COMMUNITY GARDENS: BEST PRACTICES ACROSS URBAN AMERICA

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COMMUNITY GARDENS: BEST PRACTICES ACROSS URBAN AMERICA

A Thesis

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Abstract

of

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This research examined case studies of urban community gardens in seven different American states to determine whether the factors of sociability, participatory decision-making, leadership, and land tenure are likely to contribute to community garden success.

The case studies included community gardens that have been in operation for at least five years (categorized in the successful group) and community gardens that have closed (categorized in the unsuccessful group). The methodological approach was qualitative, and data were drawn from phone interviews and written responses from 34 individuals.

Sociability and participatory decision-making were similarities across all groups and thus I concluded that they were not causal factors for community garden success. Land tenure and leadership were key differences between successful and unsuccessful gardens. Accordingly, it is plausible to conclude that these factors were critical for community garden success. Based on the above findings, I conclude with

recommendations for local governments in the areas of land use policies and training/technical assistance.

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Chapter 1

INTRODUCTION

In recent years, there has been a growing awareness of the food system and how it affects our health, economy, communities, and environment. With the downturn of the economy, rising unemployment rates, and the loss of agricultural land, food security and increased access to healthy foods have become increasingly important issues in the public eye. Urban community gardens are one method that grassroots organizations, community groups, non-profit organizations, and local governments are implementing as an attempt to increase access and consumption of fruits and vegetables in low-income communities. However, few studies have examined the factors that contribute to the long-term sustainability of community gardens.

Therefore, the goals of this research are twofold; the first is to test whether the suggested factors in the literature are associated with the sustainability of existing community gardens, and the second is to determine whether there are factors beyond those suggested in the literature that contribute to community garden success. The research question is, “What are the factors that should be considered when implementing a community garden?”

What is the Problem?

Given that there is a lack of information regarding the factors contributing to community garden success; it is difficult to ascertain the best way to implement a garden to ensure that it remains sustainable. This poses challenges for organizations, community

groups, and local governments who want to start a community garden. Many neighborhoods in urban areas see the opportunity that community gardens can provide to address some of the challenges and inequities that are present in their local food systems. A more clear understanding of the essential factors that contribute to sustainability would help these groups with community garden implementation.

What Problems Can Community Gardens Help Address?

Urban areas in particular face many challenges such as sprawl, rising rates of poverty and hunger, threats to agricultural land, and farm consolidation. Many of the urban low-income neighborhoods lack nearby markets that sell a good variety of fresh, quality produce and other nutritious and culturally appropriate foods. Access may be further restricted when individuals lack adequate transportation to shop outside their neighborhood or have inadequate income due to unemployment.

Many urban communities, including Sacramento County, have a disproportionately high rate of fast food restaurants and convenience stores when compared to grocery stores and produce vendors. A 2008 study by the California Center for Public Health Advocacy (CCPHA) (as cited in Krock, Mueller, & Kelly, 2009) showed that there are six times more fast food restaurants and convenience stores than grocery stores and produce vendors in Sacramento County. The CCPHA found a direct relationship between this ratio, the Retail Food Environment Index (RFEI), and the prevalence for diabetes and obesity. Moreover, the CCPHA found that cities and counties with an RFEI of at least five times more fast food restaurants and convenience stores to

grocery stores and produce vendors had a 23% higher incidence for diabetes and a 20% higher incidence for obesity than cities and counties with lower ratios (Krock et al., 2009).

Changing Food Habits May Require More Than Nutrition Counseling

For decades, public health professionals have worked with individuals and groups to encourage them to increase their consumption of fruits and vegetables. Federal nutrition programs such as the Food Stamp Program, the Women, Infant, and Children (WIC) Program, and the National School Lunch and School Breakfast Programs help low-income families stretch their limited food dollars. However, even with these programs, the current national intake of fruits and vegetables falls below the recommendations as established by the United States Department of Health and Human Services. This is important because according to the World Health Organization (WHO), low fruit and vegetable intake is among the top ten risk factors related to mortality (as cited in Cyzman, Wierenga, & Sielawa, 2009).

While these federal programs and services can help families become more food secure, these programs cannot reach their full potential if a community has limited access to fresh produce. If residents do not have access to a grocery store in their neighborhood, they will likely be using their food stamps and WIC vouchers at their neighborhood convenience store that may not sell fresh produce.

The Social and Economic Factors that Affect Health

In recent years, researchers have paid more attention to the social and economic factors in the environment that affect health. The Center for Disease Control defines social determinants of health as factors in the environment that play a part in or detract from the health of individuals and communities (Cyzman et al., 2009). The social determinants of health include factors such as access to services, socioeconomic status, transportation, housing, the food environment, and discrimination. Food price and availability are two examples of social determinants of health included in the food environment.

Community gardens can increase access and availability to fresh fruits and vegetables and are perceived by gardeners to provide numerous health benefits including improved nutrition (Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007). In addition, the academic literature is optimistic that increasing consumer awareness of the benefits of local agriculture can lead to increased community participation and local pride (Macias, 2008). According to Armstrong (2000), this impact is four times greater in lower income neighborhoods than higher income neighborhoods, suggesting that the location of the garden makes a difference. Community gardens may offer job training and professional development opportunities, provide a community space for meeting and entertainment, and create a sense of community and ownership. These are examples of how community gardens can provide additional benefits related to the social determinants of health.

The Goal of this Research

Given that community gardens are becoming more popular and their benefits are well established in the literature, this thesis aims to determine the factors that are associated with community garden success. This paper draws upon the existing literature to test whether the four suggested factors of sociability, participatory decision-making, leadership, and land tenure are associated with community garden success.

This thesis is organized in the following manner. Chapter 2 provides an overview of the community garden literature and the suggested factors of community garden success. Chapter 3 describes the methodological approach, including an explanation of how successful community gardens are defined. Chapter 4 summarizes the key findings. Finally, Chapter 5 provides an overview of the conclusions and implications.

Chapter 2

LITERATURE REVIEW

Research pertaining to the potential benefits provided by community gardens is not in short supply. Numerous studies show that community gardens can increase access to fresh fruits and vegetables, bridge ethnically diverse communities, increase physical activity, and build skills and knowledge. Lacking from the current body of literature is an investigation of the broad factors that are critical to the success and therefore sustainability of a community garden. Moreover, a definition of a successful versus non-successful community garden has not yet been established.

Despite the fact that very few studies have focused specifically on either of these two questions, the literature suggests some possible factors that appear to make an impact on the sustainability of a community garden. These broad factors will be the focus of this Literature Review. Recurring themes throughout the literature associated with the sustainability of a community garden include land tenure, sociability, participatory decision-making, and leadership. However, it is important to note that these factors have not been explicitly studied or correlated with community garden success. Secondly, community garden success has not been measured. Thus, for purposes of this review, sustainability will be used to describe community garden success. Table A1 in Appendix A provides a summary of the literature reviewed.

