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Knowledge and Perceptions of Supplemental Nutrition Assistance Program-Eligible Purchases: A Survey of US Midwestern College Students

Matthew Chrisman[1] | Matthew J. Landry[2] | Seth Klobodu[3] | Dylan Bailey[4]

[1]School of Nursing and Health Studies, University of Missouri-Kansas City, Kansas City, Missouri, USA | [2]Department of Population Health and Disease Prevention, Joe C. Wen School of Population & Public Health, University of California, Irvine, California, USA | [3]Department of Nutrition and Food Science, California State University Chico, Chico, California, USA | [4]Well Done Nutrition, LLC, Millburn, New Jersey, USA

Correspondence: Matthew Chrisman (chrismanms@umkc.edu)

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ABSTRACT

Little is known regarding the intrastudent barriers to accessing and utilising the Supplemental Nutrition Assistance Program (SNAP). To examine college students' knowledge of allowable items and perception of what items should be allowed for purchase with (SNAP) benefits, particularly by food security status and enrolment in SNAP in the past 12 months, a cross-sectional, online survey was conducted among 844 college students from nine higher education institutions in a single Midwestern state. Many students were unaware that certain food items were already covered by SNAP, leading them to express a desire for these items to be included. Additionally, there were misconceptions about the eligibility of nonfood items for purchase using SNAP benefits. Beyond traditional food items, students highly desired the inclusion of necessities such as toiletries and cooking equipment. Improved outreach and educational campaigns could be developed to clarify the eligible items and scope of the programme, enabling students to make informed decisions about their SNAP benefit usage.

1 | Introduction

The Supplemental Nutrition Assistance Program (SNAP) is the largest component of the social safety net against food insecurity in the United States (Bleich et al. 2020; Insolera et al. 2022). SNAP provides nutrition assistance to eligible, low-income individuals and households via a monthly benefit. Benefits are provided on an electronic benefits transfer (EBT) card which can be used, like a debit card, to purchase food at authorised retailer stores. The monthly benefit amount depends on the number of individuals in the household and is updated each year based on the cost of the Thrifty Food Plan (US Department of Agriculture n.d.-a). Benefits can be used to purchase most food items that a participant desires such as milk, eggs, fruit, vegetables, cereal, bread and condiments. However, items such as alcohol, tobacco, marijuana products, vitamins, supplements or medications, hot foods (i.e., cooked rotisserie chicken or a cooked pizza) and nonfood items (e.g., cleaning supplies, paper products like toilet tissue, paper towels or napkins and hygiene products) are ineligible to be purchased using SNAP benefits. There are currently no restrictions on the nutrient quality of foods purchased with SNAP benefits.

In recent years, there has been considerable interest among policymakers, researchers and even the general public about whether SNAP could be restructured to not only address food insecurity but also improve nutrition security (Long et al. 2014; Mozaffarian et al. 2021; Pomeranz 2017; Thorndike et al. 2022). According to the US Department of Agriculture, nutrition security is defined as 'consistent and equitable access to healthy, safe,

affordable foods essential to optimal health and well-being' (US Department of Agriculture n.d.-b).

Proposed revisions targeting SNAP-eligible foods have included incorporating financial incentives for purchasing fruits, vegetables or other healthful foods as well as disincentivising or restricting altogether purchasing unhealthy items, such as sugar-sweetened beverages (Basu et al. 2014; Harnack et al. 2016; Mozaffarian et al. 2018; Olsho et al. 2016; Polacsek et al. 2018; Valluri et al. 2021). The Farm Bill is a package of legislation that authorises financial appropriations for a broad range of USDA programmes, including federal nutrition assistance programmes such as SNAP. The current legislation, the Agriculture Improvement Act of 2018 (P.L. 115–334), expired in September 2023. Federal policymakers may be interested in new data to support how SNAP benefits may be strengthened and leveraged in a way that supports and facilitates better dietary habits and reduces health disparities.

