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Social Stigma, Logistics, and Reserving Resources for Others: Understanding Barriers to Campus Pantry Use

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Abstract

Food insecurity is prevalent among college students nationwide, but barriers preclude students from accessing campus food pantries (CFP). A multimethod approach was used to understand why students at a large, public research university who screened positive for food insecurity did not use the CFP. Survey ($n = 82$) and interview ($n = 8$) data revealed substantial barriers to CFP use including logistical challenges, social stigma, the belief that other students are in greater need of resources, and the view that food insecurity is a personal, private problem. Institutions can address these concerns by engaging all members of the campus community in campus anti-hunger efforts.

College students need both academic and nonacademic supports to succeed in higher education (Hoyt, 2021), and institutions have a long-standing commitment to developing high quality student support services to increase student retention (Long, 2012). However, as institutions welcome more socioeconomically diverse students to their campuses (McGee, 2015), they must reconsider and reconceptualize how support services are designed and offered.

Scholars are just beginning to learn more about students who experience food insecurity. Studies of food insecurity on college campuses estimate that over one third of all students are food insecure (The Hope Center for College Community and Justice [Hope Center], 2021), meaning they are unable to consistently secure the food needed healthy living (Coleman-Jensen et al., 2021). Student food insecurity is linked to multiple detrimental effects, including higher rates of mental health concerns such as stress, anxiety, and depression (Coakley et al., 2022; El Zein et al., 2019; Willis, 2021), poor academic performance (Camelo & Marta, 2019; C. Cuite et al., 2023; Weaver et al., 2019) and a decreased likelihood of college completion (Wolfson et al., 2022). Resources for food insecure students are limited and vary from campus to campus (Goldrick-Rab et al., 2018; Hagedorn-Hatfield et al., 2022), and among

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students who have access to food resources, barriers may preclude them from service use (El Zein et al., 2018).

The purpose of this study is to systematically understand the factors that influence why students who are referred to a campus food pantry (CFP) by a healthcare provider do or do not use the resource. Findings can help colleges and universities (a) identify why students do not access available campus food resources and (b) develop or alter current efforts to increase resource use and ameliorate student food insecurity.

College Student Food Insecurity

Defined as the lack of consistent, dependable access to enough food for healthy living (Coleman-Jensen et al., 2021), food insecurity fluctuates and is intermittent, meaning food insecure individuals may experience periods of more or less severe food insecurity. In its most extreme form, food insecurity is characterized by eating food of poor nutritional quality or variety, skipping or reducing the size of meals, or forgoing eating due to the incapacity to afford food (Coleman-Jensen et al., 2021).

Negative health and academic outcomes are associated with food insecurity, threatening students' ability to be successful throughout their college enrollment. Students who experience food insecurity are more likely to report poorer physical health (Martinez et al., 2019) and experience mental health concerns such as anxiety and depression (Coakley et al., 2022; Willis, 2021; El Zein et al., 2019). Academically, students experiencing material hardship are motivated to succeed (Goldrick-Rab et al., 2018; Henry, 2017), but uncertain or limited access to food is inversely correlated with academic achievement as measured by grade point average (GPA) (Cuite et al., 2023; DeBate et al., 2021; Weaver et al., 2019). Research also demonstrates that experiencing food insecurity at any point during one's college enrollment is associated with lower GPAs, suggesting that even if students are able to secure the food they need, the academic impacts of food insecurity are lasting (Cuite et al., 2023).

The most common student support intervention designed to circumvent some of the adverse consequences of food insecurity is a CFP (Hagedorn-Hatfield et al., 2022). In recent years, the College and University Food Bank Alliance (CUFBA¹), an organization created to assist institutions as they implement or improve on campus food pantries, has grown to include more than 800 colleges and universities nationwide (Metti, 2021), demonstrating the increased prevalence and commonality of campus food pantries. However, campus food pantries are prone to operational challenges including small institutional budgets, inadequate financial resources, limited food, and a paucity of volunteers (Goldrick-Rab et al., 2018).

Other investigations have explored why students who have access to a CFP decide not to use this resource (El Zein et al., 2018, 2022), but research in this area is limited. Logistical barriers including a lack of knowledge that the resource exists (El Zein et al., 2022), inconvenient or restricted hours (Brito-Silva et al., 2022; El Zein et al., 2018), and limited understanding about what the pantry does (El Zein et al., 2018) preclude students from receiving food resources. Social stigma, shame, and embarrassment have been also found to be impediments to CFP use (Brito-Silva et al., 2022; Delos Reyes et al., 2021; McArthur et al., 2020), as have other unquestioned assumptions about pantry use such as the idea that

¹ In 2021, CUFBA was acquired by Swipe Out Hunger (Metti, 2021).

food should be reserved for students with greater financial need (McArthur et al., 2020; El Zein et al., 2018) or students not feeling “poor enough” (El Zein et al., 2018, p. 9) to use services.

Information regarding campus food pantries is typically shared with students through mechanisms such as informal referrals, websites, flyers, and social media (Goldrick-Rab et al., 2018). Unlike other studies that have explored the barriers that prohibit students from using CFPs, this study employs a specific mechanism of resource referral. Rather than passively referring students to resources through websites or flyers, students at the research site were actively referred to the CFP by a healthcare provider. This study will contribute to the existing literature by shedding light on whether this innovative referral process will help to reduce some of the documented barriers that prohibit students from using campus food resources.

