

Healthy Food Access in Missouri Food Pantries Through Evidence-Based Intervention

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As food insecurity rates have seen a marked increase over the past ten years, a growing number of individuals rely on public and private food programs to meet household food needs. Despite the growing use of food pantries as a consistent food source and the disproportionate occurrence of negative health outcomes among food pantry users, few evidence-based initiatives have been implemented to improve users' access to healthy foods. Consequently, empirical knowledge about the feasibility and effectiveness of programming as a means for improving healthy food access and well-being amongst pantry users remains limited. In response to this gap, the current study used a strengths-based approach to explore the successes, benefits, and sustainability of an evidence-based healthy food initiative launched in two food pantries. Results from this study indicated that healthy food initiatives can successfully increase access to healthy food options and be sustained post-program involvement. The identification and expansion of community support in program development and implementation are key components to program success. Healthy food initiatives at food pantries should focus on capacity-building efforts to promote community support, program success, and sustainability.

Keywords: Evidence-based intervention, food pantry, healthy food access, gardening, rural, capacity building

Securing adequate and nutritious food is imperative to one's health, with many negative health outcomes correlated with poor diet and nutrition (Centers for Disease Control and Prevention, 2012). Food security is defined as the access by all people at all times to enough food for an active, healthy life (Coleman-Jenson, Nord, & Singh, 2013). In contrast, food insecurity exists when at least one person in a household lacks adequate and consistent access to food (Coleman-Jenson & Nord, 2013). Very low food security exists when there is a disruption of eating patterns of one or more individuals in the household due to insufficient financial resources or deficient access to food (Coleman-Jenson, Gregory, & Singh, 2014).

In the United States, 14.3% of households experienced food insecurity at some point during 2013, with 5.6% of households reporting very low food security (Coleman-Jensen et al., 2014). The highest rates of food insecurity have been identified in large metropolitan centers and

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contrasting rural areas, in households with children and minority populations (Coleman-Jensen et al., 2013; Coleman-Jensen et al., 2014; Coleman-Jensen & Nord, 2013; Rank & Hirschl, 2005), and is most commonly predicted by poverty (Cafer et al., 2013; Cook & Frank, 2008; Loopstra & Tarasuk, 2013; Rose, 1999). Rates of food insecurity have increased during the past decade. Specifically, Missouri has experienced the largest increase in the percentage of very low food security and ranked second in the increase in percentage of food insecurity during the past decade (Coleman-Jensen et al., 2014). These trends suggest that an increasing number of Missourians have inconsistent access to food, and an even greater portion are unable to meet the food needs through existing acquisition strategies (Cafer et al., 2013).

Individuals facing food insecurity often turn to public and private nutritional assistance programs to meet food needs. In 2012, 59% of food insecure households utilized government nutritional assistance programs (Coleman-Jensen et al., 2013). Although participation in food assistance programs has been associated with decreases in economic strain related to food acquisition (Mabli, Jones, & Kaufman, 2013), participating individuals and households can, and often do, continue to identify as food insecure. In addition to public assistance programs, an estimated 33.9 million Americans received food from one of approximately 33,500 food pantries operating nationwide (Mabli, Cohen, Potter, & Zhao, 2010). Given the charitable nature of food pantry services, users are at the mercy of donations in regards to health, quality, and availability, with users reporting deficient or undesirable food options (Oberholser & Tuttle, 2004).

Research shows that fruit and vegetable consumption is positively associated with beneficial health outcomes (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010), yet these foods are often limited in food pantries. Compared to the general public, food pantry clients consume reduced quantities of fruits, vegetables, and fiber (Duffy, Zizza, Jacoby, & Tayie, 2009; Robaina & Martin, 2013). Many pantries only provide fresh fruits and vegetables during a portion of the year (Jensen, Heflin, Hermsen, & Rikoon, 2011), with typical fruit and vegetable provisions including less nutrient dense options like potatoes and onions (Ross, Campbell, & Webb, 2013).

The consequences of food insecurity for individuals and households are wide-reaching; food insecurity has been linked to adverse outcomes in economic, social, physical, and psychological domains (Cafer et al., 2013; Cook et al., 2004; Lee & Frongillo, 2001; Stuff et al., 2004). Most notably, food insecurity has been linked to a plethora of negative health outcomes, including diabetes, high blood pressure, high cholesterol, and obesity. Researchers have consistently found significantly higher rates of identified negative health conditions among food pantry users (Cafer et al., 2013; Foulkes, Heflin, Hermsen, Raedeke, & Rikoon, 2011). Noted disparities in pantry users' access to healthy food, coupled with the deleterious health-related costs of food insecurity, suggest a need to attend to the social determinants of health and food access in food pantry populations.

