Challenging Market Food Systems:

How Do We Motivate Communities to Grow and Share Food?

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Abstract

Gardening can be a valuable tool to ameliorate food security while concurrently easing the intersecting burdens of poverty, including isolation, disenfranchisement, and poor health. In addition to the nutritional benefits of accessing fresh produce, gardening has been shown to provide increased access to green spaces, foster neighbourhood social ties and interaction, increase community involvement, and create opportunities to develop a sense of identity (Ohmer, 2009). Participants (N = 15) in Renfrew County, Ontario, engaged in a study that examined how communities can be motivated to grow and share food. The belief underpinning this project was that gardening may reduce the strain of unstable food security and become an act of resistance toward the current, unmanageable, and restrictive capitalist market economy. The views of community members were considered crucial to planning and organizing a successful long-term project. A collection of heartfelt interviews emerged, reflecting a considerable desire for change, and emphasizing the importance of community. Participant narratives surfaced six themes: 1) Vision of Community Gardens; 2) Impact on Individual Well-being; 3) Impact of Gardens on the Community; 4) Importance of Equity; 5) Opportunity for Knowledge Transfer; and 6) Managing Challenges. Participants expressed significant enthusiasm for a large-scale community garden project, hoping it would facilitate vital relationships with individuals and their communities.

Keywords: Gardening; Community; Food Security; Social Capital

Acknowledgements:

My home of Renfrew County rests on the Unceded lands of the Algonquin First Nations people and remains home to the Algonquins of Pikwakanagan First Nation. I begin by acknowledging the first keepers of this land and expressing a deep respect for Indigenous ways of being, such as sharing and reciprocity, land stewardship, and space-based learning. These are the ways required by our societies to find healing in the face of colonial systems that have done so much damage to all beings and the earth.

I would also like to acknowledge the community of Renfrew County, particularly those whom I met in the process of this research. Though we experience the hardships of rural living, there is also a powerful sense of community, which has become ever clearer throughout this research. It has been heartwarming and enriching to learn how much effort and loving kindness is being shared in this community daily. So many individuals are devoted to thinking beyond current norms and striving toward thriving communities.

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to believe in myself. This is a source of great strength. Without this network of support and generosity, I would not have been able to do the work. Thank you all.

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Introduction

> *There is a crime here that goes beyond denunciation. There is a sorrow here that weeping cannot symbolize. There is a failure here that topples all our success. The fertile earth, the straight tree rows, the sturdy trunks, and the ripe fruit. And children dying of pellagra must die because a profit cannot be taken from an orange. And coroners must fill in the certificate – died of malnutrition – because the food must rot, must be forced to rot. The people come with nets to fish for potatoes in the river, and the guards hold them back; they come in rattling cars to get the dumped oranges, but the kerosene is sprayed. And they stand still and watch the potatoes float by.*
>
> *John Steinbeck, The Grapes of Wrath*

Modern capitalism emerged in the early 19th century in Western Europe, and by the end of the 20th century, through a series of destructive institutional changes, it had become globally accepted (Sachs, 1999). Capitalism is sustained by social, economic, and political practices in which large structural issues are overlooked or justified while individuals are held responsible for perceived failings (Blake, 2019). As an economic force, capitalism renders the general population vulnerable to poverty and other social debility (Tranjan, 2021). Neoliberalism is a social and economic philosophy that underlies capitalism and is considered the dominant approach to governing human affairs worldwide (Blake, 2019). It is a destructive force to humans, leading to the dismantling of social welfare and other species and ecological well-being (Watts & Hodgson, 2019). The destructive outcomes are seen because neoliberal policies seek to maximize profit through market exchange and privatization of public sectors. It withdraws and reorganizes social support services, seeking to download what was once the state's responsibility

onto voluntary, charitable, and informal community organizations, which widens the gap between those who are wealthy and those who are not (Blake, 2019; Garrett, 2018; Heron, 2019). Neoliberal ideologies focus on efficiency, standardization, competition, market gain over equity, and social justice. They involve a free economic market where competition is maximized while financial and social policies prioritize commerce with little or no regard for the negative impact on citizens (Brown, 2005).

Food poverty is one of the current, intersecting consequences of capitalist, neoliberal societal structures (Vargas et al., 2019). Traditional food production methods, such as hunting and family farming, have been replaced by agribusiness, in which large farms are run based on traditional, capital business models and managed by administrators (Smith, 2016). Agribusiness includes various disciplines and practices, including industrial agriculture and factory farming. Industrial agriculture produces crops such as rice, maize, and wheat, which are used in various inexpensive, calorie-dense foods. These foods fail to meet nutritional needs in the way fruits, vegetables, and pulses would but have become highly popular for their low cost and ease of use in processed, packaged, and prepared foods (Lomax, 2020). Factory farming refers to large, industrialized farms where substantial numbers of livestock are raised in conditions intended to maximize production at minimal cost (Merriam-Webster, n.d.). Corporate structures such as these pose significant, environmental problems through destructive practices, benefit from greater purchasing and trading power, and emphasize higher profits. Famers with small farms, poorer individuals, and communities are disadvantaged in the expanding competitive market (Smith, 2016). Massive amounts of food are produced and transported worldwide. Indeed, current worldwide food production exceeds 2,750 kilocalories per person per day, which is more

than sufficient to feed the global population (Diaz, 2018), yet people continue to experience scarcity, unfair and inequitable distribution, prohibitive costs, and financial barriers.

Neoliberal governments generally do not intervene in the management of market practices or front-line efforts to resolve food poverty. Marginalized and impoverished communities are left to navigate their nutritional needs alone. However, at the time of writing, grocery prices are noted to be increasing at their fastest rate in more than 40 years (VanDyk, 2023). In September 2023, the current Liberal Government called upon the leaders of five major retailers (Walmart, Sobey's, Metro, Costco, and Loblaws) to demand efforts to stabilize food prices (Burke, 2023). This step was motivated in part by a Canadian Competition Bureau report published in June 2023, which revealed Canada's three largest grocers, Loblaws, Sobeys, and Metro, had reported more than $100 billion in collective sales, earning more than $3.6 billion in profits in 2022 (VanDyk, 2023).

Over time, increased acceptance of neoliberal ideology has individualized households. Personal choice, individual responsibility, and self-reliance have become more prominent and emphasized over values such as sharing, fairness, and community connectivity (Blake, 2019). Existing social structures require radical change. We need systems that resist capitalist ideologies in which life's necessities are treated as property to be owned and sold for ever-expanding profit. We require methods to create conditions for all people and the environment to maintain well-being and have a chance to thrive. We are compelled to find new systems, novel approaches, and ways of being, that promote sustainable growth, equitable distribution, and sharing of resources.

Social workers are ethically bound to challenge institutional oppression, unjust policies, and practices and ensure access to equitable resources (International Federation of Social Workers, 2018). This thesis study represents an effort to meet those duties, stewarding the

privilege of time and academic resources in a manner that offers the possibility of practical outcomes for the researcher's community of residence. The study purported to explore the prospects of challenging current capital market norms through community gardening with the logic that communities capable of growing and sharing food would have the option to remove themselves from commercial systems that exclude them through high-cost products, deepening marginalization and exacerbating poverty.

The thesis question, "How do we motivate a community to grow and share food," was developed to solicit input from community members. It was intended to invite ideas and conversations that would elicit an understanding of common values. The expected outcome was a collection of agreements and opposing views that could be used to develop recommendations for a community garden project, which would be more likely to succeed as it was guided by community members themselves. A series of heartfelt interviews emerged that reflected similar perspectives but different priorities. Though access to healthy nutrition was viewed as vital, participants were more interested in offering ideas that would result in a community space and discussing the benefits of bringing people together for an increased sense of community.

Participants prioritized connection, the importance of equity, and the opportunities for knowledge exchange created through community gardens. The question, "How do we motivate communities to grow and share food?" led to conversations about community gardens as spaces through which the varied needs of community members are naturally met in meaningful ways. Participants had a vast and comprehensive set of recommendations aligned with current academic research findings. The emergent themes reflected broad intuition and insight. Those themes and their relevance will be presented here, considering existing research. Finally, the

results of the interviews will be formulated into recommendations for local development in Renfrew County.

Context

Renfrew County occupies the traditional, unceded land of the Algonquin People and the rightful home of the Algonquins of Pikwakanagan First Nation (County of Renfrew, n.d.b). Located in the heart of the Ottawa Valley in Eastern Ontario, Renfrew County contains 17 distinct municipalities and a population of approximately 102,394. The average working income is $58,000, and the median is $31,196 (Statistics Canada, 2023). According to the Canadian census (2022), the unemployment rate in Renfrew County is 7.2% (Renfrew County, n.d.) as opposed to the national average of 5.5% (Statistics Canada, 2023). The area is rural in nature and expansive, covering 7,645.68 square kilometres (County of Renfrew, n.d.a), the same size as Prince Edward Island. There is no public transportation within or between any of the 17 municipalities. Residents rely on taxi services and forms of private transportation (Renfrew County and District Health Unit, 2023).