Institutional Context

This research took place at a large public, research-intensive university in the Northeastern United States. More than 50,000 undergraduate and graduate students are enrolled and the study body demographics largely reflect the ethnic, cultural, and socio-economic diversity of the surrounding communities. Among all enrolled students, slightly more than one in three students are White, 28% are Asian, 14% are Hispanic, and 8% are Black. Most undergraduates, 95%, are age 24 and under and most graduate students, 70%, are age 25 and over. Among full-time, first-time undergraduates, 70% receive some form of financial aid with 27% receiving a federal Pell Grant.

Food insecurity is a demonstrated problem at colleges and universities across the country, and the institution where this research took place is no exception to this pattern. A 2016 study conducted at the research site found that 36.9% of undergraduate and 32.2% of graduate students were food insecure (C.L. Cuite et al., 2018). Among undergraduates, racial and ethnic minority students and first-generation college students had a heightened risk of food insecurity, while having financial support from family members or a campus meal plan partially insulated students from food insecurity. Graduate students who were Asian or had parents with lower levels of education were significantly more likely to be food insecure (C.L. Cuite et al., 2018).

The CFP at the research site was established in 2016 to support students who could not afford the food they needed (C.L. Cuite et al., 2018). All enrolled students are eligible to visit the CFP regardless of their food or financial circumstances. Students do not need a referral to use the CFP, but they are required to show a valid university id to receive resources. Students typically receive a variety of fresh and canned foods that last them approximately one week.

Theoretical Framework

McLeroy et al.’s (1988) social-ecological model (SEM) for health promotion will be used to inform this study. Social-ecological approaches are popular in the public health sector and have been used to evaluate nutrition programs (e.g., Gregson et al., 2001), encourage individuals to engage in healthy behaviors (e.g., McLeroy et al., 1988; Story et al., 2008), and understand food insecurity (e.g., Kaiser, 2011; Keller et al., 2006; Schroeder & Smaldone, 2015). Critical to SEM models is the understanding that human “(i) behaviour affects and is affected by multiple levels of influence; and (ii) individual behaviour shapes and is shaped by the social environment” (Townsend & Foster, 2011, p. 1101). This tenet is at the core of McLeroy et al. (1988) model where they explain that the interaction between

Figure 1. Social Ecological Model Spheres of Influence

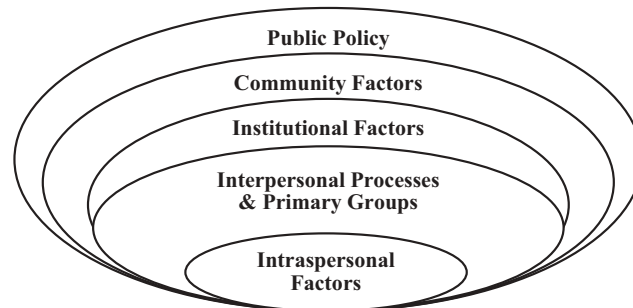


Figure was created based on information contained in “An Ecological Perspective on Health Promotion Programs,” by K. R. McLeroy, D. Bibeau, A. Steckler, and K. Glanz, 1988, *Health Education Quarterly*, 15(4), p. 355.

people and the various elements of their social world will largely affect whether behavior to promote healthy living is achieved. Programs or interventions aimed at promoting healthy behaviors cannot focus on changing the individual alone and must address each of the five spheres of influence to be effective: intrapersonal, interpersonal, institutional, community, and public policy as depicted in Figure 1.

While individual change focuses on the attitudes and beliefs of the individual (i.e., the intrapersonal sphere), interpersonal processes and relationships between and among social institutions also play a role in shaping health behaviors. At the interpersonal level, peer social networks and familial systems can positively influence behavior change by role modeling behaviors and encouraging individuals to engage in healthy practices such as increasing their consumption of fruits and vegetables. Institutional and community factors can also influence an individual's behavior. Institutional factors are typically defined as the “organizational behavior” (Gregson et al., 2001, p. 11) of social institutions such as businesses, schools, places of worship, and other entities. The organizational behavior of a social institution, such as a food pantry, can hinder or encourage resource use depending on whether the institution is welcoming, efficient, and able to meet the health needs of individuals. All institutions exist within communities, the fourth SEM sphere of influence, and collaborative relationships between and among community institution can result in an increased likelihood that individuals will engage in health behaviors. Finally, the public policy sphere can impact behavior change through the enactment of laws and policies that simplify one's ability to engage in healthy behaviors. For instance, expansion of federal policies, such as the Supplemental Nutrition Assistance Program (SNAP), could encourage more people to apply for SNAP benefits and eat nutritious foods.

Within the context of the current investigation, using the CFP can be viewed as engaging in a health promotion behavior to reduce the depth of student food insecurity. Using McLeroy and colleagues SEM (McLeroy et al., 1988) to interpret findings more fully will help to determine if there are barriers to student pantry use at each of the five levels of the model. Furthermore, applying a social-ecological framework to this study will inform recommendations about how colleges and universities can promote pantry usage and food security within each sphere of influence.

