doi: 10.4085/1062-6050-0660.22

Title: Understanding food insecurity among college athletes: A qualitative study at a public university in New England

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Acknowledgements: We would like to thank the students who participated in this research study. This research was supported with funding from Southern Connecticut State University.

No author has any conflict of interest to disclose. All authors have seen and approved the final version of this manuscript. The manuscript has not been previously published nor is it being considered for publication elsewhere.

Understanding food insecurity among college athletes: A qualitative study at a public university in New England

Context: Previous research at a public university in New England, where the current study takes place, has shown that approximately one-third of undergraduate students have experienced some aspect of food insecurity. More recent work at this university has revealed that students who were members of a sports team were four times more likely to be food insecure than their peers who were not on a sports team. The estimated prevalence of student athlete food insecurity from other previous research studies ranged from 14% to 32%. **Objective:** To understand the contributing factors to food insecurity (FI) among college athletes. **Design:** This was a qualitative study. **Setting:** This study took place at a public university in a New England state. **Patients or Other Participants:** Data is presented for 10 college athletes who experienced some level of FI using the USDA Six-Item Short Form. **Data Collection and Analysis:** Data was collected using a brief demographic questionnaire and semi-structured interviews. **Results:** Contributing factors included a lack of time, limited campus dining options, and limited access to transportation or kitchens. Coping strategies included buying cheaper foods, skipping meals, and managing time and resources. Food insecurity negatively impacted student's athletic performance. Study athletes struggled to balance their athletic and academic schedules and obtain a diet that allowed them to meet their performance goals. **Conclusions:** There is a need for additional and innovative programming to support food insecure student athletes.

Key Words: Food insecurity, college athletes, nutrition

Abstract Word Count: 232

Body Word Count: 4,587

Key Points: (1) Contributing factors to student athlete food include a lack of time, limited campus dining options, and limited access to transportation and kitchen. (2) Food insecurity has negative impacts on student athlete's athletic and academic performances.

Introduction

In 2019, an estimated 10.5% of households in the U.S. were food insecure[1]. Many colleges and universities have started to measure food insecurity on their campuses, with representative studies finding that between 14.1 to 52.1 percent of students are food insecure[2-5]. Food insecurity among college students is related to decreased academic performance, such as lower GPAs, having difficulty focusing in class, and increased likelihood of having to withdraw from or failing courses[4,6]. Food insecure college students are also more likely to be depressed[7-9] and participate in unhealthy eating behaviors such as skipping breakfast[7] and eating fewer servings of fruits and vegetables[7,10].

Previous research at a public university in New England, where the current study takes place, has shown that approximately one-third of its undergraduate students have experienced some aspect of food insecurity[8,11]. These surveys were a representative survey of students with a high response rate of 87 percent for both studies[8,11]. More recent work at this university has revealed that students who were members of a sports team were four times more likely to be food insecure than their peers who were not on a sports team[8].

Since this study was conducted, more research on food insecurity among student-athletes has been published. Estimated prevalence of student athlete food insecurity from these individual studies ranged from 12 to 32 percent[12-17]. Reasons for student athlete food insecurity in these studies included limited time and finances[15,17] and less time to work paying jobs[17]. Research done by The Hope Center for College, Community, and Justice has also shown that rates of food insecurity were higher amongst student athletes at NCAA Division II schools (26%) compared to Division I (24%) and Division III (21%) schools[17]. Studies have also revealed that food insecurity impacts athletes' ability to perform in their sport[13].

Most previous studies on student-athlete food insecurity collected quantitative data from cross-sectional study designs using online surveys administered via e-mail[14-16] or in person[13]. This study is one of the first of its kind to collect qualitative data to provide deeper insights into college student athlete food insecurity.

The purpose of this study was to understand why the student athletes at this university experience a high burden of food insecurity. Specifically, the aim of the research was to answer the following research questions: 1) Why are student athletes experiencing food insecurity? 2) How do student athletes cope with food insecurity? 3) What are the consequences of food insecurity on student athletes? 4) What programmatic suggestions to address athlete food insecurity do athletes have?

Methods

Study Design

A key informant interview with one of the strength coaches on campus was completed as preliminary work for this study. The strength coach shared that some athletes experienced decreased performance in the weight room and had significant weight loss between semesters. As a result of this interview, the strength coach and researcher formed a partnership to investigate the underlying factors contributing to the observations of the strength coach and the higher rates of food insecurity amongst student athletes on campus as reported in Zigmont et al[8]. The strength coach assisted in advertising the current study to their athletes and the researcher reported back to the coach on the results of the study once it was completed.

