

Food Insecurity on a College Campus: Implications for Academic Success

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This study sought to understand the scope of food insecurity at one four-year public institution and whether there were implications on academic outcomes for college students who face it. Data collection consisted of administering a questionnaire to a random sample of 2,700 undergraduate students. In total, 314 students participated. Overall, 47.9% of survey respondents scored in the category of experiencing food insecurity within the past 12 months. Students who experienced food insecurity had lower GPAs, were twice as likely to fail and withdraw from a course and were four times more likely to take an incomplete grade in a course.

Keywords: food insecurity, college student success, student retention

INTRODUCTION

College students enter higher education with varying degrees of life experience and circumstances. According to Dubick, Mathews, and Cady (2016), "Contrary to the stereotype, today's typical student is not a recent high school graduate who lives in a dormitory and is supported by his or her parents" (p. 9). In addition, they may experience hardships such as unemployment, illness, or divorce, which compile other financial difficulties. In some instances, these students may find themselves without support or in a position where they do not qualify for government assistance, leading to a lack of access to food—many student success initiatives center on improving students' retention, persistence, and graduation rates. With rising tuition costs, fewer students are capable of attending college without some type of financial aid. Examining how food insecurity occurs among college students contributes to a deeper understanding of its scope. This study sought to understand the scope of food insecurity at one four-year public institution and whether there were implications on academic outcomes for college students who face it.

Food Insecurity in Higher Education

Micevski et al. (2013) defined food insecurity as the inability to access and procure, through conventional avenues, nutritionally adequate foods that can support an active and healthy lifestyle. Food insecurity is associated with chronic diseases and malnutrition is a major public health dilemma. In addition to health-related problems, food insecurity may also affect an individual's psychological, social, and economic well-being.

According to the United States Department of Agriculture [USDA] (2020), 35.2 million people lived in food insecure households in 2019. Although the USDA reports that the prevalence of food insecurity has declined over the last decade, families have been thrust into new economic uncertainty due to the coronavirus disease 2019 (COVID-19). Policies such as free or reduced lunch programs for K-12 students were implemented to combat food insecurity. While much attention has been focused on students attending K-12 schools experiencing food insecurity, researchers and scholars have begun highlighting the significant impact of food insecurity in higher education.

Before 2011, only two studies measured food or housing insecurity among U.S. postsecondary populations. Existing research has established that food insecurity disproportionately affects historically minoritized students, such as students from lower socioeconomic backgrounds, those who identify within the lesbian, gay, bisexual, transgender, queer (LGBTQ) community, students who age out of foster care, nontraditional, and first-generation students. For example, Peterson and Freidus (2020) indicated that student food insecurity intersects with several student characteristics related to social histories of structural inequalities in US society, such as ethnicity and disability status, which go beyond simple financial explanations. As more scholars uncover the prevalence and impact of food insecurity in higher education, the perception and stigma about food insecurity are shifting, and students, staff, and administrators are working together to reduce food insecurity across college campuses.

In the last decade, a growing body of literature has emerged, recognizing the importance of food insecurity in higher education. In 2018, one of the largest national surveys about food insecurity in higher education was conducted to assess basic needs insecurities among college students (Goldrick-Rab et al.). In this report, Goldrick-Rab et al. (2018) found that 36 percent of university students were food insecure. Students often reported food insecurity at one point while attending college due to costs such as tuition, housing, child care, and transportation. Additionally, students reported that due to financial barriers, they often skipped meals, cut the size of their meals, and even went without eating. Similarly, Peterson and Freidus (2020) argued that student food insecurity goes beyond financial limitations, drawing attention to the many factors that contribute to food insecurity, such as the stigma and shame, lack of time to purchase and prepare healthy foods, housing insecurity, lack of support from family and friends, and transportation. In the following section, we explore the impact of food insecurity on college student's academic performance, grade point average (GPA), and class attendance.