Materials and Methods

Research Questions

This study will explore how student perceptions of campus food resources at a large, public, research university in the Northeast United States influence whether a student will access the CFP. Unlike other studies that have explored why students do or do not use campus food resources, all students in this study screened positive for food insecurity, discussed their positive screening with a healthcare provider, and were referred to the CFP. Two research questions frame this study:

Among students who screen positive for food insecurity and are referred to the CFP by a healthcare provider:

1. How do their perceptions of the CFP influence resource use?
2. What barriers or challenges prohibit them from using the CFP?

Food Insecurity Screening Process

This study is part of a larger research project where students are screened for food insecurity at Student Health Services (SHS), a comprehensive wellness unit within the Division of Student Affairs, and subsequently referred to resources if they screen positive. Prior to making an appointment at one of the campus health centers, students are required to complete a short Personal Health History (PHH) questionnaire. This form is typically completed online and is reviewed with the student at the time of their appointment. All student responses are recorded and stored in the SHS database.

On September 1, 2018, SHS added two items regarding food security to the PHH, allowing clinicians to determine whether students experienced food insecurity in the past 30 days. The 2-item screener is a validated measure of food security and is commonly used in clinical settings (Hager et al., 2010; Pooler et al., 2016). The screener consists of two questions:

1. Thinking about the last 30 days, how true is the following statement: I was worried whether my food would run out before I had money to buy more.
2. Thinking about the last 30 days, how true is the following statement: The food that I bought just didn't last, and I didn't have money to buy more.

Response options to the screener questions are “often true,” “sometimes true,” “never true,” or “I don't know.” Students who provide affirmative responses (i.e., selecting “often true” or “sometimes true”) to either or both questions, are food insecure. If a student screens positive, a clinician informs them that they may be experiencing food insecurity. The clinician then talks with the student about food insecurity and the CFP and answers any questions that the student may have. Finally, the clinician provides the student with a referral card containing information about campus food resources including the CFP.

Permission to conduct this study was granted by the Institutional Review Board (IRB) of the research site. Due to the nature of this study, additional steps were taken to ensure that no identifiable personal medical information was released to the researcher. A HIPPA (Health Insurance Portability and

Accountability Act of 1996) waiver was granted by the IRB so that SHS information technology staff could provide de-identified data for the research team.

This multimethod investigation was conducted in two parts. The first part consisted of the administration and analysis of an online survey and the second part consisted of interviews with students who screened positive for food insecurity but did not visit the CFP.

Survey Procedure

SHS information technology staff emailed all students who screened positive for food insecurity and invited them to participate in a short, online Qualtrics survey. Batches of e-mails containing the survey invitation were sent at three points during the academic year. Initial survey invitations were sent on November 20, 2018; March 1, 2019; and May 20, 2019. For each administration, four reminder e-mails were sent. A total of 631 students screened positive for food insecurity in Fall 2018 and Spring 2019. All 631 students were invited to the online survey and 82 students participated for a 13.0% response rate.

The survey contained a consent form where students were asked to agree to participation and give permission for researchers to see de-identified demographic data that is collected at the institutional level, such as their race, citizenship, and sex. Students also consented to sharing their responses to the food security screener questions from their PHH. The survey instrument asked about student experiences being screened for food insecurity, the use of campus food resources, student perceptions of the CFP, and one open-ended question that specifically asked students to explain why they did not use the CFP. Students who completed the survey were entered into a lottery to win one of three \$100 gift cards.

After all survey data were collected, SHS information technology staff worked in collaboration with institutional research personnel to match the Qualtrics survey data to student responses to the food security screener questions from the PHH and student demographic data. The research team was provided with a data set that was stripped of identifiable student information. To be included in the sample used in analyses, students needed to complete the survey either partially or in full and have PHH data that indicated that they were food insecure at the time of their most recent visit to SHS. The sample includes a total of 82 students, however only 79 were included in survey analyses due to missing data regarding pantry use.

Survey Measures

Before conducting statistical analyses, students were designated as pantry users or non-users based on their responses to the survey questions, “*Before your visit to the student health center earlier this semester, had you ever gotten food from the [CFP]*” and “*In the time since your visit to the student health center earlier this semester, have you gotten food from the [CFP]?*.” Affirmative responses of “yes” to either or both questions designate the student as a pantry user while negative responses to both questions indicate that the student is a non-user.

Survey Analysis

A series of Fisher’s exact tests were used to answer the first research question. The Fisher’s exact test is specifically designed for studies with small samples (Field, 2013) and was used to determine if an

association existed between dichotomous pantry perception variables and whether students did or did not use the CFP. A Phi Coefficient was also calculated for each pairwise comparison to determine effect size. According to Rea and Parker (2014), the following boundaries are associated with the strength of the association for the absolute value of the Phi coefficient: 0 and under .10 is negligible, .10 and under .20 is weak, .20 and under .40 is moderate, .40 and under .60 is relatively strong, .60 and under .80 is strong, and .80 to 1.00 is very strong.