The Nutritious Food Basket survey is an annual review conducted by The Renfrew County District and Public Health Unit. In 2022, this publication stated that low-income households were unlikely to be able to afford the costs of a nutritious diet. Indeed, approximately one in six households within Renfrew County experience food insecurity. Existing programs to ease food insecurity are limited to food banks and soup kitchens. There are currently 10 food banks across the region (Renfrew County Food Banks, 2023) and several accompanying soup kitchens; the latter limits individuals to two meals per week on average. Given the limited service times of volunteer-run food banks, lack of transportation, and families needing nutritional support often being double-income, working households, more effort is needed. Moreover, food

banks and nutrition programs are supplementary measures and do not represent solutions to hunger. Food banks offer some relief from food insecurity but do not eliminate the problem (Rizvi, 2021).

In addition to food banks and soup kitchens, most local schools participate in the Renfrew County Food for Learning Student Nutrition Program (SNP), which provides funding for food to organizations running breakfast, snack, and lunch programs (Robichaud, n.d.). Participation in SNP relies on a lead coordinator from within each organization. Since interest can vary and staff changes are ever present, the level of engagement, quality of food selection, and predictability of food programs can vary from one institution to the next or year to year. It is important to note that these programs rely on existing markets to access food and are also impacted by restrictive and rising food costs.

People experiencing homelessness are at increased risk of also experiencing food insecurity (Hainstock & Masuda, 2019). Renfrew County Housing Corporation (RCHC) operates 1020 rent-geared-to-income units across Renfrew County. In October 2021, the RCHC Homelessness Survey was conducted to establish a "Point-In-Time Count" to better understand the demographics of Renfrew County residents experiencing homelessness. The data could not fully capture the scope of homelessness as it did not account for temporarily housed, informally housed, or those transported out of the county to larger areas with homeless shelters such as Ottawa and Sudbury. However, it did provide some indication of the extent of the problem. In total, 46 households disclosed homelessness at the time of the survey. A clear link was also observed between poor health status and homelessness (County of Renfrew, 2021). These insights are an essential framework to understand the level of strain and relative poverty residents of Renfrew County are experiencing and the barriers they seek to overcome.

Literature review

The World Health Organization (WHO) defines health as physical, mental, and social well-being, and not simply the absence of disease (World Health Organization, n.d.a). The WHO also describes Social Determinants of Health (SDH) as the non-medical factors influencing health outcomes (World Health Organization, n.d.b). Social determinants are external factors that influence the circumstances of daily life, such as social norms, economic policies, social policies, and political systems, including unemployment and job insecurity, food insecurity, housing, basic amenities, and the environment, early childhood development, and social inclusion and non-discrimination (World Health Organization, n.d.b).

Social capital is the term used to refer to norms of reciprocity and participation in social networks, which can encourage cooperative relationships and promote mutually beneficial social resources. It is often viewed as providing a "bottom-up" approach to mitigating poverty (Das, 2004). Critics argue that social capital is frequently over-emphasized with an optimistic lens without acknowledging that the conditions people live and work in can challenge their access to establishing social capital (Das, 2004). Some critics also argue that social capital provides a neo-liberal interpretation of the social as another commodity to be evaluated, measured, and accounted for alongside other kinds of wealth (Blokland & Savage, 2016). These criticisms have merit and are worthy of further discussion. Nonetheless, social capital theory has been viewed as an essential concept in international research, as measures of social capital have been associated with various measures of health (Christensen, 2017). There has also been considerable research on the capacity of community gardening to encourage social interaction, with the concept of social capital used to examine and analyze this capacity (Christensen, 2017). As such, while acknowledging the associated problems, the concept of social capital will be included as part of

the language and discussion in the present study.

Living in a rural area presents a variety of difficulties related to social determinants of health, which can negatively impact residents, particularly regarding health and social isolation. Poverty further exacerbates these difficulties (McGuire et al., 2022). Challenges such as lack of continuity and inaccessibility of services, travel distances, lack of transportation, and lack of access to health professionals place exceeding strain on residents and negatively impact populations (Forchuck et al., 2010). Social isolation is an absence of social relationships, resources, or participation. It has various negative health consequences (Naito et al., 2021). By contrast, social participation is described as a person's inclusion in activities that lead to interconnection with others in the community. It is essential to cultivating vibrant communities, advancing health outcomes, and preventing disabilities. Barriers to social participation are related to personal factors, social environment, and the physical environment (Levasseur et al., 2020). In rural areas, such as Renfrew County, social participation is limited by the intersecting variables of sprawling physical geography, deficient financial and community resources, lack of transportation, and higher levels of unemployment and poverty. Residents are prone to significant social isolation. Transportation must be recognized as more than a means of moving from place to place; it is through transportation and attending spaces outside their place of residence that people make and maintain social connections, become involved in the community, access support, and find needed sources of support for health, mental health, childcare, and employment (Forchuck et al., 2010). The impacts of social isolation and loneliness have been shown through previous research to increase the risk of cognitive disorders, mental health difficulties, and increased blood pressure (Majmudar et al., 2022). Research recommendations for rural policy often emphasize maintaining, improving, and creating more localized educational

and recreational opportunities as a response to these associated risks of social isolation (McGuire et al., 2022).

Poverty affects an individual's health, which, in turn, affects an individual's ability to work or be productive. This leads to economic losses for individuals and society (Government of Canada, 2014). The poverty line is the evidence-based income line of what is needed to afford shelter, clothing, food, transportation, and other essentials. Living below the poverty line means governments have failed in their duties to all citizens (Dyson, 2022). As of 2021, the poverty line (otherwise referred to as the Low-Income Cut-Off, LICO) was $26,426 for an individual and $49,106 for a family of four (Government of Canada 2023). The median working income in Renfrew County is $31,196 (Statistics Canada, 2023) with an unemployment rate about 1.7% higher than the national average (Statistics Canada, 2023). As of 2022, 1 in 6 families in Renfrew County were known to be experiencing food insecurity (Renfrew County and District Health Unit, 2023). Though highly linked to income, food insecurity also reflects an individual's circumstances. The effects of food insecurity on mental and physical health place a substantial increased burden on the healthcare system. People who are marginally or severely food insecure have 26% and 69%, respectively, higher odds of being hospitalized for medical treatment compared to those who are food secure (Renfrew County and District Health Unit, 2019). This is partially related to the quality of food consumed. When healthy options are unavailable or inaccessible, people resort to affordable foods that are higher in calories and lower in nutritional value (Centers for Disease Control, 2020).

Gardening has been shown to offer tremendous potential to improve access to nutritious food (Bailey, 2017; Beery, 2014; Diaz et al., 2018; Engels, 2020; Firth, 2011; Himmelheber, 2014; Ragan & Dimitropolus, 2017) and could be viewed as a crucial means to allow greater

autonomy and access to affordable healthy items while also creating a mechanism for socialization. There has been considerable research on the potential of urban community gardening for promoting social interaction and improving social capital (Christensen, 2017; Glover, 2004; Kingsely et al., 2020; Yotti et al., 2006). A meta-analysis of literature published between 2000 and 2016 regarding the social advantages of community gardens revealed that urban community gardens created bonding and bridging social capital (Christensen, 2017). Community gardening has also been widely promoted as an effective way to improve health's physical, mental, and social dimensions (Beery et al., 2014; Dobson et al., 2020; Genter et al.,2015; Ong et al., 2019).

The Intergovernmental Panel on Climate Change has also indicated that gardening is a viable way to ensure food security (Dobson et al., 2020). However, 55% of Canadians feel they do not have the space for gardening, 39% do not have time, 27% feel they possess insufficient knowledge of gardening, and start-up costs are a barrier for 6% of Canadians (Canada's Food Price Report, 2022). Indeed, the Government of Canada (2014) found that those most in need of garden produce are also those least likely to have the space, time, resources, or physical capacity to garden. Community Gardens are locally organized plots within dedicated community spaces devoted to producing food or flowers for the benefit of individuals and the community (Ohmer et al., 2009). Community gardening is internationally recognized for its importance in improving local food access and local green spaces, leisure, and recreation. They have become widely used as community development strategies to integrate social, environmental, and economic challenges and serve as meeting places (Ohmer et al., 2009).

Similarly, community kitchens provide small group opportunities to meet and prepare meals regularly. These efforts are aimed beyond nutrition and education. They endeavour to

empower individuals through shared knowledge and reduce social isolation. Such programs are found to increase the intake of nutritious food, self-reliance, dignity, and engagement with the community (Alaimo & Allen, 2010; Iacovou et al., 2012).

Educators who garden as part of their school curriculum have found success in shared workloads by opening the gardens to teachers, grade levels, and even parents of students. They have further been successful when they have invited community gardeners and gardening groups to help during scheduled school breaks and over the summer (Quigly et al., 2015). Gardens in schools have been shown to alter the school's physical and social learning environments by increasing the availability and accessibility of fruits and vegetables while improving students' self-efficacy (Ratcliffe et al., 2009). Land-based learning activities, such as gardening, have also been shown to enhance children's communication, build community, and foster belonging (Beery et al., 2014; Carlsson et al., 2016; Diaz et al., 2018). Involving young people in the process of growing plants and vegetables is not only a great learning experience but promotes ownership of food choices and healthy living (Ratcliffe et al., 2009). Through gardens, children learn how to plan, establish, and maintain a garden and how to grow and harvest food while also becoming engaged as community members in local food system issues. Gardening has been found to promote cross-cultural relationships, an array of learning opportunities, and the creation of empowering spaces (Datta, 2019).

