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Framing Food Access: Do Community Gardens Inadvertently Reproduce Inequality?

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Abstract

Background—Alternative food programs have been proposed as solutions to food insecurity and diet-related health issues. However, some of the most popular programs—farmers markets and community-supported agriculture—overwhelmingly serve White and upper-middle-class individuals, exacerbating food security and health disparities. One explanation for the mismatch is the way in which alternative food programs are framed: Language used to encourage participation may reflect priorities of upper-middle-class and White populations who create and run these programs while lacking resonance with food-insecure populations. This literature, however, lacks consideration of how lower-cost, more participatory programs—community gardens—are framed. We therefore explore the framing of community gardens through a quantitative content analysis of the descriptions, missions, and goals provided by community garden managers across Minnesota ($N = 411$).

Results—Six frames were consistently present in the community garden statements: greater good, community orientation, healthy food access, food donation, self-empowerment, and symbolic food labels. Greater good and community orientation were significantly more likely to be used than any other frames.

Conclusions—Taken together, our findings suggest that community gardens may be welcoming toward a diversity of participants but still have room to improve the inclusivity of their frames. The common use of a community orientation suggests the unique ability of community gardens among alternative food programs to benefit Black, Latino, and working-class populations. However, the most common frame observed was “greater good,” suggesting one mechanism through which community gardens, like other types of alternative food programs, may be reproducing inequality through alienation of food-insecure populations.

Keywords

community gardens; content analysis; disparities; food access; race and class

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Author Contributions

KLB conceptualized the study, analyzed the data, and wrote the complete manuscript. ASR provided substantive conceptual revisions and guidance and funding for the content analysis. All authors reviewed and commented on subsequent drafts of the manuscript and approved the final version.

Declaration of Conflicting Interests

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Hunger in the United States remains a pressing social problem. In 2014, 14% of U.S. households were identified as food insecure or unsure of having enough food at one or more times throughout the year (Coleman-Jensen et al., 2015). Rates of food insecurity are higher among Black (26.1%) and Latino households (22.4%) and those at or below the poverty line (39.5%; Coleman-Jensen et al., 2015). Living with limited access to healthy food results in less healthy diets and negative health effects, including diabetes, heart disease, and other diet-related diseases (Adams et al., 2003; Hinrichs, 2010; Morton & Blanchard, 2007).

Food-insecure populations face multiple barriers to accessing affordable, fresh food, including poor food environments with limited access to low-cost healthy and fresh foods (Hilmers et al., 2012; MacNell et al., 2017; Sullivan, 2014; Valdez et al., 2016; Zenk et al., 2011). Researchers and activists alike have suggested that alternative food programs, such as community gardens, community-supported agriculture (CSA), and farmers markets, may help alleviate food access limitations and diet-related diseases, particularly in areas where supermarkets are not feasible solutions (Fang et al., 2013; Larson et al., 2009; Lawson, 2005).

While findings are limited on the ability for alternative food programs to alleviate food insecurity specifically, these programs provide a variety of positive outcomes, including distinct benefits valued among different demographic groups (Table 1). For example, Alkon and Norgaard (2009) document a farmers market valued by its Black participants as a means of empowerment through challenging racism within the American agri-food system and maintaining cultural identities through social interaction, music, and the presence of specific types of food. Similarly, cultural preservation and empowerment were especially valuable benefits of South Central Farm, a community garden founded by members of a low-income, Latino immigrant community in Los Angeles (Hondagneu-Sotelo, 2014; Lawson, 2007; Peña, 2013). Guthman (2011) provides examples of White alternative food program participants focusing on the importance of food labels that they find symbolic of what they consider to be healthy food—mainly “local,” “organic,” or “sustainable” food. This is not to suggest that Blacks and Latinos do not value local, organic, or sustainable foods, as understandings of such may be encompassed within the cultural traditions they seek to preserve (Calvo & Rueda Esquibel, 2015). McEntee (2011) shows that low-income participants of alternative food programs (including local food stores, farmers markets, and gardens) primarily articulated the importance of having access to affordable, fresh food. In contrast, high-income participants focused on the importance of the environmental and social benefits of alternative food programs, including sustaining local farmers, the local economy, and the environment, and reflected a somewhat paternalistic top-down approach to problem solving (McEntee, 2011).