Food Insecurity and Academic Performance

Several studies examined the extent to which the issue of food insecurity academically impacts children. Numerous studies concluded that food insecurity significantly impacts children's academic and social development (e.g., Hollar et al., 2010; Jyoti, Frongillo, & Jones, 2005; Winicki & Jemison, 2003). According to Broton et al. (2014), food insecurity affects children and adults. While there has been some research on the prevalence of food insecurity among college students, further research on its impact on academic performance is needed.

Previous research on food insecurity in higher education only focused on the number and percentage of students who experienced it. Given the many studies demonstrating a link between food insecurity and poorer academic performance among children, it is reasonable to hypothesize that college students may also meet similar adverse outcomes when faced with food insecurity. The following sections will review the literature on studies addressing whether college students experiencing food insecurity have poorer educational outcomes by examining existing research on the implications of grade point averages (GPAs), class attendance, and college enrollment.

Implications on Academic GPA

Previous studies highlight that students who experienced food insecurity were more likely to have lower grade point averages. For example, in one such example, Maroto, Snelling and Linck (2015) investigated food insecurity and its impact on academic performance at the community college level. This study found that community college students who experienced food insecurity had lower GPAs. Similarly, Martinez et al. (2017) highlighted that students who experienced food insecurity were more likely to have lower grades

than food security students. More specifically, they found that students with GPAs of 3.5 and higher were almost 2.5 times more likely to be food secure. Conversely, students with GPAs between 2.01 to 2.5 were more likely to report low levels of food security, and students with GPAs between 1.51 and 2.0 (about seven percent of respondents) indicated they experienced very low levels of food insecurity (Martinez et al., 2017). Patton-Lopez et al. (2014) also found that 60% of students with a GPA above 3.1 were less likely to be food insecure. This research finding and other studies underscore the impact of food insecurity on student GPA (Morris et al., 2016; Payne-Surges et al., 2018). Collectively, these studies illustrate that food insecurity negatively influences GPAs.

Implications on College & Class Attendance

Despite emerging study literature, some studies have looked at the effects of food insecurity on college attendance. Martinez et al. (2017) provided evidence showing that students who experienced food insecurity were more likely to have higher dropout rates than food security students (10% vs. 3%). This finding suggested that students who experienced food insecurity were 3.3 times more likely to suspend studies or withdraw because of financial difficulties (Martinez et al., 2017). In addition, Silva et al. (2015) examined how food issues influenced students' risk for withdrawal or their likelihood to refrain from reenrolling. This study showed that students with severe food insecurity were 6.6 times more likely to not complete their studies at their higher education institution than students who were not food insecure (29% vs. 4%). Likewise, Dubick and colleagues offered supporting evidence on the implication of food insecurity by reporting that 25% of students dropped their classes because of hunger and housing problems (Dubick et al., 2016). These studies outline the growing concern of food insecurity on college enrollment.

Data from several sources also examined the relationship of class attendance with the level of food security. For example, Dubick et al. (2016) found 32% of students felt their educational experiences were negatively impacted by food or housing problems. More specifically, Dubick and colleagues showed that when students were asked about the consequences of their hunger and housing problems, 55% reported these problems caused them not to buy a required textbook and 53% of food insecure students reported missing a class (Dubick et al., 2016). Furthermore, Silva et al. (2015) indicate that more than 58% of students indicated food insecurity affected their ability to attend classes. Findings from these studies highlight the specific concerns associated with class attendance students experience when faced with food insecurity.

This study aimed to understand student food insecurity and its implication on academic outcomes. The evidence and data presented above corroborate and further explain that students may have poorer academic outcomes because they are more likely to experience food insecurity. Beyond contributing to the literature on food insecurity in higher education, these findings can be by higher education administrators in developing campus initiatives, explicitly utilizing the role of social work programs in supporting student success.