This study used generic qualitative methods[18] including semi-structured interviews to provide a richer understanding of student athletes' experiences with food insecurity. IRB approval was obtained at the university where this research took place prior to data collection.

Participants

Student athletes were recruited using convenience and snowball sampling during the Spring 2020 semester. Inclusion criteria required participants to be (1) athletes participating in any sport (sports club or NCAA Division sports team) and (2) at least 18 years old.

Flyers were posted across campus to advertise the study. The aforementioned strength coach also helped distribute flyers and verbally advertised the study to athletes. Participants who completed an interview were encouraged to tell their friends about the study. Student athletes who were interested in the study contacted the researcher via e-mail to set up an interview. The researcher worked with the students to set up an interview date and time that fit their schedule.

Instrumentation

Prior to the interviews, student athletes completed a brief demographic questionnaire (Appendix A) to gather basic demographic information and food insecurity status using the USDA U.S. Household Food Security Survey Module: 6-item short form[19]. Both the interview guide (Appendix B) and demographic questionnaire were adapted from those used in previous studies by Zigmont and colleagues[20] to ensure the language of the questions matched the student athlete population. This interview guide was adopted for this study as it had been used for students at this university in a previous study[20]. The interview guide was also reviewed by

several content experts prior to use. A constant comparative approach was used to review and improve the semi-structured interview questions throughout the study.

Procedure

Interviews were held in a private study room in the university library. Student athletes were first given a brief description of the study and informed consent was obtained. All participants were informed that the interview would be audio recorded, and that they may use a pseudonym or not provide their name. Student athletes then completed a short demographic questionnaire before the interview took place. Interviews lasted between 10 and 18 minutes. At the completion of the interview, each participant was given a list of food insecurity resources on campus and a $20 gift card to a local grocery store. Interviews were later de-identified and transcribed for coding and analysis, all of which was stored securely by the primary researcher. Recordings were deleted after they were transcribed.

Interviews were completed until saturation was reached. Saturation in this case reflects an ongoing process of reviewing data and ending the sampling and interviewing processes when little to no additional data or themes were being identified. After removing ineligible participants from the results, saturation was once again confirmed by reviewing the remaining eligible participant interviews and ensuring that no new themes were being identified.

Analysis

Demographic questionnaires were analyzed using Microsoft Excel to gather frequencies, percentages, means, and standard deviations (when applicable) of student athlete demographic data. Interview recordings were transcribed verbatim into Microsoft Word with the help of a

transcription app, "Transcribe - Speech to Text"[21], and were reviewed and edited as needed for accuracy. An initial review of the interviews identified recurring ideas and experiences to inform coding and major themes. To minimize researcher bias and ensure results accurately reflected the participants' voices, two researchers coded the interview transcripts separately using Microsoft Word and met to compare and consolidate codes. Coded interviews were then analyzed for themes. Themes were further analyzed for patterns. Interview themes, patterns and quotes are provided here to demonstrate the findings within this sample. Final patterns, codes, and themes were organized into the appropriate levels of the Socio-Ecological Model[22]. Triangulation was also used to align interview data to USDA food insecurity status.

Results

A total of 18 student athletes e-mailed the researcher expressing interest in participating in this study. Interviews were conducted with all 18 interested students. All questionnaires and interviews were reviewed for indications of food insecurity to verify that student athletes qualified for the study. Questionnaire and interview data was removed from analysis for seven participants who were found to not be food insecure by the USDA questions. As only one participant was a member of a club sports team, we decided to remove this participant and focus on NCAA athletes only. We present data for the ten student athletes on NCAA teams that were found to be food insecure.

Description of the Sample

A total of ten food insecure NCAA athletes participated in this study. All but one of these student athletes were White (non-Hispanic) (n=9, 90.0%). The study population was evenly

divided between males and females. The average age of student athletes was 20 (SD = 1.8). A majority of student athletes lived on-campus (n=8, 80.0%) and in a residence hall (n=7, 70.0%). Student athletes also lived in an off-campus house or apartment (n=2, 20.0%). One student athlete lived in an on-campus apartment. A third (n=3, 30.0%) of student athletes reported having no or limited access to a kitchen (as in, the kitchen was on a different floor than their dorm room that made it hard to access). All student athletes in the sample were attending the university full-time. See Table 1.