Responses to one open-ended survey question were also analyzed. Fifty-one (51) students² responded to the question, “*Can you tell us in your own words why you did not use the [CFP]?*” All responses were reviewed, and a codebook was developed to identify the multiple reasons that students did not use the CFP. Student responses that described more than one reason they did not use the pantry received multiple codes.

Interview Procedure

Students who screened positive for food insecurity were invited to participate in an in-person interview. On April 29, 2019 e-mail invitations were delivered to 628 students and 42 expressed interest in the study. Students were asked to complete a short online questionnaire that contained the ten-item USDA food security scale (USDA, U.S. Department of Agriculture, 2012) and two questions about whether they used any campus food support services. Only students who screened positive for food insecurity at SHS, had a score of three or higher on the USDA scale, and did not use food resources were eligible. Twenty-one eligible students were invited and eight participated.

Interviews were semi-structured and lasted between 50 and 60 minutes, with an average interview time of 56 minutes. Students were asked to describe their experiences being screened for food insecurity and why they were not using available campus food resources like the CFP. Interviews were audio recorded and participants were compensated with \$25 cash.

Interview Analysis

All interviews were transcribed electronically and input into Nvivo, a qualitative data analysis software program. Transcripts were analyzed using applied thematic analysis (Guest et al., 2012) which is comprised of two phases of coding: structural coding and content coding. During structural coding, transcripts were read in full and subsequently segmented based on the interview protocol. Structural categories were identified and Nvivo was used to organize data and assign structural codes to portions of interview transcripts. The structural category “barriers to pantry use,” was analyzed a second time for content to understand “the kinds of meaning the text may potentially exemplify” (Guest et al., 2012, p. 64). Transcripts were reread and prevalent themes that occurred across and within interviews were identified. Themes were refined into codes which were defined and described in a codebook.

To improve the credibility of findings, Synthesized Member Checking (SMC) (Birt et al., 2016), was conducted. SMC consists of sending participants a short document that summarizes findings and asks for participant feedback. The SMC document was shared with all interviewees and one participant responded, indicating that findings accurately reflected her perspectives.

² Only students who did not use the CFP were asked this question.

Results

Survey Results

Description of Survey Respondents

More females (79%) than males (28%) participated, and the largest ethnic group represented was Asian students (29%). Self-reported data indicated that most were employed and among the 35.4% that were not, 65.5% were actively seeking part-time employment. Nearly half of students were living off campus in the area adjacent to campus and 63.4% reported that they did not have a campus meal plan. Many students, 43.5%, received free or reduced-price lunch in high school and 14.3% were either currently or formerly housing insecure. Just 5% of respondents reported receiving benefits from SNAP. A complete description of survey respondents is contained in [Table 1](#).

Fisher's Exact Test Results

Results of the series of Fisher's Exact Tests are contained in [Table 2](#). The Fisher's Exact Tests reveal that, among students who are food insecure, there are statistically significant associations between being a pantry user or non-user and viewing the pantry as easy to locate ($p = .004$), believing the pantry is worth the effort to visit ($p = .0005$), and feeling the pantry has convenient hours ($p = .004$). These significant associations suggest that logistical barriers and views about the value of the CFP as a resource are determinants of whether a student will be a pantry user. For each significant association, the strength of the association, as measured by the Phi coefficient, was moderate to relatively strong with values ranging from .226 to .411.

Open-Ended Survey Question Results

While the quantitative component of the survey revealed that logistical barriers distinguish between those who do and do not use the pantry, the qualitative component indicated that personal barriers were a concern as well as the logistical barriers. [Table 3](#) contains the codebook and the frequency of responses.

Logistical Barriers. Respondents explained that they were unsure of the location or that they did not have time to visit the pantry during hours of operation. Others were not familiar with what the CFP does or how the process of receiving food works, which can be challenging for an individual that has never used a pantry. A student who is responsible for paying rent, loans, and providing financial assistance to family members shed light on the complexity of these logistical difficulties stating,

I literally live on the street the [CFP] is on, but because I have class every day from the time the pantry opens and I don't get back to my apartment until after the pantry closes. Even in my "free time" I have to spend at work ... I run out of food often and am too embarrassed to contact the pantry to see if they are able to service me outside of their listed hours, so many times I will just skip meals or spend money I cannot afford on food.

Social Stigma. Approximately one in ten students, 11.76%, maintained that the social stigma associated with using a campus pantry deterred them from receiving food. One respondent explained, "I felt that there was a stigma attached to the food pantry and that my situation was not bad enough to get food." Though many of the respondents did not describe the associated social stigma in depth, some were ashamed or embarrassed to go to the pantry while others did not want to be seen or pitied by peers or pantry staff.