One group that is often overlooked within policy discussions focused on restructuring SNAP benefits is college students (Freudenberg et al. 2019). Despite much work over several decades, food insecurity remains a pervasive problem among college students in the United States (Abbey et al. 2022; Goldman et al. 2024; Hagedorn-Hatfield et al. 2022; Landry et al. 2022; Nikolaus et al. 2020) and exists at levels higher than the general population (Rabbitt et al. 2024). Considering SNAP's far-reaching benefits among the general population (Keith-Jennings et al. 2019), it would be assumed that college students would equally benefit from receiving SNAP; however, due to outstanding restrictions on SNAP eligibility for full-time college students (Freudenberg et al. 2019), many students are ineligible to qualify for and receive assistance (Esaryk et al. 2022). Even when students are eligible, some students report significant barriers to entry as well as confusion on eligibility or coverage once enrolled (Hagedorn-Hatfield et al. 2023; Henry 2017; Peterson and Freidus 2020).

Little is known regarding the intrastudent barriers to access and utilise SNAP (Landry et al. 2023), including but not limited to what college students understand about SNAP, their knowledge of allowable items covered when using SNAP benefits, and more generally, perceptions of what items should be covered by SNAP benefits. Understanding these factors could help inform policy that creates opportunities for healthier dietary intake and improvements in food and nutrition security.

Using a secondary analysis of data collected among students at varying higher education institutions across one Midwestern state, this study sought to examine: (1) college students' knowledge of allowable items covered when using SNAP benefits; (2) their perceptions of what items should be allowed for purchase with SNAP benefits; and (3) whether students' knowledge and perceptions differed by their food security status and whether they had been enrolled in SNAP in the past 12 months.

2 | Methods

This was a secondary analysis of the *SNAP for U* study, an observational, cross-sectional survey study examining food insecurity and SNAP knowledge and participation among a sample of college students across the state of Missouri. Approval to analyse the data was obtained from the *SNAP for U* study team. Institutional review board (IRB) approval was not sought given the secondary analysis nature although the parent study was provided approval from the IRB at the University of Missouri-Kansas City.

The survey used in the study was developed by the *SNAP for U* team. Details are discussed elsewhere (Chrisman et al. 2024), but briefly in accordance with reporting guidelines for cross-sectional survey studies (Sharma et al. 2021), it included 51 questions in the following sections: demographics, food insecurity status (using the US Department of Agriculture's Food Security Module [Economic Research Service and USDA 2012]), knowledge and use of SNAP, and barriers and facilitators to using SNAP in college. Students were asked if they knew what SNAP was, then provided with a definition of SNAP/food stamps on the subsequent questions. One question asked if participants or their households had received food stamp benefits in the last 12 months. The term 'food stamp benefits' was chosen rather than 'SNAP benefits' due to students potentially being more familiar with that term. Students were asked to identify what items they believed were covered, and in a separate question what they perceived should be covered by SNAP benefits across nine eligible and 11 ineligible items as developed by others (Fordham and Baldridge n.d.). These questions were both 'select all that apply' and did not distinguish what was currently covered by SNAP or not. The instrument was pretested with a sample of 15 college students to examine face validity and completion time; no major wording changes were suggested. Average completion time was 15 min. The survey was administered online using Qualtrics (Qualtrics, Provo, UT), and participants provided online consent before being able to complete the survey questions. Data collection occurred from Fall 2021 to early Spring 2022, and students who completed the survey were emailed a $10 electronic gift card.

Students were eligible to participate whether they were enrolled in one of nine higher education institutions across Missouri; the institutions were chosen using convenience sampling to represent a variety of public, private, community college and technical schools across the state. Based on funding stipulations, the desired sample size was 1000 students, with a goal of 200 students per institution. A research team member identified student-facing contacts at each institution (e.g., department chairs, faculty members) and asked the contact to share the survey with their students. As initial recruitment proved challenging, additional institutions were recruited to increase participation. Data were downloaded into SPSS (version 27.0, IBM Corp., Armonk, NY) for analyses. Multiple checks occurred to ensure that data from returned surveys were appropriate. This included deleting student surveys from those not using institution-sponsored email addresses, those who submitted multiple surveys from the same IP address, and blank entries. Data were analysed using descriptive statistics (e.g., means and percentages). Chi-squared tests were conducted to compare group differences in SNAP knowledge by food security status and receiving SNAP benefits in the past 12 months or not. An alpha level of 0.05 was

used in significance tests. Missing data were handled by pairwise deletion to use a majority of the collected data.