Land Tenure

Fundamental to the success of any program or project is its ability to mobilize the necessary resources to achieve its goals (Glover, Parry, & Shinew, 2005). This is especially true of grassroots organizations that invariably have fewer institutional resources upon which to tap. In the context of community gardening, land acquisition is one of the most important resources (Irvine, Johnson, & Peters, 1999). The community does not need to own the land but some form of secure land tenure is important for the sustainability of the garden. Since growers often plan what they are going to plant seasons ahead, insecurity over tenure can often blight a community's development of a garden (Holland, 2004).

In many urban areas, land acquisition and ownership have been one of the biggest challenges. It is not uncommon for gardens to be established on vacant lots that have little market value. As the value of the land increases, city support for community gardens is often withdrawn and the focus changes to profitable real estate development (Schmelzkopf, 1995). This underscores the importance of the combined efforts of resident gardeners, members of not-for-profit support organizations, and in the case of city-leased gardens, city agencies (Schmelzkopf, 1995).

In light of this vulnerability to development, garden groups often look for ways to expand public engagement beyond the garden plot holders. For example, many garden organizations have established educational programs, host neighborhood events, and collaborate with local institutions (churches, schools, food banks, etc.). In these

examples, the garden is transformed from a garden lot to a garden park that can be valued by the community as a public good. This broad base of support for the garden can increase the chance of its survival when faced with competing interests.

Sociability

While the mobilization of tangible resources such as land tenure may be critical to community garden sustainability, intangible resources such as connections, skills, time, and knowledge are also potentially critical to the ultimate success of an organization (Glover et al., 2005). In the context of community gardening, sociability and the act of making connections to increase the garden network is critical for bringing these resources into the organization. As social connections are enhanced, participants are more willing to support the garden by providing needed resources for its operation.

Not only are these resources helpful to gardening activities but also for fundraising efforts, marketing, and community events that are connected peripherally with the garden. According to Glover et al. (2005), community gardens are less about gardening than they are about community. They serve as that "third place" outside of work and home where people can meet, make friendships, and talk about gardening. They have the potential to serve as a bridge for bringing together people from different social circles within a given community.

Throughout the research, sociability appears to be one of the most common reasons why gardeners participate and sustain their involvement in the community garden (Glover et al., 2005; Kingsley & Townsend, 2006). Many gardeners choose to participate

because they have the desire to connect with others and develop a sense of community (Kingsley & Townsend, 2006). Therefore, sociability is a key component to the recruitment and retention of community gardeners. Seeing the same gardeners week after week, having conversations about gardening, and sharing their crops, all speak to the social aspect of community gardening.

Community gardens are often created with the goal to decrease neighborhood crime and revitalize communities, thus serving as a tangible symbol of the exertion of local control (Glover, 2003). A common theme stated by the core leaders of these efforts is the necessity of help from others outside their social circle. This is necessary not only to assist with the labor or to generate ideas about the garden, but more importantly to foster support for their efforts, preserve the status of their core group, and to legitimize their aims (Glover, 2004).

How to Use Sociability to Build a Community Garden Network

Glover et al. (2005) found that the relationships built both within and outside the community garden network are integral to the sustainability of community gardens. In an effort to build connections with individuals outside of their social circle, many community garden leaders go door-to-door to recruit participants. Being open, friendly, and willing to talk with people are essential to the recruitment process. Social enticements such as garden parties, pizza offered at workdays, and movie nights in the garden are commonly used to attract new members and sustain membership. While it is important to have some participants who have knowledge of gardening, Glover et al.

(2005) found that one particularly successful garden recruited specific individuals because of their social skills. Having a mixture of people with different skills can foster a fun environment where people want to invest their time and energy. A volunteer activity such as community gardening will garner little support and participation if it is perceived to be an activity of all work and no fun.

Participatory Decision-Making

The literature suggests that participatory decision-making and an understanding of the community's cultural and societal beliefs appear to be prerequisites for ensuring adequate participation in a community garden. Teig, Amulya, Bardwell, Buchenau, Marshall, and Litt (2009) found that collective decision-making and getting buy-in from the participants are critical to the viability and sustainability of community gardens, particularly in terms of conflict resolution. Holland (2004) discusses democratic styles of management through consensus, an active committee structure, and a bottom-up approach. In addition, Holland found that sustainability can only be assured where there is evolved participation and management and where new ideas are introduced periodically to stimulate growth and reflect changes in the community (Holland, 2004).

Irvine et al. (1999) discusses how community consultation and involvement contributed to the long-term success of the Alex Wilson Community Garden in Toronto. Started by residents in June of 1998, the garden is still in existence to this day. During the development of the garden, the founders held workshops to receive input from local residents and businesses. The founders realized that these local residents and businesses,

essentially the garden's neighbors would be the "eyes" watching over the garden. Therefore, it was critical to the founders that these garden neighbors felt a sense of belonging and ownership to the garden. It is the involvement and input from the community, which created a sense of stewardship among neighbors. The founders regard community involvement as a cornerstone to their sustainability (Irvine et al., 1999).

Although the literature suggests that participatory decision-making is important to the sustainability of a community garden, there are two main problems with this suggested factor. First, it is unclear exactly what is meant by participatory decision-making. The literature uses a range of terms such as collective decision-making, a bottom up approach, community consultation and involvement, getting buy-in, and democratic styles of management. This creates a problem because without a clear definition or consistent term used across the literature, it becomes a concept that is murky and vague. For ease of discussion, I gave these factors the broad term "participatory decision-making." In the context of this research, I define participatory decision-making to mean the process by which the community is intentionally involved in the decision-making and deliberation process regarding issues pertaining to the community garden.

The second problem with participatory decision-making is that although the literature states that some type of community involvement in the decision-making process is important, it fails to describe the best methods that should be used for implementation. For example, what does participatory decision-making look like? Is it one gardener, one vote for all decisions, or just the key issues? Are community gardens with more

structured governance more successful than those without? What degree of community input do the most sustainable community gardens contain? These are all questions that would help provide clarification about how important participatory decision-making is to the sustainability of a community garden. Thus, it is a goal of this research to get some of these questions answered.

Leadership

The literature suggests that garden leaders are a key ingredient to the success of a community garden (Teig et al., 2009). A leader can help mobilize resources, provide a mechanism for task completion, and promote membership and belonging. More broadly, leadership activity can promote collective decision-making, social norms, and mutual trust (Teig et al., 2009). While the participation and support of diverse community members can help the garden thrive, leadership is needed in order to organize the members, identify the various levels of knowledge and skills, and leverage the resources (Twiss, Dickinson, Duma, Kleinman, Paulsen, & Rilveria, 2003).

