

“It’s not just the food we produce, it’s the community we are building”: Growing healthy communities in Saskatoon, Canada

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Participation in community gardening provides multiple health-related benefits to urban residents. This case study set out to determine the perceived benefits of community gardening from the perspective of those actively engaged in urban gardening activity. This qualitative study indicates that food production, food security, environmental awareness and even healthy food consumption were perceived as secondary benefits as compared to community engagement and relationship-building. This study contributes to the body of literature that suggests urban community gardens have potential to produce more than just healthy food. Urban planners and policy makers may increasingly look to shared communal work places, such as community gardens, as places to build community capital and thus healthier urban environments.

Keywords: community gardens, community capital, Saskatoon, Canada

Introduction

Urban food production has a long and storied tradition with implications for improving human health. In Canada, urban agricultural projects have their roots in times of crisis. Urban gardens promoted food security, patriotism, and social wellbeing during World War I and II and the Great Depression (Mok et al. 2013). In the 1960s, there was an increase of urban gardening based on concerns about food related health issues, environmental conditions, rising food prices, energy conservation and ideological motivations (Lawson 2005). Since the 1980s, many

urban dwellers have continued to uptake the practice of urban gardening, particularly in the form of communal or community gardens. In addition to providing local food, various authors report ancillary benefits arising from community gardening which can enhance social, health and environmental conditions (Fairholm 1999; Lawson 2005; Mok et al. 2013; Pitt 2014).

The metro-regions of Montreal, Toronto and Vancouver were forerunners in urban agricultural projects including community gardens. Today, community gardens can be found in the majority of Canadian cities (Fairholm 1999; Roseland 2012). Since 2002, the number of community gardens has grown rapidly in

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Saskatoon. The increasing demand by Saskatoon citizens for community gardens over the past decade has resulted in long wait times for new site approvals by City administration and a lack of communal space for new gardening projects. The demand for this type of communal activity has, in part, motivated this case study.

This case study examines the ways in which community gardens may offer potential for enhancing individual and community health. To conduct this research, interviews were conducted with individuals active in community gardening in Saskatoon.

Urban community gardens

Urban agriculture is defined as the growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities (Tornaghi 2014). The dominant form of urban agriculture is food plant cultivation (Mok et al. 2013). The most conventional practices are green roofs, roof top gardening, vertical gardens, community gardens and plots, private gardens, randomly-sited or ‘guerrilla’ gardens, urban agricultural projects and greenhouses (Da Silva 2009). This case study focuses exclusively on urban community gardens.

Community gardens can be defined as organized initiatives whereby sections of land are used to produce food or flowers in an urban environment for the personal and collective benefit of their members who, by virtue of their participation, share certain resources such as space, tools and water (Beilin and Hunter 2011). According to Fairholm (1999), urban community gardens have existed in Canadian municipalities since the 1890s. The history of community gardens in Canada can be explained in six overlapping periods over the last century. The ‘Railway Gardens’ (1890–1930) were the first community gardens in Canada (Fairholm 1999). The Canadian Pacific Railway maintained small gardens adjacent to railway stations with the purpose of encouraging prairie settlement and to improve the railway station aesthetic (Da Silva 2009). At the beginning of the twentieth century the ‘School Garden’ movement integrated gardening in the curriculum wherein school-aged children had a plot in which to cultivate flowers and vegetables. During the Great Depression of the 1930s, ‘Relief Gardens’ provided food, income and purpose to thousands of unemployed people (Mok et al. 2013). ‘Victory Gardens’, also known as ‘War Gardens’, existed during both World Wars. Victory Gardens, according to Mosby (2015) promoted patriotism and leisure while also encouraging self-sufficiency and thereby freed railcars and transport trucks to move other war-related goods across North America. Vacant lots were used for gardening during the World Wars to improve the urban aesthetic while providing food and employment for the poor. The number of community gardens declined after World War II due to supermarkets and the greater use of refrigeration. Gradually, with the emergence of the industrialized food system, food production became unnecessary for the majority of urban people (Mok et al. 2013).

The revival of urban community gardens, between 1965 and 1979, has been described as the counter-culture movement (Fairholm 1999). The renewed interest in urban gardening was based on concerns about environmental conditions, rising food prices, energy conservation, and ideological motivations against consumerism. Others feared negative health consequences due to pesticide residues in industrial food.