Despite the growing use of food pantries as a consistent food source and the disproportionate occurrence of negative health outcomes among food pantry users, few evidence-based initiatives have been implemented to improve users' access to healthy foods. Consequently, empirical knowledge about the feasibility and effectiveness of programming as a means for improving healthy food access and well-being amongst pantry users remains limited. In response to this gap, the current study used a strengths-based approach to explore the successes, benefits, and sustainability of an evidence-based healthy food initiative launched in two food pantries. Three primary research questions guided the study:

- Q1. Was the evidence-based healthy food program successful in promoting gardening and healthy food access?
- Q2. What factors were associated with program successes?
- Q3. What program activities were sustainable and what organizational factors promoted this sustainability?

Growing Together

Growing Together is an evidence-based healthy food initiative informed by the work of an interdisciplinary research team at a Midwestern university. The initiative addressed health disparities identified among food pantry clients through three primary goals:

1. Increasing the capacity of local food pantries to initiate programs, projects, and policies to increase access to and consumption of healthy food for pantry users;
2. Enabling food pantry users to grow fruits and vegetables in home and community gardens; and
3. Creating a peer learning network for food pantries and their partners across the state to disseminate best practices among the more than 400 pantries statewide.

These goals and the premise of Growing Together were derived from data indicating that 40% of food pantry clients utilized gardens as a food source (Cafer et al., 2013). Importantly, the current study was designed with goals one and two in mind; goal three will be explored in a later study.

Growing Together program participation included a two-year intensive partnership between program administrators, food pantry staff, and community members. Food pantries were selected for participation based upon the pantry's willingness to provide a central space and support for project activities (e.g., garden seed distribution), form a Wellness Committee, and provide gardening opportunities within the community. Beginning in year three, participating pantries assumed primary responsibility for day-to-day operations of project activities (e.g., resource distribution, community education) but were provided with ongoing support as needed. During the first year of program activities, two food pantries were selected for participation;

these pantries are the focus of this study. In years two and three, two additional pantries were added annually.

Growing Together provided vegetable seeds and transplants, educational materials, and one-on-one advice (e.g., how to plant and harvest produce) during food pantry distributions.

Additionally, Growing Together administrators worked with food pantry staff to identify and connect individuals in the community through the development of “Wellness Teams.” These teams provided an opportunity to formalize partnerships within the community that serve to carry out program activities and share the financial responsibility and labor necessary to carry out the added gardening activities at the food pantry. Finally, Growing Together provided financial support for developing opportunities to expand access to gardening space for pantry clients. This financial support could be utilized for establishing or expanding a community garden or the purchase of tools and equipment needed for community garden activities.

Methods

Sample

The first cohort of food pantries in Growing Together made up the bounded system for this study. The included pantries are located in the rural, nonmetropolitan cities of Robertsville and Chandler in Missouri. Both pantries have been in operation for over 15 years, are housed in permanent locations in the main business district of their respective cities, and serve a combined total of roughly 2,000 clients per month.

Robertsville. The city of Robertsville is located in Richards County and is the county seat. The city is home to 1,700 people, roughly 30% of the county’s population. During the last decade, the county population decreased by nearly 5%. The residents of Richards County are predominantly white (98%); Hispanic or Latino persons account for 1.6% of the population. While the percentage of high school graduates or equivalent is higher than statewide rates, rates of college level educational attainment are less than half of the statewide average. The unemployment rate for the county is 8.7%, and 18.4% of the county population lives below the poverty level; both of these economic indicators are above state averages.

Founded in 1999, the Robertsville pantry moved to its current location in 2013. The pantry serves approximately 850 people during its monthly distribution. With a newly renovated building, the pantry includes classrooms, a kitchen, and a thrift shop. Nearly 50 volunteers from the community and surrounding county provide all of the labor necessary to carry out its operations.

Program efforts in Robertsville focused on the development of partnerships to provide a wider range of centrally-located services within the rural community. The action plan developed by the community wellness team included six major goals: 1) stay connected with area Community Health Needs Assessment, 2) increase partnerships in the community in order to host a greater number and range of hosts during food pantry distributions, 3) develop partnerships to provide transplants for pantry clients, 4) expand offerings for seed distribution and gardening education program during food distributions, 5) identify options to support the continuation of seed and transplant distribution, and 6) host tool drives to ensure access to necessary tools for pantry clients. The food pantry also attempted to develop a community garden.