INSERT TABLE 1 HERE

Using the scoring guide for the USDA Household Food Insecurity: Six Item Short Form, half of this sample experienced very low food security (n=5, 50.0%), followed by marginal food security (n=3, 30.0%) and low food security (n=2, 20.0%). We summarize participant responses to the USDA Household Food Insecurity questions[19] in Table 2.

INSERT TABLE 2 HERE

Student Interviews

Interviews with student athletes revealed reasons as to why these athletes experience food insecurity, provided insight into the methods these athletes use to cope with their food insecurity, and described some of the consequences food insecurity has had on student athletes' academic and athletic lives. Themes that emerged with regard to reasons for food insecurity included a lack of time, special dietary needs, limited kitchen access and having a limited meal plan available. Student athletes coped with food insecurity by using organization and planning skills, purchasing generic brands when grocery shopping and rationing food when resources were scarce. The

consequences food insecurity had on student athletes included negative athletic performance, academic difficulties and increases in stress levels. Athletes also had several ideas for things the university could do to help student athletes who are food insecure which included increasing the number of meal swipes allotted to student athletes, improving the food options at the university dining hall, and placing healthy food options inside of athletic buildings.

Why are Student Athletes Food Insecure?

Lack of Time. Most athletes described having a lack of time for grocery shopping, cooking, and eating due to busy academic and athletic schedules. Even though most athletes in this sample had a meal plan, they expressed a lack of time between classes and practices to stop and at the dining hall for a meal. This lack of time also caused some athletes to skip meals all together.

Similarly, between classes, practices, work, and games, many athletes often did not return to their dorms or homes until late. By this time student athletes did not have the energy to take the time to cook a meal and preferred to just grab something quick to eat.

> "...just running between classes, sometimes I have to skip a meal or two so I can run to work, and then maybe just have a bigger meal later…"

> "...especially if I have a late-night practice, if I come home like I don't wanna make chicken, and do that, I'd rather just eat a bowl of cereal or like an apple or something instead, 'cause it's just quicker and I'm already really hungry."

Special Dietary Needs. Many athletes described how the demands of being an athlete required them to eat more than their non-athlete peers for them to get enough nutrients and energy to be successful in their sport. For student athletes who grocery shopped, they also found the increased price of healthy foods to be a barrier in eating healthy diets.

"....like, being an athlete, you need more food and more protein to fuel your body, and that's like more money you have to spend, so being an athlete kind of makes it a little more difficult to like, have enough food I guess."

Limitations of Campus Dining Hall. Student athletes mentioned that both the options and quality of the food at the campus dining hall did not meet their needs. Athletes mentioned a lack of quality, healthy options, with an emphasis on healthy proteins. For some, the hours of the dining hall were also insufficient.

"…this isn't what you should be eating, you just like can't do it right now…so you just have like a salad, but like, you can't add any protein on it because the protein has sauces and everything. So you just want to eat clean, but you can't, so you eat less or just a salad."

"...I wish [the dining hall] was open a little later, 'cause when I get out of practice, especially if I don't have any food at home, like I would like to go to [the dining hall], but it closes at 9, and if I get out of practice at 8, I'll only have like, 30 minutes…"

Limited Kitchen Access. Many student athletes lived in dormitory buildings that did not have kitchens or did not have kitchens on every floor, which made it difficult for them to cook their own meals.

"Yeah, like so [the kitchen is] only on the first floor though. So, I'm on the fourth floor, so I have to go all the way down there if I'm gonna cook…"

Limited Meal Plan. For those without an unlimited meal plan, having to budget their limited swipes prohibited them from using the campus dining hall whenever they wanted. Student athletes sometimes relied on friends to swipe them into the dining hall, using guest swipes, when they did not have enough swipes of their own.

"...but I only have 25 [meal swipes], so it's like either I waste a swipe and then don't get a meal during the week or I go to [the dining hall] and somebody swipes me in."

What are the Consequences of Food Insecurity on Student Athletes?

Athletic. Most student athletes mentioned that not getting enough to eat impacted their athletics and resulted in a lack of energy and not being able to perform at the top of their abilities. Other impacts included losing weight and being more susceptible to injury.

"I definitely see myself like exhausted through the day…at the end of practice I'm just like…done, like so tired…I feel like most of the time if I'm not performing well it's because I didn't eat or like eat the right things."

"I'd say the main aspect is just maintaining weight, which like I can play, but if you can't maintain your weight, you can only play to a certain extent…"

Academic. While athletes primarily emphasized the impacts of not eating on their athletic performance, they did experience similar impacts on their academics, including not having enough energy to focus in class.

