I had pre-existing relationships with community members in St. James Town and lived nearby, I returned to this neighbourhood. Based on the research topic, I was introduced by a mutual contact to another community organization doing related work in Jane-Finch and we had discussions about potential work alignment. While St. James Town is located in downtown Toronto, Jane-Finch is in the northwest of the city. The selection of these two sites provided an opportunity for comparing and contrasting urban greenspace issues. Both neighbourhoods are high-density with public housing buildings. While St. James Town has limited greenspace and high walkability, Jane-Finch has greater amounts of greenspace but different barriers with respect to residents accessing these public spaces. I have collated publicly available data for each neighbourhood, including median household income, ethno-racial makeup of neighbourhood (i.e., % visible minority), quantity of greenspace, self-reported mental health, cases of COVID-19[3] (Centre for Research on Inner City Health, 2014) (see Appendix B, data from Toronto Community Health Profiles, Neighbourhood Census Profiles).[4] The literature suggests that these variables may mediate the relationship between urban greenspace and health and wellbeing and are expanded upon in the literature review.

Both the St. James Town and Jane-Finch neighbourhoods had low Neighbourhood Equity Scores,[5] over 65% of the population are considered "visible minorities," over 50% are immigrants and the median annual household income is less than $51,000. While the two city neighbourhood boundaries that make up Jane-Finch (Black Creek and Glenfield-Jane Heights) are considered Neighbourhood Improvement Areas (NIAs), St. James Town just missed the cut-

[3] Recorded in May 2021, prior to beginning data collection.
[4] At the time of writing this dissertation, the most recent 2021 Census data by neighbourhood was not publicly released.
[5] Neighbourhood Equity Scores are a composite index calculated based on 15 indicators of inequity (City of Toronto 2014). The goal was to identify Neighbourhood Improvement Areas (NIAs) as part of a strategy to advance equitable outcomes in Toronto's neighbourhoods.

off for consideration despite a high level of marginalization. The framework of using and identifying NIAs has been critiqued for leaving out several neighbourhoods in Toronto that required additional resources and support. Both neighbourhoods have been considered hotspots with a high number of COVID-19 cases.

The methods of this dissertation, the steps undertaken, and the pivot to an online process due to the COVID-19 pandemic, are described in detail in Chapter 3. Briefly, 18 residents[6] who self-identified as racialized from Jane-Finch or St. James Town participated in the project. The research project includes ten residents from Jane-Finch and eight residents from St. James Town. One resident had connections to both neighbourhoods. Each resident went on two greenspace visits to take photographs in response to prompts and participated in an individual interview to debrief their photographs and experiences. In total, residents went on over 35 greenspace visits and took over 200 photographs and videos documenting their experiences and capturing their perceptions on issues like access, safety, inclusivity, and health and wellbeing. I facilitated over 55 individual and group online discussions to debrief those experiences. The analysis and knowledge mobilization activities were done in collaboration with the residents and community organizations.

Despite sharing several social identities with participants in the study, I was not a resident of either neighbourhood. Consequently, I occupied both insider and outsider roles and the "space between," simultaneously navigating the ways I was similar to and different than the participants

[6] When writing the community report (in Chapter 2), an advisory group member suggested using an alternative to the term "participants" to shift the focus from research terminology to community-centered experiences. Collectively, the writing group chose to the term "resident photographers" to refer to study participants in the community report. In this dissertation, I will use the term "residents" as well as "participants."

(Dwyer and Buckle 2009). My identity (in all its different components) was fluid during the project, depending on the context, rather than fixed and "binary." As a first-generation immigrant, I recognize that all public greenspaces in Toronto are on stolen Indigenous lands. While this project did not explicitly take up Toronto's colonial history as a site of analysis, I noted these realities repeatedly, we discussed meaningful land acknowledgments and had ongoing conversations with residents and advisory members. I expand on this concept further in the final chapter.

Literature Review

Experiencing and accessing urban nature and greenspaces has been shown to promote physical and mental heath and wellbeing, at both the individual and communal level (Hunter et al. 2019). The current literature has focused on determining the health benefits of public urban greenspaces and the mechanisms by which these outcomes occur, but there is a need to further develop knowledge and expand research methodologies to better understand the subjective, lived experiences of the people who use them. This section describes the current research, summarizing the pathways theorized between public urban greenspace and outcomes related to social and health equity,[7] specifically health and wellbeing and racial justice. I also summarize the rise of public urban greenspaces and some design principles, outlining how their exclusionary history has ongoing ramifications. I then briefly synthesize the literature on race and equity in this area, while pointing to gaps in the evidence.

[7] Health equity is "the absence of systematic health disparities between groups with different levels of social advantage/disadvantage (e.g., race, class, gender identity). Health inequities systematically put groups that are already socially disadvantaged at further disadvantage with their health" (Braveman and Gruskin 2003, 254).

Health and Wellbeing in Public Urban Greenspaces

In recent years, there has been a rapid increase in the literature exploring the ways by which greenspaces can promote health and wellbeing – both physical and mental. However, the pathways and mechanisms are still unclear (Markevych et al. 2017). In 2019, the Canadian Mental Health Association published an ecological model depicting the interrelation between the micro (individual-level), meso (family and community-level) and macro (structural and environmental level) levels. At the structural and environmental level, "safe urban design and access to green spaces and recreation facilities" is mentioned as a protective factor for mental health (Canadian Mental Health Association 2019, 9). Since that model was published, there has been a significant increase in mental health challenges in Canada and worldwide related to the COVID-19 pandemic (Dozois 2020; Thomas et al. 2020).

Much of the greenspace research uses geospatial and epidemiological approaches to analyze associations between exposure and access to greenspaces, with a range of objective and subjective self-reported health metrics (Jarvis et al. 2020; Crouse et al. 2017; 2019; Astell-Burt and Feng 2019). Urban greenspaces have been found to have positive associations with a range of physical health metrics (Twohig-Bennett and Jones 2018) including cardiovascular disease (Astell-Burt and Feng 2020; Seo et al. 2019; Donovan et al. 2015), type II diabetes (Astell-Burt, Feng, and Kolt 2014), and mortality (Barboza et al. 2021; Crouse et al. 2017; Villeneuve et al. 2012). Some studies have focused on this greenspace link with children and adolescent health outcomes, finding positive associations to childhood asthma and allergies (Dadvand et al. 2014), reduced attention deficit disorder symptoms (Donovan et al. 2019), cognitive development (Dadvand et al. 2015), and motor development (Kabisch et al. 2019).

Greenspace has also been associated with improving mental health and wellbeing metrics such as reduced symptoms of stress, depression, and/or anxiety (Alcock et al. 2014). There have

been several systematic or scoping reviews that have examined the literature on urban greenspace and mental health, purporting the potential benefits (Astell-Burt and Feng 2019; Gascon et al. 2015). Other studies have focused on the link between urban greenspace and social connection, social cohesion or social capital as an aspect of wellbeing (Leavell et al. 2019). Attention Restoration Theory (ART) puts forward that natural environments such as urban greenspaces can reduce mental fatigue and restore attention (Kaplan and Kaplan 1989) and this resulted in two key mechanisms that have been explored in the literature: restoration of capacity (through relaxation) and the building of capacity (through socialization and physical activity). A third mechanism is reducing harm through the environment (e.g., reducing extreme heat and removing air pollutants) (Markevych et al. 2017). There is also increased interest in green social prescribing to improve social connection and wellbeing (Leavell et al. 2019). Most of this literature is cross-sectional which limits causal inferences. There are limited longitudinal studies, but they have promising findings. For instance, Alcock et al. (2014) analyzed data from a longitudinal nationally representative survey of over 5000 U.K. households and found that those moving to a greener urban environment had sustained improvements in mental health. However, it remains unclear how these mechanisms may apply to racialized and other marginalized populations and what the barriers and facilitators in accessing and using urban greenspaces may be for these groups.

Most research has focused on the following urban greenspace metrics: *quantity*, *quality and physical access/proximity.* Most studies have noted that the *amount* or *quantity* of urban greenspace influences health outcomes (Beyer et al. 2014; Ward Thompson et al. 2016; Gascon et al. 2015; Astell-Burt and Feng 2021; Triguero-Mas, Anguelovski, and Cole 2022). Studies often use objective measures of quantity such as percentage of greenspace within 1 km or 3 km

of a person's residence (Maas et al. 2006), or level of greenness through the normalized difference vegetation index (NDVI), which captures neighbourhood greenness (Beyer et al. 2014; Barboza et al. 2021) or tree canopy coverage (Beyer et al. 2014; Pincetl and Gearin 2005; Astell-Burt and Feng 2020). For instance, in examining Toronto data, Kardan et al. (2015) found that an increase of 10 trees per city block improved health perception comparable to a personal annual income increase of $10,000, being seven years younger or moving to a neighbourhood with a $10,000 higher median income. Analyzing a sample of 2,479 residents from Wisconsin's Census data, Beyer et al. (2014) found that higher levels of neighbourhood greenspace were associated with significantly lower levels of stress, anxiety and depression in residents, while controlling for multiple variables. Amount of streetscape greenery was also related to better self-reported health (van Dillen et al. 2012; de Vries et al. 2013). However, these measures have their limitations. There are some inconsistences in health impacts (Annerstedt et al. 2012; Zock et al. 2018) that scholars have theorized as study limitations in available data sets, oversimplification of the environments and not considering typology of greenspaces, and methodological limitations in drawing causal relationships between greenspaces and human health (Nguyen et al. 2021; Jarvis 2022; Rugel et al. 2017).

Scholars have also noted that *quality* of urban greenspace is important in determining health outcomes, especially when sufficient greenspace is available (van Dillen et al. 2012; Francis et al. 2012; de Vries et al. 2013; Mitchell and Popham 2007; Rigolon, Browning, and Jennings 2018). Quality of urban greenspace encompasses a range of attributes from biodiversity and aesthetics to lighting and amenities/facilities. For instance, in a study in Bradford, United Kingdom, Wood et al. (2018) found that biodiversity in urban greenspace was an important factor in predicting psychological restorative benefits. However, this is a vast area with a range

of factors to explore – from seating to playgrounds and drinking water and washrooms – and research is still limited (Stewart 2020). Furthermore, the metrics and datasets described above to measure quantity are insufficient to understand quality (Hartley, Prideaux, and Vaughn 2023). In a systematic review of the greenspace literature, van den Berg (2015) found there were insufficient studies on quality of greenspace to synthesize and form conclusions on health impacts.

Others have focused on the *proximity* or *physical access* to greenspace and links to health and wellbeing outcomes (Ward Thompson et al. 2016; Reklaitiene et al. 2014; Orstad et al. 2020; Sturm and Cohen 2014). This variable is often measured as being within 300m of a residential postal code (Annerstedt van den Bosch et al. 2016), but has also included self-reported measures where positive associations were reported (Reklaitiene et al. 2014). Sturm and Cohen (2014) found that there was a positive association to health and wellbeing outcomes when greenspace was located within 400m of a residence, but no association after 1.6 km. Many of these benefits and variables are interrelated but not exact (or comparable) measures of urban greenspace metrics, making it difficult to unpack pathways to health and wellbeing. For example, in a Vancouver analysis, Jarvis et al. (2020) found that access (residential proximity within 300m of a greenspace of at least one hectare) does not correspond to nature exposure (percentage of land cover or natural greenspace within postal code buffer), meaning that the metrics that studies use likely influence the health outcomes reported.

I outline these various pathways by which greenspaces influence social and health outcomes in a conceptual diagram and distinguish them as structural/systemic-level factors, community/neighbourhood-level factors, interpersonal-level factors and individual-level factors, that are interconnected, multidirectional and mutually reinforcing (see Figure 2).

Structural-level/systemic-level factors are those at a broader structural-level and include climate/weather/seasonality, environmental stressors, public resource allocation and governance, affordable housing, food security, working conditions, healthcare etc. Broader systemic oppressions such as colonialism, racism, sexism, xenophobia and transphobia also factor into the pathway (Schulz and Northridge 2004; Cronin-de-Chavez, Islam, and McEachan 2019; McAllister et al. 2018; Tuyisenge and Goldenberg 2021; Czyzewski 2011). Community-level/neighbourhood-level factors operate at a neighbourhood-level (or city-level) and include physical and social environments such as street and public transport infrastructure (availability, quality and maintenance), active transport infrastructure, social capital, gentrification, environmental pollutants and noise, neighbourhood crime/perceptions of safety, public resource allocation and governance, neighbourhood amenities, biodiversity (Cronin-de-Chavez, Islam, and McEachan 2019; Annerstedt et al. 2012; Hulchanski 2011; Rishbeth, Ganji, and Vodicka 2018; van Dillen et al. 2012; Mulligan 2022; Hassen 2021; Nesbitt et al. 2019). Interpersonal-level factors operate between people and include social capital, sense of community, social cohesion, group activities, community networks and social supports (Klein, Dove, and Felson 2021; Araya et al. 2006; BC Healthy Communities 2020; Cabrera and Najarian 2015; Rugel et al. 2019). Individual-level factors include the factors that determine how an individual may use, navigate and experience urban greenspaces. Individual-level factors to consider in the pathway between urban greenspace and health include reason for use, type of use, opportunity for use, ease of use, type of interaction, time exposure, individual perception of safety/fear of crime, level of satisfaction, contact with nature, time exposure (Hassen 2016; Cronin-de-Chavez, Islam, and McEachan 2019; Maller et al. 2006; van den Berg et al. 2016; Nisbet, Zelenski, and Murphy

2011). There are spatial and temporal considerations and an interplay between individual-level factors and broader factors (Hassen 2016).

In the next part of this literature review, I briefly describe how some of the origins and designs of public urban greenspaces were inherently exclusionary and did not consider marginalized and minority groups. The status quo was built upon these principles and continues to perpetuate inequities.

Public Urban Greenspaces: Their Rise and Design

In the nineteenth century, industrialization gave rise to the importance of urban greenspaces. The parks movement was seen in many ways as the antidote to the ill effects of industrial urbanization and numerous public health concerns arising from poor air quality, drinking water, the spread of infectious disease, poor housing and working conditions, and income disparities (Eisenman 2013). In the early 1840s in the United Kingdom there were no freely accessible public parks, as pleasure gardens and private parks for the upper classes were the norm (Manchester City Art Galleries 1987). The first three public parks in Manchester, United Kingdom only opened in 1946. This signalled the beginning of negotiating this public urban space typology in Europe. Olmsted argued that North America should follow suit and that parks should be publicly owned and made open to everyone, articulating their importance in offering respite from the pressures, noise and "drawbacks" of urban life (Olmsted 2010, 284). Olmsted (2010) noted how "only the privileged could afford to visit the country" (284) and "nature must be brought to (city dwellers)" (33). Olmsted's park philosophies to improve the quality of urban life also came to Canada; he designed Mount Royal, *Montréal* in 1877 (Beveridge n.d.). Yet, most early park ideology avoided the subject of difference, either social or economic, when it came to park users (Cranz 1982).

Today, in the twenty-first century, green infrastructure has an evolved role in addressing the inequities and injustices we face. We are amidst a shift in understanding the importance of urban greenspace in relation to power dynamics and historical contexts, and the impacts on equitable cities, specifically in relation to race, class, migration, queerness, nature, land, and space (Pincetl and Gearin 2005; Razack 2000; Price 2010; Peake and Kobayashi 2002). There have been many different (and contested) viewpoints on how greenspace should be envisioned, planned and constituted within cities. In *Anatomy of a Park*, Rutledge and Molnar (1971) describe principles or "umbrella considerations" in designing a park, with the purpose of ensuring that people can quickly access urban nature, ensuring that everything has a purpose, meets people's needs, and satisfies both functional and aesthetic considerations while meeting technical and practical requirements (e.g., budget). Often, there are competing priorities between "functional" and "technical" requirements within urban greenspace planning and design and that have perpetuated inequitable greenspaces. Lumby, Brown and Gebhardt (2023) note the current challenges in advocating for equity-deserving groups "when faced with opposition from those with influential privilege" (16). One of Rutledge and Molnar's (1971) final considerations was to allow for ease of supervision (e.g., safety) and also to discourage "undesirables" (76).

Many of these original design principles in landscape and urban design often neglected to identify and acknowledge the differential experiences of racialized people (and of people who were "othered," considered "undesirable" or outside the dominant social groups). There are tensions within these park design principles that lead to the exclusion of certain groups of people. For instance, the aim of "discouraging undesirables" (Rutledge and Molnar 1971, 76) is one that has evolved into discussions on what and who is undesirable. Preventing vandalism was formalized into "broken windows theory" in 1982, a criminological theory that states that visible

signs of crime, vandalism and disorder encourages further (serious) crime and disorder (Kelling and Wilson 1982). Broken windows theory has given rise to policing practices like 'stop-and-frisk' used by the New York City Police Department. The performance of "order-maintenance" (Kelling and Wilson 1982, 2) to minimize crime and disorder further entrenched exclusionary and racist ideas of who belonged where. This line of thinking to discourage undesirables is called "defensive architecture" where urban space is aggressively regulated to dissuade certain groups of people from occupying or using public space (Smith and Walters 2018; Chellew 2019).

Although still a relatively new and emerging area of scholarship, some scholars have deliberated various ways of ensuring public urban greenspaces are more inclusive. Low, Taplin and Scheld (2005) identified the need to focus on park users who have been overlooked and to "maintain the cultural diversity" of urban centres (196). They describe six lessons for practically designing inclusive parks. The first three principles are: (1) representation (for people to see themselves and their histories represented), (2) access (considering economics and cultural patterns alongside transportation and circulation) (197), (3) activity support and encouragement (e.g., for volleyball, cricket and picnicking which are not seen as a prescribed use of the greenspace). They note that the specific social interactions of different racial and cultural groups can be supported "by providing safe, spatially adequate territories for everyone within the larger space of the overall site" (198) and this is supported by others in the literature (Rishbeth, Ganji, and Vodicka 2018). The final three principles are: (4) use (i.e., consider the differences in how different racial, ethnic groups and classes use public greenspaces because parks have historically been reserved for the rich and upper-middle class, people of colour and lower-income folks "may read the landscape as exclusive – something for others") (199), (5) restoration initiatives as opportunities to promote use by marginalized groups and (6) permanent signposts (urban

greenspace should include “symbolic” expressions and ways to increase place attachment, foster a sense of belonging and promote cultural diversity). Few have unpacked some of these design principles with a critical lens and done related research to understand how to improve experiences for racialized people in urban spaces (Floyd, Taylor, and Whitt-Glover 2009). Overall, most urban greenspace design principles and recommendations tend to be broad. For instance, Srinivasan (2021) shares three design ideas that aim to maximize the health and wellbeing benefits of greenspaces by (1) making people feel welcomed, (2) encouraging them to explore and play, and (3) giving a site a specific purpose or two, noting that design elements that intentionally reflective of communities and cultures can support people with feeling represented in public spaces (Srinivasan 2021). The broadness of these principles lacks a clear equity component making it challenging to operationalize when different user interests are not aligned. For example, in making decisions to provide basketball courts versus tennis courts, cricket pitches versus baseball diamonds or dog parks versus playground equipment. This operationalization becomes even more complex when making different groups feel welcome, for instance, Black, Indigenous and people of colour, queer and trans people, and people living with disabilities.

I highlight these principles to understand the ethos behind urban greenspace design, but these principles are not always taken up with an equity and justice lens by landscape architects, planners, geographers and other professionals. In designing urban greenspaces, what might work in one situation likely may not work in another. This thinking can be extended to analyze how different groups, namely racialized groups, might have “substantial” and “appropriate” experiences within these spaces (Rutledge and Molnar 1971, 37). Small parks in urban areas have often been overlooked or dismissed but they too can be places of respite in densifying urban

centres if designed well. Small urban parks may be able to serve certain social and ecological functions although there are specific planning and design concerns that come with them (Forsyth and Musacchio 2005). Significantly, small parks are limited in terms of meeting certain needs for group sports and large gatherings. Rigolon (2016) found that "large, high-quality, well-maintained, and safe parks can better foster physical activity and its associated benefits than small parks with few amenities" (160) and this has public health implications.

Central to this dissertation is that urban greenspace design and planning does not always explicitly consider race and racialization, despite being a key factor in how people perceive and use public spaces. Jennings, Gaither and Gragg (2012) describe how urban greenspace makes up a critical component of urban physical environments and as such, have a multitude of implications for urban residents, public health, and climate. They note the empirical research gap on the issue of greenspaces and environmental justice. There is still a lack of clarity about how environmental injustices due to race, class, and so on, play out (Agyeman et al. 2016). In a systematic review of urban ecosystem literature (including greenspace), Calderón-Argelich et al. (2021) identify that current environmental justice approaches focus on the (often unequal) distribution of greenspace infrastructure. However, they found that research:

> "often lacks a deeper analysis of how individual perceptions are translated into environmental inequities and related with sociopolitical arrangements and structural exclusion processes. For instance, one overlooked question is whose values are prioritized in greening policies, given the differential access of communities to green space within the mechanisms that create and maintain inequality among them" (7).

The authors also identified three other areas for future research: (1) process injustices, (2) (unintended) consequences of prioritizing one dimension of justice over another, and (3) expanding methodological approaches to taking an intersectional approach. In moving towards a just and equitable city, urban greenspaces are a key component (Sharifi et al. 2021). I dive

deeper into the principles of environmental justice and how these pertain to public urban greenspaces in Chapter 5.

Complicating the pathways: Inserting race, racism and racialization

Scholars such as Jones (2000) have long been describing the link between racism and health inequities. Addressing historical injustices and ensuring equitable access to resources is critical to health equity. In her allegory of a gardener's tale, Jones (2000) outlines how racism operates at three levels: institutionalized, personally-mediated and internalized. As a quick overview, in comparing two flower boxes, one with rich and fertile soil and the other with poor and rocky soil, she highlights how the environment is essential to flourishing (i.e., institutionalized racism). Meanwhile, the gardener may prefer red flowers to pink flowers and so nurture them differently (i.e., personally mediated racism) which reinforces the differences and ultimately resulting in the scraggly-looking pink flowers feeling inferior to the flourishing red flowers (i.e., internalized racism). This allegory forms a basis for thinking about how racism operates in the urban greenspace context, where a multitude of factors at different levels result in tangible health and social inequities.

Urban greenspace research has focused on different parts of the pathways but there has been an emphasis on behaviours and how specific health-outcomes can be improved. However, research often does not include the social-spatial context of how these pathways are mediated, overlooking marginalized social groups such as people who are racialized, queer, gender non-conforming, newcomers, living with disabilities, seniors and those living at these intersections (Sharifi et al. 2021; Park People 2021; Tung et al. 2017). These existing inequities in urban greenspace were exacerbated during the pandemic, including for racialized communities (Eykelbosh and Chow 2022). Many of the factors exist at various levels in different ways. For

instance, racism and racialization[8] (as a barrier) exists at multiple levels: a person can be racialized, a neighbourhood can be racialized, and a group of people can be racialized. Consequently, the health and wellbeing benefits of urban greenspace are not universally enjoyed due to social differences and inequities (that span the individual to the structural levels). This systems thinking approach has been a less researched area.

Some studies have examined how racial identity factor into how urban greenspaces promote health and wellbeing (Dai 2011; Jennings and Johnson Gaither 2015). In a quantitative analysis of 496 U.S. cities, Browning and Rigolon (2018) found that race and ethnicity moderate the link between greenspace and health at the city level. Roe, Aspinall, and Ward Thompson (2016) found that access, quality, and use of urban greenspaces correlated with positive health outcomes in "Black and minority ethnic" groups in the U.K. that had very poor health rather than those with better health, indicating the important role of urban greenspace in health promotion. In contrast to other literature, Wood et al. (2018) found no differences in restorative effects in urban greenspace between ethnic groups but suggested that this may be because they focused on actual park users and not the barriers to accessing greenspaces. More recently, scholars have begun to expand the concept of access to beyond simply physical proximity. For example, Klein, Dove, and Felson (2021) describe the importance of "social access" in engaging often marginalized groups in urban greenspace, which is unpacked further in this dissertation. Overall, the literature substantiates that both physical and social access to high-quality greenspaces is not equitable in many cities (Pinault et al. 2021; Rigolon and Németh 2021).

[8] Racialization refers to the "process by which racial categories are constructed as different and unequal in ways that leads to social, economic and political impacts" (Galabuzi 2001, 10).

Studies have also noted the community/neighbourhood-level inequities that exist. Rigolon (2016) found that "ethnic minority people" and those with low socioeconomic status have access to fewer acres of parks, fewer parks per person and to parks with lower quality, safety and maintenance than more affluent and white people. Similarly, in a comparative study of five U.S. cities, inequities in access to safe parks, were exacerbated for racial/ethnic minorities and low-income communities (Williams et al. 2020). Williams et al. (2020) identified that this reflected the greenspace inequities between inner city neighbourhoods and the suburbs, which is a key factor because larger, well-maintained parks with desired amenities promote the types of activities that contribute to physical and mental health and wellbeing. Urban greenspaces offer places for neighbourhood contact to reduce social isolation, promote a sense of belonging and as a space for physical and outdoor recreational activity year-round in urban neighbourhoods that have been underresourced or "deprived" (Ward Thompson et al. 2016). Reports from organizations such as the National Recreation and Park Association (NRPA) in the U.S. have been advancing conversations on racial and social equity in urban greenspace, emphasizing the role of systemic racism and the need to act (Kellogg and Nelson 2015; National Recreation and Park Association 2021; Burrowes, Treskon, and Shakesprere 2022; Gaskins and Pertillar 2021).

A systematic review by Rigolon et al. (2021) found that people in lower socioeconomic groups experience more beneficial effects of greenspace compared to more affluent people, especially for public greenspace like parks versus just green land cover. This affirms findings that type of greenspace is an important factor. There were no prominent differences in the protective effects of greenspace between racial/ethnic groups found, but this was limited by the lack of studies that focused on race/ethnicity (and only one of 90 included studies focused on Indigenous peoples). Similarly, a meta-narrative synthesis by Hunter et al. (2019) found limited

evidence of the effects of greenspace on various equity indicators, partly because it was rarely measured.

The scholarship in this field has explored the aspects of urban greenspace and pathways that influence a gamut of health and social outcomes mostly through epidemiological studies. However, what has been lacking is an attention to the social and structural barriers from a qualitative perspective; this is an emerging area. The few qualitative examples in the literature provide compelling insights. For example, using photovoice with adolescents in the U.S., Hartley, Prideaux, and Vaughn (2023) affirmed that while nature can be stress-relieving and calm overstimulation, nature exposure is not necessarily a positive experience for all adolescents, nor is it intentionally cultivated. Furthermore, adolescents under study wanted more time to enjoy nature and had challenges making space for this. In walk-along interviews with 30 children in Australia, Veitch et al. (2020) identified important park features that would encourage visits (e.g., challenging play equipment and shade), physical activity (e.g., nature/rocks and trees to climb), and social interaction (e.g. large size and picnic areas). A qualitative study of greenspace use among low-income, multi-ethnic families in the U.K. identified a range of barriers including knowledge about where to go (individual-level), fear of crime and antisocial behaviours (community-level) along with poor quality greenspace with a lack of safe playgrounds and toilets (Cronin-de-Chavez, Islam, and McEachan 2019). Another qualitative study conducted go-along interviews in greenspaces with 21 urban residents in New Zealand, exploring human-nature relationship by three different types of urban greenspace (bush parks, lawn parks and private gardens) (Noe and Stolte 2023). The authors found that participants wanted a range of greenspace types to meet the variety of user needs; more natural bush parks were considered restorative spaces to connect with nature, while lawn parks were seen as important for physical

activity, organized sports and children's play. In Canada, Hatala et al. (2020) conducted a photovoice study with Indigenous youth exploring their connection and engagement with urban nature and how to foster supportive, culturally-safe mechanisms for resilience, health and wellbeing. Participatory methods are also being increasingly used to better understand urban greenspace co-design and ownership in underserved communities (Caperon et al. 2022).

The rapid rise in urban density and health inequities is causing city planners, landscape architects and public health professionals to see the renewed urgency of equitably health-promoting cities and the "healthy cities" movement is growing (Haluza, Schönbauer, and Cervinka 2014; Lemieux et al. 2022). However, as Jones (2018) notes "[a]chieving health equity requires valuing all individuals and populations equally, recognizing and rectifying historical injustices, and providing resources according to need" (233). That is the central premise this dissertation takes up.

Methodological Overview and Methods Used

Qualitative Research Paradigms: Constructivist worldview and Interpretivism

This dissertation is a qualitative study, defined by Creswell (2014) as:

> "an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem… that honors an inductive style, a focus on individual meaning, and the importance of rendering the complexity of a situation" (32).

This qualitative research is anchored in a *constructivist worldview* because it uncovers place-based subjective experiences and is grounded in the notion that multiple realities exist (relativism). A constructivist worldview holds that "individuals develop subjective meanings of their experiences… (which are) varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas" (37). These subjective meanings are rooted both socially and historically. This paradigm informs the open-

ended nature of the data collection tools to allow for expansive responses. Consequently, an *interpretivist lens* was taken to uncover the lived experiences and realities of participants and to gain in-depth insight into their subjective realities and lived experiences. This subjectivity is the basis for interpretivism, accounting for the socially constructed realities we all hold. As such, I too as the researcher, engage in thinking reflexively about my own positionality and experiences in the context of this research. This dissertation in grounded in constructivist-interpretivist paradigmatic approaches while aligning this understanding within the action-oriented approach of critical theory and community-engaged research.

Research Approach: Critical Theory Perspectives

Methodologically, this research takes a *critical approach*, aligning with the idea that research and theory are used to change situations, examine power relations and critique assumptions (Moon and Blackman 2014). As Creswell (2014) writes, "[c]ritical theory perspectives are concerned with empowering human beings to transcend the constraints placed on them by race, class, and gender" (98) (citing Fay 1987). By grounding this work in Critical Race Theory, intersectionality and feminist approaches, these critical perspectives informed an analysis of the intersections of systems of oppression, namely racism, sexism and classism.

Research Approach: Community-Based Participatory Action Research (CBPAR)

The research takes a *community-based participatory action research (CBPAR) approach* and directly includes community organizations and community members "grounded in the needs, issues, concerns, and strategies of communities and the community-based organizations that serve them" (Burns, Cooke, and Schweidler 2011, 5). Some key principles of CBPAR are community relevance, process-oriented, ethical review, community initiation, capacity building, varied methods, joint data ownership, social action outcomes (Flicker et al. 2007; Switzer et al.

2015). A key aim is to increase the relevance and value of this research for community partners (Israel et al. 1998). The research is action-oriented and aims to identify solutions and strategies grounded in social action. As a methodological approach rooted in critical theory, CBPAR emphasizes the collaborative co-construction of knowledge and action in research design, analysis and dissemination. While both anti-racist work and CBPAR approaches are grounded in social change, they come at this work from slightly different angles.

Research Approach: Anti-Racism in Community-Based Participatory Action Research (CBPAR)

There has been increasing debate around what makes work anti-racist, and not in a performative way. While there are evolving definitions and frameworks, Calliste and Dei (2000) define anti-racism as an "action-oriented, educational and political strategy for systemic and political change that addresses issues of racism and interlocking systems of social oppression" (13). More recently, the role of anti-racism in CBPAR has been made more explicit (Fleming et al. 2023). Fleming et al. (2023) outline the synergies between anti-racist principles and community-based participatory action research noting that "the emancipatory roots that underlie CBPR draw from the epistemic traditions of oppressed communities of color and Indigenous communities across the globe that have sought to facilitate community empowerment and agency" (71). This research is community-based and as such, steps were taken to ground the work in the needs and issues of racialized communities and the experiences of those who are racialized. Critical Race Theory principles also speak to the importance of centering racialized voices through meaningful community engagement, which stands in contrast to the rise of tokenistic research in the name of being community-based. As Fleming et al. (2023) note, one of the ongoing challenges remains how to operationalize such a project within an academic system

that is often extractive, incentivizing academic merit for individuals without "long-term investment in communities" (73). This was a challenge for me as well.

The methods in this dissertation bridge feminist, anti-racist, and participatory methodologies to ground this work in critical inquiry (see Figure 1). To be sure, there are already overlaps in this thinking, as participatory methodologies such as photovoice have feminist underpinnings, as elucidated by Wang and Burris (1997). Critical feminist frameworks put forward by Black female scholars and activists such as bell hooks (1989; 1991; 1994), Patricia Hill Collins (2000), Kimberlé Crenshaw (1989) give voice to the interconnectedness of lived experiences, situated knowledges and ways of knowing. Ford and Airhihenbuwa (2010) describe a Public Health Critical Race praxis (PHCR) for antiracism research in public health, to conduct health equity research in line with the tenets of Critical Race Theory and outline several important principles (e.g., centering the margins, critical consciousness, experiential knowledge) that were taken up in this process. Although this article was published prior to when I started my Master of Public Health program (2012-2014), I do not recall this article being assigned as a required reading throughout my public health degree. While this was a key consideration at the outset of this dissertation, only in the past few years has there been an increased attention to anti-racism in public heath. For instance, the National Collaborating Centre for the Determinants of Health (NCCDH) have collated and published resources on implementing anti-racism (NCCDH 2018) and intersectionality (NCCDH 2022) in health research, policy and practice. As a study that centered racialized experiences, I paid explicit attention to how anti-racism praxis overlapped with CBPAR principles.

Methods: Photovoice and Photo Elicitation

Photographs can spark collective action, awareness, and critical consciousness by "making a political statement about the reality of people's lives" (Wang and Burris 1997, 384). Photovoice is a qualitative visual methodology that enables participants to capture their own realities and experiences and is often used with marginalized groups to provide direct insight into participant experiences (Wang and Burris 1997; Gubrium and Harper 2016). Wang and Burris (1997) ground this process as inherently feminist. I was drawn to photovoice as an adaptable visual methodology rooted in community-engaged practices that sought to given dimension and voice to complicated experiences, while fostering trust and addressing power dynamics (Castleden, Garvin, and Huu-ay-aht First Nation 2008). Written and verbal language can sometimes fall short in their scope and fail to convey what we mean. Photography provides an alternate mode of communication through which to express experiences. By combining photovoice with situated experiences in greenspaces, I wanted to center a more embodied experience of urban greenspace for racialized participants (Pink 2008; Pink and Fors 2017). Initially, I had intended to conduct a series of in-person greenspace visits (in community selected public urban greenspaces) for participants to take photographs followed by focus groups to debrief. Given the COVID-19 pandemic, these greenspace visits could no longer take place in person and data collection had to be adapted to asynchronous greenspace visits to account for safety, flexibility and to minimize barriers to participation. I was also aware that there may be (understandable) hesitancies to discuss experiences and thoughts related to race and racism, and the photographs could provide an entry point to these more challenging discussions.

In pivoting to individual greenspace visits, I was inspired by photo elicitation processes, such as Clark-IbáÑez (2004), that used a one-to-one interview formats for children from two

different elementary schools to frame the "subjective," "relational and contextualized" meanings behind their photographs (1511). I bridged photovoice and photo elicitation methodology, and integrated the principles of photovoice (namely, anti-oppression, community co-ownership, collaboration and action-oriented) with a one-to-one interview format to meet pandemic precautions. Ethical considerations such as consent, confidentiality, safety and representation were ongoing (Gubrium, Hill, and Flicker 2014). This adaptation combined the power of photography with the flexibility to connect with community members safely and virtually, at convenient times, in a more private environment, to build interviewer-participant rapport online (Rivera et al. 2022; Gubrium, Harper, and Otañez 2015).

Due to the COVID-19 pandemic, the methods had to be redesigned to account for physical distancing mandates, while upholding an explicitly intersectional anti-racist and feminist lens. This posed challenges that other scholars have acknowledged. During the pandemic, Rivera et al. (2022) conducted a youth-led participatory action research project entirely online, describing how "developing trusting relationships took significantly longer" (8). Similarly, Salma and Giri (2021) described how pre-pandemic strategies to build trust in racialized and immigrant communities involved in-person connections, such as sharing meals and attending social events, which were no longer accessible. By holding one-to-one interviews, instead of in a group setting typical of photovoice, I was able to build stronger interviewer-participant rapport. As Vigurs and Kara (2017) argue, "photographs do not have a meaning independent of the contexts in which they are produced and understood" (515) and making space for these deeper discussions was critical. The process as well as tensions, challenges and opportunities are outlined in detail in Chapter 3.

The methodologies and critical theories I have described above have been central to my conceptualization of this research, and yet, they have their limitations. Ahmed (2017) describes:

> "Critical theory is like any language; you can learn it, and when you learn it, you begin to move around in it. Of course it can be difficult, when you do not have the orientation tools to navigate your way around a new landscape. But explaining phenomena like racism and sexism— how they are reproduced, how they keep being reproduced— is not something we can do simply by learning a new language. It is not a difficulty that can be resolved by familiarity or repetition; in fact, familiarity and repetition are the source of difficulty; they are what need to be explained. In the face of such phenomena, we are constantly brought home by the inadequacy of our understanding. It is here we encounter and reencounter the limits of thinking. It is here we might feel those limits. We come up against something that we cannot resolve. We can be brought home by the inadequacy of what we know. And we can bring what we know back home." (9)

In this dissertation, I bump up against the limits of language, alongside the practical considerations of a doctoral program, and within the institutional constraints that govern CBPAR within the academy. Drawing on these different yet interconnected schools of thought have grounded this research in multiple ways of engaging, relating, knowing, conceptualizing, and understanding – an essential praxis of a feminist, anti-racist CBPAR project. I return to reflecting on these limitations in the concluding chapter.

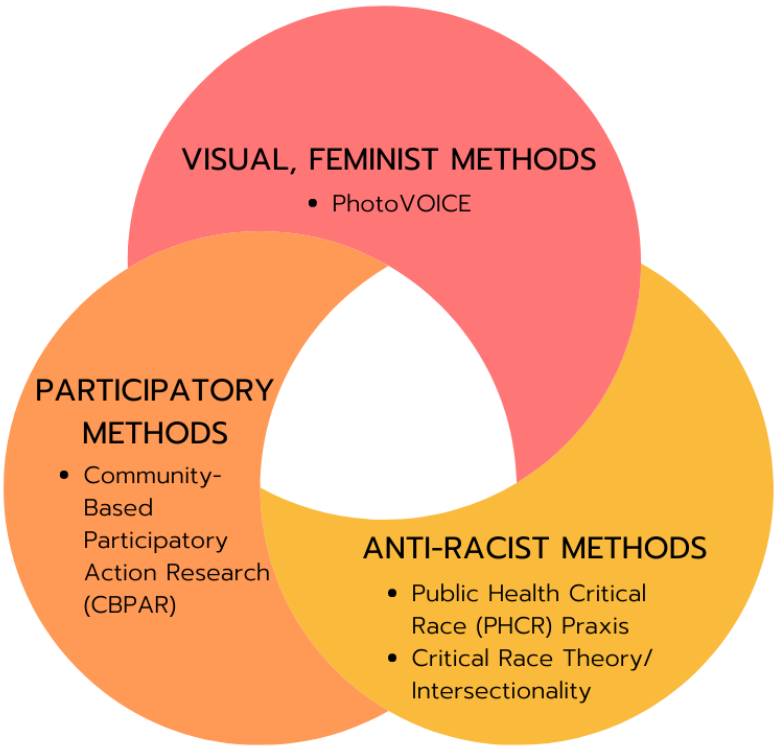

Figure 1. Bridging Methodological Disciplines and Frameworks

Research Questions and Dissertation Format

In my dissertation, I sought to explore the overarching research question "What are the experiences of people who are racialized in public urban greenspaces in Toronto, Canada?" Within this broader question, I posed the following sub-questions:

1. How do people who are racialized access, use, and navigate different public urban greenspaces? [Chapters 2, 4 and 5]
    a. What are the pathways (from the individual to structural levels) that facilitate public urban greenspace being used and enjoyed by racialized people?

    b. What are the barriers and challenges (from the individual to structural levels) that racialized people experience in accessing and using public urban greenspace?

2. What are the ways that public urban greenspaces facilitate the mental, physical, and social wellbeing of people who are racialized? What are the barriers to public urban greenspace promoting the wellbeing of people who are racialized? [Chapters 2 and 4]
3. How can public urban greenspace be(come) racially just and equitable spaces? [Chapter 5]
4. What changes or solutions could be implemented in public urban greenspace that would encourage equitable health and wellbeing and racial justice? (action-oriented) [Chapters 2, 4 and 5]

I engage with these interconnected questions throughout the different chapters, bridging theoretical and methodological disciplines. This dissertation is grounded in a socio-ecological view of health and wellbeing, as a multifaceted concept. Taking together the three sections in this literature review and the research questions, I developed a conceptual diagram to situate my dissertation research within the broader scholarship. As outlined above, when unpacking the pathways and role that urban greenspace plays in social and health outcomes, there are a variety of factors that interplay, at the broader structural/systemic-level, community/neighbourhood level, interpersonal-level and the individual-level. This conceptual diagram builds off different models that take a socio-ecological lens (Barton and Grant 2006; Dahlgren and Whitehead 1991; Schulz and Northridge 2004; Bronfenbrenner 1994).