Chandler. The city of Chandler is located in Sharron County and has a population of 4,200 people, roughly 10% of the county population. The county population is predominantly White (91%); African American, Hispanic or Latino, and Asian populations each account for roughly 3% of the remaining population. County high school graduation rates and percentage of college graduates is similar to statewide rates. The unemployment rate for the county is 7.7%, and 18.1% of the population lives below the poverty level. Both of these economic indicators are above statewide averages.

Also founded in 1999, the Chandler Community Center serves over 1,000 people each month. Housing multiple agencies, a thrift shop, and educational classrooms, the pantry has expanded to become a community resource center, offering an array of services for low-income families. The pantry has five paid staff, two of which are full time. Additionally, over 90 local volunteers help to carry out community center operations.

Program efforts at the Chandler Community Center focused on developing a community garden and expanding opportunities for youth engagement in gardening. Additional goals outlined in the wellness team action plan included development of partnerships to expand provisions of seeds and transplants to pantry clients and identification of ways to continue seed distribution and garden education post-program participation. Additionally, the program engaged homebound pantry users in container gardening activities.

Procedure

Collaboration within- and between-pantry affiliates, community businesses and citizens, program implementers, and researchers was seen as key to uncovering pantry needs and available resources. As such, “Wellness Teams” consisting of pantry staff and volunteers, community members, pantry users, and project coordinators were created to assist with advising, developing, and implementing project activities. Specifically, Wellness Teams created individualized action plans for pantries and identified strategies that could increase provisions of local, healthy food options to pantry users – a central goal of the project. Healthy food access was promoted though

pantry policy implementation, local food partnerships, access to community gardens, and the promotion of personal food production. Importantly, pantry users also guided project activities; project adjustments were made in accordance with changes in user and community needs.

Consistent with case study methods, a wide range of data regarding program implementation and program outcomes was collected. Document analysis, gardener survey datasets, and interviews with food pantry directors allowed for exploration of the study's main goals through multiple vantage points. Document analysis was utilized to provide information on the activities, implementation strategies, and outcomes of the Growing Together program at each pantry. Documents included the grant proposal and yearly progress reports to the program funder.

Additionally, interviews were conducted with participating food pantry directors at the beginning and end of program involvement. Pantry directors served as primary informants based upon their knowledge and insight into pantry operations and activities of pantry Wellness Teams. Interview days/times were selected by pantry directors and took place at the food pantries for both convenience and comfort. Pantries were also selected as interview locations to ensure access to pantry information.

A graduate research assistant closely affiliated with the project conducted the interviews. Interviews lasted approximately one hour and fifteen minutes and were based on a 50-question, semistructured survey protocol concerning four major areas: pantry operations; role of food pantry; types, quantities, and sources of food; and program participation. Pantry director interviews were conducted during February and March of 2015, following two-year participation in Growing Together. Post-participation interviews were also conducted to determine the sustainability of implemented pantry programming. Interviews conducted pre- and post-program participation allowed for investigation of directors' experiences across time. This multimethod data collection approach allowed for a more holistic representation of program activities.

Analysis

Interview data were coded using a three-step process. Descriptive codes were developed during initial readings of the transcripts using direct words and quotes to identify concepts (i.e., open coding). Transcripts were re-read, and related open codes were grouped together to form categories (i.e., axial coding). Finally, from these categories, holistic themes were then identified. Researchers utilized triangulation, member and peer checks, and a multimethod data collection approach to ensure rigor. A holistic review of the collected data revealed consistency in reporting across all forms of data, boosting researchers' confidence that directors' reports were in fact fair representations of their experiences with Growing Together.

Results

Q1: Was the Growing Together program successful in promoting gardening and healthy food access?

Document analysis of program activities provided insight into the success of the program, as well as barriers to participation in gardening-promotion activities experienced by some clients. Roughly 45% of pantry users participated in program activities for each of the locations. Of those that picked up materials during distributions, 85% of survey respondents utilized materials provided by Growing Together to plant a garden. Individuals that reported not having a garden indicated that they shared the materials with friends and family. Of those that planted gardens, 90% reported having successful gardens, marked by reports of food growth and harvest. Of the 10% that reported garden failure, chief causes included too much rain or flooding early in the season, poor soil conditions, physical limitations, drought, pest and animal problems, lack of access to a tiller, and the inability to water.