"If you don't [eat] you get tired more fast and then concentrating in class is harder."

Stress. Athletes expressed being stressed about not having enough time to eat or grocery shop, or having a limited budget to buy food. Most student athletes in this sample did not work a paying job due to the time dedication needed to be an athlete. Additionally, nearly all student athletes responded that food was at the top of their spending priorities.

"...I definitely think about [money] every time I buy food, because I'm an athlete, so I can't have a job...being a NCAA athlete is a full-time job, you just don't get paid."

How do Student Athletes Cope with Food Insecurity?

Organization and Planning. Student athletes often planned times out of their schedules to eat. Another athlete mentioned evaluating her food-related needs based on her upcoming schedule.

" I try to think ahead of you know, the things I'm going to buy, and I'll try to think of you know, what I'm going to eat for the next few days and I try to think of if I have a game or something, 'cause if I have a game, I know we're going to have a tailgate, which means I don't have to worry about making food for that night and they give us extra food, so then I don't have to worry about, you know eating another night."

Buy Generic Brands. Student athletes mentioned choosing generic brand products over the name brand versions to save money when purchasing groceries. Some other strategies athletes mentioned using when grocery shopping included buying only the essential items they needed, buying food in bulk, or buying nonperishable food that lasted longer.

"Well like, when I go shopping, I try to say in like the healthy part, but then like, there's stuff with the same things but in the cheaper areas, so like I go there, because it's the same thing but I'm just paying more for like a label, I guess…"

Rationing. Some student athletes rationed portions or ate less to ensure they had enough meals for later. A few athletes also mentioned using meal replacements as a strategy to save money. Additionally, some brought snacks with them, such as fruit and granola bars, so they had something to eat during the day.

"...I guess like if I'm making something I'll try to, like if I'm making pasta, I'll try to use like, a third of it rather than half because I know I'm gonna want it later on, or say with

chicken if I make two pieces because I feel like I need that protein, I'll be like well, I need that protein another day so I'm just gonna eat one today."

"...I always bring snacks and at [the dining hall] I grab fruit on the way out, so I have like an apple or like a banana or some kind of stuff."

Suggestions for the University

Student athletes had several ideas about how the university could better support student athletes who are struggling with having enough to eat. The most popular suggestion was increasing meal swipes or meal plans for athletes. Other solutions included: improving the quality of food available, expanding the hours at the dining hall, making sure each dorm on campus has a kitchen available to students, providing nutrition education to athletes, increasing advertisement for food assistance resources on campus, increasing athletic funding to include food, increasing the availability of healthy and affordable food options on campus, and creating healthy food locations in athletic buildings.

"The meal swipes is a big thing, like, just like, not unlimited swipes but like to be able to go to [the dining hall] like a couple times a day makes a big difference..."

"I feel like we should definitely have some type of food thing in an athlete building in the field house. I don't know, like with granola bars and like healthy foods ... I wish we had it, like a room or storage just for food and that we could go there after practice and get something like very fast."

Discussion

Student athletes in this sample faced several barriers to food security. Most of these barriers were created by the demands of being a student athlete; busy academic and athletic schedules left athletes with less time and energy for cooking, grocery shopping, and eating. Additionally, student athletes felt they needed to eat more than their non-athlete peers and that the lack of healthy options in the campus dining hall prevented them from meeting their dietary needs. The increased price of healthy foods also acted as a barrier for athletes to get enough nutritious foods. Athletes with limited kitchen access or meal plans faced additional challenges. Athletes coped with not having enough to eat by using several strategies, such as organizing their time, buying generic brand foods, and rationing food portions. Athletes without enough to eat found it difficult to perform both in their athletic and academic lives.

Barriers to Food Security and The Socio-Ecological Model

The Socio-Ecological Model[22] evaluates how social and environmental factors in an individual's life influence health behaviors and outcomes. This model can be used to further identify what barriers to food insecurity student athletes face.

Intrapersonal factors are characteristics relating to the individual, ranging from demographics like age and gender to financial resources and time management skills[22]. Intrapersonal factors found in this study that contributed to student athlete food security included a lack of time and limited kitchen access. Other studies amongst student athletes have also found that time was an obstacle in getting meals. For example, in a study investigating reasons why NCAA Division II athletes left their teams, results suggested that student athletes were burdened

by time constraints that kept them from working paying jobs that would provide them with the funds needed to pay bills and purchase necessities[23]. Approximately 11 percent of Division II athletes in the study conducted by The Hope Center were unemployed and 48 percent% worked less than 20 hours a week[17]. As most student athletes in the present study sample also did not work paying jobs, it is possible they found the time spent in their sport prevented them from doing so.