However, the effectiveness of farmers markets and CSAs in providing all of these distinct benefits has been limited, given that these programs may primarily serve White and high-income individuals (Alkon & Agyeman, 2011; Guthman, 2011; McEntee, 2011; Slocum, 2007). One explanation for this limited effectiveness is rooted in debates about their meaning and purpose. Through ethnography and interviews with program managers, previous studies have argued that farmers markets and CSAs focus on ideologies and goals that more closely align with the values of already-advantaged groups, primarily White adults

and those with higher incomes (Guthman, 2008, 2011; Guthman et al., 2006; McEntee, 2011). McEntee (2011) found that alternative food programs often focus on environmental or social goals, which lack resonance with low-income individuals for whom daily subsistence is a more pressing concern. Similarly, Guthman (2008) found that the narratives driving alternative food program participation reflect “Whitened cultural histories” that overlook both the historical role of racism in the food system and the desires of Blacks and Latinos. The result is that this focus makes alternative food programs less welcoming to Black, Latino, and low-income participants.

However, this literature has focused on how farmers markets and CSAs are framed and lacks consideration of how lower-cost, more participatory alternative food programs—community gardens—are framed. Community gardens are cooperative endeavors, providing resources for people within a community to come together to cultivate food (Lawson, 2005, p. 3). These more hands-on programs may encourage more diverse membership that support benefits of affordable fresh food, cultural preservation, and empowerment, particularly given their low cost of participation and long history of aiming to serve disadvantaged populations in the United States (Lawson, 2005).

Study Aim

The present study thus focuses on how community gardens articulate their missions. We use data collected by Gardening Matters (now Minnesota Community Gardening, 2018), a nonprofit organization in Minnesota focused on promoting and preserving community gardens across the state, to examine what are the dominant frames used by community garden organizers when describing their garden and its mission or goals? In answering this question, we reveal the extent to which community gardens utilize discourse disproportionately focused on the benefits valued by White and higher income participants, a pattern demonstrated among farmers markets and CSAs (Alkon & Norgaard, 2009; Guthman, 2011; McEntee, 2011).

Methods

We performed a quantitative content analysis (Neuendorf, 2016) of the descriptions and missions/goals of community gardens across the state of Minnesota to examine how community gardens are framed.

Data

The data include descriptions, mission statements, and goals from managers of community gardens across the state of Minnesota. The data were collected by Gardening Matters (2018; now Minnesota Community Gardening). Gardening Matters collected data as part of an ongoing mission to maintain a comprehensive database of community gardens in Minnesota. The data used in this article were most recently updated in 2014 and include responses from managers of 644 gardens across the state of Minnesota.

This data set is uniquely useful because of its inclusion of garden descriptions and missions/goals, despite the significant limitations arising from the state’s demographics (fewer Black

and Latino residents and higher median income and education rates than the United States overall; see Table 2). The survey asked each garden manager to provide a 50- to 100-word description of their garden that would be made available to the public online. Managers were further given the opportunity to provide additional missions and goals that would not be included in the organization's website, like target demographics or gardening activities. We combined these responses when conducting our content analysis. We used listwise deletion (Molenberghs et al., 2015) to remove observations that provided no garden description or mission/goals. The final data set includes 411 community garden statements (64% of the sample of 644).

Codebook Development and Coding Procedure

Using an iterative inductive and deductive process (Kondracki et al., 2002; Ramírez et al., 2017), we developed a codebook: a set of codes, each reflecting a different frame that community garden managers used when articulating specific goals of their garden. We began by listing the major benefits articulated by different types of audiences based on the existing literature (see Table 1; Alkon & Norgaard, 2009; Guthman, 2011; Hondagneu-Sotelo, 2014; McEntee, 2011). The first author and two independent coders then read through the mission statements and identified additional frames to develop a complete codebook. We applied this version of the codebook to 30 mission statements, and then all the coders met to discuss the results and refine the codes. This process was repeated several times until we were satisfied that the codebook included most of the major frames present in the garden descriptions and/or missions/goals. Fifteen percent ($n = 61$) of the statements ($N = 411$) were double-coded to ensure intercoder reliability. Agreement across all codes was above 90%. Cohen's kappa for two of the codes were .83 and .93, meeting the generally accepted standard of high reliability (Neuendorf, 2016). Because the remaining codes had high levels of simple agreement but low kappa values, we calculated Gwet's agreement coefficient (AC) for these codes (Gwet, 2014; Lacy et al., 2015),[1] which ranged from .87 to .94, with an average of .91.