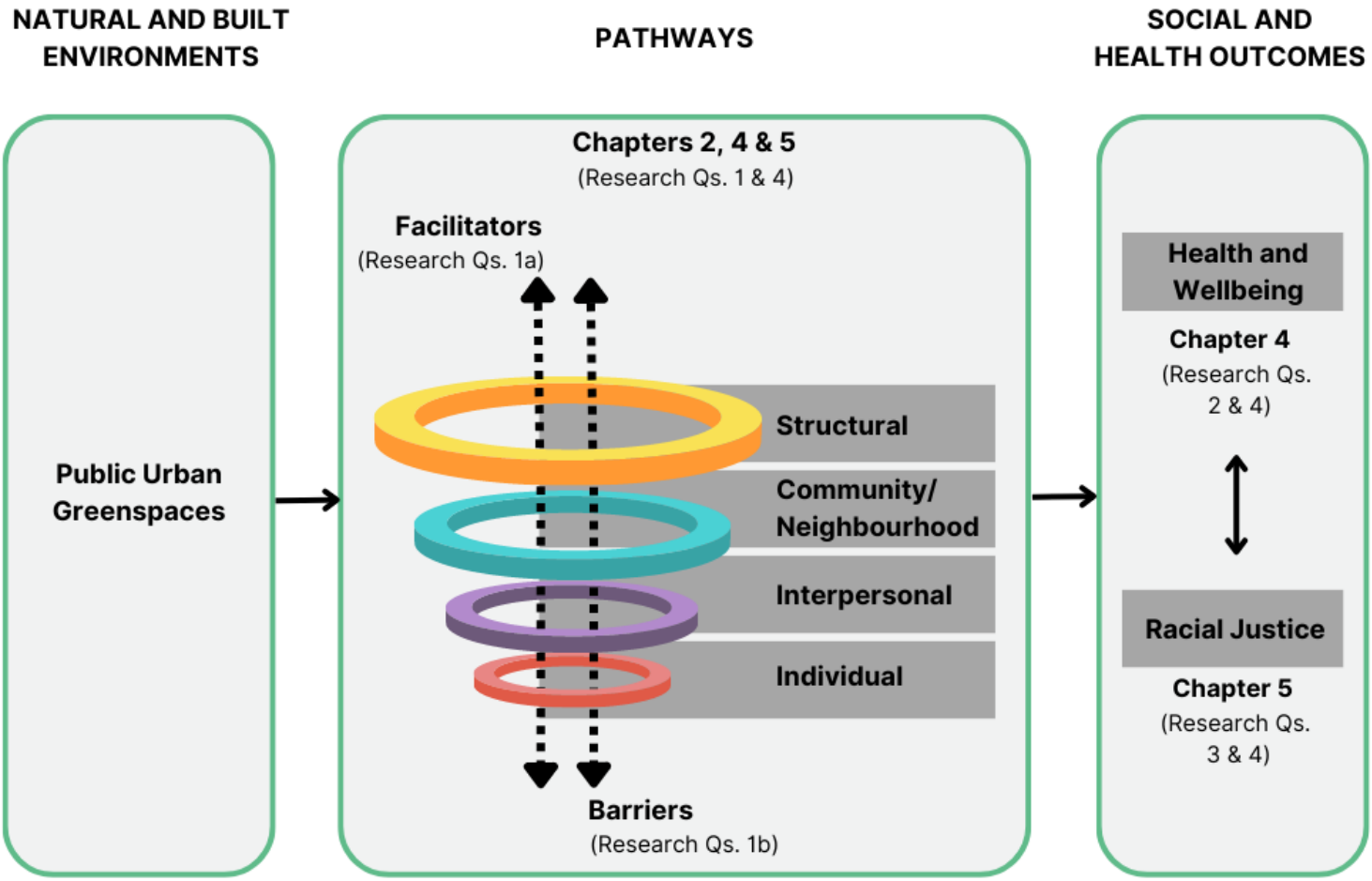

Figure 2. Conceptual diagram between urban greenspace and social and health outcomes.

Figure 2 provides an overview of the (interconnected) research questions in this dissertation and the associated chapters where I respond to these questions. Urban greenspaces are part of a broader framework of natural and built environments. In the pathway where urban greenspace may potentially result in positive social and health outcomes, there are structural-level, community/neighbourhood-level, interpersonal-level and individual-level factors that are described briefly in the literature review. Facilitators and barriers are represented by bidirectional arrows that span all the levels, showcasing the interplay between them. The outcomes showcased

in the conceptual diagram (1. health and wellbeing and 2. racial justice) are also connected by a bidirectional arrow, as they are mutually reinforcing. Health and wellbeing and racial justice are just two of many social and health outcomes that may be influenced by urban greenspace.

This interdisciplinary dissertation research bridges three main disciplines and the diagram below outlines the key concepts that are taken up throughout in critically exploring the intersections of race, place, and health (see Figure 3). Specifically, I take up concepts related to public health in Chapter 4 and related to urban space and environmental justice in Chapter 5. Principles of anti-racism are embedded both theoretically and methodologically in Chapters 3, 4 and 5.

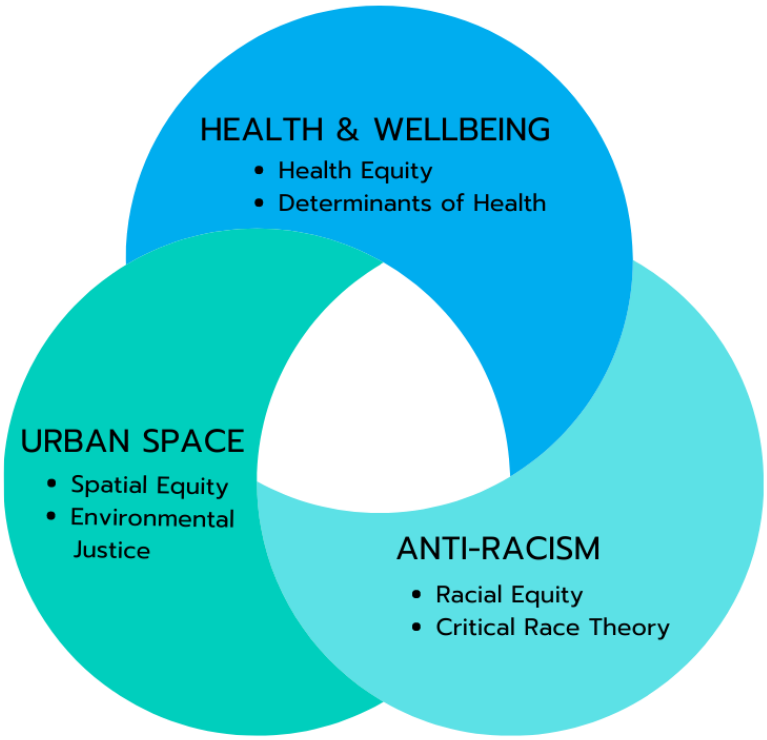

Figure 3. Bridging Theoretical Disciplines

This dissertation consists of four core chapters (bookended with an introduction and conclusion): one community report and three academic manuscripts. Each is an independently

standing publication and provides a unique contribution. Each publication is written for a different audience, in line with the interdisciplinarity of this dissertation. The manuscripts have been written for separate fields and for different publications, namely participatory methodologies, public health, and urban planning/landscape architecture. Together, the manuscripts fulfill the requirements of a doctoral dissertation. This format allowed for a deeper engagement with the complexities and nuances of the research. The chapters are organized in the following order:

- Introduction: This chapter outlines the chapters in the dissertation, a literature review on greenspaces and human health and wellbeing, public greenspace design principles and racial inequities in urban greenspaces and a discussion of the gaps in the literature. This chapter also overviews the methodology and methods used.
- [Chapter Two] *Park Perceptions and Racialized Realities in Two Toronto Neighbourhoods: Exploring the experiences of racialized residents in public greenspaces in Jane and Finch and St. James Town.* The findings presented in this community report came directly from my doctoral research that I designed and conducted. My role was project lead and facilitator, and I conducted recruitment, developed data collection materials, facilitated the photovoice process and conducted all interviews. I facilitated multiple collaborative analysis sessions, co-wrote and edited the community report and conducted project administration. I also worked closely with the graphic designer and was the link with community residents to create a product that best represented resident desires and voices. This community report was collaboratively co-written with a group of community residents from both St. James Town and Jane-Finch who participated in the research. There are several reasons why this report was co-authored: (1) to center the voices of racialized residents who are often tokenized and

minimized in research, (2) to share research findings back with the communities, (3) as part of a comprehensive knowledge mobilization strategy and commitment to community-engaged principles. The purpose was to create a community-owned product that could be disseminated broadly to the communities to facilitate action and deeper conversation. The community report highlights eight themes and makes recommendations that were put forward by community members, to create equitable, just, safe, and health-promoting greenspaces. This community report is the result of months of collaborative work and provides a snapshot of the important conversations that took place around racialized realities in greenspaces in Toronto. While the conversations started with greenspaces, this was an entry point to discuss broader issues. This freely accessible report highlights the voices and insights of community residents. The community report was launched in 2022 and has been disseminated widely.[9]

- [Chapter Three] *Collaborative "Sensemaking": Picturing a Feminist, Anti-Racist, Community-Based Participatory Action Research Dissertation.* This publication, co-authored with my supervisor Dr. Sarah Flicker, has been accepted as a book chapter for *Participatory Data Analysis in/as Feminist Research*, edited by Dr. Claudia Mitchell, Dr. Kaylan Schwarz, and Rebekah Hutten for University of Alberta Press. The chapter chronicles the community-based participatory action research (CBPAR) methodology of this doctoral research to contribute a practical conceptualization of collaborative "sensemaking" to the literature. I

[9] As part of the community-engaged, action-oriented nature of the research, I curated a travelling photo exhibit and created a webpage (https://www.yorku.ca/euc/research-projects/park-perceptions/). I engaged in a multitude of interconnected activities intended to amplify community voices and recommendations in the ethos of research for action. These knowledge mobilization activities are referenced throughout and outlined in Appendix H.

highlight how I adapted participatory visual methods to transpire virtually while upholding an explicitly intersectional anti-racist and feminist lens. This chapter takes the form of a methodological reflection on seven key stages of the *Park Perceptions and Racialized Realities* project to support other students and scholars seeking to do participatory research embedded in intersectional, feminist, and anti-racist perspectives. The chapter also engages with the tensions of conducting community-engaged research that is non-tokenistic and participatory within broader structural barriers of academia. I was the primary author of this chapter, and it is written in the first-person, in my voice. However, as my doctoral supervisor, Dr. Flicker's guidance and expertise in conducting ethical, community-engaged research was critical to the timeliness and success of the project, especially given the challenges posed by the COVID-19 pandemic. As such, her intellectual contributions are rooted throughout the research process, and she was instrumental in conceptualizing and editing the arguments in this chapter as a co-author.

- [Chapter Four] *Wellbeing, equity, and greenspaces*: *a photovoice study visibilizing inequities for racialized residents in Toronto, Canada* (target journal examples: SSM – Qualitative Research in Health or BMC Public Health). This co-authored publication is a manuscript for submission to a public heath journal. This paper highlights the empirical findings related to health and wellbeing in urban greenspaces. I was the lead author. The collaborative analysis process (mentioned above and described in detail in Chapter 3) resulted in eight broad themes. For this paper, I focused on two of the broad themes identified: 1) mental health and wellbeing and 2) social connection and belonging. I engaged in an independent qualitative thematic analysis of all the interview transcripts to inductively identify emerging concepts related to health, wellbeing and social connection. This iterative analysis resulted in nine

domains of mental, physical, and social wellbeing. I wrote the first draft of the paper, developed and designed a conceptual model and circulated the manuscript to all co-authors for their feedback.

The co-authors involved in writing the community report (Chapter 2) were invited to co-author this manuscript. An advisory group member from one of the community organizations who had been deeply involved throughout the research process was also invited to co-author this paper. This was an intentional political and value-driven decision and commitment to the principles of community-engaged scholarship. My reasoning was threefold: (1) the co-authors contributions in theorizing the community report findings were invaluable in informing my own analysis and this foundational intellectual work should be recognized, (2) academia often excludes participants from benefitting from the academic currency that comes from academic publications and writing with community should be fostered (if there is interest) as a commitment to reciprocal, non-extractive research, (3) the invited co-authors had international and national university-level educational qualifications and some faced systemic barriers to career-building (e.g. need for Canadian experience) and accordingly, they were interested, had the expertise and capacity to co-author an academic publication. To facilitate this co-authorship process, the draft was shared for review and a meeting was held to discuss any edits, concerns, and suggestions. If a co-author couldn't make the meeting time, they provided written feedback and edits. This feedback was incorporated into the next draft and reshared. I will return to the politics of co-authorship from a feminist and anti-racist perspective in my concluding chapter.

- [Chapter Five] *Narratives of exclusion: A photovoice study towards racial equity and justice in public urban greenspaces* (target journal example: Landscape and Urban Planning). This

sole authored manuscript is for submission to a landscape architecture/urban planning journal. Race was centered in this study and participants described multiple ways that race played out in the context of urban greenspaces and wellbeing. This paper highlights the empirical findings and puts them in conversation with Environmental Justice principles. I also take up Critical Race Theory principles to illuminate the underlying challenges and injustices that study participants shared. The final section of this paper examines actions and considerations in moving towards racially equitable and just public urban greenspaces.

- Conclusion: This concluding chapter re-engages with the theoretical, methodological and praxis contributions of this work, highlighting the possibilities for bridging the disciplines of public health, urban design, planning, landscape architecture with critical theory and methodology, while embedding feminist and anti-racist principles into research processes. I engage with the tensions and challenges of conducting interdisciplinary research that is community-engaged and that centers experiences of race and other intersecting identities within a dissertation. I also highlight the limitations of this research and directions for future work.

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CHAPTER TWO: COMMUNITY REPORT[10]

Park Perceptions and Racialized Realities: Exploring the experiences of racialized residents in two Toronto neighbourhoods

Nadha Hassen[1], Darryl D'Souza[2], Sayem Khan[3], Minakshi Das[3], Caitlin Arizala[3], Josephine Grey[2], and Sarah Flicker[1]

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2. St. James Town community resident
3. Jane-Finch community resident

[10] This community report was co-authored with community residents and is available online https://www.yorku.ca/euc/research-projects/park-perceptions/publications/

Park Perceptions & Racialized Realities in Two Toronto Neighbourhoods

Exploring the experiences of racialized residents in public greenspaces in Jane and Finch and St. James Town

Jane and Finch Community Team: Caitlin Arizala, Minakshi Das, Sayem Khan
St. James Town Community Team: Darryl D'Souza, Josephine Grey
York University Team: Nadha Hassen, Sarah Flicker

YORK UNIVERSITÉ UNIVERSITY
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St. James Town Community Co-op
Green Change
JANE FINCH CENTRE Community Matters

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Photo Credit: Isatu Barrie
Location: Black Creek Trail

EXECUTIVE SUMMARY

Park Perceptions and Racialized Realities is a community-based participatory research project that explores the experiences of racialized and Black, Indigenous and People of Colour (BIPOC) in public greenspaces. This research project was conducted in collaboration with Greenchange, Jane/Finch Centre and the St. James Town Community Co-operative. Research ethics was received through York University (STU2021-087).

Eighteen racialized resident photographers from Jane and Finch or St. James Town participated in the project. Each went on two greenspace visits to take photographs in response to prompts that considered issues such as access, safety, health, and wellbeing. Each photographer also participated in an individual interview to debrief their photographs and experiences as racialized residents in public greenspaces. Community residents, community advisory members and scholars collaborated on 'sensemaking' to identify important concepts represented by the photographs and their associated narratives. Eight key themes were identified: (1) belonging and social connection, (2) exclusion, (3) mental health and wellbeing, (4) right to play and children's recreation, (5) maintenance inequities, (6) access and accessibility, (7) safety, (8) gentrification and complex use of space.

Racialized residents in both neighbourhoods identified structural and systemic barriers to accessing, using, and navigating greenspaces. Discussions about greenspaces were an entry point to examining broader issues and barriers faced by racialized residents. Many of the experiences highlighted transcend the two neighbourhoods represented and are common to others living in underserved, marginalized and racialized neighbourhoods across the City of Toronto.

Key recommendations identified by residents include: 1) prioritizing equitable access to high-quality greenspaces in racialized neighbourhoods; 2) ensuring the inclusion and maintenance of amenities that racialized residents are asking for; 3) directing resources equitably; 4) ensuring accountability by evaluating and tracking greenspace changes; 5) winterizing outdoor public greenspaces and creating more free indoor community spaces that can be accessed during the cold season; 6) improving safety for all, particularly for racialized women. Residents also identified additional recommendations specific to Jane and Finch and St. James Town. Key principles to guide equitable decision-making and future directions include commitment to equity and anti-racism, understanding of the complexity of resident experiences, meaningful community engagement and collaborative action with community.

This community report is one of several knowledge mobilization activities being pursued to ensure that the findings are shared with community members and other stakeholders.
For more information and to find this report online, visit:

https://www.yorku.ca/euc/research-projects/park-perceptions

Greenchange website: www.ourgreenchange.org
St. James Town Community Co-op website: stjamestowncoop.org

PROJECT DESCRIPTION

Park Perceptions and Racialized Realities is a community-based participatory research project that explores the experiences of racialized and Black, Indigenous and People of Colour (BIPOC) in public greenspaces. We are a group of community members, working in collaboration with scholars and community organisations in Jane and Finch and St. James Town, two under-resourced neighbourhoods in Toronto, Ontario. We used photography and storytelling to share our experiences.

From July to November 2021, 18 racialized residents went on over 35 greenspace visits. Together, we collected over 200 photos and videos documenting our experiences and capturing our perceptions on issues like access, safety, inclusivity, and mental health and wellbeing. We had over 55 online discussions to debrief those experiences with researchers and each other. We shared our perspectives on what it means to navigate and use public greenspaces in Toronto as racialized people. The research project includes 10 resident photographers from Jane and Finch and 8 resident photographers from St. James Town. Two resident photographers took pictures in both neighbourhoods as they had connections to both.

Note to Readers:
This community report was co-written by a group of community residents from both St. James Town and Jane and Finch who participated in the project. These are our voices and our insights. We have chosen to call those who took part in the project "resident photographers". While our conversations started with greenspaces, this was an entry point to discuss broader issues. We have included some of the many photographs and stories from residents throughout the report and these insights are intended to help readers understand the experiences of racialized residents in both neighbourhoods and the systemic challenges that many of us face. While the insights in this report are from two Toronto neighbourhoods, many of the experiences are common to those living in other underserved and racialized neighbourhoods in the City of Toronto. We hope our photographs and stories spark discussion and catalyze change.

From December 2021 to April 2022, we engaged in a process of collaborative "sensemaking." We looked across our photographs and narratives to analyse the information and identified 8 key themes:


Belonging & social connection


Exclusion


Mental health & wellbeing


Right to play & children's recreation


Maintenance inequities


Access & accessibility

Safety

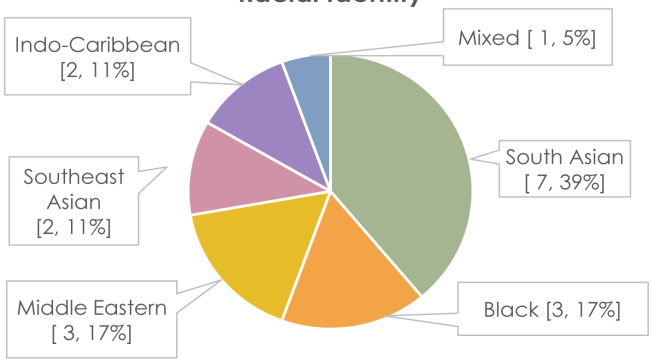

Gentrification & complex use of space

The report highlights these themes and makes recommendations that were put forward by us, as community members, to create equitable, just, safe, and health-promoting greenspaces. This community report is the result of months of collaborative work and provides a snapshot of the important conversations we had around racialized realities in greenspaces in Toronto.

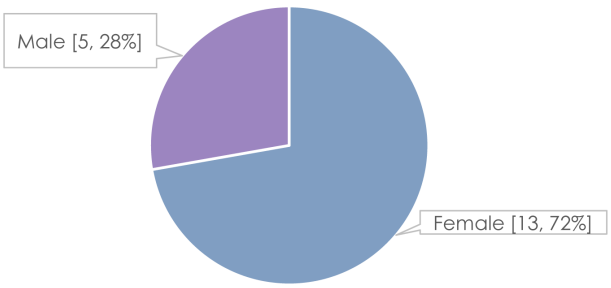
DEMOGRAPHIC FACTORS

Sample breakdown, N=18 (#), (%)

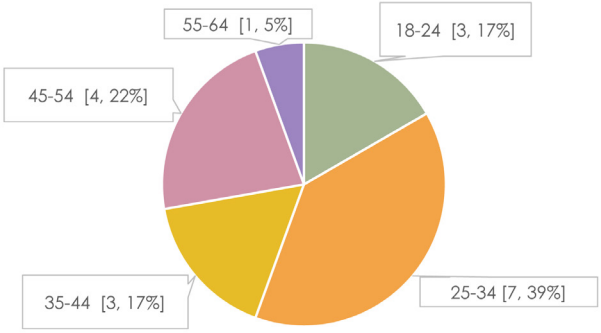
Racial Identity



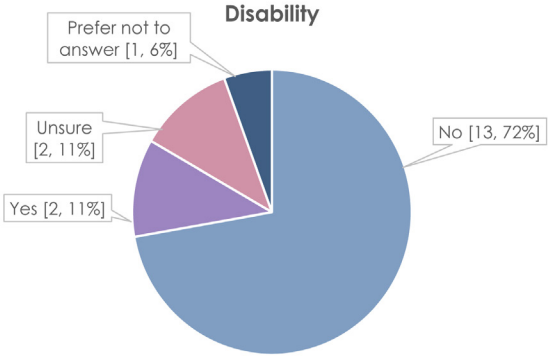
Gender Identity



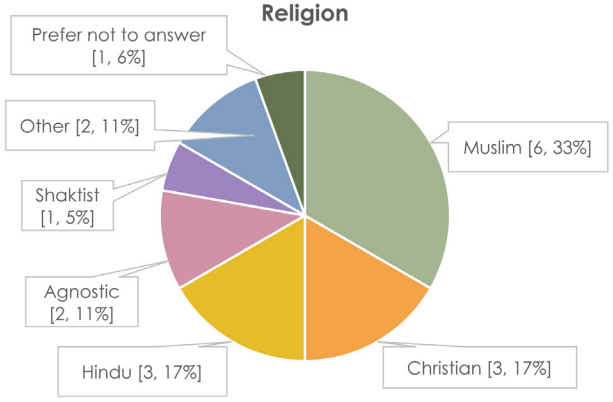
Age



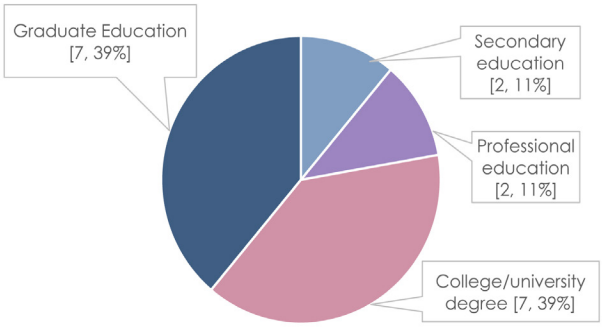
Disability



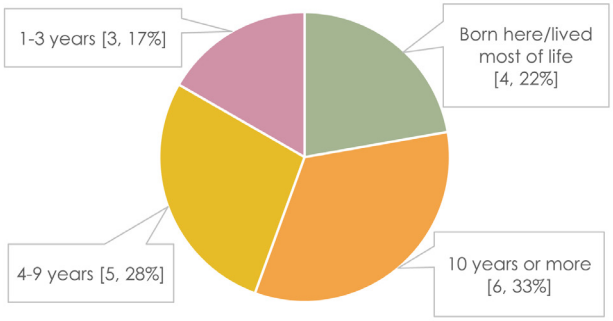
Religion



Highest Level of Formal Education



Length of Time Living in Canada



Current Living Situation

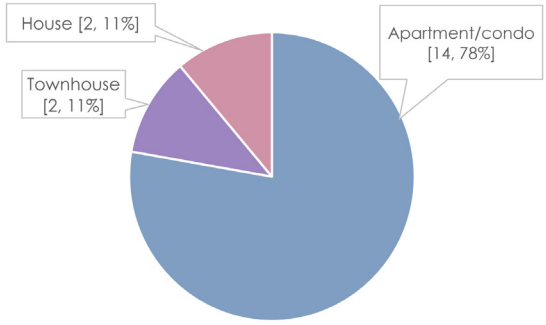


Photo credit: Fatema Begum
Location: C. W. Jefferys Collegiate Institute

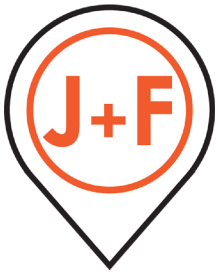
NEIGHBOURHOOD OVERVIEWS

Both St James Town and Jane and Finch are high-density neighbourhoods with many public housing buildings. St. James Town has limited greenspace but boasts high walkability scores. In contrast, Jane and Finch has more greenspace but residents face different barriers to accessing these public spaces. Both neighbourhoods have low Neighbourhood Equity scores, which is a composite of 15 indicators of neighbourhood inequity to identify marginalized neighbourhoods[1]. More than 65% of the population in both neighbourhoods identify as visible minorities and over 50% are immigrants. Even though many newcomers are highly skilled and possess impressive international qualifications, the median annual household income in both neighbourhoods is less than $51,000[2].

Both neighbourhoods have been considered hotspots during the COVID-19 pandemic, with a high number of COVID-19 cases. Jane and Finch has been designated as a Neighbourhood Improvement Area under the Toronto Strong Neighbourhoods Strategy 2020 (TSNS2020), while St. James Town has not[3].

St. James Town (SJT) Neighbourhood Context

St. James Town is a neighbourhood in downtown Toronto with 19 high-rise buildings. It is one of the most densely populated neighbourhoods in North America[4] and one of the most diverse communities in the world. St. James Town is highly walkable with good access to nearby schools, public transit, community organisations, and commercial stores. However, it has the lowest amount of park area per person. St. James Town has never been listed as a Neighbourhood Improvement Area, which influences the resources it has received.



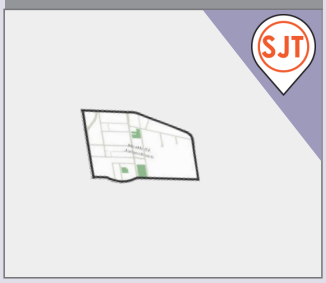
Jane and Finch (J+F) Neighbourhood Context

The Jane and Finch neighbourhood is in northwest Toronto and is comprised of two official City of Toronto neighbourhoods, Black Creek (North Jane and Finch) and Glenfield-Jane Heights (South Jane and Finch). The neighbourhood is going through rapid and significant changes due to construction and infrastructure projects. In 2016, the Jane Finch Community Research Partnership (JFCRP)[5] was created to improve research relationships between York University and the Jane Finch community and their research principles have been central to guiding this project in the neighbourhood.

1. Toronto Community Health Profiles, 'Urban HEART @ Toronto', http://www.torontohealthprofiles.ca/urbanheartattoronto.php (accessed 6 May 2022).
2. City of Toronto, 'Neighbourhood Profiles', https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/ (accessed 14 June 2022).
3. City of Toronto, 'Neighbourhood Improvement Area Profiles', https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/nia-profiles/ (accessed 1 June 2022).
4. Wellesley Institute, 'Canada's densest neighbourhood, St. Jamestown, to possibly get new condos', 2011, https://www.wellesleyinstitute.com/housing/st-james-town-residents-feel-powerless-in-light-of-new-development-in-one-of-north-americas-densest-neighbourhoods/ (accessed 10 June 2022).
5. Jane Finch Community Research Partnership, https://janefinchresearch.ca (accessed 6 May 2022).

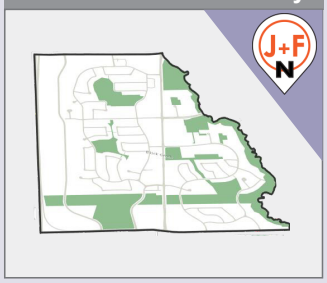
COMPARISON OF NEIGHBOURHOODS 6-11

North St. James Town



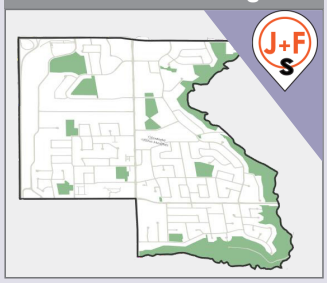
: 44,321 people/km²
: 6,497 m² of park area
: 3.1 m² of park area/person

Black Creek Community



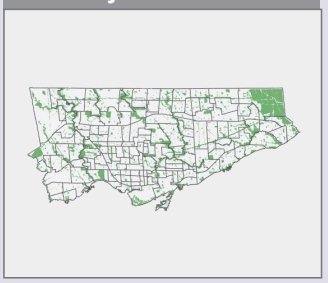
: 6,282 people/km²
: 405,563 m² of park area
: 18.7 m² of park area/person

Glenfield-Jane Heights



: 5,864 people/km²
: 761,264 m² of park area
: 24.9 m²of park area/person

City of Toronto

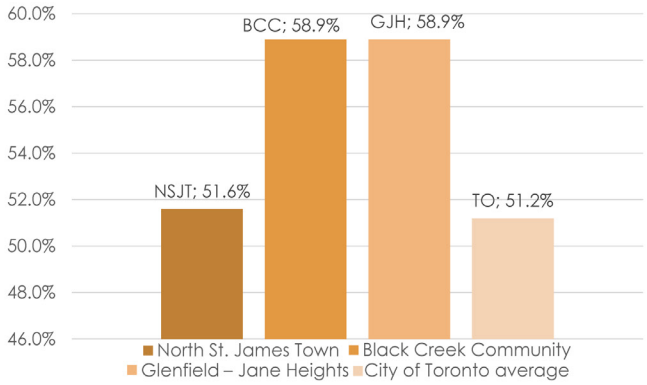


: 4,150 people/km²
: 8,086 ha of City-owned or operated parkland
: 28m² of park area (including ravines and environmentally sensitive areas) /person

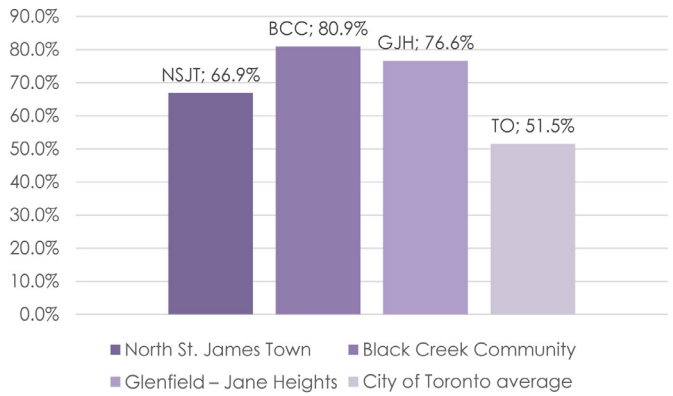
: Population density of approx. 5000 people/ km²
: Parkland distribution of approx. 5m² of park area/person

Note: The maps indicate accessible greenspace, which includes some non-park spaces.

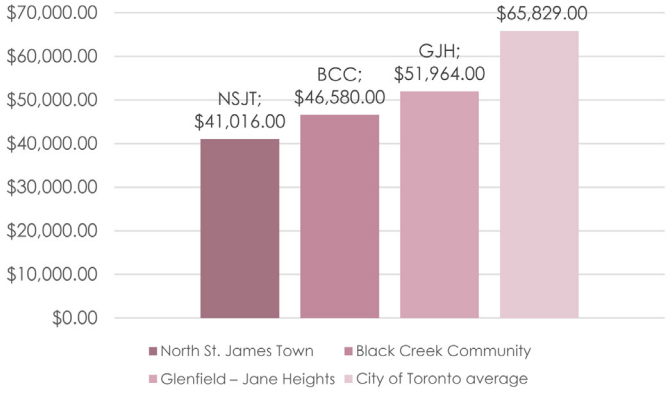
Neighbourhood % Immigrants[7-9]



Neighbourhood % Visible Minority[7-9]



Median Household Income[7-9]



6. Parks, Forestry & Recreation, City of Toronto, 2022.
7. City of Toronto, 'North St James Town', 2018, https://www.toronto.ca/ext/sdfa/Neighbourhood%20Profiles/pdf/2016/pdf1/cpa74.pdf (accessed 21 June 2022).
8. City of Toronto, 'Black Creek', 2018, https://www.toronto.ca/ext/sdfa/Neighbourhood%20Profiles/pdf/2016/pdf1/cpa24.pdf (accessed 21 June 2022).
9. City of Toronto, 'Glenfield-Jane Heights', 2018, https://www.toronto.ca/ext/sdfa/Neighbourhood%20Profiles/pdf/2016/pdf1/cpa25.pdf (accessed 21 June 2022).
10. City of Toronto, 'Parkland Strategy: Growing Toronto Parkland', 2019, www.toronto.ca/wp-content/uploads/2019/11/97fb-parkland-strategy-full-report-final.pdf (accessed 23 June 2022)
11. City of Toronto, 'Parks', 2019, https://open.toronto.ca/dataset/parks/ (accessed 5 July 2022).

PROJECT FINDINGS AND THEMES

Belonging & Social Connection

Maintenance Inequities

Exclusion

Access & Accessibility

Mental Health & Wellbeing

Safety

Right to Play & Children's Recreation

Gentrification & Complex Use of Space

BELONGING & SOCIAL CONNECTION

The communities of Jane and Finch and St. James Town are extremely diverse. Both neighbourhoods are home to many low-income racialized newcomers from various parts of the world. Several of us shared how this common experience helps us find and build community and feel safe and at home in our neighbourhoods. Resident photographers from both communities shared how greenspaces in our neighbourhoods can enable people of all races, ages and diverse backgrounds to have fun and interact. We talked about how greenspaces can provide opportunities for connection, enjoyment, peace, mental relief, and belonging.

In Jane and Finch, our resident photographers spoke about the negative portrayal and perceptions of their neighbourhood by outsiders and the media which continues to stigmatize the community. In reality, they described feeling comfortable and safe in their neighbourhood. It was where people knew them, looked like them, and looked out for them when navigating public spaces and public greenspaces. Resident photographers highlighted the beauty and vibrancy in the neighbourhood through their photos.

"I have very good experience(s) with people in St. James Town, they are poor, low income, but actually they are very loving people and they are very friendly... We are all together..."

SJT

-Amal Kanafani
Middle Eastern, Female, 45-54 years

"Despite all the violence that is associated with (Jane and Finch) or St. James Town or Rexdale this area is still beautiful, and you can't take that away… people always highlight that violence and the stereotypes … yes, we experience violence, but again, a lot of people negate the fact that these areas are beautiful and they're not just dangerous."

J+F

-Kate
First generation Filipina, Female, 18-24 years
Location: Colony Park

> This photo is a metaphor of the brighter side of Jane and Finch. "We're not 'poor', it's not a 'ghetto', it's not 'dirty'...people in the community could be viewed as teachers, as lawyers, as athletes."
>
> **Isatu Barrie**
> Black, Female, 18-24 years
> Location: Near Grandravine Park

In both neighbourhoods, some of our resident photographers described strong social connections among people in the neighbourhood, with a strong community leader presence and a sense of community connection and resilience.

"When I go outside, I see people that look like me. People leave me alone. They don't try to say something inappropriate. There's a lot that's tailored to me and my identity here… Whereas I don't really think it's the same if I were to leave…I know a lot of the resources, the people that work in them, and they're friendly and they're nice and welcoming… that's why I feel like I belong. I have friends here. I have people like me. They sell things for my culture here. I grew up here. So I feel connected because of those things."
-Amita, J+F
Indo-Caribbean, Female, 20-30 years

"...as a Black woman in the Jane, I feel comfortable, safe, super safe. And happy."
-Isatu Barrie, J+F
Black, Female, 18-24 years

"I wear the hijab every day… I feel safe, because in this area, Jane Finch area …There is no racial crime or hurt occur."
-Fatema Begum, J+F
South Asian, Female, 45-54 years

In St. James Town, some of us described feeling a strong sense of community among the diverse racial makeup of the neighbourhood.

> In this space, there is full of crowd, we can see lot of happy faces right here. Most of the Saturdays, Sunday and weekends, they will be enjoying a lot …there will be some group of people who will be chit chatting for the whole night. I think around three o'clock they will be going home.
>
> **- Vasuki**
> South Asian, Female, 35-44 years

"For us at St James Town you can united 1000 people together easily…here if you have any problem in the area immediately you find the White, the Black, the Indigenous, the Asian, we have the same world, we are together."
-Amal Kanafani, SJT
Middle Eastern, Female, 45-54 years

"But coming here… I am able to see now I made friends. I feel like I'm in my country. So I feel safe."
-Vasuki, SJT
South Asian, Female, 35-44 years

EXCLUSION

While some of us described a strong sense of belonging, in contrast, other resident photographers from both neighbourhoods expressed that they did not feel as strong a connection to their neighbourhood for a number of reasons. These included having lived there for a short time, not having grown up in the neighbourhood, high neighbourhood turnover and feeling weighed down by external and systemic pressures.

"I find myself quite isolated…. you may feel a sense of belonging to the physical place, when you live in a place for a long time, but a sense of belonging to people, you may not have because …the interactions may be so few…not be on the heart level, it may be just on the superficial business level… I'm speaking after five years…also because people are moving in and out of St. James Town."
- Nathan, SJT
South Asian, Male, 45-54 years

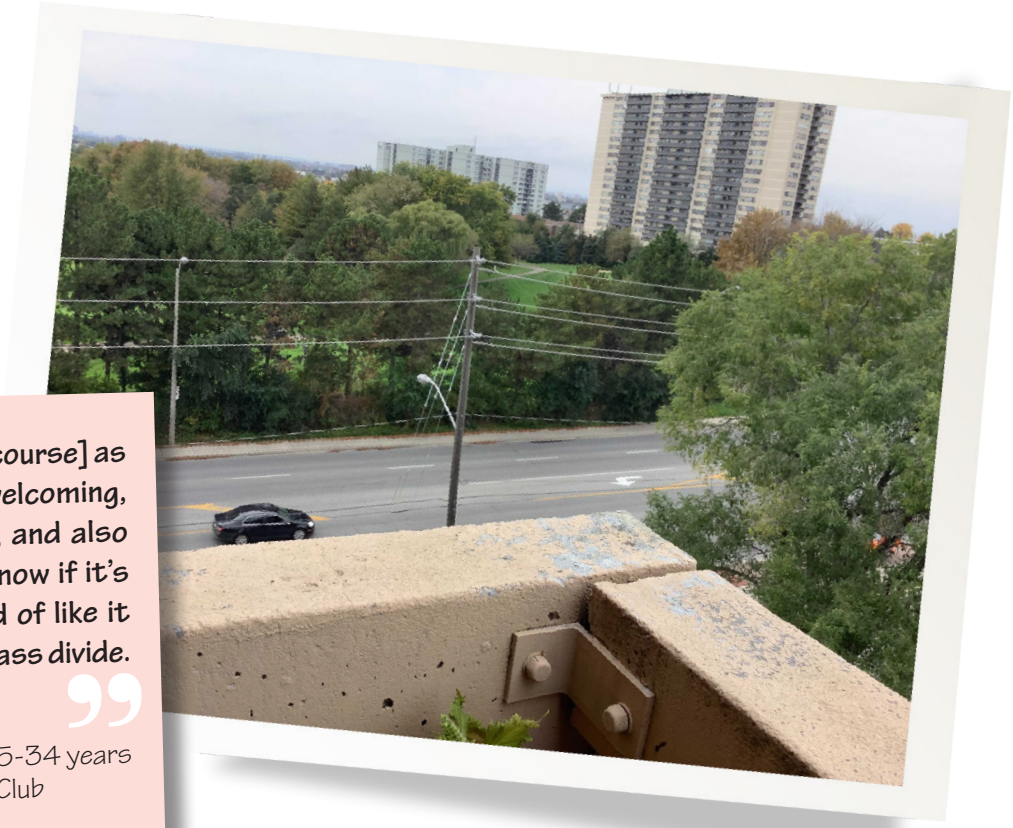
"Living here and then going to work in Mississauga… as like a single male, I don't feel very connected to the community, if that makes sense... there's a lot of biases that I've internalized that being here has kind of challenged …I mean, there are people who grew up here… I don't have like a lot of familial connections into the neighbourhood."
- Michael, J+F
Black, Male, 25-34 years

While the diversity in both the communities was largely understood as an asset and made residents feel like they belonged to these communities, resident photographers also voiced concerns about how they felt their neighbourhoods were targeted for neglect because of it. Residents from both communities documented how the conditions of greenspaces in their communities make them feel excluded and unwelcome. They felt they were being intentionally and unintentionally discriminated against and that greenspaces in the community emit invisible signals to them that they are being subtly and intentionally excluded. Some examples of this include the relative lack of greenspace maintenance, inequitable access to facilities, amenities and infrastructure, and a lack of sufficient, safe, and high-quality children's recreation.

During our discussions, resident photographers in Jane and Finch often discussed subtle perceptions of divides, based on class, race, and the intersection

"This is a reflection of people living in this area. Being predominantly immigrants and poor they found themselves in this area because little less rent than other places, some connection with other immigrants, feeling of more security of living among the immigrant population etc. But most would prefer leaving this neighbourhood if they can as soon as they can to avoid being caught up in stigma, curtailed aspirations, difficulty to move up the economic ladder. Makes me feel tired of trying to get out of this situation."

SJT
-Nathan
South Asian, Male, 45-54 years
Location: 666 Ontario Street



> **"I wanted to show this [golf course] as something that is not just unwelcoming, but also just very inaccessible, and also very illegible... because I don't know if it's intentional, but it's almost kind of like it was designed to hide the stark class divide."**
>
> **- Andrew**
> Vietnamese-Canadian, Male, 25-34 years
> Location: View of Oakdale Golf Club

of both. For instance, Amita described a community garden in the neighbourhood that was blocked off with caution tape. She felt this barrier was most likely erected by people who owned private homes in the area to discourage use from those living in subsidised units.