A key to building and maintaining resilience in communities is self-organization. Research has shown that critical characteristics of self-organized activities are that they are voluntary, mutually accommodating, and interdependent undertakings to meet the needs of individuals and the community (Blake, 2019). Community gardens can readily offer significant opportunities to function as spaces of resilience and self-organization. The mechanism of

organization can vary widely while these hallmarks remain consistent. Given the intense need for measures to address food insecurity and the associated benefits of self-organization, gardening warrants particular attention and devoted energy,

Methodology

The present study was guided by the principles of ethical research articulated in the *Tri-Council Policy Statement* (TCPS2, 2022) and by the ethical commitment I have as a social worker to uphold the dignity and worth of all persons and to support social justice aims. Prior to engaging in any data collection, a research proposal and ethics review were completed. The target study sample was age 18 and over, and the nature of the investigation did not require participants to encounter emotional, physical, or social hazards that exceeded what they would encounter in daily life. As such the study was found to be low risk. After drafting a COVID-19 safety guideline for in-person interviews and an online privacy protocol for virtual interviews, full ethical approval was granted by the Research Ethics Board of Laurentian University.

The study did not seek to evaluate a hypothesis. Instead, the objective was to engage in a bottom-up, inductive process in which the insights of community members would be collected through qualitative interviews. Participants' insights were valued and taken as representative of the most promising avenue to establish and maintain engaging and successful garden initiatives. The question, "How do we motivate a community to grow and share food?" was conceptualized to be posed to community members and stakeholders to gain a deeper understanding of their social values. The intent was to learn the perspectives and priorities of community members and any differing ideologies that may pose challenges or require attention in the successful enactment of a garden project. The design and proposed methods were grounded in the assumption that

people know what is best for themselves and that individuals have an innate understanding of the needs of their community.

Semi-structured interviews are ideal methods of data collection when seeking to better understand participant's unique perspectives (Adeoye-Olatunde, & Olenik, 2021). The decision to undertake this research project using semi structured interviews was influenced by the beliefs that: community members would not need a great deal of prompting to convey valuable ideas and opinions; and a rigid interview structure may bias the direction of conversations while the value of the research would be found in spontaneous conversations and participant narratives. I used semi structured interviews and inductive thematic analysis to collect, analyze and interpret the shared perceptions of an array of community members living in Renfrew County. The decision to use inductive thematic analysis was in keeping with the research goals of identifying meaningful patterns among participants feedback (Braun & Clark, 2019), as opposed to proving or disproving and existing theory.

Theoretical Framework

This study is guided by two key theories that reflect the epistemological and ontological orientations of empowerment theory and the ecological and eco-social work perspective. These capture my dedication to an ethic of care and commitment to fostering relationships that are empowering, as well as my sense of belonging in the world and value of relationships with human, other-than-human beings, and the natural world. This thesis is fueled by the understanding that, as social workers, we undertake a higher level of responsibility to improve access to the resources and support required for all people to meet their fullest potential. We must contribute to finding solutions and meeting basic needs. We are compelled to pay particular

attention to the empowerment of people who are vulnerable, marginalized, or experiencing poverty.

The main theory I use is empowerment theory. Adams (2008) describes empowerment as "holistic and non-hierarchical," involving "taking control, achieving self-direction, seeking inclusiveness rooted in connectedness with the experiences of other people. It concerns individual achievement and social action. One aspect feeds another" (p. 18). The best way to meet our responsibilities is to ask stakeholders directly what they need and how we can advocate in meaningful ways (Thompson et al., 2022). This is an essential foundation for community empowerment, and it is imperative as social workers that we engage in empowerment and anti-oppressive practices. As Wilkinson and D'Angelo (2019) state, there is power in mutual relationships, intentional presence, a commitment to deep listening, and working against systems of oppression. The undertaking of this project is driven by a desire to engage these responsibilities and embody the related commitments of listening and empowerment. The design is dedicated to shifting power to the community and marginalized populations first through the power of voice, seeing citizens as "knowers" and valuing their insights; second through action, by employing their ideas in a tangible project that rejects stigmatization and builds competencies; third, by seeking to meet immediate needs through nutrition and shared labour which liberates energy and supports better health outcomes; fourth, by uniting people in a mutual goal; and finally, by creating a means through which citizens may choose to resist market or social norms in a way that fights the sense of powerlessness they have been subjected to as a result of oppressive and unjust social structures, policies, barriers, and exclusion (Kam, 2021).

The present study is also rooted in a dedication to the understanding that humans' well-being is inextricably interconnected with their health and interactions with their environment.

The ecological perspective in social work stems from systems theory, in which it is recognized that systems do not operate in isolation (Mary, 2016). Eco-social work involves expanding the definition of the environment to include a deeper level of consciousness and connection with the natural world (Norton, 2011), emphasizes interdependence with nature, and the sustainability of welfare integration. It integrates theoretical perspectives, such as ecosystem theory, strengths perspective, intersectionality perspective, green development, and several other critical theories to promote balanced living with nature (Wang & Altanbulag, 2022). Eco-social work has been further defined as a social work practice that emphasizes holistic perspectives, cultural diversity, and sustainability while expanding social work practice's individual, collective, community, and political dimensions. Social workers are called upon to investigate the impact of the social environment and systems on people's experience and functioning.

As a matter of humility and social justice, it seems essential to acknowledge that eco-social work echoes, through Eurocentric language, knowledge Indigenous populations have held and practiced for countless generations before colonization. Indigenous worldviews value the imperatives of interconnectedness with one another and the earth, sharing, reciprocity, and conservation (Hart, 2020). What we refer to as eco-social work, green social work, and even anti-oppressive practices affirm what Indigenous worldviews understood long ago. As such, even as the researcher of this thesis adopts the eco-social work framework, it is with respect and understanding that eco-social work is only recently beginning to reflect an understanding of what is implicit in Indigenous lifeways.

Methods

Design and Recruitment

The sampling frame is the residents of Renfrew County, Ontario. In terms of inclusion and exclusion criteria, participants were required to be at least 18 years of age and current residents of Renfrew County. They were asked to participate in a one-hour interview in a manner convenient to them (in-person office visit, phone or virtual). An effort was made to ensure recruitment invitations reached residents in a variety of living circumstances and backgrounds in hopes that differing perspectives and worldviews may be reflected in the feedback. Participants were recruited through a blended approach of purposive and snowball sampling. Recruitment posters (see Appendix A) were distributed physically and electronically to local organizations, including food banks, the community housing corporation, and the mental health unit of the local hospital. The primary researcher called the management of these locations to request posters be shared electronically or made visible and shared among staff, volunteers and residents or program participants. The researcher also welcomed suggestions and followed up on suggestions about people who may wish to participate. A social media post was submitted to an open, local Facebook platform. A $15 gift card to a local grocery provider of the participant's choice was offered to individuals who participated in the interview process as a gesture of respect and recognition of their contribution to the research.

The initial recruitment invitation resulted in 267 emails and calls. Due to the unexpectedly large influx of responses and a notable pattern of identically worded messages arriving sequentially in short periods, it was decided that additional screening steps would be required to ensure potential participants were individuals residing in the County of Renfrew before proceeding to interviews. First, an email response was sent to the candidates, thanking them for their interest and asking for confirmation of their preferred method of communication.

Only those who replied to this message were further considered for participation. Most respondents indicated a preference for email communication, which was not inherently problematic; however, there was some cause to further inquire about availability for interviews and area of residence. The message exchange process resulted in some candidates withdrawing naturally while others were excluded based on their inability to confirm residence. In addition, several people requested an Amazon gift card specifically as an honorarium and when it was explained that the honorarium was to local grocery stores, these people declined to participate.

Participants who offered phone numbers were contacted and screened. Again, this process resulted in some withdrawals and exclusions based on residency outside of Renfrew County or the inability to establish reliable contact. In total, 17 respondents were found to be suitable participants. Two were later excluded due to repeatedly missing scheduled interview sessions and an inability to reach them for rescheduling. In total, 15 people made themselves available for telephone, virtual, or in-person interviews and became the sample selection for the present study. Consent and demographics were collected in writing or verbally, with interviews recorded electronically or by handheld device, according to participant consent.

Data Analysis

Electronic interviews were conducted and concurrently transcribed via Zoom. In-person interviews were recorded using a handheld recording device and manually transcribed by the researcher. Reflexive Thematic Analysis (Braun & Clarke, 2019; Byrne, 2021) was used to analyze the data. The researcher reviewed and became familiar with all transcripts. The data was then coded, and initial themes were generated. A thematic review occurred in discussion with the two readers, at which point some themes were regrouped. Themes were then named and defined.

Results

Sample Description

Interviews were completed with 15 (N=15) participants from various communities across Renfrew County. Information was collected on age, race, income, and education level.

When asked if the cost of produce was a factor in their intake of fruits and vegetables, 73.3% (n=11) indicated either they were currently being impacted or were maintaining intake by making sacrifices such as choosing fruits and vegetables based on sales rather than preference or relying on less expensive, seasonal foods. Gardening experience within the sample population was common, with 93.3% (n=14) actively gardening. All gardeners were engaged in traditional soil gardening, while raised beds, planters, and soilless approaches (hydroponics) were also mentioned. When asked about the challenges faced in their gardening endeavours, poor weather and a short growing season were the greatest concerns, while insects and vermin were also significant causes of frustration mentioned during interviews.