Usefulness of program activities was evaluated during client post-test surveys each year of participation. Specifically, respondents were asked to rate the usefulness of seeds, transplants, garden discussion/advice, container gardens, and educational handouts. Respondents generally rated all gardening resources as “very useful,” and provisions of garden seeds and transplants were reported as most useful for gardeners. Respondents often commented on how the provision of garden resources (e.g., seeds) allowed them to garden without concern for the economic strain associated with establishing a garden.

Information about garden productivity was collected throughout program participation. A self-report measure asked individuals to compare the productivity of their current garden to last season’s garden on a 5-point Likert scale, with lower scores indicating less productive gardens. The majority of gardeners reported productivity between “somewhat” and “very productive,” with an average reported productivity of 3.9. When comparing productivity to previous years’ gardens, 52% of program participants indicated an increase in garden productivity.

Nearly all individuals who gardened (97%) reported using their garden produce fresh from the garden, and many reported saving or storing produce for use during nongardening months. Approximately 48% canned and/or froze some of their produce. The majority of gardeners indicated that they canned (51%) or froze (60%) more produce when compared to the previous year. Ninety percent of gardeners reported sharing their produce with others. Most gardeners shared with friends, family, and neighbors, and roughly 7% of respondents reported sharing with organizations such as senior centers, food pantries, or food banks. Seventy-five percent of respondents indicated that they shared the same or more during program participation when compared to previous years.

Q2 and Q3: What factors were associated with program successes? What program activities were sustainable and what organizational factors promoted this sustainability?

In addition to gardener surveys, interviews with food pantry directors provided insight into the perceived success of program participation, as well as perceptions of program sustainability following program facilitators' decreased involvement. Although participation objectives and outcomes varied between the two food pantries in the cohort, key themes emerged in both directors' narratives about their experiences with the program. Specifically, community support and leadership were described as important to pantry and program success. Together, these themes (and their related subthemes) provided insight into the usefulness and relevancy of program activities and goals, as well as the concept of capacity building.

Community support. Community support emerged as an important driver of program success and usefulness. Food pantry directors emphasized the importance of key, related concepts of volunteerism, place, and partnerships. Additionally, pantry directors indicated that prior to their partnership with Growing Together, community support played a key role in providing existing foods and services.

Volunteerism. Volunteerism was critical to pantry operations at both locations. Volunteers carried out the majority of food pantry labor, including activities of home deliveries, food distribution, thrift store operations, and local food pick-up. In Robertsville, all positions within the pantry were fulfilled by nearly 50 volunteers. The Chandler pantry had five paid staff, but relied heavily on the assistance of over 90 volunteers to carry out the many services of the Community Center.

While the need for volunteers and the demographics of volunteers was quite similar for both pantries, the outlook on volunteer recruitment and assistance differed between locations. Within both locations, the majority of volunteers were retired community residents. An aging volunteer force was a cause for concern within the Robertsville pantry; specifically, the pantry director expressed concern that the activities the pantry was able to offer were limited by its aging volunteer network: "It's not that we don't have great volunteers, but they're aging, and some of the positions here require more strenuous activity than they're used too...or need to be doing at their age." Conversely, the Chandler director viewed the pantry's aging volunteer base more positively. Volunteer opportunities were seen as a way for an aging demographic to engage with the community and their peers while promoting a sense of self-worth.

Volunteer engagement in project activities emerged as a contributor to project sustainability and success. When volunteers were perceived as active, engaged contributors to pantry operations, pantry directors were more optimistic about pantry successes and program sustainability. Comparatively, when volunteers were lacking or appeared disengaged, directors were less

hopeful. For example, when asked about the possible continuation of programming, the Robertsville director identified the volunteer base as a key area of concern, stating, “I think that’s the downfall, I think it’s just people. We’re a small community, and we don’t seem to have as many volunteers as I would like.” Given the lack of volunteers and noted difficulties in recruiting new (and younger) volunteers, continuation of all project initiatives was perceived as unlikely.