"I felt like . . . an outsider. Even though we all lived in the community together. I felt less than and I didn't like that... why would you do that? Why would you want to exclude other people from something?"
- Amita, J+F
Indo-Caribbean, Female, 20-30 years

Similarly, Andrew photographed his view of a private golf course from the apartment where he grew up. Despite its proximity, the golf course remained inaccessible due to prohibitive fees.

Constance feels this "divide" as a long-term resident who grew up in the Jane and Finch neighbourhood. One example is when the condo adjacent to Fountainhead Park changed its gym policy and limited community membership (it was previously accessible for a monthly fee). She recalled that the condo owners didn't want people from the neighbourhood accessing the gym:

"They didn't want a 'certain group of people' hanging around and they didn't feel safe . . . The condominiums are mostly like Italians and Portuguese and then the people who are coming to that particular gym . . . mostly like Blacks (and Latinos), there was a mix, but it was mainly Black youth that were coming to the gym. So like that had a little bit of a divide and tension there. So yeah, sometimes it doesn't feel welcoming . . . some of the reasons they closed it down really hurt me".

Constance described how there can be tensions in how public greenspace is used and negotiated by different groups. For instance, she described the complicated dynamics of how different groups access the tennis courts, cricket pitches or playgrounds - while others feel excluded from these amenities.

"You actually think almost like a kumbaya, you know, everybody come in to enjoy nature and play but . . . sometimes it becomes that divisive. Because everybody's trying to get, you know, a space for themselves or a space for their group . . . I can't really blame them."
- Constance, J+F
Black, Female, 25-34 years

Resident photographers took photographs of fences and hidden amenities as visual metaphors

"Good to see that more investments are being made in our community, but not too many people know about it. Just like this bench, people probably don't see this bench, because it's hidden under the bushes. Maybe it's not very visible to some people."

- Sayem Khan
South Asian, Male, 18-24 years
Location: Black Creek Trail

"(In St. James Town), people refrain from accessing (the available) private greenspaces because there is nothing there save grass and signs making it clear they're not allowed."

- Julia
Mixed Background, Female,
55-64 years
Location: Wellesley Parliament Square

of invisible barriers that exclude people in their neighbourhood from opportunities.

Newcomer resident photographers from St. James Town shared stories and photographs that discussed experiences of unspoken racism, prejudice, stigmatization, and lack of safety when navigating public spaces. In our discussions, greenspaces were an entry point for resident photographers to talk about the broader visible and invisible issues they face as racialized residents in Toronto. For example, resident photographers described their frustrating experiences of trying to find employment without the precondition of "Canadian experience." We talked about how we could never have dreamt of these daily exclusionary experiences in the countries we came from and when we were planning to come to Canada.

Photo Credit: Nathan, SJT
South Asian, Male, 45-54 years

MENTAL HEALTH & WELLBEING

The COVID-19 global pandemic has impacted communities like Jane and Finch and St. James Town with increased economic insecurity and poverty-related stress. The pandemic exacerbated social isolation and mental health challenges, especially among those of us already facing marginalization and systemic barriers. Several resident photographers shared how difficult this period has been for them and their families.

"Now last one and half years we didn't went anywhere because due to the COVID my kids stay at home only, that's why we got stressed and we have a lot of mental problems actually. Yeah we have a lot of stress too because we all are stayed in home right … We are living in only one room here in St. James Town… we face a lot of problems…I got a headache also in pandemic, without going outside…severe headache... I don't know why it happens."
- Sundari, SJT
South Asian, Female, 30-37 years

Against this backdrop, resident photographers described how accessing greenspaces had many important beneficial effects. For some being outside, seeing nature, the quieter soundscape, and breathing fresh air has a calming or destressing impact. Others described the importance of having space for movement or play as well as connecting with others as important for their health.

"It is your own space and your own healing process. If I do yoga in the park underneath a tree then I feel very happy. I am Indian and chanting "ohm" is my meditation which is also part of yoga. My mind and body feels light."
- Minakshi Das, J+F
South Asian, Female, 45-54 years

Several of us discussed the importance of having public greenspaces, especially when many of us live in apartments.

"We are in a apartment…and the park is close to it. We don't have that backyard …so this is for us to have our mental health and wellbeing a real impact, you know, and then we talk with each other …and then we think about what's going on in our community, see things about her grandkids you know participating in the soccer, in the basketball."
– Minakshi Das, J+F
South Asian, Female, 45-54 years

"This neighbourhood park (Winchester Park), it's a place I go to unwind… a place I count on, I just need a place to unwind and destress."
- Andrew, SJT
Vietnamese-Canadian, Male, 25-34 years

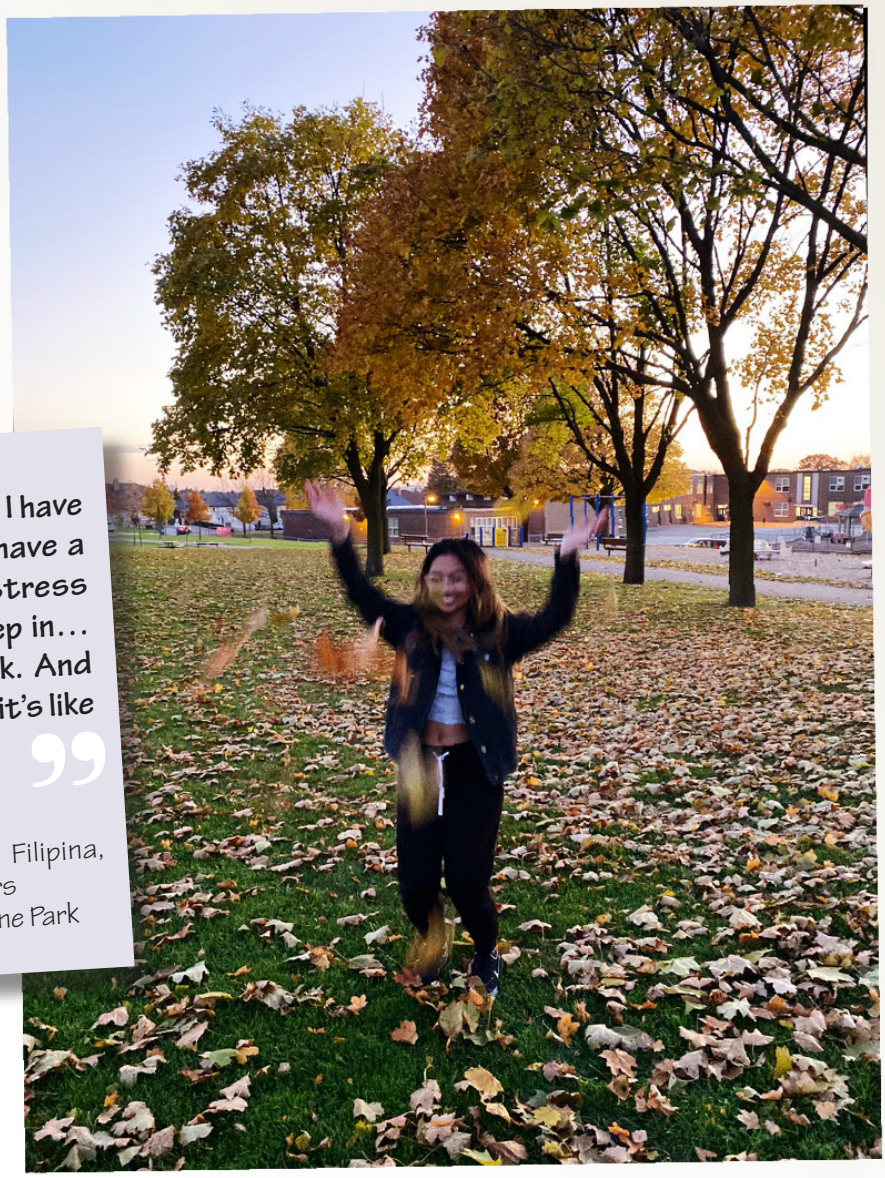
There are several greenspaces in Jane and Finch that resident photographers took photos of and described enjoying including Black Creek Trail, Derrydowns Park, Grandravine Park and Fountainhead Park even though not all of them are easily accessible.

"This greenspace is really calm and serene…a gift to the community. Getting to this park isn't the easiest… but otherwise once you get in it's very beautiful."

- Michael
Black, Male, 25-34 years,
Location: Topcliff Park

"I found that it (the park) was a great free gym that I really liked. I got to work out there… I am someone that has anxiety, that was why I struggled with going to the gym... So, I found this park as like a little sanctuary…. it's really helped me get through being alone and being in isolation. I also liked it because there were not many people…I like using the space to help my health and that it was free."

- Amita
Indo-Caribbean, Female, 20-30 years
Location: Giltspur Park



"I am very busy. And I have lots to do…but parks have a way of making me destress automatically once I step in… We grew up in this park. And whenever we come back, it's like kids again."

- Kate
First generation Filipina, Female, 18-24 years
Location: Grandravine Park

St. James Town is a dense tower neighbourhood with limited greenspaces and resident photographers took photos of the same few spaces including St. James Town West Park and the unnamed space beside Food Basics. Resident photographers described the impact impact of living in a dense urban area on their mental health.

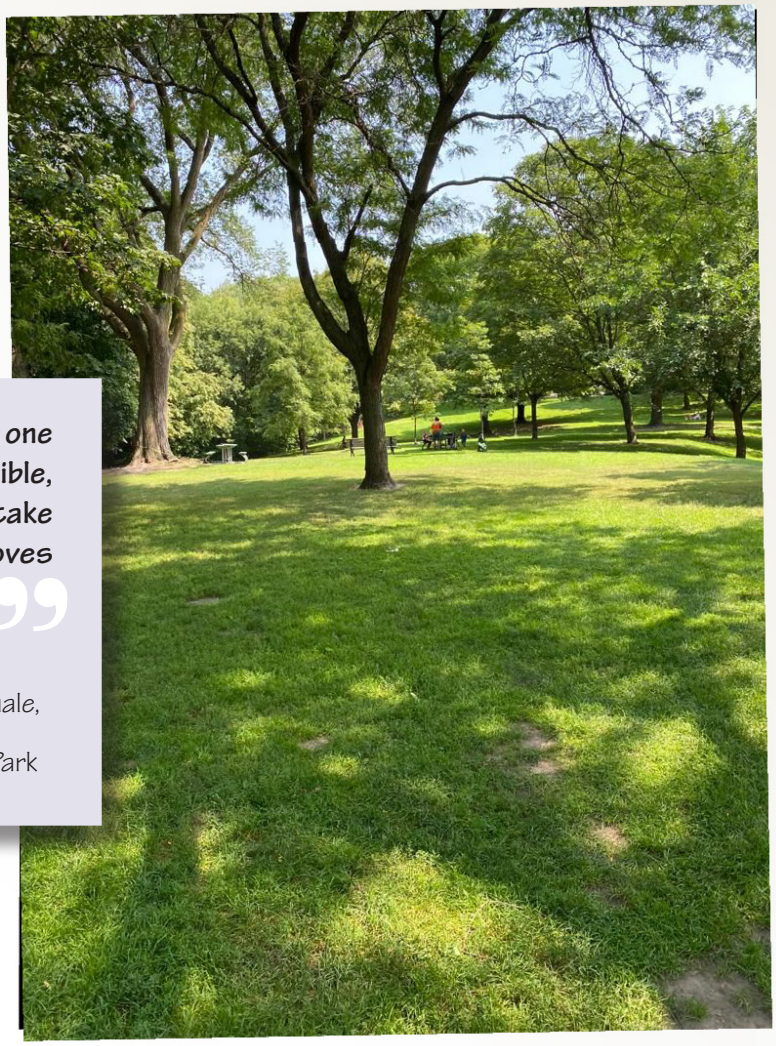
"If you are living in an apartment at least when you look outside you (want to see) nature… they don't care for mental health issue of people. When I see building building building building around me, it's a lot."
- Amal Kanafani, SJT
Middle Eastern, Female, 45-54 years

"You can't relax here [in St. James Town], because the atmosphere itself is very tensed and full of anxiety."
- Nathan, SJT
South Asian, Male, 45-54 years

Julia described getting away from St. James Town on occasion.

"(where there are) no sirens, no screams in the night, no fire alarms…"
- Julia, SJT
Mixed Background, Female, 55-64 years

As a mother who works and studies, Roua described how after work when the kids are back from school, they are able to go out to a greenspace close by.



"Even half an hour or one hour…whatever is possible, [gives me a chance to] take a breath [and] it removes stress."

- Roua
Middle Eastern, Female, 45-54 years
Location: Wellesley Park

RIGHT TO PLAY & CHILDREN'S RECREATION

The United Nations Convention on the Rights of the Child envisages the right to health, education, family life, play and recreation, an adequate standard of living and to be protected from abuse and harm. We want this for our children and youth.

In Jane and Finch, resident photographers experienced an absence of equity in community resources. For example, recreational facilities such as basketball and cricket pitches were not freely available and accessible to all. Residents photographed the ways that community members responded by creating opportunities for themselves such as yoga sessions in parks and a makeshift basketball area for kids (see photo on the bottom left).

Minakshi took a photo of the same makeshift basketball area being used (see photo on the top right). Isatu described how there's no accessible yoga space in the community and while it can be nice to do yoga on the grass, it's not an option in the winter. Resident photographers described needing more indoor community spaces, with women-only spaces as well.

"For the kids, greenspaces are a peace of mind."

J+F

- Minakshi Das
South Asian, Female,
45-54 years
Location: Fountainhead Park

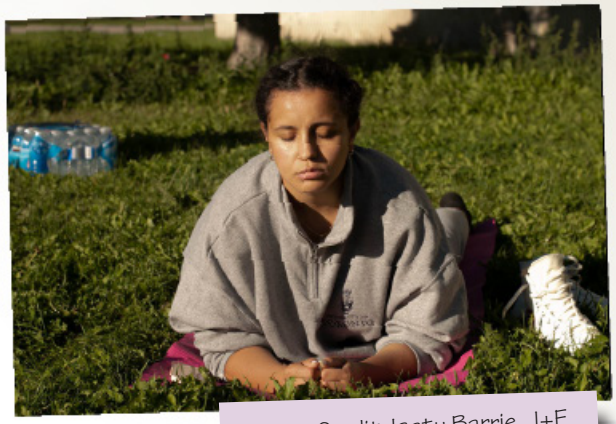


Photo Credit: Isatu Barrie, J+F
Black, Female, 18-24 years
Location: Gosford Park

"The community is so underdeveloped with amenities...and places for people to explore whether it's their artistic creation or their athleticism... somebody put it (the basketball net) there to play with because we don't have that...Unfortunately, at times, it may not really be the most appropriate place or the most the best location for that item to be added, but because people need that outlet to explore they do it in greenspaces."

J+F

- Constance
Black, Female, 25-34 years
Location: Fountainhead Park

> **Somehow the dream is tied into that limited space…Obviously, the cost to really become a cricket player, or to practice cricket in a high level it is costly. This individual is carrying a big equipment pack, to buy all those equipments are very expensive and probably not affordable for many folks in our area.**
>
> **- Sayem Khan**
> South Asian, Male, 18-24 years
> Location: C.W. Jefferys Collegiate Institute

Sayem also described the need for more free indoor spaces that could be used for sports like cricket during the colder months.

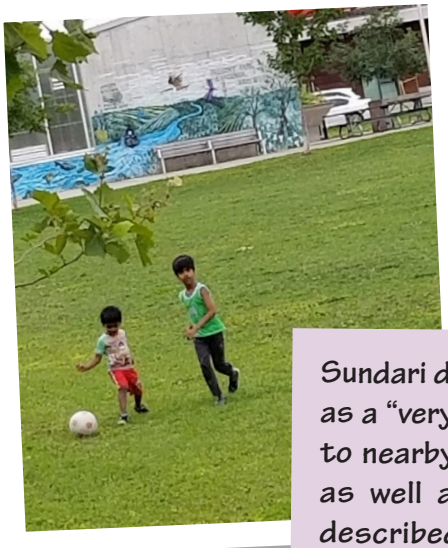
Similarly, in St. James Town, resident photographers described only a few public greenspaces that were frequented by families and their children, with limited amenities. Priya noted the queues for the one swing in this park (see photo on the right), in a neighbourhood with many young children, falling short in meeting this community's needs.

"It's not too, yaani, not too much playgrounds for the kids. You can count it in your hand… sometimes I will go to Regent Park for my kids to play."
- Roua, SJT
Middle Eastern, Female, 45-54 years

Resident photographers described how some residents with vehicles drive to different destinations to visit greenspaces, but this is not accessible for everyone.

"If you want to go out and hang out with your kids, it's a lot more complicated… They bundle up the family and they go over to High Park...the Island…Woodbine beach, you know, and you'll see all these brown families taking up all these picnic spots … they've had to go pretty damn far for that…by the time they have a car…and they'll all line up trying to get into the parking lot…go to their little moment in the sun, you know, cheek by jowl with 1000s of other families crammed into these sort of newcomer safe zones. And then they come back to St James Town."
- Julia, SJT
Mixed Background, Female, 55-64 years

Photo Credit: Priya, SJT
South Asian, Female, 25-34 years Location: St. James Town West Park



> **Sundari described St. James Town as a "very good place" with access to nearby programs and facilities as well as affordable rent. She described not needing to leave the neighbourhood except to visit places for the children, "Only maybe for outing" for example, Kidstown Park which is free but a drive away in Scarborough.**
>
> **-Sundari**
> South Asian, Female, 30-37 years
> Location: Regent Park

MAINTENANCE INEQUITIES

Well-maintained greenspaces in the community provide individuals and groups with a space for their physical and leisure activities. This creates a welcoming and inclusive atmosphere. These spaces are desperately needed in underserved neighbourhoods where indoor spaces are often crowded and limited. Nevertheless, these spaces are sparse.

Resident photographers of both communities took many pictures of derelict spaces. They voiced the perception that their requests for addressing deteriorating facilities (often caused by vandalization, neglect and litter) are overlooked because they are newcomers, immigrants, racialized, diverse, low-income and muted. They feel that their suggestions for park improvements and repurposing unused spaces and amenities are constantly ignored by governments. Resident photographers felt that there is a general lack of commitment from both city officials and fellow residents towards cleanliness and safety in their neighbourhoods.

We identified that many public greenspaces in our neighbourhoods are generally underserved, not maintained well, and unclean. Resident photographers described how these inequities are obvious in their neighbourhood and aren't present in other neighbourhoods.

"You can go into a high-income neighbourhood and they have everything in the greenspace. They had a waterpark, access to washrooms, an all-out ideal park… and you come here to Jane and Finch and our greenspaces were very limited and it's taken years and we are still in kind of like the development stages of our greenspace."
– Constance, J+F
Black, Female, 25-34 years

Isatu explained how the guys playing basketball were sharing their experience playing with no net and broken rims:

"He was like, 'We're not being heard… yeah, you should also tell them fix up the rims. Like, this is where we'd be playing every day. And it's just, it's not a hyped up feeling'…They just don't have that same experience. Because it looks like broken up and when the vibe is broken, people will not come."
– Isatu Barrie, J + F
Black, Female, 18-24 years

In contrast to the nice tennis court, the basketball court on the other side of the fence is broken and has a broken rim. The people who were playing said they felt like they weren't being heard because they've asked for it to be fixed.

Several resident photographers took photos of litter and overflowing garbage bins in both Jane and Finch and St. James Town.

"It's there, yes. If you ask for garbage (bin), you get a garbage bin, …but then they're now overfilling… but you wouldn't see this in other communities because they're able to get the resources which is the manpower …to go over there and clear that … but you continuously see it in underdeveloped or low-income communities. Your parks, you don't begin to enjoy them. You get bugs and bees flying all over. And so you're not able to enjoy your parks as nicely as you like because of things like this, right? And then …they'll just throw (garbage) wherever they choose. And then it gets into the ravines and the rivers and it becomes not really enjoyable."

J+F

- Constance
Black, Female, 25-34 years
Location: Fountainhead Park

"I am going outside to have fun and I want to see something nice, so you when you will see garbage in all this nature. You will feel not happy."

SJT

- Roua
Middle Eastern, Female, 45-54 years
Location: Greenspace behind Food Basics

In contrast, Andrew took a photo of trash cans in Cabbagetown (a neighbourhood adjacent to St. James Town). "(This is an example of) a municipally well-served park…(the trash cans) are clean enough that someone took the time to put a mural on it…really nice, really lovely."

SJT

- Andrew
Vietnamese-Canadian, Male, 25-34 years
Location: Winchester Park

ACCESS & ACCESSIBILITY

We discussed how accessibility means ensuring equitable and welcoming entry for people with diverse needs to enjoy public spaces with dignity and equal opportunity (e.g., wheelchair access, accessible and affordable public transit, well-maintained spaces/ entrances/exits, shade, shelter) and be free of barriers (exclusion, inhospitable infrastructure). Useful amenities and facilities such as drinking water, children's play spaces, people-centric seating arrangements, cleanliness and aesthetic greenery in the park naturally incline people to step into such spaces. Resident photographers took several photos that documented barriers to accessibility.

The TTC is a main method of transportation in both neighbourhoods to access amenities, including greenspaces. Isatu described how the fare "price has gone up a lot which isn't fair (to people in the community)."

Parks are partially accessible by walking, biking, wheelchair or public transport. However, access is sometimes limited by unsafe road conditions (e.g., holes or lack of ramps), limited lighting, garbage overflowing and other markers of low maintenance.

In St. James Town, some residents described about how they did not feel safe in spaces where large groups of men congregated – particularly if they were drinking, high or gambling.

"[The greenspaces] are welcoming but they are not safe. Why they are welcoming? Everybody loves them…. when you are living in high rise building you want greenspace around, you want to go to smell some fresh air outside. You cannot be in your small, tiny apartment, specially in our buildings. We have five kids, seven kids in one bedroom, you will not believe it. But yes, we do have it...we have lots of drug addicted we have lots of deaths. When it's poverty, you have everything."
- Amal Kanafani, SJT
Middle Eastern, Female, 45-54 years

In Jane and Finch, several resident photographers took pictures of fenced off areas to capture inaccessible spaces. More than one resident photographed the fenced off tennis courts and wondered why these underused recreational amenities took up so much space in their community when there were so few basketball courts.

"Unoccupied chairs with dirt around it as well as without any shade… Disgust to sit on it especially during summers the chairs get hot due to the metal construction and during winter it gets cold. Also, there is dirt around it making it disgusting to use it."

- Nathan
South Asian, Male, 45-54 years
Location: unnamed park next to Food Basics

Photo Credit: Constance, J+F
Black, Female, 25-34 years
Location: Fountainhead Park

"There is no sufficient washrooms in the park and benches. Some area (in Fountainhead Park) is higher than the road, higher than the sidewalk … this is not so good for the senior people…not so accessible for wheelchair."
- Fatema Begum, J+F
South Asian, Female, 45-54 years

Some resident photographers described features and amenities that enable them to spend more time in greenspaces and more easily navigate these spaces. Constance described how having access to public washrooms is a necessity and means "not turning back and going home" when her son needed to use the washroom.

J+F
- Constance
Black, Female, 25-34 years
Location: Black Creek Ravine

"Like, my family, my friends, teachers, like, community people, like everyone plays basketball. I'm not saying not a lot of people in the Jane n Finch play tennis. But it is more of mostly like basketball, soccer, volleyball, swimming... I've never played tennis."

J+F
- Isatu Barrie
Black, Female, 18-24 years
Location: Grandravine Park

Several resident photographers also discussed how greenspaces were inaccessible during the winter season because there was no maintenance.

Michael photographed the same set of stairs as Ayesha (see photo on the right) and described the installation of a bike guideway on the staircase.

"Growing up I kinda had to drag them (his bike) up the stairs…it caught my eye because now I bike a lot … it's great to see things like this."
– Michael, J+F
Black, Male, 25-34 years

Ayesha described this staircase that she loves and uses but still wonders "is this as accessible as it could be?"

J+F
- Ayesha Khan
Indo-Guyanese, Female, 25-34 years
Location: Derrydowns Park

SAFETY

Everyone in the community wants to feel safe and free when they visit their local parks and ravines. Resident photographers described several dimensions that contributed to feelings of safety, including pedestrian infrastructure, proper lighting, protection from harassment or violence, and cleanliness.
Residents documented several pedestrian safety concerns, including the importance of access to sidewalks, ramps for people with strollers or limited mobility capacities, and having crosswalks with clear signage. Some residents appreciated the new red-light cameras installed in the Fountainhead area to reduce over-speeding.

In Jane and Finch, resident photographers shared that rapid construction and neighbourhood changes in their community are impacting their ability to use greenspace.

Due to the LRT construction around the Jane and Finch area, several of us described how it is even more difficult to navigate the neighbourhood and access greenspaces because of a lack of safe infrastructure. Resident photographers highlighted how the Finch West LRT (light rail transit) is reducing the walkability of the neighbourhood and making transit more inconvenient. Sayem shares, "I just hope that the construction project gets completed soon and it brings some tangible positive result into our lives". According to Metrolinx, the Finch West LRT is projected to complete in 2023[12]. However, residents use the words "hazardous, "precarious", and "dangerous" to describe their present experiences navigating this construction. Despite resident photographers sharing that local greenspace was beautiful, welcoming, and made them feel safe, the current Finch West LRT construction is temporarily limiting access to greenspace.

> "The construction seems very precarious…it just didn't feel safe to just access this one hiking trail. On the way you seeing the signs, danger due to overhead wire and …there's a sense of foreboding."
>
> - Andrew
> Vietnamese-Canadian, Male, 25-34 years
> Location: Finch Avenue West and York Woods Library, Derrydowns Park entry

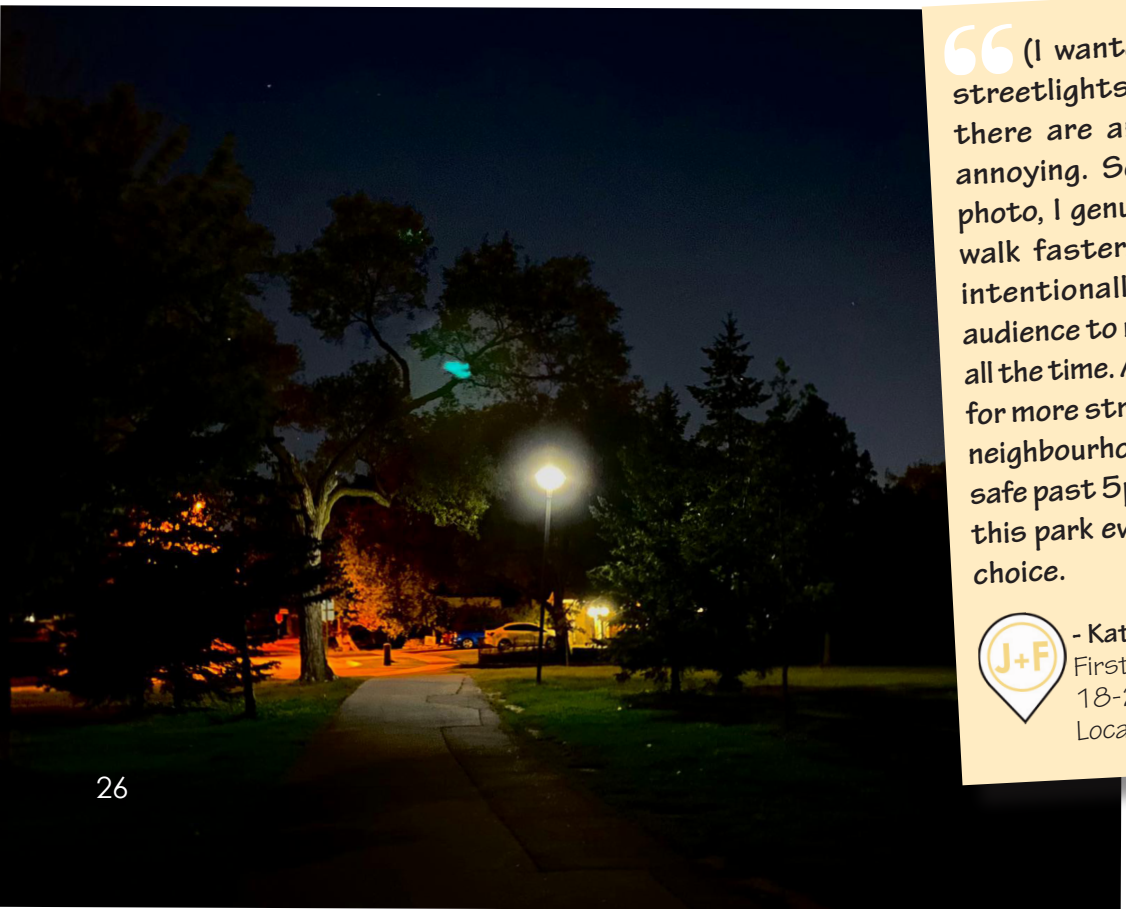
12. Metrolinx, 'Finch West LRT', https://www.metrolinx.com/en/greaterregion/projects/finchwest-lrt.aspx (accessed 1 June 2022).

> The idea of having to be looking for your safe place, to be looking for a greenspace, somewhere to decompress and unwind and you have to go through this to get there... it does seem a bit compromising.

- Ayesha Khan
Indo-Guyanese, Female, 25-34 years
Location: Finch and Tobermory, Black Creek Trail entry

"This is very much a community that's completely apart… right now Finch is a hostile place for pedestrians"
- Michael, J+F
Black, Male, 25-34 years

Many resident photographers in both neighbourhoods also brought up the issue of inadequate lighting. We talked about how scary it was to walk through dark spaces at night, particularly parks and ravines. Some of us shared stories about places where people in the community had experienced violence. Women felt particularly afraid navigating these spaces alone at night.



> (I wanted to show) how few streetlights in my neighbourhood there are and how this is really annoying. So when I look at this photo, I genuinely feel like I have to walk faster. I (made) this photo intentionally dark to allow the audience to realize this is what I see all the time. And this is also just a call for more streetlights in parks and in neighbourhoods because I don't feel safe past 5pm walking home through this park even though I don't have a choice.

- Kate
First generation Filipina, Female, 18-24 years
Location: Colony Park

> (There is a) juxtaposition of lights over the tennis courts (six on each side) versus the single light (on the photograph where a sexual assault took place)…after a certain time, even in the evening, you can't visit the park because the lights are so low and dim…have to be cautious.

- Constance
Black, Female, 25-34 years
Location: Fountainhead Park

Some resident photographers talked about how they routinely avoid certain greenspaces even during the day. Kate photographed a beautiful bridge in her neighbourhood that she routinely avoids to prevent the likelihood that she will fall victim to crime. While several resident photographers expressed enjoying the ravine system in Jane and Finch, some female community residents described feeling safer in parks because of the better lighting and street traffic.

As Isatu shared: "As a Black woman, I wouldn't go to the Black Creek Park Trail in the night. Or like when it's close to sunset because that's just how I feel, I'm not going there alone. The night gives me scary vibe...and you never know, like people."

Other resident photographers, like Priya, described how they have been harassed on the streets at night and it made her feel "very afraid..."

> …this bridge in my area is notorious for people doing drugs and people meeting up. I haven't seen it myself, but as a woman walking home at night through this park, everybody just says when you pass by this bridge, don't go near it… there is so much beauty and vibrancy in my area. But there is also violence that's happening underneath. …. It's such a normalized community experience to avoid this bridge.

- Kate
First generation Filipina, Female, 18-24 years
Location: Opposite Colony Park

> I prefer the park and sidewalk (to the ravines)...I feel safe in this area because in the trail, there people are not so much…usually the people were (in the trails) in the evening, but I walk in the morning time.

- Fatema Begum
South Asian, Female, 45-54 years

GENTRIFICATION & COMPLEX USE OF PUBLIC SPACE

As racialized people in St. James Town and Jane and Finch, we shared experiences of how gentrification impacts our access to greenspace. Gentrification is the process of wealthier people and businesses moving into low-income neighbourhoods. This often leads to housing, groceries, and other amenities becoming more expensive and the displacement of long-time residents.

In St. James Town, resident photographers described feeling weary of anticipated gentrifying developments in their neighbourhood. Julia raised concerns about losing greenspace:

"Wellesley Parliament Square plan to build on remaining greenspaces. I think we're way too crowded already… They want to run a street right through the neighbourhood, so we'll have cars running through. Personally, I think a neighbourhood this crowded with more children per capita than any other community in the city should not have cars running through the middle."

- Julia, SJT
Mixed Background, Female, 55-64 years

Similarly, Andrew shares that seeing more White residents who don't follow dog leashing bylaws in parks is a "low-key indicator of gentrification." Ultimately, St. James Town residents describe the complexity of the use of neighbourhood space and its competing demands with community interests and betterment.

"My friends and I have a joke 'dogs are a harbinger of gentrification to come' so take from that what you will but it's something we joke about and something we see."

- Andrew
Vietnamese-Canadian, Male, 25-34 years
Location: Winchester Park

"Clearly the residents of Cabbage Town, if Facebook comments are to be believed, is very, very unhappy about this open-air market (in St. James Town). Personally, I like the fact that open-air market is there and my friends joke … if this open-air market goes, so goes the rest of the neighbourhood…here is the thing that is stopping gentrification, I mean we're obviously being incredibly facetious about it. All the vendors are people of colour."

- Andrew
Vietnamese-Canadian, Male, 25-34 years
Location: Open air market beside Food Basics

"We have a greenspace after like two, three weeks or a month, we find a building. They *never* left any kind of greenspace…There is a space between St. James Town and it's on Bloor Street… we *fought* for that, we don't want them to build anything. And now within three years, it's *very* huge building…their municipality or something they want to take agreement of us. [They said] that the people agree but nobody agrees. We need it green and immediately it came this very high condos … we cannot control but they never left in St. James Town any greenspace, nothing."
- Amal Kanafani, SJT
Middle Eastern, Female, 45-54 years

"I wish we could have more greenspaces like this in our community."
- Vasuki, SJT
South Asian, Female, 35-44 years

Resident photographers expressed frustration about the lack of public greenspace and also the mismanagement and improper use of existing spaces. Residents contrasted the over-crowding of certain public amenities (e.g., parks, basketball courts and swing sets) with the over-abundance of abandoned spaces that have been neglected and are underused. For instance, Vasuki photographed an empty green field and wondered why there was no park equipment or infrastructure installed to invite more active play.

St. James Town residents described how they regularly head outside the neighbourhood to enjoy Riverdale Farm and its enhanced amenities such as the petting zoo, walking trails and adjacent splash pad.

"It's really nice to have such space [Riverdale Farm]. It's actually one of the place which I like…because there is so many activities for the kids … so it's nice green area. But the other thing is there is a limitation for the washroom and they closed, like I think at 5pm... After that it will be difficult to stay more there."
- Khalid, SJT
Arab, Male, 35-44 years

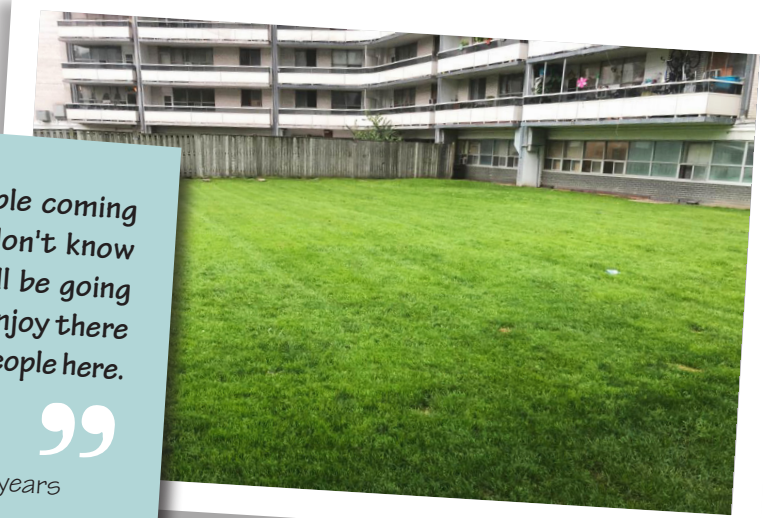
When we were discussing why this disparity existed, several of us noted factors including the lack of financial resources, lack of political will and competing private interests.

"Private greenspace (in Wellesley Parliament Square) where there is a locked abandoned tennis court, and an empty abandoned swimming pool behind it. Of course, this is just waiting to be built on, so they're not going to do anything about it. Certainly not going to make it useful and fun for their tenants' families… and there is (just) one bench."
- Julia, SJT
Mixed Background, Female, 55-64 years

Resident photographers expressed frustration because they feel their voices are not heard, and their needs are not being met. Community consultations seem tokenistic, as Amal described:

"They do this meeting and those stuff…and ask people, *ask ask ask ask* and after that, they do the opposite."
- Amal Kanafani, SJT
Middle Eastern, Female, 45-54 years

Several resident photographers took photographs of the centrally located space "behind Food Basics" or "near the unused pool", and many of us noted that this space doesn't seem to have an official name. Residents use the space in a number of different ways that are community driven.



"We don't see much people coming here to this space. Why? I don't know because .... most of them will be going there to the school parks to enjoy there with their kids... We can't see people here."

- Vasuki
South Asian, Female, 35-44 years

Unnamed greenspace, SJT
Photo Credit: Khalid
Arab, Male, 35 - 44 years

"This is an interesting greenspace because of course it's in the middle of a concrete jungle. You can see huge towers all around us in the most densely populated community… It comes alive and is a nice space for when we do things in it, but it can sometimes be a scary space."
- Julia, SJT
Mixed Background, Female, 55-64 years

"This greenspace is utilized by diverse people living in the neighbourhood and the bare minimum facilities in the space gives a feeling of neglect of such people."
- Nathan, SJT
South Asian, Male, 45-54 years

In St. James Town, several resident photographers captured a neglected swimming pool space that has been unused for several years. Petitions for repurposing it for community use by various community members have been consistently disregarded by the government. There has been no movement on revitalizing the amenity. Instead, plans to demolish it and replace it with grass are causing concern for us due to the health risks involved (i.e., silica dust) for residents in the surrounding area.

"[I] Feel that the facility is given for the sake of being seen as giving but without care for the people who might want to use it. Feeling of reluctance to use it."

- Nathan
South Asian, Male, 45-54 years

In Jane and Finch, resident photographers described how despite having greenspaces there are issues such as access, visibility and awareness that impede their use.

> "Fountainhead Park has been the target of many people trying to engage that park …But it seems like people don't understand that it's there to be used for them. And there are a few things that I think give off that impression. Right now, the construction really does not help. It's also a bit elevated off the ground. So, if you're on the street level, it's not quite the easiest to see. And it's also there's like a tennis court there that appears to be private… there was a lot of work to convince the surrounding community that they could actually use this park."

- Ayesha Khan
Indo-Guyanese, Female, 25-34 years
Location: Fountainhead Park

Michael described how this community space at the Jane and Finch intersection was visible, safe and accessible to people.

> "I appreciated the attempt at creating a space (in) a parking lot … something that kind of helps keeps the community together… closest thing (in the area) to a space that like belongs to everyone even though it belongs to the mall but like still belongs to everybody."

- Michael
Black, Male, 25-34 years
Location: Corner Commons

RECOMMENDATIONS

Our top recommendations to the City of Toronto for racialized neighbourhoods, including St. James Town and Jane and Finch:

1. Prioritize equitable access to high-quality greenspaces in racialized neighbourhoods

Neighbourhoods with a high percentage of racialized residents face historic and ongoing marginalization. Residents have noted that our neighbourhoods are underserved and we face multiple systemic barriers that have resulted in deep and unethical inequities. Inclusive and welcoming greenspaces includes equitable access to high-quality greenspace that is:

- Large enough to account for the numbers of users (quantity)
- Well-maintained and aesthetically pleasing (quality)
- Close enough to be accessed by walking, biking and public transit (access)
- Accessible and accounts for how different bodies navigate and use the space (e.g., same level entrances or ramps into greenspaces) (accessibility)
- Sufficiently well-equipped with amenities and facilities that the community desires (resourced)

2. Ensure the inclusion and maintenance of amenities that racialized residents are asking for

Create and maintain amenities as well as recreation and sports facilities in greenspaces equitably across Toronto's racialized neighbourhoods. We noted several instances of neglect and oversight, including overflowing garbage cans, broken benches, unused swimming pools and broken basketball nets. Examples of amenities in public greenspaces include sufficient washrooms, enough benches, enough garbage and recycling bins (and frequent servicing) and clean water bottle fountains. Appropriate sports and recreation facilities, tailored to community needs, should be available (e.g., well-maintained cricket pitches, basketball courts).

3. Direct resources equitably

Ensure underserved neighbourhoods like St. James Town and Jane and Finch get the funds they need through various mechanisms.

4. Ensure accountability by evaluating and tracking greenspace changes

Greenspace changes and improvements should be monitored and evaluated to ensure that community needs are being met, and that processes and outcomes are beneficial to residents. An accountability plan is key to ensuring that changes are beneficial to residents.

5. Winterize outdoor public greenspaces and create more free indoor community spaces that can be accessed during the winter season

During Toronto's long winter season, access to greenspaces is severely reduced due to unmaintained greenspaces (e.g., trails) and limits residents' use of greenspaces and recreational facilities. Create more free and accessible indoor community spaces that can be accessed by residents all year round and winterize and/or maintain frequently used and popular outdoor greenspaces.

6. Improve safety for all, particularly for racialized women

Consider what short-term initiatives can be implemented (e.g., emergency buttons in greenspaces, sufficient lighting) alongside long-term strategies to prevent violence against racialized residents and racialized women.

