Growing Pains: The Social Role of Community and Urban Gardens During the COVID-19 Pandemic

by

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Abstract: Gardening became a popular activity throughout the COVID-19 pandemic as it was seen as a safe and productive way to spend time. During the initial lockdowns in the spring of 2020, many garden supply stores ran out of seeds, compost, and other materials. Past research has explored the many social benefits that community and urban gardens provide, with members experiencing greater feelings of social inclusion, connection with nature, wellbeing, and community. Gardens have also been shown to provide a "third space" for discussion, interaction, and building social capital. During this time, the media covered this topic extensively, with the attention focused primarily on gardening as a social activity for those wishing to fight isolation and build community. This research sought to explore this phenomenon, by studying the experiences of those working to operate community gardens behind the scenes. By interviewing garden coordinators, as well as conducting a media analysis, this research has sought to examine whether the public narrative has captured the same roles, benefits, and challenges that come with running these spaces during the COVID-19 pandemic.

Keywords: community garden, COVID-19, gardening, social capital, media analysis

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Introduction

Community gardens have been shown to play a crucial role in increased social, and mental wellbeing for those involved (Camps-Calvet et al. 2015; (Firth et al., 2011); Hinton 2016; (Bailey & Kingsley, 2020; 'Yotti' Kingsley & Townsend, 2006); Shimpo et al. 2019), and urban and communal gardens have been linked to increased community cohesion and connection during times of crisis (Camps-Calvet & Langmeyer, 2015; Chan et al. 2015; Shimpo et al. 2019). Creating a space to gather and work together, community gardens have proven to provide many social benefits to a diverse demographic of people, creating a place for connection, collective action, and increased wellbeing (Camps-Calvet & Langmeyer, 2015). Throughout the pandemic, numerous studies and articles have been published on the topic of gardening and the social benefits it can provide. However, community gardens often face a range of operating issues such as their perception as temporary, or their lack of funding for resources (Armstrong, 2000; Camps-Calvet & Langmeyer, 2015; Reynolds, 2015). This research will examine the experiences of garden coordinators in the Halifax Regional Municipality throughout the Covid-19 pandemic, to better understand what challenges, if any they, have faced during this period. Finally, the research will examine if their experiences reflect or contrast the narrative portrayed in the media on this topic.

Research questions

1. What has been the experience of those running and organizing community and urban gardens throughout the pandemic?
2. How has the media portrayed the topic of gardening and community gardens to the public?

3. Does the media portrayal of this topic capture the same roles, benefits, and challenges discussed by the coordinators?

New research completed throughout the pandemic illustrates a connection between increased gardening and times of global crises - drawing a parallel to the Second World War and the role of Victory Gardens both as a source of food and as a means of uniting people in a common cause (Bentley & Goosen, 1998; Lawson, 2014; Music, Finch, et al., 2021). Throughout the Covid-19 pandemic, there has been an increase in gardening, both at home and in a communal setting, to offset the uncertainty of global supply chain disruption and potential food scarcity (Music, Mullins, et al., 2021).

While past research has illustrated the benefits of communal gardens during natural disasters such as floods or earthquakes, (Camps-Calvet & Langmeyer, 2015; Chan & DuBois, 2015; Shimpo & Wesner, 2019), there is a lack of research examining the social role of communal and urban gardens during the Covid-19 pandemic. By examining the role of these gardens in the context of Covid-19, this research seeks to explore the potential social benefits, as well as the barriers to accessing and operating these spaces. Doing so will provide a framework for future improvements that aim to increase the accessibility of these spaces.

I decided to limit my scope to the Halifax Peninsula and Dartmouth area as the garden coordinators who participated in this research were all within this area. There are nine community and urban gardens listed on the Halifax Parks and Recreation website. Two of the gardens I obtained interviews from, however, were not listed on the website, meaning there may be even more which the city has not included in their list.

Communal and shared gardens have historically been a way to supplement food supplies during times of shortage (Lawson, 2014; Music, Finch, et al., 2021), as can be seen by the success of the Victory Garden campaign during World War II. Victory Gardens were

encouraged and subsidised by the government, they are overwhelmingly remembered as successful. While their main purpose was food production, the gardens often acted as a refuge and a space for collective, purposeful action. Many personal, communal, and national benefits were seen throughout the course of the campaign, Victory Gardens successfully blended patriotism with personal and communal gain.

Recent studies examine the role of community gardens in creating community connection, and social capital (Bailey & Kingsley 2020; Diekman 2021; Kingsley et al. 2006; Linder 2020). Social capital is a theoretical concept which has become increasingly prevalent in the study of social sciences over the past few decades (Lin & Cook 2001). Social capital is most famously defined by Robert Putnam in his book "Bowling Alone: America's Declining Social Capital as: "features of social organisations, such as networks, norms, and trust, that facilitate actions of cooperation for mutual benefit" (Putnam, 1995). The benefits of social capital are well known amongst social scientists, as increased social capital has been linked to increased trust, social support, democracy, and wellbeing among citizens (Shimpo et al. 2019; Kingsley et al. 2006). Despite its importance, social capital has been declining in recent years, leading to an increase in loneliness and isolation, which has in turn been exacerbated by the Covid-19 pandemic and lockdown measures (Berg-Weger & Morley, 2020; Saltzman et al., 2020).

Problem Statement and Purpose of Study

This research will add to a gap in the literature on the social role of community and urban gardens throughout the Covid-19 pandemic in the Halifax Regional Municipality. Focusing on the experiences of those working in, and managing, these gardens will inform a better understanding of the benefits, challenges, and barriers that come with operating and accessing these spaces. While there are numerous studies examining the social role of community

gardens during challenging times (Bailey & Kingsley, 2020; Chan & DuBois, 2015; Shimpo & Wesner, 2019), there is a gap in the publication of research on the topic of COVID-19 and gardening. This research will be important for informing future policy and funding opportunities surrounding the creation and maintenance of these spaces.

Definition of Community and Urban Gardens

The definitions of Community and Urban Gardens are diverse, describing a range of various gardens and community growing spaces - ranging in size, membership, usage, and location. Some gardens act as a community hub, offering opportunity for learning, socializing, and training; while others are primarily meant for food production. In their research on community gardens and social connection, Bailey and Kingsley define community gardens as: “plots of urban land on which community members can grow flowers or foodstuffs for personal or collective benefit” (Bailey & Kingsley, 2020).

Description of the Gardens

To provide a better understanding of the spaces described in the interviews, this section will summarize the layout and demographic of the various community and urban gardens used in my research.

Hope Blooms

Located in the North End of Halifax, Hope Blooms is a community-operated garden and social hub with over 4,000 square feet of organic food and herbs (Hope Blooms Youth-Led

Social Enterprise | Halifax, NS, n.d.). Working to empower youth in the area through innovative agricultural and culinary programs, Hope Blooms engages youth to become agents of change within their community. According to its website, there are approximately 60 youth who use the gardens and participate in Hope Blooms programming. Located in an area of Halifax that experiences high rates of food insecurity, the garden works to provide food to local residents, and within the past 12 years has supplied the community with over 50,000 pounds of organic fruit and vegetables.