Since the 1980s, the demand for open community spaces has increased immensely. Research has shown the advantages of urban gardening, especially the health benefits, both therapeutic and through physical exercise (Fairholm 1999; Armstrong 2000; Pitt 2014). Mok et al. (2013) state that urban agriculture, from growing food to buying locally, has become integrated into an ideological movement of environmental and socially sustainable choices, community networks, reconnection with nature, and social change in North America. Today, the American Community Garden Association estimates that there are over 18,000 community gardens in the USA and Canada, ranging from neighbourhood gardens to public gardens and school gardens (Mok et al. 2013).

Community gardens in Saskatoon

Community gardens have become increasingly present in Saskatoon. Modjeski (2014) states that the amount of community gardens has increased by almost 79 percent from 19 in 2012 to 34 in 2014. The number of community gardeners grew by almost 52 percent from 1450 in 2012 to 2200 in 2014. The demand for community garden plots has outpaced the supply (Modjeski 2014). The first official community garden in Saskatoon, the City Park Community Garden, opened in 2002. A garden shed re-construction in 2013 drew community members together (see Figure 1). At present (2016), there are 46 community gardens in Saskatoon, which is a doubling in total number since 2012. The intent of these gardens is public availability to the entire community, encouraging community spirit by working together and getting to know neighbours, and agreeing to food production via organic gardening principles (City of Saskatoon 2016).

In Saskatoon, gardens range in size between a dozen plot spaces and up to more than 50 plot spaces. Individual garden plots range in size from 16-25 metres square (CHEP Good Food Inc. 2016). Over half of the community gardens are located on municipal land. Others are placed on private, school or church property. To date, the City of Saskatoon has supported the implementation of more than 20 community gardens on City-owned land in collaboration with CHEP Good Food Inc. (formerly Child Hunger Education Program). CHEP is a non-profit organization working with children, families and communities to improve access to good food and promote food security (CHEP Good Food Inc. 2016). CHEP supports community gardens on private, school or church property as well.

Method

The objective of this study was to determine the perceived benefits both to the individual and community arising from com-



Figure 1

City Park Community Garden

Source: <http://www.openprojects.ca/2014/11/19/city-park-community-garden-shed-build/>

munity gardening. As such, we developed an interview guide to be used in the field with key individuals. Key individuals were selected based on their activity in community gardening in Saskatoon. The ‘snowball method’ added additional individuals to the interview pool. Potential interviewees, with different ages, occupations and backgrounds were chosen to be interviewed. In total, nine individuals with expertise in and knowledge of community gardening in Saskatoon were interviewed. The number of interviewees was less important than the quality of those interviewed. Interviewees were highly committed community gardeners who fulfilled an essential role in their community gardens. All interviewees were community coordinators or volunteers that were responsible for several tasks in the community garden movement in Saskatoon. The interviewees represented a broad range of adult age groups including a university student.

Results

The interview questions sought to identify perceived benefits from community gardens. Questions did not prioritize community over individual benefits nor did the questions identify potential motivating factors such as healthy food production or active living. Open-ended, semi-structured questions were asked to tease out perceived benefits of community gardening.

Food Security

Local food production has long been held as rationale for urban agriculture. City of Saskatoon promotion of community gardening cites “growing nutritious food” and to “support food security” as a motivating factor for local uptake (City of Saskatoon 2016).

All interviewees confirmed that community gardens can contribute to food security. However, one interviewee stated that only a small fraction of community gardeners actually engages in this activity to become more food secure. Another interviewee noted that for some gardeners living on a fixed, limited budget, food security is important: “Since healthy food is usually pricier than processed food, growing their own food allows the poorer inhabitants to consume better quality produce.” In a winter city such as Saskatoon, there is an additional limitation to food security. In the words of one interviewee: “Community gardens do impact food security but on a small scale because of the short growing season [in Saskatoon]. For those growing months you have access to fresh produce.” Another interviewee stated that not all gardeners have sufficient knowledge to grow their own food: “... in some cases, people do not possess sufficient knowledge about gardening which can reduce their motivations to garden. Therefore, it is fundamentally important to support people and show the potential achievements of gardening. Community gardening would not be the only solution [to ease food insecurity] but it can contribute to food security for sure.”