Reserving Resources for Other Students. Other factors that may have prevented students from using the pantry consisted of internal beliefs that were largely based on preconceived notions around who should be using a food pantry and under what circumstances. A third of respondents did not use the

Table 1

Description of Survey Respondents (*n* = 82)

	Response <i>n</i>	Percent (%)
Age (<i>n</i> = 79)		
18–24	70	88.6
25 and over	9	11.4
Class level (<i>n</i> = 79)		
Undergraduate	67	84.8
Graduate	12	15.2
Citizenship (<i>n</i> = 82)		
U.S. citizen or permanent resident	65	79.3
Non-U.S. citizen	17	20.7
Sex (<i>n</i> = 82)		
Male	23	28.0
Female	59	72.0
Race (<i>n</i> = 82)		
White	19	23.2
Asian	29	35.4
Black or African American	11	13.4
Hispanic	17	20.7
Other ^a	6	7.3
Currently employed (<i>n</i> = 82)		
Yes	53	64.9
No	29	35.4
Seeking employment ^b (<i>n</i> = 29)		
Seeking part-time employment	19	65.5
Seeking full-time employment	3	10.3
Not seeking employment	7	24.1
Average hours worked per week (<i>n</i> = 52)		
1–9	17	32.7
10–19	21	40.3
20–29	6	11.6
30–39	5	9.6
40 or more	3	5.8
Campus meal plan (<i>n</i> = 82)		
Yes	30	36.6
No	52	63.4
Place of residence (<i>n</i> = 70)		

(continued)

Table 1

(Continued)

	Response <i>n</i>	Percent (%)
On campus	26	37.1
Off campus in adjacent town	33	47.1
Off campus not in adjacent town	11	15.7
Currently or formerly housing insecure ^c (<i>n</i> = 70)		
Yes	10	14.3
No	60	85.7
Received free or reduced-price lunch in high school (<i>n</i> = 69)		
Yes	30	43.5
No	39	56.5
Receives SNAP benefits (<i>n</i> = 82)		
Yes	5	6.1
Federal Pell Grant Recipient (<i>n</i> = 82)		
Yes	28	34.1

Note. Data was missing at the institutional level for select demographic variables. ^aThe category “other” includes unknown. ^bStudents were only asked if they were seeking employment if they were not currently employed. ^cStudents are considered housing insecure if they reported couch surfing or being homeless within the past 12 months.

CFP because they felt other students needed the food pantry more than they did. Even among students who described severe food issues, such as not eating for an entire day, many felt they were not in-need enough to use the CFP. A participant stated, “I feel like I might be taking away what might be very useful to someone else.” Related to this sentiment, students ascribed certain conditions to pantry use. A little over 5% felt they could only visit the campus pantry after all other mechanisms to secure food had been exhausted. One described the pantry as a “back-up option” and some explained that they would rather ask others for food or attend free-food events on campus than use the pantry. A respondent noted, “other students who really wouldn’t eat should use it,” suggesting that a pantry should only be used if one has no food at all.

Interview Results

Description of Interviewees

Among the eight interviewees (see Table 4), six identified as Hispanic, resulting in a larger percentage of Hispanic students as compared to the survey sample. All interviewees were undergraduate students and U. S. citizens, which is another difference when compared to the sample of students who completed the survey. Half of interviewees were the first in their families to attend college. Five students had a campus meal plan, however, three of the five had 75 meals or fewer per semester, one of the least expensive meal plans available. Two students had 210 meals per semester, the minimum required for first-year residential students, but both students came from food insecure households. Five students were fully responsible for

Table 2

Perceptions of CFP by Pantry User Status: Fisher's Exact Test Analysis

	Total Affirmative (N = 79)		Pantry Non-Users (N = 55)		Pantry Users (N = 24)		Differences Between Groups	
	N	%	N	%	N	%	P-Value	Phi
<i>Perceptions of CFP</i>								
I am concerned about the confidentiality of the CFP	8	10.1	6	10.9	2	8.3	1.0000	-.039
I feel that other students need the CFP more than I do	58	73.4	44	80.0	14	58.3	0.0560	-.226
I am afraid one of my peers or classmates will see me using the CFP	20	25.3	11	20.0	9	37.5	0.1580	.185
I feel that there is a stigma attached to using the CFP	22	27.8	14	25.5	8	33.3	0.5860	.081
It is easy for me to get to the CFP location	27	34.2	13	23.6	14	58.3	0.0040**	.336
I believe that if a student needs help they should use the CFP	60	75.9	39	70.9	21	87.5	0.1550	.179
The CFP is worth the effort to visit	38	48.1	19	34.5	19	79.2	0.0005***	.411
The CFP has convenient hours	16	20.3	6	10.9	10	41.7	0.0040**	.352
I understand what the CFP does	47	59.5	30	54.5	17	70.8	0.2170	.153
My friends use the CFP	13	16.5	6	10.9	7	29.2	0.0550	.226
The CFP is too time consuming to use	7	8.9	6	10.9	1	4.2	0.6690	-.109

Note. *p < .05. **p < .01. ***p < .001.

paying for their food and housing while four were also responsible for the full cost of tuition and fees. Students' average score on the USDA scale was 6.5, suggesting that they experience severe food insecurity.

Logistical Barriers

Minor logistical difficulties were mentioned by all interviewees, with the most frequently cited being uncertainty regarding the location of the pantry. While finding the location of the pantry could be overcome relatively easily, other logistical difficulties, such as not having enough time in one's schedule to visit the pantry, presented more daunting concerns. One student described a hectic work and academic schedule, and rather than use the pantry himself, he had a classmate retrieve items from the CFP on his behalf. Another student lived far away from the CFP, and when her schedule did not allow for ample time to use the pantry, she too would ask friends to pick up items at the pantry for her. Interestingly, if she had time in her schedule, she would go to the pantry to retrieve items for other people but would not take any items for herself. She was more comfortable using the resource to help her peers, suggesting that in addition to logistical difficulties, social stigma may have influenced how she accessed this resource.