Dalhousie Urban Garden

The Dalhousie Urban Garden is a small, student-run and funded Dalhousie Society that aims to add more green space to both Halifax and the Dalhousie campus. It is open to students and the public, with a variety of events and workshops being held throughout the year. According to its website, large-scale food production is not its main goal, but rather to engage students and the community in an outdoor, agricultural setting to learn about gardening and to socialize with others.

North End Community Garden

The North End Community Garden is located near the Needham Community Center, close to Fort Needham Park. The garden has a small number of plots, a tool shed, and a communal herb garden. It does not have a website so finding information about the size and mission of the garden was difficult. However, during my talk with the manager, Irene, she mentioned her efforts to expand the garden over the past few years in order to try and meet demand.

Veith House

Veith House is a community hub in the North End of Halifax, which provides programming, resources, and support for families, youth, and newcomers to Canada. Veith House also has a greenhouse and urban farm. According to their website: “The Veith House Urban Farm is an inclusive space where people of all ages can gather and grow together. The farm is located beside Veith House itself and has 5 large raised beds, a perennial herb patch, a composting setup, and a newly built greenhouse for season extension. Throughout the spring we grow seedlings which are sold or donated to community members and organizations. Whereas through the summer and fall, we produce vegetables that are freely distributed to community members. Much of the produce is also shared through our community meal program” (*Urban Farm*, n.d.)**.**

Common Roots Urban Gardens, Woodside

The Common Roots Garden in Dartmouth is located on the grounds of the Nova Scotia Hospital, a psychiatric facility that supports mental health programs and rehabilitation. The garden has a section for members to grow food for themselves and their community, and a market garden where they grow vegetables, salad greens, and flowers for sale. Operating since 2015, the garden promotes physical, mental, and environmental health, and aims to create space for growing food and flowers in a supportive and welcoming way.

Literature Review

Community gardens produce a wide range of social benefits. Research has shown that community gardens can increase social connection (Aldrich, 2012; Bailey & Kingsley, 2020; 'Yotti' Kingsley & Townsend, 2006), alleviate food insecurity (Music, Finch, et al., 2021; Nigon-Crowley et al., 2020), and can act as an emotional refuge or gathering place in times of crisis (Aldrich, 2012; Chan & DuBois, 2015; Nigon-Crowley et al., 2020; Shimpo & Wesner, 2019). Further research has illustrated their ability to increase the mental wellbeing of members (Bailey & Kingsley, 2020; Chan & DuBois, 2015; Corley, Okely, et al., 2021; Crow, 2010). While previous studies have explored the role of community gardens during times of uncertainty, the unprecedented nature of the COVID-19 pandemic has created a new opportunity for research on its impacts. Gardening during the pandemic is a popular topic, with preliminary research beginning to be published. Much of this research illustrates the benefits and increased popularity of gardening during the COVID-19 pandemic (Corley, Okely, et al., 2021; Marsh & Diekman, 2021). However, research on this phenomenon within the Halifax Regional Municipality is lacking, despite the prevalence of community gardens in and around the city. This literature review will seek to situate my research within the sphere of known and unknown, working to illustrate a gap in the knowledge about community gardens and COVID-19 within the Halifax Regional Municipality.

Gardening During Covid-19

Following disasters such as hurricanes or earthquakes, social support and community ties play a crucial role in the mental recovery of those affected (Aldrich, 2012; Shimpo & Wesner, 2019). Many scholars have noted the continued importance of social support in response to the COVID-19 pandemic (Berg-Weger & Morley 2020; Saltzman et al, 2020)

however this has been difficult for those who already face isolation or lack of community connection. For many people - older adults especially - COVID-19 has been especially difficult (Berg-Weger & Morley, 2020b). Technology allowed for new forms of socializing, such as video calls and messaging, to take place online. There are significant barriers associated with technology, however. (Berg-Weger & Morley, 2020a). Fluency in technology, and the economic means to afford it, is something many older people lack.

A popular form of safe socialising throughout the COVID-19 pandemic has been the use of outdoor spaces as a setting for activities which were normally held inside (Naomi, 2020). When it was considered safe to do so, the use of parks and greenspaces rose dramatically, as people sought ways to socialize in a socially-distanced manner. Similarly, there was a major surge in gardening, as people sought outdoor spaces in which to spend their time. This coincided with widespread anxiety around food supply, as well as an increased interest in growing food close to home (Music, Finch, et al., 2021; Music, Mullins, et al., 2021). Since the beginning of the pandemic, supply-chain related shortages and increased prices led consumers to stockpile and panic-buy their food (Clapp & Moseley, 2020). In response, many people began exploring food procurement alternatives and home gardening became popular across the country (Music, Mullins, et al., 2021). Echoing many themes of the two World Wars, these “Pandemic Victory Gardens” gave people a way to combat the uncertainty of a global pandemic. Some garden supply stores encountered a 450% increase in sales (Klinkenberg, 2020), as new gardeners, mainly millennials, took up the practice for the first time (Music, Mullins, et al., 2021). In 2020, a questionnaire was created by researchers to address the lack of research on home food gardening in Canada - and examine the impacts of COVID-19 on gardening habits. The survey, which received 1,023 responses from across Canada, found a range of reasons why people chose to garden at home, and why many began gardening during the pandemic (Music, Mullins, et al., 2021). The most popular reasons for

starting a garden during this time were: more free time at home, food safety and supply chain concerns, and wanting to experience the mental benefits of gardening (Music, Mullins, et al., 2021). As we can see from this study, gardening has had a clear resurgence throughout the COVID-19 pandemic, with a large percentage of younger people trying the practice for the first time.

The results of this survey have major implications for land-use policies and funding opportunities, as 24% of long term gardeners and 29% of new gardeners live within the urban core of a city (Music, Mullins, et al., 2021). With such a significant portion of participants living within urban areas, there is room for innovative municipal action to encourage and empower gardeners. Some cities have encouraged their citizens to participate in gardening programs by providing seeds, educational workshops, and gardening materials (*City of Brampton | News | Media Release*, 2020.). Therefore, as 41.5% of non-gardeners claimed the reason they didn't garden was the lack of space, cities could do more to ensure available land for this purpose.

History of Communal and Urban Gardening

Community gardens have a long history of supporting citizens during times of uncertainty. Not only do they provide food, they also create opportunities for people to connect with each other (Bentley & Goosen, 1998; Lawson, 2005, 2014). As a response to food shortages associated with crises such as the Great Depression, and the two World Wars, allotment gardens - sometimes called Victory Gardens, Liberty Gardens, or War Gardens - became popular (Mares, 2014). In New York City during the Great Depression, over 5,000 community gardens provided food for the hungry (Armstrong, 2000). In 1944, with the Second World War raging, "Victory Gardens produced 44 percent of the fresh vegetables

eaten in the United States" (Hynes, 1996). Then as now, however, allotment gardens were vulnerable. If the land on which they were situated was suddenly deemed valuable, the garden could be forced to relocate, literally uprooting gardeners and their gardens (Bentley & Goosen, 1998; Lawson, 2005, 2014).