METHODS

The participants for this research study were drawn from the population of undergraduate college students from one four-year public university located in the Mid-west region of the United States who were currently enrolled in courses. The total undergraduate student population at this university was approximately 14,760 students. A random sample of 2,700 students who met the study's inclusion received an email of the online survey through Qualtrics. The total number of students solicited (2,700) represented approximately 19% of the undergraduate population for a sample size of 314 students.

Sample Characteristics

Students were asked to share information about several demographic categories. Among those students who responded, 75% were female. Most respondents identified as Caucasian/White (78.7%), followed by Black/African American, representing 11.5% of the total sample. Most respondents (65.0%) started their education at this institution, with 34.7% of students indicating they transferred from a different institution.

Of the 314 students who completed the questionnaire, 89.5% indicated they were not married. The mean age of respondents was 23 years old.

In comparison to the undergraduate population at this institution, the sample is representative in the demographic category of race, with White/Caucasian students making up 78.7% of the sample versus 76.8% of the undergraduate population and Black/African American making up 11.5% of the sample versus 9.4% of the undergraduate population. Female respondents disproportionately completed the survey representing 75% of submissions compared to the 56.4% female undergraduate population. The mean age varied slightly between the sample and undergraduate population, with a slightly higher mean age (23 versus 21 years old) for the sample.

Survey Instrument

The survey instrument consisted of 27 questions, including four sections inquiring about the background and sociodemographic information, food security status, academic outcomes, and financial resources. The first subset of questions focused on the student's sociodemographic characteristics, including race, ethnicity, gender, age, attendance status, housing situation, and household income.

The second subset of questions includes several items that measure food scarcity's social and economic problems due to financial deprivation. For this study, the researchers adopted one of the USDA Office of Analysis, Nutrition, and Evaluation Food and Nutrition Service's survey tool, the U.S. Adult Food Security Survey (AFSS). A slight revision of the tool occurred in 2012; however, food security questions remained unchanged from the original module established in 1995 (USDA- Economic Research Service, 2020).

Food Insecurity Measures

The Adult Food Security Survey, a valid instrument tool, is commonly used across major adult populations to describe individuals' food security status and households using the last 12 months as a reference point (Nord, 2008). This subset of questions focuses on whether the student has enough food or money to meet their basic food needs and their behavioral responses to that situation. The questions range in severity of the food security experience from the least severe to the most severe.

As described above, the U.S. Adult Food Security Survey consists of 10 questions measuring food insecurity and is used on the adult student population. These questions inquired about the experiences and behaviors of students having difficulty meeting their food needs. According to empirical research and reports documenting the validity of the Adult Food Security Scale (National Research Council, 2006; USDA- Economic Research Service, 2012), the three constructs of food insecurity are:

- whether the household experienced uncertainty (experiencing anxiety over the lack of resources and ability to meet basic food needs)
- insufficiency in quality of food
- reduced food intake or the feeling of hunger

The validity of survey items in relation to their construct, as cited in the literature, was assessed through a reliability analysis. Each item's standard score was changed to Z scores. Two of the constructs used multiple survey items in the reliability analysis. The item that measured insufficiency in quality was a stand-alone survey item and therefore was omitted. We ran the reliability of the uncertainty measures and the alpha was .798. The correlation of the two survey items with the construct of uncertainty are shown in Table 1. Table 1 shows that both items had similar and strong relationships with the underlying construct of uncertainty.

TABLE 1
CORRELATIONS OF EACH ITEM TO THE UNDERLYING CONSTRUCT OF
UNCERTAINTY

Survey Item	Strength of Relationship
“I/We worried whether my/our food would run out before I/we got money to buy more.” Was that often, sometimes, or never true for you/your household in the last 12 months?	.664
“The food that we bought just didn’t last and we didn’t have money to get more. Was that often, sometimes, or never true for you in the last 12 months	.664

The reduced food intake or the feeling of hunger construct consisted of seven survey items. We ran the reliability of these measures and the alpha was .816. Table 2 shows the correlation of each item to the underlying construct of reduced food intake/feeling of hunger.