While it is not surprising that the available research states that leadership is important, there has been very little work done on the actual leadership styles that are most commonly associated with community garden success. Parry, Glover, and Shinew (2005) examine the different leadership styles among male and female community garden participants and leaders, but do not investigate how closely each of these leadership styles aligns with community garden success. Parry et al. (2005) found that even when the female garden leaders served as the catalyst for their community gardens, they viewed

their role as a co-leader, and they managed with a cooperative team leadership style. This was in direct contrast to the leadership style of the male garden coordinators who were perceived by the Gateway Greening Staff as less flexible and less collaborative.

However, there are limitations that exist with this study. The first is that although there were 23 garden participants and leaders as part of the study, 19 were female and only four were males. In addition, all subjects worked in community gardens in St. Louis, Missouri. The research explains this gender imbalance by stating that Gateway Greening has more females than males in leadership roles. This may be true, but the sample size for males is small and it leads one to question whether this same phenomenon of a large number of female leaders is seen elsewhere. The second limitation is that none of the male leaders were actually interviewed. Rather, the Gateway Greening Staff (who may have all been female) answered how they perceived the males' leadership style to be. This seems to include a high degree of bias into the study.

While it will not be the focus of this research to determine the types of leadership styles by gender, I do hope to shed some light on whether the leadership structure or style is associated with the success of a community garden.

The available literature suggests that land tenure, sociability, participatory decision-making, and leadership can contribute to the success of a community garden. However, we are left with some unanswered questions about some of these factors. While the land tenure and sociability factors seem to be more straightforward in terms of implementation, the participatory decision-making and leadership present more

ambiguity. It is unclear what participatory decision-making really means and how it is achieved. Additionally, while it is not surprising that leadership is a key ingredient to community garden success, it is not clear what leadership styles or structures are most effective. Therefore, the purpose of my study is to move the literature ahead with respect to being able to determine the extent to which these factors are associated with community garden success from the perspective of a community garden coordinator.

Chapter 3

METHODOLOGY

Given the gap that exists in the literature regarding the broad factors critical to the success of a community garden, I used a comparative case study to examine successful community gardens and unsuccessful gardens. The goal was to test whether the factors suggested by the literature as critical to success, i.e., land tenure, sociability, participatory decision-making, and leadership, were in fact associated with community garden success from the perspective of a community garden coordinator. Moreover, I explore what factors beyond those suggested in the literature appear to contribute to the success or demise of a community garden.

How are "Successful" and "Unsuccessful" Gardens Delineated?

Community gardens can vary considerably in terms of the layout, the mission, purpose, and the location. These variables make it difficult to assess what constitutes community garden success. Further, it has not been established in the literature what a successful community garden looks like. This research is not primarily aimed at providing a definition of a "successful" community garden. Nevertheless, such a definition is needed to be able to distinguish empirically between a successful and unsuccessful garden.

I classified a garden program in the successful group if it was located in an urban city in the United States and if it had been in operation for at least five years. In contrast, I classified a garden in the unsuccessful group if it was no longer in existence.

Successful Community Gardens: Case Selection

The case selection began by conducting internet research to identify "successful" community gardens. I performed a general search of "urban community gardens" and garden programs and selected those still in operation, located in an urban area in the United States, and maintaining contact information. If a garden program identified itself as a "community garden" and if it had been in operation for at least five years, I included it as a potential case study. The internet search resulted in nineteen urban community garden programs operated by Cooperative Extension Offices, City Parks and Recreation Departments, churches, and non-profit organizations. Some of the garden programs operated just one garden and others operated multiple gardens.

I contacted the community garden coordinator for each of the nineteen garden programs by e-mail and invited them to participate in a 30-minute phone interview regarding best practices in urban community gardening. Seven of the nineteen community garden programs did not respond, and I excluded four of the interviews since the gardens were in operation for less than five years. Therefore, I administered a standardized telephone interview to eight program coordinators between November 2009 and February 2010. In an effort to identify additional gardens, and to learn about any unsuccessful gardens, I utilized the snowball technique in which those who were interviewed were asked to suggest additional participants for interviewing (Babbie, 2007). This technique produced an additional two phone interviews with a successful

community garden program resulting in interviews with ten community garden coordinators from successful garden programs.

Unsuccessful Community Gardens: Case Selection

The identification of unsuccessful community gardens proved to be a greater challenge. Using the same process as described previously with the successful gardens, I conducted an internet search to identify gardens no longer in operation. I used many keywords such as “community gardens at risk,” “unsuccessful community gardens,” and “closed community gardens.” This proved to be an ineffective method since many of the web links were disabled and contact information was either unavailable or outdated.

The snowball technique resulted in one phone interview with a community garden coordinator. However, while many participants were happy to discuss their successful gardens, the majority stated that they did not personally have any experience with gardens that had closed. Some participants stated that they were aware of gardens in their area that had closed and the reasons behind the closure, but seemed reluctant to provide the contact information for the garden coordinator who had operated the garden. Despite the fact that this method did not generate additional interviews with unsuccessful gardens, I was able to capture the information about common reasons for garden closure. This resulted in data on the "reason for closure" for 12 community gardens. This information is displayed in Table 4.4, Summary of Findings in Chapter 4.

Two of the garden programs offered to distribute the interview questions on their listserve. Such listserves are used by the program coordinator to communicate with

garden supervisors and participants about garden events and news. This proved to be a great resource and generated an additional two phone interviews with unsuccessful gardens and eleven additional written responses for successful gardens. I excluded two of the written responses from the successful group since the gardens were less than five years old.

After utilizing internet research, the snowball technique, and distributing the interview questions via two listserve boards, I was able to conduct 13 phone interviews from seven different states, 10 of which were from the successful group and three of which were from the unsuccessful group. In addition, I received nine written responses from “successful” community garden programs and the “reason for closure” for 12 closed gardens. Table 3.1 provides a summary of this information.

Table 3.1

Summary of the Type of Data Collected by Type

Group (Successful vs. Unsuccessful)	Type of Data	Number of Community Garden Coordinators Who Participated
Successful	Phone Interviews	10
Successful	Written Response	9
Unsuccessful	Phone Interviews (including reason for closure)	3
Unsuccessful	Written Response (Reason for closure only)	12
Total		34

Interview Protocols and Participants

The case studies rely on phone interviews and written responses from community garden coordinators. To ensure the safety of the participants, the research protocol and interview questions were reviewed by the California State University Sacramento Human Subjects Review Committee. The committee determined that the research proposal posed "no risk" to the subjects. The participants who agreed to take part in the research were informed that they could decline answering any of the questions. In addition, I informed them that although the results of the research would be publicly available as part of my

thesis, individual names and personal identifying information would not be reported. I provided them with my name, telephone number, and e-mail address in the event that they had questions, comments, or concerns about the study.