3 | Results

After data cleaning and removal of duplicates and blank responses, a total of 844 students participated, representing nine higher education institutions in one Midwestern state (3 public, 2 private, 1 community college, 2 technical schools and 1 historically black college or university). The mean age of students was 23.5 (6.2) years, 55% were freshmen or sophomores, and almost half (48.8%) attended public institutions. Overall, 44.9% of students were food insecure, and 36.1% received SNAP benefits in the past 12 months. Demographic characteristics are shown in Table 1. The majority of students knew what SNAP was ($n = 505$, 67.9%), but few knew if they were eligible for the programme ($n = 257$, 34.3%) (Chrisman et al. 2024).

3.1 | Knowledge of Allowable Items and Perceptions of What Items Should be Allowed for Purchase by Food Security Status

Table 2 shows the comparison of knowledge of allowable items and perception of what items should be allowed for purchase with SNAP benefits stratified by food security status (i.e., food secure and food insecure). Significant differences were observed for the prevalence of items thought to be allowed for purchase with SNAP benefits among food secure and food insecure for the following: perishable foods, packaged foods, canned foods and bread, with food secure participants perceiving all of them were covered more than food insecure participants. For items not currently covered by SNAP benefits, items thought to be allowed for purchase by SNAP benefits among food secure and food insecure participants significantly differed among the following: alcoholic beverages, gasoline, toiletries, pet food, paper goods and kitchen utensils, with participants who were food insecure perceiving alcohol, lottery tickets and tobacco were allowed more than participants who were food secure. In particular, food-insecure participants thought alcoholic beverages were allowed more compared to food-secure participants (11.6% [$n = 44$] vs. 6.0% [$n = 28$], respectively, $p = 0.003$).

Among items that students perceived should be allowed for purchase by SNAP, significant differences were observed among food secure and food insecure participants for the following: perishable foods, packaged foods, canned goods, organic foods, food from farmer's markets, bread and desserts. Among items not currently allowed for purchase with SNAP benefits, significant differences were noted among the following: alcoholic beverages, toiletries, pet food, gasoline, paper goods, kitchen utensils and prepared foods. Regardless of food security status, the most frequent items students perceived should be allowed for purchase were basic needs items, including toiletries ($n = 358$ [42.4%]) and paper goods ($n = 317$ [37.6%]). Alcohol was the only item significantly preferred more by those who were food insecure compared to food secure (12.7% [$n = 48$] vs. 6.2% [$n = 29$], $p < 0.001$).

TABLE 1 | Demographic characteristics of college student participants in the Supplemental Nutrition Assistance Program (SNAP) for U study, with the number of participants responding to each variable in parentheses.

Variable	*n*, % or, mean, SD
Age ($n = 775$)	
Mean age (range: 16–57)	23.5 (6.2)
Gender ($n = 839$)	
Male	322 (38.4%)
Female	508 (60.5%)
Other	9 (1.1%)
Grade ($n = 843$)	
Freshman	226 (26.8%)
Sophomore	238 (28.2%)
Junior	77 (9.1%)
Senior	105 (12.5%)
Graduate student	144 (17.1%)
Other	53 (6.3%)
Race/Ethnicity ($n = 839$)	
White/Caucasian	622 (73.7%)
Black/African American	139 (16.5%)
Hispanic	45 (5.3%)
Asian	20 (2.4%)
American Indian	14 (1.7%)
Alaskan native	13 (1.5%)
Other	10 (1.2%)
Multiple	28 (3.3%)
Annual income ($n = 841$)	
$0–10 000	420 (49.8%)
$11000–20 000	180 (21.3%)
$21000–30 000	140 (16.6%)
$31 000+	101 (12.0%)
Higher education type ($n = 844$)	
Public	412 (48.8%)
HBCU	130 (15.4%)
Private	54 (6.4%)
Community college	214 (25.4%)
Tech school	34 (4.0%)
Mean BMI ($n = 788$)	
Range: 14.5–59.5	26.67 (6.9)

(Continues)

TABLE 1 | (Continued)

Variable	*n*, % or, mean, SD
BMI category ($n=775$)	
Normal and/or under weight	400 (51.6%)
Overweight	171 (22.1%)
Obese	204 (26.3%)
Food security status (based on the USDA Food Security Survey module) ($n=844$)	
Food secure	465 (55.1%)
Food insecure	379 (44.9%)