Social Stigma

Some interviewees were hesitant to use the CFP due to social stigma. Three students felt that there were misperceptions about people that use pantries. One participant explained that others assume food insecure students "didn't know how to budget, or ... if they had just saved their money, they would have been fine." Another felt similarly stating, "When people like hear 'food pantry,' they think of homelessness, ... you've been hungry for a while ... you can't manage your finances right." Multiple students did not want

Table 3

Codebook and Frequencies of Open-Ended Survey Responses

Code	N	% (Out of 51)
<i>Personal Barriers to Pantry Use</i>		
Not wanting to take resources from others; I am not enough in need to use this resource	17	33.33
Social stigma associated with pantry use; Don't want to be seen using this resource; ashamed or embarrassed to use pantry	6	11.76
I do not believe it is worth the effort to use this resource	1	1.96
I will only use the pantry if I am completely without food/all other options have been exhausted	3	5.88
<i>Logistical Barriers to Pantry Use</i>		
Inconvenient or unknown hours or location; unable to carry food; unable to cook food	13	25.49
I have not heard of the CFP	2	3.92
I do not understand what the CFP does, offers, or how the process of receiving food works	3	5.88
I do not have enough time to use the food pantry	7	13.73
<i>Receiving Food from Other Sources</i>		
I receive food from family or friends	3	5.88
I attend free-food events on campus	1	1.96
I prefer to use off-campus food resources	1	1.96
<i>Not in Need of the Resource</i>		
I do not believe I need this resource	17	33.33

to be pitied or felt ashamed or embarrassed to use resources, and two were fearful of seeing their peers at the CFP. However, one participant felt differently and was open to acquiring food regardless of the associated social stigma. He explained that although people may look down upon pantry users, "I'm worried more about myself and like my health and nutrition, like I'd rather be able to eat then, um, just starve myself because someone views me different."

Reserving Resources for Other Students

Another prominent theme that emerged was the belief that other students are in greater need of the CFP. Interviewees did not want to take resources from peers, which contributed to students viewing the pantry as a last resort. One student explained that she felt more fortunate than other students and rationalized, "I don't go to sleep without eating a meal ... I don't feel like I need to go to the food pantry." Similarly, a student who largely acquired leftover food from her job explained that her circumstances were not severe enough to use the CFP. She had friends who struggle to afford rent as well as food and felt resources should be reserved for them. A formerly housing insecure student who ate by going to the dining hall every other day referred a friend to the CFP, but did not use the resource himself. He noted, "I feel as if I don't need it as much as some other people would. And I eat, so I'm okay." Another student divulged that she would only use the CFP if her family's SNAP benefits were lost.

Participants were under the impression that as long as they eat something during the day, regardless of how infrequent, small, or nutritionally marginal those meals may be, they should not use the CFP. There was an implicit understanding that someone else was in a worse situation and that resources should

Table 4

Description of Interviewees (N = 8)

	<i>N</i>	Percent (%)
Age		
18–24	8	100.0
Class level		
First Year	2	25.0
Sophomore	0	0
Junior	5	62.5
Senior	1	12.5
Citizenship		
US citizen	8	100.0
Non-US citizen	0	0
Sex		
Male	3	37.5
Female	5	62.5
Enrollment status		
Full-time	7	87.5
Part-time	1	12.5
First Generation College Student		
Yes	4	50.0
No	4	50.0
Race ^a		
Asian	2	25.0
Black or African American	1	12.5
Hispanic	6	75.0
Other	0	0
White	1	12.5
Residence		
On campus	4	50.0
Off campus with family	2	25.0
Off campus with roommates	2	25.0
Meal plan		
Yes	5	62.5
No	3	37.5
Financial Responsibilities		
Solely responsible for tuition and fees	4	50.0
Solely responsible for living expenses	5	62.5

(continued)

Table 4

(Continued)

	<i>N</i>	Percent (%)
Average Household Income		
\$15,001–\$35,000	4	50.0
\$35,001–\$55,000	2	25.0
\$55,000 or more	1	12.5
Unknown	1	12.5
USDA 10-Item Score		
3–5 (Low Food Security)	1	12.5
6–10 (Very Low Food Security)	7	87.5

Note. ^aMultiracial students selected more than one race.

not be taken from them. Rather than using the CFP proactively to improve their diet quality, students would not use the pantry until their food situation was dire.

Not Wanting to Ask for Help

Students were apprehensive to use the CFP in part because they felt like food insecurity was a personal problem they needed to resolve on their own, and many did not want to seek assistance from support services like the pantry. When it came to food difficulties, participants wanted to “figure it out” by waiting for their next paycheck, budgeting or strategizing, and sharing or cutting the size of meals. One student stated, “Not even my mother knows. This is just like my problem.” Another explained that worrying about where food was coming from was stressful and made her feel alone. She stated, “I’m going through this by myself, like no one else knows.” Similarly, a transfer student who assumed all her peers were food secure, did not want to depend on anyone else to solve her problems.