Similarly, the director at Chandler stressed the importance of volunteers in implementing programs; however, the volunteer network was perceived as less of a limiting factor and more of a motivator to expand resources and programs for clients. “We just started it [the community garden] right before you guys [Growing Together] joined forces, so I just felt like the idea and concept was good, but you see so many times these things failing...lack of volunteers.” Within Chandler, there is a surplus of volunteers, and many are directed to other local agencies because the pantry’s volunteer needs are saturated. This surplus provides opportunity for dedicated volunteers to work on gardening and educational initiatives without taking away from other operations within the Community Center. It also provides an improved outlook for program sustainability after participation.

Place. The physical location of the food pantries played an important role in defining the operation and eliciting support from the community. Both pantries were centrally located within their respective communities and housed multiple resources for clients in a single location. In both locations, a thrift shop was located in the same building as the food pantry and offered affordable shopping opportunities for clients and community members.

Prior to establishing permanent pantry sites, both locations reported lower community awareness of pantry activities, amounts of food donated, and levels of trust of their services. The Chandler director stated, “This community is really funny when something first starts. There’s a little hesitancy to see if it’s going to be successful.” Permanent physical locations allowed for the stability of services and the opportunity for growth within each pantry. In Chandler, the physical location allowed multiple agencies to be housed at one location, thereby centralizing many services that clientele typically utilized. In Robertsville, transitioning from a mobile pantry to a permanent location with an address literally “put us on the map.” Directors perceived that permanent, physical locations allowed for growth and provision of services not previously offered. Land ownership also allowed for the creation and expansion of a community garden at the Chandler location. Without this space and control over its use, the pantry director doubted that the success experienced in the community garden would have ever occurred. Additionally, the culture present within these rural locations proved to aid in client participation and acceptance of gardening activities. Directors from each pantry indicated a history of gardening, recognizing that “I always worked in a garden with my parents and raised our own food.” The directors felt that this was a common experience within their communities, and

gardening surveys confirmed their reports. Ninety percent of respondents had previous experience vegetable gardening. Between both locations, the average experience of gardeners was nearly 24 years. Familiarity with gardening and a cultural acceptance of the practice as a vital food source were perceived as contributors to program success.

Partnerships. Partnerships allowed for a network of supports in each community but were largely dependent on the presence of available community resources and personal knowledge and connections of pantry directors, staff, and volunteers. Pantry directors, both reporting a lack of knowledge about promotion of personal food production (i.e., “I had no idea when to plant certain things...there was a lack of knowledge” – *Robertsville director*), cited partnerships as critical to expanding pantry services. Wellness Teams consisting of pantry- and non-pantry-affiliates allowed for sharing of resources, including personal connections, skills, and knowledge, that better enabled pantries to meet client and program needs. Such partnerships allowed pantries to maintain focus on existing services while fostering expanded opportunities. Directors credited Growing Together as a facilitator of partnership creation: “(We) didn’t have those partnerships until after you guys [Growing Together] got involved and were able to bring in Master Gardeners and local garden shops” (*Chandler director*).

In Robertsville, Wellness Team objectives centered on service expansion, and partnership creation and maintenance were seen as primary means for achieving this goal. In addition to Wellness Teams, other noteworthy partnerships that were identified and utilized in Robertsville included university Extension agents, the department of transportation, the department of conservation, the county health department, and the community action corporation. Considered collectively, partnership engagement allowed for expansion of services in other needs-driven areas (e.g., provisions of child car seats, flu vaccines, insurance counseling, personal financial planning, canning and pressure gauge testing, and transplants for gardeners).

In Chandler, Wellness Team objectives centered on the development and expansion of the pantry’s community garden and increased garden involvement amongst youth. To address their goals, partnerships were developed with the local Master Gardener group, various local businesses, and the Chandler 4-H club. Partnerships with local businesses provided financial support for garden development, with a local nursery providing support for gardeners and discounts to pantry clients on seed and transplant purchases. When community garden spots were not completely filled by pantry clients, local businesses adopted community garden spots, donating time and resources to plant and maintain the plot. Harvest from adopted plots was then donated to the food pantry.

Leadership. The second theme that emerged in director’s narratives was the concept of devoted and driven leadership. The importance of this theme resonated at all levels of the program, from Growing Together staff to pantry directors to community garden leaders. Attributes of

leadership that were perceived as most important to program success included the passion and vision of leaders and the sourcing and provision of funding.

Passion and vision. The importance of passion and vision of leaders was identified at multiple levels, from the food pantry director to project coordinators to partners of the program. Both pantry directors identified a personal connection with their communities, fostering a desire to meet their community's needs. The Robertsville director stated:

I just care about the community. I grew up here and lived away for several years and have found myself back. Robertsville is always going to be home. It's a sense of pride and it's great to see Richards County flourish. I'd love to see that.