Victory Gardens did more than just supply food. They gave people a sense of purpose, allowing them to feel that they were doing their patriotic duty (Mares, 2014). The Victory Garden campaign fostered citizen engagement, and provided a sense of camaraderie and mutual benefit during uncertain times (Lawson, 2014). Another recurring component of these gardens is their capacity to educate. Gardening programs in 1911 targeting "backward or defective boys" (Lawson, 2005) mirror many of the contemporary gardening programs for "at risk" populations (D'Abundo & Carden, 2008; Pudup, 2008). As can be seen by these recurring themes, gardens have long been seen as a resource that provides more than just food.

In her book: *City Bountiful: A Century of Community Gardening in America*, author Laura Lawson (2005) explores their historical role in North America, illustrating the multifaceted and versatile nature of these spaces. Rather than being simply a space for growing food, Lawson posits that the role of community gardens shifts over time, serving as a space for community connection, recreation, empowerment, and enhanced wellbeing (Lawson, 2005). Similarly, past research has explored the role of gardens as a "third space" - a contemporary term sometimes used to describe public spaces for gathering that are neither "home", nor "work"; these places can include libraries, cafes, community centres, or public parks (Oldenburg, 1989). Providing a neutral "third space" for those with diverse cultural, economic, political, and social backgrounds allows for casual social engagement and discourse - an important aspect of social connection, social capital, and civic engagement (Wohl, 2017).

Social Capital

Social capital is a theoretical framework that has become increasingly relevant in the social sciences over the past few decades. Most notable for his accessible writings on social capital, Robert Putman brought the concept into popular culture with his book, *Bowling Alone: America's Declining Social Capital* (1995). Social capital is most commonly referred to by Putnam as: "features of social organisations, such as networks, norms, and trust, that facilitate actions of cooperation for mutual benefit" (Putnam, 1995). Putnam emphasises the importance of civic groups that create social engagement such as the bowling leagues that were popular throughout the earlier part of the 20th century. He argues that these groups, and the conversations that emerge from them, are crucial in the creation - and maintenance - of the fabric of our society. He believes that the social interactions that happen in these spaces reinforce our civic nature, building ties and relationships amongst people who may not otherwise cross paths.

As described by Kingsley (2006), social networks, cohesion, support and connection facilitated by trust and reciprocity are the basis of social capital between individuals in communities and lead to material and social benefits such as social support and mobility. Many of these themes are mirrored in past studies on community gardens (Bailey & Kingsley, 2020; Corley, Okely, et al., 2021; D'Abundo & Carden, 2008; 'Yotti' Kingsley & Townsend, 2006), illustrating their potential for beneficial social connection amongst members. To gain a greater understanding of the social impacts of these spaces during the COVID-19 pandemic, my research will include social capital theory as a guiding framework. This framework will serve to capture the complex and multifaceted definitions of community that can arise from these spaces, helping to quantify different experiences and perceptions. Research by Twiss et al. (Twiss et al., 2003) illustrates the ability of these gardens to

mobilise and empower members of a community, creating social connections that enhance social capital and social cohesion.

Past research on this topic within the Halifax Regional Municipality adds to these findings, illustrating the many social and physical benefits of communal gardens for refugees and immigrants (Hinton, 2016). Hinton's research sought to examine the role of the Glen Garden - a community garden located in Halifax - and its impact on the Lhotsampa refugees who are the predominant users of the space. The Lhotsampa refugees living in Halifax originally came from the southern part of Bhutan, a small country bordered by China and India. The majority of the Lhotsampa refugees in Halifax come from poor, rural, farming villages (Hinton, 2016). Hinton found that members of the Lhotsampa community, especially the older generation, struggled with acculturation, as the language barrier was difficult to overcome. Dramatic changes in culture, diet, language, and work were some of the main reasons for discontent as the community struggled to adjust to their new life. Through a series of interviews, as well as working in the garden alongside community members, Hinton found that the garden served a significant role in the lives of the Lhotsampa. The garden provided them with a space to build social capital, connect with others in the community, and grow traditional, nutritious, and culturally appropriate food (Hinton, 2016). My thesis will add to this research by exploring the social role of these communal gardens, specifically during the COVID-19 pandemic.

Resilience

Another significant benefit of community gardens is their role in building resilience amidst crisis. In times of uncertainty, gardens have provided support for communities in various ways: by providing a source of food, a space to meet with others (Lawson, 2014; Shimpo & Wesner, 2019) and by acting as a refuge after natural disasters (Aldrich, 2012;

Chan & DuBois, 2015; Shimpo & Wesner, 2019). During and after Hurricane Sandy in New York City, community gardens were perceived by community members as safe spaces and multi-purpose community refuges (Chan et al., 2015). Similarly, after a series of fatal earthquakes in Christchurch, New Zealand, research found that community gardens provided a range of benefits for the affected community (Shimpo & Wesner, 2019). Their research found that the community garden created a space for gathering, supplemented food supplies, and most importantly, helped to build social ties amongst community members. This creation of social support was crucial for the community during these disasters, as the garden gave people a place to share their experiences, socialize, and de-stress.

Many of these studies highlight the beneficial social role of community gardens. As this literature has tried to illustrate, there is a substantial amount of research on the social benefits that these spaces provide. Loneliness and isolation has become increasingly prevalent within our society. In 2015, the American Academy of Social Work and Social Welfare identified the negative effects of isolation to be one of the top challenges facing social workers' clients (Lubben & Gironda, 2015), with some professionals calling loneliness an "epidemic" (Murthy, 2017). Older adults are most likely to suffer from these issues, with increased isolation playing a major role in declining mental and physical wellbeing (Berg-Weger & Morley, 2020b; Lubben & Gironda, 2015). Recent research suggests that loneliness has long term physical effects, as individuals who experience social isolation for extended periods of time face higher rates of depression, stroke, increased blood pressure, and weight gain (Berg-Weger & Morley, 2020b). Throughout the COVID-19 pandemic, especially during the initial lockdowns in March of 2020, people were encouraged to stay home, and away from others. With these measures in place for months at a time, isolation increased dramatically.

Despite the generally positive view of community gardens, some critical studies have focussed on their unintentionally exclusive nature (Mares, 2014), their perception by many as temporary spaces (Crow, 2010; Pudup, 2008; Shimpo & Wesner, 2019), and the lack of available funding and resources to keep them running (Camps-Calvet & Langmeyer, 2015; Reynolds, 2015). Research by Mares (2014) found that hardly any members of the Seattle Latino community were participating in the local community garden, despite their extensive knowledge of gardening and their positive perceptions of community gardens. Lack of information was the primary barrier, as outreach initiatives into the Latino community was lacking. (Mares, 2014).