For some, the perspective that food insecurity is a personal problem was rooted in cultural messaging that was deeply ingrained in students. A participant of Caribbean descent explained that her parents raised her to believe that she should not ask for help. Similarly, a Hispanic student noted that in her household and culture, there is an expectation that when you turn 18, you should be financially independent and able to solve your own problems. While these students do not represent all students who share their cultural backgrounds, it was evident that when students have been taught that they should be able to resolve their difficulties independently, this sentiment extends to how they view food insecurity, making it unlikely that they will begin to use food resources as college students.

Participants were hesitant to ask for assistance and one explained that she along with her friends, “try to walk with our chins up” and were “too like prideful to go to certain resources and like ask for help.” Just one student used a food pantry in the past, and for others, pantry use was unfamiliar or unacceptable. A student described her upbringing in a middle-class town where pantry use was uncommon, making her feel more comfortable volunteering at a pantry rather than using one. A student who grew up in government subsidized housing explained that his mother was too prideful apply for SNAP, and pantry use was something to “look away from.” Another participant explained that in his culture, if

someone does not have enough food, friends and family provide food for each other rather than using resources.

CFP as a Food Safety Net

Although students were not directly connected to the CFP, they were not completely against using this resource. Students liked the security of having a CFP available to them. One student felt relieved to have the pantry as a potential option and another noted that the pantry was a resource that he could see himself using in the future. However, logistical challenges, social stigma, reluctance to ask for help, and personal and societal assumptions about when pantry use is appropriate made students hesitant to readily use the CFP.

Discussion

This study explored why students experiencing food insecurity do or do not access campus food resources when they are offered them by a healthcare provider. Survey and interview data largely resulted in similar findings, which strengthens our abilities to draw meaningful conclusions from the data. However, there are also some ways that the data offer different insights into the factors that promote or inhibit pantry use. The survey captured the experiences and perspectives of a larger number of students, but students were limited to selecting from the response options provided. In contrast, student interviews were more exploratory, allowing students to use their own words to describe their experiences.

Both survey and interview data revealed that logistical barriers, such as not knowing the pantry location or hours of operation, were a deterrent to CFP use. Within the SEM, logistical barriers impact the operational rules and regulations of a service and must be addressed at the institutional level. Unlike some of the other challenges that students expressed, these challenges can be rectified relatively easily. These data highlight that institutions should work to advertise, promote, and normalize the use of campus food resources (El Zein et al., 2022). Critical information such as the pantry location, the process and procedure to receive food, and alternatives to receive food outside of operating hours should be included in promotional campaigns. Information should be shared with students by different members of the campus community using diverse modes of communication such as syllabi statements, social media, e-mail, text messages, and websites.

Two barriers to pantry use that came up in student responses to the open-ended survey question and interviews were the role of social stigma and the desire to reserve resources for other students. Unlike the logistical barriers that students expounded upon, these concerns are much more difficult to address as they are impacted by every level of the SEM. The social stigma surrounding the use of food pantries is deeply embedded in American culture, and college students are not safeguarded from the false assumptions about who should and should not use food pantries. Other studies of student food insecurity have described how social stigma can thwart students from disclosing their food difficulties (Henry, 2017) or prevent them from using campus resources (El Zein et al., 2018), meaning that it is not sufficient for colleges and universities to simply *have* a CFP. Efforts to dispel the social stigma that is associated with food resources must accompany service delivery. Stigma reduction is difficult, but one way to overcome this challenge is for colleges and universities to take an active role in the stigma removal process by engaging faculty, staff, and students in this work (Freudenberg et al., 2019).

Reserving resources for others was a prominent theme in the open-ended survey responses and student interviews. Regardless of the severity of a student's food insecurity, they believed that other

students were in more precarious situations, and they did not want to take resources from someone who may be experiencing greater financial hardship. While this sentiment may or may not be true, it underscores the need for this finding to be addressed at the interpersonal level of the SEM. Interpersonal factors can be altered through one's formal or informal social networks. Providing more information to students about food insecurity and pantry usage would be especially beneficial. Students tend to view the pantry as a last resort, but food resources should be accessed well before a student is completely without food. One powerful way to address this issue is through peer referral programs where students normalize using food resources proactively before one's food supply runs out.

Unique to student interviews and something that has not been previously identified in the literature, was the finding that students are hesitant to ask for help, and this hesitancy extends to their view of campus food resources. The social stigma that surrounds food insecurity undoubtedly influences students' desire to resolve their food difficulties without seeking support or assistance, stressing the need for stigma reduction and the need to address food insecurity and pantry use across all levels of the SEM. Simplifying processes and procedures, advertising resources early and often, and shedding light on the number of students who use services could help to reconceptualize asking for help as a personal strength rather than a deficiency.

Future research should build upon this work to explore the drivers of student pantry use more completely. Interviews were only conducted with students who did not use the CFP, but it would also be valuable to interview students who use the CFP. Understanding the factors that promoted resource use would provide additional insights into how colleges and universities can leverage these factors to connect more students to resources.

Limitations

A number of limitations are associated with this research. The survey sample was small, limiting the number and type of statistical analyses that could be performed. There are also limitations associated with interview data. Only one of the eight students interviewed participated in the member checking process. Students experiencing food insecurity tend to have limited time due to other responsibilities (Brescia & Cuite, 2019) which could reduce their ability to participate in research studies. Providing additional compensation for member checking may be one strategy to ensure that participants have the opportunity to review findings.