In addition to this personal connection, the view of the pantry as a holistic resource emerged as a common motivator for participation in programs that seek to empower individuals and meet the array of needs that clients face. While limited by the nature of pantry operations, the Robertsville director stated:

I think Growing Together is by far the most positive program that I've seen as far as this pantry. Anything that teaches people sustainability or has them growing their own food is, in my opinion, a lot better than just giving them food.

This desire to provide opportunity for clients to obtain food without needing assistance from the food pantry was echoed by the Chandler director:

We'll help you with your temporary emergency needs through the food pantry, through the benevolent financial assistance, through the thrift store if you need supplies, but we also want to provide you with that training to help you get out on your own.

Identified traits of enthusiasm and compassion for clients proved to be critical to the success of programs, as well as client reception to programs. When speaking of Growing Together coordinators, one pantry director stated that, "when you like what you're doing and you care and feel like you're making a difference...it just shows." The director went on to speculate that the client's perception and utilization of new resources was largely affected by the passion of pantry and program leadership. This enthusiasm was perceived as extending far beyond project coordinators and was also of great importance within pantry leadership. As one director put it, "my volunteers will be as enthusiastic about a program as I am. I mean, simply put, if I come in on fire about something, they're going to be on fire." Such transmission of desire and passion was viewed as central to promoting positivity about new programs and initiatives and was believed to be influential in shaping volunteers' and partners' attachment to and ownership of program goals and activities.

Sourcing of funds. Funding was identified as both a promoter of and obstacle to implementing and maintaining pantry and program initiatives. As part of the Growing Together program, food pantries had access to funds to develop gardening opportunities. Moreover, program provisions of seeds and educational materials were free. Directors identified the financial assistance of the programs as a catalyst for service expansion; such funds allowed pantries to become more financially stable prior to taking on the whole of project expenses and subsidized large initial purchases that they would have not been able to otherwise afford. One director noted, “I just felt so blessed from the financial support and all the resources that you guys [Growing Together] brought in.” Sourcing funds for maintenance of gardens and related equipment was perceived as a more manageable task than making the larger, initial capital investment of garden creation. Echoing these sentiments, the second pantry director stated that the Growing Together program allowed the pantry to get “on its feet financially” after moving into a new building, while simultaneously allowing for service expansion within the pantry.

Given that programs are unable to function without capital investment, both directors indicated that the sourcing of funding was their main concern regarding the sustainability of programs. Moreover, both directors described a sense of personal responsibility for securing funds that would allow for continuation of program activities (e.g., seed distribution, educational opportunities, expansion of a community garden). The ability of leadership to find sources of funding was identified as vital to the pantry’s ability to sustain program initiatives. One pantry, faced with a small budget and sole-volunteer-operation, hopes to fund future programming through informal connections made with local seed distributors and funding from local donations. The second pantry is currently looking for grants that will allow for the continuation of program activities, and the expansion of gardening and educational opportunities within the community.

Discussion

Corresponding with increasing rates of food insecurity, a growing number of persons are relying on charitable food sources to combat hunger. Concerns regarding the quality of food provided by charitable organizations, coupled with disproportionate rates of negative health outcomes amongst food pantry users, have resulted in the development of programs that strive to meet the diverse, emergent needs of pantry clientele. As food pantries, specifically rural pantries, may lack the resources necessary to address critical social problems of healthy food access and overall health of pantry users, empirical exploration of the viability of supplementary programming in meeting pantry users’ needs is warranted.

This case study explored the utility and sustainability of Growing Together, an evidence-based program designed to increase pantry users’ access to healthy food within two Midwestern pantries. Results from garden reports and interviews with pantry directors speak to the

program's success. Implementation of Growing Together increased pantry users' access to healthy foods; bolstered community supports within- and between-pantries and their communities; and facilitated development of leadership at individual, dyadic, and community levels. Although the small, homogenous sample limits the generalizability of the findings, results suggest that programs designed to promote healthy food access in charitable food organizations can be successful and sustained post-program involvement.