I scheduled all phone interviews at a time that was convenient for the participant. The phone interviews for the successful gardens lasted between 20 minutes and one hour, depending on how much detail the coordinator wanted to provide. The interviews regarding the unsuccessful gardens were typically shorter in length, averaging about 20 minutes. In the unsuccessful cases, there was a tendency for the coordinator to want to discuss his or her successful garden.

Phone interviews and written surveys were more convenient than face-to-face interviews since many of the interviews were conducted with community garden coordinators out of the State of California. While it might seem that rapport is difficult to build in such instances, the majority of those I interviewed by phone were enthusiastic and seemed to enjoy the opportunity to discuss their garden(s).

In terms of the interview questions, I added three questions pertaining to sociability, participatory decision-making, and leadership after I conducted the first three phone interviews. In addition, for the written responses sent out through the listserve, I included one question asking about experience with gardens no longer in operation. This helped serve as a screening tool to identify the second unsuccessful garden. To elicit a better response rate, I removed four of the questions, resulting in nine interview questions

that were sent out on the two listserve boards. The final interview questions are included in Appendix B.

I selected community garden coordinators to interview for this research since they are often involved in various aspects of the garden and typically assume a leadership role. The position “community garden coordinator” can take on a magnitude of different meanings with various roles and responsibilities. For example, some community garden coordinators are exclusively responsible for one garden and others oversee a number of gardens. Coordinators in large programs often maintain a list of gardens operating in their community, but may not be directly involved in the operation of the garden itself.

Given the variance in the types of coordinators interviewed, it is important to point out that this may be a limitation to the study. Community garden coordinators who work for large garden organizations may have vastly different job duties than a coordinator who oversees the operation of just one garden. For example, a community garden program in Houston works with over 120 gardens across the city. All of these gardens are independently operated by a group of volunteers at that specific garden. The garden organization provides guidance, training, teaches classes, and connects residents with gardens in their neighborhoods. Therefore, because the organization works with so many different gardens, the coordinators’ answers to the interview questions are much more general because they are speaking about several gardens rather than just one. This is in contrast to community garden coordinators who answer the question specifically to their one garden.

Therefore, to correct for this limitation and the inconsistency in the results, I have broken out the results for the successful group into two subgroups, one at the organizational level and one at the individual garden level. Table 3.2 shows the number of community garden organizations versus individual gardens.

Table 3.2

Number and Types of Community Gardens Included in the Study

Group	Subgroup (Individual or Organizational)	Number of Phone Interviews by Garden Location	Number of Written Responses by Location	Total Number of Responses
Successful	Individual	Charlotte (1) Minneapolis (2)	Los Angeles (6) Minneapolis (1) San Francisco (1)	
		3	8	11
	Organizational	Chicago (1) North Carolina (1) Louisville (1) Houston (1) Madison (1) Los Angeles (1) San Jose (1)	Long Beach (1)	
		7	1	8
Subtotal Successful Gardens		10	9	19

Table 3.2 continued

Group	Subgroup (Individual or Organizational)	Number of Phone Interviews by Garden Location	Number of Written Responses by Location	Total Number of Responses
Unsuccessful	Individual	North Carolina (1) Los Angeles (1) Minneapolis (1)		
		3	0	3
Unsuccessful	Organizational	0	0	0
Unsuccessful (Reason for Closure Only)	Individual	0	Los Angeles (1) Louisville (2) Milwaukee (1) Chicago (1) North Carolina (1) San Jose (3) Long Beach (3)	
		0	12	12
Subtotal Unsuccessful/Closed Gardens		3	12	15
Total Number of Responses		13	21	34

Analysis

I analyzed the data by utilizing a comparative case study approach and drawing causal inferences from the successful and unsuccessful community garden groups. I

examined the four factors of land tenure, sociability, participatory decision-making, and leadership within each case study. Finally, I assessed the factors to determine whether they were found in both the successful and unsuccessful groups or if they were only found in one of the groups.

The analysis was a two-step approach that began by identifying the common themes found in both the phone interview results and written responses. I categorized and organized this information into an Excel spreadsheet. In the second step, I examined and discussed the areas across the two groups (successful and unsuccessful) that were similar and different. It is the area of differences where inferences were drawn about the important aspects of the specific factors.

In summary, I identified both successful and unsuccessful community gardens in seven different states across the United States through internet research, the snowball technique, and the use of community garden listserve boards. Standardized telephone interviews, data collected on common reasons for closure, and written surveys comprise the data that were evaluated. In Chapter 4, I will identify the areas of similarity and differences between the two groups.

Chapter 4

SUMMARY OF FINDINGS

The interviews conducted with garden coordinators revealed themes and factors important to the sustainability of community gardens. I will begin by identifying which of the four factors of land tenure, sociability, participatory decision-making, and leadership were present in both the successful and unsuccessful community garden groups, thus removing them from the list of potential causal factors of failure. Secondly, I will identify differences among the two groups and specify which of the four factors were present in one group but not the other. I will discuss these differences and their importance in community garden sustainability based on the inferences drawn from the interviews. Finally, I will discuss additional factors, beyond those suggested in the literature that community garden coordinators state as important for sustainability.

Key Similarities

Sociability

Sociability is present and absent in both the unsuccessful and successful groups. Sociability in this context refers to the extent with which social connections are made within the community garden. In both groups, there is a combination of gardens that have strong social connections and gardens where the social aspect is not observed. Table 4.1 provides a summary of the presence or absence of sociability by subgroup. In the successful individual garden subgroup, eight out of eleven of the community garden coordinators stated that sociability is an important factor to the success of their garden.

Two of these coordinators stated that sociability is “fundamental” to the success of the garden. Three out of eleven garden coordinators from this group affirmed that sociability or social connections are not observed and they do not consider it to be a critical factor in the success of the garden.

Table 4.1

Presence or Absence of Sociability by Community Garden Group

Group	Subgroup	Number of Total Responses	Sociability	
			Present	Absent
Successful	Individual	11	8	3
Successful	Organizational	8	5	3*
Unsuccessful	Individual	3	2	1

*Sociability was present in some but not all garden organizations.

When looking at the successful organizational level subgroup, five out of eight of the garden coordinators felt that sociability was generally an important factor and was present. Three garden coordinators stated that while it is important, it is present in some but not all of the gardens. Therefore, although sociability is present and noted to be an important factor in about 73% of the individual gardens and 63% of the garden organizations, it is not observed in all successful gardens.

When examining sociability in the unsuccessful group, I found that it was present in two out of three gardens. However, interestingly enough, in both gardens that had presence of sociability, each coordinator alluded to concerns with the level of sociability

in each garden. In one garden, the social aspect was described as “weak” since there was very little community involvement and participants were not “plugged in.”