Key principles to guide equitable decision-making and future directions:

- **Commitment to equity and anti-racism**
  Adopt and implement an anti-racist and equity-focused approach in all decision-making.
- **Complexity of experiences**
  Recognize that the way people navigate and use greenspaces is different and varies based on a number of different factors, including social and societal factors (e.g., intersecting identities and social locations, neighbourhood context). This includes taking into account residents' lived experiences (of being racialized, newcomers, low-income, living with disabilities, as children, youth and seniors etc.).
- **Meaningful community engagement**
  Engage meaningfully with racialized community residents and listen to our needs. Avoid tokenistic language and actions that disregard input and feedback.
- **Collaborative action with community**
  Take action alongside community residents, grassroots groups and community organizations committed to equitable and just communities.

In addition, in Jane and Finch:

- **Prioritize pedestrian and cyclist safety.** The neighbourhood is going through significant long-term infrastructure developments which residents have found hazardous. Include measures to mitigate hazards to pedestrians and cyclists. For example, ensure crosswalks have clear signage, safe access to sidewalks and appropriate street lighting both en route to greenspaces and within them.
- **Limit the negative impacts of gentrification.** The creation of strategies and policies that ensure residents can remain in their neighbourhoods without being disrupted by gentrification as neighbourhood improvements are made.
- **Assess the demographics of the neighbourhood on a regular basis.** These communities are changing rapidly and this is necessary to ensure appropriate and relevant services and programs.
- **Translate street signs into multiple languages.** As the racial and ethnic backgrounds continue to change in our area, this attention to diversity and inclusion could be an important signifier of belonging.

In addition, in St. James Town:

- **Create more and maintain greenspace.** St. James Town has a high population density and has the least amount of greenspace per person in Toronto[13]. Residents need access to more greenspaces to support outdoor activities and mental health and well-being.
- **Develop high-quality and aesthetically pleasing greenspace,** with flowers and landscapes for residents. Create and beautify parkettes and even small greenspace areas.
- **Repurpose and revitalize existing, unused infrastructure and spaces to serve community needs.** For example, neglected underground spaces below TCHC buildings and the abandoned swimming pool can be repurposed. Unused greenspaces in the neighbourhood can be revitalized by providing appropriate facilities, identified by residents through non-tokenistic engagement and collaboration.
- **Ensure access to climate-controlled community space for residents** to have community-led programming and necessary services all year round, due to extreme weather changes such as heatwaves and high humidity.
- **Increase social connectedness.** Provide initiatives to encourage, facilitate and cultivate a sense of belonging within the neighbourhood. There is a need for increased social connectedness in St. James Town due to its extreme diversity, safety concerns, lack of leisure time from paid work etc.
- **Develop initiatives to support respect for the environment, greenspaces and nature** within the neighbourhood. For example, community clean-up days, adequate garbage and recycling with appropriate signage.

13. Brockbank, Nicole. 'Finding a patch of green: COVID-19 highlights inequities in Toronto park space, experts say', CBC, 2020, https://www.cbc.ca/news/canada/toronto/finding-a-patch-of-green-covid-19-highlights-inequities-in-toronto-park-space-experts-say-1.5640852 (accessed 14 June 2022).

> **All this community needs (is a) little care and investment, a little support, a little respect. All this community needs is to have its human rights recognized. And we would make great use of the beautiful greenspaces around here. And we would have a much healthier, happier community.**
>
> SJT - **Julia**
> *Mixed Background, Female, 55-64 years*

Questions to consider:
Here are some thoughtful discussion questions generated by our community members. After reading the report, we invite you to reflect on the following questions:

- What parks or greenspaces in the city make you feel welcome, safe and included?
- What parks or greenspaces in the city make you feel unwelcome, unsafe and excluded?
- Where are these parks? Why do some neighborhoods get better parks than others? Why are some neighborhoods chronically underserved?
- Whose responsibility is it to ensure that equitable, safe, accessible and desirable greenspaces exist for all Toronto residents? What is the role of individual citizens, community-based organizations, municipal services, etc.?
- How might gentrification, revitalization and construction efforts change access to greenspace?
- What are the different roles that individual citizens, community-based organisations and municipal services can play in building safer neighbourhoods?
- How can neighbourhood developments and construction projects physically, socially, culturally, and economically displace residents? Why do you think these two neighbourhoods are experiencing gentrification?
- What can you do to increase access to parks and greenspaces?

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Resident photographers chose how they wanted to be identified, several of the names in the report are pseudonyms.

Sincere thanks to everyone who supported this project in various ways including Clara Stewart-Robertson, Minaz Asani-Kanji, Janet Rodriguez (she/elle/ella), Anjalee Srinivasan, Ralph Dizon, Reece Rabanal, Zoi de la Peña and Deluxson Yogarajah. This project was done in collaboration with Greenchange, Jane/Finch Centre and the St. James Town Community Co-op.

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This research project took place in two neighbourhoods in Toronto, from the Mohawk word Tkaronto. This land has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, the Huron-Wendat, and the current treaty holders, the Mississaugas of the Credit First Nation. Learn more at https://native-land.ca/.

This land is home to many Indigenous people from across Turtle Island, and we are grateful to have the opportunity to live, collaborate, play, and engage in relationship on this land. Notably, given the project's focus on greenspaces, we acknowledge the history of colonization and ongoing impacts of colonialism.

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chromacs.crevado.com

CHAPTER THREE[11]

Collaborative "Sensemaking": Picturing a Feminist, Anti-Racist, Community-Based Participatory Action Research Dissertation

Nadha Hassen[1] and Sarah Flicker[1]

[1] Faculty of Urban and Environmental Change, York University

Introduction

This chapter outlines the methodology of a dissertation focused on inequitable access to public urban greenspace during the COVID-19 pandemic. To begin, I (Nadha) briefly share *how* and *why* I came to this topic.[12] I provide a brief overview of the *Park Perceptions and Racialized Realities* project to situate this community-engaged and visual research study. Next, I chronicle seven key moments where feminist, anti-racist, and participatory analytical commitments were enacted. Throughout the chapter, I intentionally play with visual narratives to speak back to the experiences of the residents who took part in the study.

I understand starting with my own positionality as one way of upholding a feminist and decolonial practice. In the tradition of Black and Brown feminist scholars, I have long grappled with hyphenated identities and how these intersections influence my everyday realities (Ahmed 2017; hooks 1989; Lorde 2012; Piepzna-Samarasinha 2018). I am a woman of colour, a first-

[11] This manuscript has been accepted for publication as a book chapter.

[12] I drafted this chapter in the first person, because it felt like the most direct and reflexive way to write about the research process that formed the basis of my dissertation. Sarah, my supervisor, is listed as a co-author because so many of these ideas were born in conversation**.** Elsewhere, Sarah has written about her positionality as a white Jewish settler scholar doing research in solidarity with Indigenous communities (Flicker 2018). Her grandparents arrived in Canada as Holocaust survivors. While today she enjoys many of the privileges of whiteness (McIntosh 2018), she too comes from a family haunted by the horrors and violence of systemic racism. Today, she mothers racialized children. To speak back, she has spent her career devoted to studying and promoting health equity. Together, we brainstormed an outline, reviewed drafts, and refined the arguments presented. Her words and intellectual contributions remain deeply embedded throughout.

generation Sri Lankan immigrant and settler who migrated to Canada as a teenager. For most of my youth, I lived in an apartment in Abu Dhabi, in the United Arab Emirates with scarce access to outdoor space. As an adult in Toronto, Canada I have enjoyed local parks, ravines, hydro corridors, and other publicly accessible open spaces. While these public greenspaces have been sites of healing, escape, and reflection, they have also been riddled with questions of belonging. While navigating these spaces, I have had racist, misogynistic, and xenophobic slurs hurled my way. I have also experienced less overt yet hurtful instances of othering and exclusion. The personal is political: it was my own embodied experiences of inequities that lead me to this research (hooks 1989). I wanted to explore how issues of identity and intersecting social locations influence the possibilities of navigating public greenspaces. Moreover, the work felt urgent as possibilities for gathering indoors were hampered by a global pandemic.

Project Overview

Park Perceptions and Racialized Realities is a feminist, anti-racist, community-based participatory action research (CBPAR) project that explores the experiences of racialized and Black, Indigenous, and People of Colour in public greenspaces using photovoice. I undertook this research study in collaboration with community organizations in two underserved, highly racialized neighbourhoods in Toronto, Canada: Jane-Finch and St. James Town. The study examines issues of access, equity, belonging, health, and wellbeing (see also Hassen et al. 2022).

Photovoice is a group process whereby community members use photography to capture their everyday experiences, collectively examine issues, and push for positive social change (Catalani and Minkler 2010; Wang and Burris 1997). Born as a feminist practice to study women's health needs, photovoice positions community members as experts of their own lived experience. When I initially conceptualized the project in 2019, I had planned to host collective

visits to greenspaces and subsequent in-person focus group discussions. Due to COVID-19 physical distancing mandates, the study design had to be reimagined. I was inspired by photo elicitation researchers, such as Clark-IbáÑez (2004), who had used individual interview formats to debrief the meanings behind photographs because it offered a more intimate approach. Ultimately, I chose to pursue a hybrid photovoice and photo elicitation methodology that integrated the principles of photovoice (namely, anti-oppression, community co-ownership, collaboration, and action-orientation) with individual (or small group) Zoom interview formats to debrief experiences and build relationships.

From July to November 2021, 18 racialized residents[13] went on over 35 individual greenspace visits to document their experiences in neighbourhood greenspaces and collected over 200 photos and videos. During over 55 online discussions (both individual and group), residents debriefed those encounters, shared perspectives on navigating public greenspaces as people of colour, and engaged in an iterative process of collective "sensemaking." Figure 1 describes the chronology of project activities. At each stage, all residents were paid an honorarium for their time and expertise.

The term "sensemaking" was adopted through conversations with a key knowledge mobilization partner, the Department of Imaginary Affairs, a Toronto-based organization committed to imagining equitable futures. Others, like Carlson and Caretta (2023) have employed the term "sensemaking" in a photovoice project to describe a process in which "stakeholders work together to articulate deeper, richer understandings of complex scenarios" (3) and then "strategize future action" (2). I conceptualize collaborative sensemaking as an ongoing

[13] In this chapter, I refer to participants as residents, arising from a group decision to center community members' experiences.

and iterative process of meaning-making and analysis with community, across all stages of a project, that attends to contexts, complexity, and nuance.

This chapter takes the form of a methodological reflection to support other students and scholars seeking to do similar participatory research. As I engaged in this research process, I too gathered images and field notes. I use photographs, taken by myself and others in the project, as punctuated timestamps of the study's trajectory. Through these pictures, I share and critically reflect on seven key stages where *Park Perceptions & Racialized Realities* took on an explicitly feminist, anti-racist, and participatory analytic approach. As a collection, they (somewhat imperfectly) document the research journey.

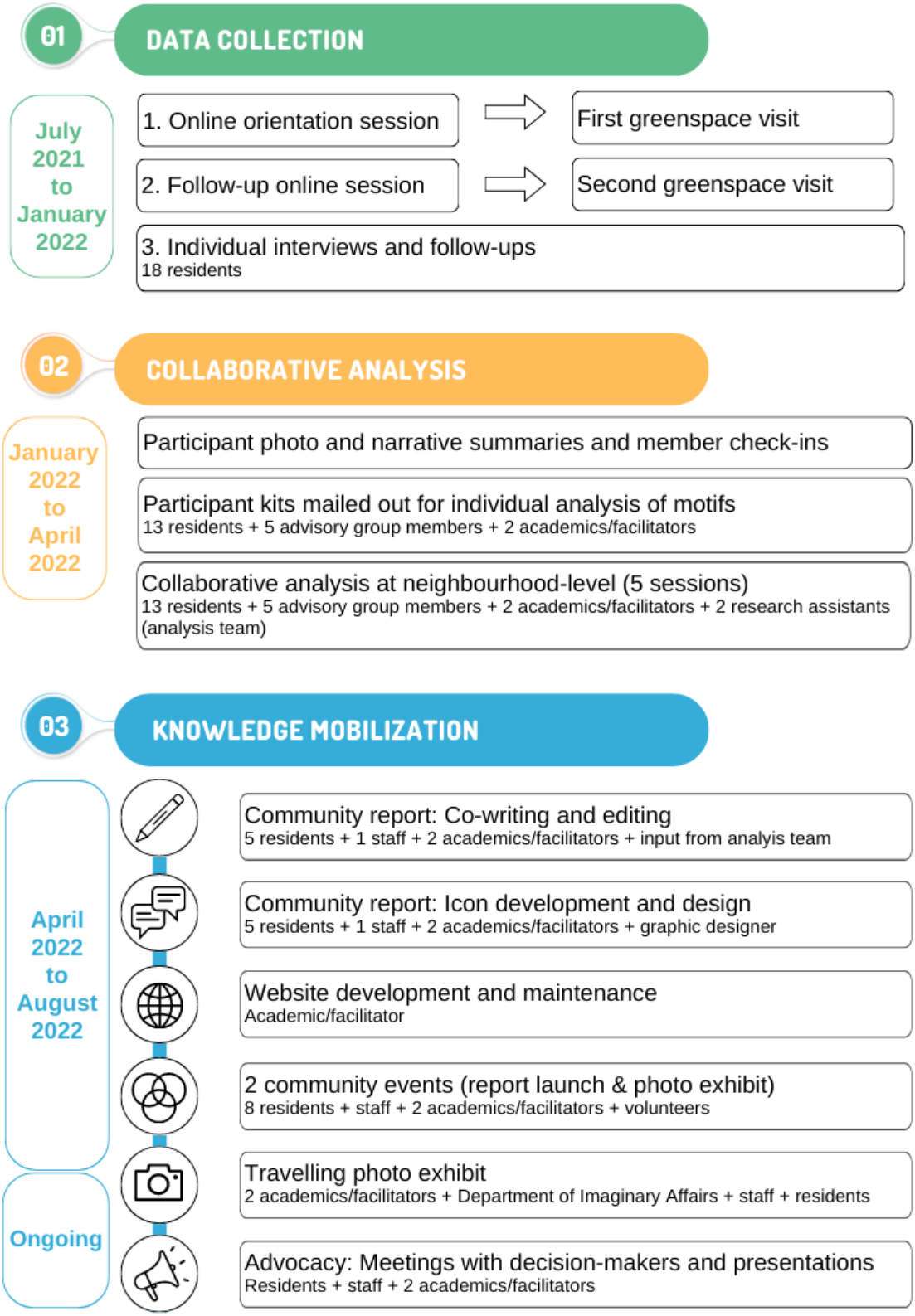

Figure 1. Project Timeline.

An Intersectional Feminist and Anti-Racist Approach

Fleming et al. (2023) outline the synergies between anti-racist principles and community-based participatory research (CBPR) noting that "the emancipatory roots that underlie CBPR draw from the epistemic traditions of oppressed communities of color and Indigenous communities across the globe that have sought to facilitate community empowerment and agency" (71). Gender, race, class, and their synergistic intersections (Crenshaw 1989) centrally influence people's experiences navigating public greenspaces. I drew on Phillips' (1997) Feminist Anti-Racist Participatory Action Research (FARPAR) framework to integrate a more nuanced understanding of how power differentials relate to racism, sexism, and classism. While CBPR is in many ways inherently feminist and anti-racist, an explicit intersectional anti-racist lens moved me to "partner with racially marginalized communities to center their priorities" (71) and collaborate with them "as experts with valuable knowledge" (72). As Fleming et al. (2023) note, one of the ongoing challenges of anti-racist CBPAR remains how to operationalize such a project within an academic system that is extractive and steeped in structural racism. Early on, I committed to three key operational principles[14]: 1) embedding the project within community infrastructure though collaboration with existing and emerging community groups and leaders; 2) attending to power dynamics, structural contextual factors, and ethics and; 3) grounding the work in an intersectional, race-first analysis that unpacks the multiplicity of residents' experiences.

[14] I also considered the principles set up by the Jane Finch Community Research Partnership to guide ethical community-academic partnerships (https://janefinchresearch.ca/).

Key Moments in a Feminist, Anti-racist CBPAR Project

Story Gathering Online: Who am I? Who are You? What Are We Doing Together?

Before I submitted my dissertation proposal, I assembled a community advisory committee comprised of members with aligned lived or work expertise. Nearly all were racialized. Membership was fluid over the course of the project to accommodate personal and professional changes. Nevertheless, the advisory committee offered invaluable guidance, especially around barriers to recruitment and participation. For example, they affirmed the importance of open-ended questions (particularly around questions of race), provided neighbourhood context, and validated my decision to provide meaningful honoraria for residents' participation.

Data collection took place during the summer of 2021, at the height of the COVID-19 pandemic, and in the wake of an intense period marked by an international push for racial justice following the murders of Breonna Taylor, George Floyd, and others. In a particularly high-profile case, a white woman called the police on Christian Cooper, a Black birdwatcher, while he was in Central Park, New York. This prompted ongoing public debate around who could safely access and navigate greenspaces (Hassen 2021).

In the midst of this social and political turmoil, I began data collection. I invited each resident to 1) attend two online training sessions; 2) go on two greenspace visits and take photographs in response to prompts; and 3) participate in an individual interview to further unpack their photographs and experiences. Residents who wished to engage further had the option to participate in a series of group discussions to analyze the photographs and plan knowledge mobilization activities.

The online orientation session included introductions, the informed consent process, a land acknowledgment, a project overview, honorarium information, training on the ethics of photography and processes involved in obtaining consent from those pictured, photography tips (considerations of light, contrast, perspective), safety considerations and guidelines, and instructions for their first greenspace visit. For the first greenspace visit, I invited residents to take and send me three to five photographs about what they saw and how they felt on their visits and to record short explanatory audio and/or video clips. Greenspace visits integrated embodied ways of knowing, as described by Springgay and Truman (2018), with the recognition that bodies do not move through or occupy spaces equally. As I could not be physically present with residents, I also took solo trips to greenspaces in each neighbourhood, took photographs, and reflected critically on these experiences. I noted my discomforts and what sparked moments of joy and calm. This exercise offered a reference point and sense of connection to the resident photographers (Pink 2008).

The second online session focused on debriefing experiences from the first greenspace visit, briefly discussing their photographs, providing a deeper understanding of photovoice and the possibilities from this project (including sharing a short video), discussing photography as metaphor and sharing the next set of prompts. For the second greenspace visit, I invited residents to photograph and think about what is safe/unsafe, inclusive/non-inclusive, welcoming/unwelcoming, healthy/unhealthy. The sessions took approximately 30-45 minutes each. Some went longer. I coordinated a few group sessions with two to three residents, but scheduling proved challenging during the height of the COVID-19 pandemic. This affirmed my decision to debrief the greenspace visits through individual interviews rather than try to hold a series of focus groups with all residents. Furthermore, I intentionally made space to build a

foundation of rapport and trust, and to embed a feminist ethic of care (Hankivsky 2014). I grounded this research in the ethos of co-creation – coming together to make sense of complicated experiences that spanned pain and joy. I offered parts of my story. This reciprocity opened a caring space. We often spoke beyond the allocated time, discussing everything from our families and housing, to our careers and educational aspirations, health concerns, and other life transitions. It was important to take the time to build relationships and bring our whole selves to the table, grounding this as a feminist process.

Individual interviews began with residents describing their most memorable photograph and then meandering through their entire photo collection. Our dialogues became a process of co-constructing meaning. It was the first step in our collaborative participatory data analysis process marked by "joint theorizing" (Glaw et al. 2017, 7). To visually ground our discussions, I screenshared each photograph as they described it. All conversations were audio and video recorded on Zoom. The interview guide loosely followed Wang and Burris' (1997) SHOWeD process by inviting residents to elaborate on their visual submissions and share relevant stories. The goal was for residents to lead the analysis of their lived experiences, realities, and social worlds.

Photograph and Story Check-Ins: Did I Capture This Accurately? Tell Me More, Please.

Participatory data analysis or collaborative "sensemaking" continued iteratively over several months. The next step entailed summarizing and collating verbal narratives and images. Drawing from the interviews, I used residents' own words, phrases, and titles to create short captions and consolidated them into personal slide decks for review (see sample slide in Figure 2). Video submissions were flattened into screenshots. I encouraged residents to carefully review their deck and double-check the accuracy of: a) the name ascribed (pseudonym, first name or full

name); b) photograph titles; c) locations; d) key quotes; e) relevant context; and f) demographic information (e.g., racial identity, gender identity, age).

Typically, participatory data analysis would take place in-person. Ideally, we would have physically gathered with celebratory refreshments. Unfortunately, due to continued pandemic concerns that limited in-person gathering possibilities, we had to find another way.

Figure 2. Creating photo and narrative summaries.

Participant Kits: Bridging Distance with Care

Photographs can be challenging to analyze because of the overwhelming amount of complex data that needs to be sorted and synthesized (Catalani and Minkler 2010). Drawing on Wang and Burris (1997), we developed a participatory analysis process that included selecting, contextualizing, and codifying photographs.

To facilitate virtual collaborative analysis, the entire collection of photographs and related stories (over 200 in total) were printed and mailed to each member of the analysis team. The analysis team included me and Sarah, 13 community residents, four advisory group members, and two research assistants (see Figure 1). Each team member was tasked with individually

reviewing the entire collection, grouping them by themes, and sharing their theme titles before we met so that we could compare and contrast what we saw in the collection.

Mailed packages included written instructions on how to engage in this individual sorting and categorizing exercise. I recorded a video with screensharing to outline this process, with an example from another CBPAR project (Switzer et al. 2017). Everyone was invited to identify motifs or "key themes" from the photograph collection and submit their initial musings.

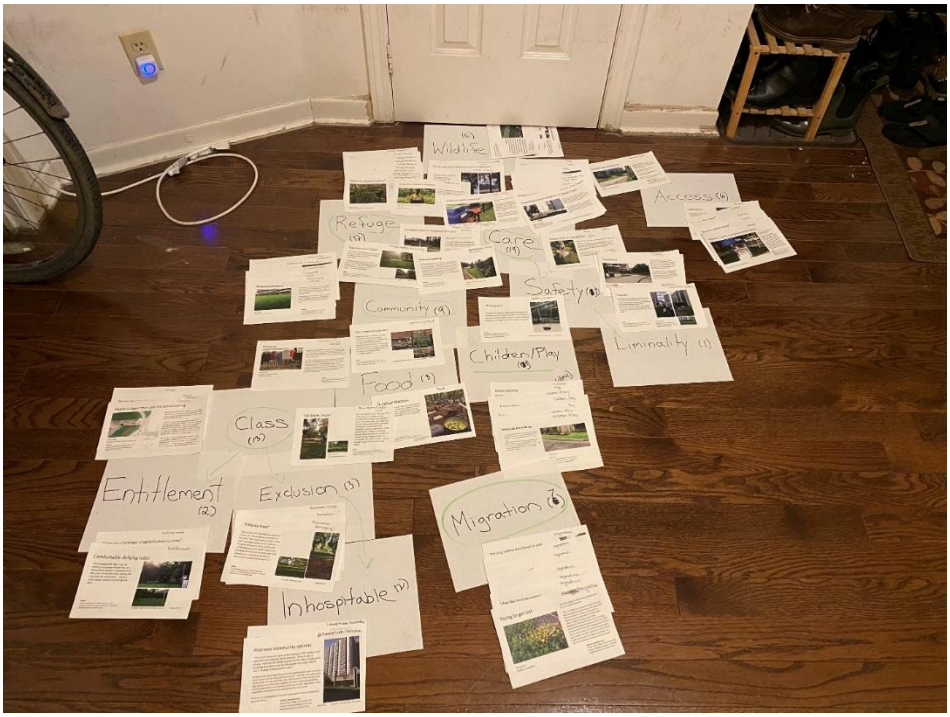

Figure 3. Identifying motifs at home. Photograph provided by Zoi de la Peña.

We re-purposed our refreshment budget to provide everyone a $25 gift card to purchase and enjoy their own snacks during our virtual meeting. While there is little that can replace the relationship-building and camaraderie of sharing food in person, this was nevertheless an important act of care. I also included some tea packages from my mother's small business in each participant kit. Bridging distance in digital spaces can take greater effort and creativity. Often lost on Zoom are moments of personal interaction before, during, and after an in-person

gathering. Instead, I made myself available to answer questions and checked in individually with everyone with task reminders and offers of support. Residents commented positively on these moments of care and personalization.

Collaborative Analysis: Making Sense of It All Together

I aggregated the motifs submitted by each resident on two Google Jamboards, a collaborative digital whiteboard (see Figure 4). I displayed one sticky note per idea for each neighbourhood. Next, I scheduled a series of synchronous Zoom discussions to consolidate and identify the most salient themes through consensus dialogue.

To maintain the place-based analysis, we structured these sessions as separate, parallel processes in each neighbourhood. These sessions were intended to promote critical dialogue and hear resident perspectives on what was most important to them (Wang and Burris 1997). Our main task was to review, compare, and contrast all the suggested submitted themes on the sticky notes and come to a consensus on a shared final list.

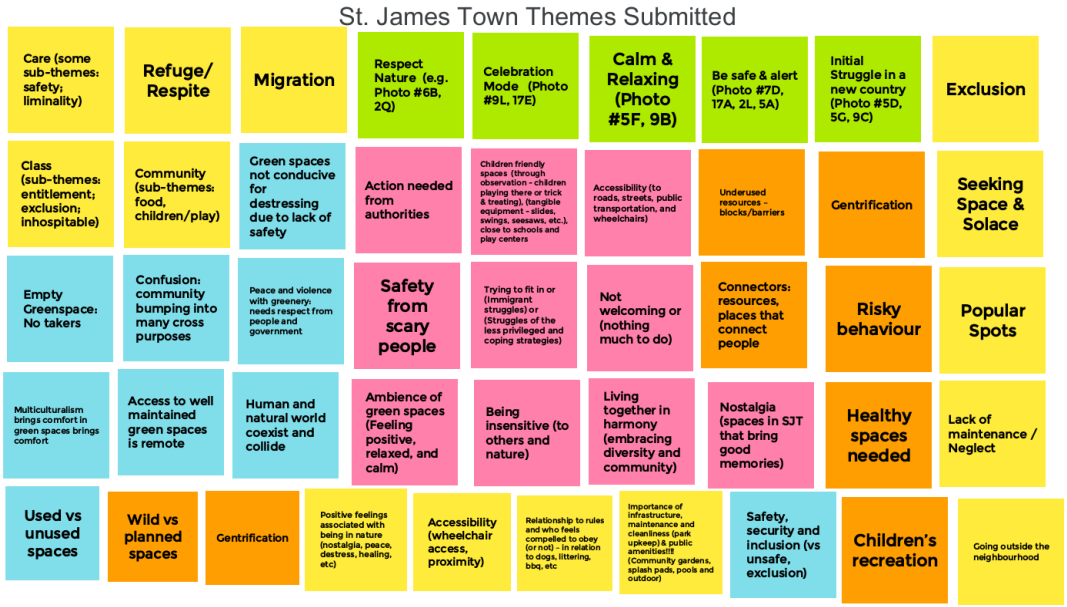

Figure 4. St. James Town Analysis – Before categorizing.

Figure 5. Jane-Finch Analysis – After categorizing and dialogue.

For many, our collaborative sensemaking sessions marked the first time that residents met each other, the advisory members, and Sarah. We began with introductions. As an icebreaker, I asked everyone to identify one of their favourite photos and explain why. This became an entry point for discussing neighbourhood greenspaces. Patterns began to emerge immediately: residents highlighted some of the same photos repeatedly.

There is substantial skill required to facilitate online sessions from a feminist participatory framework that pays attention to issues of power dynamics, insider-outsider tensions, and group dynamics. For instance, some residents were hesitant to speak. Offering the Zoom chat alternative for engagement allowed these residents to message me privately and participate in written form throughout the sessions. The Google Jamboard has a function that also allowed folks to participate in non-verbal ways through moving sticky notes around and adding comments in real time.

Once we collectively consolidated themes, I divided residents into small group breakouts. Each group was assigned two themes and tasked with (1) developing a working definition for each theme, and (2) identifying some photos that they felt fit into this theme. Each breakout group had me, Sarah, or a member from the advisory group to help facilitate the conversation and take notes. The small breakout groups were intended to facilitate greater participation. I intentionally worked with a resident who had been silent in the big group. Privately, she apologetically asked what gentrification meant. It was an important reminder for me to define terms, especially jargon, as part of our commitment to transformative community engagement as described by Fursova et al. (2022). It was also a valuable reminder of the importance of creating smaller and more intimate spaces for frank discussions where people might feel less embarrassed to ask questions.

After this round of collaborative sensemaking sessions, I consolidated the themes, working definitions, and accompanying photographs, ensuring that every photograph was assigned to at least one theme. I brought these documents back to the groups for discussion and reflection, with the key questions: “Does this capture our conversations? What is missing?” I extended an open invitation to all analysis team members to continue their engagement by joining one of two new working groups that would take this work forward: a community report writing group and an event planning group.

Collaborative Writing: Co-Writing Challenges, Ownership, and Finding a Collective Voice

The community report writing group was tasked with producing a highly visual, colourful, and engaging document to share our findings back with residents, the broader neighbourhood community, advocates, and policymakers. Five residents came forward. Through a series of recorded online meetings, we created an outline, divvied up writing tasks, and

brainstormed key points for inclusion. To guide this collaborative process, I drew insights from Flicker and Nixon (2016) on writing with community partners, such as clarifying the message and the audience, developing an outline as a form of engagement and strategizing draft generation and revision.

At the first meeting, residents from both neighbourhoods came together to discuss the work completed to date by the two neighbourhood analysis teams. The meeting prompted discussions of the similarities and differences between both neighbourhoods. Residents from St. James Town emphasized the severe dearth of available greenspace, while Jane-Finch residents noted issues of access. Both identified inequities in the maintenance of neighbourhood greenspaces. I also shared publicly available statistics related to greenspace cover, population density, and neighbourhood demographics to contextualize the neighbourhood comparisons.

A lot of thought and conversation with residents went into whether to have one community report that included findings from both neighbourhoods, or to produce two separate reports. Ultimately, given capacity and resources, and in the interests of creating a stronger product that could serve to highlight the similarity between neighbourhoods, Sarah and I suggested writing one community report that would include neighbourhood-specific recommendations. We proceeded after getting buy-in from the writing group. Ultimately, this was an exercise in solidarity-building. The consolidated report proved to be a stronger output of the collaborative analysis process.

Finally, the group identified eight overarching themes. To facilitate co-writing, everyone identified themes that they would like to draft. I invited each person to write a short paragraph on their selected theme that considered the key messages and to identify about five photographs

they would like included in the report. I encouraged residents to represent a range of experiences, diverse demographics, and locations.

One of the challenges in co-writing is creating a unified voice. Indeed, residents wrote in a range of different lengths, styles, and tones. Finding a unified voice was one of the most significant obstacles to editing the report. I did some preliminary editing to bring each co-writer's paragraph and identified photographs together. I ensured that every resident photographer had at least one photo and/or quote included in the report. Having the advantage of a fresh pair of eyes, Sarah further edited the report, ensuring the writing was staying close to the data and reflecting on what the photographs and stories represented. A tension of the collaborative sensemaking process was that the residents (understandably) wrote about their broader experiences that were not always explicitly grounded within the data captured for this study. Recognizing their interpretations as valid ongoing analysis, Sarah and I attempted to straddle conveying clear research findings that could be supported by the data, while making space for emerging community knowledge. The group had mixed reactions to our edited version. While some agreed that the edited report was stronger, others felt that their writing had been modified too much and were uneasy with the new version. In reflecting on the process, Sarah identified how with a photovoice project you would usually meet in-person several times, but because of this missing step, she reflected that "we didn't have that social capital built up and I was read as a heavy-handed outsider."

We reiterated our commitment to producing a report that everyone on the team had ownership over and our shared intention to create a strong report. Through discussion with the writing group, we identified some tangible steps to move forward: 1) reframing from a passive voice (i.e.,"residents described") to an active "we" voice; 2) explicitly stating in the introduction

that the report was co-written by a group of community residents; 3) naming the systemic challenges and barriers residents faced; 4) changing the language from “participants” to “resident photographers” to move away from traditional research-focused language that further entrenches power dynamics; and 5) editing out jargon for accessible public dissemination. We shared these five changes with the writing group and sought every member’s opinion and agreement before we moved forward. This process of securing collective buy-in was a vital step in attending to and centering the voices of racialized residents whose concerns are often ignored or quelled by racist structures, both within research and in everyday interactions.

In finalizing the community report, several decision-points and processes embodied an intersectional feminist perspective by a) ensuring clear writing processes and non-hierarchical authorship on the report cover; b) saving all report versions so we did not lose anyone’s original writing or ideas and could also backtrack if needed; c) having clear check-ins points; and d) demonstrating accountability to the community’s voices and stories. Before finalizing the report for graphic design, a penultimate draft was shared with everyone on the larger analysis team for their feedback and approval. Everyone who contributed in some way over the length of the project was contacted to determine how they would like to be acknowledged. Both a digital and physical copy of the report was shared with everyone who participated, along with a handwritten thank you note.

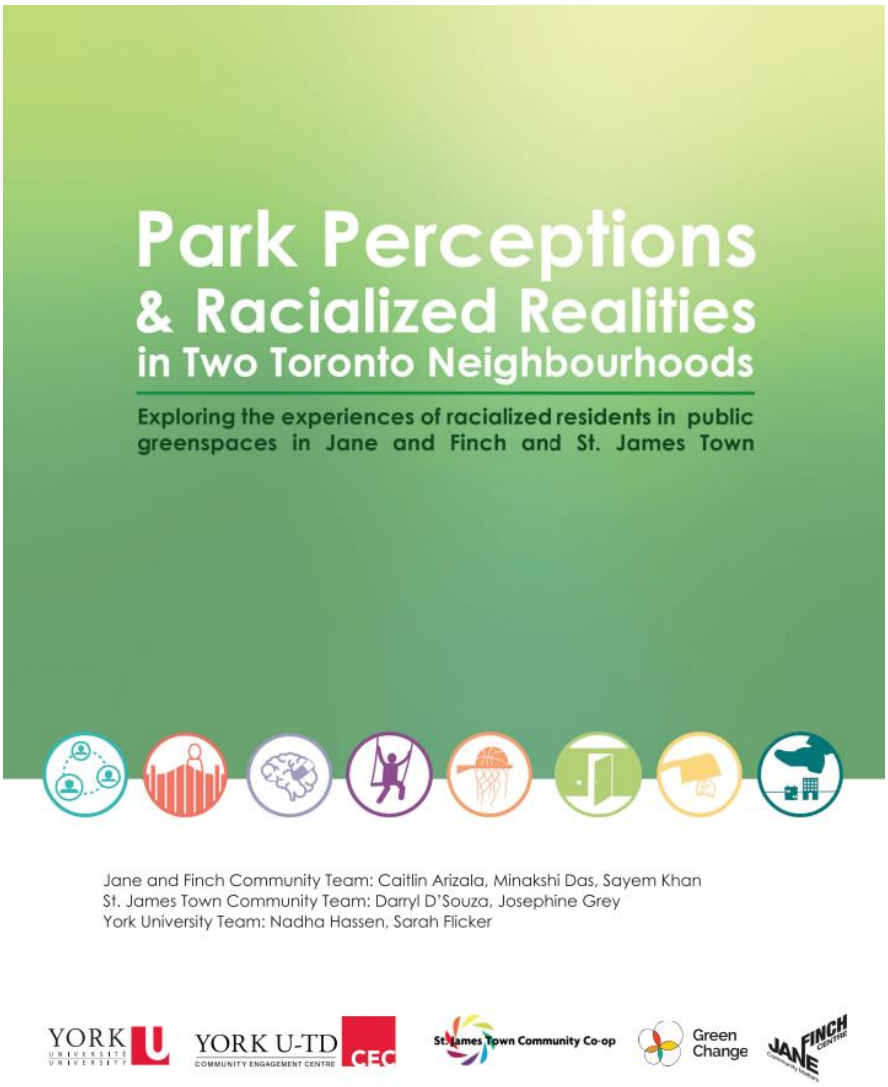

Figure 6. The community report.

Analysis Through Design: Co-Creating Icons

Parallel to the writing process was the design of the community report. After sourcing quotes from graphic designers through our networks, we decided to hire a racialized student who was interested in the subject material. One of the tasks for the graphic designer was to work iteratively and collaboratively with our writing group to develop icons for each theme to be used

in the report and photo exhibits. Drawing on Switzer and Flicker's work (2021), icon conceptualization supported our collective thematic theorizing.

For example, the initial proposed icon for the theme "access and accessibility" was a wheelchair. While physical accessibility was important, the group felt that the wheelchair icon did not represent the essence or entirety of the theme. Through collaborative discussions, the final design depicted a door that was slightly ajar, emblematic of how some spaces may be closed to some and open to others. Conceptualizing the icon for "exclusion" was the most challenging. The graphic designer presented us with several options. The first used barbed wire to depict exclusion, but for some residents, this was read as invoking prisons. A second option was a golf course; this metaphor riffed on a resident's narrative who shared how a golf course near their home was an exclusionary greenspace that stoked class divides. However, several felt that the symbol was not widely legible. After a few more iterations, we agreed on the icon of a person behind a fence. Coming to consensus over the final icons helped our team not only develop a visual brand, but also helped us crystallize our collective interpretations of the data. By engaging in these conversations, the writing group was forced to expand on our interpretations of what each theme represented, pushing our analysis further to uncover deeper meanings.

Figure 7. Final theme icons.

Events and Photo Exhibits: Amplification Through Partnerships, Centering Community Voices and Lessons Learned

The photo exhibit planning group curated a travelling photography exhibit and hosted two community launch events. Given the hyperlocal nature of these events organized in collaboration with community organizations and stakeholders, the event planning process was divided into two parallel processes, one for each neighbourhood.

Our collaboration with the Jane/Finch Centre[15] gave us access to a placemaking initiative called Corner Commons, which transforms a parking lot corner into a community space over the summer. Corner Commons gave us a central venue to host the event. This event planning group included two residents who designed the flyer, helped select photographs to showcase, and

[15] https://www.janefinchcentre.org/

photographed the event. There were challenges with bringing this group together synchronously because of work and school schedules. Asynchronous planning meant that I had to do a lot of coordinating to keep up momentum. In the other neighbourhood, two residents supported the event planning process and we collaborated with the St. James Town Community Co-operative.[16] One of the residents runs her own community organization, Auntie Amal Community Centre,[17] which provided catering and volunteers for the event.

A contributing factor to the success of the community events came from collaborating with community organizations, which made the process significantly easier to organize. The organizations were well established and shared resources like tents, tables, and sound systems. Without this in-kind support, our limited funding budget would have been stretched even more thinly. The community organizations' knowledge about the neighbourhoods and the best set-up for the outdoor events and exhibits was invaluable. For example, in St. James Town, the residents had the idea of using two outdoor shipping containers to display the photographs. As several residents had also photographed and described this greenspace in the project, it seemed like the perfect location for display. Several residents and volunteers from the neighbourhood came together to assemble and dismantle this exhibit.

[16] https://stjamestowncoop.org/
[17] https://auntieamalccorg.wordpress.com/

Figure 8. Photo exhibit on shipping containers in St. James Town. (Author photograph)

By this time in the project, a sense of fatigue with Zoom, email, and WhatsApp had settled in for me and for the residents. In-person meetings would have alleviated some of this difficulty, but the pandemic seemed unrelenting. I also faced limitations with my own health. Ultimately, I ended up taking the lead and I developed a modular exhibit prototype to share with the entire team for feedback. I designed the prototype to be interactive and adaptable to multiple uses, budgets, and locations. The process involved a "delicate balance of the researcher's personal creative expression, discretion, and attendance to the voices they are representing" (Capous-Desyllas and Bromfield 2018, 2). The curation process rested largely in my hands, and I felt uneasy deciding what was represented. I revisited all the photographs multiple times, considering who I might have missed, what fair representation looked like, and which

photographs and narratives would convey the most salient findings. For example, I decided to forego a more visually striking photograph in favour of including all residents.

I would have preferred to develop the exhibit in a more participatory fashion with residents. Others have noted this tension: "Should we strive for full participation at each stage of a photovoice project?" (Wang et al. 1998, 85). Unfortunately, aspirational expectations are not always feasible. I made it clear to residents that their participation was voluntary, and that, depending on their capacity, residents could move in and out of the project. Feminist and anti-racist CBPAR is not about demanding participation at each research stage, but rather keeping the door open, providing invitations that do not require an affirmative response, and ensuring that residents know that they can rejoin at any time (van der Meulen 2011). Upon further reflection, my desire for engagement was in part a wish for more support. The task of coordinating several moving pieces was at times overwhelming. This feeling was exacerbated by doing everything online with limited to no in-person interactions. However, by doing a CBPAR dissertation and engaging with community advisory members and residents, I had access to different types of support compared to other doctoral students.

Furthermore, many of the residents faced structural barriers related to racism, migration, and economic inequities. The event planning teams were entirely racialized and female. Considering the politics of labour, which often falls unevenly on racialized women, I was mindful of not over asking. Compensation was limited by budgetary constraints. I had to make space to pause and grapple with the underlying reasons behind complicated feelings, bringing a critical feminist and anti-racist lens to the *process*. Continuous reflexivity on my role as researcher, the negotiation of power dynamics, a commitment to feminist and anti-racist

principles, and the nuances that these processes entail demanded significant emotional labour that is not often accounted for, or valued, within traditional dissertations.