TABLE 2
CORRELATIONS OF EACH ITEM TO THE UNDERLYING CONSTRUCT OF REDUCED
FOOD INTAKE OR THE FEELING OF HUNGER

Survey Item	Strength of Relationship
In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn’t enough money for food?	.677
How often did you cut the size of your meals or skip meals because there wasn’t enough money for food?	.314
In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food?	.656
In the last 12 months, were you ever hungry, but didn’t eat, because you couldn’t afford enough food?	.706
In the last 12 months, did you lose weight because you didn’t have enough money for food?	.621
In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn’t enough money for food?	.614
How often did you not eat for a whole day because there wasn’t enough money for food?	.321

Table 2 shows that five of the seven items had a similar and strong relationship with the underlying construct of reduced food intake or the feeling of hunger. Two of the items had a weaker relationship with the construct, however, they had little impact on the alpha if removed.

The U.S. Adult Food Security Survey also quantifies the level of food security as one of four levels: (1) high food security, (2) marginal food security, (3) low food security and (4) very low food security. Survey responses of "yes," "often," "sometimes," "almost every month," and "some months but not every month" are coded as affirmative. The sum of affirmative responses to the 10 questions in the Adult Food Security Scale is the household's raw score on the scale that categorizes the level of food security. Individuals scoring into either category of low food security and very low food security would be considered food insecure. These psychometric analyses contributed to understanding the extent of students' food security status and the severity.

Data Analysis

The primary inferential analyses for this study were chi-square analysis, simple/multiple linear regression, T-test analysis, and ANOVA. An online survey collected data and the analysis was performed using SPSS. The food insecurity measure was used as both a predictor and outcome variable and differed based on the context of the research question. For example, food insecurity was the outcome variable (categorical), referring to questions about student populations most likely to experience food insecurity, such as demographic characteristics. Conversely, food insecurity (categorical) was used as the predictor variable to determine if there was an impact on academic outcomes (GPA; courses withdrawn, dropped or failed; course absences and missed co-curricular activities).

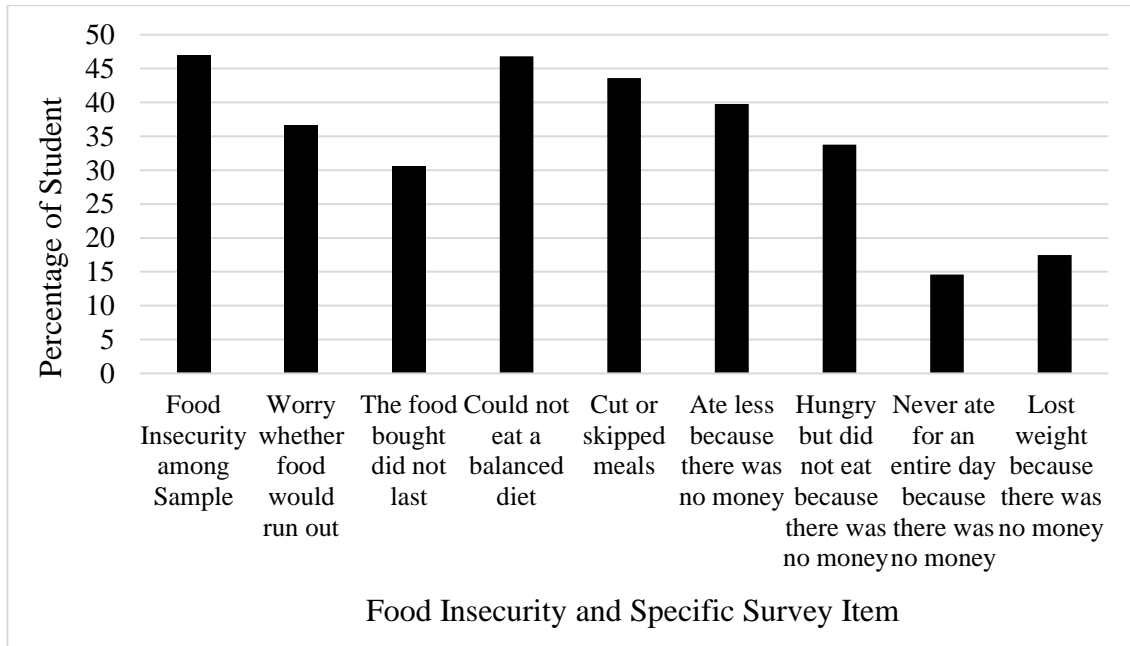
We ran frequencies to determine the mean percentage of students who experience food insecurity. We also ran frequencies to examine the percentage of students who perceived their experience with hunger and food access negatively on academic outcomes. These analyses provide a backdrop for the overall discussion. To test whether students experienced food insecurity differently, we ran a Chi-Square analysis to determine if certain student characteristics experienced it at greater rates. We ran a Chi-Square to test whether students who experienced food insecurity were more likely to fail a course, withdraw or take an incomplete. Moreover, we also ran this test to determine if food insecurity was experienced differently by gender, race, and household income.