In the second garden, the social aspect took a negative turn. A group of gardeners starting partying and drinking, making it a less than peaceful environment for those outside this social circle who did not want to partake in these activities. It drove many gardeners away and caused many to feel intimidated by the element that had taken control of the space. Although this garden has since been rebuilt, it took the new coordinator two years to turn it around with extensive management and oversight, including informing 80 gardeners that they could not return to the garden.

Since sociability was observed in both the successful and unsuccessful community gardens, it is not likely that the demise of community gardens is due to a lack of sociability alone.

Participatory Decision Making

Participatory decision-making is regarded as important and not important in both the unsuccessful and successful groups. Participatory decision-making in this context refers to the extent by which community garden leaders include garden members into the decision-making process. In the successful individual garden subgroup, 8 of the 11 community garden coordinators acknowledge the importance of participatory decision-making to the success of the garden. Of the eight, two coordinators commented that there has to be a balance between participatory decision-making and having a clear set of rules

and guidelines in place that participants must follow. Without these rules and guidelines, chaos can ensue.

Two garden coordinators mentioned that while participatory decision-making is important, it is often difficult to get participants to take on a leadership role or to attend meetings where key decisions are made. Finally, two coordinators in this group stated that participatory decision-making was of minimal importance and that most decisions were made by the garden committee without the consultation of garden participants. Table 4.2 provides a summary of the responses from coordinators regarding the importance of participatory decision-making for garden success. Table 4.2 responses are to, “How important, if at all, is it to obtain the gardeners’ input regarding the administration and operation of the garden?”

Table 4.2

Importance of Participatory Decision-Making as Stated by Respondents

Group	Subgroup	Number of Total Responses	Participatory Decision-making				
			Important	Important with Caveat*	Important but Difficult	Not Important	Other
Successful	Individual	11	4	2	2	2	1**
Successful	Organizational	8	2	2	2	0	2***
Un-successful	Individual	3	0	1	1	1****	0

*Respondents stated that this factor was important but that rules and guidelines are necessary.
**One respondent did not answer the question.
***Respondents stated that the importance of participatory decision-making depends on what individual garden leaders want to do. It is not a requirement in all gardens.
****Respondent stated that when the garden was in operation, participatory decision-making was not regarded as important.

In the successful organizational level subgroup, six out of eight community garden coordinators maintained that participatory decision-making was important. Like the individual garden subgroup, two of the coordinators stated that a balance between shared decision-making and abidance to rules was important. Two coordinators remarked that while participatory decision-making was important, it was difficult to obtain participation in meetings, elections, or other governance activities.

Two of the garden coordinators stated that participatory decision-making was not a prerequisite for garden success. They explained that participatory decision-making existed in some but not all of their gardens and that its importance depended primarily on whether the individual garden coordinators wanted it included in their governance structures. Therefore, although participatory decision-making is noted to be an important

factor in about 73% of the individual gardens and 75% of the garden organizations, not all coordinators of successful gardens consider it critical to success.

In the unsuccessful garden group, two of the three garden coordinators regard participatory decision-making as important. Despite the fact that they had made attempts to include this factor into their gardens, both coordinators faced challenges with implementation. Like the other groups, one coordinator cited the difficulty in getting garden participants to come to meetings or participate in elections. The second stated that garden participants had so much autonomy and so little oversight (by the previous coordinator) that rules and guidelines were not being followed. Many of the garden participants were cultivating multiple plots to sell produce and used intimidation to prevent other members from gardening at the location. In this example, the garden participants exercised significant decision-making ability but in the absence of supervision, the garden became out of control.

Finally, a third coordinator in the unsuccessful group stated that participatory decision-making was not a part of the garden governance structure. Although the leadership team at the time did not feel that it was an important element to the garden, the coordinator now realizes how participatory decision-making could have helped participants feel more ownership toward the garden, thereby improving participation and success.

Given that sociability is present and absent in both groups and that participatory decision-making is regarded as important and not important in both groups, these factors

by themselves do not appear to be likely causal factors for the sustainability of community gardens. However, there is a very good possibility that when combined with other factors, they do in fact have an important effect, but the strength of these factors is unknown. In the next section, I will explore the differences between the two groups and draw inferences to their existence as a causal factor for community garden sustainability.

Key Differences

Land Tenure

Land Tenure is present in the successful group but not in all gardens in the unsuccessful group. The first identified difference is the issue of land tenure. Land tenure in this context refers to the length of time that the land can be utilized for purposes of the community garden. All gardens in the individual successful group have been able to maintain access to land for at least five years. Table 4.3 provides a summary of the presence or absence of land tenure by group. Although the majority of the community garden programs do not own the land, many have worked out agreements with the owners to utilize the land for a specified period. I excluded the gardens in the organizational subgroup since coordinators answered the interview questions generally, and not in regards to individual gardens. However, one garden organization in Houston, Texas encourages all of its new gardens to obtain land lease agreements in writing for a span of five years. An agreement in writing helps to protect both the landowner and gardeners. Moreover, it helps specify the time span so that gardeners can assess whether

the expenditure will be worth the efforts involved in breaking ground and building the garden.

Table 4.3

Presence or Absence of Land Tenure by Community Garden Group

Group	Subgroup	Number of Gardens in Subgroup	Land Tenure	
			Present	Absent
Successful	Individual	11	11	0
Unsuccessful	Individual	3	2	1

It appears that the relationship that community garden coordinators have with the landowners and the community can have an impact on the land tenure. One community garden in Minneapolis utilizes property owned by the duplex next door. Although the garden has only an annual lease, the landowner likes the community garden and its proximity to his duplex. As a result, the garden program has had access to the land for the last fourteen years. This Minnesota garden coordinator regards consistent and stable land tenure as one of the most important characteristics for garden success. Another garden in Los Angeles that has been in existence since 1974 has encountered two attempts by the city to take over the lease in recent years. Working with the neighborhood, the gardeners were able to avoid both attempts. This provides an example of how community support can influence land use decisions, particularly if the garden is perceived to provide value to the people.

When looking at land tenure with the unsuccessful gardens, one out of three gardens closed after the city decided to use the space for another purpose. As shown in Table 4.4, the data collected on “reason for closure” indicate that out of the fifteen gardens that closed, six closed due to land use issues and an additional two gardens closed due to soil toxicity. Therefore, the data indicate that over half of the gardens closed due to land issues. This underscores the importance of working with landowners to obtain agreements in writing allowing for longer land use. A garden coordinator from Long Beach that has had experience with gardens closing due to redevelopment stated that, “it is important to have a clear lease and to keep in touch with the owners (of the land).”

While it might seem intuitive that land tenure is important, it might not be expected that it is in fact one of the most commonly cited reasons for success or failure. Without land, a community garden cannot exist.