Throughout the interviews, several participants referred to their work or volunteer experience as it related to their interests or informed their opinions about important considerations in community gardening. Several individuals held multiple roles and shared intersecting experiences: Food Bank President, Deputy Mayor, Community Garden leader, and Green Industries educator. The sample included food bank volunteers, an Ontario Disability Support Program (ODSP) participant, multiple home gardeners and one family who rely almost entirely on their own residential gardens and livestock for year-round food needs.

Table 1:

Participant Demographics and Characteristics

Table 1:

Participant Demographics and Characteristics

Characteristic	n	%
Age		
18-30	1	6.6
31-40	1	6.6
41-50	7	46.6
51-60	2	13.3
61-70	3	20
71-80	1	6.6
Length of residence in Renfrew County (years)		
5-15	1	6.6
16-25	6	40
26-35	2	13.3
36-45	5	33.3
46-55		
56-65	1	6.6
Highest Level of Education Completed		
Elementary school	1	6.6
Highschool	2	13.3
College or Trade Program	7	46.6
Bachelor's degree	1	6.6
Graduate Degree	3	20
Unaccounted for/declined response	1	6.6
Family/ Household Composition		
Single person	2	13.3
Adult Couple	7	46.6
Adult Couple 1 child	1	6.6
Adult Couple 2 children	2	13.3
Adult Couple 3 Children	2	13.3
3 Adults 3 Children	1	6.6
Household Employment Status		
1 Full-Time Working Adult	4	26.6
2 Full-Time Working Adults	4	26.6
Retirement earning Households	4	26.6
1 Part-Time and 1 Full-Time Working Adult	1	6.6

1 Part-time and 1 retirement earner	1	6.6
No employment	1	6.6
Housing Status		
Detached Home	13	86.67
Apartment	2	13.33
Family Income Range		
< $50,000	6	40
$51,000-$100,000	4	26.6
$101,000 – $150,000	3	20
>$150,000	1	6.6
Declined to respond	1	6.6
Cost of Fruit and Vegetables Affects Intake		
Yes	5	33.3
No	4	26.6
Not yet, but sacrifices are being made	6	40
Number of fruit and vegetable servings consumed on an average day.		
About 1	1	6.6
About 2-3	5	33.3
About 4-5	7	46.6
About 6-7	2	13.3
Without limitation of cost, servings of fruit and vegetables would increase.		
Yes	7	46.6
No	7	46.6
Volume would not change, but variety would	1	6.6
Current Gardening Participation		
Gardens actively	14	93.3
Does not garden	1	6.6
Type of Gardening		
Traditional Soil (Outdoor)	13	86.6
Raised garden (Outdoor)	9	60
Soilless Gardening (Indoor)	2	13.3
Indoor Raised (planter)	3	20
Gardening Seasons		
Year Round/Four season	2	13.3
Spring	9	60
Summer	12	80
Autumn	4	26.6

Type of crops cultivated.		
Flowers and ornamental	10	66.6
Fruits	10	66.6
Vegetables	13	86.6
Challenges/Limitations		
Time	9	60
Confidence	1	6.6
Knowledge	3	20
Access to Equipment	1	6.6
Access to Land	3	20
Access to Water	2	13.3
Previous unsuccessful gardens	1	6.6
Poor Weather	5	33.3
Pests	2	13.3
Poor Soil Quality	2	13.3
Short Growing Season	7	46.6
Harsh Weather	5	33.3
Poor location/low sunlight	1	6.6
Start-up costs	1	6.6

Results

Participant narratives revealed the following six themes: Vision of Establishing Community Gardens, Impact on Individual well-being, Impact of Gardens on the Community, Importance of Equity, Opportunity for Knowledge Transfer, and Managing Challenges.

Vision of Establishing Community Gardens

"Gardening can be the through line of the community" (Participant #6)

When invited to share what they felt would be essential considerations in developing a community garden, participants offered various ideas and priorities.

Access

Participants were highly vocal about the importance of accessibility, with 100% (N=15) mentioning access or location. Emphasis was placed on the importance of location, "It should be accessible, someplace that's open and easy to get to" (Participant #9), as well as overall

accessibility to space and resources. As one participant outlined, "…access to the garden site, access to the actual bed, access to navigate through the bed, ability to water it and feed it without enormous financial or physical impediments and even accessing quality starters, whether it's seeds or seedlings" (Participant #7), are all important considerations. Particular attention was given to the lack of transportation. Participant #5 noted transportation as a "significant challenge that limits many people in the community." Participants #2 and #14 suggested a shuttle service could create more equitable participation opportunities.

Organization

"This is a commonsense project, not a theoretical or idealist project" (Participant #5).

Respondents also had strong ideas about how a garden project should be organized and promoted, "It has to be well advertised and family-friendly" (Participant #1). [There should be] on-site signage to ensure people know what is being done there." (Participant #8). "I think we could access so many people with so many talents in our community" (Participant #12).

Participants #1, #2, #6 and #12 noted they were not currently involved in community gardens because they fear they would be unable to keep up in a manner that fellow gardeners appreciate. "I am fearful that my garden will be criticized because it will most likely be neglected" (Participant #1), but if they were assured this would be acceptable, and the space would accommodate children, they would be more likely to participate, "I would be there in a heartbeat…." (Participant #1).

When considering the physical space, method of distributing responsibility, and plot access, 60% (n=9) felt an allotment-style grid had merit. "You rent a small plot in a field…you pick the amount of space that you want, and they section it out for you…it becomes like its own community" (Participant #9). They felt that a small rental fee was not necessarily a problem and

would help meet maintenance costs, noting that these fees should not be permitted to create a barrier for anyone. Participant #11 suggested a small fee that could be made optional, "making it accessible for all residents, especially people on a lower fixed income."

From a design perspective, participants felt there would need to be dedicated spaces for rest and an escape from the elements: "I think we'd have to have some kind of shelter available, and certainly water for people to drink" (Participant #12), along with amenities that would make the garden site a child and family-friendly space. "Families are welcome, and you will do family things" (Participant #1). Respondents #1 and #2 suggested "kiddie gardens," conceptualized as small soil areas with child-sized tools for young children to dig without fear of spoiling plants. Respondent #2 also spoke of having centers where the children could watch and learn about insects, pollination, composting, and other related topics. "Have kids on field trips and working in the garden, you know. They can teach the kids about worms and composting" (Participant #2).

When discussing food and crop selection, participants had informed opinions. Participants #4 and #7 expressed that perennial foods are too often overlooked. Participant #7 encouraged implementing berries and fruit trees, "You know, fruit trees, particularly berries. They don't take long to start producing." At the same time, Participant #4 emphasized that asparagus should be made a priority as it will provide significant amounts of food with a single investment in the initial plant. This participant also encouraged the use of advisors and education, "If you had an education piece, have somebody come in who might know what kind of what kind of things being planted in that area would be very successful" (Participant #4). Diverse types of gardening that expanded beyond traditional soil were also mentioned, such as "no dig," vertical, and hydronic gardening. One participant stated, "I have friends that do hydroponic gardening, which allows you to garden year-round… you're taking most of the risks

out of the equation and teaching people… how to do a different way that's even more sustainable" (Participant #9). Another offered, "I would encourage you to think about no dig gardening and cover crops" (Participant #7).

Participants advocated enriching the experience by engaging individuals with varied interests. Related activities such as processing food through canning and preserves, offering community meals, batch cooking groups, and special events were mentioned repeatedly. "Community gardening is the way to help feed people that might not be able to afford fresh produce, but people…need to know what to do with that produce" (Participant #10) and "If you give information and explain how to use the food, people are more willing to try. Personal connection improves confidence" (Participant #15).

Recommendations of special events went beyond food and garden-related ideas and expanded to social gatherings. Bridging partnerships was another repeated suggestion. "People of all walks of life and skill, level and ability and mental capacity and education, level and like social status, like everybody, could participate" (Participant #12). Approximately 47% (n=7) raised the notion of joining together to meet to socialize and share the workload. "All the nonprofit groups join the Library, Community Living, the Kiwanis, Youth Action Club, and the Mental Health Services from the Regional Hospital" (Participant #11).

Participants expanded the idea of programming beyond gardening and related activities. They felt the project could be financially and practically sustained by introducing strategies such as community workdays, produce sales, hosting harvest festivals, and pumpkin carving contests. Self-contained fundraising, such as a "pay what you can" market (Participant #9) or a portion of produce sold at the local farmers market throughout the summer (Participants #2 & #7), were raised as additional possibilities.

Leadership

"I believe there are a portion of people that would be doing this out of the goodness of their heart to contribute to their community." (Participant #1)

All participants believed leadership and oversight would be required. Participant #1 stated, "There has to be a leader in every scenario…I've never seen anyone in any group coordinate without a strong leader." Participant #14 echoed the same thought, "You would have to have somebody in charge," as did Participant #7, "More formal and organized will get more people and more human resources." Other participants saw this as a committee-run project, "I think it would be good if you got an organizational committee together." (Participant #12) A small advisory group was considered necessary to take the lead and hold accountability for gathering and maintaining resources. Participant #9 elaborated on the idea, suggesting an annual meeting to set priorities so that differing ideas and approaches would be given attention and different individuals would enjoy opportunities to explore their input.