My commitment to moving the project forward, to respect the residents, their pictures and stories, pushed me to keep momentum. I intentionally focused on community action and knowledge mobilization. And yet, I was battling an underlying feeling of misplaced energy and attention. As a doctoral student, this commitment to community action was, at times, a lonely activity. Because of the ever-present pressures of academia, I had to remind myself why I was committing months of my doctoral program to community and knowledge mobilization. Consequently, I was consistently unsuccessful at carving out dedicated time to engage in dissertation writing activities; more immediate community-related activities seemed to always supersede these protected blocks. Fleming et al. (2023) describe the structural barriers of doing this type of anti-racist CBPAR work within academic institutions that operate within historically oppressive systems. Academia undervalues the forms of dissemination I was engaging in compared to academic publications, often misunderstanding anti-racist CBPAR as "too slow, underfunded, perceived as service or not perceived as rigorous science" (73). Fleming and colleagues also note significant structural barriers that first-generation, racially marginalized scholars and community partners face in receiving large-scale funding. Therefore, a commitment to CBPAR within this context *is* a feminist and antiracist praxis. As the first person in my family to get a PhD, I had a hard time explaining my decisions to my immediate circle. When describing the knowledge mobilization activities to a loved one, I was asked the sincere question, "Are you saying that you don't *need* to do all this to get your PhD?" The short answer was yes. The longer response was that this effort is a crucial part of the CBPAR epistemology that questions why and

how research is conducted. And while I didn't *need* to do CBPAR, given my research aims and values, it was never really an option not to do it.

Figure 9. Outdoor photo exhibit at Corner Commons, Jane-Finch. Photograph provided by Isatu Barrie.

Figure 10. Outdoor photo exhibit at St. James Town. Photograph provided by Ravi Ponnudurai.

The neighbourhood community events took place in August 2022. A media release announced the launch. We received significant media coverage as part of our media advocacy strategy to amplify community voices (Israel et al. 2010). Four residents spoke to the media and were featured on radio, television, and in print. Residents spoke to public audiences about our research findings, signaling their pride and co-ownership of the project. The events were successful venues for elevating community voices, receiving positive public feedback.

Figure 11. Travelling photo exhibit. In collaboration with the Department of Imaginary Affairs[18] as part of the "What If Parks Were Safe for Everyone" Installation. (Author photograph)

As Liebenberg (2022) notes, the implementation of photovoice often falls short in the data analysis process and the intentional use of dissemination activities. Through conversations with residents and the advisory group, I compiled a list of knowledge users we wanted to target and complementary knowledge mobilization activities, to push for action and strategically share our findings. Fine and Torre (2019) note the multiple accountabilities inherent in this work. I too

[18] https://dia.space

conceptualized knowledge mobilization in terms of accountability on multiple levels (individual, interpersonal, community, policy) and with multiple audiences.

Even after analysis and knowledge mobilization activities conclude, accountability to community stories and transparency with residents is key. The capital that I might gain from academic publications may or may not be valuable in the same way to community residents. CBPAR involves a commitment to non-extractive research, that is in reciprocal relationship with communities. Non-extractive research includes developing long-term partnerships, legacy planning, and thinking about what comes next. Even in writing this chapter, I was torn about whether this should be a collaborative effort and/or whether I should invite community residents to be co-authors in the process. Sarah and I discussed the different options for how this chapter could be written collaboratively, in a non-tokenistic way. I grappled with the need to finish writing my dissertation in a timely manner with facilitating a process for meaningful co-authorship with residents. In this case, logistics, individual constraints, and the fact that the chapter is a reflection on the dissertation process resulted in the decision for me to write it, with Sarah's input, while acknowledging the important contributions of residents throughout.[19]

Conclusion

There are multiple institutional and structural barriers to facilitating feminist and anti-racist CBPAR in academia, particularly within a doctoral program. The methodology of feminist and anti-racist CBPAR requires continuous reflexivity as well as a reciprocal engagement with racialized communities, an investment in collaborative "sensemaking" and co-creation, a recognition of often unseen labour, and a commitment to adaptability and accountability. It is because of these underlying tenets that Fleming et al. (2023) describe CBPAR as a key driver in

[19] Other chapters of the dissertation have been co-authored.

shifting institutional policies and encouraging anti-oppressive research that pushes for justice and equity.

My intention with this research was to facilitate a collaborative project that community residents and organizations could all lay claim to, resulting in more than just my dissertation. Community residents showed up and kept showing up over the long haul. Residents spoke to the media and advocated for equitable greenspaces in racialized and underserved neighbourhoods. Residents co-authored the report and spoke at the community events in front of their neighbours. I intentionally designed the project, from the conception to conclusion, as rooted in anti-racist and feminist principles. Given the length of the project, residents' nearly continuous participation was another marker of how the project successfully embodied feminist, anti-racist, and participatory principles.

Our focus on the collective process that took place online provides insight into the challenges and opportunities for fostering an inclusive, collaborative "sensemaking" process. By keeping in mind Liebenberg's (2022, 272) critique that "voice in photovoice is not a given," we intentionally fostered a process that centered racialized residents' voices. Our critical discussions and engagement resulted in community-owned products and exhibits that continue to push for material change. Neither the discussions nor the outputs would have been attainable without listening to residents, respecting their perspectives, creating space for dialogue, and amplifying their role as co-creators and co-designers of knowledge, action, and change.

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CHAPTER FOUR[20]

Wellbeing, equity, and greenspaces: A photovoice study visibilizing inequities for racialized residents in Toronto, Canada

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Abstract

Background: The tendency to romanticize nature, without considering issues of equity, presumes that all people experience greenspaces in the same way and that urban greenspaces have universal, positive impacts. This propensity may inadvertently reify social, environmental and health inequities and uphold systemic barriers to wellbeing. The aim of this study was to explore the experiences of racialized people in public, urban greenspaces in Toronto, Canada.

Methods: This qualitative, community-based participatory action research project took place in two Toronto neighbourhoods. Eighteen racialized participants took part in a photovoice project adapted to the online context. Participants went on individual greenspace visits to take photographs and videos in response to prompts and participated in semi-structured reflective

[20] This manuscript will be submitted to a public health journal.

interviews. Over 200 photographs and videos were taken. Each participant completed a greenspace visit form after each visit. A collaborative analysis process was facilitated with participants to inductively identify key domains and themes from the data, followed by a more in-depth thematic interview analysis by the lead author.

Results: We found that greenspaces influenced three key dimensions of wellbeing: 1) mental, 2) physical, and 3) social. We break down these three dimensions of wellbeing into nine key domains to posit an aspirational framework. Social and structural barriers to promoting wellbeing through greenspaces were also identified.

Discussion: Participants described how essential public urban greenspaces were to their mental, physical, and social wellbeing and yet experienced numerous barriers that hindered their experiences. The framework, embedded within the social, structural, and ecological/ environmental determinants of health is a critical contribution to the larger conversations in public health around social and health equity and addressing systems of oppression. Equity-oriented action and a comprehensive public health approach to greenspaces must attend to broader issues of power, marginalization, social justice, and intersectional experiences.

Background

The growing interest in urban greenspaces as a pathway to health and wellbeing is often oversimplified. Although urban greenspaces like parks, woodlots, green corridors, and ravines can promote physical and mental health and wellbeing (Gascon et al. 2015), and proffer environmental and ecological benefits, there is a limited understanding of how different groups navigate and use these public resources. Due to social factors, a person's multiple identities such as race, socioeconomic status and gender may influence how they interact with the physical

environment (Lipsitz 2007). While there are ongoing global efforts and interventions to promote nature exposure and interactions, including nature prescriptions, the current urban greening and nature therapy movements tend to romanticize nature (Anguelovski and Corbera 2023). Underlying this trend is the assumption that all natural environments and greenspaces are universally good and (physically and socially) accessible for everyone. The tendency to romanticize nature, without considering issues of equity, presumes that all people experience greenspaces in the same way and that they have universal, positive impacts. There is a lack of research understanding the experiences of people who are racialized in accessing and using greenspaces. The process of racialization results in Black, Indigenous and People of Colour experiencing race as a facet of their identity that influences their experiences. Racialization occurs in various ways and intersects with other identities that result in exclusionary experiences, for instance in someone who may be white-passing but is identified by their religion (e.g., wearing a hijab or turban).

Equity is a critical consideration in urban greenspace design and planning given the substantial evidence that greenspace can promote health and wellbeing (Gaskins and Pertillar 2021). Kaplan and Kaplan's (1989) Attention Restoration Theory posited that being in nature could alleviate mental fatigue, improve concentration, and reduce stress. Epidemiological studies have since explored the relationship between urban greenspace and health outcomes. Systematic reviews have outlined how exposure to greenspace influence health outcomes and found a range of associated benefits including decreased risk of preterm birth, type II diabetes, all-cause mortality, cardiovascular mortality, and increased good self-reported health (Twohig-Bennett and Jones 2018; Nguyen et al. 2021). Furthermore, reduced symptoms of stress, depression, and/or anxiety were found to be associated with proximity/physical access to greenspace (Ward

Thompson et al. 2016), quantity of greenspace (Beyer et al. 2014), quality of greenspace (van den Berg et al. 2015), and time exposure (van den Berg et al. 2016).

In 2020, the outrage surrounding the murder of George Floyd and Black people in Toronto collided with COVID-19 pandemic restrictions. Suddenly, Torontonians experienced a collective: 1) reckoning of the loss of racialized lives, especially for Black and Indigenous people, and the collective calls for action on racial justice, 2) rise of health and wellbeing concerns, and 3) increased desire to access greenspaces. This study explores this urgent convergence, exacerbated by the pandemic, to unpack the experiences of racialized people in urban greenspaces and the impact on wellbeing.

Early in the pandemic, park use did not increase uniformly. In a Canadian survey, those who identified as Black, Indigenous or a Person of Colour reported visiting parks less than white Canadians (Park People 2021). In many cities, including Toronto, there are inequities in the built and natural environments between lower-income, predominantly racialized neighbourhoods and higher-income, predominantly white neighbourhoods (Browning and Rigolon 2018; Hassen 2021; Jennings and Johnson Gaither 2015). Systemic health disparities are driven by underlying social and structural determinants of health. The social determinants of health (SDOH) are the social factors that influence people's health such as income, education, or employment. Experiences of racism and historical trauma related to racial identity are important for groups such as Indigenous Peoples, LGBTQ2S+ groups and Black communities (Public Health Agency of Canada 2001). The importance of urban greening as a strategy to address complex issues like health disparities is recognized by the United Nations Sustainable Development Goal (SDG) 11 target 7, which states, "by 2030, providing universal access to safe, inclusive and accessible,

green and public spaces, in particular for women and children, older persons and persons with disabilities" (United Nations 2015).

Flores, Laurent, and Ruger (2020) write "in a world without equity, well-being is impossible" (3). There is still a limited understanding of all the pathways to wellbeing through greenspaces, especially with an equity lens (Hunter et al. 2019; Stewart 2020). However, this area of study encapsulates a variety of factors that span the individual-level, community and neighbourhood-levels, and structural levels, several of which are taken up in this paper in various ways. This paper focuses expressly on mental wellbeing, physical wellbeing, and social wellbeing as three dimensions that are promoted by urban greenspaces, while centering the experiences of racialized residents.

Methods

Study Design

The research took a community-based participatory action research (CBPAR) approach embedded in feminist and anti-racist principles grounded in community needs and actions (Israel et al. 1998). The study focused on two Toronto neighbourhoods: St. James Town (in collaboration with the St. James Town Community Co-op) and Jane-Finch (in collaboration with Green Change at the Jane/Finch Centre). Both the St. James Town and Jane-Finch[21] neighbourhoods are densely populated and host many public housing projects. Over 65% of the population identify as visible minorities, over 50% are immigrants and the median annual household income is less than $51,000 (City of Toronto 2018; 2022). Despite these similarities,

[21] For this study, Jane-Finch includes two official City of Toronto neighbourhoods, Black Creek and Glenfield-Jane Heights. For many reasons, Jane-Finch residents have a social identity attached to the name "Jane-Finch" that do not overlay exactly with the official neighbourhood boundaries.

there are also important differences; St. James Town is situated in the centre of Toronto whereas Jane-Finch is in the northwest. Consequently, St. James Town has a low quantity of greenspace whereas Jane-Finch has a high quantity of greenspace, including parks and ravines. This geographical difference alongside historical patterns of immigration, municipal resource allocation, marginalization and stigmatization results in unique issues of access to greenspace between the neighbourhoods. Both neighbourhoods were considered COVID-19 hotspots.

A community research advisory group (comprised of members from community organizations with aligned live or work expertise) was convened to ensure meaningful input in key project areas including research design, data collection, analysis, knowledge translation and dissemination.

Recruitment and study sample

Participants were recruited through purposeful and snowball sampling. Participants needed to be over 18 years of age, self-identify as a person of colour or a person who is racialized, reside in the Greater Toronto Area for at least one year and live in or close to one of the selected Toronto neighbourhoods (i.e., St. James Town or Jane-Finch). A flyer tailored to each neighbourhood was shared with the advisory group for circulation within their networks and through listservs, and online through social media. Physical flyers were also distributed. Eighteen residents who identified as racialized participated in the study, with ten from Jane-Finch and eight from St. James Town. One participant had connections to both neighbourhoods.

Three participants (17%) identified as Black, three (17%) as Middle Eastern, seven (39%) as South Asian, two (11%) as Southeast Asian, two (11%) as Indo-Caribbean and one (6%) as mixed race. There were 13 women (72%) and five men (28%) (no one identified as non-binary/gender fluid). Three participants (17%) were between 18 and 24 years of age, seven

(39%) were 25-34 years, three (17%) were 35-44 years, four (22%) were 45-54 years and one participant (6%) was 55-64 years. Participants identified with a range of religions, spiritual practices and as Agnostic. Participants were highly educated (94% had or were pursuing some graduate, university, or professional education), but only 28% were employed full-time. 44% had lived in Canada for under 10 years. While most preferred not to disclose income, 39% reported an annual household income of under $70,000. 78% of participants were living in an apartment. Participant demographics are detailed further in the supplementary material.

Data Collection

Photovoice is a participatory visual research methodology that supports participants to use photography to capture their everyday realities and examine social issues to push for positive social change (Wang and Burris 1997). Data collection involved two phases: 1) greenspace photovoice visits and 2) follow-up semi-structured individual interviews. Given the COVID-19 pandemic, data collection was adapted to asynchronous greenspace visits and online interviews to account for safety, flexibility and to minimize barriers to participation. Methods for this study are described in depth elsewhere (Hassen and Flicker Forthcoming).

The traditional photovoice process was adapted and condensed to account for the move to online methods. Each participant was invited to 1) attend two online sessions to receive training and instructions; 2) go on two greenspace visits (to a location of their choice) in their neighbourhood and take photographs in response to prompts ($25 per greenspace visit); 3) participate in an individual interview ($25 per interview). All online sessions were held on Zoom and were recorded with consent. The first session included the informed consent process, an Indigenous land acknowledgment, project overview, honorarium information, photography ethics and tips, safety guidelines, and the prompts for the first greenspace visit. Participants were

asked to take and submit: 3-5 photographs about what they see and how they feel on their visits and record short explanatory audio and/or video clips or text descriptions. The second session (about a week later) debriefed the first greenspace visit, focused on photography as metaphor and shared the next set of prompts. For the second greenspace visit, participants photographed in response to what is safe/unsafe, inclusive/non-inclusive, welcoming/unwelcoming, healthy/unhealthy. Each online session took approximately 30-45 minutes. For each greenspace visit, participants completed a short form on the greenspace they visited, date, approximate time, how far it is from their primary residence and mode of transportation to get there. In addition, all participants completed a demographic survey and survey on high-level greenspace use, including questions on frequency of greenspace use in the last two weeks and main purposes for visiting outdoor greenspace.

The individual interviews took place on Zoom because of pandemic protocols and lasted from 45-130 mins. The semi-structured interview guide roughly followed a SHOWed format (Wang and Burris 1997). Fifteen participants were asked for short 20-minute follow-up interviews to clarify any outstanding issues and probe specifically into two questions, one question particularly relevant to this paper "What are your thoughts on how greenspaces impact mental health and wellbeing?" The remaining three participants required no clarification and had already articulated full responses in their initial interviews. These follow-up interviews lasted from 17 mins to 60 mins. Transcripts for interviews and follow-up interviews were automatically generated using Otter.ai and cleaned for accuracy.

Data Analysis

Data analysis was guided by reflexive thematic analysis (Braun and Clarke 2013). In line with CBPAR, participants were invited to engage in a collaborative analysis process to identify

themes most salient to participants and so they could guide the analysis process. Participants who wanted to take part in the collaborative analysis process were mailed the complete set of photographs from the neighbourhood they resided in. We had five online discussions to collaboratively analyze and identify the most salient themes from the photographs and narratives. These meetings were recorded with consent. Working definitions were developed for several identified themes, including for "mental health and wellbeing" and "social connection". The collaborative process then informed a further deep dive into the individual interviews by the first author.[22] A codebook with definitions was generated based on collaborative discussions and was used to code the interview transcripts on Dedoose. Within those broad codes, excerpts were then grouped based on similar emerging concepts. Through inductive and iterative grouping, the first author identified the different ways that greenspaces influenced wellbeing, using placeholder headings. Similar concepts were further amalgamated and refined to generate a set of "domains". This generative process resulted in three dimensions of wellbeing and nine subsequent domains, that guided the findings and were used to create the framework presented in this paper. The first author then shared these domains and the framework with the other co-authors for critical feedback, which was integrated into the final framework.

Results

Over the course of 35 greenspace visits, 18 participants collected over 200 photographs and videos. Through their photographs and interviews, participants shared their perspectives on how they perceive, navigate, and interact with public greenspaces as racialized people, and how identity influences the relationship between greenspaces and their wellbeing. This paper shares their perspectives on the ways that greenspaces have influenced their mental, physical, and social

[22] The first author completed this study as part of a doctoral degree.

wellbeing as well as the barriers to these wellbeing-promoting pathways. A framework is presented based on the findings. While the framework highlights the positive domains of wellbeing, the barriers are just as important to consider. Participants decided how they wanted their photographs and narratives to be attributed to them; many names are pseudonyms.

Mental Wellbeing

Nearly all participants either agreed (33%) or strongly agreed (61%) that being in greenspaces was important to their mental health and wellbeing. Of the eighteen participants, 44% said that in the last two weeks they had visited greenspaces to reduce/recover from stress and/or because it was good for their health and wellbeing (67%). Participants described that interacting with urban greenspaces supported their mental wellbeing in several ways. We synthesized these narratives under three domains: 1) relaxation, 2) nature connection and 3) extension of home (see Table 1).

Residents from both St. James Town and Jane-Finch relayed the importance of accessing urban greenspaces for their mental wellbeing, specifically for *relaxation*. Fatema, a middle-aged South Asian, female lives in an apartment in Jane-Finch. In her photograph "Mentally fresh" (Figure 1, Photo 1A), Fatema captures a tree-lined path on one of her daily walks. She shared how these walks help her unwind and how the pandemic interrupted this important routine. Her fears of contracting COVID, especially in the building's elevator, kept her homebound for long periods. She described this as a "very hard time" with little relief from "mental pressure." Several others, including Kate and Khalid also shared the ways that being in greenspaces helped them relax and destress. Most participants either agreed (44%) or strongly agreed (39%) that they feel joyful/ happy in greenspaces. During the pandemic, access to urban greenspace for relaxation was especially urgent. However, this was not available to all residents. Nathan, a

South Asian male, said he couldn't relax in the "crowded", "dirty" greenspaces in St. James Town because "the atmosphere is tense and full of anxiety."

Another domain of mental wellbeing was *nature connection*. Participants noted this in different ways, speaking to the importance of connecting with nature especially while living in dense, urban neighbourhoods. Ayesha, a Jane-Finch resident and an Indo-Caribbean woman, described rebuilding connections with the natural world in a variety of ways, including "foraging and identifying plants… the bees", "to pray (at the ravine river)" and "(to) remember my spiritual roots." Elaborating on her photograph "Native species" (Figure 1, Photo 1B), Ayesha described how her "experience of the park has completely changed" through being able to identify different plant and animal species. Others like Constance and Amal also spoke about how engaging with nature was important, while Michael pointed out that some people may not have the time and resources to access greenspace.

Participants also spoke about urban greenspaces as an *extension of home*, another domain amplified during the pandemic. Minakshi is a South Asian woman and Jane-Finch resident who described seeking personal space in a nearby park amidst many life demands, "We are in a apartment… we don't have that backyard." She noted the "real impact" of greenspace on her family's mental health and wellbeing. In her photo "Personal time" (Figure 1, Photo 1C), she described sitting on the little hill under a tree (pictured in the background) and finding her "personal space" to practice a few minutes of daily yoga and meditation. About 28% of participants said that in the last two weeks they had visited greenspaces to be alone. Amal, a middle-aged Middle Eastern, Muslim woman, lives in St. James Town and described how she wished she could see nature outside her window instead of multiple buildings. She observed how those designing neighbourhoods do not prioritize the mental health of people living in dense,

apartment buildings, especially community housing. Sundari and Michael also live in apartments and described how urban greenspaces served as an extension of their everyday living spaces.

However, many participants highlighted that their neighbourhood greenspaces were inadequately resourced and maintained (e.g., broken benches, lack of public washrooms and dirty drinking fountains) and unpleasant (e.g., overflowing garbage, uncomfortable behaviours by other people), impeding the pathway to mental wellbeing. Several participants made comparisons to better greenspaces (naming Toronto's higher-income neighbourhoods including the Waterfront, High Park, Rosedale, and Cabbagetown). If urban greenspace is not perceived as safe and is not accessible (physically or socially), this prevents use.

Table 1. Domains of mental wellbeing

Domains of mental wellbeing	
Relaxation	"I am very busy... but parks have a way of making me destress automatically once I step in...." – Kate (Jane-Finch) "walking in the nature is really something which is relieving. It's good for mental health… for the kids, but equally important for me." – Khalid (St. James Town) "If you ask for garbage (bin), you get a garbage bin… but they're now overfilling... You get bugs and bees flying all over… so you're not able to enjoy your parks as nicely as you like it because of things like this right?" – Constance (Jane-Finch)
Nature connection	"there's other factors, like, how much you work and how much you're getting paid… can you afford to even have leisure time outside." – Michael (Jane-Finch)

	"I prefer always the natural, which is like as it is, there is no human being touch." – Amal (St. James Town) "Our physical aspect is declining, our mental is declining, our spiritual and emotional is declining, because we can't be in tune with what is, for me, is naturally a part of us." – Constance (Jane-Finch)
Extension of home	"as cities get denser… part of your living space is outside of your apartment… if you don't feel safe outside, then you're living in a closet. That's gonna mess with your mental health." – Michael (Jane-Finch) "We are living in only one room here… due to the COVID, my kids stay at home… my husband also work from home. We got stressed and we have a lot of mental problems actually." – Sundari (St. James Town)

MENTAL WELLBEING

1A: “Mentally fresh” by Fatema

1B: “Native species” by Ayesha

1C: “Personal time” by Minakshi

PHYSICAL WELLBEING

2A: “A little sanctuary” by Amita

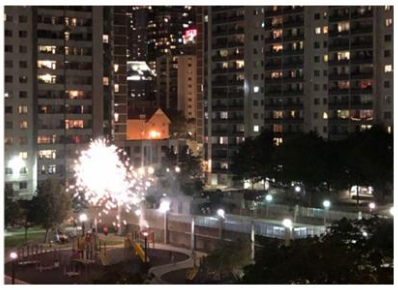
2B: “Why a tennis court?” by Isatu

2C: “Walking home” by Kate

SOCIAL WELLBEING

3A: “All together” by Amal

3B: “Trying to get out” by Nathan



3C: “City nights” by Vasuki

Figure 1. Examples of photographs that depict the dimensions of wellbeing (mental, physical, and social) and the nine domains.

Physical Wellbeing

Similarly, engaging with urban greenspaces supported participants' physical wellbeing through three domains: 1) solo activities, 2) group activities, and 3) active transport (see Table 2). These domains are interconnected and collectively contribute to an overall sense of wellbeing. Notably, 67% of participants said that in the last two weeks they had been to greenspaces for physical activity or exercise.

Many participants used urban greenspaces for different *solo activities*. During the COVID-19 pandemic, Amita, a long-time resident of Jane-Finch and an Indo-Caribbean woman in her twenties, found sanctuary in a park a short walk from her family's home (Figure 1, Photo 2A). This nearby greenspace was a vital resource to get some solo time during the pandemic, "I would just sit by myself and read." She then realized that she could use the park as a "free gym." She described, "I was running… I use the monkey bars and the benches." Amita credits the free, nearby greenspace with helping her health – both physical and mental. Several important greenspace attributes supported her wellbeing, including the proximity to where she lives and having the amenities she desires. Furthermore, she feels safe on her own. Amita's example showcases how well-designed parks that meet user needs can promote wellbeing, however, not all participants had access to such greenspaces. Ayesha and Sayem also described their varied solo activities in greenspaces, while Priya highlighted an instance where she felt unsafe in a park on her own. On a solo bike ride in a ravine, Michael, a Black male, encountered "a group of guys" and decided to turn around, saying "I've kind of internalized avoiding situations… I kind of baked that into my idea of feeling safe because of my race."

Participants repeatedly discussed tensions around infrastructure for *group activities* and sports in urban greenspaces. Isatu, a young, Black, Muslim woman, and long-time resident of

Jane-Finch, described how she and everyone she knows, including "family, friends and community people" enjoy basketball and even soccer, volleyball, and swimming but not tennis. She took a series of photographs (Figure 1, Photo 2B) depicting the unmaintained state of basketball courts and compared that to the new, well-maintained tennis courts, and commented "not a lot of people in the neighbourhood play tennis", raising questions about who greenspaces are designed for and how decision-making happens. Examples like this showcase how racialized residents feel excluded from greenspace decision-making processes, resulting in amenities and facilities that do not meet needs.

In St. James Town, several residents commented on the state of an abandoned, aboveground swimming pool in the center of an unnamed, public greenspace. Nathan is a middle-aged South Asian male, who lives in St. James Town. He described the many discussions residents have had about this pool infrastructure and how the community feels powerless in getting decision-makers to listen to their needs, describing "neglect" and "no care" of St. James Town residents. Several others, like Sayem, Julia, and Kate also photographed and spoke about the barriers for group activities in urban greenspaces, especially in the winter.

Active transport such as walking, cycling, and rolling, is an important part of promoting healthy and thriving city neighbourhoods. About 33% said that in the last two weeks they had used greenspaces as part of their commute or to get to another destination. Kate, a first-generation Filipina resident of Jane-Finch, took a photograph "Walking home" on her commute (Figure 1, Photo 2C) and edited the photo so it depicts the darkness she experiences. She described it as "a call for more streetlights," considering the limited daylight hours for several months in the year, "I don't feel safe past 5pm walking home through this park, even though I don't have a choice." Several other racialized women from both neighbourhoods acknowledged

the different ways they felt unsafe in public greenspaces. Others, including Ayesha and Michael, described how the lack of active transport infrastructure presents barriers to this pathway for wellbeing.

Barriers to physical wellbeing included not having access to the right amenities and facilities that the communities desired based on neighbourhood demographics, the lack of sufficient infrastructure given the density of the neighbourhoods, lack of maintenance, perceived safety issues, and issues of seasonality in using greenspaces for solo and group activities and active transport year-round.

Table 2. Domains of physical wellbeing

Domains of physical wellbeing	
Solo activities	"(I go to Black Creek Trail) multiple times a week… It's very quiet. Very peaceful. I never really used those areas during wintertime…" – Sayem (Jane-Finch) "I live in a high rise and I don't have a lot of space. So I like to use those steps and run up and down them like 10 times…. go for a run… be surrounded by greenspace whenever that's possible." – Ayesha (Jane-Finch) "I was once kind of threatened in a park… This person wasn't allowing me to pass… he was a young guy… a person of color… I was very, very afraid." – Priya (St. James Town)
Group activities	"you have to fight for space, you have to run to the playground, or... to the basketball court… just to access space. That's a really big issue too, just how busy it gets." – Kate (Jane-Finch)

	"Just to make sure no one mistakes this greenspace for a place they are welcome to hang out… There are signs that say, "No Ball Playing in this Area", "No Loitering or Trespassing" No, not very welcoming." – Julia (St. James Town) "we need (an) indoor facility (for cricket). When I was in grade 12, one of my biggest concerns was in wintertime we couldn't play." – Sayem (Jane-Finch)
Active transport	"(The park) it's on the way for me when I go grocery shopping and it's nice to walk through." – Andrew (St. James Town) "this trail… It's actually an arterial sidewalk… (maintaining this path in the winter) does seem fairly simple… maybe it's because the City doesn't fully register it as transportation, they register it as recreation… people are using this as (a) valid transportation method." – Ayesha (Jane-Finch) "(Bike share) literally just ends at Jane and Finch. You can bike share for this little distance… then as soon as you hit Jane and Finch, forget about it." – Michael (Jane-Finch)

Social Wellbeing

Urban greenspaces served as sites of social connection in multiple ways; their importance amplified during the pandemic. Greenspaces supported social wellbeing through the following three domains: 1) socializing (relationship-building with family, friends, neighbours), 2) belonging (feeling a part of something, a sense of community), 3) social capital (building networks and positive social interactions). In most instances, activities that fostered social wellbeing were linked to those that promoted mental and physical wellbeing (see Table 3).

Roua, a Middle Eastern mother from St. James Town who migrated to Canada recently, noted that greenspaces served as gathering spaces for *socializing* and relationship-building for herself and her young children, saying "when I go to the playground, I will meet my friends there... sometimes I will meet new people." Priya and Sundari also described how greenspaces support relationship-building, particularly for families. Half the participants (50%) said that in the last two weeks they visited greenspaces to take children to a park, playground, or greenspace. Amal from St. James Town described how despite the many challenges residents face, they connect with each other, "they are poor, low-income, but… very loving people…very friendly… We never feel that 'oh, he's Black, oh he is Indigenous, oh he is Asian'." Her photograph entitled "All together" shows different coloured flowers in full bloom (Figure 1, Photo 3A). However, there were also negative encounters in greenspaces where residents felt targeted based on their race, gender, religion, and other identities, making residents nervous or unsure about using greenspaces.[23]

Many participants either agreed (44%) or strongly agreed (22%) with the statement "I feel like I belong in my neighbourhood." While residents felt a sense of *belonging* in urban greenspace, there were several barriers that diminished this. Nathan, a St. James Town resident for five years, described how newcomers struggle with employment due to systemic barriers, contributing to high neighbourhood turnover. In the context of such barriers, greenspaces may provide a "physical sense of belonging" but cannot overcome the lack of community connection, saying he feels "quite isolated", due to limited interactions and because "people are moving in and out of St. James Town." His photograph "Trying to get out" (Figure 1, Photo 3B) depicts yellow flowers behind a fence, symbolizing the systemic struggles racialized residents face.

[23] These experiences are described in detail in Chapter 5.

Constance, a Black woman between 25-34 years, and a longtime resident in Jane-Finch, described the complicated, “divisive” dynamics of how different groups access urban greenspace, including the tennis courts or playgrounds where “everybody’s trying to get a space for themselves or for their group,” leaving others feeling excluded. The notion of greenspace “like a kumbaya” is challenged. Andrew also described these complicated race and class dynamics.

Vasuki, a South Asian mother over 35 years, who recently immigrated to Canada and lives in St. James Town, described how neighbourhood greenspaces have been an important part of her building positive connections and *social capital*. She goes “daily to the park” with her kids and will “chit chat” with others. She had concerns about moving to a new country but now that she has made social connections, said “I feel like I’m in my country. So I feel safe.” She photographed the view from her apartment (Figure 1, Photo 3C: “City nights”) that overlooks a greenspace where people were gathered for fireworks late at night, a common occurrence that she enjoys witnessing. Others like Sayem also described the nuances of how urban greenspaces factor into building social capital, complicated by factors like race, migration and class. Ayesha pointed out how during the pandemic, “we expected there to be this huge surge in the amount of people that went to the parks, but it didn't really happen that way.” She described cues of exclusion like adjacent condominiums and tennis courts in parks that sometimes “give off that impression of private property and what can and cannot be used.”

Barriers to social wellbeing in greenspaces include tensions due to systemic issues of racism, sexism, classism, xenophobia etc. that prevent building social capital and social cohesion, exclusionary dynamics and cues, the lack of sufficient and appropriate amenities that meet different and varying needs within the neighbourhood to facilitate social cohesion, and a

lack of attention to the complexities of user dynamics in greenspaces.

Table 3. Domains of social wellbeing

Domains of social wellbeing	
Socializing	"Because of the COVID situation, I do see people putting down their picnic mats and having a cup of tea… which you had not seen before… even if it's not good space… we want to do something that's more close (to home)." – Priya (St. James Town) "They are actually making friends and they are chatting in a park. They are eating the snacks… Their kids also playing… their mom and dad also are chatting… daily I see." – Sundari (St. James Town)
Belonging	"It gives you a sense of belonging, because nobody owns greenspace, right? I can walk into a park and nobody will say, 'what are you doing here?'… I can go in there and feel like I belong." – Constance (Jane-Finch) "I wanted to show this [golf course] as something that is not just unwelcoming, but also just very inaccessible… I don't know if it's intentional, but it's almost like it was designed to hide the stark class divide." – Andrew (Jane-Finch)
Social capital	"This is the makeshift cricket pitch… We played cricket with so many people from so many countries… we have an open-door policy. Anyone can come and try to swing the bat. No one will ask you 'Who are you?' No 'where you're from?'" – Sayem (Jane-Finch)

	"Unfortunately, there's a lot of tension between some of the races…they don't understand the deep economic roots… you do see a little bit of a clash between the different classes… They have different access to space. They're going to have different spatial understanding." – Ayesha (Jane-Finch)

Urban Greenspace and Wellbeing Framework

Urban greenspaces that meet residents' needs can promote mental, physical, and social wellbeing in multiple, interconnected ways. When designing urban greenspace, these three dimensions of wellbeing and their encompassed domains are important to consider and understand in the unique context of the communities involved, rather than as a checklist for a specific activity, person, or group of people. Figure 2 highlights the positive pathways to wellbeing through urban greenspaces, as a strengths-based and aspirational framework. However, participants highlighted how they struggled to find these pathways to wellbeing because of different barriers.

At the center of the framework is an icon of a person depicting an individual's multiple intersecting identities. Due to societal constructs and historical contexts, this positionality mediates how a person interacts with and navigates different spaces, including public urban greenspaces. It is critical to recognize the complexity of user experiences and that the ways people navigate and use greenspaces is different and varies based on a number of different factors, including social, neighbourhood/community and structural determinants. The experiences of being racialized inevitably intersect with other social locations – such as gender and poverty in relationship to place – reinforcing the importance of intersectionality (Tung et al. 2017). Participants described multiple ways that race played out in the context of urban

greenspace and wellbeing, and these findings are outlined in detail elsewhere. Andrew integrated a race and class analysis of greenspaces and explicitly drew links to the interconnected domains of *relaxation, nature connection, solo and group activities, socialization* and *belonging*:

> "There's always kind of that association like the outdoors is not really for us, right. But, obviously going back home in like Vietnam, yeah, people go outdoors, they hang out in greenspaces… they love it just as much as here and what is it when it comes here that this is coded as like a white thing?... It feels like the only way we can enjoy greenspace is through public parks… cottages is like seen as part of like the Canadian dream… you get access to all this nature, this kind of digital detox, escape… And it's obviously coded as… generational wealth. It's a thing that white people do."

Access to greenspace is fraught when it comes to race and who is perceived as seeking, enjoying and ultimately, belonging in greenspaces.

The innermost ring of the framework depicts the nine domains – nested within mental, physical, and social wellbeing. Drawing on the findings that these three dimensions of wellbeing are interconnected, the framework conceptualizes the domains as flowing into one another, influencing one another, and as mutually reinforcing. The framework is meant to be iterative – other domains that were not highlighted in this study may be introduced to continue to develop a fuller picture of wellbeing in greenspaces for all. The nine domains are intentionally offset with the three components of wellbeing to signify the blurred boundaries and interconnectedness between mental, physical, and social wellbeing.

The outermost ring of the framework highlights the broader factors and contexts that influence wellbeing through greenspaces. Participants described the various factors that hindered positive experiences in urban greenspaces; their narratives and photographs highlighted the

numerous social, community, structural and environmental/ecological barriers or determinants to experiencing wellbeing.

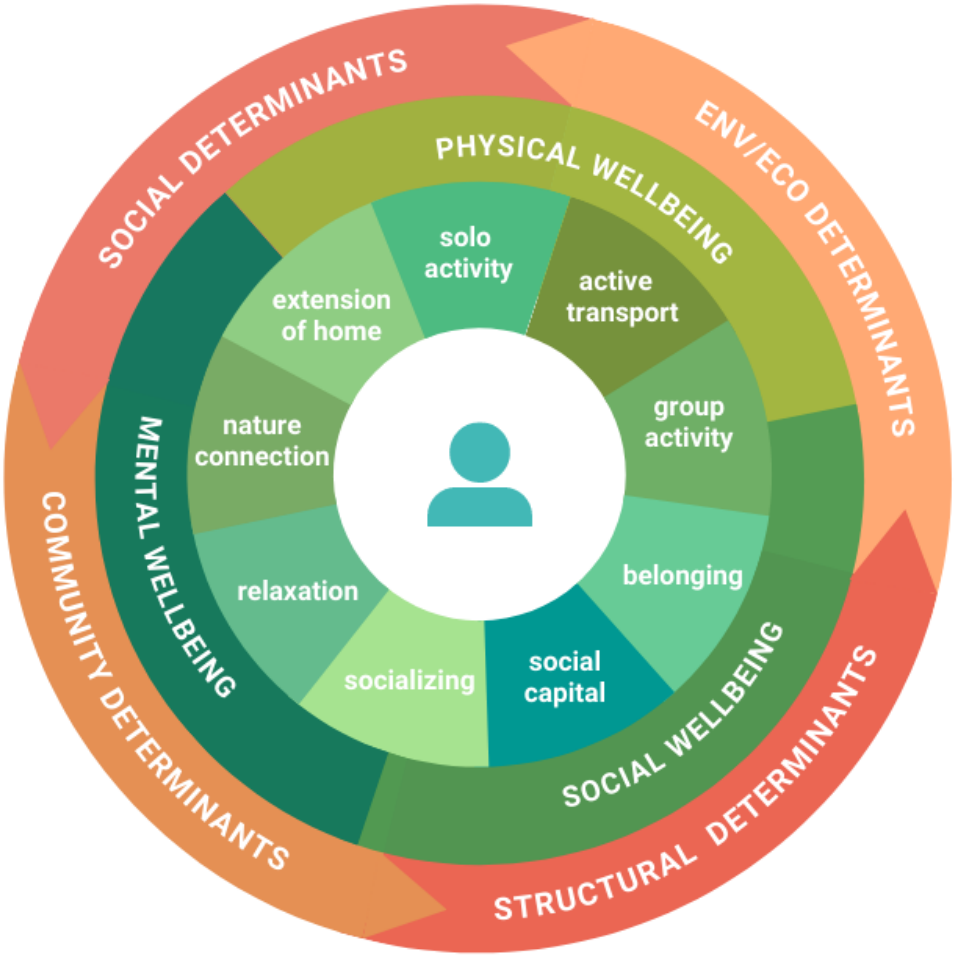


Figure 2. Framework Conceptualizing Wellbeing Through Urban Greenspaces.

Experiences in urban greenspaces were tied to the *social determinants of health* and participants' intersecting identities of race, gender, age, migration history, socioeconomic status and so on were linked not only to how participants used greenspaces but their interactions with others in these spaces. These social determinants of health were highlighted in who was able to

access and use different types of greenspaces safely in the ways they desired, and the various strategies participants intentionally employed to access and navigate these spaces and their makeshift attempts at making urban greenspace serve their needs. Attending to these social determinants includes taking into account residents' lived experiences (of being racialized, newcomers, low-income, as children, youth and seniors etc.).

The *community/neighbourhood-level* determinants such as infrastructure, perceived safety and social cohesion influence the pathways to wellbeing (Cronin-de-Chavez, Islam, and McEachan 2019). Both neighbourhoods are undergoing complex and ongoing changes for instance, the redevelopment of St. James Town West Park and the Jane-Finch Light Rail Transit system. Like many North American cities, newcomers to Toronto often reside in "ethnic enclaves"; these predominantly low-income racialized neighbourhoods experience structural marginalization.

The *structural determinants of health* refer to the macro-level factors that drive ongoing structural inequities, including historical contexts and unequal distributions of opportunities and resources (Schulz and Northridge 2004). Greenspaces were an entry point for participants to discuss structural factors of marginalization, including racism, sexism, and classism. These factors cannot be viewed in isolation, but rather require a systemic approach to understanding how cities and their greenspaces can perpetuate broader structures of oppression.

The *ecological determinants of health* include the "ecologies and ecosystems foundational to human health… the complex and interacting impacts of climate change, biodiversity loss, pollution, ocean acidification and depletion, land and water degradation, and food security, from local to global scales, as they affect personal, public, and planetary health" (Parkes et al. 2020, 63). Parkes et al. (2020) have put forward a call for an "eco-social approach"

in public health that orients specifically to the future of health and wellbeing in the urgent context of environmental changes. Public urban greenspaces are an integral part of these conversations. The "ecological" and "environmental" determinants of health are complementary and while a discussion of the nuances is outside the scope of this paper, they are nevertheless an important part of a comprehensive framework. Furthermore, there is an intrinsic value to nature and greenspaces, independent of the benefits to humans. The human-nature connection is an underexplored area of public health but is slowly gaining increased attention (Lemieux et al. 2022).

There is ongoing discussion about the definitions and delineations between the various determinants of health (Bentley 2014). These different determinants are not new concepts and regardless of their technical definitions, these determinants of health are inextricably linked and influence one another. The outer ring of the framework has arrows that lead into each other, illustrating the dynamic and interconnected nature of these determinants of health and wellbeing.