Table 4.4

Reason for Community Garden Closure as Stated by Community Garden Coordinator

Reason for Closure*	Number of Gardens that Closed for this Reason
Redevelopment/Eminent Domain/City Wanted to Use the Land for Other Purposes	6
Leadership Challenges	3
Inadequate Participation	3
Soil Toxicity	2
Crime	1
Total Number of Closed Gardens	15

* Data included from three phone interviews from "Unsuccessful" Group and twelve written responses from "Unsuccessful - Reason for Closure" Group.

Leadership

Leadership is present in the successful group but not in all gardens in the unsuccessful group. The second difference between the successful and unsuccessful groups is leadership. Leadership in this context refers to the presence of a clear leader or structure for garden administration. In both the successful individual and organizational level garden subgroups, garden coordinators emphasized the importance of leadership. All successful gardens in the individual garden subgroup had more than one individual identified as part of the leadership team. Some gardens had formalized structures with a

president, vice president, treasurer, and various committees and Board of Directors. Others simply had the garden coordinator and one or more volunteers that assisted the coordinator with activities related to the garden.

One garden in San Francisco that has been in operation since the mid 1970s experienced a change in their leadership structure in the last three years, changing from a single garden coordinator to a five-member steering committee. According to one of the steering committee members, “Broadening the leadership activities has created a much more effective compost program, the creation of a fruit orchard, an expanded number of plots, and forced stronger garden agreement compliance.” Although the member states that it has made decision-making more difficult, she feels that it has been worth the extra effort and believes that the garden has become more successful as a result of this change.

In the successful organizational level garden subgroup, five of the eight garden programs reported that they have at least one coordinator and at least one volunteer assisting with leadership activities. The three largest garden programs reported that the leadership varies from garden to garden, but they all agreed that the most successful gardens had good consistent leadership and organization. The garden coordinator for a large garden program in Los Angeles stated that, “Leadership is absolutely important, whether it is a Board or just one committed individual, there has to be a contact.”

A garden coordinator in Madison, Wisconsin commented, “You see all types of leadership styles, but regardless, it is critical that they are fair, stay on top of things, and have good communication skills.”

In the unsuccessful garden group, there is evidence of leadership challenges in all three of the gardens. In the first case, the former coordinator attributes the closure of the garden to two factors, a loss of funding and a general lack of interest by the gardeners. The second factor relates to leadership because the coordinator believes that interest in the garden could have been amplified if there had been a more formalized leadership structure in place. He further added that if he, as the coordinator, had the opportunity to foster stronger relationships with the gardeners, he might have been able to generate more buy-in, which in turn could have helped with the sustainability of the garden. He added that, “It is important to get people to think big, to inspire people, to have face to face conversations, to listen to people, to have basic rules, and a conflict resolution method.”

The past coordinator of a second garden spoke about problems with the leadership structure that may have contributed to the garden closure. The garden was a vision of the city administrator’s office and the leadership structure was top down, leaving very little room for community input. This hierarchal structure proved to create an impediment in getting community buy-in. Although the ultimate reason for closure was a decision made by the city to use the land for another purpose, it remains questionable whether the city would have reached the same conclusion if the garden had been flourishing with community support. If the community felt more connected to the space, they might have advocated for its protection, thus sending a message to the city about the value of the garden to the neighborhood.

Finally, the third garden that was torn down and later rebuilt experienced leadership challenges. The original coordinator did not have the time to address the negative social activities that were occurring at the garden. The lack of oversight created an environment in which unruly garden members used intimidation to take control over the garden. When the original coordinator left the position, it took the new coordinator a significant amount of time to transform the garden into a more organized program. By setting and enforcing rules, showing a strong presence and commitment to the garden, and changing the garden culture, the new coordinator was able to revitalize the garden and create a more positive environment.

The strong presence of a leadership structure in the successful garden groups as well as the identified gap in leadership with the unsuccessful garden groups makes a strong case for leadership as a causal factor for community garden sustainability.

Other Important Factors

In addition to the four factors suggested by the literature as critical to the success of community gardens (i.e. sociability, participatory decision-making, land tenure, and leadership), there are additional factors that community garden coordinators cite as important for community garden success. Table 4.5 provides a summary of these factors. These results were generated after asking the general question of, “What characteristics do you feel are important in order for a community garden to be successful?”

Table 4.5

Factors Important for Community Garden Success (As Cited by Community Garden Coordinators)

Factor	Number of Respondents (Out of 22 coordinators asked this question)
Community involvement/Solid enthusiastic group of volunteers/Gardeners that get along	12
Strong leadership/Communication skills/Conflict resolution skills/Knowing your gardeners' interests	11
Strong guidelines/Clear expectations/Rules	6
Secure funding/Fundraising/Access to resources	5
Pride of ownership	5
Garden function/Design/Layout/Location	4
Participant knowledge of gardening	3
Social events/Work parties	3
Stable access to land	3
Safety	2
Starting small	2
Participatory governance	2
Connections to business community	1
Less constraints from government and municipalities	1
Plan for the future	1

As shown in Table 4.5, 12 out of 22 coordinators stated that community involvement and a good group of gardeners is important for community garden success. A close second is leadership with half of the garden coordinators citing this factor. Factors different from the literature include the importance of garden location and layout, recruiting participants that have some knowledge of gardening, a secure funding source, and starting out small. Another commonly cited factor is the need for participants to have pride of ownership of the garden and to foster a culture where participants see the garden as "our" project. A garden culture focused on "we" instead of "me" can contribute to an environment in which participants show respect for fellow gardeners and the neighborhood surrounding the property.

Summary

Throughout my research, I investigated whether the four factors of sociability, participatory decision-making, leadership, and land tenure are critical to the sustainability of community gardens. I identified both similarities and differences between the successful and unsuccessful community garden groups. The differences allowed me to draw causal inferences about factors associated with community garden sustainability. In addition, I was able to identify additional factors, beyond those suggested in the literature that community garden coordinators state as important for sustainability. In the final section of this study, I will draw conclusions from the findings and discuss their broader policy implications.

Chapter 5

CONCLUSIONS

In this research I investigated whether the four factors suggested in the literature of sociability, participatory decision-making, leadership, and land tenure are associated with community garden success. Sociability and participatory decision-making were similar across the successful and unsuccessful groups. Therefore, since these factors are similar in both groups, they are less likely to be causal factors for community garden sustainability.

Differences among the successful and unsuccessful groups serve as plausible causal factors for community garden sustainability. Although I had too few case studies to derive any definitive conclusions, the strong presence of a stable leadership structure in the successful group and the absence of this factor in the unsuccessful group provide support that leadership is a causal factor for community garden sustainability. In addition, land tenure was present in all gardens in the successful group but not in all gardens in the unsuccessful group.

In addition to the four factors suggested in the literature, community garden coordinators cited other variables important for garden success including community involvement, pride of ownership, secure funding, and garden design and layout. Although these factors have not been tested empirically, they are worth noting since they were stated to be important by almost 20% of the coordinators interviewed.