Another major barrier facing the success of community gardens is their perception by many as temporary (Crow, 2010; Shimpo & Wesner, 2019). Here in Halifax, a popular community garden was recently relocated so the land could be used for a parking lot (*Home Page 2022*, n.d.). The new community garden is now located near a busy highway, further away from the city center, and in a less accessible area. This sense of impermanence affects the perceptions of community gardens, as they most benefit from stability and continuity of support over time.

In conclusion, community gardens have been shown to provide many social benefits to those involved. Research has demonstrated their ability to improve the mental wellbeing of members, and provide a refuge and a space to share resources during crises. Community and urban gardens have a history of creating connection and purpose during times of uncertainty, such as the First and Second World Wars, and they have been shown to provide a space for community connection and relaxation. While there is ample literature covering the general topic of the role of community gardens in times of crises, the unique nature of the COVID-19 pandemic offers a new area of research that my thesis will explore.

Methods

A qualitative approach was chosen for this research in order to examine the diverse experiences of those who facilitate and operate these gardens. Qualitative research has been defined as “the study of the nature of phenomena”, including “their quality, different manifestations, the context in which they appear or the perspectives from which they can be perceived”, but excluding “their range, frequency and place in an objectively determined chain of cause and effect” (Busetto et al., 2020). More simply, qualitative research is generally based on data in the form of words rather than numbers.

Using a qualitative approach will allow for more in-depth conversations and experiences to be illuminated in the data. Using semi-structured interviews will allow participants to talk freely about their experiences without feeling confined to specific answers, as the open-ended nature of the questions facilitate longer answers than might come from a questionnaire or survey. I acknowledge that these findings may not be generalized for all who have worked in these spaces, however, they will contribute to a better understanding of the experiences of those whom I interviewed during the time frame outlined.

Interviews:

In total, I interviewed five people involved in various positions at community and urban gardens located within Halifax and Dartmouth. All participants consented to have their quotes, organizations, and names used in the data. In order to gather participants for the interviews, I used a mixture of snowballing as well as finding people’s contact information through various garden websites and social media accounts. Once I had found people to contact, I reached out using an email template (Appendix 1.1) which briefly outlines my

research and what the interviews would be about. Once respondents replied and expressed willingness to talk with me, I sent them a consent form (Appendix, 1.2) that outlined their role in the research as well as their freedom to leave the study at any point. The consent form also included a section where participants could choose to be recorded or not, and to have their name and organization/garden included or removed from the results. This was done in order to protect the participants' privacy by allowing them to remain anonymous if they chose to do so. The consent form was created to ensure participants felt safe while doing the interview, knowing they could retract their consent or their statements at any time.

Once participants had signed the form and were willing to be interviewed, we set up a date to talk either in person or on the phone. I gave participants the option of both in person at the garden site or on the phone, in order to ensure participants were comfortable with their surroundings and felt they could talk openly. Half the participants chose to do the interviews at the garden site, while half wished to do so over the phone. To ensure safety from Covid-19 transmission, we stayed outside for these in-person interviews. All participants gave consent to be recorded and have their garden and organization name included in the research. I recorded the interviews by using a voice recording app on my phone. After meeting with participants I made sure to thank them for their time and to tell them that if they were interested, I would send them findings from the research once I had completed the work.

Coding

Once the interviews were recorded, I transcribed them verbatim and began coding them into a series of codes pertaining to both *a priori* and *a posteriori* themes. I decided not to use a coding software, as I felt that there wasn't enough data to warrant doing so. Instead I coded the results manually. Coding is the process of marking or tagging the content of a phrase or sentence with a short descriptor (Punch, 2005). Coding makes raw data - in this

case the interview responses - sortable into themes and categories, allowing for processing and an analysis of recurring or significant themes (Busetto et al., 2020). Past studies on the role of community and urban gardens have employed similar coding methods - categorizing the wide range of individual responses into more manageable phrases and themes (Marsh & Diekman, 2021). A 2021 study about the role of community gardens during COVID-19 illustrates the way coding can be used to convey complex experiences into comprehensive data (Marsh & Diekman, 2021). After completing interviews with community garden members, the participant's responses were transcribed verbatim and significant quotes were broken down into themes and sub-themes such as: "garden as a refuge" or "attunement with nature". This research will use similar methods to analyse the data from the interviews - breaking the responses down into their respective *a priori* and *a posteriori* themes.

A priori and aposteriori are terms used to categorise information into groupings of known and unknown themes. *A priori* is knowledge that comes before the facts, based on the pre-existing literature and personal observations whereas *a posteriori* is the knowledge that emerges after the research is completed, based on the data and observations (O'Leary, 2011). A recent study on food insecurity and food sovereignty in the North End of Halifax, Nova Scotia used this method, as the researcher decided to create codes based on *a priori* and *a posteriori* themes which emerged from the data after the interviews were completed (Fraser, 2017). The researcher created codes based on the current definitions of food sovereignty and food insecurity, for example "physical access", "cultural appropriateness", "nutrition", and "financial access" to name a few (Fraser, 2017). After the interviews, more themes were created as *a posteriori* themes which arose from the data. For example, "gentrification", "dignity", "accessibility", and "lack of resources", were some of the *a posteriori* themes which emerged from the data that did not fit into the pre-existing categories. Using this method allows for unexpected data to be accounted for and incorporated into the results.

By using open ended questions, I gave participants more room to add their own thoughts, experiences and other comments which they felt I may have missed. While the questions all pertained to the logistical and technical aspect of running a community garden, sometimes the participants would add in other significant issues that I hadn't accounted for but were still relevant and helpful to my research. The *a priori* themes which I created for these interviews are: 1. Increased Interest, 2. Social Interaction, 3.Covid-19 Protocols, 4. Barriers, 5. Importance of Outdoor Gathering Space. These themes are based on information from the literature review as well as from my own previous knowledge of this subject. The *a posteriori* themes emerged from the interviews as: 1. Lack of Resources, 2. Supply Chain Issues, 3. Burnout, and 4. Positive Impact of COVID-19.

Media Content Analysis

Once I had my *a priori* and *a posteriori* themes, I compared them to the main codes which emerged from my media content analysis. A media content analysis is a specialised subset of content analysis which is used to study a broad range of texts, including transcripts of interviews, magazines, newspapers articles, and advertising (Macnamara, 2005). Media content analysis was introduced by Harold Lasswell as a means to study mass communication, originally propaganda. In the 1950's, with the arrival of television, media content analysis proliferated as a research methodology. Lasswell, Lerner and Pool said: "content analysis is a technique which aims at describing, with optimum objectivity, precision, and generality, what is said on a given subject in a given place at a given time" (Macnamara, 2005). More famously, Lasswell described the process of a media content analysis as: "who says what, through which channel, to whom, with what effect". By employing this framework for my media analysis, I will be able to examine how urban and

community gardening has been portrayed by the media throughout the pandemic. While many articles focused on this topic, I wanted to see if the narrative presented to the public lined up with the experiences of those working directly in these spaces. Comparing the results from my interviews with those from the media analysis allowed me to ask the question: does the media give a proper analysis of this issue or does it present a different/incomplete version?