Discussion

In St. James Town, the stories and photographs ranged from seeking short respites in nearby but less than desirable greenspaces, negotiating limited children's play infrastructure, and feeling trapped in a dense, under-resourced neighbourhood, to how residents planned to visit more desirable greenspaces further away in higher-income neighbourhoods. In Jane-Finch, residents' narratives captured the beauty and gratitude for the generous number of nearby parks and ravines in a fast-changing neighbourhood, mixed with tensions around infrastructure and underlying interrelated dynamics of race, class, and gender, while pushing back against stereotypes about the neighbourhood. There were many similarities between both neighbourhoods and the findings are not uncommon to other racialized, marginalized Toronto

neighbourhoods and the experiences of other tenants who live in apartments with no private greenspace access. Residents have nuanced and complex relationships to their public urban greenspace that influence pathways to wellbeing.

Despite migrating to Canada with high educational qualifications, participants described their challenges with unemployment and underemployment, experiences of food insecurity and housing challenges and the resulting negative impacts on all dimensions of their wellbeing. Greenspaces could often only serve as a temporary source of comfort in the face of these more pressing issues. Nonetheless, urban greenspaces were sought out to destress, cope and provide solace during a particularly trying historical moment. The implications of greenspaces extend far beyond simply feeling good and a temporary respite. Urban greenspaces are a critical component of equitable public health and health promotion.

A review by Park (2017) found that most park use studies identified five factors associated with park use: safety, attractiveness, facilities, activities, and social environment. This study underscored the importance of those factors for racialized residents. Only recently have researchers and organizations begun unpacking the complexities of greenspace from an equity-lens. The National Recreation and Park Association (NRPA) in the United States has been working to embed racial and health equity and access into greenspaces and recreation facilities to ensure they are truly inclusive (Gaskins and Pertillar 2021). The findings in this study further reinforce the need to reduce barriers to using greenspaces (Gittins et al. 2023). Without understanding the psychological, socio-cultural, and emotional barriers, promoting wellbeing through urban greenspaces may have limited success (Klein, Dove, and Felson 2021).

Jennings and Bamkole (2019) conceptualize how social capital and social cohesion can be facilitated though greenspaces, while acknowledging the barriers to this pathway and

challenges with quantitative measurement. The qualitative findings from this study build on previous research, providing a nuanced understanding of how those urban greenspace attributes and social factors play out in underserved neighbourhoods with racialized residents, and contribute to overall wellbeing. The findings demonstrate that when public urban greenspaces are not protected, designed, maintained, and resourced equitably for racialized and marginalized communities, they can hinder pathways to wellbeing. Furthermore, exclusionary cues, tokenistic decision-making, consultation and planning processes, and lack of understanding of nuanced racialized experiences prevent urban greenspaces from being inclusive, safe spaces for all.

The COVID-19 pandemic highlighted the intricate dynamics between public resources, inequities, health, and wellbeing, further uncovering the underlying issues that impact how racialized people navigate urban greenspaces and the impacts on their wellbeing. In the wake of the pandemic, those who were impacted the most will need space and time to regroup. There are ongoing economic and social repercussions including ongoing food insecurity, inflation, and unaffordable housing. These systems and issues are interconnected. To promote health equity for all, we must have equitable urban greenspaces, designed, and maintained with an eco-social lens, grounded in justice, and attending to how these greenspace attributes interplay with all the determinants of health. The National Collaborating Centre for the Determinants of Health (2022) describes critical praxis as both *thinking* (about the underlying drivers of social and health inequities) and *doing* (collective action to disrupt intersecting systems driving inequities), and this process is mediated by ongoing critical reflection (9). Actioning this work is challenging but necessary; and requires systems change.

This work requires attending to power, social justice, systems of oppression play out in various spaces. For public health professionals, landscape architects, planners, parks

professionals, city-builders, environmentalists and others doing related work, there are key interdisciplinary questions that must be addressed: how to bridge disciplinary silos, how to ask difficult questions and listen to the responses, consider what hasn't been asked and how to address historical repercussions of spatial inequity, marginalization, colonialism and racism in the push for mental, physical, and social wellbeing for all. The authors of this paper have also written a community report, in collaboration with residents, outlining clear community-driven recommendations (Hassen et al. 2022). We highlight several key principles in the report, including a commitment to equity and anti-racist decision-making as well as a recognition of and attendance to the complexity of experiences within urban greenspaces.

Interdisciplinary collaboration is necessary to co-design spaces that respond to the mental, physical, and social needs of communities. Recognizing the unique (and inter-related) domains that contribute to or hinder pathways of wellbeing may help professionals consider strategies that attend to various needs. For instance, how can we construct urban greenspaces that offer both children's playgrounds and work out spaces (for physical activity, socialization, outdoor recreation) and offer quiet, safe spaces for reflection, connecting with nature, reading, or meals? How can we ensure that the sports facilities respond to racialized and diverse community desires that support a sense of belonging (e.g., basketball courts, cricket pitches vs. tennis courts)? How can we support community-driven activities such as picnics, outdoor cooking spaces, community gardens with the amenities (washrooms, water stations, shaded pergolas, benches etc.) that encourage socialization and social capital? How can we ensure racialized women and other marginalized groups feel safe using greenspaces for active transport and other solo activities? Considering these domains in a holistic way, while also deeply engaging with

intersectionality and broader forces, is a requisite for attending to the complexity of urban greenspace design, maintenance, and usability.

Conclusions

Urban greenspaces are an important part of the ongoing public health conversations around social and health equity and addressing systems of oppression. Simply put, when greenspaces are not designed with equity in mind, they will inevitably uphold the status quo. If the multiple, interconnected determinants are not addressed, then the pathways to wellbeing are inhibited. The COVID-19 pandemic amplified the existing social, environmental and health inequities that exist within cities. This study provides snapshots into the perceptions, challenges, and perseverance of racialized residents in accessing and navigating greenspaces during this challenging time, chronicling their desire for nearby, quality greenspace and above all, the right to be well.

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CHAPTER FIVE[24]

Narratives of exclusion: A photovoice study towards racial equity and justice in public urban greenspaces

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Abstract

Introduction: During the COVID-19 pandemic, public urban greenspaces were sought as places of respite. However, deep inequities surfaced regarding who had access to safe high-quality greenspaces. The *Park Perceptions and Racialized Realities* study explored the experiences of racialized people in public urban greenspaces in Toronto, Canada.

Methods: This qualitative community-based participatory action research project took place in two neighbourhoods. Adapting photovoice methodology, participants were invited to (a) go on two individual greenspace visits to take photographs in response to prompts on their experiences and (b) participate in an online semi-structured interview to debrief their photographs and experiences. Eighteen racialized participants took over 200 photographs and videos that were collaboratively thematically analysed by a community working group. This approach informed a deeper thematic analysis of the photographs and interviews focused on racial justice and equity.

Results and Discussion: Findings were mapped onto four interconnected environmental justice principles: distributional, procedural, recognitional, and restorative. This organization allowed for three possibilities that: (1) contribute to environmental justice discourse on urban greenspaces, (2) leverage Critical Race Theory, and (3) offer action-oriented considerations for urban greenspace design and planning that center racialized experiences.

[24] This manuscript will be submitted to a landscape/urban planning journal.

Conclusions: Racialized residents enjoy using public urban greenspaces but face barriers, including greenspace provision, feeling excluded from design and planning processes and not having their needs met. Public urban greenspace design and planning falls into the same traps and tensions that Critical Race Theory has identified in other disciplines such as colorblindness, interest convergence and structural determinism. A critical race lens provides a critical, justice-oriented framework for improving equitable access to public greenspaces.

1. Introduction

In recent decades, public urban greenspaces have been increasingly recognized as key contributors to creating healthy and thriving cities (Gascon et al. 2015, van den Berg et al. 2015). Public urban greenspaces include parks as well as community gardens, open public space with vegetation, green paths/trails, ravines, green roofs, and green corridors. They can be designated for recreational, aesthetic or even transportation purposes (Pincetl and Gearing 2005). During the COVID-19 pandemic, public urban greenspaces became sites of respite to gather safely outdoors, be physically active, foster mental health and wellbeing, and extend living space. However, deep inequities surfaced regarding who had access to urban greenspace and who felt safe using them.

The literature substantiates the environmental and health benefits of urban greenspaces, however, there is a limited understanding of how different groups navigate this public infrastructure (Kabisch et al. 2015). Scholars have theorized the unequal and differential experiences of people in public spaces and how factors like race, gender and socioeconomic status influence interactions with the environment (Lipsitz 2007, Price 2010). In the early part of the pandemic, park use did not increase uniformly across communities; according to one Canadian survey, those who identified as Black, Indigenous or a Person of Colour reported visiting parks less than white Canadians (Park People 2021). In Canada, access to urban

greenspaces is inequitable, where non-immigrant white populations with higher income have greater access to residential greenness (Pinault et al. 2021). In analyzing 496 U.S. cities, Browning and Rigolon (2018) found that race/ethnicity moderate the link between greenspace and health at the city level. Yet, urban greenspaces often continue to be romanticized spaces that are considered universally health-promoting and equally experienced by all. A review by Calderón-Argelich et al. (2021) on urban ecosystem services (such as greenspace) highlighted the need to understand "the diverse environmental relations of different population groups, regarding questions of unequal access, perceptions, and responsibilities" (2). Similarly, Kabisch et al. (2015) identified that there is a need to "make issues visible" (32) and that most greenspace studies have focused on surveys and GIS methods. Greenspace literature has lacked studies on specific population groups such as racialized communities that are grounded in their lived experiences and expertise (de Haas et al. 2021). This is still an emerging area.

This article explores two interrelated questions from the *Park Perceptions and Racialized Realities* study[25]: 1) How do racialized people in two marginalized neighbourhoods in Toronto access, use, and experience public urban greenspaces? and 2) How can public urban greenspaces be(come) racially equitable and just spaces? The aim is to complicate the issue of "inclusion" in public urban greenspaces, which can sometimes be a tokenistic concept, and explore what in-depth racialized experiences can contribute to the push for more equitable public urban greenspace, and consequently, *just cities*. The project takes a race-centered analysis to unpack issues of environmental justice in local urban greenspaces in Toronto, through an in-depth photovoice exploration.

[25] More information on project activities is available at https://www.yorku.ca/euc/research-projects/park-perceptions/

Since the late twentieth century, environmental justice scholars have been concerned with how marginalized communities, including low-income and racialized groups, have been subjected to environmental harms that negatively impact their lives and health (Langemeyer and Connolly 2020).[26] The field has since expanded to encompass more than just the inequitable distribution of hazards and now includes equitable exposures to positive environmental "goods", such as greenspace, public transit and affordable, healthy food (Schlosberg 2013, 38). Calderón-Argelich et al. (2021) describe four environmental justice principles in relation to urban ecosystem services: distributional, recognitional, procedural, and restorative justice. Findings from the *Park Perceptions and Racialized Realities* study have been mapped onto these four environmental justice principles, to add another layer to discussions on how racial justice can be better enacted in public urban greenspaces. The urban greenspace literature that engages with issues of equity and the pathways to wellbeing rarely takes up critical issues of racism and racialization explicitly. Instead, race often gets grouped in with other demographic factors and vague labels such as "vulnerable" and "diverse" without acknowledging the historical, social and political structures (Kabisch et al. 2015). In response, this paper puts Critical Race Theory (CRT) and environmental justice principles in conversation to highlight the key underlying theories and concepts, their points of tensions and identify opportunities in urban greenspace design and planning. While Critical Race Theory originated in legal studies, these principles have been mobilized critically in other disciplines to exemplify how racism operates and identify tangible anti-racist actions (Valdes, Culp, and Harris 2002). I illustrate how Critical Race Theory principles illuminate the underlying challenges and injustices that study participants shared. The

[26] Environmental racism is a term in use since the 1980s and attributed to Benjamin Chavis, to explain the racism inherent in environmental disputes in the U.S. (Gosine and Teelucksingh 2008). As Gosine and Teelucksingh (2008) note "environmental justice is the broad goal that incorporates the more narrowly defined problem of environmental racism" (11).

final section of this paper examines actions and considerations in moving towards racially equitable and just public urban greenspaces.

2. Methods

The study was conducted from July 2021 to August 2022, in Toronto, Canada in two racialized and vibrant neighbourhoods, St. James Town and Jane-Finch. The research took a community-based participatory action research (CBPAR) approach (Israel et al. 1998), embedded in feminist and anti-racist principles (Hassen and Flicker forthcoming). Photovoice is a participatory, visual, action-oriented research methodology where participants use photography to capture their realities to push for positive social change (Wang and Burris 1997). This methodology aligned with ensuring that participants could give "voice" to their experiences, through making visible their lived realities. A community research advisory group (comprised of members from community organizations with aligned live or work expertise) ensured meaningful input in key project areas including research design, data collection, analysis, and knowledge mobilization.

Eligibility criteria included being 18 years of age or older, self-identifying as a person of colour (or racialized), residing in the Greater Toronto Area for at least one year and living in or close to St. James Town or Jane-Finch. Due to the COVID-19 pandemic, the traditional photovoice process (Wang and Burris 1997) was adapted. Participants were asked to (a) attend two online orientation and training sessions, (b) go on two individual visits to local neighbourhood greenspaces of their choice to take photographs and videos in response to prompts and (c) participate in a follow-up individual interview to debrief their photographs and expand on their experiences. All online sessions were held on Zoom and were recorded with consent. The autogenerated transcripts were cleaned for errors (different accents were often

inaccurately captured by the software) and anonymized. Participants were provided with $25 honoraria per greenspace visit and interview. Participants verified how they wanted to be identified in knowledge outputs and whether they wanted to use a pseudonym.

Before each greenspace visit, participants received training and instructions online. The first online session included the informed consent process, an Indigenous land acknowledgment, project overview, honorarium information, photography ethics and tips, safety guidelines, and the first set of prompts for their greenspace visit. Participants were invited to take 3-5 photographs about what they saw and how they felt during their visit and record short explanatory audio and/or video clips or text descriptions. The second session (approximately a week later) debriefed the first greenspace visit, focused on photography as metaphor and shared the second set of prompts. For the second greenspace visit, participants were encouraged to photograph what felt safe/unsafe, inclusive/non-inclusive, welcoming/unwelcoming, healthy/unhealthy in urban greenspaces. Each session took approximately 30-45 minutes. For each greenspace visit, participants completed a short form on the greenspace they visited, date, approximate time, how far it is from their primary residence and mode of transportation. All participants completed demographic questions and a survey on greenspace use and perceptions,

including questions on their perception of neighbourhood greenspace and safety.

Figure 1. Map of City of Toronto depicting the neighbourhoods of study. Source: Google Maps and Neighbourhood Profiles (City of Toronto 2018a, 2018b, 2018c).[27]

Eighteen residents participated in the study: ten from Jane-Finch and eight from St. James Town. One participant had connections to both neighbourhoods. Three participants (17%) identified as Black, three (17%) as Middle Eastern, seven (39%) as South Asian, two (11%) as Southeast Asian, two (11%) as Indo-Caribbean and one (6%) as mixed race. There were 13 women (72%) and five men (28%) (no one self-identified as non-binary/gender fluid). Ages ranged from 18 years up to one participant who identified as between 55-64 years. About 44%

[27] For this study, Jane-Finch includes two official City of Toronto neighbourhoods, Black Creek and Glenfield-Jane Heights. For many reasons, Jane-Finch residents have a social identity attached to the name "Jane-Finch" that does not overlay with the official neighbourhood boundaries. A comparison of neighbourhood metrics is in Appendix B.

had lived in Canada for under 10 years. While most preferred not to disclose income, 39% reported an annual household income of under $70,000. Approximately 78% of participants lived in an apartment.

As part of a commitment to feminist and anti-racist CBPAR principles (Fleming et al. 2023), a collaborative thematic analysis process was facilitated to identity the themes that participants found most significant across their photographs and narratives. Thirteen participants took part in the collaborative analysis process. Due to pandemic physical distancing mandates, participants were mailed the complete set of photographs and associated quotes from the neighbourhood they resided in. Five members from the advisory group also participated in this process. Over five synchronous online group sessions, we collectively analysed and discussed the most salient emerging themes using the tool, Google Jamboard.

Based on the collaborative sessions, a codebook with definitions was iteratively generated and was used to deductively code the photographs and interview transcripts on Dedoose. The collaborative process informed a further deep dive into the individual interview transcripts by the author.[28] As experiences related to racial identity were a key research question, the transcripts were inductively coded when race was taken up (ranging from individual experiences, interpersonal and interracial dynamics to neighbourhood and systemic contexts). Throughout data analysis, I engaged with the existing theoretical and empirical literature related to urban greenspaces, equity, Critical Race Theory and environmental justice, and moved back and forth between the data and literature. This embedded the inductively generated themes, findings, and interpretations within the current conversations surrounding racial justice and equity in urban greenspaces. I mapped the study findings onto four key principles in

[28] This research study was completed as part of a doctoral dissertation.

environmental justice to: 1) ground the findings in current discourses of environmental justice, 2) engage with Critical Race Theory principles and 3) offer action-oriented considerations for urban greenspace design and planning that center racialized experiences.

3. Results and Discussion

Over the course of 35 greenspace visits, 18 participants collected over 200 photographs and videos. There were several key themes related to experiences of exclusion and racialization in urban greenspaces; these have been distilled into the four areas that map onto key environmental justice principles as outlined by Calderón-Argelich et al. (2021):

1. Urban greenspace provision (distributional justice).
2. Urban greenspace decision-making (procedural justice).
3. Dynamics and tensions in urban greenspaces (recognitional justice).
4. Structural forces in urban greenspaces (restorative justice).

The first theme reflects discussions around issues with public urban greenspace provision, while the following three themes delve into the processes and structural implications. To further analyze the findings and ground them in a race-centered analysis, I take up a few salient Critical Race Theory principles in each section and unpack how these critical lenses can serve to foster racial justice and equity in urban greenspaces.

3.1 Urban greenspace provision and distributional justice

In this section, I ask: *Where are greenspaces located and protected? Which greenspaces are maintained and resourced appropriately?* Environmental justice scholars describe distributional justice as relating to equitable resource allocation, both spatially and temporally (Anguelovski et al. 2020). Greenspace is an "environmental good" (Schlosberg 2013, 38). Inequitable greenspace distribution is linked closely to other historical social and structural

factors in the built environment that have delineated space in cities. Migration and settlement patterns have resulted in "spatial distinctions, where separate racialized inner-city ghettos[29] exist in contrast to predominantly white suburban areas" (Gosine and Teelucksingh 2008, 49). In Toronto, racial and economic segregation exists between neighbourhoods, with growing income polarization (Galabuzi 2001). Predominantly racialized neighbourhoods are often referred to as "ethnic enclaves" or "racially identified spaces" (Ford 1994, 1844). Both St. James Town and Jane-Finch are racialized neighbourhoods where newcomers of colour first reside due to more affordable living costs, such as housing.

Participants described urban greenspace provision issues including whether public greenspaces were available and sufficient (i.e., quantity), nearby (i.e., physical access), equipped with facilities and amenities that the communities desired (i.e., resourced) and whether they were well-maintained and aesthetically pleasing (i.e., quality). Most participants either agreed (56%) or strongly agreed (22%) with the statement "I wish I had larger greenspaces within my neighbourhood." Most participants either agreed (44%) or strongly agreed (33%) with the statement "I wish I had better quality greenspaces in my neighbourhood (quality refers to maintenance, amenities like washrooms, sports facilities, biodiversity etc.)" These findings align directly with the principle of distributional justice, supporting the evidence that greenspace is inequitably distributed (both quantitatively and qualitatively) between urban Canadian residents across race, income, and immigrant status (Pinault et al. 2021).

Priya is a South Asian mother who immigrated a few years ago and lives in St. James Town. She described the dearth of nearby greenspace, its poor park quality, and relative lack of amenities and maintenance. Among her photographs, she included a "dirty" drinking fountain

[29] This pejorative term arose as these neighbourhoods were inhabited primarily by racialized people and can perpetuate offensive stereotypes.

“covered in germs”, “empty food packets and plastic bottles” littered next to a tree and a single infant swing in the playground, where there are “queues” to use it (Figure 3, Photo 1). She said:

> “it should be more cleaner… in terms of upkeep… we should be considered, I don't know whether it is because… most of us in this area are immigrants, that is why we are being neglected? Or just taken for granted?”

Several other residents also described feeling “neglected”, because of limited access to nearby high-quality greenspace with the amenities and facilities that other high-income, predominantly white neighbourhoods enjoyed. Michael is a Black male in his thirties living in Jane-Finch and who grew up in Toronto in a “working class neighbourhood with a lot of new immigrants” that had “no (racial) majority.” Michael said the neighbourhood was “marginalized”:

> “the narrative around us and the way police would engage the community was a lot more hostile… stop and frisk was a big thing… the social services weren't up to par… people didn't really feel like they were connected to the rest of the city of Toronto… in school, like they said that ‘we're in a at-risk community’… our community was a problem for the city to solve… When I was a teenager, we just didn't really understand how stacked it was in some communities, like even in Toronto Parks and Rec, some community centers in nicer parts of town got all kinds of amazing resources and donations… that just didn't exist (for us).”

In these examples, participants specifically drew the links between the lack of urban greenspace upkeep and amenities with the fact that their neighbourhoods are home to racialized and newcomer communities. The narratives of exclusion from Priya, Michael and the other

residents reflect the deep structural inequities across Toronto's neighbourhoods and greenspaces that perpetuate racial disparities. From a Critical Race Theory lens, this speaks to the *primacy of racism*, i.e., "the fundamental contribution of racial stratification to societal problems" (Ford and Airhihenbuwa 2010a, 1394). For instance, Rosedale-Moore Park, is a high-income, predominantly white neighbourhood, directly adjacent to St. James Town and has better metrics in terms of greenspace per capita and tree cover (Hassen 2021). The urban greenspace literature has primarily focused on issues of greenspace distribution and physical access (e.g., distance to greenspace) and has only more recently expanded to other equity concerns such as social access (Klein, Dove and Felson 2021). However, many greenspace studies still do not explicitly identify racism and racialization as factors of concern. The euphemistic language of 'vulnerable' or 'diverse' groups is used instead. Critical Race Theory scholars have noted that avoiding race does not serve to reduce or eliminate racism in any setting (Valdes, Culp, and Harris 2002). Through a commitment to *race consciousness,* greenspace studies can explicitly attend to the racial stratification and segregation processes that continue to operate in cites (Ford and Airhihenbuwa 2010a).

Constance is a Black woman and long-time Jane-Finch resident. She described how "the community is so underdeveloped with amenities" and has maintenance disparities:

> "If you ask for garbage (bin), you get a garbage bin… but then they're now overfilling... but you wouldn't see this in other communities because they're able to get the resources… but you continuously see it in underdeveloped or low-income communities... You get bugs and bees flying all over. And so you're not able to enjoy your parks as nicely as you like it because of things like this, right?"

Like Constance, several participants intertwined class in their narratives of greenspace injustices. This is unsurprising. Critical Race Theory scholars have noted how *class stratification* is often inherent to racial injustice, evident in racist policies and processes that have kept Black, Indigenous and People of Colour from building financial security and owning property in the same ways (Valdes, Culp, and Harris 2002). However, caution must be taken against attributing these neighbourhood inequities solely to economic and class disparities. Foregoing a racial analysis falls into the trappings of *colourblindness*, which overlooks the effects of socially constructed racial differences. Distributional injustice is the most documented form of environmental injustice and Black, Indigenous and racialized scholars have logged inequitable distributions in the environment and in greenspaces according to race, class and their intersection (Agyeman et al. 2006). Historically, there have been egregious instances of racism, but participants' narratives showcased more subtle, nuanced and hidden forms of ongoing racial injustice, such as not receiving equitable resources to maintain public urban greenspaces. Rigolon, Browning, and Jennings (2018) emphasize the importance of documenting neighbourhood-level inequities alongside an examination of broader scales in understanding urban greenspace provision inequities, particularly related to funding mechanisms, from the local to state and federal levels.

3.2 Urban greenspace decision-making and procedural justice

This section asks the questions: *Whose needs and wants are met or dismissed in urban greenspace decision-making? Whose voices are heard, acknowledged and responded to in urban greenspace planning processes?* While the inequitable distribution of greenspace is important, environmental justice scholars have recently expanded the discourse to consider who is included or excluded from processes and the "disrespect, devaluation, degradation, or insult of some

people versus others" (Agyeman et al. 2006, 327). By the 2010s, Langemeyer and Connolly (2020) describe the shift towards "a more pluralistic understanding of justice" (4) that encompasses decision-making processes and the stigmatization of certain groups. Procedural justice refers to inclusive decision-making processes with transparent and meaningful citizen involvement (Schlosberg 2013; Calderón-Argelich et al. 2021). Participants' narratives illustrated that there are ongoing concerns about who is truly able to participate in public urban greenspace processes.

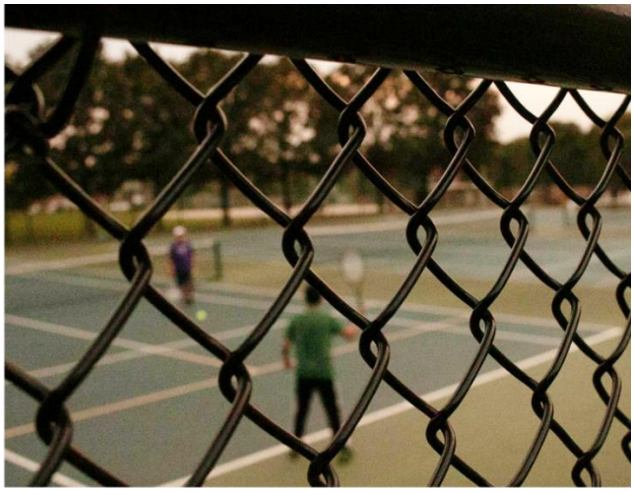
Amal, a Middle Eastern Muslim woman living in St. James Town who migrated to Toronto several years ago, drew particular attention to how she and other residents feel excluded from municipal public consultation processes. Amal described how some residents fought to preserve a small area of greenspace in St. James Town, slated for a new high-rise condominium development. She said "they want to take agreement of us" but that the municipal players "faked" agreement from the community. "We need it green and immediately it came this very high condos and (only) after that we discovered… this is something we cannot control… they never left in St. James Town, *any* greenspace. Nothing." This tokenistic process has resulted in frustration as she elaborates, "They do this meeting... and ask people, *ask ask ask* and after that, they do the opposite."

Isatu, a Black Muslim woman who has lived in Jane-Finch for all her life, described the lack of transparency in how decisions regarding greenspace facilities are made, and questioned whose needs were being met. She photographed two different types of sports infrastructure in neighbourhood parks, contrasting a torn basketball net with a new tennis court (Figure 2). In speaking to a young Black resident using the basketball court, she described:

"He was like, 'Yeah, you should also tell them fix up the rims. Like, this is where we'd be

playing every day. And it's just not a hyped up feeling.' They just don't have that same experience. Because it looks like broken up and when the vibe is broken, people will not come."

"Broken vibes"



"Why a tennis court?"

Isatu, Jane-Finch
Black, Female, Muslim, 18 – 24 years
Born in Canada/ lived here all or most of my life

Figure 2. Photographs by Isatu (Jane-Finch resident)

Sayem, a South Asian Muslim male who lives in Jane-Finch, emphasized the lack of cricket pitches in the neighbourhood (Figure 3, Photo 2), describing how residents set up "makeshift" cricket pitches on park pathways and unused bocce courts:

"Ever since I've come to this area since 2011, that bocce court, we use to practice cricket… And after the new construction that court is no longer there. We have some trees… there's a large amount of Italian Canadians in our area, but obviously, there's a big shift. And we don't have the same amount of same type of people anymore."

The amenities in urban greenspaces are an indicator of whose needs are being met in these neighbourhoods. When the bocce court was no longer used for the intended sport, it was

removed. It was not repurposed as a cricket pitch despite clear interest. Racialized residents identified sports like basketball and cricket that were popular and that they wanted in greenspaces, but the infrastructure didn't reflect their interests. These examples juxtaposed the lack of basketball and cricket facilities in comparison to tennis and golf facilities, bringing into question whose voices are heard and listened to. Ford and Airhihenbuwa (2010a) describe *voice* as an important principle of anti-racism praxis which is "the privileging of marginalized persons' contributions to discourses. It responds to an insidious way that institutionalized racism subtly reinforces both the dominance of majority group perspectives and the re-marginalization of minorities' perspectives" (1394). Valuing the *experiential knowledge* of racialized residents means that the equitable allocation, distribution, and maintenance of urban greenspace amenities and resources should center the realities of those who are racialized (Ford and Airhihenbuwa 2010b). This call for centering experience does not mean saving one seat at the table as a performative gesture. Participants and the community partner organizations noted that in urban greenspace city consultation processes, residents will share their needs and wants which results in a long list of suggestions. However, there is no transparency around which suggestions are ultimately selected and often no true community engagement and equity lens. Ultimately these "consultations" end up reinforcing much of the status quo and the ongoing marginalization of racialized residents' voices.

There are several challenges in supporting park environments in low-income, communities of colour; including inequitable resource allocation and the limited work done to identify needs and relevant measures (Floyd, Taylor and Whitt-Glover 2009). In Los Angeles, Pincetl and Gearin (2005) found in their focus groups (about 50-60% Latinx) that residents also wanted access to public urban greenspaces that enhanced their daily quality of life, such as tree-

lined streets to walk their children to school, not just as a destination for leisure or recreation. Although there is always variation among groups (i.e., avoid homogenizing racialized groups), there are certain activities in urban greenspaces that are linked to certain groups, including racial and ethnic groups. There are park use patterns and dynamics related to activity type whether it is for recreation, socializing, sports and type of sports (e.g. cricket and basketball) and in terms of group and size (large family groups vs. alone vs. small peer groups).

Procedural justice in urban greenspace factors into green gentrification processes (Draus et al. 2019). The expansion and renovation of urban greenspaces results in the paradox of excluding the existing residents who are supposed to benefit from the revitalization (Wolch, Byrne, and Newell 2014). Jane-Finch is undergoing this complicated process, with significant infrastructure upgrades including to greenspaces. Amita from Jane-Finch noted how these changes are "making it really unaffordable for us to live in." These negative consequences need to be mitigated. The allocation, maintenance, and revitalization of urban greenspaces for racialized communities is an opportunity to attend to systemic discrimination and should not be solely tied to the interests of white or wealthy people in power. A critical race lens could complicate these current conversations on green gentrification. The critical race concept of *interest convergence* was described by Derrick Bell who noted that civil rights advances for Black people "always seemed to coincide with changing economic conditions and the self-interest of elite whites" (Delgado and Stefancic 2012, 22). Procedural justice would embed transparency and participatory mechanisms into these processes, while valuing the dignity, rights and voices of racialized and marginalized residents, and actively countering displacement brought on by green gentrification.

3.3 Dynamics in urban greenspaces and recognitional justice

What are the dynamics and tensions between different users, in the context of structural forces? How is social access to urban greenspaces experienced and evaluated? Recognitional justice in urban greenspaces would enable people to express themselves in their own ways alongside respect for others' differing needs, values, preferences and identities (Langemeyer and Connolly 2020). This principle encompasses the idea of social access in urban greenspaces, i.e., the safe, easy and comfortable access to public greenspaces where people can respectfully engage with the environment in their own ways and with each other, without fear of marginalization, exclusion, or othering. Klein, Dove and Felson (2021) describe social access as "encompassing the interplay between the physical conditions of urban neighbourhoods and greenspace with the socio-cultural and historical relationships urban residents have developed" (1). Participants took up recognitional justice in a variety of ways.

Andrew is a Vietnamese-Canadian male who grew up in Jane-Finch. Andrew's interview elucidated that there are accepted activities in urban greenspaces and others that are looked down on, highlighting how this varies based on racial identity:

> "a Filipino family had a whole karaoke thing... at least 60 people outside… and Vietnamese people love karaoke… so just seeing that… reminds me of home… that, to me, is a very joyful experience… witnessing their family friends, uncles and aunties around singing karaoke… I don't know if there's like a Vietnamese way to use greenspace. But I will say that's definitely a unique use of greenspace."

As Andrew stated, there is no one way that a particular racialized group uses urban greenspaces. While attending to the needs of racialized groups is important, Critical Race Theory cautions against *essentializing* or homogenizing racialized groups, i.e., having one or a few people from a

group represent a whole population. Andrew unpacked how greenspaces in Canada are coded as "a white thing":

> "Maybe you've heard friends make the joke, 'why would we go camping? Like our parents escaped these countries not to like go back'… always kind of that association like the outdoors is not really for us… But, obviously… back home in Vietnam, like yeah, people go outdoors, they hang out in greenspaces, they go walk on the beaches, they love it just as much as here and what is it when it comes here that this is coded as like a white thing?"

Anguelovski and Corbera (2023) articulate how in racialized urban environments, "the design, norms, and rules around new greenspaces have been shown to overlook the needs of immigrant and minority residents as well as their perceptions of nature and even to increase their control, policing, and exclusion, thus making nature in cities increasingly white" (50). Roe et al. (2016) noted that different 'Black and minority ethnic' groups have distinct motivations, use patterns and perceptions in urban greenspaces. Meaningful engagement is required to meet these needs. False narratives around racialized people's use of greenspaces and this *social construction of knowledge* have contributed to perpetuating greenspaces as spaces that focus on the needs and experiences of white people (Ford and Airhihenbuwa 2010a).

Historically, parks were private spaces reserved for the rich and upper-middle class and so people of colour and lower-income people "may read the landscape as exclusive – something for others" (Low, Taplin and Scheld 2005, 199). The parks in Battery Park City in Manhattan, New York are not gated, but the predominantly racialized Black and Latinx working-class in the neighbourhood read cues of exclusivity and limited use of these parks. There were similar cues of exclusion in this study. Ayesha, an Indo-Caribbean woman who lives in Jane-Finch, said:

> "there's a lot of people color living in the neighborhood, a lot of tenants. During COVID… we expected there to be this huge surge in the amount of people that went to the parks, but it didn't really happen that way… the thing about this park is it's also connected to some of the… condos… So sometimes it might give off that impression of private property and what can and cannot be used. And the park… got updated recently, it was a very expensive update… there's like a tennis court there that appears to be private… I never had a park like that growing up."

Interpersonal interactions and social access to public urban greenspaces was further complicated by interracial dynamics. Minakshi is a South Asian mother from Jane-Finch who goes to the park daily because they have "no backyard." She said:

> "They don't like immigrants, especially the Black (people and) people like us… So they say that these people are making this place 'filthy,' and also in the park I feel that the (parents of) white kids… want them to be around white kids… their parents don't like them to play with the coloured kids."

Minakshi's narrative is just one of many that showcase how racism is still present in everyday interactions, including on a playground – a public space intended to cultivate joy, play, social interaction, learning, and growth. *Race as a social construct* is a Critical Race Theory principle that underlines how race is construed, and there are implications for recognitional justice in urban greenspaces. Macro-level structural forces like racism and colonialism have influenced interpersonal interactions and how and where people express themselves in urban greenspaces. Critical Race Theory rejects the idea of a post-racial society, highlighting the importance of actively addressing racial tensions in all settings, including urban greenspaces.

Racism and colonialism intersect with other systemic oppressions such as sexism, classism, ableism, xenophobia, homophobia and transphobia to influence people's realities. Crenshaw (1989) outlined the concept of *intersectionality* and how people's intersecting identities result in unique experiences; there are no "single-issue" struggles (Lorde 2012, 138). In their interviews, participants' experiences of race intersected with other identities such as migration status, gender, and religion to influence how people felt they were perceived in public urban greenspaces. Several of the residents either agreed (33%) or strongly agreed (17%) with the statement "I worry about my safety in outdoor, public greenspaces due to my race." About 28% said they neither agreed nor disagreed, while 17% disagreed with the statement. The one resident who "strongly disagreed" about race being a factor in safety, "agreed" that there are identities other than race (e.g., gender, religion) that make her worry about her safety in public greenspaces. At least half of the participants either agreed (33%) or strongly agreed (22%) with the statement "I worry about my safety in outdoor, public greenspaces for reasons other than race (e.g., gender, religion etc.)" All these participants either identified as female or responded in the affirmative to the statement "My religion is visible to others in public spaces (e.g., a hijab, a turban etc.)."

Roua is a Middle Eastern Muslim woman who recently immigrated to Toronto and lives in St. James Town. She wears a hijab and used the language of "bad watching" to describe the glances she sometimes receives in public. Khalid is an Arab husband and father living in St. James Town and described how he is identified as Muslim in public when he is with his wife, who wears a hijab. After "the attack of the Muslim family in London, Ontario," he said "its stay in our mind… we sometimes feels scared… They were identified by their clothes and by their religion, and that's why they were killed." Both narratives are rooted in Islamophobia.

Amal from St. James Town described greenspaces as “welcoming” because “when you live in high rise building you want greenspace around, you want to go to smell some fresh air outside but they are not safe” (Figure 3, Photo 3). Several racialized women described issues of safety due to their gender. Priya from St. James Town said, “I was once kind of threatened in a park… This person wasn't allowing me to pass… he was a young guy… a person of color… I was very, very afraid.”

These examples from Roua, Khalid, and Priya illustrate how the intersecting identities of gender and religion interlock with race to influence experiences and perceptions of safety in urban greenspaces. For equitable and just urban greenspaces, it is key to understand how interpersonal interactions play out and take steps to ensure that people of all intersecting identities are welcomed. Attempts to be more inclusive are often laced with the problematic assumptions that we are in a colourblind, post-segregated and post-racial world, and that simply changing the rules to allow racialized people to enter has somehow made an environment inclusive (Anguelovski et al. 2020). Valuing and listening to this experiential knowledge and cultivating processes for attending to these issues in relational, intersectional, and meaningful ways is essential to complicate the notion of “inclusivity.”

3.4 Structural forces at play in urban greenspaces and restorative justice

This final section asks: *How does urban greenspace design and planning engage with complex structural forces such as racism, xenophobia, sexism, and classism?* The principle of restorative justice is based on “acknowledging histories of social trauma and taking recovery measures” (Calderón-Argelich et al. 2021, 3). Urban greenspaces are sites where racial and social injustices have been enacted historically and continue to play out in North America and elsewhere, in terms of stolen Indigenous land and colonial land grabs, slavery and plantations,

and related racist ideologies. Draus et al. (2019) describe how "[h]istorical trauma is embedded in spaces and places that surround people and shape their experience" (160). This trauma can span generations. Participants unpacked the complexities of structural forces and offered their situated knowledge for how this looks in their neighbourhood greenspaces regarding intra and interracial dynamics. Julia is a mixed-race, Black woman who has lived in St. James Town for a long time. She described how newcomers bring their different "beefs" from their home countries, resulting in "clusters" of people in public spaces:

> "Classism happens between Brown people. Colourism happens between Brown people… I try to explain… if you're Black, you're Black. Nobody gives a f**k what you think of your Somali neighbor, nor whether you like Nigerians or whether Trinidadians get along with Jamaicans, you're all n***** to them… The same goes for the Muslims… because when it really comes down to it, what do we all have in common? We're all colonized."

Ayesha from Jane-Finch also described the tensions between different races and socioeconomic groups in urban greenspaces:

> "Unfortunately, there's a lot of tension between some of the races. Not always, but in particular there are some European individuals who definitely do not like newcomer families… seniors are seeing a decline in their standards of living… So they don't understand the deep economic roots behind why things are getting worse for them… They have different access to space… their way of interacting with land and space is going to be different."

Divisions between and within racial groups weakens opportunities for *coalition and solidarity-building*. Critical Race Theory describes this intended division-making, whereby racial groups are set against one another as a function of white supremacy, and as one entrenched way

that systemic racism often curtails meaningful progress in anti-racism efforts. The *differential racialization* concept in Critical Race Theory describes how different racial groups have "been racialized in its own individual way and according to the needs of the majority groups at particular times in its history" (Delgado and Stefancic 2012, 77). The differential racialization concept acknowledges the unique racialized experiences of different racial groups especially for Indigenous and Black people. Differential racialization manifests uniquely in Canada as compared to the United States (Gosine and Teelucksingh 2008), but racism is nonetheless present and pervasive in systems, institutions, and spaces – including greenspaces. Michael, a Black male, described turning around while biking in a ravine when he encountered a group of guys, because he has "internalized avoiding situations" and has "baked that into my idea of feeling safe because of my race."

Despite divisions arising from complicated, layered histories, participants also described cohesion and solidarity-building between racial groups where residents shared geographical identities. Amal described, "For us in St James Town, you can united 1000 people together easily... you find the White, the Black, the Indigenous, the Asian, we have the same world, we are together." Without restorative justice, it will be near impossible to avoid reinforcing existing inequities in urban greenspaces. Anguelovski and Corbera (2023) note that nature-based solutions must tackle embedded green inequities, to support repairing people's relationship with land and nature. The commitment to restorative justice (alongside procedural and recognitional justice) is critical and processes to build solidarity and understanding between and within racial groups are vital, grounding this unlearning in historical contexts. The co-design and co-creation of urban greenspaces must be enacted with attention to equitable, anti-racist and just processes and outcomes, while critically analyzing histories of oppression and addressing systemic racism.

The Critical Race Theory principle of *structural determinism* refers to the role of macro-level forces in "driving and sustaining inequities across time and contexts" that "preserve existing power hierarchies" (Ford and Airhihenbuwa 2010a, 1394). Systemic racism continues to perpetuate structural inequities between white and racialized groups and limits creating truly inclusive, accessible, and safe spaces for racialized people. Often considered "civilized" and "harmonizing" spaces, urban greenspaces are often viewed as exempt from the nasty business of racism by their architects, planners, and developers. The legacy is divisive spaces that often hold invisible signs of exclusion for racialized people. Andrew described the golf course photographed from his family's apartment balcony in Jane-Finch as "hiding the stark class divide." (Figure 3, Photo 4). He described:

> "(the golf course is) not readily understandable or accessible… that is actually how a lot of the greenspace feels… very opaque… there's no signals there that tells me this is a place that I can hang out. And… it is actually the quote unquote 'normal natural thing to do'."