Participatory Decision-Making and Sociability

Although sociability and participatory decision-making did not emerge from this research as being causal factors for garden success, it does not mean that they are not important components. The coordinators who incorporated these factors into their gardens felt that these variables contributed to the success of their gardens. Although the term participatory decision-making is somewhat of a vague term, this research did identify some of the different methods utilized to generate interest and involvement in the decision-making process. The most common methods utilized in the case studies examined were committees and councils (consisting of members from the garden), elections, and decision-making by consensus.

Land Tenure

While land tenure proved to be a causal factor for community garden success, it is important that organizations consider a host of factors before breaking ground on a community garden. Obtaining long-term agreements with landowners is critical for garden sustainability. Therefore, it is imperative that organizations take the necessary steps to implement these agreements with the various types of landowners and agencies. Wasatch Community Gardens, a community-based nonprofit agency in Salt Lake City developed a handbook titled, *From Neglected Parcels to Community Gardens: A Handbook* (Emerson, n.d.). This handbook, which is available free of charge online, provides information about factors to consider when investigating land options, details the best way to work with the various types of landowners (e.g. government or private

land), discusses legal issues surrounding land use, and provides a sample lease agreement. This document is a great resource for any individual, community group, organization, or agency who would like to learn about the steps to take to secure land for their community garden.

Leadership

Leadership is critical to garden success and the majority of successful gardens I examined in this research had more than one individual indentified as part of the leadership team. The majority of successful gardens had formalized structures with a board of directors, steering committees, and formalized positions such as a director, secretary, and treasurer. Many of the gardens that closed had just one individual designated as the leader. Coordinators in the successful group stated that the leadership styles varied from passive to proactive, but we know very little about the affect that these leadership styles have on garden success. Therefore, future research regarding how leadership styles influence garden success would provide useful information regarding sustainability.

Areas for Future Research

When I asked garden coordinators the general question of what factors are important for community garden success, the most common answer was community involvement. Therefore, it seems important to ask program participants why they chose to be involved with the garden and what factors are important to them as a member. The addition of these results to the coordinator responses would provide a more balanced

picture of factors important to garden success. While the garden coordinators typically possess considerable knowledge of the gardens, their views may not accurately represent the views of all gardeners. Furthermore, it depends on the level of the community garden coordinator you are speaking with, whether it the coordinator or manager who only oversees one garden or the coordinator at the organizational level who oversees multiple gardens.

Some garden coordinators stated that sociability and participatory decision-making were not present and they did not consider them important factors for garden success. However, it would have been interesting to survey the gardeners of these sites to see if the absence of these factors makes a difference to them. The limited resources of this research did not permit interviewing the individual gardeners involved in the programs. While this is a limitation to this study, future research could include this element to strengthen the results.

Policy Implications

Land Use Policies

The first major policy implication that emerged from this study is the opportunity for municipalities to include community gardens in their land use policies. Given that over half of the gardens in this research closed due to land issues, it is important to examine ways in which community gardeners can obtain more secure access to land. Local governments can assist in four ways. First, local governments can include community gardens in their city ordinance plans. This can be accomplished by expanding

zoning ordinances to include community gardens, thereby allowing community gardens the same protection as other types of open spaces such as parks. The majority of California's cities have "use-based" zoning laws and community gardens are not addressed in these ordinances, leaving them vulnerable to redevelopment (Public Health Law & Policy, 2009).

Secondly, local governments can grant longer-term leases (5-10 years or more) for community gardens on public property. The city of Seattle leases land to Seattle's "P-Patch" Community Gardening Program for up to five years (Schukoske, 2000). This five-year renewable lease allows an ample amount of time for the planning and implementation of the garden programs, and grants gardeners greater security of tenure.

Third, there are a number of ways in which cities can assist financially with the acquisition of land for community gardens. Seattle has provided their Parks and Recreation Department with bond monies, public housing funds, and neighborhood matching grants for the purchase and maintenance of community gardens. Chicago formed a nonprofit called NeighborSpace with the Chicago Park District and the Forest Preserve District in which each entity contributes funds to purchase land for community gardens (Public Health Law & Policy, 2009). Boston, Philadelphia, Providence, and New York City collaborate with land trusts to acquire and preserve land for community gardens. The land trust can purchase land for permanent protection, accept donations of land or the funds to purchase land, or accept the donation of a conservation easement

which can permanently limit the type and scope of development that can take place on the land (Land Trust Alliance, 2009).

Finally, local governments can take an inventory of all vacant public and private lots suitable for gardening and provide the information to the public. This would assist organizations and community groups with identifying available land for a community garden. New York City has an online system called the Open Accessible Space Information System (OASIS) that provides community maps of all open spaces in the city. The United States Department of Agriculture Forest Service and Natural Resources Conservation Service are the founding partners and funders. Local and state departments provide the data and information services to maintain the system. (Local Government Commission, n.d.)

Training and Technical Assistance

The second major policy application is that local government can play an important role in offering guidance, support, training, and technical assistance to organizations and community groups wishing to start a community garden. Implementing and sustaining a community gardens requires a broad range of skills in community organizing, fiscal management, program development, facilitation, and conflict resolution. In addition to these critical leadership skills, gardens need community support and involvement, a key factor of importance stated by community garden coordinators.

To support these efforts, local governments can collaborate with nonprofit organizations, civic organizations, community groups, and educational institutions to

offer a number of resources to community garden groups and organizations to help them develop, maintain, and sustain their gardens. Assistance can include:

- Gardening classes so that community members can learn the basics of gardening
- Workshops on fundraising, how to apply for grants and how to work with local government and civic entities
- Courses on leadership, conflict management, and community building skills
- General technical assistance on garden site selection and layout

In conclusion, this research examined case studies of urban community gardens in seven different American states to determine whether the factors of sociability, participatory decision-making, leadership, and land tenure are likely to contribute to community garden success. After conducting a qualitative methodological approach with successful and unsuccessful community gardens, I compared differences and similarities across the two groups. I found that sociability and participatory decision-making were similar across both groups and concluded that they are not causal factors for community garden success. Land tenure and leadership were key differences between successful and unsuccessful gardens and therefore concluded that these factors are critical for community garden success.

Local governments are in a unique position to have a significant impact on community garden land tenure through land use policies. In addition, local governments have the potential to facilitate collaboration among various nonprofit organizations,

community groups, and educational institutions to help community garden members and coordinators discover and tap into existing resources, thereby helping to maximize the potential of community gardens.