In order to do so, I will analyse a series of news articles and first-person reports from the relevant time period. Once I've thoroughly read the media I will break the content down into codes and divide them into their own *a priori* and *a posteriori* categories. Once this process is complete, I will compare the codes from my media analysis with the codes from my interviews. By comparing and contrasting these themes, I can see what sort of information was highlighted in the media, and what was left out. This process will hopefully allow for a deeper understanding of the experiences faced by those working within this field, as well as the benefits and challenges of accessing these spaces throughout the COVID-19 pandemic.

Results From Interviews and Coding

Overview of Interview Data

The interviews highlighted many important themes which emerged as the responses were transcribed. The *a priori* themes were chosen as: 1. Increased Interest, 2. Social Interaction, 3.Covid-19 Protocols, 4. Barriers, and 5. Importance of Outdoor Gathering Space. The *a*

posteriori themes emerged from the interviews as: 1. Lack of Resources, 2. Supply Chain Issues, 3. Burnout, and 4. Positive Impact of COVID-19.

A Priori Themes

Increased Interest

"This year, even more than normal because Covid made people fearful; not wanting to go out, not wanting to shop, the idea of being able to grow their own food was very appealing"

-Irene, Manager of the North End Community Garden

All of those interviewed experienced an increase in participation and interest in the gardens. This theme was categorized as *a priori,* as the literature and media had covered this trend extensively. This lines up with results from other research on gardening during COVID-19 from Music et al. (2021), which showed that 17.5% of survey respondents began gardening at home during the 2020 COVID-19 pandemic. Of these, 66% agreed that the pandemic influenced their decision to start growing food at home. All of the respondents agreed that gardening is important for mental and physical wellbeing, however long term gardeners were more inclined to use this as their main reason for gardening, whereas new gardeners were more concerned with disrupted supply chains and economic instability.

As was noted by Hillary, from the Common Roots Urban Garden in Dartmouth, the pandemic led to an increase in interest and a demand for more garden plots. She mentioned that the demand was there before, but Covid-19 made it much more noticeable. As garden stores and seed companies struggled to keep up with the increased demand (Music, Mullins, et al., 2021) so too did community gardens.

Covid-19 Protocols

"It has been more limiting in terms of official gatherings with patients or the public, just not welcoming anyone onto the grounds. We haven't been able to have any community building events or anything like that".

- Hillary Lindsay, Manager of the Dartmouth Common Roots Garden, which is located on the hospital grounds.

As to be expected, the pandemic presented many challenges to those running community and urban gardens. This is understandable given the widespread uncertainty of operating and running any sort of organization during a pandemic. The interviews included questions about barriers and the impacts of COVID-19 on these spaces, so understandably, there were significant responses to this section. All interviewees discussed the impacts that COVID-19 had on garden participation. Restrictions and lockdowns have limited membership in various ways, as well as making it difficult to host community events and workshops. The Common Roots garden in Dartmouth is located on hospital grounds, meaning the restrictions were simultaneously more stringent and more relaxed. As Hillary explained: "Because we are on hospital grounds, the hospital has been much more strict than the other gardens in the city. Well actually, it was interesting, the first year of COVID we were immediately given the go ahead to get the garden going, whereas Sarah [from the other Common Roots Garden] had to wait until May or so. The hospital just saw the value of the garden being there right from the beginning, but it has been more limiting in terms of official gathering with patients or the public, just not welcoming anyone onto the grounds. We haven't been able to have any community building events or anything like that".

As Hillary explains, due to its location on hospital grounds, the garden was given priority to open up, as the hospital understood the positive impact that the space has for the members. As the garden is used to help those with mental health issues and addiction, the city understood the importance of allowing the space to operate. However, the garden still faced many of the same restrictions as other gardens, and in some ways *more* restrictions than others due to the vulnerable position of the members.

The garden manager of Veith House explained how there was frequent membership and volunteer turnover due to the unpredictable nature of the pandemic, as well as the restrictions which kept people from being on site. Restrictions made it difficult to plan certain aspects of the garden, as participation and volunteer help was limited and unreliable. Similarly, Irene, the manager of the North End Community Garden faced many difficulties due to the Covid-19 restrictions: “We had to wear masks, we had to be 6 feet apart, we had to have a schedule with the gardeners so people weren’t right next to each other. For me it was not a good time. I know this is casting a pessimistic light on things, but I haven't found any solution”.

This is similar to the issues faced by the managers of the Dalhousie Urban Garden, who explained that restrictions made it difficult for planning events and workshops: “The most challenging thing for sure has been working with restrictions, like what we can and can't do. When we can and can't have people at the garden”.

Despite these initial difficulties, Ashley, from the Dalhousie Urban Garden explained in the interview that once some restrictions were lifted they were able to host events and have limited numbers of people in the garden once again.

Social Interaction

"People were really excited to have a space to interact with other people and learn things."

- Ashley, Coordinator of the Dalhousie Urban Garden

Despite being an *a priori* theme, there were only a few responses relating to social interaction in the interviews. While all interviews had multiple responses pertaining to the importance of outdoor spaces as a place to gather, most of them focused primarily on these spaces as a way to get outdoors rather than as a space for people to meet and socialize with others. Codes relating to social interaction were only mentioned twice out of the five interviews. This was unexpected, as I was anticipating themes of social interaction to be much more prevalent in the data. This assumption was based on the way this topic was discussed in the media, which frequently focused on themes of social interaction and community connection within the gardens. The absence of this theme in my interviews could be due to the questions I was asking, and how I framed the discussion. However, there were other themes in the data which were brought up frequently, such as the "Positive Impacts of COVID-19" or "lack of resources" which I had not asked specific questions about.

Barriers

"I mean to simplify it down to its root: poverty. Even if you are struggling to feed yourself, it takes time and energy to engage in a community resource that does in the end bring you food, but it's not a direct or tangible resource that you need when you're facing food insecurity.

Also lack of awareness about how to participate or who can participate, and what sort of participation is welcome".

- More Vail, Garden Manager at Veith House

The question regarding barriers was approached by the coordinators in multiple ways. The question asked was: "What do you think are the most significant barriers to participating in the garden?". Issues of poverty were mentioned in the interview with Veith House and Common Roots, as they discuss the monetary barriers that might keep people from purchasing and using a plot. Time-related factors, such as multiple jobs, childcare and commuting long distances, are also critical. Without free time, many people aren't able to participate in these spaces.