On June 21, 2021, the Supreme Court of The United States prohibited the NCAA's restrictions on education-related benefits for student athletes, such as scholarships at graduate or vocational schools. In this ruling, the Supreme Court also called for the NCAA to provide legal justification for its remaining compensation rules that restrict student athletes from receiving compensation or benefits from their colleges for playing on their sports teams[24]. This is a promising step towards allowing student athletes to be paid for their performances, which has the potential to increase food security for athletes by giving them the financial resources they need to maintain sufficient, healthy diets. Furthermore, by removing the cap on educational-related benefits universities are allowed to give athletes, student athletes may now be able to save more money on their education or receive scholarship funds that would allow them to purchase better meal plans on campus or have more money to buy groceries.

Institutional level factors are characteristics of organizations that individuals are a part of, such as school and work[22]. The campus dining hall presented as an obstacle to athletes as the options provided prevented them from following a diet that met their athletic demands. This is similar to the results of a study conducted amongst student athletes at a Midwestern university; student athletes found unhealthy foods like sweets or sugary drinks were more readily available than fresh fruits and vegetables or lean meats[25]. In another study investigating the diets of female

college student athletes, most participants reported their energy intake was significantly less than their estimated needs[26]. Participants in the current study especially emphasized a lack of healthy proteins. Similarly, 50 percent of participants in Shriver et. al[26] did not meet the recommendations for daily protein intake. Inconvenient dining hall hours that overlapped with the times of games or practice is another factor found to contribute to student athlete food insecurity[15], also similar to the athletes in this study.

Consequences of Food Insecurity

There were many effects that food insecurity had on student athletes, as reported in this study sample. Athletes emphasized the impacts of food insecurity on athletic ability, such as decreased performance and trouble focusing during practice. Similarly, athletes reported impacts on academic ability, such as having less energy to focus in class as a result of food insecurity. These findings are supported in other studies where they also found that hunger often affected student athletes' performance during games, practices, and inclass[13,14,15]. For example, one study found that approximately 35 percent of athletes reported that hunger affected their athletic performance[13]. In their study amongst Division III student athletes, Brown and colleagues[16] found that most of their participants reported that their academic and athletic performances and their overall health would improve from increased access to food. Additional consequences of food insecurity in Brown et. al[16] included increased stress and weight loss or gain. These results also mirror comments from participants in the current study.

Coping with Food Insecurity

Student athletes used a variety of methods to cope with food insecurity, such as time management, rationing food, and buying generic brand items or less expensive, unhealthy food options. Similar coping methods have been observed in other studies where food insecure students were also more likely to buy cheaper foods despite them often being less healthy options[6,13] , skip meals or not eat for an entire day[13,14]. Athletes in Shriver et. al[26] ate out on average of approximately five times per week, most commonly frequenting sandwich shops, Mexican restaurants, and fast-food places. It is possible that athletes opted for those options due to their relative convenience and low price. Other food insecure students coped with food insecurity by asking family or friends for food or money for food if they did not have enough[13].

Suggestions for the University

Establishing on-campus food resources and programs may greatly improve food insecurity for student athletes. In their study, Hickey and colleagues[13] surveyed a group of college students that included student athletes and found that a higher proportion of students reported they would be more likely to use on-campus resources than federal programs, such as SNAP, or external community programs. Students in the current study gave some suggestions for on-campus resources, such as creating places to purchase healthy food in athletic buildings.

Another common suggestion from the students in this study included expanding meal plans and dining hall hours for student athletes. In Brown et. al[16] 18 percent of participants expressed that their meal plan funds were not enough to cover an entire semester. In the same study, 45 percent of participants also expressed that dining room hours conflicted with practice times[16]. Conflicting hours and meal plan shortages may be a contributing factor as to why some

student athletes face food insecurity despite having meal plans. Expanding the hours of dining halls and number of swipes allotted to athletes may help alleviate this obstacle.

The quality of food and hours of operation at the campus dining hall was also found to be an issue. Students in this study expressed a lack of healthy protein options and an abundance of fried, unhealthy foods. Shriver and colleagues[26] found that the female student athletes in their study did not meet the recommendations for daily protein or carbohydrate intake; furthermore, over half of the sample in their study self-described their diet as "fair" or poor"[26]. Ensuring healthy meal options at campus dining halls has the potential to greatly benefit the quality of student athletes' diets. Offering a sports nutritionist to student athletes may also prove beneficial to educate athletes on how they can meet their daily dietary needs.