Diet Outcomes

All interviewees reported the valuable contribution of fresh, local, organic, nutritional and flavourful fruits and vegetables to their diet. How food is grown and its origin were important criteria for the interviewees: “... we know that it is local and it is organic and that it is not sprayed with pesticides and shipped around the world and losing nutrients every day. When we pick it we eat it that day the whole summer. Besides, vegetables in stores might look good but they do not taste as good or fresh as self-grown produce.” Moreover, there is an additional cultural consideration to local food production. As one interviewee

stated: “Community gardens provide the opportunity for immigrants to grow certain plants, herbs or vegetables which they have been used to eating their entire lives.”

Environmental awareness

All interviewees indicated that they compost at the community garden and at home. Some interviewees intend to be role models for other people: “My motivations are to build a more sustainable community here in Saskatoon in the long term and to have quality food all the time...while helping people to make a better impact on the planet.” All interviewees indicated that community gardens have the potential to improve the environmental awareness of the gardeners. Interviewees predicated that community gardens are a source of education for gardeners to gain more knowledge about food production and relating issues. Growing produce organically is a major aspect of community gardening and a requirement of the City’s community garden policy. Interviewees demonstrated that they see community gardens as a platform to communicate environmental issues and to get exposure to new environmental practices. In the words of one interviewee: “... people [community gardeners] are conscious about the environmental footprint . They are seeing the connection of the activities and lifestyle changes that reduce the footprint on the earth.” In this case, “Community gardening gives the people a common purpose and a place to talk about mutual concerns.” Still others reported that community gardeners get exposed to sustainable practices and ideas they have not thought about before such as composting, commuting by bicycle, or purchasing only organic produce at the grocery store. Additionally, one interviewee reported their participation in community supported agricultural (CSA) programs, stating that: “[i]n a CSA, individuals who have pledged to support one or more local farms pay at the onset of the growing season for a share of the anticipated harvest. In this way, participants support local agricultural businesses, eat seasonal produce and know where and how their food is produced.” Across all interviews it was stated that through community gardening there was increased exposure to environmental issues and practices and a general sharing of ideas. As one interviewee stated:

“I think it is a good way for people who want to learn more [about the environment] because they see the value...this may lead them to seek more information regarding other sustainable practices. I think it does have a potential, not like ‘I community garden so I care about the environment’ but ‘I personally like community gardening and I care more about these things because I got exposed to them.’ So I think it is just a gateway not a path.”

Physical activity and mental health outcomes

All interviewees agreed that community gardening can be beneficial for physical activity and mental health: “It is good physical exercise because you are shovelling, pulling things and bending down to weed, especially for seniors gardening can be good exercise.” Interviewees stated that mental health advantages can occur thanks to the relaxed atmosphere in community garden

sites. Interviewees see gardening as a joyful activity in fresh air which helps to reduce stress. According to an interviewee: “...it [community gardening] could be seen as a therapeutic activity. In addition, gardening can help to build self-esteem and experience gratification towards one’s own work.” Other interviewees experienced transformational change as they learned to appreciate nature with the great amount of produce grown on a relatively small plot. Moreover, several interviewees noted that gardening can improve the sense of safety in the neighbourhood based on an extended social network. Conversely, some interviewees declared that community gardening can also be mentally challenging due to stress or disappointment. Vandalism, theft, threat of frost, spoiled food, preserving the harvest, and the lack of engagement of other gardeners were reported to be negative influences on community gardening. It was reported that in some instances gardeners became inactive in community gardens because of negative experiences.

Outcomes related to social relationships and community involvement

The interviewees ranked the importance of social aspects and community involvement very highly. The communal aspect of community gardens was one of the biggest advantages of community gardening for all interviewees. Community gardening expanded the social network of community gardeners by meeting people with diverse backgrounds. The garden network brought together the young and elderly, ethnic diversity, immigrants, renters and homeowners as well as mixed gender. As stated by one interviewee: “... community gardening is a good way to get in touch and be involved in the broader community especially for newcomers in the neighbourhood.” Another gardener noted: “I like meeting neighbours. I like connecting to people. I like to have a more intimate relationship with my neighbours that makes you feel safer and that makes you feel happier. So I garden.”