Another factor which was mentioned in the interview with Veith House, Common Roots, and the Dalhousie Urban Garden was access to information. People may be hesitant to join, as they aren't sure of who can join and what level of knowledge is required to participate: "People have an interest in something but they don't have any experience with it so they feel as if they can't participate or contribute. But the garden is about learning, we are all learning together". For many people, without experience, gardens may feel like intimidating or overwhelming spaces.

Finally, issues of land use were brought up in the interviews with the North End Community Garden, and Common Roots Urban garden. The manager of the North End Garden, Irene, was struggling with a lack of space, and therefore had to turn people away who wished to participate. The land belongs to the city, so there are certain things she cannot do. For example, she mentioned wanting to build a well for water storage, but her request was denied. Also, the space is quite limited, and without the room to expand, there will continue to be a lack of plots available for those wishing to participate.

Importance of Outdoor Gathering Space

"We would be trying to close the garden at the end of the day and no one wanted to leave. It was like a central thing that everyone could do and do outside which was really important"

-Veronica Gutierrez, Hope Blooms

Almost all of the coordinators interviewed mentioned the importance of the gardens as a space to get outside in a safe environment. COVID-19 restrictions affected the way people interacted with each other and their surroundings (Corley, Okely, et al., 2021; Naomi, 2020), and due to the well-ventilated nature of outdoor spaces, gardens were generally seen as safe from virus transmission. During the lockdowns, there were few places to go outside of one's own home, therefore many people looked to the outdoors as a way to safely socialize and gather with others (Marsh & Diekman, 2021). This is reflected in the quotes from the interviews, as most of the coordinators mentioned the importance of these spaces for members during the lockdowns. Hillary, from the Common Roots Garden mentioned the beautiful location of the garden, and how it became a place for people to visit regularly and a way for people to get out of their homes.

Irene, from the North End Community Garden discussed how many people don't have access to green space, specifically backyards where they can grow their own food. She believes this, combined with the uncertainty of the supply chains, made many people more interested in growing their own food and participating in community gardens.

A Posteriori Themes

The *a posteriori* themes emerged after I completed and transcribed my interviews. The themes were categorized as: supply chain issues, lack of resources, burnout, and positive impacts of COVID-19.

Supply Chain Issues

"Even just ordering supplies in the spring, ordering seeds. There were national and global shortages - and I think that's because of labour shortages and changes and the uptick in interest around gardening. That's kind of a cool thing, but kind of a stressful thing".

-More Vail, Community Food Coordinator with Veith House

All of the participants explained some of the issues they've faced with supply chains, and getting the products they needed for the garden. The most common issue was seed shortages. Large numbers of first time gardeners created higher demand than usual. Four out of the five interviews mentioned problems with ordering seeds, and two mentioned the increasing prices of garden supplies due to supply chain issues. While this didn't seem to have any significant long term impact on the operation of the gardens, it was still an issue that was brought up by all participants, underscoring its abnormality and potential as an issue in the future.

Lack of Resources

Along with the difficulty of ordering seeds, some of the garden coordinators discussed issues related to a lack of funds for garden supplies, a lack of volunteers, or a lack of space for garden plots. Irene from the North End Community Garden discussed the issues she struggled with such as a lack of money for soil, compost, and straw for the garden beds: "I mean it

barely covers the cost of straw and compost, and soil that we need. The straw costs so much more each year".

As can be seen from this quote, the amount of money available affected garden operations and decision-making. Irene also mentioned having to raise membership fees in order to cover operating costs, something which could potentially influence who is able to join. In her interview, Irene expressed her frustration with the city for not supplying her with more resources to run the garden, as she wishes to expand it so more people can join.

More Vail, from the Veith House, discussed the problems that arose from a lack of volunteers, as the restrictions limited who could be on site: "When lockdown was really tight and people couldn't come to the farm or couldn't volunteer. I think that was a challenge. It's nice to have people gardening in their own backyard but when we can't have hands on site it becomes more difficult (to run the garden)".

Burnout

"It was a very difficult year, stressful in every regard. The water thing was outrageous. They restricted me to certain days, and times. It ended up with only three of us, retirees, to keep things going. The year was filled with concerns, some of the gardeners were severely sick with different illnesses, so a lot of responsibility fell onto only a few of us. It was not a happy time".

-Irene, Manager of the North End Community Garden

While this quote does not represent all of those interviewed, themes of burnout and frustration were apparent in some of the responses, specifically from the North End Community Garden. As Irene mentions, due to a lack of resources and reliable volunteers, much of the work was left to her and a few other people, leaving them tired and frustrated by

the end of the growing season. They also faced issues with accessing water, as the restrictions made it difficult to get water from the nearby community center, and they were limited to certain days of the week.

The two I interviewed from Hope Blooms also mentioned their frustration and sadness at the impacts of COVID-19 on the garden and the community. They mentioned a growing disconnect between youth in the community and the garden: “They used to have garden night and there’d be 60 kids coming to the garden and spending time together but the past two years they haven't been able to do that, and we’ve seen an impact. There’s a sort of disconnect where the older kids don’t really care as much about the garden. We couldn’t just do 10 kids because then some would be left out, so we just didn't do it at all, and it’s really affected the way the kids feel about the garden and the community”.

This sense of disconnect from others was brought up in a few of the other interviews, as the garden coordinators remarked on the difficulty of creating a space for socializing with others during the pandemic. As a few of the coordinators mentioned, adjusting to the constantly changing restrictions and trying to keep people involved was difficult.

Positive Impact of COVID-19

“I mean in a certain sense it was nice to see people take an interest in their own spaces that they have in their backyard, capitalism makes that really hard to access, with people working all the time. When there was a set break people had the chance to get involved in ways they might otherwise not. Gave people the chance to get outside and get their hands dirty”

-More Vail, Veith House

Both interviews with Hope Blooms and Veith House, highlighted how the lockdowns gave people the time to explore new things. For many people, this was gardening, as the

break from business as usual allowed for more time-consuming activities (Naomi, 2020). This quote from the Hope Blooms interview captures the sentiment: “Some of the older youth were around a lot more, because there was so much more free time for everyone. Normally people would be busy and wouldn't have the time to come hang out and spend time in the garden. Like, we wouldn't have anywhere to go so we’d be here”.

As can be seen from this quote, the lack of usual activities such as work, or school made it possible for many people to start gardening for the first time. The *a priori* theme of “Increased Interest” overlaps slightly with this *a posteriori* theme of “Benefits of COVID-19”, as the pandemic and lockdowns created the time for people to take on new activities. Ashley, from the Dalhousie Urban Garden mentioned that people were really excited to try new activities and workshops in the garden, as the pandemic made gardening more popular.