Ensuring the structure and sharing of work allowed people to give their time and talents in achievable ways was mentioned repeatedly, along with the emphasis on all contributions being respected in equal measure. Participant #7 noted, "Everybody that volunteers can't do the same, you know…It doesn't make their contribution any less worthy," and Participant #12, "Everyone's contribution is of equal value." This sentiment was echoed throughout the interview process and can be seen as a reflection of the equity mindset.

Amenities

"I would love like the local park space, if at all possible, where there are bathroom facilities, and there is running water, there is a little green space, and it's accessible to people, and it's a hive of activity where people are coming in and out." (Participant #1)

Access to water was the primary concern regarding amenities, with 53.3% of participants (n=8) mentioning this need at some point. Other recommendations were "a safe conversation site where you cook a meal." (Participant #2) and a shed or "lending hub for equipment and tools" (Participants #1, #9, #12) Participants felt the garden spaces would require fencing to reduce vulnerability to vandalism, theft, and pests. Additional suggestions saw indoor gardens and a greenhouse as having potential value, especially given the short growing season and harsh, environmental elements often faced in Canadian climates. These suggestions were viewed as improving equity and access as indoor spaces would provide participation opportunities to people who could not sustain prolonged outdoor gardening endeavours for health or mobility reasons.

Impact on Individual Well-being

"You find gardening, and it heals you" (Participant #14)

When asked about the benefits of gardening, respondents stated overwhelmingly that gardening was a source of stress relief. One participant (#6) shared, "It's pretty life-changing to find something that anchors me—watching something slow and consistent. I don't know, that's beautiful. My problems seem to get smaller the more time I spend in the garden." This sentiment was echoed by another participant (#7), who noted, "It's super therapeutic." Participants noted the connection to nature via one's hands. "Your phone is down; you're in the sunshine, you're breathing fresh air, you're making something – using your hands." (Participant #6). Participant #10 explained, "Growing things is not only about food. It means getting [your hands] dirty … being connected with the soil and being connected with the earth. It's nutritional, you know, but you're doing it for your overall health," and "It feels healthy, it does, and bare hands, too. I like my hands in the soil." (Participant #12)

In response to a question regarding the benefits of gardening, participant narratives surface multiple benefits, “There is nothing more gratifying for me than to spend the entire day out sitting on my stool and picking every little weed” (Participant #10). “I go to my garden and recharge, just totally recharge. I’ve seen myself come from the garden looking like an absolute disaster; every muscle in my body hurts, yet I feel fantastic” (Participant #9). “It allows me to shut down my brain, and it makes me happy. It increases food security enormously” (Participant #7). Participant #11 is an active community gardener and shared, “I see people becoming friends. I become friends with, or more like friends, and then get to know people more… there are some people that are members who are less fortunate than I am, and they lift their spirits.”

Impact of Gardens on the Community

All respondents anticipated improvements to personal and community well-being through the establishment of interconnected and intergenerational relationships through gardening, “…they all interact with each other” (Participant #11). **“**I feel like a community garden can be the heartbeat of a community. A thriving place where people are participating” (Participant #6). Those with experience in community gardens noted the friendships, sense of community, and value of having something to look forward to. “You have a garden, and you have your garden friends... you have that shared interest in gardening; there’s already a bond. It fosters the community feeling” (Participant #9). Participant #12 felt gardens would create opportunities for a “greater sense of contribution and connection.” Participant #11 talked about the “joy of community” while Participant #7 explained, “It's an opportunity for people to build community around something they have in common. It allows networking.”

Other benefits expressed were that a community garden could raise food suitable for the local food bank, improve their ability to reach and meet the needs of food bank clients

(Participant #5) and that community gardens "change the look of the community," (Participant #13) making it more beautiful, which was seen as a source of pride.

Importance of Equity

The attention paid to equity in participants' narratives was encouraging. All participants commented on the importance of access and inclusion. "For me, a community garden is somewhere everybody takes action" (Participant #2). Another participant (#12) shared,

> I think we could access so many people with so many talents in our community that are not thought of right away as being, for lack of a better word, like valuable when it comes to either their social status, or like ableism, or agism, or whatever, and we could get them to do what they can do. And then the people who can work out in the garden. They could do their part, and then everybody could share. People of all walks of life and skill, level and ability, mental capacity and education, level and like social status, everybody could participate.

Discussion focussed heavily on the recognition that transportation is a barrier. "The community gardens that exist are, by and large, pretty inaccessible unless you drive" (Participant #7). Respondents offered suggestions such as using existing community spaces closer to areas of need (e.g., Ontario Housing Corporation), establishing multiple sites throughout the community, or providing some assistance by establishing a shuttle service to assist with moving back and forth from the garden site. A centrally located site was often the first consideration, "It should be accessible. Some place that's open and easy to get to" (Participant #9). However, participants articulated their understanding that centrality does not achieve equity and that equity goes further than transportation. A community garden that welcomes families and individuals of all ages and abilities and provides infrastructure to make participation more achievable and more accessible

was viewed as being, by nature, a more equitable space, "…schedule and organization. To organize person power while remaining flexible and free form such that people can offer themselves in a manner suitable to their schedule, energy, and ability" (Participant #5).

Respondents spoke about the sharing of municipal land as a way of helping to "close the gap" for people who otherwise would not have access to greenspace, such as apartment dwellers or nursing and care home residents. "They live in an apartment they come and get; they grow their food, and they get a special joy out of that, a feeling of happiness, and self-worth and calmness" (Participant #11). There was a further acknowledgment that some residents may have space but need more resources, physical ability, or desire to manage the work alone. They expanded further by noting the value of knowledge where physical abilities may be lacking and the fact that a community approach means a natural sharing of both workload and knowledge, "It really does go back to that youth learning from the elder - which is lost a lot of places...together we achieve much" (Participant #9).

Opportunity for Knowledge Transfer

> "I used to think gardening was [pointless] – I was like, "Why don't we just buy it?" – Fast forward into adulthood, and I became a parent and started gardening on my own. I fell in love with it and became deeply grateful that I had that to grow up with." (Participant #6)

A third of participants (n=5) expressed a desire to see community gardens used as spaces of exposure and an opportunity to engage young people in curious observation. One participant said, "If you can get the kids in there and get them excited, I feel like that would spill out over their whole life" (Participant #14). Another participant (#9) talked about how elders can share knowledge with younger and less experienced gardeners,

> It's intergenerational, you know because the old-timers are the ones you

> want to spend time with. They can tell you the truth. They can tell your soil is crap, and you need to do this. If you follow them, oh my God, all of a sudden, things work out! So, it really does go back to that youth learning from the elder - which is lost a lot of places.

In a similar perspective, community gardens were seen as an essential way of bringing knowledge and comfort around food. There was a substantial desire, 66.6% (n=10), to see this extended not only to the growing but to the preparation and conservation of food. "Teaching people how to take it from straight out of the garden and how to prepare it, make it in bulk, and process it and canning and roasting" (Participant #9). Several participants indicated that not knowing how to prepare food was a deterrent to accepting or experimenting with produce; however, "If you give information and explain how to use the food, people are more willing to try. Personal connection improves confidence" (Participant #15). Participant #7 said their garden "gets my kid interested in gardening and harvesting and cooking and preserving." Respondents talked about setting an example, a way to "motivate someone into a gardening community" (Participant #13), exposure to new types of food, and becoming more comfortable with what can be eaten.

Managing Challenges

There were many specific difficulties encountered in gardening. "Challenges - oh my god**.** Rodents, pests, bugs, soil quality. Clay. Clay and rocks, ugh. And the growing season. There are so many factors that will be thrown at you, and you just have to be able to roll with it" (Participant #9). Participant #7 identified "the regular challenges like weather and pests." It was noteworthy that while many issues were quickly identified, all participants who were active gardeners felt the benefits of gardening far outweighed the difficulties. Participant (#9) shared,

“The effort is always worth it because the real thing is just going out and working in the soil and getting grounded - back to the earth, your roots I suppose” and “It's all kind of a learning curve, right?” (Participant #7)

In most cases, participants noted that a community garden could overcome obstacles such as workload and expense by sharing and distributing the cost of resources and the demand for manual chores. One participant (#12) observed, “I think this community garden idea is a great thing also because it's a timeshare, right? Like you're not putting all the responsibility on one person.” Knowledge sharing and help, networking, and informal support were also seen as benefits that would help overcome obstacles. Participants felt some oversight and structure, such as physical presence and fencing, would be valuable in overcoming problems. Though vandalism and theft were mentioned, they were not heavily emphasized. Participants preferred to focus on the possibility that food would be eaten by those who took it. “We had some issues with produce going missing, but we don’t publicize it, because, you know, maybe the people need the food” (Participant #11). The common suggestion to overcome vandalism and theft was that produce could be openly shared in some manner in hopes that food would be taken and consumed at the appropriate time in equitable portions rather than in secret. Participant #9 suggested a designated space for overage: “We want to see it used. Make sure somebody gets it.”