Interviewees stated that there is a lot of sharing of actual food, recipes, seeds, tools but also ideas and knowledge among community garden members. A number of interviewees noted that the social interaction and communication about food can enhance community cohesion as well as intercultural communication and integration processes. According to a community gardener: “Community gardening forces people to communicate. In the case of a beetle infestation or the maintenance of the collective spaces, people have to talk to each other in order to find solutions. It is a community building activity and it really brings people together.” Interviewees indicated that the social events happening in the community gardens are very diverse. Gardens usually have work bees, which are work inputs and pot-lucks during the season - others have a “Weeding Wednesday” once a week.

In one community garden, people just bring their coffee and sit down at the picnic tables and chat. At the University of Saskatchewan, the community garden offers canning and weeding workshops and a variety of cultural programs. At another community garden a live music event is organized every second Wednesday with local musicians. Additionally, CHEP organizes

community garden conferences in winter allowing gardeners to connect with people from all over the city. Moreover, interviewees reported that people build relationships through gardening which can go much further than the garden. “You get attached to the people and to the atmosphere. It is more than getting food. You show up to get food just as an excuse to see people almost... it becomes more about sharing personal things.” People can start to develop neighbourly relationships which can include meetings outside the garden site. Another important aspect is the opportunity to get engaged in the community beyond community gardening. In the words of a community gardener: “When you have a potluck... You start to have this conversation about work that needs to be done in your neighbourhood or other volunteer opportunities or other committees that are looking for help. It really takes people who like to get involved and gets them involved in more things.”

Interviewees also reported there are some gardeners who do not invest much time in the community. They just garden their own plot and are generally more motivated to look after their own belongings than to look after common property.

Discussion

The main findings of this article identify five perceived benefits arising from community gardening. These comprise: food security, diet outcomes, environmental awareness, physical activity including mental health, and social relationships including community interaction. While all these benefits may be linked directly and indirectly to human health it was social relationships rather than food production that was reported to be the strongest perceived benefit of community gardening. The results of this case study will now be discussed in light of current literature.

These findings indicate that the social aspect of community gardening is the main benefit of community gardens as perceived by the gardeners. This result was somewhat surprising in view of the attention given to urban food security (Roseland 2012). The social aspects of community gardening serve to enhance a sense of well-being within a neighbourhood, which augments the quality of life for the individual. The supply of fresh fruits and vegetables is important but associated cost savings at the supermarket are not the uttermost priority for the interviewees. The fact that social networking is the biggest driver of people engaging in community gardens is linked to the connection of place between people of similar interest. Meeting people with other backgrounds might also diversify one's interest and knowledge about a variety of topics. Studies identify the social benefits of community gardens in industrialized countries. Eigenbrod and Gruda (2015) note the social and educational benefits of community gardens strengthen the gardener's community. Research demonstrates that community involvement and engagement strengthens the social networks of community gardeners which contribute to an enhanced sense of quality of life (Lovell et al. 2014). Studies also show that personal motivations differ. Therefore, access to fresh fruits and vegetables, environmental stewardship or improved personal health can also

be motivating factors (Drake and Lawson 2015). For instance, gardeners in low-income neighbourhoods usually start gardening to cost efficiently produce their own food (Armstrong 2000).

In this case study, interviewees noted that a major advantage of self-grown fruits and vegetables is the assurance that the produce has been produced sustainably without any chemical treatments. The consumption of local produce leads to ‘peace of conscience’ because gardeners feel certain about the freshness and nutritional value of the produce. Moreover, the opportunity to grow different plants creates a feeling of resistance against the uniformity of industrially produced fruits and vegetables. Different types of the same produce contribute to a diverse diet. According to other studies, gardeners value the nutritional input of self-grown fruits and vegetables very highly (Lovell et al. 2014).

Interviewees affirmed positive physical and mental health outcomes thanks to community gardening. For all interviewees, gardening is a hobby which they do for fun with great passion while socializing at the same time. Therefore, it is not surprising that community gardening influenced their mental health positively. The work required to cultivate a community garden often increases the physical activity of people, which can be beneficial for overall health, especially for seniors who might not get enough exercise otherwise. A major increase in physical activity among respondents was not identified, but rather, a small, more leisurely increase of physical activity. In addition, community gardens strengthened the mental health of gardeners thanks to the relaxing atmosphere which reduces stress. Gardening also produced a feeling of achievement and gratification among interviewees that further enhanced the mental health of the gardeners. However, in some instances gardeners noted increased stress as a result of vandalism, theft or other problems which negatively impacted their mental health. Those interviewees who accept these petty crimes as a part of community gardening seem to manage negative experiences much better. Similarly, the literature links gardening to enjoyment, mental restoration, stress recovery and improved neighbourly connections which improve the mental health of gardeners (Pitt 2014). Gardening is known to be a moderate to intense physical activity with the potential to improve health data such as cholesterol and blood pressure levels (Armstrong 2000). Other studies identified community gardens as shared communal spaces, or third places (Roseland 2012), where social gathering can be a therapeutic activity that positively influences mental health (Lovell et al. 2014).