An additional limitation of this study involves the discrepancies between the sample of students who completed the online survey and the sample of students who were interviewed. In terms of race, Hispanic students were overrepresented in the interview sample while Asian and White students were underrepresented. Similarly, the survey sample included both graduate students and non-U.S. citizens while the interview sample only included undergraduate students and U.S. citizens. These limitations underscore the need for additional qualitative research that expounds upon the experiences of students, particularly graduate students and noncitizens, who were underrepresented in the qualitative sample.

Recommendations to Promote Campus Pantry Use

Institutions of higher education can promote the use of campus food resources and the alleviation of food insecurity by addressing the barriers to pantry use within each SEM sphere of influence. These recommendations are contained in Table 5 and can be used to develop a framework to guide the work of colleges and universities.

Table 5

Recommendations for Promoting Campus Pantry Use at Each Level of SEM

Level of SEM	Recommendations for Institutions
Intrapersonal	Provide support and guidance to students as they confront their internal attitudes, beliefs, and assumptions about food insecurity and resource use
Interpersonal	Engage in dialogue about food insecurity with members inside and outside one's social network including students, faculty, staff, and community members
Institutional	Address logistical concerns regarding pantry use; Dispel myths associated with pantry use; Develop educational campaigns that describe food insecurity and the availability of campus food resources
Community	Expand and build upon community partnerships to connect students to additional resources
Public Policy	Advocate for the expansion of federal and state food programs for college students; Work to reduce educational costs

At the intrapersonal level of the SEM, the internal beliefs of individuals, including their attitudes and assumptions, largely affect whether they will use resources that promote health. A variety of intrapersonal factors precluded students from pantry use, including the negative stigma associated with food resources, the belief that other students need the pantry more, the perspective that the CFP can only be used as a last resort, and the view that food insecurity is a personal problem. Institutions should support students as they confront these preconceived notions by developing educational campaigns that highlight the commonality of student food insecurity, the availability of campus food resources, and the importance of accessing food resources proactively. Importantly, all members of the campus community should be engaged in these efforts. At the interpersonal level, it is critically important that social influences are considered to change the views and behavior of individuals (McLeroy et al., 1988).

Colleges and universities should also address how food resources are delivered to students as logistical barriers differentiate between pantry users and non-users. In alignment with the SEM, logistical challenges are considered institutional factors, and they should be identified and rectified. Campus food pantries should be positioned in a centralized location that provides easy access while maintaining the privacy of students (Fernandez, 2020). Locating the pantry in an easily accessible space can decrease logistical barriers and reduce the social stigma that is often associated with pantries that are hidden on campus. Furthermore, alternatives to a traditional campus pantry, such as a mobile food pantry or a free lunch service for students, should also be considered.

Furthermore, dispelling some of the social stigma, myths, stereotypes that are commonly associated with the use of campus food resources is important to promote service use and can be achieved at the institutional level. To begin removing the stigma that is associated with food assistance programs, institutions must first assert that food insecurity is not an individual failing, but rather a social and economic equity issue that must be addressed (Food Research and Action Center, 2021; Raymond & Rouzier, 2023). Colleges and universities could host events and invite experts to lead discussions on the root causes of hunger, including the insufficient U.S. social safety net, low or underemployment, and systemic racism (Fisher, 2017; Food Research and Action Center, 2021). Raymond and Rouzier (2023) suggest that in addition to identifying food insecurity as a societal problem, the stories and testimonials of individuals who experience food insecurity must also be revealed. Sharing the lived experience of

individuals is a powerful tool because it humanizes the experience and demonstrates the interconnection between food insecurity and larger societal problems, resulting in empathy and care as opposed to stigma.

Colleges and universities are part of larger communities, which also play a role in behavior change. Students have access to the CFP, but they also have access to the resources that exist in the surrounding community. Within the community sphere of influence, Gregson et al. (2001) assert, “The greater the number and variety of community partnerships and the deeper the collaborations with these partners, the greater the learner’s access will be to education, nutritious low-priced food, and community recognition of nutritional success” (p. 8). Broad support from the community and public policy sector are necessary to help students achieve or maintain food security. Relationships with community agencies should be continued and expanded and colleges and universities must meaningfully engage with the public policy sector to advocate for federal and state food resources. Students have been noticeably absent from government food support programs (Government Accountability Office, 2018), and colleges should organize advocacy efforts to increase access to these services. Institutions should also advocate for increased federal, state, and local support for higher education to reduce college costs.

Campus pantry use has been linked to health and personal benefits among students. Martinez et al. (2022) found that increased monthly visits to CFPs were associated with reduced likelihood of depressive symptoms, improved sleep, and better overall perceived health. Other research demonstrates that CFP clients can spend more money on other necessities and report improved job performance (McArthur et al., 2020). While this research is promising, the benefits of CFP use will not be fully realized if the obstacles that prevent students from using these resources are not addressed and ameliorated. Barriers to campus food pantry use must be addressed at all levels of the SEM for students to reach their fullest potential.

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