3.2 | Knowledge of Allowable Items and Perceptions of What Items Should be Allowed for Purchase by Whether Students Received SNAP Benefits Within Last 12 Months

Table 3 shows the comparison of knowledge of allowable items and perception of what items should be allowed for purchase with SNAP benefits stratified by whether students received SNAP benefits in the last 12 months or not. For items covered by SNAP, significant differences were observed between students who had and had not received SNAP benefits for the following: perishable foods, fruit and vegetables, packaged foods, canned goods, organic foods, food from farmer's markets, bread and desserts. Students not receiving SNAP benefits thought items were allowed for purchase more than students not receiving SNAP benefits. For items not currently covered by SNAP benefits, significant differences were observed between students who had and had not received SNAP benefits for the following: alcoholic beverages, gasoline, toiletries, pet food, paper goods, kitchen utensils, clothing, prepared foods and food from restaurants. Students not receiving SNAP benefits thought that alcohol was allowed for purchase at a higher percentage than those not receiving SNAP benefits (11.5% [$n=35$] compared to 6.9% [$n=37$], respectively, $p=0.021$).

Among items currently allowed for purchase with SNAP benefits, significant differences were noted between SNAP recipients and nonrecipients. Students receiving benefits preferred soft drinks more than those not receiving benefits (32.6% [$n=99$] vs. 25.7% [$n=138$], $p=0.032$). Among items not allowed for purchase with SNAP benefits, significant differences were noted between SNAP recipients and nonrecipients in what they desired to be covered for all items apart from lottery tickets. Regardless of receiving SNAP benefits, the most frequent items students perceived should be allowed for purchase with benefits were basic needs items, including toiletries ($n=357$ [42.3%]) and paper goods ($n=316$ [37.4%]). Also of note is that those students who are/were receiving SNAP benefits were more likely than those not receiving SNAP benefits to perceive that alcohol (14.5% [$n=44$] vs. 6.1% [$n=33$], $p<0.001$) and cigarettes (10.5% [$n=32$] vs. 4.5% [$n=24$], $p<0.001$) should be covered by SNAP.

4 | Discussion

This secondary analysis study examined college students' knowledge of allowable foods and perceptions of what items should be allowed for purchase with SNAP benefits, and what they desire to be covered, with particular attention to differences by food security status and whether they received SNAP benefits in the past 12 months. Students were aware of what SNAP was, but few knew if they were eligible for the programme. Overall, the students felt that basic needs items, such as paper goods, toiletries and kitchen utensils, which are not allowed for purchase with SNAP benefits, are items that should be allowed.

This study adds to the existing body of evidence regarding perceptions of food assistance recipients on items allowed for purchase with SNAP. Furthermore, our findings can serve as a starting point for potential ways to improve the programme from the college student perspective which has often been lacking in the literature (Blumenthal et al. 2014; Leung et al. 2017; Long et al. 2014; Rydell et al. 2018). This study fills an important gap in the understanding of what college students understand about SNAP benefits, their knowledge of allowable items for purchase when using SNAP benefits, and more generally, their perception of what items should be allowed for purchase with SNAP benefits.

Regardless of how the data were stratified, the study identified prevalent misconceptions among students regarding what items are allowed for purchase with SNAP benefits. Many students were unaware that certain food items were already allowed for purchase with SNAP benefits, leading them to express a desire for these items to be included. It is unknown though whether some students thought the items were not included and were saying that they should be or were simply agreeing they should be included. Additionally, there were misconceptions about the eligibility of nonfood items for purchase using SNAP benefits. Those receiving SNAP benefits appeared to be more knowledgeable about what foods were covered by SNAP, as one would logically assume. However, these findings overall highlight a significant lack of knowledge and awareness about SNAP benefits among this population in general.