APPENDICES

APPENDIX A

Table A1 – Research Articles That Address Issues Related to Community Gardens

Article Title/ Author	Purpose of Study/Research Question	Research Findings as it relates to Best Practices
A survey of community gardens in upstate New York: Implications for health promotion and community development. (Armstrong, 2000)	What characteristics of community gardens may be useful to facilitate neighborhood development and health promotion?	The location of the garden and issues of access to land ownership make a difference. Social support and involvement of community lay workers and active, respected community members are important.
Pioneering Healthier Communities: West Michigan: A community response to the food environment (Cyzman, Wierenga, & Sielawa, 2009)	Provides a description of the *Activate West Michigan Coalition's* community and schoolyard gardens and farmers' markets.	Changing the food environment will take a long and sustained societal response. Need to have a comprehensive effort. Community involvement and leadership are necessary to facilitate community change.
Social Capital in the Lived Experiences of Community Gardeners (Glover, 2004)	How is social capital distributed among members of a community garden group?	Racial divide is a barrier to work through. Collective decision-making is important. Success depends on social connections and community support.

Table A1 continued

Article Title/ Author	Purpose of Study/Research Question	Research Findings as it relates to Best Practices
The Story of the Queen Anne Memorial Garden: Resisting a Dominant Cultural Narrative (Glover, 2003)	How does the development of a community garden assist in offsetting dominant cultural narratives that depict the neighborhood in a negative light?	Community gardens can serve as a symbol of neighborhood control and collective efficacy. Queen Anne Garden helped bring identity of Neighborhood Association into being.
Building Relationships, Accessing Resources: Mobilizing Social Capital in Community Garden Contexts (Glover, Parry, & Shinew, 2005)	What do leisure-oriented grassroots associations with few financial resources do to mobilize resources? What role does leisure play, if any, in facilitating the mobilization or resources?	Building relationships, socialization (and the utilization of ties) is key to resource mobilization. Sociability is important for attracting participants and sustaining their involvement.
Diversity & Connections in Community Gardens: A contribution to local sustainability (Holland, 2004)	Can the model of community gardens inform the development, progress, and expansion of local sustainability?	Community input is important. An understanding of community needs and the cultural aspects of the community existing in each community is required. Initiatives based on an individual's vision should be encouraged but long-term development and evolved participation is critical for sustainability.

Table A1 continued

Article Title/ Author	Purpose of Study/Research Question	Research Findings as it relates to Best Practices
Community Gardens and Sustainable Land Use Planning: a case study of the Alex Wilson Community Garden (Irvine, Johnson, & Peters, 1999)	A Case Study that provides an account of the history of the Alex Wilson Community Garden. Examines the connection between ecological restoration and community gardening.	Secure land tenure and creating a sense of stewardship among neighbors, through a sense of belonging & ownership are the keys to the success.
Dig in to Social Capital: Community Gardens as Mechanisms for Growing Urban Social Connectedness (Kingsley and Townsend, 2006)	How does "Dig In" Community Garden facilitate social capital stocks of members?	The layout & design of the gardens worked to facilitate the development of social interaction and connection. Leadership and an active committee make a difference.
Working Toward a Just, Equitable, and Local Food System: The Social Impact of Community Based Agriculture (Macias, 2008)	Examines the social impact of local organic agriculture on the surrounding community	Given class-based disparities in local agriculture participation, local food projects should consider promoting programs designed for broader social inclusion.
Mary, Mary Quite Contrary, How Does Your Garden Grow? Examining Gender Roles and Relations in Community Gardens (Parry, Glover, & Shinew, 2005)	To study community gardens as sites for exploring the influence of leisure on gender roles and relations.	Many females were empowered as a result of their experience as a community garden leader to seek new opportunities or responsibilities outside their garden.

Table A1 continued

Article Title/ Author	Purpose of Study/Research Question	Research Findings as it relates to Best Practices
Urban Community Garden as Contested Space (Schmelzkopf, 1995)	An examination of a community garden in New York.	Community involvement and efforts of city agencies can make a difference. Local residents must be organized so a committed leader is essential. Teaching gardeners technical and organizational skills helps to facilitate self-sufficient gardens.
Community Development Through Gardening: State and Local Policies Transforming Urban Open Space (Schukoske, 2000)	Examines various examples of state laws and local ordinances governing community gardens.	Some state laws recognize community gardens as a permissible public use of state and local land. Localities may determine that community gardens constitute a public use as either urban revitalization or as parks and recreation.
Collective efficacy in Denver, Colorado: Strengthening neighborhoods and health through community gardens (Teig, Amulya, Bardwell, Buchenau, Marshall, & Litt, 2009)	To identify the social processes as described by community gardeners and garden activities that support key social processes.	Collective decision-making is key to the viability and sustainability of the garden. Leadership is also critical. Leaders provide a mechanism for task completion, garden communication, and promoting membership and belonging.

Table A1 continued

Article Title/ Author	Purpose of Study/Research Question	Research Findings as it relates to Best Practices
Community Gardens: Lessons learned from California Healthy Cities & Communities (Twiss, Dickinson, Duma, Kleinman, Paulsen, & Rilveria, 2003)	To discuss the lessons learned from California community gardens.	Most successful gardens had local leadership and staffing, volunteers and community partners, and skill building opportunities.
Growing urban health: Community gardening in South East Toronto (Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007)	Describes results of an investigation of the health impacts of an Ontario community garden.	In all cases, the gardens' ability to function and to promote community development was considered to be hampered by limited resources. Concerns and challenges: insecure tenure, personal safety, growing in contaminated soil, air pollution, and lack of funds.

APPENDIX B

Interview Protocols

Successful Community Garden Questionnaire

1. How many community garden(s) do you operate?

2. How long have your community garden(s) been in existence and who owns the land?

3. What is the demand for a plot at your community garden(s)? If you have a wait list, how long are these lists?

4. What are the main barriers you encounter in managing or operating your community garden(s)? What barriers keep your program from having greater impact?

5. What characteristics do you feel are important in order for a community garden to be successful?

6. Have you had any experience with community gardens that are no longer in operation? If so, what are the factors that caused these gardens to close?

7. In what ways are local residents and businesses actively involved in your community garden(s), including participation and community input?

8. How important, if at all, are social connections to the success of the garden?

9. How important, if at all, is it to obtain the gardeners' input regarding the administration and operation of the garden?

10. Please describe the leadership structure of your community garden(s). How does this leadership influence the garden's level of success?

Closed Garden Questionnaire

1. How long was your community garden in existence? Who owned the land?

2. What was the demand for a plot at your community garden?

3. What were the main barriers you encountered in managing or operating your community garden? What barriers kept your program from having greater impact?

4. What contributed to the closure of the garden?

5. In what ways were local residents and businesses actively involved in your community garden, including participation and community input?

6. How important, if at all, were social connections to the garden?

7. How important, if at all, was it to obtain the gardeners' input regarding the administration and operation of the garden?

8. Please describe the leadership structure of the community garden(s). How did this leadership influence the garden's level of success?

9. What characteristics do you feel are important in order for a community garden to be successful?

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