Discussion

This qualitative study sought to encourage the sharing of ideas and prompt conversations that would elicit an understanding of common values among community members as they relate to community gardening and food sharing. The presumption was that agreements and opposing views would emerge, which could subsequently be used to inform the development of a community garden project. The present study differs from existing research as it did not

specifically examine existing gardens but targeted a range of community stakeholders to gain advice and understanding about how they thought their community could be motivated to grow and share food. Previous research has been heavily focused on examining and understanding the perceptions and motivations of existing community gardens (Alaimo et al.,2010; Armstrong, 2000; Baker, 2004; Beery et al. 2014; Brown et al. 2015; Burt et al. 2020; Carlson 2016, Christensen, 2017; Datta, 2019; Diaz et al. 2018; Dobson et al., 2020; Engels, 2020; Firth, 2011; Genter, 2015; Glover, 2004; Kingsley et al., 2019; Kingsley et al., 2020; Lovell, 2014). This study, however, sought perspectives from individuals who were not necessarily involved in garden projects. Through this study, we begin to understand that preconceived perceptions and assumptions of gardening benefits may be present among community stakeholders, and it could be worthwhile exploring larger community samples to understand the extent of these thoughts and perceptions.

The potential for community impact was the topic that seemed to excite and inspire participants of the present study the most. Access to fresh food was noted; however, emphasis was focussed on the potential for positive effects of participation in the garden process. There was a strong inclination to discuss emotional, mental health, and community benefits. The vision of community gardening offered by participants. The insights and assumptions participants shared and suggestions made regarding how to establish community gardens as welcoming spaces contribute to the ongoing conversation about community gardens as valuable resources in communities. The common sentiment was that a garden would provide a gathering space where people of various backgrounds could come together to work toward mutual goals. Elders could teach young people, children could explore and be curious, and families could move about the space at a pace and in a manner that suited their needs. Given that Renfrew County has no public

transportation system, the matter was viewed as complex. Creating a community garden requires careful consideration of location and equitable access.

This study suggests gardens are seen as valuable even by those who have yet to be involved. The emerging conversation spurs curiosity about whether the emphasis on gardens as community spaces would be seen in a larger study sample and how the input of individuals with no previous gardening experience would compare to those with experience. Though the initial thesis question targeted the motivation to grow and share food, interview responses extended beyond food access to the expected overall benefits of gardening for health and community. As such, the present study contributes to existing research on the perceived benefits of community gardening and offers insight into what may motivate community garden participation more generally. There is a considerable amount of research concerning how gardening benefits health and social connection, but less examination of the factors that motivate individual gardeners to become interested in community projects (Pourias et al., 2016) or that promote the adoption and continuation of community gardening participation over time (Sachs et al., 2022). Given the ever-increasing evidence of gardening benefits, the known challenges of food access and the importance of community connection for health and well-being, it is valuable to gain further understanding of how to motivate and facilitate exploration of the fullest potential and reach of community gardening (Sachs et al., 2022).

Trends emerging from this series of interviews imply that community members not only identify and anticipate the needs of their fellow neighbours but predict community garden outcomes that align with the mounting evidence of community research, which locates community gardens as more than just places of production but multifunctional spaces both for communities and individuals (Pourias et al., 2016). Interview outcomes indicated a population

yearning for connection and sensitive to the challenges and inequities among Renfrew County residents. Participants expressed a desire to see community gardens as spaces of connection and emphasized the importance of creating equitable access financially, geographically, physically, and socially.

Research has demonstrated the importance of community conservation and gardening programs to revitalize and strengthen neighbourhoods, foster social ties and interaction locally, promote neighbourhood pride, encourage community involvement, and improve feelings of safety and connectedness (Burt et al., 2020; Kingsley et al., 2019; Ohmer, 2009). Community gardens are places from which typically marginalized citizens can assert identity and engage in projects of citizenship (Baker, 2004). They have further been shown to strengthen connections with others by enabling a sense of neighbourhood contribution (Kingsley et al., 2020). Gardens in low-income neighbourhoods have been noted to lead to the resolution of additional neighbourhood issues such as… due to organizing facilitated through the garden sites (Armstrong, 2000).

Volunteerism has been found to positively affect mental and social well-being, strengthening trust, tolerance, empathy, and connection among neighbours (Ohmer et al., 2009). Gardening has many similar and intersecting findings. In their systematic review of allotment gardening, Genter et al. (2015) distinguished five ways gardening could improve health and well-being: 1) Offering a “stress-relieving refuge” (e.g., offering a calm, relaxing environment, and social contact as a buffer against stress); 2) Supporting a healthier lifestyle. (e.g., increased physical activity and healthier dietary choices); 3) Provision of social opportunities (e.g., establishing friendships and social interaction, offering respite from personal agony); 4)

Providing contact with nature (e.g., observing change and nurturing plants); 5) Enabling self-development (e.g., increased self-confidence, skills, and reframing attitudes).

These findings were not only anticipated but quite well articulated by the current study sample as part of their experience with personal gardening, and potential outcomes for their community. Participant perceptions also aligned with research reporting mental health benefits derived from the opportunities for interaction and connection with nature, the development of social support and relationships, fostering a sense of belonging, and the hope for the future that gardens provide (Wood et al., 2022). Dobson et al. (2020) found that community garden participants reported beneficial social and community activities such as the sharing of surplus food produce, knowledge exchange, awareness and interaction with wildlife, emotional connection to their garden itself, appreciation of outdoor time, and a sense of delight in the world around them.

The respondents in the present study asserted that community gardens could provide meeting places for different generations of people to enjoy mutual activity and perceived community gardens as spaces for connection, community events, and improved wellness. These assumptions align with the findings of Walters et al. in their 2021 study in which 13 organizations in Auckland, New Zealand, were compared (four community gardens, one home-gardening initiative, four food banks, two food rescue services, two other community organizations, and one community development organization on food poverty). Each organizational approach was shown to have benefits and challenges; however, a key point raised by participants was the empowering effect of "harnessing and sharing local knowledge and resources through collaboration" (Walters et al., 2021, p. 703). Townsend et al. (2020) underscored the positive effects of collective action, such as community gardening, if the

participation creates an opportunity for a sense of improved connection, social support, and reduced alienation. Ong et al. (2019) added to this body of knowledge through their study in which community gardeners voiced their belief in the importance of community gardening in connecting community members and strengthening relationships within the community through sharing. Beery et al. (2014) found that food gardens contribute to positive physical, mental, and emotional health outcomes among children, along with improved motivation, behaviour, enthusiasm, and school attendance, while Ohmer et al. (2009) found garden participants reported an increased sense of community and positive social interactions along with increased social capital and interaction.

Respondents discussed equity in a variety of contexts. They highlighted transportation issues and the importance of location. They shared ideas about navigating resources and financial barriers and stressed the importance of ensuring all people felt welcome. Vulnerable populations include, among others, older adults, young children, and individuals experiencing lower socioeconomic status, chronic illness or disability, or the issue of under-housing or homelessness (Anderson et al., 2021). Everyday challenges for vulnerable populations, particularly in rural communities, include proximity to services and transportation, while one of the most beneficial interventions is increased access to local services (McGuire et al., 2022). As Lovell et al. (2014) noted there may be potential for negative impact if a program excludes members of the community who wish to take part, and there is potential that a community garden could increase health inequalities if vulnerable individuals or groups are excluded either through social or practical barriers. For a community project to have the desired effect of uniting and empowering a community, it must, by design, be accessible to those who wish to participate. This requires

attention to the range and variety of challenges community members face to achieve participation.

Regarding knowledge transfer, as study participants asserted, it has been found that community gardens can present educational opportunities for young people, helping to develop their sense of identity and commitment to their neighbourhood (Kingsley et al., 2019; Ohmer et al., 2009). Beery et al. (2014) further identified life skills, financial and entrepreneurial skills, self-confidence, and self-esteem as positive outcomes of gardening and indicated gardens themselves to be a resource for teachers and learners alike.

Experiential knowledge benefits people living in complex social conditions as they develop more effective ways to manage their difficulties and reduce related health risks (Townsend et al., 2020). Participants in community gardens have reported that they became more knowledgeable about gardening and felt more connected to nature (Ohmer et al., 2009). Complimentary to these findings and as theorized by study participants, research on food practices demonstrates that the emotional relationship one has with food shapes how cooking and procurement practices are enacted (Blake, 2019).

Study participants commented on the benefits of community gardening regarding managing workload and challenges. They predicted that shared labour would be a helpful strategy. In much the same way, educators who garden as part of their school curriculum have found success in shared workloads by opening the gardens to teachers, grade levels, and even parents of students. Similarly, there was evidence of success when community gardeners and gardening groups were invited to help during scheduled school breaks and over the summer (Quigly et al., 2015). Alternative gardening approaches such as “no dig,” vertical, and hydroponics were also identified as having potential within a community garden project. Each of

these offers its benefits regarding managing challenges. A 50-plant, vertical container garden can fit into almost any outdoor location (Quigley et al., 2015) and create access for individuals with mobility issues. Hydroponics can grow food in a controlled environment, with less water and higher yields, and can be used in vertical and horizontal systems *(*Lagomarsino, 2019). The versatility of hydroponics and the ability to control the environment makes it a suitable consideration to manage some of the challenges identified by respondents, such as pests and harsh environmental conditions. Furthermore, indoor gardening options allow a community program to maintain year-round activities.