Limitations

Limitations of this study included researcher bias and the collection of self-reported data from student athletes on the demographic questionnaire prior to the interview. It is possible that student athletes' answers were affected by the fact that the student researcher was present while they filled out the questionnaire.

Additionally, only one athlete from the sample was on a club sports team; differences between the organizational structure of club sports and NCAA prevented us from including this individual in the study. Further research examining differences between NCAA and club sports athletes would add new perspective to the literature on this topic. Due to these limitations the results of this study cannot be generalized to student athletes outside of the sample population.

Nearly all the participants in this sample identified as white (non-Hispanic) while only one student athlete identified as Hispanic. This is not representative of the overall student

417 population at this university, which is much more diverse. For example, over the semester this
418 study took place, approximately 12 percent of students at the university identified as Hispanic or
419 Latino, 17 percent as Black or African American, 3 percent as Asian, and 55 percent as white
420 (non-Hispanic)[27]. The use of convenience and snowball sampling may be contributing factors to
421 the lack of racial diversity in this study.
422
423 ***Conclusion***
424 Results of this study have found that food insecure student athletes and non-athletes share
425 some things in common, such as having trouble finding time to grocery shop, cook and eat.
426 However, this research has identified issues unique to the student athlete population, including
427 the effects of food insecurity on athletic performance. More research is needed to further
428 quantify the prevalence of food insecurity in the student athlete population and identify more
429 specific barriers to food security that are unique to this population. Further qualitative research is
430 needed to understand student's experiences and develop tailored solutions. College student food
431 insecurity is a complex issue, and a variety of diverse solutions will be required for different
432 student populations. Research to develop and implement programs and interventions targeted
433 towards student athletes to address food insecurity is needed to determine the best practices for
434 this population.
435 Future food assistance programs on college campuses may want to consider how to tailor
436 their existing programs to student athletes, such as providing healthy grab-and-go options to
437 address athletes' busy schedules. Providing nutrition education to student athletes may also be a
438 key intervention to improving food security and overall diet quality amongst this population by
439 educating athletes about how to meet their unique dietary needs within their existing resources.

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Table 1: Participant Characteristics (n=10)

Characteristic	n	%	Mean	SD
Age (years)			20	1.8
Race/Ethnicity				
White (Non-Hispanic)	9	90.0		
Hispanic	1	10.0		
Gender				
Male	5	50.0		
Female	5	50.0		
Do you live on or off campus?				
On Campus	8	80.0		
Off Campus	2	20.0		
Where do you live?				
Residence Hall	7	70.0		
House/Apartment/etc.	2	20.0		
On Campus Apartment	1	10.0		
Classification				
Freshman	2	20.0		
Sophomore	3	30.0		
Junior	5	50.0		
Hours Worked per Week				
0	7	70.0		
1-12	2	20.0		
12+	1	10.0		
How are you financing your education?				
My Own money	1	10.0		
Scholarships & Grants	7	70.0		
Student Loans	5	50.0		

Assistance from Family and Friends	5	1.0
Are you on a meal plan?		
No	1	10.0
Yes, Unlimited	4	40.0
Yes, Declining Balance	5	50.0
Food Security Status		
Marginal Food Security	3	30.0
Low Food Security	2	20.0
Very Low Food Security	5	50.0

Table 2: Student Responses to Food Insecurity Questions (n=10)

Question	n	%
"The food that I bought just didn't last, and I didn't have money to get more. Was that often, sometimes, or never true for you in the last 12 months?"		
Often	4	40.0
Sometimes	6	60.0
Never	0	
"I couldn't afford to eat balanced meals. Was that often, sometimes, or never true for you in the last 12 months?"		
Often	2	20.0
Sometimes	4	40.0
Never	4	40.0
"In the last 12 months did you ever cut the size of your meals or skip meals because there wasn't enough money for food?"		
Yes	5	50.0
No	5	50.0
"If you responded "yes" above, how often did this happen – almost every month, some months but not ever month, or in only 1 or 2 months?"		
Almost every month	2	40.0
Some months but not every month	2	40.0
Only in 1 or 2 months	1	20.0
"In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?"		
Yes	6	60.0
No	4	40.0
"In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?"		
Yes	3	30.0
No	7	70.0