Limitations

Despite the noted strengths of the study, it is not without its limitations. Researchers and authors maintained professional and personal relationships with pantry directors for a prolonged period of time (approximately two years). While the length of these relationships is considered a strength of the study, the researchers recognize that their direct involvement with Growing Together program participants may have inadvertently influenced participants' willingness to candidly share concerns about their program involvement and the program's delivery. Researchers attempted to account for potential bias through their use of triangulation, and member and peer checks. Furthermore, the small sample size of this case study limits the generalizability of these findings to a broader context. As each food pantry operates within a unique system of partnerships and social systems, it is difficult to provide overarching and concrete themes that will apply universally for healthy foods initiatives. However, findings provide support for capacity building approaches that employ some level of reflexivity within their programs.

Program Sustainability and Future Directions

The role of community capacity building was a cornerstone of Growing Together goals and was routinely identified by pantry directors as key to program success. Centered on the engagement of community members in program development and implementation, community capacity building approaches develop a sense of ownership among program participants and link previously unconnected individuals, groups, and resources. While both pantries reported successes related to the program's gardening initiatives, differential degrees of community capacity development and overall community engagement at each location were cause for concern regarding the sustainability of program activities moving forward.

The ability to engage community members, most notably new, young volunteers, in pantry activities was identified as an overarching issue for the Robertsville pantry. Throughout their participation in Growing Together, the Robertsville pantry had a difficult time engaging new community members or groups to assist in the development of either the community garden or the implementation of seed and transplant distribution at the food pantry. The majority of new program activities were taken on by current food pantry volunteers. Growing Together

implementers consistently attempted to promote connections with local businesses and school agriculture programs; however, few new relationships came to fruition during the pantry's participation in the program. Consequently, the Robertsville pantry still relies on informal ties and existing volunteers to provide seeds and transplants. While well intentioned, the pantry faces the challenge of maintaining food distribution, continuing Growing Together gardening programs, and cultivating community partnerships on volunteered time. With limited time and resources, the continuation of Growing Together activities is uncertain, unless key connections can be made with community resources to direct and carry out specific program efforts.

The Chandler pantry faces no shortage of assistance within food distribution and pantry operations; however, the number of individuals involved within the implementation and maintenance of the community garden presents cause for concern. During participation in Growing Together, the Chandler pantry cultivated a relationship with the local Master Gardener group. This group provided insight, knowledge, and skills necessary to create the garden and provide support for new gardeners growing at the community garden. While multiple members of the group participated in the planning and oversight of garden activities, one individual emerged as the leader of these efforts. This limitation places the burden of activity sustainability on the actions and abilities of a single individual and consequently makes the program more susceptible to interruption or failure.

Though the findings from this research are limited to the experiences of two food pantries, potential connections between pantry structure, community involvement, and the programs that they can offer emerged as universal experiences within the Robertsville and Chandler pantries. The structure of food pantries and the availability of a dedicated labor force appears to be a central element to pantry programs and operations. Within the Robertsville pantry, the strictly voluntary nature of workers limits the time available for work at the pantry, as well as the ability to attract employed or younger volunteers. With limited time, volunteer efforts focus on the primary operations of the food pantry and potentially limit time for the development and implementation of additional programs. In contrast to the Robertsville pantry, the Chandler Community Center gainfully employs multiple individuals. With such paid positions, specifically a full-time paid director, individuals have dedicated time for securing funding, volunteers, and programs for the pantry.

Community engagement provides opportunity for pantries to diversify programs and work around potential limitations of pantry structure. In Chandler, the partnership with the local Master Gardeners provided a knowledge base for project activities that pantry employees did not have. This support from dedicated interest groups or organizations is mimicked in their approach to educational and outreach programs at the pantry. Through the partnership with a local school, pantry employees do not have to become experts on a variety of subjects but can instead rely on the training and knowledge of educators within their community. The lack of

diversified engagement with community resources did little to help overcome barriers to program sustainability in Robertsville.

The two pantries within this study are the first of three cohorts to participate in the Growing Together program. As a reflexive program, the experiences of these pantries will help to inform the partnerships, strategies, and goals employed with subsequent pantries. Extending beyond this project, these findings help to promote capacity building and evidence-based approaches in healthy food initiatives. Further research should be conducted with the subsequent cohorts to substantiate current findings and provide greater depth to information garnered from the current research. Additionally, there is a need for the clear documentation and open dissemination of further evidence-based programs at food pantries. The sharing of information within and between universities and the programs and agencies designed to combat these issues is vital for meaningful progress to be made. Through active dialogue, insight derived from successful programs and initiatives may be applied to a greater range of conditions and geographic locations, with continued assessment providing an even broader scope of knowledge.

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