The final codebook included six codes (see Table 3 for definitions and examples): greater good, community orientation, healthy food access, food donation, self-empowerment, and symbolic food labels. Most of the benefits articulated in previous research on farmers markets and CSAs (Table 1) were present in our analysis, except for cultural preservation and affordability. Although we included codes for these frames in our initial codebook, we decided to exclude them from the final codebook because there were too few examples of them in the statements. We also included two codes in our final codebook that reflected frames not articulated in previous research but consistently present in our data: food donation and community orientation.

[1] Gewt's AC differs from Cohen's kappa in that it assumes that "only a portion of the observed ratings will potentially lead to agreement by chance" (Gwet, 2014, p. 103), which allows for a better measure of inter-rater reliability on variables with less variance (Lacy et al., 2015). Gwet's AC therefore provides an alternative measure of interrater reliability in cases where the levels of simple agreement are high, but the Cohen's kappa coefficient is low due to the expected agreement also being high, which can result from a lack of variance within the variable in question.

Statistical Comparison of the Relative Presence of Frames

We compared the use rates of the frames identified in our content analysis using McNemar tests. These tests will indicate the significance of differences in the rates at which each frame is used, providing additional insight into how welcoming community gardens may be to different participant demographics. For example, the significantly greater use of frames reflecting values of higher income and White participants as compared with frames reflecting values of low-income, Black, and Latino participants would suggest that community gardens may be inadvertently reproducing inequalities in ways similar to farmers markets and CSAs (Alkon & Agyeman, 2011; Guthman, 2011; McEntee, 2011; Slocum, 2007). The McNemar test is traditionally used to test the significance of a treatment in an experimental setting, comparing rates of expression of two-paired nominal variables (Sheskin, 2011). While we were not testing a treatment, we sought to compare expression rates of sets of nominal variables (the codes described above), indicating the presence (yes = 1) or absence (no = 0) of each frame in a garden's description and/or mission/goals. These variables are paired because the presence of one frame does not preclude the presence of another in that same garden, and many gardens used multiple frames.

Results

The two most common frames used by garden managers in describing their garden's goals were greater good (64%) and community orientation (49%), followed by healthy food access (21%); the other three frames—food donation, self-empowerment, and symbolic food labels—were each present in 17% of the statements (Table 3).

Garden managers frequently used more than one frame to describe the goals and/or benefits of their community garden. For example, one garden manager articulated their mission as "to increase consumption of fruits and vegetables by members of our community to [*sic*] offer gardening space for civic and youth groups to [*sic*] provide excess produce to the food shelf." This statement was coded positively for food donation, greater good, and community orientation. Another stated, "[This] garden project empowers immigrants and refugees, particularly immigrant and refugee women, as community leaders through gardens and small-scale farming and creates access to affordable healthy, fresh, and cultural suitable food for low-income immigrants and refugees," and was coded positively for healthy food access, self-empowerment, and community orientation. As a result of this overlap, the sum total of the frequencies in Table 3 (761) is greater than the number of statements coded (N = 411).

Many garden managers focused on bettering humans or the environment in a top-down fashion (coded as *Greater Good*). Some gardens had more specific greater good goals: "Beautify the neighborhood and help with community growth," and "pollinator/monarch sanctuary." Others were broader: "Teach about our food supply and offer support to those in need." Many garden managers also focused on a community or neighborhood holistically (coded as *Community Orientation*), some mentioning the community as a whole: "To serve the surrounding community of…, by providing families the space, support, and leadership for a community garden at a reasonable cost." Others focused more on building community: "To build a diverse collaborative community committed to growing a sustainable organic garden." Another consistently used frame focused on ensuring access to healthy food for the

surrounding community(ies) through residents' participation in the garden (coded as *Healthy Food Access*). In contrast, some garden managers focused on donation or the giving of food grown in the garden to nonparticipants (coded as *Food Donation*). When garden managers focused on helping participants increase their own agency or build a broader life skill (coded as *Self-Empowerment*), some gardens focused on the agency or skill being gained: "To allow residents to grow home produce to help out on family grocery costs." Others more explicitly referenced empowerment: "Opportunity to grow food, meet neighbors, strengthen communities, empower disenfranchised residents." Last, some garden managers signaled a rejection of industrialized farming practices (coded as *Symbolic Food Labels*) using specific labels (often organic, sustainable, or local): "To build a diverse collaborative community committed to growing a sustainable organic garden." Others were more abstract in their references: "Beautification, food production, youth to [sic] bring the community together to work for a sustainable future."