We used a linear regression analysis to understand the relationship between the number of food insecurity indicators and GPA. To examine the differences in GPA for food insecure students versus those who were not, an independent t-tests analysis were conducted. These analyses examined the differences in means of two groups – those food-insecure students and those who are not.

RESULTS

The prevalence of student-reported food insecurity among undergraduates was examined through frequency analysis. This analysis advances our understanding of how food insecurity exists at one four-year public institution and the rate experienced by students. 47.9% of survey respondents experienced food insecurity within the past 12 months. Among students who experienced food insecurity concerning specific items that measure it, 46.8% felt they could not eat a balanced diet, 43.6% cut or skipped meals and 39.8% ate less due to the lack of money for food. This section and these results offered insight into the prevalence of student-reported food insecurity among undergraduate college students. Figure 1 shows the percentage of students who experienced food insecurity within the past 12 months and the percentage of students who responded affirmatively to experiencing a specific food insecurity situation.

FIGURE 1
RATE OF FOOD INSECURITY AND SPECIFIC FOOD INSECURE INDICATORS



This figure shows individual items along the horizontal axis, with each bar indicating the percent.

Differences in Food Insecurity

Several tests were conducted to determine whether students' experiences of food insecurity varied among various population groups. First, we looked at how food insecurity varied by race, gender, and household income. We then looked at variations in academic performance and experience of being food insecure.

Sociodemographic Characteristics

Students' experiences with food insecurity were examined using a Chi-Square test to see if there were any racial, gender, and household income differences. There were no significant differences among these sociodemographic categories and the likelihood of experiencing food insecurity with race (*chi-square* = 5.459, *p* = .243), gender (*chi-square* = .967, *p* = .809) and household income (*chi-square* = 7.268, *p* = .297). These results contradict the research on race and income and the relationship of these variables to food insecurity in higher education. The lack of significant findings may be due to the small sample within each sociodemographic characteristic of survey responses to show a difference.

Academic Outcomes

Multiple tests examined the relationship and difference between food insecurity status and the number of food-insecure variables that impact academic outcomes and GPA. To examine if there are differences in the GPA of students who experienced food insecurity compared to those who did not, we ran an independent t-test. For this analysis, the independent samples t-test revealed a significant difference in GPA between students who experienced food insecurity and those who did not (*t* = -6.184, *p* < .001). Table 3 shows the differences in means, with the mean GPA in the first column and the standard deviation in the second for each group. Students who reported food insecurity reported significantly lower GPAs. As Table 3 illustrates, students who experienced food insecurity had lower overall GPAs. The mean GPA of students with food insecurity was .30 points lower than students who did not experience food insecurity.