Studies confirm the role of community gardens to mitigate food poverty through financial savings (Lovell et al. 2014). It is difficult to quantify the savings because the produce is usually not weighed in the gardens. Therefore, financial savings cannot be accurately calculated from this case study making it difficult to compare product cost of the community garden with conventionally produced fruits and vegetables. Other studies also referred to the accessibility of fresh produce. Community gardens offer a convenient way to access fresh fruits and vegetables, particularly for the population with limited access to supermarkets due to distance and high transportation costs (Alaimo et al. 2010). In Saskatoon, 55 percent of the citizens do not live within walking distance (one kilometre) of supermarkets (Kouri

2013). Residents in certain neighbourhoods live closer to fast food stores than to supermarkets, limiting their access to fresh produce. This condition is exacerbated in lower socio-economic neighbourhoods where public transportation options are limited and rates of car ownership are low (Patrick and Cheesbrough 2012). According to Mok et al. (2013), community gardens influence food security through improved accessibility to and affordability of fresh produce. Due to time and resource constraints, this case study concentrated in part on the financial savings potential of community gardens to address food insecurity. The mitigation of food insecurity among community gardeners cannot be identified directly based on the selection of interviewees as none of the respondents were food insecure.

Studies identify community gardens as a model for the promotion of sustainable urban living (Turner 2011). For the majority of interviewees in this study, environmental reasons were one motivation to engage in community gardening. Still, the case study and literature findings show that even though people commit to growing their own food and caring about the environment, they do not necessarily change their behaviour in other aspects of their life (Turner 2011). Studies about environmental awareness and behaviour demonstrate that both factors do not necessarily correlate. There are many reasons why people do not act more in line with their environmental convictions, such as increased costs, personal habits, routine and personal interests. The case study identified that in one community garden only one third of the gardeners walk to the garden, while others still drive.

The integration of community gardens into urban neighbourhoods can create healthy, civilizing and enriching places to live by improving all forms of community capital including not only natural and economic capital but also social, cultural and human capital (Roseland 2012). Based on this study, community gardens offer great potential as catalysts to build, maintain, and enhance community capital by mobilizing citizens and governments around a common, collective activity. The importance of community gardens has a far greater reach than local food production. For this reason, the mental health benefit to those active in community gardening should not be overlooked. The integration of health and place, at least in the urban environment, may begin in the community garden.

Conclusion

Since 2002, when Saskatoon's first community garden was created, there has been increasing interest in community garden space in the city. By 2016, there were 41 community gardens and the implementation of five to ten community gardens per year was common.

Multiple impacts of community gardens on gardeners, communities and cities have been identified in the literature. The positive effect of community gardens is evident in Saskatoon and significantly increases the community capital of the city particularly by growing social networks and improving community cohesion. Moreover, enhanced physical and mental health from physical activity, nutritious diets and mental rest contribute to

human capital. Increased food security among community gardeners positively affects economic capital since financial assets can be spent on other goods. Mental and physical health are improved by reducing stress and nutritional imbalance caused by food insecurity. Greater environmental awareness influences physical and natural capital by promoting good quality food as well as vegetated 'green' spaces and other sustainable practices which enhance the condition of the natural environment of the city.

Overall, this case study identifies community gardening as a highly beneficial activity with positive benefits to the gardeners, broader community, and Saskatoon in general. Therefore, the promotion of community garden participation in Saskatoon, and elsewhere, is highly recommended. The City of Saskatoon is encouraged to look for new communal space for community gardens. Under-utilized public and private spaces, including vacant public property, should be considered to meet the increasing demand for community garden space.

Community gardens alone cannot create healthy cities. However, they are a relatively small scale activity with potential to contribute to healthy urban places.

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