Another thing which was brought up during my interview with Hope Blooms was their Seed Program. During the first lockdown, they came up with the idea to help people garden in their own space: “The seed program started in 2020 - we made kits for people to start gardening at home. It got picked up by the Department of Agriculture and they wanted us to do 40 kits for African-Nova Scotian youth across the province. We used videos and art to get people interested and we did the programming online so that we could connect locally with our youth and youth all across Nova Scotia. If we only do programming here then we can only really reach 60 kids max. But that was a Covid switch that was really impactful, because kids all across Nova Scotia who don’t even know what Hope Blooms is could participate and see themselves represented in these programs. [...] Overall this is something that we wouldn’t have done if not for Covid, and we’re going to keep doing it in the future.”.

Without the push from COVID-19, this program would not have been necessary. The idea of keeping young people engaged in gardening brought the program to life, and it ended

up being successful across the province. For Hope Blooms, being forced to get creative led to programming that increased accessibility and participation.

Media Analysis

In order to study how this topic has been portrayed by the media, I chose to examine a range of relevant print news articles. As with the methodology I used for coding my interviews, the media was examined for prominent quotes and themes in order to categorize the information into applicable data. Using the key words *pandemic, garden, community garden, urban garden, COVID-19, Canada, and virus*, I found 7 publicly accessible news articles and opinion pieces about gardens and COVID-19. These were chosen based on their relevance to the topic, and their accessibility. I decided to leave out articles that were only available through a paid subscription. Likewise, I felt as if the free articles provided enough information for this section.

While they all discuss gardening during COVID-19, not all of the articles are primarily about community or urban gardens. A few of them discuss home gardening, or other variations of gardening outside of a communal setting.

Opportunity

"What started as a pandemic project has turned into a popular and prolific destination" - CBC, *Women in Lennoxville, Que., are growing food and social connections with collective garden* (Van Dyk, 2021).

A common theme throughout the media was "opportunity". Similar to the *a posteriori* theme identified as "benefits of covid-19", there was a significant amount of discussion around the opportunities that COVID-19 has brought for people, specifically with regard to gardening. This CBC article, published in July of 2021, highlights the success of a

community garden which was founded during the first lockdowns, and has since become a popular destination for socializing and connecting with others. The article discusses the women who use the garden to learn, grow, and connect with other people: "Unlike a lot of pandemic activities, this one has given her (one of the members) the opportunity to make new friends — and reconnect with old ones". Likewise, an article published in May of 2020, right at the beginning of the pandemic, titled: "*Most Farmers in the Great Plains Don't Grow Fruits and Vegetables. The Pandemic is Changing That."*(Miller, 2020) explores how the pandemic has given many conventional farmers who typically only grow wheat, soy, or corn, a reason to grow more varied garden crops such as squash, zucchini, peas, and other produce. Calling these crops of mixed vegetables and produce 'chaos gardens', some farmers are using them to help their local community: "Some of the produce goes to his own kitchen but most of it gets donated to local community groups—the food bank, youth groups, and churches—with the agreement that they do the harvesting. Emmons estimates that each acre of 'chaos' generates 4,500 pounds of produce".

Similarly, an article published about the Hope Blooms garden (Broverman, 2021), discusses their decision to remodel the garden, and revamp the organization during the pandemic. The article, titled: '*We came out stronger': Opportunity blooms at Halifax community garden*", explores the many ways the pandemic provided an opportunity for the organization to reform their programming and garden. As can be seen from these examples, the pandemic is being framed as an opportunity to try new things, experiment with different techniques, and build new connections in the garden.

Community

“Garden brings together families dealing with anxiety, depression from isolation during COVID-19 pandemic” - CBC, *New community garden in West Kildonan helps newcomer families connect after COVID-19* (Samson, 2021).

Another prominent theme which emerged from the media was that of community. As was explored in the literature review, gardening in a communal setting brings people of different backgrounds together in a safe, shared space (Crow, 2010; Hinton, 2016). This is reflected in a few of these articles, which highlight the role of the garden as a place for connection and community building: “Abdalla says she loves the sense of community she gets by working with the other gardeners as much as she enjoys a contemplative visit by herself.” (Van Dyk, 2021). The way the topic is framed in these articles highlights the garden’s capacity for building community and connections to others.

Hope

"It gets [residents] connecting to the land which I think, as humans, we've done for a very long time, and in moments of scarcity, there's something really empowering about that," he explained. - CBC, *Victoria helps with food production for 1st time since WWII, due to COVID-19 demand* (Zwan, 2020).

The theme of hope was also prevalent throughout these articles. As the world dealt with increasing uncertainty, gardening was seen as a grounding, tangible practice to help pass the time. In the article *Victoria helps with food production for 1st time since WWII, due to COVID-19 demand* - there are strong themes of resilience, and hope, as the city passes a

motion to help residents grow their own food. By making the connection to the Victory Gardens of the Second World War, the decision to help Victoria residents with food production is characterized as both historic and hopeful. As mentioned, the Victory Garden program is remembered as a success, as it mobilized the population for the public good, giving residents a sense of purpose during an uncertain time (Lawson, 2014). This parallel between gardening during the war, and gardening during the pandemic, implies a sense of hope, as readers draw a connection to the successful campaign of the past.

In a First Person article published by the CBC titled: *How gardening gave me structure, purpose and a path out of depression during the pandemic*, (Ford, 2021) the author Tim Ford writes about struggling with anxiety and depression during the beginning of the pandemic. After the city of Victoria provided residents with free seedlings and gardening supplies, Ford started growing his own little garden at home as a way to pass the time. Finding solace in his little garden, he now had a reason to get out of bed in the morning: “For me, gardening offered a reason to actually get out of bed and face another day. There was structure. Order. A sense of purpose [...] Everything I grow tastes all the sweeter for having been grown through my diligence. Amid the concrete jungle of closed stores, shuttered concert halls and urban isolation, my garden is still growing on my balcony as a personal bastion for my mental wellbeing.”

As can be seen with these examples, gardening provided people with a sense of purpose, giving them hope for a future when things felt uncertain and scary.

Refuge

“Through gardening, Bunyan is finally granting herself the luxury of time and of space to take a breather despite the ongoing inequality of the world. "We all need that space or that

time or that place where we can just be. And when I'm gardening, I can just be." - CBC, *How the pandemic transformed one Montrealer's relationship to her backyard and her world.* (Klang, 2021).

The final theme which arose was that of Refuge. This theme appeared throughout a few of these articles, as gardening provided people with a place to escape the reality of the pandemic. This theme correlated with the existing literature, which found that gardening provided a place for relaxation and joy during the lockdowns (Corley, Okley, et al., 2021; Marsh & Diekman, 2021). In one article, gardening provided the space for a Montreal resident to reflect on her past, and her relationship to the land. Similarly, in the CBC article, titled: *Women in Lennoxville, Que., are growing food and social connections with collective garden,* the women interviewed explain their enjoyment of being in a beautiful, shared space with others: "And this is such a good way to break isolation and see other people too," Levasseur said. "Just being in contact with nature is so therapeutic." As can be seen in these articles, gardening is more than just food production, rather, it provides a space for reflection, relaxation, and purpose during stressful times.