Exclusionary experiences in urban greenspaces must be actively addressed in alignment with Critical Race Theory's commitment to collective *liberation* and emancipation for all.

1.

"Queues"
By Priya, St. James Town
South Asian, Female, 25-34 years
Living in Canada between 4 and 9 years

2.

"Shackled dreams"
By Sayem, Jane-Finch
South Asian, Male, Muslim, 18-24 years
Living in Canada for 10 years or more

3.

"Welcoming but not safe"
By Amal, St. James Town
Middle Eastern, Female, Muslim, 45-54 years
Living in Canada between 4 and 9 years

4.

"Hiding the stark class divide"
By Andrew, Jane-Finch
Vietnamese-Canadian, Male, Agnostic, 25-34 years, Born in Canada and lived here most of life

Figure 3. Narratives of exclusion in urban greenspaces by racialized participants

Table 1. Integrating Principles of Environmental Justice and Critical Race Theory in Public Urban Greenspace Design and Processes

Principles of Environmental Justice* (Calderón-Argelich et al. 2021)	Study Insights	Critical Race Theory informed actions* (Delgado and Stefancic 2012)
Distributional Justice: "the equitable allocation of and access to material costs and benefits for all social groups in both spatial and temporal terms" (3)	Inequitable greenspace provision and inadequate greenspace facilities/ amenities and maintenance in racialized, marginalized neighbourhoods.	Center the perspectives of those who are racialized and marginalized (centering the margins), not overlooking racial inequities under the misconception that racism is over (colourblindness).
Procedural Justice (or participatory justice): "participatory and inclusive decision-making processes and it is linked with transparent and meaningful citizen involvement" (3)	Lack of meaningful engagement and participation for racialized and marginalized communities in urban greenspace processes.	Make space for Black, Indigenous and racialized voices that have been historically relegated (experiential knowledge), while mitigating power dynamics to ensure participatory and non-tokenistic processes that are not solely tied to the economic interests of white groups in power (interest convergence).
Recognitional Justice (or interactional justice): "related to interpersonal interactions that allow people to express themselves in their own way, provision and access to information, and respect for different needs, values, preferences and identities" (3)	Lack of nuanced understanding of the needs, activities, preferences and experiences of racialized and marginalized communities in urban greenspaces, resulting in divisive and exclusionary greenspaces.	Recognize and respond to the complexity of experiences where identities and systems of oppression interlock (intersectionality), addressing needs without homogenizing racialized experiences (anti-essentialism).
Restorative Justice (or reparative justice): "based on acknowledging histories of social trauma and taking recovery measures" (3)	Broader systems and global historical contexts have underlying ramifications for how racialized communities use, access, and interact within urban greenspaces, perpetuating racial and social inequities.	Examine how macro-level forces like racism, classism, sexism etc. intersect at socio-structural-spatial levels (structural determinism) alongside complex inter and interracial dynamics (differential racialization).

4. Summary and Conclusions

The findings elucidated many interrelated questions pertaining to racial justice in urban greenspaces, including: How do racialized residents access, use, and navigate urban greenspaces? Which neighbourhoods have limited access to high-quality, resourced, and maintained greenspaces? Who is seen as more deserving of high-quality greenspaces? Who feels safe in urban greenspaces? Who is less able to advocate for themselves and push back against the status quo? Whose voices are listened to and whose are relegated to the margins? This paper illustrates how environmental justice and Critical Race Theory principles can help further action on racial justice in urban greenspaces by naming, visualizing and qualifying specific inequities and points of contestation. This study contributes to the deepening of understanding racialized people's experiences in public urban greenspaces, highlighting the unique points of tension through their photographs and voices. These visual narratives showcase lived experiences, voices, and subjectivities that must be considered for the inclusive design of urban greenspaces. The findings highlight deep inequities in public urban greenspaces at a neighbourhood scale. While the participants enjoyed urban greenspaces and wanted to use them, issues related to greenspace provision, processes of exclusion from decision-making, complicated intra and interracial dynamics and deeply embedded systemic-level oppressions all hindered the potential for enjoying urban greenspaces. Participants unpacked their nuanced experiences in urban greenspaces, drawing connections between their race and other intersecting identities. Many noted the underlying links between race, class, and migration, often attributing the state of their local greenspaces to broader systems of oppression. The findings highlighted several considerations in moving towards racial justice and equity in urban greenspaces including: (1) paying greater attention to processes that facilitate procedural, recognitional and restorative

justice, not solely distributional justice, (2) applying a Critical Race Theory lens in urban greenspace design and planning to address centre racialized realities, and (3) adopting action-oriented steps to ensure just and equitable urban greenspace processes that center racialized and marginalized voices.

While this was a small study, conducted during the unprecedented COVID-19 pandemic, it surfaced important issues and highlighted in-depth and nuanced perspectives of a population not often included in urban greenspace discussions. Since participants needed to take photographs and participate in online sessions, this study likely excluded those who did not have access to the technology to participate remotely and virtually. These pandemic-induced limitations should be mitigated in future remote research, for example through mailing equipment to participants. This desired commitment to equitable processes was beyond the scope of available funding. While recruitment efforts were extensive, the study likely drew participants who sought urban greenspaces regularly and with the resources to do so and does not include those who face the greatest barriers to urban greenspace use.

The design and planning of urban greenspaces continues to fall into the same traps and tensions that Critical Race Theory has identified in other disciplines and systems such as colourblindness (racial differences are overlooked because of the misconception that everyone is now treated the same regardless of skin colour/there is no more racism), essentialism (a tokenistic member of a racialized group represents the whole group), interest convergence (advances in racial justice are tied to economic interests of white groups in power) and structural determinism (macro-level forces like racism and colonialism influence outcomes). Urban greenspaces are not created equitably and there are harms that come from trying to maintain a

status quo which is perceived as liberal and progressive. Taking up Critical Race Theory principles can support the shift to more racially just and equitable urban greenspaces.

It is important to examine racialization in urban greenspace research, policy, and practice, while attending to processes. Participants highlighted their frustrations with local urban greenspaces, including lack of desired facilities and dearth of safe, high-quality greenspace. From a monitoring and evaluation perspective, there continue to be gaps in measuring equitable greenspaces which could support procedural and recognitional justice processes. While there is literature on auditing greenspace quality (Francis et al. 2012, Subiza-Pérez et al. 2019), there is no process for assessing quality of urban greenspaces across Toronto's neighbourhoods. Amidst competing demands for space in cities, audits of the physical features of greenspaces could support equitable access for marginalized communities while mitigating the unintended negative effects of gentrification (Wolch, Byrne, and Newell 2014). Furthermore, racial social cohesion is a challenging, but important, concept to define and measure, especially in terms of how urban greenspaces may facilitate this (Jennings and Bamkole 2019, Hobson-Prater and Leech 2012). Embedding this measurement into praxis would respond to the racial tensions identified by participants, facilitating restorative justice processes. Race-based data collection approaches demand multiple ethical considerations. Adhering to research guidelines established by racialized groups is key to avoid extractive research, for instance OCAP principles[30] (Ownership, Control, Access and Possession) for First Nations data sovereignty and EGAP principles[31] (Engagement, Governance, Access and Protection) for Black communities. These principles established by

[30] https://fnigc.ca/ocap-training/

[31] https://blackhealthequity.ca/wp-content/uploads/2021/03/Report_EGAP_framework.pdf

Indigenous and Black communities push back against the extensive harmful, racist and unethical research that has historically and continues to be done to and not with these communities.

From a policy and practice perspective, resources need to be equitably distributed to ensure fair urban greenspace provision and maintenance that do not exacerbate existing inequities (Sister, Wolch and Wilson 2010, Rigolon and Németh 2021). Based on a community-based needs assessment focused on race and nature in Toronto, Scott and Tenneti (2020) also recommend: 1) increasing racial diversity in communications (i.e., representation), 2) promoting urban nature and increasing access for racialized youth, and 3) increasing comfort in nature through guided activities and education. Similarly, participants affirmed the need for processes, communications and engagement that included them. Blackwell-Moore and O'Brien (2017) describe a restorative trauma informed approach to equitable community development in greenspaces. Wayara (2021) illustrates planning recommendations that center race in urban greenspace design and processes. These examples provide scaffolding from which to build processes grounded in justice that were called for by participants in this study. Incorporating racialized perspectives can push both urban greenspace scholarship and practice to reckon with the fraught histories and ongoing legacies of systemic racism, and towards equitable and just cities.

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CHAPTER SIX: CONCLUSION

Research Summary and Contributions

Taken together, the four core chapters explore the methodological, theoretical, and practical opportunities and challenges for designing equitable and just public urban greenspaces that promote social and health outcomes. This dissertation took an interdisciplinary approach bridging public health, critical theory and urban/landscape design. By centering race, this collection of manuscripts contributes to a deeper understanding of how being racialized, and all that it entails, plays out in public urban greenspaces. Racialization and racism are attended to throughout this dissertation as social constructs that have relegated Black, Indigenous and People of Colour for generations as lesser than and in maintaining whiteness as superior. This dehumanization has served the purposes of power and control across space, time and resources. The mechanisms by which racism and colonialism continue to operate worldwide are complex, and Critical Race Theory scholars have been doing the complicated work of elucidating how racial injustice is enacted, at multiple levels, across institutions, sectors and disciplines. I ground my analysis throughout in Critical Race Theory, attending to principles of intersectional feminism and anti-racism. I also engage with visual, participatory, and community-engaged research principles, as complementary approaches for critical inquiry. In this discussion chapter, I return to the four interconnected research questions in this dissertation:

1. How do people who are racialized access, use, and navigate different public urban greenspaces? [Chapters 2, 4 and 5]
    a. What are the pathways (from the individual to structural levels) that facilitate public urban greenspaces being used and enjoyed by racialized people?

b. What are the barriers and challenges (from the individual to structural levels) that racialized people experience in accessing and using public urban greenspaces?

2. What are the ways that public urban greenspaces facilitate the mental, physical, and social wellbeing of people who are racialized? What are the barriers to public urban greenspaces promoting the wellbeing of people who are racialized? [Chapters 2 and 4]
3. How can public urban greenspaces be(come) racially just and equitable spaces? [Chapter 5]
4. What changes or solutions could be implemented in public urban greenspaces that would encourage equitable health and wellbeing and racial justice? (action-oriented) [Chapters 2, 4 and 5]

In this concluding chapter, I provide a brief overview of the preceding core chapters, reflect on their theoretical, methodological and praxis contributions and illustrate the connections between them as a unified body of research. I also highlight the important knowledge mobilization activities that were facilitated as part of a feminist, anti-racist community-based participatory action research (CBPAR) process and re-engage with the importance of this methodology.

Chapter Two (the community report) takes up research questions one, two and four. Findings indicate that residents linked their use – or lack of use – of urban greenspaces with a range of interconnected key themes: (1) belonging and social connection, (2) exclusion, (3) mental health and wellbeing, (4) right to play and children's recreation, (5) maintenance inequities, (6) access and accessibility, (7) safety, (8) gentrification and complex use of space. Many of these themes have been noted in the greenspace literature and scholars have attempted to elucidate pathways (e.g., measuring social connection, health outcomes, physical access, perceived safety etc.). However, much remains unexplored regarding different population

groups, contexts and outcomes (Markevych et al. 2017). This research begins to fill this lacuna. The photographs and stories provided deeper insights into *why* those pathways to social and health outcomes may not occur for racialized residents living in marginalized neighbourhoods. While many residents enjoyed living in neighbourhoods that had high racial diversity and felt connected to their neighbourhoods, they also shared narratives of exclusion and tension (taken up in Chapter 5). Furthermore, the residents strongly validated the importance of urban greenspaces for their health and wellbeing (described in Chapter 4), considering their dense urban environments and the lack of private outdoor space that comes with apartment living. Personal resources such as having the time and money to afford leisure time outside in urban greenspaces were also described. This chapter highlights the range of barriers residents faced in using their neighbourhood greenspaces safely and in the ways that they desired – ranging from the lack of desired amenities, limited urban greenspace access and lack of upkeep to fear for their safety. These findings bridge the individual-level, interpersonal-level and community/neighbourhood level and are supported by a limited number of other studies that have focused on barriers to using public urban greenspaces for equity-deserving groups (Cronin-de-Chavez, Islam, and McEachan 2019; Wood et al. 2018; Rigolon and Németh 2021; Rigolon et al. 2021). The issue of inequitable urban greenspaces related to availability, quality and safety exists across many cities globally, with those who are low-income and ethnic and racial minorities experiencing the greatest inequities (Rigolon, Browning, and Jennings 2018; Wolch, Byrne, and Newell 2014). Residents also described broader structural-level barriers such as racism, xenophobia, classism and misogyny.

As the community report was written in collaboration with community residents and with community partner organizations, it speaks directly to the complex and varied experiences of

racialized residents in Toronto's greenspaces and documents the action-oriented recommendations put forward by residents. Methodologically, one of the core values of CBPAR, as well as feminist and anti-racist principles, is to share research findings back with communities in accessible ways. To this end, the highly visual community report amplified the photographs and voices of the residents and is a strength of this research in bridging theory and urban greenspace praxis. Key recommendations specific to the two neighbourhoods, Jane-Finch and St. James Town, were also identified. The report served as a tangible call to action that has been shared with municipal stakeholders, practitioners, researchers in multiple venues.

In Chapter Three, I reflected on the methodology of this research process as a feminist and anti-racist CBPAR dissertation, theorizing what a collaborative "sensemaking" process with community could look like. I delve into several of the institutional and structural barriers to facilitating feminist and anti-racist CBPAR in academia, particularly within a doctoral program. Doctoral programs are rarely designed to support pursuing this important process-intensive and action-oriented research (Khobzi and Flicker 2010; van der Meulen 2011).

To make sense of the large and rich data set of photographs and narratives, I facilitated a series of virtual collaborative analysis sessions with residents. This participatory endeavour allowed me to further ground the findings in community knowledge, experiences and aims – a key principle of CBPAR that I sought to integrate. I also reflect on what it means to uphold feminist and anti-racist principles such as attending to power dynamics, care, emotional labour, reflexivity, critical consciousness and experiential knowledge in an ongoing way (Fleming et al. 2023; Ford and Airhihenbuwa 2010; Phillips 1997). The resulting analysis process allowed for both individual and collective reflection – and more deeply engaged with racialized realities and experiences in urban greenspaces as well as neighbourhood-level challenges and opportunities.

As a participatory process that took place almost entirely online, there are methodological contributions that can be gleaned for other scholars. These collective conversations provided a (virtual) space for residents to come together (having previously engaged in only individual greenspace visits and interviews), view the collection of photographs and narratives from other residents, and think critically about the findings at a broader, neighbourhood and structural level. This collective analysis also strengthened my individual analysis of the photographs and the interview data which formed the basis of the manuscripts in Chapters 4 and 5.

To my knowledge, there has been no photovoice study conducted with racialized groups in Toronto's greenspaces to date. Photovoice has been used successfully across many settings to understand lived, subjective experiences and in this study, was a powerful tool to "visibilize" inequities. Hatala et al. (2020) conducted a photovoice exploration with urban Indigenous youth exploring land and nature as sources of resilience. Wendel et al. (2019) also used photovoice to understand experiences of safety, justice and racial equity and document systemic inequities in various spaces. This methodology has also been used online to explore critical consciousness and agency among Black youth during the pandemic, outlining lessons learned in implementing photovoice online as an anti-racist participatory method (Jahangir et al. 2022). This research sits alongside the growing body of research expanding photovoice methodologies online (Black and Faustin 2022; Breny and McMorrow 2022; Chen 2022).

Chapter Four on wellbeing and equity in greenspaces responds to research questions one, two and four. I highlight the empirical findings related to wellbeing and equity in greenspaces for racialized residents in marginalized neighbourhoods. These pathways and lived experiences have been less researched and this manuscript is a theoretical and practical contribution to embedding racialized people's experiences in designing and ensuring equitable health-promoting urban

greenspaces. The photographs and narratives from racialized residents illustrate the ways that urban greenspaces are intricately linked to mental, physical, and social wellbeing, and the social and structural barriers that exist. I draw links to the broader determinants of health (social, structural, community/neighbourhood and ecological/ environmental determinants), grounding this in public health literature and in a socio-ecological analysis of the issues at play (Shelton 2018; Barton and Grant 2006; Bronfenbrenner 1994). This contribution problematizes the well-documented public health and health promotion literature that purports greenspaces as beneficial to all. The framework centers identity (explicitly, a person's multiple intersecting identities) as a factor that meditates a person's experiences in greenspaces and in relation to the three facets of wellbeing. While there are many pathways to wellbeing through greenspaces (nine are outlined in the paper), these interconnected pathways are not experienced in the same ways. The study findings affirms those by Cronin-de-Chavez, Islam, and McEachan (2019) where low-income, multi-ethnic families' use of greenspace in Northern England was influenced by a range of individual, community and structural determinants. Findings provide in-depth narratives alongside local neighbourhood context and supports the calls for equitable urban greenspaces by other scholars (Jennings and Johnson Gaither 2015; Rigolon et al. 2021; Rigolon and Németh 2021; Hunter et al. 2019; Sharifi et al. 2021).

Chapter Five on exclusion in greenspaces responds to research questions one, three and four. I contribute to the conversation on racial justice in urban greenspaces by mapping the empirical findings of the study onto four principles of environmental justice (distributive, procedural, recognitional and restorative justice). I describe issues of inequitable urban greenspace distribution and maintenance, lack of meaningful participation for racialized communities, the lack of understanding of the diverse needs of racialized communities, resulting

in divisive and exclusionary urban greenspaces and the macro-level forces that create complex inter and intra racial dynamics. Participants linked neighbourhood greenspace inequities to their identities as racialized people and newcomers while also taking up issues of class and gender. Drawing on Critical Race Theory principles, I analyze the theoretical underpinnings for ongoing racial injustice in public urban greenspaces and potential opportunities for action. This chapter puts forward how Critical Race Theory principles can be mobilized to take action on racial injustices in urban greenspaces. Much of the environmental justice research has focused on distributional justice and only (relatively) recently have scholars begun to take up other forms of justice, such as procedural justice, recognitional justice and restorative justice (Calderón-Argelich et al. 2021; Langemeyer and Connolly 2020; Anguelovski et al. 2020; Triguero-Mas, Anguelovski, and Cole 2022; Agyeman et al. 2016).

Residents' narratives highlight how the lack of attention to meaningful and engaged greenspace design and planning processes perpetuates inequities and injustices. The four principles of environmental justice (distributional, procedural, recognitional, and restorative) must be taken together. The implications of these findings pertain to public policy, public health and urban/landscape planning as the gaps in urban greenspace provision perpetuates neighbourhood-level inequities and ultimately, city-level wellbeing. From an environmental justice and anti-racism lens, policy and funding mechanisms need to distribute resources to meet the needs of racialized and low-income neighbourhoods (Rigolon, Browning, and Jennings 2018).

In summary, this dissertation has contributions to several disciplines and fields including public health, landscape architecture, urban planning/design, environmental justice, Critical Race Theory, visual arts methodology and community-based participatory action research. Threading

all these disciplines, is the notion of how to integrate an intersectional anti-racist lens – be it looking at intersectional identity, interpersonal dynamics, urban greenspace provision and processes, or broader systemic issues. Methodologically, this research provides an important and necessary complement to the existing quantitative and epidemiological urban greenspace literature. Although some studies have identified that social and health disparities exist as a result of inequitable urban greenspaces (Williams et al. 2020; Sister, Wolch, and Wilson 2010; Rigolon et al. 2021), this qualitative exploration expanded on these insights and delved into how a specific group experienced greenspace inequities and started theorizing on why. This research also has practical implications as tangible recommendations regarding local neighbourhood context were shared. The findings are also applicable to other similar neighbourhood contexts. The principles and action-oriented suggestions identified throughout the chapters (2, 4 and 5) are relevant for policymakers and practitioners in related fields. Returning to the Canadian Mental Health Association's (2019) recommendation for population-based programs that have been evaluated as "accessible, culturally safe, and intersectional and that account for the social determinants of mental health," (24) I argue that built and natural spaces, including urban greenspaces, need to meet these requirements as part of a comprehensive health promotion strategy. The possibility for urban greenspaces to promote mental, physical *and* social wellbeing underscores the vast implications for public health and health promotion, in light of the growing disconnect between humans and nature.

Limitations

Despite these strengths and contributions, there are several limitations to this research. These are described below alongside recommendations for future research. First, this was a small study with a sample of eighteen racialized residents. This was not a quantitative study and as

such, I could not draw associations, causations or correlations between the different factors that influence the relationship between public urban greenspaces and wellbeing or equity. Rather, it is an in-depth exploration into a specific group's perceptions and experiences and should be contextualized accordingly within broader literature and other studies. Next, this research did not differentiate between types of urban greenspaces in exploring experiences of racialized residents, such as public parks versus ravines versus hydro corridors and so on. During the online sessions, I discussed different types of public urban greenspaces with residents who were given the flexibility to select a public urban greenspace of their choice within their neighbourhood. In fact, many chose the same greenspaces. While some residents did talk about their urban greenspace preferences and why (e.g., preferring parks to ravines because they felt safer with more people around or preferring natural spaces where there is "no human touch") this was not a focus of the study. Participants also logged the approximate times and dates they visited their chosen urban greenspace (mostly during daylight hours, evenings, and weekends), and how they got to their chosen destination (most walked or took public transit, one biked and a few drove to get to urban greenspaces further away). However, generalized conclusions could not be drawn. Type of urban greenspaces, mode of transport available, time available to visit greenspace, and length of time in urban greenspaces are some of the many nuances in the subjective lived experiences that warrant furthering exploration in supporting racialized people in using urban greenspaces.

Logistically, as the study took place during the pandemic, it was conducted entirely online. This limitation is noted in Chapter 5, but it warrants re-stating that participation was limited to those who had access to the internet and the equipment necessary to participate. The growing "digital divide" gained attention during the pandemic. This online-only process likely excluded some who may have wished to participate and in terms of facilitating inclusive,

participatory processes, future research must consider this. Additionally, the pandemic meant I had to forego a more embodied data collection methodology in urban greenspaces by conducting a "go-along" photovoice process with residents in real-time. Ethnographic sensing and walking methodologies that integrate a more sensory experience may elucidate diverse and pluralistic understandings related to health and wellbeing in urban greenspaces (Pink 2008; Springgay and Truman 2018; Gallegos-Riofrío et al. 2022).

There were several limitations and considerations regarding race and other identities as social constructs. As the study design took a race-centered analysis, only participants who identified as racialized were invited to join. I decided to open this study up to anyone who self-identified as racialized or a person of colour. The participating eighteen residents self-identified their race in an open-ended question and also selected from pre-defined racial categories. They identified across six different racial categories, and so with this range came important considerations in the conclusions that could be drawn. In the analysis and write-up, care was taken to avoid essentializing the experiences of any one racialized group while also attending to the unique experiences that may be experienced. There is an incredible amount of heterogeneity even within racial groups and in relation to other intersecting identities. In many ways, this study only begins to scratch the surface. Identity is a complicated and socially constructed concept. There were other aspects of identity that were asked in the demographic survey that may not have been accurately captured, for instance, sexual orientation, which was a complex concept to explain to a couple of participants who were not familiar with the terms "LGBTQ2S+" or "queer." This signified a particular moment in their own familiarity with the English language and the language of queer politics and perhaps their own understanding of self, although there is no way to know. Disability was another identity marker that requires consideration, for example,

when a participant chose to answer “I don’t know” in response to whether they are living with a disability. This identity is also not a binary state of being (to be answered with a ‘yes’ or ‘no’) but highlights the nuances of what it means to negotiate whether one lives with a disability over time. The survey was only ever intended to capture just one point in time - the timepoint when residents participated in the study.[32] Future studies could focus more deeply on the lived experiences of one specific racial group in urban greenspaces such as Black people’s experiences or taking up race with other intersecting identities such as queer South Asian women or racialized people living with disabilities. The possibilities are numerous. To this point on subjective and varied realities, Gallegos-Riofrío et al. (2022) problematize how “ ‘Eurocentric knowledge in the academic mode’ dominates current research on connections between mental health/wellbeing and nature” (9). While I do not explicitly take this notion up in this dissertation, it warrants noting that there are inherent biases in the conceptualization of this research study as it was guided by much of the Western literature. Since the study was based in Toronto, Canada, there are also practical applications to this approach in terms of research uptake. Nonetheless, an ever-expanding definition of wellbeing, nature, health, justice and equity can only serve to pluralize our understanding of how different people negotiate space, health, race and other related concepts.

The project did not explicitly take up colonialism and critiques of public urban greenspaces as stolen Indigenous land. As an immigrant and settler of colour, I was taught a false history about North America. In the 1990s, in the United Arab Emirates, my school textbooks taught me about European colonialists “discovering the new world” and not of the Indigenous

[32] Even that timepoint covered approximately three weeks from the first greenspace visit to the interview. Follow-up interviews were approximately a month later. If a resident was part of collaborative analysis and co-writing the reports, this engagement extended even further.

peoples of Turtle Island. There is no public greenspace without stolen Indigenous lands and this history is fraught. This was an important discussion with my committee at the dissertation proposal stage, as I was wary of engaging in tokenistic and unethical research. Our conversations acknowledged that, in many ways, more carefully following this thread would be an entirely different endeavour and scope of work, requiring meaningful relationships with Indigenous knowledge holders and communities. This work was outside the scope of this dissertation. Ultimately, given my positionality as a settler of colour and institutional constraints, this approach felt like the more respectful route. Of note, if someone who identified as Indigenous wanted to participate in the study, they would be welcomed to do so. Of the 18 participating residents, none self-identified as Indigenous to North America (i.e., Turtle Island). There are many Indigenous scholars and allies who are doing meaningful and important work in this area and whose teachings have influenced how I think about these complexities (Tuck and Habtom 2019; Tuck, McKenzie, and McCoy 2014; Hatala et al. 2020; Simpson and Bagelman 2018; Wayara 2021; Cahuas 2020; Allan and Smylie 2015; Mark and Boulton 2017). As I continue to expand my knowledge of different ways of doing this work, in engaging and unlearning, I hope there may be opportunities to work in relationship and support Indigenous-centered and decolonial work on land, nature, and greenspaces in the future.

Next, there were limitations due to resource constraints with funding and capacity. With a community-engaged project, one of the limitations is resources to coordinate and appropriately compensate community members for their time, expertise, and knowledge. This study was a standalone project that was not nested within a broader project with dedicated funding. It fell to me to find sources to compensate community members and fund the project outputs. While I applied to a variety of funding pools, both successfully and unsuccessfully, this ultimately

limited knowledge mobilization activities and how much I could offer as honoraria. For instance, one of the residents had wanted to participate in the collaborative analysis sessions, but I had to cap the numbers due to budgetary constraints, letting them know I would loop back around if a slot opened up.

Finally, there are limits to writing a manuscript-based dissertation for different audiences. While this approach allowed me to tailor the content of this dissertation to speak to the methodological approach and two themed empirical findings (i.e., wellbeing and racial justice), there is inherently some overlap in the sections, for example in the methods and results. Also, as Chapters 4 (on wellbeing and health equity) and 5 (on exclusion and racial equity) are written for different journals with detailed scopes and specifications, there were limitations to what could be included. For example, there may be the sense that the findings from Chapter 4 on wellbeing are not as strongly rooted in racial justice principles. This was addressed by pointing to and citing the other manuscripts in the dissertation where appropriate. By including the community report (Chapter 2), this dissertation ensures that the range of thematic findings are highlighted, and that community voice is centered.

Personal Learnings and Re-engaging with Feminist and Anti-Racist Principles

> "Caring for myself is not self indulgence,
> it is self-preservation, and that is an act of political warfare."
> – Audre Lorde (1988, 131).

When I first read those lines, it catalyzed a mental shift that has influenced me both personally and professionally. I had internalized that caring for myself was a selfish act, which spilled out into where and how I spent my time.[33] For several reasons, I often refer to the time

[33] I now spend time outdoors and in greenspaces when I can as part of a commitment to caring for myself.

post 2016 as my "bonus time" in life. Our time here is short, and so we must each determine how we will move on this planet and how we will be in relationship to others. Ahmed (2017) expands on hooks' "revolutionary" and "much-loved, much cited sentence" (237):

> "When you are not supposed to live, as you are, where you are, with whom you are with, then survival is a radical action; a refusal not to exist until the very end; a refusal not to exist until you do not exist. We have to work out how to survive in a system that decides life for some requires the death or removal of others. Sometimes: to survive in a system is to survive a system. Some of us have to be inventive, Audre Lorde suggests, to survive." (237)

Qualitative research often asks the researcher to bring their whole selves to their research (Hordge-Freeman 2018), and in this work with racialized residents, this commitment often brought up moments of tension, exhaustion, and frustration. I battled the ongoing suspicion that this research would be extractive and I wondered about how to responsibly hold residents' personal photographs and narratives. I pushed my own boundaries at times, telling myself that it would be worth it and that I was working late *just this one time*. I had to continuously learn how to pull back, make space for rest and trust the processes I had put in place. I drew on the insights and guidance of others, such as Tricia Hersey's commitment to rest as resistance (Hersey 2022). Even so, to enact feminist and anti-racist principles in research also means to do the emotional labour that comes with the privilege of being a researcher. I have walked or cycled almost every day and, in all seasons of this doctoral project (literally and figuratively), during data collection, data analysis and while writing this dissertation. I have replayed conversations with residents in my head while walking in greenspaces, read articles and books in the grass, and journalled and meditated on park benches. Over the past five years, visiting greenspaces became a core personal practice of care, embodying and mirroring the research topic itself. As I couldn't be with the residents during their greenspace visits, I visited greenspaces in both neighbourhoods on my own, taking photographs and journalling about my experiences in these spaces (Paquette and

McCartney 2012; Springgay and Truman 2018). In this project, the residents' stories were those of survival, of seeking happiness and seeking the right to exist and be well. Ahmed (2017) continues:

> "This kind of caring for oneself is not about caring for one's own happiness. It is about finding ways to exist in a world that makes it difficult to exist. This is why, this is how: those who do not have to struggle for their own survival can very easily and rather quickly dismiss those who attend to their own survival as being self-indulgent. They do not need to attend to themselves; the world does it for them" (239).

This research focus on urban greenspaces may be seen by some (not all), as a somewhat self-indulgent focus of study. A nice-to-have and not a need-to-have amidst perhaps more pressing concerns (and there are many). And yet this exploration of being in greenspaces is a telling and poignant indicator of how some people are forced to exist in, as Ahmed describes, "a world that makes it difficult to exist."

The rising popularity of CBPAR and anti-racist work is double-edged; there is a need for community-led and engaged research but there are critical questions in terms of who is doing this work in ethical, iterative, non-tokenistic ways with attention to both process and outcome. The methodology of feminist and anti-racist CBPAR requires continuous reflexivity and reciprocal engagement with racialized communities, collaborative "sensemaking" and co-creation, a recognition of the often-unseen labour, and a commitment to adaptability and accountability. It is because of these underlying tenets that Fleming et al. (2023) describe how CBPAR has been key in shifting institutional policies and results in anti-oppressive research that pushes for justice and equity.

I spent a significant portion of my degree on knowledge mobilization activities – prioritizing the importance of sharing findings with policymakers, practitioners and other stakeholders and knowledge users (see list of activities in Appendix H). This commitment to

knowledge mobilization and collaborative action was one of the central ways I enacted feminist and anti-racist principles in this dissertation. In addition to the community report (Chapter 2), I also curated a travelling photo exhibit with a modular design that allowed for easy transport and flexible installation. This design also had an interactive component to it, where the audience were invited to place stickers on the back of the photos and narratives that resonated with them. We launched the community report and showcased the travelling photo exhibit at two neighbourhood events, co-organized with community partners.[34] At each of the neighbourhood events, I also printed a series of enlarged photographs (24" x 36" and 11" x 17") to amplify residents' visual stories. These photographs were printed on waterproof material so they could be showcased outdoors for an extended time. At the community events, six residents spoke publicly about the report findings and calls to action. Other residents chose to organize anonymously behind the scenes – by getting an ice cream truck sponsored by a local small business, designing the event flyer, supporting assembly of the photo exhibits, recommending local businesses and restaurants, and taking event photographs among other important tasks. This centering of community indicated their ownership of the project and was a testament to the relationships that were built throughout the project.[35] In response to a media release, CityNews and CBC news crews were sent to the Jane-Finch community event. The project was also featured on CBC Metro Morning. Four residents spoke to the media about the importance of urban greenspaces in their neighbourhood and touched on the systemic issues and inequities. Metroland Media reached out for an article, which was picked up by the Toronto Star and The Scarborough Mirror

[34] This work involved collaboration with many individuals from Auntie Amal Community Centre, St. James Town Community Co-op, Corner Commons, Jane/Finch Centre, Department of Imaginary Affairs.
[35] As a community advisory member noted after one event "It was great to see you and meet your mom and your partner. The community love and spirit was evident in the kids, their involvement, the moms, the food (yum!). Indeed, it is a rich community and I would love to stay in touch."

(Hassen 2022). To support long-term knowledge sharing, Sarah Flicker (my supervisor) secured us a university webpage.[36] I designed and created the project webpage (concurrent to other activities) to ensure the webpage was ready for the report launch. As I touched upon in Chapter 3, in negotiating these multiple activities with several residents and organizations, I strived to build in transparency and accountability in relationship-building, keeping residents informed of upcoming activities while "moving at the speed of trust" (brown 2017, 30).[37]

We have presented the research findings in academic, policy and practitioner circles. I was encouraged by the warm reception of our study findings by some of the staff at Parks, Forestry and Recreation and the Jane-Finch initiative, who understood the importance of equitable urban greenspaces and are managing competing priorities and limited budgets while trying to protect parkland amidst encroaching development. On the spectrum of reception, I did not hear back from others at the municipal level or only received a generic response. I have also presented this work at several conferences, for e.g., at the Park People Conference and the Canadian Public Health Association Conference, elucidating the importance of interdisciplinarity.

Altogether, I dedicated several months to this work.[38] In their urgent call to "green" cities, Van Den Bosch and Nieuwenhuijsen (2017) note that new ways of translating research for decision-making are needed, while acknowledging:

> "Researchers might also need stronger incentives to engage in participatory studies and use new communication tools, such as research-to-practice websites, podcasts, mass-

[36] There are limitations of an institutional webpage, which requires academic affiliation to access and is not as easily updatable. It still felt worth using this university resource to amplify the project and, on the homepage, we clearly linked to the community organizations' websites. Available at https://www.yorku.ca/euc/research-projects/park-perceptions/

[37] brown credits this to Mervyn Marcano's adaptation of Stephen Covey's "speed of trust" concept.

[38] I had also intended to create a geo-tagged digital and interactive archive of all the photographs and quotes on StoryMaps (a free online storytelling tool by Knight Labs) but ran out of time.

> media, and practice networks (Taylor and Hurley 2016). This would, however, require higher academic merits and recognition of such activities" (346).

This quote speaks volumes to the challenges of doing participatory community-engaged research in a competitive academic environment. Given the additional labour, resources and demands of a CBPAR dissertation, I would have been even more challenged to complete this work without a supervisor who is acutely aware of the complexities of CBPAR, and understands the politics of supporting doctoral students, especially a racialized first-generation student (Flicker et al. 2007; Khobzi and Flicker 2010). I note this because within academia, there are numerous accounts, both documented and anecdotal, of othering and exclusionary processes for Black, Indigenous and racialized students and those facing multiple oppressions (McAuliffe et al. 2023; Choo 2020; Ahmad 2020; Wilson et al. 2021). These additional barriers impede necessary and critical work. Racism pervades all institutions and all spaces, and many of the barriers faced by residents in this project are reflected in academia. And so I ask, how can researchers who are racialized work with communities in ways that "do no harm" when harms are done to us? When Ahmed (2017) talks about survival, she notes that "caring for ourselves becomes an expression of feminist care" (237). Throughout this dissertation, I had to reckon with caring for myself so I could do the work required and care for those in the project. The additional emotional labour required of a CBPAR dissertation is often unrecognized. As alluded to above, I spent countless hours applying to funding pools, to fund the project in a meaningful way (and yet, still I would have liked to have done and offered more) and to fund myself so I could keep a roof over my head and dedicate the time and energy needed to this project. I also balanced significant health issues over the course of the doctoral degree. And still, I would not have done it any other way. Community-engaged research is an ever-growing, ever-necessary part of ethical, reciprocal research that attends to community need and positive social changes. And yet, explicitly incorporating feminist and anti-

racist lenses is no simple task. Ahmed (2017) says "To become a feminist is to stay a student" (11) and so this commitment extends beyond a doctoral degree.

Directions for future work: Co-Creating Desire Lines

> "The pernicious character traits of racial constructs develop through spatial practices and intersect with ideas about 'nature' and belonging."
> – Brahinsky, Sasser, and Minkoff-Zern (2014, 1135)

In landscape architecture, there is a design term "desire lines." Ahmed (2006) describes "desire lines" as the alternative "unofficial paths, those marks left on the ground that show everyday comings and goings, where people deviate from the paths they are supposed to follow" (570). In thinking about possibilities for co-creating public urban greenspaces that are truly inclusive, equitable and just, there are several "desire lines" that arise from this dissertation. I highlight three here as organizing themes to discuss next steps for future work and remaining questions.[39]

First, desire lines describe the deviation from the official supposed path that one is supposed to follow in a landscape. This re-routing is about taking a different route in life that deviated from the norm and Ahmed (2006) describes this in the context of "generating a queer landscape" (570). Similarly, in spaces where whiteness is prioritized and a colourblind approach often paints over the nuances of racialized people's experiences, there is a deviation to existing and navigating space. Residents described not feeling comfortable or welcome in higher-income, predominantly white neighbourhoods, noting their comparative comfort and belonging in their own racialized, immigrant neighbourhoods. At the same time, residents described venturing away from their neighbourhoods to access high-quality public spaces. Negotiations are

[39] In each of the empirical chapters (2, 4 and 5), I have already shared some action-oriented steps in conversation with other research in this area.

constantly made in mapping our personal landscapes and everyday realities – in relation to our own resources, our relationships and the spaces we occupy. Conceptualizing this socio-spatial dynamic in urban greenspaces warrants further exploration, unpacking the 'who', the 'where' and the 'why.' Many of the other identified themes from Chapters 2, 4 and 5 can be explored in more depth.[40] Conceptually, urban greenspace definitions also need to be expanded, guided by experiential knowledge and the voices of the people who use them. This is a shortcoming in the greenspace literature, which sometimes speaks at cross-purposes (Taylor and Hochuli 2017). For instance, urban greenspace access is about more than simply physical access, but this is not always explicit.[41] This is a path that requires thoughtful and deliberate treading. It requires thinking about where we want to go and why, in whose footsteps we might follow, who we will walk with and how we might support those who come after us.

Second, the metaphor of desire lines applies to the scholarly work that is relegated and exists in the margins. Ahmed (2017) refers to the importance of citing work that has been "too quickly cast aside or left behind, work that lays out other paths, paths we can call desire lines, created by not following the official paths laid out by disciplines. These paths might have become fainter from not being traveled upon; so we might work harder to find them" (9). This dissertation is inherently interdisciplinary, and while there is a vast history and depth behind each of these disciplines, I have focused on drawing the connections between them, much like one might carve an unofficial path to access a greenspace. Scholars such as Gallegos-Riofrío et al.

[40] For instance, in Chapter 4, each domain in the framework under mental, physical and social wellbeing, may be explored in more detail and expanded upon.
[41] For example, the National Recreation and Park Association (NRPA) in the United States defines park access as "the just and fair quantity, proximity and connections to quality parks, green spaces and recreation facilities, as well as programming that are safe, inclusive, culturally relevant and welcoming to everyone" (National Recreation and Park Association 2023).

(2022) have drawn attention to the Western-World bias in research on nature and health. There is more work to be done to unpack concepts of wellbeing and nature and race/ethnicity, in a more pluralistic way that considers alternative epistemologies and perspectives that are not represented or underrepresented (Gallegos-Riofrío et al. 2022). In time, I am hopeful that these desire lines, these alternate paths, will become increasingly more visible. For instance, critically taking up Critical Race Theory principles in public health and urban/landscape design can support the shift to more racially just and equitable urban greenspaces. Critical Race Theory scholarship has broadened and been enriched by incorporating other viewpoints by Critical Race Queers, Latinx Crits, Critical Race Feminists who have added layers of complexity to racial injustice by incorporating varied experiences of marginalization, including sexual oppression, migration, social status and language (Valdes, Culp, and Harris 2002). Actioning this work is challenging but necessary, and requires systems change (Gaskins and Pertillar 2021; Jones 2000; 2018). Inclusive and participatory processes that are restorative and regenerative must be fostered (Anguelovski and Corbera 2023). Concurrently, interdisciplinary and intersectoral action is critical for bridging theory and praxis. Public health professionals, planners, landscape architects, and city builders need to broaden the methodologies and questions being asked so that we may hear the responses and solutions being offered, through meaningful collaboration and engagement.