Our findings also identified several non-food items that students perceived should be allowed for purchase with SNAP benefits, despite their current ineligibility. Notably, many of these items (e.g., toiletries, paper goods, gasoline) were essential for fulfilling basic needs, underscoring the potential impact among college students of expanding SNAP coverage to encompass nonfood items. Several studies have noted the need for campus-based programming or initiatives that target addressing basic needs among students (Landry et al. 2024; Leung et al. 2021; Martinez et al. 2021). Interestingly, within our study, kitchen utensils were important for food insecure and secure participants as well as among students who had and had not previously received SNAP benefits. A prior study of college students found that food preparation abilities and cooking facilities were significantly associated with food security status (Halfacre et al. 2021). Similarly, within the non-college, general population, households experiencing food

TABLE 2 | Knowledge of items allowed for purchase and perception of items that should be allowed for purchase with the Supplemental Nutrition Assistance Program (SNAP), by food security status*.

Item	Knowledge of items allowed for purchase with SNAP				Perception of items that should be allowed for purchase with SNAP			
	Total ($n=844$), n (%)	Food secure ($n=465$), n (%)	Food insecure ($n=379$), n (%)	p	Total ($n=844$), n (%)	Food secure ($n=465$), n (%)	Food insecure ($n=379$), n (%)	p
Items below are currently covered by SNAP benefits								
Perishable foods	564 (66.8)	340 (73.1)	224 (59.1)	<0.001	531 (62.9)	327 (70.3)	204 (53.8)	<0.001
Fruit and vegetable plants	550 (65.2)	313 (67.3)	237 (62.5)	0.084	567 (67.2)	319 (68.6)	248 (65.4)	0.184
Packaged foods	477 (56.5)	299 (64.3)	178 (47.0)	<0.001	470 (55.7)	280 (60.2)	190 (50.1)	0.002
Canned goods	517 (61.3)	322 (69.2)	195 (51.5)	<0.001	505 (59.8)	305 (65.6)	200 (52.8)	<0.001
Organic foods	292 (34.6)	167 (35.9)	125 (33.0)	0.207	374 (44.3)	225 (48.4)	149 (39.3)	0.005
Food from farmer's markets	196 (23.2)	115 (24.7)	81 (21.4)	0.143	345 (40.9)	204 (43.9)	141 (37.2)	0.029
Bread	517 (61.3)	300 (64.5)	217 (57.3)	0.019	464 (55.0)	280 (60.2)	184 (48.5)	<0.001
Soft drinks	249 (29.5)	131 (28.2)	118 (31.1)	0.194	237 (28.1)	121 (26.0)	116 (30.6)	0.081
Dessert/snack items	287 (34.0)	164 (35.3)	123 (32.5)	0.216	294 (34.8)	179 (38.5)	115 (30.3)	0.008
Items below are not currently covered by SNAP benefits								
Alcoholic beverages	72 (8.5)	28 (6.0)	44 (11.6)	0.003	77 (9.1)	29 (6.2)	48 (12.7)	<0.001
Toiletries	215 (25.5)	149 (32.0)	66 (17.4)	<0.001	358 (42.4)	223 (48.0)	135 (35.6)	<0.001
Pet food	57 (6.8)	38 (8.2)	19 (5.0)	0.045	148 (17.5)	97 (20.9)	51 (13.5)	0.003
Gasoline	42 (5.0)	32 (6.9)	10 (2.6)	0.003	127 (15.0)	85 (18.3)	42 (11.1)	0.002
Lottery tickets	28 (3.3)	12 (2.6)	16 (4.2)	0.129	43 (5.1)	20 (4.3)	23 (6.1)	0.158
Cigarettes/ tobacco	36 (4.3)	17 (3.7)	19 (5.0)	0.212	56 (6.6)	25 (5.4)	31 (8.2)	0.069
Paper goods	191 (22.6)	131 (28.2)	60 (15.8)	<0.001	317 (37.6)	211 (45.4)	106 (28.0)	<0.001
Kitchen utensils	118 (14.0)	81 (17.4)	37 (9.8)	<0.001	251 (29.7)	168 (36.1)	83 (21.9)	<0.001
Clothing	60 (7.1)	37 (8.0)	23 (6.1)	0.177	167 (19.8)	99 (21.3)	68 (17.9)	0.130
Prepared foods	204 (24.2)	119 (25.6)	85 (22.4)	0.162	284 (33.6)	171 (36.8)	113 (29.8)	0.020
Food from restaurants	66 (7.8)	35 (7.5)	31 (8.2)	0.411	125 (14.8)	77 (16.6)	48 (12.7)	0.068

*Chi-squared analyses were conducted to examine group comparisons by food security status.

insecurity were more likely to own fewer food preparation utensils and cooking utensils (Oakley et al. 2019). Potential implications could include the expansion of nonfood, basic needs items that are allowed for purchase with SNAP for this population.