The increased frequency of the use of greater good and community orientation is statistically significant (Table 4): Greater good framing is 2.15 times more likely to be used than community orientation ($p = .000$), 7.48 times more likely to be used than healthy food access ($p = .000$), 6.82 times more likely to be used than food donation ($p = .000$), 10.65 times more likely to be used than self-empowerment ($p = .000$), and 18.64 times more likely to be used than symbolic food labels ($p = .000$). Similarly, community orientation is 4.73 times more likely to be used than healthy food access ($p = .000$), 4.58 times more likely to be used than food donation ($p = .000$), 5.81 times more likely to be used than self-empowerment ($p = .000$), and 9.73 times more likely to be used than symbolic food labels ($p = .000$). While healthy food access was the next most common frame, its increased likelihood of use lacked consistent statistical significance.

Discussion

This study examined the frames used by community gardens in their descriptions and/or missions/goals statements. Our analysis adds to conversations on the potential for community gardens to welcome disadvantaged individuals and therefore benefit a diversity of participants. We identify frames used by community garden managers and compare the rates at which each frame is used, compared with what is known from prior studies about how different social groups perceive these spaces, as indicators of who is more likely to feel welcomed in a community garden space. Greater good and community orientation were most used in community garden statements about their mission and goals. Healthy food access was a somewhat distant third. Considered together with prior research, our data suggest that community gardens may be more welcoming to Black and Latino participants than other alternative food outlets such as farmers markets and CSAs, but there is room to improve their discourse.

The frames used by community gardens in our sample—greater good, community orientation, healthy food access, food donation, self-empowerment, and symbolic food labels (Table 3)—suggest their unique ability among alternative food programs to appeal to participants of diverse racial and class backgrounds (Table 1). Existing research on farmers markets and CSAs highlights the dominant use of frames consistent with the environmental

and social benefits valued among high-income participants (McEntee, 2011) and the local, organic, and sustainable food benefits valued among White participants (Guthman, 2011). While frames reflecting these values were present in community gardens (greater good, food donation, and symbolic food labels) so were frames consistent with the benefits valued among low-income, Black, and Latino participants. A focus on healthy food access, in the context of gardens having low participation costs,[2] supports the benefit of affordable fresh food valued among low-income participants (McEntee, 2011). Similarly, a focus on self-empowerment, coupled with a focus on community orientation, supports the benefits of cultural preservation and empowerment valued by Black and Latino participants (Alkon & Norgaard, 2009; Hondagneu-Sotelo, 2014).

Community orientation, a frame that emerged through the codebook development process, was one of the two most used frames. We had not anticipated a focus on community orientation to emerge, because community was not highlighted as a specific benefit of farmers markets or CSAs in previous literature. However, this finding is consistent with the notion of community gardens being accessible to less privileged groups. For example, Alkon and Norgaard (2009) note the importance of the orientation of one Black farmers market toward the Black community. This form of community orientation is substantively similar to that found in many of our gardens that were focusing their attention or outcomes toward benefiting a specific community. For example, one garden's community orientation was articulated through the focus on the immigrant and refugee community: "Empowers immigrants and refugees, particularly immigrant and refugee women, as community leaders through gardens and small-scale farming." Another focused on senior community as the intended beneficiaries of the garden: "To give an opportunity to persons 55 & older to enjoy the many benefits of gardening."[3]

Community orientation has also been highlighted as inclusive framing in other food systems work. It has been shown to be an important dimension for the effectiveness of school-based gardens (Burt et al., 2018). The importance of community in food system interventions—and in obesity disparities interventions specifically—has been highlighted elsewhere (Kumanyika, 2019). For example, Brinkley et al. (2019) found community engagement critical for the long-term success of supermarket interventions in food deserts. The lack of adequate engagement of the community has been attributed to the failure of food access interventions including mobile grocery (Ramirez et al., 2017) and convenience store transformations (Engler-Stringer et al., 2019).

Even more common than community orientation, however, was the greater good frame, most consistent with the values of high-income participants of alternative food programs (McEntee, 2011). Healthy food access, consistent with the values of low-income participants, was consistently used; however, greater good was more than seven times more likely to be used (Table 4). Existing research argues that, more than the presence of frames that reflect the values of White and higher income participants, the consistency of their use

[2]Participants often pay a minimal yearly fee—for example, within Minnesota, the annual garden fees are between $15 and $30 in the city of South St. Paul (2020), $15 in Luverne (2020), $45 in Burnsville (2020), and $20 in Stewartville (2020).