Implications

Local Garden Collaborations

Study respondents identified several existing community gardens already underway across Renfrew County. In each of the existing projects, they noted challenges with volunteer participation and workload. Establishing a working group of representatives from each project could be beneficial to discussing collaboration, sharing resources, and managing the promotion of their important work. The presence of community gardens in locations across Renfrew County creates an important opportunity for individuals to become involved even in the absence of transportation, and as such, it is ideal that these projects not only continue but be supported to the greatest extent possible. A single, central community garden is not a viable solution; however, gardeners across different municipalities may benefit from shared workloads such as swapping seedlings and joining together for seasonal work-share events. They can also share and reduce costs by purchasing supplies in larger volumes. Each community will inevitably have individuals with different skill sets and strengths. The reach and impact of these valuable projects may be

extended by sharing resources and ideas, collaborating on planning or organizational material, and consulting one another to promote successful gardens.

Collaboration with other agencies and community resources is also a key area of exploration. Existing projects may consider respondents' advice concerning the broader promotion of garden activities and the range of volunteer opportunities. Using local news and radio platforms to promote events and recruit volunteers should be encouraged, along with consideration of joint events. Nursing homes, daycares, school groups, service clubs, and more could benefit tremendously from shared produce, guest speakers, education sessions, community suppers, and more.

Diversify Activities at Existing Garden Sites

Participants in the present study expressed their desire to see family-friendly garden sites that encouraged children to participate. Inclusive environments may lead to more participation, as would amenities that make existing gardens more family and community friendly. Existing gardens would do well to explore modest additions such as “kiddie gardens,” sandboxes, garden benches, sun shelters, or activities suitable to the area, such as lawn or table games. Occasional “in the garden” events may also be a worthy consideration. Many families are likely to enjoy visiting to weed a garden, make a craft, or watch a musical performance.

Existing garden sites may also consider structuring their garden access in several ways that are more inviting to those with limited access. For example, adding raised planters, a shared workload garden managed by drop-in volunteers, or the option to participate in shared maintenance plots. Study respondents’ emphasis on “do what you can” volunteer commitments could be considered, and a variety of options explored.

Local Garden Development

Considering the potential for a large-scale project informed by the robust collection of ideas shared by study participants is compelling. Interestingly, the Town of Pembroke has some solid potential worth noting. Pembroke is the largest town in Renfrew County, the most heavily populated, and home to a sizable portion of the Ontario Housing Units of the county. Riverside Park is a large installment on the West side of Pembroke within walking distance of about 75% of the social housing units. It is also home to a large play structure, splash pad, local soccer fields, horseshoe pits, basketball court, baseball diamonds, and an off-leash dog park. The Kiwanis Service Club, whose mission statement is "improving the world one child and one community at a time" (Kiwanis International Mission and Values, n.d.), operates a clubhouse adjacent to the Riverside Park Property. Kiwanis International's stated objectives are: 1)To give primacy to the human and spiritual rather than to the material values of life; 2) To encourage the daily living of the Golden Rule in all human relationships; 3) To promote the adoption and the application of higher social, business, and professional standards; 4) To develop, by precept and example, a more intelligent, aggressive, and serviceable citizenship; 5) To provide, through Kiwanis clubs, a practical means to form enduring friendships, render altruistic service, and build better communities; 6) To cooperate in creating and maintaining sound public opinion and high idealism, which make possible the increase of righteousness, justice, patriotism, and goodwill.

The Kiwanis Clubhouse performs several functions. They offer event and building rentals, a small, fenced-in mini putt course, and an equipment loaning program staffed throughout the summer. The building is equipped with washrooms, running water, and kitchen facilities. Further still, they host a camping area in which community fairs and events are frequently held. Riverside Park connects West Pembroke to East Pembroke, employing a

pedestrian path along the riverfront. The path passes directly in front of one of the largest long-term care homes in the county (Miramichi Lodge), the Pembroke campus of Algonquin College, and into the Pembroke Marina, as well as connecting to the Algonquin Trail, which bridges Pembroke to Petawawa. The existing site offers many amenities prioritized by study participants and is an ideal location to maximize access. The potential for partnership and initiating a community garden operating out of this space should be explored.

Several garden projects are underway and dedicated to producing for local Food Banks. One, the Carefor Community Garden, is the innovation of two, sitting city council members. These council members are aware of the need and motivated toward community-based food solutions. The City of Pembroke has partnered to support this endeavour by providing water hookups and transporting soil. The presence of existing amenities and Kiwanis's mission statement, combined with the activities already undertaken by the City of Pembroke, are well aligned with the expressed wishes of interview participants, and validated by existing research. The potential to establish a partnership between the City of Pembroke and the Kiwanis Club for a community project is high, and there is cause for optimism regarding partnerships. Several respondents indicated interest in volunteering should there be a project that results from the study, and it follows that a small working group could be formed, who, guided by the recommendations gathered in the present study, could formulate a proposal and approach the Kiwanis Clubhouse, along with the City of Pembroke and other existing community gardens to establish collaboration. A modest implementation guided by community input, seasonal successes, and the inevitable learning curve of experience would be recommended. With time and awareness, participation would increase, and outcomes could be measured through pre- and post-participation surveys, as discussed below.

Future Research

Survey non-Gardeners

Further understanding the perceptions of value, barriers, facilitators, and motivation of non-gardeners may provide helpful information to encourage additional uptake and increase participation in community gardens. Further research making use of community surveys could be valuable. The perspectives of non-gardeners should be considered in detail, determining their awareness of community gardens, their perceptions of the value, potential barriers, and what would facilitate their involvement. It would also be interesting to understand more about the knowledge non-gardeners have regarding the health benefits of gardening, whether fresh food is a motivation to explore participation and beliefs about other benefits such as social capital or community development. Comparing the perceptions of non-gardeners with active gardeners, noting similarities and differences in the values and beliefs expressed could assist in determining how to capture the interest of a broader population and potentially increase participation in community garden projects. Comparative studies could also be used to understand if perceptions of value pre-participation are significant concerning favourable outcomes post-participation.

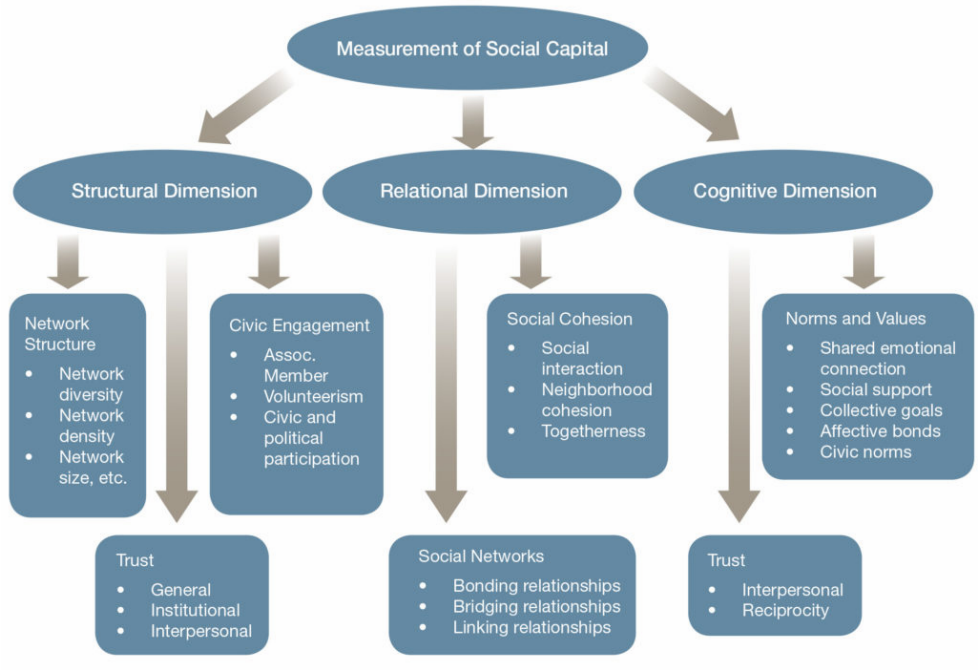
Social Capital

Three dimensions of social capital are discussed: relational, cognitive, and structural (Claridge, 2018). The relational dimension of social capital refers to relational characteristics such as institutional and interpersonal trust and concerns the nature and quality of connections that develop over time and through a period of interaction (Claridge, 2018). Blokland and Savage (2016) emphasized the relational dimensions of social capital with a specific emphasis on networks. They examine interpersonal ties that enable mobilization (socialization that underlies social action) and ‘networked urbanism’ (networks that create connections). Cognitive social

capital involves shared norms, perceptions, and values, people's perceptions of interpersonal trust, and norms of reciprocity within the group. The structural dimension of social capital includes the things that people do, such as volunteering, voting, and participating in community associations (Shiell et al., 2018). It refers to social networks or participation (Christensen, 2017). It would be helpful to continue gathering information about how active engagement in a community garden influences the experience of these dimensions over time and how participants view the impact on their quality of life and well-being. It would further be of interest to understand if and how benefits extend beyond the garden setting. The conceptual framework developed by Claridge (see Figure 1) maps the three dimensions clearly and could serve as a guide to consider the development of pre-post survey questions.