Discussion

The benefits from community and urban gardens have been well documented, and there is a growing body of research on the beneficial role that these spaces have played throughout the COVID-19 pandemic (Bailey & Kingsley, 2020; Marsh & Diekman, 2021; Music, Mullins, et al., 2021). Similar to the Victory Gardens during the first and second World Wars, gardening provided a space for food production, social interaction, and purpose during worldwide uncertainty. As many people began gardening for the first time, predominantly in urban areas,

there was a surge in demand for seeds and growing supplies in cities across Canada (Klinkenberg, 2020; Music, Mullins, et al., 2021), and community gardens experienced a much higher demand for plots (Marsh & Diekman, 2021).

This research has sought to further understand the experiences of those operating community and urban gardens throughout the pandemic, as well as to explore the roles, and challenges that they encountered during this time period. As my media analysis has illustrated, the many benefits that these gardens can provide have been clearly covered and presented to the public throughout the pandemic (Corley, Okley, et al., 2021; Marsh & Diekman, 2021; Naomi, 2020). However, there seems to be a discrepancy between the experience of those working behind the scenes to operate these gardens, and the way the media has portrayed this topic to the public. The themes which emerged from my interviews with the garden coordinators illuminated the struggles and challenges that came along with operating these spaces. Burnout, supply chain issues, and COVID-19 restrictions limited the way these spaces could operate. While these challenges may not be widespread, as my sample size was small, it is still important to understand and acknowledge these issues in order to minimize, and mitigate them in the future.

In contrast, the media coverage of this topic has been overwhelmingly positive, with the spotlight falling primarily onto their ability to provide community connection, hope, and opportunity. While it is important to acknowledge the benefits that gardens can provide, there were real issues which were not apparent in the media coverage. These issues should also be acknowledged, as they posed challenges for the coordinators, leaving some feeling frustrated and disheartened. This side of the story seems to have been glossed over, as these struggles were not present in the media I examined. As gardens have proven to be beneficial in multiple ways, from helping with food production and food security (Hinton, 2016; Lawson, 2014; Nigon-Crowley et al., 2020), mental wellbeing, (Bailey & Kingsley, 2020), and social

connection (Nigon-Crowley et al., 2020; 'Yotti' Kingsley & Townsend, 2006), more support could have been provided by the city or the province to ensure the continued success of these spaces. If we are to continue seeing the benefits that these spaces provide, their impact must be understood and supported as much as possible.

Conclusion

An increasingly prevalent trend in the literature highlights the social benefits of community and urban gardens throughout the COVID-19 pandemic (Corley, Okley, et al., 2021; Music, Finch, et al., 2021). For many, gardens became a sanctuary and a refuge from the uncertainty caused by COVID-19. Past literature has revealed the connection between increased mental wellbeing, social connection, feelings of community, and gardening in communal spaces (D'Abundo & Carden, 2008; Hinton, 2016; Marsh & Diekman, 2021; Shimpo & Wesner, 2019; 'Yotti' Kingsley & Townsend, 2006). Gardening has also been shown to increase feelings of connection and community with others, helping to combat isolation amongst members (Bailey & Kingsley, 2020). As Robert Putnam explains in his writing on social capital, groups, spaces, and organizations which bring together people of differing backgrounds are beneficial in the creation - and maintenance - of the social fabric of our society. He posits that these spaces provide the opportunity to form connections and build relationships with those of varying economic, political, and socio-economic backgrounds. Social capital can be understood as: "features of social organisations, such as networks, norms, and trust, that facilitate actions of cooperation for mutual benefit" (Putnam, 1995). As the pandemic made it difficult to socialize with others, spaces that provided the opportunity to interact and connect with others became increasingly important (Saltzman et al., 2020). As described by Kingsley (2006), social networks, resources, and connection facilitated by trust and reciprocity are the basis of social capital between individuals in communities and lead to

material and social benefits such as social support and mobility. Many past studies have shown the connection between community and urban gardens, social interaction, and community, illustrating their potential for building social capital amongst members (Aldrich, 2012; Bailey & Kingsley, 2020; 'Yotti' Kingsley & Townsend, 2006). As these spaces have been shown to provide numerous benefits to members, their importance during the isolation caused by COVID-19 and the various lockdowns is apparent (Saltzman et al., 2020). Much of the coverage within the media highlighted these aspects of community gardens, primarily illustrating their ability to build community and fight isolation.

However, as my research has illustrated, these spaces, and those operating them faced many difficulties, as resources were sometimes scarce, COVID-19 restrictions limited how they could operate, and some coordinators felt strong feelings of burnout. Without increased support, the barriers and challenges of operating these spaces may continue to grow, limiting their operating capacity and ability to provide these much needed social benefits. In the future, more funding for, and research about these spaces would be beneficial, in order to better understand their capacity to promote social benefits, build connections, and provide much needed resources for the community.

Appendix:

1.1. Email Template for Garden Coordinators:

Hi there!

My name is Addie Burkam and I'm a fourth year student at Dalhousie Studying Social and Environmental Sustainability. I'm currently writing my honours thesis on the role of urban and community gardens during the pandemic.

I'm hoping to do very brief interviews with the organizers/coordinators of various community gardens in order to gain a better understanding of the experience working with these spaces throughout the past few years. If this is something you're interested in, please let me know and I'd be happy to chat more about it!

Looking forward to hearing from you soon,

Addie B.

1.2, Consent Form for Garden Coordinators

CONSENT FORM

Project title: Growing in a Pandemic –The Social Role of Urban and Community Gardens Throughout the Covid-19 Pandemic

Lead researcher: Addie Burkam, 902-212-2509 Email: arburkam@gmail.com

Other researcher: Elizabeth Fitting, Thesis Advisor. Email: Elizabeth.fitting@dal.ca

Introduction

This research intends to examine the experiences of community garden coordinators/facilitators throughout the Covid-19 pandemic. By interviewing garden coordinators about the organizational aspects of this role, I will hopefully be able to gain a better understanding of the benefits and challenges faced by those organizing and working in these spaces. Participation in this research is completely voluntary, and you can choose to leave at any time if you wish to do so.

What You Will Be Asked to Do

The interview questions will all be related to technical and organizational aspects of community or urban garden and your role in this position. The interview should only take 10-15 minutes and will take place over the phone or in person depending on the comfort levels of each participant.

Consent and Privacy

You have the option to have your name and organization included in the results or for your responses to be anonymous. Please mark the option that you prefer:

_____I would like to have my name and organization/garden included in the results

_____I do not want my name or organization/garden included in the results

The interview will take place over the phone, and you have the option for your responses to be recorded or not. Please mark the option that you choose:

____I am ok with my interview being recorded

____I do not want my interview to be recorded

By signing below you are agreeing to participate in this research and that the above statements are correct.

Signature: _____

Citations:

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