[3]Garden managers may have also been using this community orientation frame to highlight the benefits of cultural preservation without appearing to exclusively serve a specific group.

as compared with frames that reflect the values of low-income, Black, and Latino participants contribute to farmers markets and CSAs having mostly White and higher income participants (Alkon & Agyeman, 2011; Guthman, 2011; McEntee, 2011; Slocum, 2007). The significantly greater use of greater good as compared with healthy food access, therefore, points toward one area where community gardens may inadvertently reproduce inequality and should work to improve the inclusivity of the frames they use.

Limitations

The present study was limited by the availability of data on the frames and goals of community gardens across the United States, and on garden participant demographics. While the data used here were unique in their inclusion of garden descriptions and missions/goals, they do not present a nationally representative sample and suffer from high rates of missing data on these main variables of interest. These factors limit the generalizability of the present study.

Because garden participants, presumably a demographic subset of the surrounding neighborhood, likely inform the frames used by gardens, another important limitation to the generalizability of our findings is our data coming from a state with little racial/ethnic and class diversity compared with the United States overall. Minnesota has proportionately fewer Black and Hispanic residents than the national average but a higher median household income (Table 2). This trend extends to the specific ZIP codes in Minnesota where the gardens included in this study were located (Table 2). However, a more nationally representative, and likely diverse, sample may well reveal community gardens using frames in even more welcoming ways than shown in the present study. Future research should strive to collect and utilize a nationally representative data set to address this limitation.

Furthermore, while the present study shows what frames are prevalent among community garden leaders, we were not able to directly examine how these frames influenced who participates in community gardens due to a lack of data on participant demographics. Nor were we able to examine the impact of different frames on the realized benefits of community garden participation. These examinations will give a better picture of who feels welcome in community gardens. Here, we have relied on existing research in other types of alternative food programs to indicate the meaning of gardens using different frames. A more direct analysis of this relationship would add clarity to the literature.

Implications

Our findings situate community gardens within existing work on the accessibility of alternative food programs. Frames used in community gardens were somewhat consistent with those documented in farmers markets and CSAs (Alkon & Norgaard, 2009; Guthman, 2011; Hondagneu-Sotelo, 2014; Lawson, 2007; McEntee, 2011; Peña, 2013). Similar to the exclusivity described in this research (Alkon & Agyeman, 2011; Guthman, 2011; McEntee, 2011; Slocum, 2007), the disproportionate focus on greater good among community gardens may reflect a lack of welcomingness toward low-income participants. However, the consistent presence of frames reflecting healthy food access and self-empowerment suggests the potential for community gardens to be more welcoming spaces to low-income, Black,

and Latino participants than farmers markets and/or CSAs (Alkon & Norgaard, 2009; McEntee, 2011). Furthermore, the community orientation of community gardens may reflect their unique potential for success in underprivileged communities and their ability to welcome disadvantaged populations. Future work should continue to examine the role that framing plays in the accessibility of alternative food programs and include a more direct consideration of the impact of community orientation.

The frames used by community garden managers suggest their distinctive capacity among alternative food programs to meet the needs of different groups, including Black, Latino, and low-income participants. Health educators and activists interested in using local and alternative food programs to address food insecurity should take note of these results and consider community gardens as a means of combating food insecurity. Specifically, health educators and activists should ensure that community gardens continue to articulate goals welcoming to low-income, Black, and Latino participants and recognize the exclusionary potential of disproportionately focusing on goals valued among higher income participants. One important way to accomplish this is through incorporating community residents of color and low-income residents in garden leadership.

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Table 1.

The Primary Benefits of Alternative Food Programs by Participant Demographics.

Participant demographics	Primary benefits
Low-income participants	Affordable, fresh food
High-income participants	Environmental or social goals
Black and Latino participants	Cultural preservation and empowerment
White participants	Symbolic food labels

Note. Adapted from Alkon and Norgaard (2009); Guthman (2011); Hondagneu-Sotelo (2014); McEntee (2011); Peña (2013).

Table 2.

Summary Racial, Ethnic, and Class Demographics.