It is interesting to note that some items that food insecure participants thought were covered or perceived should be allowed for purchase with SNAP more than food secure participants were alcohol, lottery tickets and cigarettes/tobacco, although only alcohol showed significant differences. These same trends were

TABLE 3 | Knowledge of items allowed for purchase and perception of items that should be allowed for purchase with Supplemental Nutrition Assistance Program (SNAP), by whether they received SNAP benefits in the past 12 months*.

	Knowledge of items allowed for purchase with SNAP				Perception of items that should be allowed for purchase with SNAP			
Item	Total ($n=842$), n (%)	Received SNAP ($n=304$), n (%)	Did not receive SNAP ($n=538$), n (%)	p	Total ($n=842$), n (%)	Received SNAP ($n=304$), n (%)	Did not receive SNAP ($n=538$), n (%)	p
Items below are currently covered by SNAP benefits								
Perishable foods	563 (66.9%)	148 (48.7%)	415 (77.1%)	<0.001	530 (62.9%)	146 (48.0%)	384 (71.4%)	<0.001
Fruit and vegetable plants	549 (65.2%)	183 (60.2%)	366 (68.0%)	0.022	566 (67.2%)	183 (60.2%)	383 (71.2%)	<0.001
Packaged foods	476 (56.5%)	146 (48.0%)	330 (61.3%)	<0.001	469 (55.7%)	152 (50.0%)	317 (58.9%)	0.012
Canned goods	516 (61.3%)	134 (44.1%)	382 (71.0%)	<0.001	504 (59.9%)	141 (46.4%)	363 (67.5%)	<0.001
Organic foods	291 (34.6%)	81 (26.6%)	210 (39.0%)	<0.001	373 (44.3%)	90 (29.6%)	283 (52.6%)	<0.001
Food from farmer's markets	196 (23.3%)	54 (17.8%)	142 (26.4%)	0.004	345 (41.0%)	86 (28.3%)	259 (48.1%)	<0.001
Bread	516 (61.3%)	149 (49.0%)	367 (68.2%)	<0.001	463 (55.0%)	129 (42.4%)	334 (62.1%)	<0.001
Soft drinks	249 (26.6%)	81 (26.6%)	168 (31.2%)	0.162	237 (28.1%)	99 (32.6%)	138 (25.7%)	0.032
Dessert/snack items	286 (34.0%)	81 (26.6%)	205 (38.1%)	<0.001	293 (34.8%)	84 (27.6%)	209 (38.8%)	0.001
Items below are not currently covered by SNAP benefits								
Alcoholic beverages	72 (8.6%)	35 (11.5%)	37 (6.9%)	0.021	77 (9.1%)	44 (14.5%)	33 (6.1%)	<0.001
Toiletries	214 (25.4%)	34 (11.2%)	180 (33.5%)	<0.001	357 (42.4%)	80 (26.3%)	277 (51.5%)	<0.001
Pet food	56 (6.7%)	5 (1.6%)	51 (9.5%)	<0.001	147 (17.5%)	17 (5.6%)	130 (24.2%)	<0.001
Gasoline	42 (5.0%)	5 (1.6%)	37 (6.9%)	<0.001	127 (15.1%)	15 (4.9%)	112 (20.8%)	<0.001
Lottery tickets	28 (3.3%)	12 (3.9%)	16 (3.0%)	0.449	43 (5.1%)	19 (6.3%)	24 (4.5%)	0.257
Cigarettes/tobacco	36 (4.3%)	17 (5.6%)	19 (3.5%)	0.156	56 (6.7%)	32 (10.5%)	24 (4.5%)	<0.001
Paper goods	190 (22.6%)	27 (8.9%)	163 (30.3%)	<0.001	316 (37.5%)	52 (17.1%)	264 (49.1%)	<0.001
Kitchen utensils	118 (14.0%)	22 (7.2%)	96 (17.8%)	<0.001	251 (29.8%)	40 (13.2%)	211 (39.2%)	<0.001
Clothing	60 (7.1%)	11 (3.6%)	49 (9.1%)	0.003	167 (19.8%)	34 (11.2%)	133 (24.7%)	<0.001
Prepared foods	204 (24.2%)	45 (14.8%)	159 (29.6%)	<0.001	283 (33.6%)	61 (20.1%)	222 (41.3%)	<0.001
Food from restaurants	66 (7.8%)	13 (4.3%)	53 (9.9%)	0.004	125 (14.8%)	26 (8.6%)	99 (18.4%)	<0.001