Figure 1

Conceptual Framework for the Development of Social Capital Measures



Research on community gardening can improve our understanding of the interaction of social and physical environments, community health, practical strategies for empowerment,

project development, and health promotion (Armstrong, 2000). Further quantitative research could also include measures of mental health such as the PHQ-8 Depression Scale and the GAD-7 General Anxiety Scale (Catalogue of Mental Health Measures, n.d.), with an interest in reported mental health pre- and post-participation in community gardening.

With the abundance of research validating the potential of community gardens and food prices escalating as they currently are, it seems most appropriate that further studies emphasize active engagement. Exploring the potential of community gardens can be done while expanding access. Grounded research in which communities are supported in establishing community gardens while researchers observe and measure nutritional well-being, mental health, and social capital and participate in the effort could provide substantial insights along with tangible outcomes in the form of more active gardening opportunities. There is still much to be learned about how urban community gardens can be implemented, whether and how they foster lasting social capital, and how communities may benefit over time. It is exciting to consider the amount of information that could be gained while concurrently creating access not only to nutrient-rich foods but also to the social, health, and community benefits cited in existing research and by the present study's participants.

Limitations

It is not reasonable to assume comprehensive representation based on a small sample. These 15 participants offered a variety of perspectives that captured essential aspects of differing experiences; however, this was not a statistically significant sample, and self-selection bias must be assumed. Participants come to the research process with their own set of values, perspectives, biases, and goals. As such, it is more likely that an individual who sees gardening positively would volunteer to share their views about motivating others to do the same. Most participants

actively engaged in some level of personal gardening before volunteering, and several volunteered in food-related projects. Their positive relationship with gardening could bias their opinions on the value of gardening for others and the community. Those engaged in food security programs are also presumed to have a more positive regard for community- and food-focused activities.

An unforeseen challenge that impacted access to additional participants was screening potential participants through online recruiting. An online recruitment posting on one, local Facebook community platform unexpectedly resulted in 267 responses in less than 24 hours before being removed by the researcher. Unfortunately, many of these responses were inappropriate, found to have been automatically generated responses ("bots"), or non-residents of Renfrew County. The screening of these electronic responses proved difficult and time-consuming. Of 267 responses, only six interviews were booked, two of which did not proceed as the participant did not respond after several attempts to reschedule. How or why the posting was the subject of such a sizeable automatic response is beyond the scope of this discussion; nonetheless, it is speculated to have been related to the $15 gift card and algorithms designed to electronically identify cash opportunities. Despite the inconvenience, it was an interesting experience that points to future considerations as online platforms and virtual technology are incorporated into research design.

Reflexivity

Self-reflexivity is one of the most celebrated exercises of qualitative inquiry (Brown et al., 2015). As the researcher and writer, it is vital to be thoughtful and forthcoming about strengths and shortcomings or biases, especially when participants are members of the researcher's community of residence. Having lived and worked as a mental health case manager

in the research community for 20 years, I entered this research with an awareness of the scarcity of resources in Renfrew County. I had a personal stake in this project not only as a learning opportunity but as a resident and ally in the community, and I hoped for an outcome that could be put into practice in meaningful ways. I was aware that community members are frequently offered programming that has little value or needs the required accommodations to be helpful to the target population. I viewed this project as an opportunity to steward my privilege. I wanted to use the time and resources dedicated to my thesis to create a resource and amplify the voices of those often not heard. It was for this reason that qualitative interviews and inductive coding were adopted. A plan informed through consultation with stakeholders was viewed as the most respectful and having the highest potential to be implemented successfully.

As much as I wanted to do decent work for my community, I recognized that I also had hopes and ideas. I viewed community gardening as resistance and desired to see community members embracing radical sharing and cooperation. I wanted to see people raise food and remove themselves from the need to participate in markets where food is a commodity. I set out with the notion that community gardens would not only create access to food but challenge problematic commercial market norms and, in effect, challenge capitalist systems of oppression. Admittedly, some naivety and grandiosity were fueled by a desire to disrupt the norms I viewed as destructive and oppressive. As I spoke with community members, they had a greater interest in the community than in resisting capital markets. I was called upon to set aside my emphasis on disrupting the market in favour of the more modest yet equally potent form of social action that participants valued: community and social capital development. This approach is significantly more appropriate, centred on the available means and energies of those most affected by the disbalance of resources.

It bares recognition that although my initial assumption of resisting capital markets was not shared, these interviews convey their version of resistance, one in which the commodity is connected instead of food. In this assertion, community members show greater insight than I do. Power is relational, after all (Weinberg & Banks, 2019), and relationships are a way to cultivate power. The community members interviewed in this project recognize the need and value of relationships. They agreed gardening was essential and served a purpose, that access to food could be helpful, and yet gardening was more valuable as the center point of a larger project whose purpose was shared space, learning, and connection. They appeared to understand intrinsically that gardens offer "third places" outside of work and home, where people can gather, network, and identify together as residents of a neighbourhood (Dolley, 2020; Glover, 2004; Oldenburg, 1989; Yotti, 2006). Participants predicted that garden friendships could become year-round social ties for those involved and opportunities to connect individuals to forge reciprocal relationships (Glover, 2004; Kingsley et al., 2019, 2020; Yotti, 2006). Food was seen as a positive byproduct of a community project, which created a space for people to benefit from various positive experiences and interactions.

Conclusion

The outcome of this study was expected to contribute to evidence in favour of equitable, local food systems and was recognized as having the potential to inform larger-scale policy changes. The efficacy of a community garden in this regard remains to be seen. However, participants expressed great enthusiasm for the idea that their communities may enjoy the benefits of improved connection, learning, and health outcomes that lead to personal and community empowerment. Schech et al. (2022) define six domains of well-being, including physical health, psychological health, the standard of living, interpersonal and social

engagement, governance, and environmental. Ill health and physical and emotional difficulties arise when humans become disconnected from the natural world. This happens when nature is viewed as a commodity for consumption (Norton, 2011). A growing body of evidence indicates that time spent outdoors and developing connectedness to nature benefits physical and mental health (Dobson et al., 2020). The awareness of the interconnection between humans and the environment has become understood to the extent that green social prescribing, which improves health and well-being through exposure to the natural environment, has become a practice in some medical communities (Wood et al., 2022). Participants in the current study were astute in their assumption that gardening is likely to promote positive health outcomes and offered a lively set of recommendations for achieving an inclusive, inviting, equitable space.

Poverty has implications for the social networks that people on low incomes can maintain, which compromises the social cohesion of the communities where they live (Blake, 2019). Research on social networks demonstrates that those who have strong social networks live longer and better lives, even when they are living with ill health. Though this thesis study set out to understand what would motivate communities to grow and share food, it uncovered an emphasis among participants on the importance of community. Study participants convey an understanding that gardens create affordable access to essential spaces, meaningful connections, and relationships and have the potential to empower community members. The thoughtful contributions of the participants, as well as the shared vision and alignment with current research, were encouraging. Community gardening is valued for its potential to improve food access and as a mechanism to improve individual and community health. Interview participants believed that the positive outcomes of community gardening could include empowerment, development, and support for intergenerational social interactions. They recognized that by

working together, gardeners could benefit from improved connection, affordable, high-quality produce, shared learning, a sense of contribution, and greater health and mental health. The results of this study echoed Glover's (2004) observation that community gardens are less about gardening and more about community. As Participant #6 succinctly stated, "A Garden can be the through line of the community."

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Appendix A

Recruitment Poster

Challenging Market Food Systems:

How Do We Motivate Communities to Grow and Share Food?

Are you a resident of Renfrew County, age 18 or over? Do you have an interest in talking about gardening, food security and working together in the community?

This is an **invitation to participate** in a research study. The purpose of this research is to learn the perceptions and opinions of Renfrew County adults on the topic of community gardens and food security.

The study is open to Renfrew County residents 18 or older. The study will take about 60 minutes of your time and will involve an individual interview answering open-ended questions. **The interview can take place either in person or via Zoom.**

Participants will receive a $15.00 gift card.

Your participation in the research is completely voluntary and should you choose to withdraw from the study you will still receive the gift card.

This study is being conducted by Kate Mooney, MSW Student, School of Social Work, Laurentian University. If you are interested in participating in the study and would like more information, please email Kate Mooney, kmooney@laurentian.ca or call 343-369-1159.

Appendix B

Interview Structure & Questions

Brief Introduction: Role of student/researcher, disclosure, description, and intention of the project.

Consent: Participation, to record, to publish

What is your personal experience with growing and sharing food?

- How did you learn?
- Why did you start?
- What have the benefits been?
- What have the challenges been?

Have you ever heard of or done soilless gardening? (If not, briefly explain)

- If yes, what was your experience like?
- If not, would you consider adding this strategy to your garden efforts?

How do we mobilize the community to grow and share food?

- What barriers do you foresee?
- What concerns might you have?
- What are the strengths of your community that you think would benefit the project? (E.g., social groups/service clubs? strong community involvement? pride/identity? town council?)

If you were going to participate in or lead a community garden, what would be important to you?

Who makes the decisions and how?

Who does the work?

Who gets the food?

What do you do with excess?

How would conflict be resolved?

What would be required to make a community garden successful and sustainable?

Are there spaces in your community where you think a garden would succeed?

Who controls that space right now?

What is the value of growing yourself vs together or being gifted?

What is the value of gifting vs buying?