Third, the metaphor of desire lines and creating unofficial alternatives is directly applicable to how residents engaged with urban greenspaces in informal ways that suited their needs, despite the official rules and existing infrastructure. Residents found ways to exist, interact and care for themselves and each other – through playing on makeshift cricket pitches and basketball courts, hosting yoga sessions in the grass, conducting community initiatives in

outdoor spaces due to lack of indoor space, setting up informal gathering spaces in less than desirable parks, making decisions to "turn back" when they didn't feel safe, and sharing limited children's infrastructure. Racialized residents still found ways to create and make (green)space. These unofficial, tactical-urbanism style endeavours were survival strategies. Desire lines become more visible when enough people do not take the "official" route. In becoming more visible, they encourage even more people to tread these previously unfamiliar and unknown paths. But these processes should not have to exist on the fringes of urban greenspace design, they should be intentionally fostered. As Anguelovski and Corbera (2023) note, we should be "building participation pathways for racialized communities" towards justice in ecosystems (50). Furthermore, it does not matter how accessible, safe and high-quality a greenspace is, if residents don't have time and resources to access it. This important consideration bridges other work related to human rights, fair working conditions and pay, housing, food security, transportation, education, childcare, healthcare and pharmacare etc. Multi-level barriers to wellbeing and justice for racialized communities need to be further investigated and addressed. The urban greenspace metrics and factors that promote/hinder social and health outcomes need to be put in conversation with design principles, resource allocation mechanisms and equity and justice considerations (Rigolon, Browning, and Jennings 2018; Kardan et al. 2015; Anguelovski et al. 2020). Nonetheless, in the face of exclusion, the residents created desire lines for themselves and engaged with urban greenspaces in the ways they could. They granted me insights into their processes and brought me into that creation through the community events at Flipside (St. James

Town)[42] and Corner Commons (Jane-Finch).[43] In returning to Lorde (1988) and Ahmed's (2017) words and as many marginalized bodies intuitively know – this inventiveness is survival, this creativity is self-preservation, and this reclaiming is power.

Concluding Remarks

> "I've found that our immediate environments are mirrors for the spiritual turmoil inside of us that we inherited from our forebears. By reclaiming our relationship with the Earth, we can then start healing ourselves and our communities from the inside out and from the ground up."
>
> – Shane Bernardo (quoted in brown 2017, 82)

With rapid, global urbanization, the connection between humans and nature is of increasing importance to those interested in healthy and thriving cities (Lemieux et al. 2022; Hunter et al. 2019; Triguero-Mas, Anguelovski, and Cole 2022). The links between humans and the natural environment still have many unknowns. While questions remain about the pathways and mechanisms to social and health outcomes, research has substantiated that there can be health-promoting effects from public urban greenspaces. Notwithstanding this research gap, intrinsically, many people know that interacting with and experiencing greenspace and nature can be a positive encounter with salutary effects. Considered alongside global forces and the climate change crisis, urban greenspaces are vital, necessary, and urgent (Van Den Bosch and Nieuwenhuijsen 2017). Therefore, this raises the question – *who can use and engage with urban*

[42] After the St. James Town event, when everything had been cleared away, two community police officers came by in response to "a complaint." One of the community residents demanded whether the complaint was that we were being too happy. The resident skillfully dealt with them, I had only to back her up. And yet, this interaction was a reminder of how public urban greenspaces are fraught with questions about who and what is allowed.

[43] At the Jane-Finch event, a media representative asked me what it meant that the project was about public greenspaces and yet we were having the event on a private parking lot (through Corner Commons' collaboration with the Jane-Finch Mall). His comment poignantly highlights the tensions around where public and accessible urban greenspaces are located.

greenspaces in the ways they desire? Who gets to feel safe walking home through a ravine alone? Or read on a bench under a tree on a weekday afternoon at 2 pm? Or engage in the sports activities they love at their local park? Or feel like they belong in their neighbourhood greenspaces? Space is contested and public urban greenspaces are no exception. The built and natural environments have strong individual-level and population-level implications, and without an equity and justice lens, these environments will contribute to perpetuate disparities. This qualitative visual exploration contributes an intersectional, race-centered analysis and provides deeper insights into racialized people's experiences in public urban greenspaces in Toronto, Canada. Their experiences were closely intertwined with issues related to sexism, classism, migration and xenophobia. We do not yet fully understand the multiple and interconnected ways of experiencing and engaging with urban greenspaces or all the barriers that exist for people who have been marginalized. How can we make space for all those possibilities and ways of knowing and being? We must try – using existing participatory methodologies and co-generating new ones – because unpacking these nuances in urban greenspace experiences is pivotal to public health, landscape and urban planning, city building and environmental initiatives. While no one study can ever fully cover all the complexities of this topic, there is value and significance in listening to the voices of those who have been historically sidelined and then working collectively towards change. Only in doing so can we move towards co-creating urban centers that are welcoming, health-promoting, just and equitable for all.

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APPENDICES

Appendix A: Acronyms

Community-Based Participatory Action Research	CBPAR
Community Research Advisory Group	CRAG
Critical Race Theory	CRT
Public Health Critical Race praxis	PHCR
Social Determinants of Health	SDOH

Appendix B: Neighbourhood Indicators for St. James Town and Jane-Finch

Table 1. Indicators of the two selected neighbourhoods in Toronto – 1) St. James Town and 2) Jane-Finch (made up of two official Toronto neighbourhoods, Glenfield – Jane Heights and Black Creek)

COVID-19 Cases and Health Equity Indicators at Neighbourhood Level*	North St. James Town	Black Creek Community (North Jane - Finch)	Glenfield – Jane Heights (South Jane-Finch)
Neighbourhood Cases of COVID-19 *as of May 3, 2021 The cumulative confirmed and probable COVID-19 cases since the beginning of the outbreak that have a valid postal code (City of Toronto 2020)	1,178 cases	2,511 cases	3,239 cases
Neighbourhood Equity Score (out of 100) Composite indicator of 15 neighbourhood outcomes related to economic opportunities, social development, participation in decision-making, physical surroundings, and healthy lives. Used to identify Toronto's priority neighbourhoods for the Toronto Strong Neighbourhoods Strategy 2020 (City of Toronto, 2014)	47.55	21.38	24.39
Mental Health (self-rated) Proportion of residents in the neighbourhood (over age 12) who said they have very good or excellent mental health, 2005–2011. Urban HEART Toronto	69.8%	58.4%	61.5%
Preventable Hospitalizations Age and sex standardized rate of hospitalizations age 0–74 for specific chronic conditions (diabetes, hypertension, angina, congestive heart failure, asthma, chronic obstructive lung diseases, grand mal seizures and other epileptic convulsions)/100,000 Urban HEART Toronto	391.9	315.6	318.6
Healthier Food Stores Average number of healthier food stores within a 10-minute walking distance (Grocery stores, convenience stores, and fruit/farmers markets addresses, aggregated	8.78	1.7	3.49

to neighbourhood level with Dinesafe 2013 data.) Urban HEART Toronto			
Public Greenspace at Neighbourhood Level	North St. James Town	Black Creek Community (North Jane and Finch)	Glenfield – Jane Heights (South Jane and Finch)
Area (m^2) of public greenspace per capita** (N. Brockbank, personal communication, June 25, 2020) ** Calculated using City of Toronto Open Data Portal and 2016 Statistics Canada data.	0.73 m^2 per person	31.77 m^2 per person	29.10 m^2 per person
Greenspace Average amount of greenspace per square kilometer. Urban HEART Toronto	51.4	64.1	65.9
Walk Score Walk Score® www.walkscore.com internally validated using the Toronto Utilitarian Walkability Index Urban HEART Toronto	93	62.0	61
Housing Indicators at Neighbourhood Level	North St. James Town (City of Toronto, 2018a)	Black Creek Community (North Jane and Finch) (City of Toronto, 2018b)	Glenfield – Jane Heights (South Jane and Finch) (City of Toronto, 2018c)
Renter Households The percentage of households where no member of the household owns their dwelling	90%	66.6%	48.6%
Unaffordable housing - Renter households The proportion of households spending more than 30% of their total income on shelter costs	45.1%	40.9%	40.7%
Unaffordable housing - Owner households The proportion of households spending more than 30% of their total income on shelter costs	34.2%	29.2%	25.9%
Unsuitable housing	23%	26.6%	23.1%

The percentage of private households in dwellings with insufficient bedrooms according to their size and composition			
Neighbourhood Demographics	North St. James Town (City of Toronto, 2018a)	Black Creek Community (North Jane and Finch) (City of Toronto, 2018b)	Glenfield – Jane Heights (South Jane and Finch) (City of Toronto, 2018c)
Population Density	44,321 people per square km	6,282 people per square km	5,864 people per square km
Median household income The median total income for private households	$41,016	$46,580	$51,964
Neighbourhood % Visible Minority The percentage of people in private households who belong to a visible minority group, i.e. persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour	66.9%	80.9%	76.6%
Neighbourhood % Immigrants The percentage of people who are, or who have ever been, a landed immigrant or permanent resident	51.6%	58.9%	58.9%

Appendix C: Informed Consent Form

Park Perceptions and Racialized Realities:

Exploring the Experiences of Racialized People in Urban Greenspaces in Toronto

Date: March 25, 2021

Researcher name:

- Nadha Hassen is a doctoral student at the Faculty of Environmental and Urban Change (EUC) at York University and is the Principal Investigator. She can be reached at nadha@yorku.ca

Purpose of the Research:

- The purpose of this study is to explore the experiences of people of colour (i.e., people who are racialized) in public greenspaces in Toronto.

What You Will Be Asked to Do in the Research:

- Participate in an online orientation session
- Visit a greenspace in your neighbourhood and take pictures and videos about how you feel in the space
- Share your pictures with a group online
- Go back to the greenspace and take more pictures and videos
- Talk about your pictures 1:1 with a researcher

Potential Risks and Discomforts:
We do not anticipate any additional risks or discomforts associated with your greenspace visits than would normally be encountered on a park visit. We will talk more about how to stay safe taking pictures in public greenspace during our orientation session, but want to highlight here that we are asking everyone to please:

- Take all pandemic precautions when you go on your greenspace visits! We encourage you to wear a mask and stay 6 feet apart from anyone not in your household.
- Do not take pictures of anyone without their consent!

We do note that it can sometimes be hard to talk about experiences related to safety and inclusion in public spaces as a racialized person. You don't have to share anything that makes you feel uncomfortable.

Benefits of the Research and Benefits to You:

- Study findings may be useful in promoting anti-racist planning and health equity in urban greenspace settings.
- You will receive a $25 honorarium for each greenspace visit and interview you complete (total of $75 available)

- You may benefit from having the opportunity to talk about issues that are of concern you.

Voluntary Participation and Withdrawal:

- Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer specific questions will not influence the nature of the ongoing relationship you may have with the researchers or study staff, or the nature of your relationship with York University either now, or in the future.
- If you decide to stop participating, you may withdraw without penalty, financial or otherwise, and you will still receive the promised honorarium for any activities you have begun.
- In the event you withdraw from the study, all your associated data collected will be immediately destroyed wherever possible. Should you wish to withdraw after the study, you will have the option to also withdraw your data up until the analysis is complete. We will not use any of your pictures without explicit permission.

Confidentiality:

- Confidentiality will be provided to the fullest extent possible by law, and individual responses and/or photos will not be linked to you – unless you want them to be. We will ask you to carefully document which pictures the team has permission to use/share publicly and how they should be attributed.
- Unless you choose otherwise, all information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in any report or publication of the research.
- Your data (including informed consent forms, photographs, recordings, audio files, and interview data) will be stored on a password protected computer. Any printed information will be safely stored in a locked cabinet and only the researcher, supervisory team and community research advisory members will have access to this information. Data will be stored for seven years after completion of the study, until September 2028. After this time, data will be destroyed.
- Digital and electronic information will also be stored in an encrypted and password-protected Google Drive folder. Google Drive folders will be shared with the community research advisory group, however, select files (i.e., contact information, etc. or anything that may create a conflict) may be restricted to select individuals working directly with the information.
- The data collected in this research project may be used by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the HPRC, our institutional REB. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project.

Information regarding online platforms:

- The researcher(s) acknowledge that the host of the online survey (Google Forms and Survey Monkey) may automatically collect participant data without their knowledge (i.e.,

IP addresses). Although this information may be provided or made accessible to the researchers, it will not be used or saved without participant's consent on the researchers' system. Further, because this project employs e-based collection techniques, data may be subject to access by third parties due to various security legislation now in place in many countries and thus *the confidentiality and privacy of data cannot be guaranteed during web-based transmission.*

- This study will use Zoom to collect data, which is an externally hosted cloud-based service. When information is transmitted over the internet privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). There is a small risk with any platform such as this of data that is collected on external servers falling outside the control of the research team. If you are concerned about this, we would be happy to make alternative arrangements (where possible) for you to participate, perhaps via telephone. Please contact Nadha Hassen at nadha@yorku.ca for further information.
- Recordings (audio/video) will be saved in a password protected file to research team members' local computer, not the cloud based service.
- Please note that it is the expectation that participants agree not to make any unauthorized recordings of the content of a meeting / data collection session.

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact me at nadha@yorku.ca or my supervisor, Dr. Sarah Flicker at flicker@yorku.ca and/or 416-736-2100 ext 20728.

This research has received ethics review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the Human Participants Review Sub-Committee, York University's Ethics Review Board, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, Kaneff Tower, York University at 416-736-5914 or e-mail ore@yorku.ca.

If you consent to the above, and would like to be involved, please sign below.

You may have a copy of this consent form.

1. Audio and Video recording

☐ I consent to the video-recording of my interview.
☐ I consent to the audio-recording of my interview.

Legal Rights and Signatures:

I_____, have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature_____ Date_____

Participant

Signature_____ Date_____

Wtiness/Principal Investigator

Appendix D: Photovoice Greenspace Visits: Prompts and Short Form (Draft)

Prompts for Greenspace Visit 1

1) Take 3-5 photographs of the greenspace that capture what you see and how you feel [Online form options: Upload image files/ max 5/max file size 10 MB] *
2) Record three, 30-60 second video or audio clips in response to the following open-ended prompts:
   Please think about:
   i. What are you seeing in this greenspace?
   ii. How does it make you feel? (Why)?
   iii. Please explain the photos you took.
   iv. Is there anything else you want to share that we can't see from your pictures?

Prompts for Greenspace Visit 2

This time, please photograph:
1) Safety (or lack of safety) (about 2-3 photos/audio clips or videos)
2) Welcoming space/ Inclusive Space (or not welcoming or inclusive) (about 2-3)
3) Health/Mental Health/ Wellbeing (or not healthy) (about 2-3)

Specifically, what does this mean to you and in your neighbourhood?
Please send your photos and responses before next week's interview.

Greenspace Visit Information (filled out each time)

3) Name of greenspace you visited? *
4) What date did you visit the greenspace? *
5) What time did you visit the greenspace? *
6) What type of greenspace did you visit? (e.g., park, ravine, hydro corridor, playground, community garden) *
7) How far away is this greenspace from your primary place of residence? (e.g., 5km or 5 mins walking or 20 mins by car) *
8) How did you get to this greenspace from your primary place of residence? (e.g., walking, biking, public transport, private vehicle) *
9) Anything else of note you would like to add? You will have an opportunity to discuss your experiences further in the follow-up interview.

End of Form

Note: Your responses will be recorded after you click "Submit". You also have the option of sending your photos and audio clips through email or WhatsApp.

Thank you for taking the time to complete this part of the research study! If you have any questions, please contact Nadha Hassen at nadha@yorku.ca

Appendix E: Demographic Survey Form (Draft)

Demographic Survey and Greenspace, Health & Wellbeing Questions

Purpose of the research: To explore the experiences of people of colour (i.e., people who are racialized) in public greenspaces in Toronto. Information gained from this research study will be synthesized and shared and may be relevant to community organizations, policy makers, urban planners, public health professionals and the general public.

Please note that a consent form detailing the study and its potential risk and benefits to participants was sent in a previous email to you. Your informed consent is implied upon submission of this form. The form will take approximately 10 - 15 minutes to complete.

The purpose of this demographic form is to understand the intersecting identities of participants in the study. Your information will help to understand diverse experiences, with the aim of promoting equity, anti-racism and inclusion within public greenspaces. Please remember, identifying yourself as a member of one or more designated groups is voluntary and you may choose not to answer specific questions.

You may select 'prefer not to answer' for any questions you do not wish to answer. However, to participate in this study you need to self-identify as a person of colour (i.e., someone who is racialized). Your participation is voluntary and you may withdraw from the study at any time.

Please send any questions to Nadha Hassen at nadha@yorku.ca

I have read the informed consent form and my name written below indicates consent. *

_____

1) What is your primary residential postal code? (at least first 3 digits)

2) *Racialization* refers to the "process by which racial categories are constructed as different and unequal in ways that leads to social, economic and political impacts." Through the process of racialization, racialized groups experience race as a key factor in their identity. Racialized persons are non-Caucasian in race or non-white in colour, regardless of birthplace. Based on this definition, do you identify as a racialized person? *
   - o Yes
   - o No

Greenspace Questions

1) In the last two weeks, how often do you visit outdoor greenspaces?
   - o Everyday
   - o Nearly everyday
   - o 2-3 days per week
   - o Once a week
   - o Less than once a week
   - o Other:

2) My purpose for visiting outdoor greenspace is usually: (think about the last two weeks and select all that apply)
    - Physical activity / exercise
    - Meet other people
    - Taking children to a park/playground/greenspace
    - Walk the dog/pet
    - To reduce/ recover from stress
    - Part of my commute/ to get to another destination
    - To be alone
    - I think it is good for my health/ well-being
    - No specific reason
    - Other:

3) How much do you agree with following statements (5 point Likert scale: strongly agree to strongly disagree)?
    - I feel safe in greenspaces in Toronto
    - I wish I had more access to green spaces within walking distance within my neighbourhood
    - I wish I had larger greenspaces within my neighbourhood
    - I wish I had better quality greenspaces in my neighbourhood (quality refers maintenance, amenities/facilities like washrooms, biodiversity etc.)
    - Being in nature/ greenspaces is important to my mental health and well-being
    - Being outdoors in greenspaces and natural environments in my neighbourhood makes me feel less stressed and more calm
    - I have a sense of connection to my neighbourhood
    - I feel joyful/happy in greenspaces
    - I feel like I belong in my neighbourhood
    - I worry about my safety in outdoor, public greenspaces due to my race
    - I worry about my safety in outdoor, public greenspaces for reasons other than race (e.g., gender, religion etc.)

4) How is your physical health in general?
    - Very good
    - Good
    - Fair
    - Bad
    - Very bad
    - Prefer not to answer

5) How is your mental health in general?

- Excellent
- Very good
- Good
- Fair
- Poor
- Prefer not to answer

Demographic Questions:
A reminder that the purpose of these questions is to understand the range of social locations and experiences of participants in this community research project. You may choose "prefer not to answer" for any of the questions you do not wish to answer.

1) How would you describe your race or racial identity? *

   a) _____

   b) Please also check all that apply:
   - Asian – East (e.g. China, Japan, Korea, Taiwan)
   - Asian – South (e.g. India, Sri Lanka, Pakistan)
   - Asian – South East (e.g. Vietnam, Malaysia, Philippines)
   - Black – Africa (e.g. Ghana, Kenya, Somalia)
   - Black – Canadian
   - Black – Caribbean (e.g. Jamaica, Barbados)
   - Latin American (e.g. Argentina, Mexico, Nicaragua)
   - Indian-Caribbean (e.g. Guyanese with origins in India)
   - Indigenous - Aboriginal, First Nations, Metis, Inuit
   - Middle Eastern (e.g. Egypt, Iran, Israel, Saudi Arabia)
   - Mixed background (please check all that apply)
   - White – Canadian
   - White – European (e.g. England, Greece, Sweden, Russia)
   - Don't know
   - Prefer not to answer
   - Other:

2) How long have you been living in Canada?
   - I have lived here all or most of my life
   - I have been living in Canada for 10 years or more
   - I have been living in Canada between 4 and 9 years
   - I have been living in Canada between 1 year and 3 years
   - I have been living in Canada less than 1 year
   - Prefer not to answer
   - Other:

3) With which gender identities do you most identify? (please check all that apply)
   - Female

- Male
- Trans
- Gender non-binary/non-conforming/ Genderqueer
- Two-spirit
- Agender
- Prefer not to answer
- Other:

4) LGBTQ2S+ is an umbrella term for persons who identify, for example, as lesbian, gay, bisexual, queer, trans, two-spirit, genderqueer, questioning, or who otherwise express gender or sexual diversity. Do you identify as LGBTQ2S+?
   - Yes
   - No
   - Prefer not to answer
   - I don't know

5) Persons with disabilities are those who have a long-term or recurring physical, mental, sensory, or learning condition(s) and whose everyday activities are limited or impacted because of this condition(s). This includes episodic, invisible, and chronic conditions.

   Based on this definition, are you a person living with a disability?
   - Yes
   - No
   - Prefer not to answer
   - I don't know

6) What is your age range?
   - 18-24
   - 25-34
   - 35-44
   - 45-54
   - 55-64
   - 65-80
   - >80
   - Prefer not to answer

7) Family status:
   - Single/Divorced/Widowed with child(ren) at home
   - Single/Divorced/Widowed with no child(ren) or child(ren) away
   - Living with partner/married/common law with child(ren) at home
   - Living with partner/married/common law with no child(ren) or child(ren) away
   - Prefer not to answer

8) Please indicate highest level of education
   - No degree
   - Primary education
   - Secondary education
   - Professional education
   - College or university degree
   - Higher education (master, doctorate)
   - Other:
   - Prefer not to answer

9) Current employment status:
   - Student
   - Part-time
   - Full-time
   - Independent/ self-employed
   - Retired
   - Not employed
   - Other:
   - Prefer not to answer

10) What is your current living situation?
   - Student housing/dorms
   - Flat/condo/apartment
   - Townhouse
   - House
   - No current stable housing
   - Other:
   - Prefer not to answer

11) What is the size of your household? (Please select one answer) "Household" includes yourself, spouse/partners, children, and any other dependents. Please do not count roommates.
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 or more
   - Prefer not to answer

12) What was your total household income last year, approximately?
   1. Less than $10,000
   2. $10,000 to $19,999

3. $20,000 to $29,999
4. $30,000 to $39,999
5. $40,000 to $49,999
6. $50,000 to $59,999
7. $60,000 to $69,999
8. $70,000 to $79,999
9. $80,000 or more
10. Prefer not to answer

13) What is your present religion, if any? ((e.g., Hindu, Muslim, Buddhist, Jewish, Sikh, Atheist, Agnostic etc. - please specify all that apply)

14) My religion is visible to others in public spaces (e.g., a hijab, a turban etc.)

Is there anything else you would like to add at this point? You will have a chance to expand on your experiences through the greenspace visits and interview.

Appendix F: Semi-Structured Interview Guide (Draft)

Following the SHOWeD method (Wang and Burris 1997)

["What do we See here?]

- Please, tell me about your experience in the greenspace you visited.
- Can you tell me what is happening in these photos you took?
- Which photos was your favourite or most memorable? Why?

[What is really Happening here?]

- Tell me how you felt in the greenspace you visited
    - What parts of your identity, if at all, do you think influence how you use greenspaces?
    - What parts of your identity are visible to others in public spaces?
    - Probe for specific experiences around race – ask about living in the neighbourhood,
- How would you define or describe your mental health recently?
    - Potential probes for mental health on the day of the site visit

[How does this relate to Our lives?]

- Can you tell me a story about a time when you've been in an urban greenspace (like parks or ravines) and you felt like it had an impact on your mental health and well-being?
    - Potential probes for 'positive' or 'negative' experience, 'safety'. 'belonging':
        - What made you feel this way?
        - Was there a sense that you were able to enjoy the greenspace?
        - What were the aspects that were positive or good for your mental health? Why?
        - What were the aspects that were negative or not good for your mental health?
        - Why?
- How do you usually feel in greenspaces in the city?
- How often do you spend time in greenspaces in the city generally?
    - Why is that? How would you like to change that?
- How accessible (or welcoming) do you feel greenspaces are within walking distance of where you live?

[Why does this situation, concern or strength Exist?]

- Can you describe any challenges you have when trying to use or access greenspaces?
    - What are some barriers – for instance, leisure time? How might work housing/commuting pre-COVID-19 impact access?
- How might your own identity as a person of colour or a racialized person influence how you feel in a greenspace?
- What are some barriers or obstacles you have noticed for racialized people using public greenspaces?

[What can we Do about it?”]

- What helps you feel safe and enjoy greenspaces?
    - What prevents this?
- What would make you feel you could go/bring your family, pet or yourself to a greenspace and be safe?
    - What would an inclusive and mental-health promoting greenspace look like?
- What advice would you have for people who are designing greenspaces in your neighbourhood/the GTA?
    - Any specific suggestions (ideas) for improvements/changes to the greenspace in your neighbourhood so it is more inclusive of racialized people?
    - Any specific suggestions (ideas) for improvements/changes to the greenspace in your neighbourhood so it promotes mental health and well-being for racialized people?

Follow-up Questions:

- What are your thoughts on mental health, wellbeing, and greenspaces?
- What are your thoughts on racism and greenspaces in Toronto, or Canada more broadly?

Appendix G: Participant Demographics (Supplementary File for Chapter 4)

Table 2. Participant Demographics

Racial Identity	(N=18) (%, #)
Black	17% (3)
Middle Eastern	17% (3)
South Asian	39% (7)
Southeast Asian	11% (2)
Indo-Caribbean	11% (2)
Mixed Race	6% (1)
Gender Identity	(N=18) (%, #)
Female	72% (13)
Male	28% (5)
*No one identified as non-binary/third gender	
Religion	(N=18) (%, #)
Muslim	33% (6)
Hindu	17% (3)
Christian	17% (3)
Agnostic	11% (2)
Shaktist	6% (1)
Other	11% (2)
Prefer not to answer	6% (1)
Age	(N=18) (%, #)
18-24	17% (3)
25-34	39% (7)
35-44	17% (3)
45-54	22% (4)
55-64	6% (1)
65+	0
Identify as living with a disability	(N=18) (%, #)
Yes	11% (2)
No	72% (13)
Unsure	11% (2)
Prefer not to answer	6% (1)
Identify as LGBTQ2S+	(N=18) (%, #)
Yes	11% (2)
No	78% (14)
Prefer not to answer	6% (1)
I don’t know	6% (1)
Current Living Situation	(N=18) (%, #)
Apartment/condo	78% (14)
House	11% (2)
Townhouse	11% (2)
Highest Level of Formal Education	(N=18) (%, #)
Graduate education	39% (7)

Secondary education	11% (2)
Professional education	11% (2)
College/university degree	39% (7)
Current Employment Status	
Full time	28% (5)
Part time	11% (2)
Not employed	22% (4)
Student	17% (3)
Independent/ self-employed	6% (1)
Other: student and part-time	6% (1)
Other: full time volunteer	6% (1)
Prefer not to answer	6% (1)
Length of Time Living in Canada	(N=18) (%, #)
1-3 years	17% (3)
4-9 years	28% (5)
10 years or more	33% (6)
Born here/lived here most of life	22% (4)
Household Income	(N=18) (%, #)
$80,000 or more	17% (3)
$60,000 - $69,999	6% (1)
$50,000 - $59,999	6% (1)
$40,000 - $49,999	6% (1)
$30,000 - $39,999	6% (1)
$20,000 - $29,999	11% (2)
Less than $10,000	6% (1)
Prefer not to answer	44% (8)
Household Size	(N=18) (%, #)
1	6% (1)
2	6% (1)
3	44% (8)
4	22% (4)
5	11% (2)
6	6% (1)
7 or more	6% (1)
Family Status	(N=18) (%, #)
Single/Divorced/Widowed with no child(ren) or child(ren) away	28% (5)
Living with partner/married/common law with child(ren) at home	28% (5)
Single/Divorced/Widowed with child(ren) at home	17% (3)
Other: Not married	6% (1)
Prefer not to answer	22% (4)
How is your mental health in general?	(N=18) (%, #)
Excellent	11% (2)
Very good	28% (5)
Good	28% (5)
Fair	22% (4)
Poor	6% (1)

Prefer not to answer	6% (1)
How is your physical health in general?	(N=18) (%, #)
Very good	28% (5)
Good	50% (9)
Fair	22% (4)
Bad	0
Very bad	0
Prefer not to answer	0

Appendix H: List of Knowledge Mobilization Activities, Media, and Presentations

The Travelling Photo Exhibit to date

- Artscape Weston Common, DesignTO Event (June 27, 2022 – July 9, 2022 - Indoor) (in collaboration with the Department of Imaginary Affairs' installation 'What If Parks Were Safe for Everyone?')
- Corner Commons, Jane and Finch (July 22, 2022 – August 30, 2022 - Outdoor)
- "Flipside", St. James Town (August 23, 2022 - One Day Pop Up - Outdoor)
- Urbanspace Gallery at 401 Richmond W (Oct 17, 2022 – Dec 24, 2022 - Indoor) (in collaboration with the Department of Imaginary Affairs' installation 'What If Parks Were Safe for Everyone?')
- Faculty of Environmental and Urban Change, York University (Feb 7, 2023 – May 7, 2023 - Indoor)

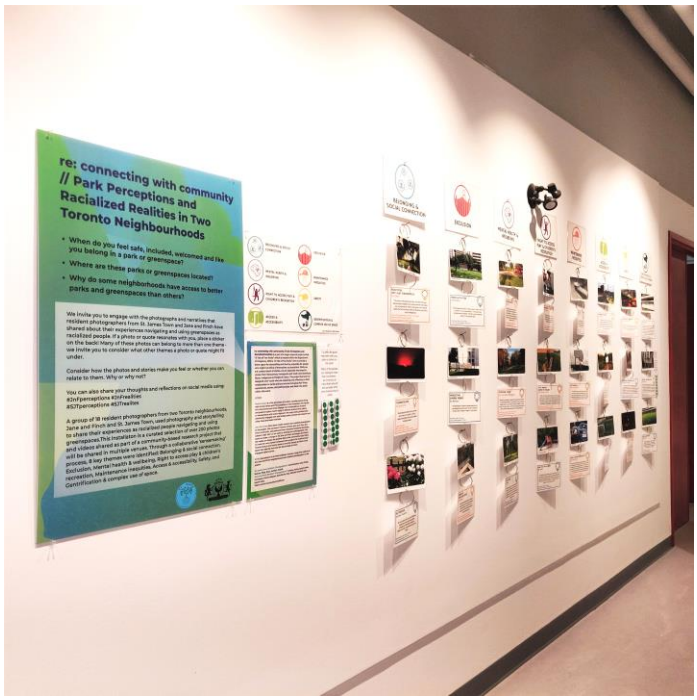

Figure 1. Travelling Photo Exhibit at Artscape Weston Common. (Author photograph)

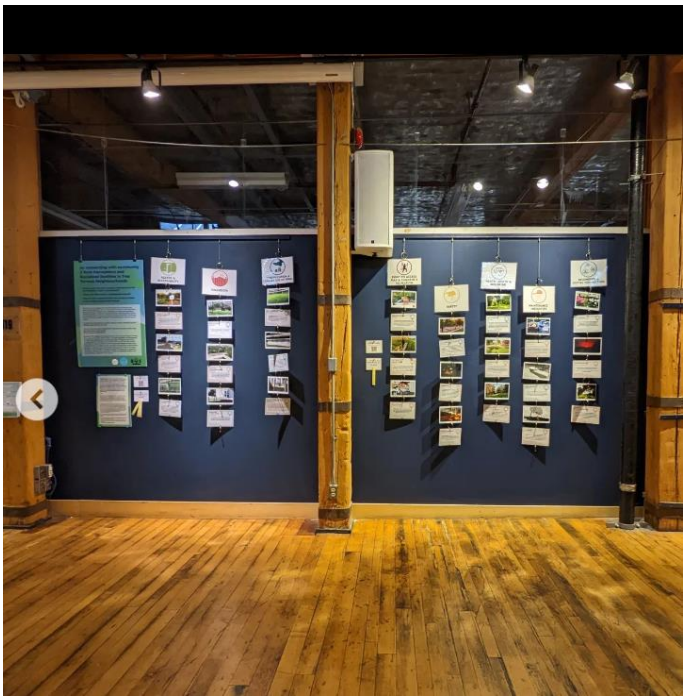

Figure 2. Travelling Photo Exhibit at Urbanspace Gallery, 401 Richmond W. (Author Photograph)

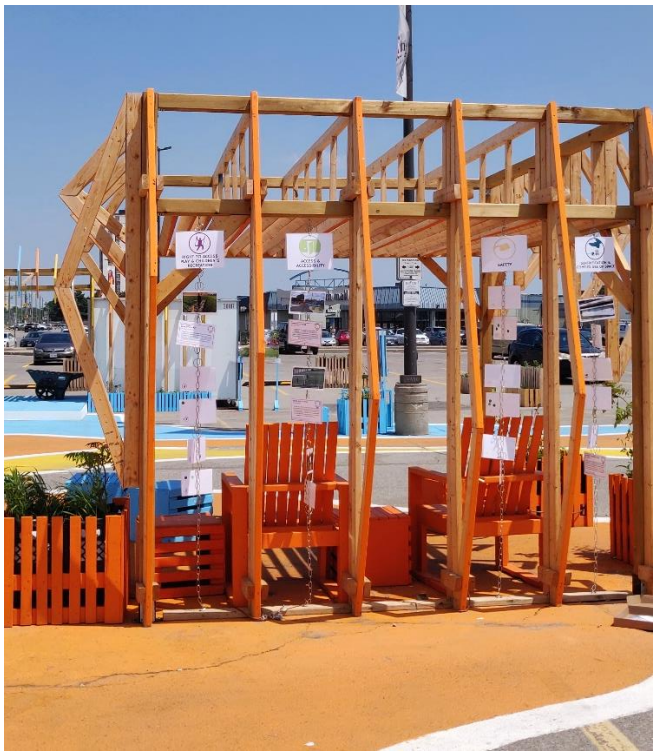

Figure 3. Travelling Photo Exhibit at Corner Commons, Jane-Finch. (Author photograph)

Figure 4. Photo Exhibit at “Flipside”, St. James Town. (Author photograph)

Community and Knowledge User Presentations/ Articles to date

- Hassen, N. (2023, April 18). *Findings and Recommendations from the Park Perceptions and Racialized Realities Project.* Invited to present research findings to the Department of Parks Forestry and Recreation, City of Toronto (virtual).
- Hassen, N. and Lu, J. (2023, June 22). *The Power and Politics of Data: Advancing Equitable Futures in Parks and Greenspaces.* Invited Panel Talk at Park People Canada Conference, Toronto, Canada.
- Stewart-Robertson, C., Das, M., Khan, S. and Park Perceptions and Racialized Realities Team (2022, Dec 20). *Findings and Recommendations from the Park Perceptions and Racialized Realities Project.* Presentation to the Community Advisory Committee, Jane/Finch Centre.
- Hassen, N., Stewart-Robertson, C., Das, M., Flicker, S. and Park Perceptions and Racialized Realities Team (2022, Nov 29). *Findings and Recommendations from the Park Perceptions and Racialized Realities Project.* Invited to present research findings to the Jane Finch Initiative, City of Toronto.
- Hassen, N., Majid, K. & Jaffe, G. (July 29, 2022). Fostering Social Connection Through The Built Environment: Considerations for Research, Policy and Practice. Policy Brief. Available at https://www.bhjustice.org/blog/policy-brief-on-fostering-social-connection-through-the-built-environment-considerations-for-research-policy-and-practice/
- Hassen, N. and Flicker, S. (2023, Feb 28). *Park Perceptions and Racialized Realities.* Change Your World Workshop, Faculty of Environmental and Urban Change, York University.
- Hassen, N. and Flicker, S. (2022, Dec 7). *Park Perceptions and Racialized Realities.* Change Your World Workshops, Faculty of Environmental and Urban Change, York University.
- Hassen, N. and Tenneti, A. (2022, Nov 8). *Racialized Realities in Toronto's Public Urban Green Spaces.* Invited Talk at Toronto Public Library, Our Fragile Planet Series (virtual). https://www.crowdcast.io/e/tpl-racialized-realities-urban-green-spaces/register
- Tenneti, A., Hassen, N., Scott, J.L., & Ponnudurai, R. (2022, Sept 21). *Leading Diversity and Equity in Parks: A Field Guide.* Panel Presentation at the Park People Canada Conference (Virtual conference).
- Hassen, N. (2021, June 10). 6 ways to approach urban green spaces in the push for racial justice and health equity. The Conversation Canada. Available at https://theconversation.com/6-ways-to-approach-urban-green-spaces-in-the-push-for-racial-justice-and-health-equity-160227
- Hassen, N. (2020, Nov 25). *Deepening the conservation conversation: Exploring the connection between biodiversity, wellbeing and inclusion.* Invited Panel Speaker, Park People Webinar Series. Available at https://parkpeople.ca/opportunity/7-questions-perspectives-on-the-future-of-parks-and-public-spaces-a-webinar-series/

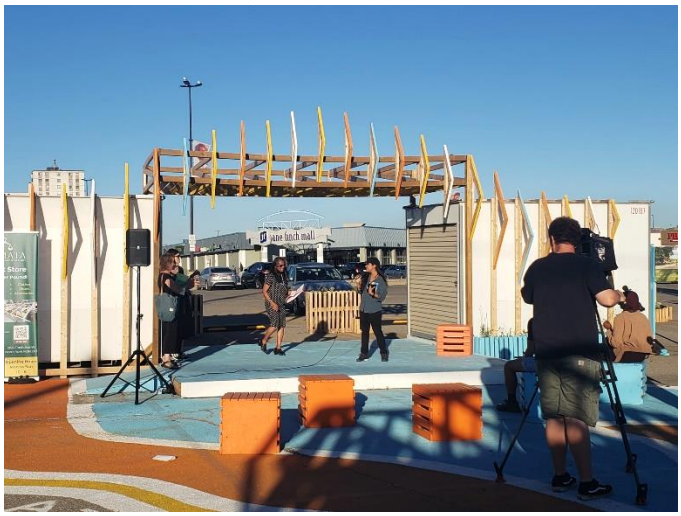

Figure 5. Jane-Finch Community Event. Photograph provided by Elika Zamani.

Figure 6. St. James Town Community Event. Photograph provided by Bryan Vaughan.

Academic Presentations to date

- Hassen, N. (2023, June 22). *Towards racial and health equity in public spaces: The Park Perceptions and Racialized Realities Project.* Oral presentation delivered at Canadian Public Health Association (CPHA) Conference (virtual).
- Hassen, N. & Flicker, S. (2023, May 30). *Collaborative "Sensemaking": Picturing a Feminist, Anti-Racist CBPAR Dissertation* [Conference Panel Presentation]. Women's and Gender Studies et Recherches Féministes (WGSRF), Congress, Toronto, ON, Canada.
- Hassen, N. (2023, Mar 16). *Photovoice and community-based participatory research: Lessons from an interdisciplinary dissertation*. Guest Lecture for SS8001 Advanced Qualitative Research, Policy Studies PhD Program, Toronto Metropolitan University (virtual).
- Hassen, N. (2022, Oct 28). *Meaningfully engaging communities of color in community-based research: Lessons learned from an interdisciplinary dissertation.* Oral Presentation at Coming Together for Action 2022, Global Alliance for Behavioral Health and Social Justice Conference, Baltimore, USA.
- Hassen, N. & Flicker, S., (2022, May 19). *Racialized realities in greenspaces: Exploring the connections between public greenspace, race and mental health equity in two neighbourhoods in Toronto, Canada.* Roundtable presentation at the International Union for Health Promotion and Education (IUHPE) Conference (virtual).
- Hassen, N. (2022, Oct 24) *Photovoice: Ethics, Logistics, Action & Critical Considerations.* Guest Lecture for CHL5159 Data Collection Methods for Research and Evaluation Projects, Master of Public Health Program, Dalla Lana School of Public Health (DLSPH), University of Toronto.

- Hassen, N. (2021, Nov 17) *Equitable built environments and the determinants of health.* Guest Lecture for HBHED645 Urban Health, Health Behaviour and Health Education, Masters Program, School of Public Health, University of Michigan.
- Hassen, N., (2020, Oct 8). *Park Prescriptions: Examining the Link between Urban Green Space and Mental Health and Well-being.* Paper presentation at Coming Together for Action Conference, Global Alliance for Behavioural Health and Social Justice (virtual).

In the Media to date

- The Toronto Star. September 15, 2022. *Toronto research project uses photography in fight for greenspace equity.* https://www.thestar.com/local-toronto-scarborough/news/2022/09/15/toronto-research-project-uses-photography-in-fight-for-greenspace-equity.html
- The Mental Elf [Podcast]. Season 2, Episode 8. *Nadha Hassen.* October 29, 2022, from https://shows.acast.com/mental-elf/episodes/nadha-hassen
- Metro Morning with Ismaila Alfa, CBC Toronto. August 12, 2022. *Why are some neighbourhood parks better than others? New research highlight inequities in Toronto greenspaces.* https://www.cbc.ca/listen/live-radio/1-39-metro-morning/clip/15931386-why-neighbourhood-parks-better-others-new-research-highlight
- CBC News. August 13, 2022. *Broken benches, overflowing trash: Residents in these Toronto neighbourhoods calling for change.* Vanessa Balintec, CBC News. https://www.cbc.ca/news/canada/toronto/toronto-green-space-equity-1.6549483
- City News Toronto. August 13, 2022. *Racialized residents facing systemic barriers in accessing Toronto greenspaces.* Maleeha Sheikh, City News Toronto. https://toronto.citynews.ca/2022/08/13/racialized-residents-systemic-barriers-accessing-greenspaces/
- York University. Faculty of Environmental and Urban Change Research Spotlight. August 15, 2022. *Exploring the experiences of racialized residents in two Toronto neighbourhoods.* https://euc.yorku.ca/research-spotlight/exploring-the-experiences-of-racialized-residents-in-two-toronto-neighborhoods/
- Nicole Brockbank. July 8, 2021. *Finding a Patch of Green: COVID-19 Highlights Inequities in Toronto Park Space, Experts Say*. CBC News. https://www.cbc.ca/news/canada/toronto/finding-a-patch-of-green-covid-19-highlights-inequities-in-toronto-park-space-experts-say-1.5640852