*Chi-squared analyses were conducted to examine group comparisons by food security status.

noted by those who received SNAP compared to those who did not. Potential justifications explaining these trends include that they potentially represent coping mechanisms among those who are food insecure or on SNAP, or that overall marketing of the food environment (i.e., in-store promotions) may impact perceptions of consumers and in particular SNAP recipients. In particular, there is recent evidence of increased marketing of tobacco and less healthy food choices impacting purchases at SNAP retailers (Petimar et al. 2023; Rust et al. 2019). Some stakeholders and researchers have argued that rather than focusing solely on the dietary intake of SNAP recipients, emphasis should be placed on the food environment, including the retail environment, in order to improve health (Leung et al. 2013).

4.1 | Strengths and Limitations

This was a novel study examining knowledge and perceptions of how SNAP benefits could be used among college students. The study's sample, drawing from several higher education institutions within a midwestern state, is seen as a strength of the study. Several limitations should also be acknowledged when interpreting the results. First, the use of the USDA Food Security Survey Module to assess food security status, while a widely used tool, has been questioned in the context of college students. The validity of this instrument in capturing the unique challenges faced by college populations may be hampered, possibly influencing the accuracy of the food security assessment (Ellison et al. 2021; Nikolaus et al. 2019). Secondly, our findings may not be entirely generalisable to college students residing in other states or attending institutions with campus environments and student body censuses that are different from the current sample. Regional and institutional differences in socioeconomic status, food access and availability, and on-campus support services could impact the applicability of results beyond the institutions surveyed. Further research employing longitudinal and more widely representative sampling methods would be beneficial to strengthen the generalisability of the evidence base. Third, like many prior studies of food security among college students, this study adopted a cross-sectional, convenience sampling approach, which may introduce selection bias and limit the generalisability of the findings. Additionally, the response rates for each institution were not determined, potentially affecting the representativeness of the sample and introducing a source of uncertainty in the results. Lastly, student's knowledge and perceptions of how SNAP benefits could/should be used were captured at a single timepoint. In particular, perceptions may be subject to change over time due to policy developments or the availability and access to on-campus student services, altering participants' views of the SNAP programme's efficacy and relevance.

In summary, this study examined the knowledge and perceptions of college students regarding the scope of SNAP benefits and their perceptions of what should be allowed. As the main issues with college students and SNAP are currently centred around accessibility and eligibility, the findings of this research have significant implications for areas in which nutrition educators can inform students on student eligibility requirements for SNAP, as well as advocate for SNAP benefits to be reformed. Our findings revealed a concerning aspect regarding students' misconceptions about what is covered by SNAP benefits. Many students expressed desires for certain items to be covered that were already part of the existing SNAP benefit coverage, as well as desiring additional items to be covered that address basic needs. Improved outreach and educational campaigns could be developed to clarify the eligible items and scope of the programme, enabling students to make informed decisions about their SNAP benefit usage (Larin and Government Accountability Office 2018). Furthermore, our study revealed that policymakers should consider expanding the list of eligible items covered by SNAP benefits. Beyond traditional food items, the inclusion of necessities such as toiletries and cooking equipment was highly desired by students. Allowing these items to be covered by SNAP benefits would address essential basic needs and promote holistic wellbeing among college students (Savoie-Roskos et al. 2022). These findings can be used to guide future research and policy decisions with the aim of creating a more inclusive and supportive SNAP programme for college students.

Author Contributions

M.C., M.J.L., S.K. and D.B. conceptualised the study. M.C. was responsible for collecting and organising the data. M.C., S.K. and M.J.L. analysed and interpreted the data. All authors contributed to drafting the manuscript. All authors provided final review and approval of the study manuscript before submission. This study was funded by the Fahs-Beck Foundation of the New York Community Trust.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Contact the corresponding author of this study for all data files.

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