Characteristics	United States	Minnesota	MN ZIP codes with 1 + garden
Total population	308,745,538	5,303,925	3,041,710
Percent White	78%	85%	80%
Percent Black	13%	5%	7%
Percent Hispanic	17%	5%	5%
Percent with bachelor's degree and higher	28%	31%	23%
Median household income	$51,914	$57,243	$60,235
Percent ZIP codes with 1 + garden		17%	

Note. Adapted from U.S. Census Bureau (2010a, 2010b).

Table 3.

Frames Used to Describe the Aim of Community Gardens in Community Garden Statements.

Frame/goal	Description	Example(s)	Gardens using
Greater good	Goals that focus on bettering humans or the environment in a top-down fashion (rather than through community participation in the garden or community building). Include references to educating people and to enlightening or spreading awareness about a beneficial practice (sustainable gardening, etc.). Include references to improving people's ability (via tools, experience, etc.—needs to be more than just space or opportunity) to garden (needs to be more than just food—i.e., food and flowers, gardens, etc.). Include references to benefiting physical or mental health. It must include some explicit purpose for benefiting the environment and/or humans in a holistic manner.	"Beautify the neighborhood and help with community growth…"	263 (64%)
Community orientation	Statements that articulate the benefits they are focusing on as aimed at a community holistically. Include statements that articulate the benefits targeted at the community or neighborhood (but not at individuals within a community/neighborhood). Statements must include either (1) a reference to the community/neighborhood/etc. as a whole, rather than as individual actors within the community or (2) a reference to helping individuals/ participants/neighbors/etc. build community (friendships, social ties, coming together, etc.).	"To serve the surrounding community of …, by providing families the space, support, and leadership for a community garden at a reasonable cost" and "To build a diverse collaborative community committed to growing a sustainable organic garden."	200 (49%)
Healthy food access	Goals that are focused on providing access to healthy foods to the surrounding communities through community residents' participation in the garden. Include references to enabling or teaching people to grow their own food or provide for themselves that involve the actual production of food.	"To provide our clients with a plot so they can receive fresh produce and learn to grow their own food."	88 (21%)
Food donation	Donation or giving of food grown in the garden in a top-down fashion (rather than through community participation in the garden). Sometimes this is articulated as serving the surrounding community but not through their participation in the gardening. Include references to providing food to the needy at the local level. Include statements that have a specific reference to providing or giving food.	"Our goal is to provide fresh food to our community, provide education and beautify our space."	71 (17%)
Self-empowerment	Goals of helping participants gain some kind of self-empowerment (something that allows the participants to increase their own agency or build a broader life skill that goes beyond the garden). Include gardens that are explicit about enabling or teaching people to provide for themselves. Include giving an opportunity for gardeners to improve/enhance their lives or empower themselves. Should include some articulation of how participants' agency/self-sufficiency is being increased.	"To allow residents to grow home produce to help out on family grocery costs" and "Opportunity to grow food, meet neighbors, strengthen communities, empower disenfranchised residents."	70 (17%)
Symbolic food labels	Goals that use the terms *local, organic, sustainable, natural*, or similar terms describing the type of processes used to grow food. Include those that discuss rejecting industrial farming/food production practices or chemicals. Include references to inspiring support for local, organic, sustainable, and natural food.	"To build a diverse collaborative community committed to growing a sustainable organic garden …" and "To bring the community together to work for a sustainable future."	69 (17%)

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Table 4.

McNemar Tests of Differences of Six Distinct Frames in Community Garden Statements.

Frame (use rates)	Community orientation (49%)	Healthy food access (21%)	Food donation (17%)	Self-empowerment (17%)	Symbolic food labels (17%)
Greater good (64%)	2.15 *** [1.55, 3.01]	7.48 *** [4.99, 11.63]	6.82 *** [4.72, 10.15]	10.65 *** [6.72, 17.79]	18.64 *** [10.20, 37.92]
Community orientation (49%)		4.73 *** [3.17, 7.27]	4.58 *** [3.18, 6.77]	5.81 *** [3.88, 9.10]	9.73 *** [5.71, 17.84]
Healthy food access (21%)			1.31 [0.91, 1.89]	1.41 + [0.94, 2.12]	1.56 * [0.99, 2.47]
Food donation (17%)				1.02 [0.70, 1.47]	1.04 [0.70, 1.54]
Self-empowerment (17%)					1.02 [0.70, 1.48]

Note. Odds ratios presented; 95% confidence intervals in brackets; two-tailed test. Adapted from Gardening Matters (2018).

+ $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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