TABLE 3
GPA DIFFERENCES IN STUDENT'S FOOD INSECURITY STATUS

Food Insecurity Status	Mean GPA	Standard Deviation
Students with Food Insecurity	3.19	0.52
Students with NO Food Insecurity	3.49	0.36

In addition, we examined if there was a relationship between the number of food insecurity indicators and GPA. Both continuous variables, the predictive measure of total food insecurity indicators, were tested against GPA's outcome through simple regression analysis. Results indicated a significant relationship between the summative total of specific food insecure measures and GPA ($t = -5.15$, $p = .000$). This relationship indicates that one can predict a lower GPA ($\beta = -.298$) for students with more food insecure indicators. The specific relationship estimated that a decrease of .30 of a standard deviation in students' GPA occurred for every standard deviation increase in food insecurity.

We examined the relationship between food insecurity (as a dichotomous variable and coded (0 = no and 1= yes) and GPA. The predictive measure of total food insecurity was tested against the outcome of GPA through a simple regression analysis. Results indicated a significant relationship between food insecurity and GPA $t = -6.199$, $p = .000$. This relationship indicates that one can predict a lower GPA ($b = -.312$), if they have food insecurity. The specific relationship estimated that for an increase from no food insecurity to food insecurity, a decrease in GPA of .31 points occurred.

Beyond GPA, we tested other academic performance outcomes and whether these outcomes were impacted by food insecurity. We ran Chi-Square analysis to test whether students who experienced food insecurity were more likely to fail a course, withdraw from the course or take an incomplete in a course. Table 4 compares students who experienced food insecurity to those who did not and the likelihood of failing, withdrawing, or taking an incomplete course. The first column lists each course outcome, followed by the percent of students with poor academic outcomes and no food insecurity experienced in the second column. The third column of the table lists the percentage of students with food insecurity and the percentage of poor academic course outcomes. The final column indicates the adjusted residual for each group.

TABLE 4
COMPARING THE ACADEMIC OUTCOMES AMONG STUDENTS WHO EXPERIENCED FOOD INSECURITY

Course Outcome	Percent of Students with Poor Academic Outcomes with No Food Insecurity	Percent of Students with Poor Academic Outcomes with Food Insecurity	Adj. Residual
Failed a Course	13.4%	28.7%	3.3*
Withdrew from a Course	18.9%	32.6%	2.8*
Took an Incomplete	2.3%	10%	2.8*

* $p < .05$

As Table 4 displays, students who experienced food insecurity were twice more likely to fail (*chi-square* = 11.102, *p* = .001). Similarly, students with food insecurity were almost twice as likely to withdraw (*chi-square* = 7.138, *p* = .008) from a course. This table shows that students with food insecurity were four times more likely to take an incomplete (*chi-square* = 7.893, *p* = .019) than those who did not experience food insecurity. In addition, we ran a logistic regression analysis to investigate if the total number of food insecurity measures predicated the risk of withdrawing, taking an incomplete and failing a course. All three variables: withdrawing (*Wald* = 6.553, *p* = .010; taking an incomplete (*Wald* = 11.912, *p* = .001) and failed a course (*Wald* = 10.455, *p* = .001) were significantly related to the total level of food insecurity experienced.

We asked students to what extent hunger or issues accessing food affected their education. While not the results of statistical analyses presented in table 5 are anecdotal, students perceived adverse consequences on academic outcomes because of hunger or issues accessing food.

TABLE 5
PERCEIVED IMPACT OF HUNGER AND ISSUES ACCESSING FOOD ON
ACADEMIC OUTCOMES

Academic Outcome	Percent of Students
Did not Perform as Expected in Class	22.6%
Not Joined an Ex-curricular Activity	16.2%
Not Buy a Book	13.1%
Missed a Study Session	12.1%
Missed a Class	10.8%
Missed a Student Club/Organization Meeting	9.2%
Drop Class	6.1%

Table 5 shows the percentage of students who perceived their experience with hunger and food access negatively on academic outcomes. Nearly 22.6% of survey respondents indicated they did not perform as expected in class. In addition, 16.2% of students indicated they did not join a school-related extra-curricular activity due to the consequences of hunger or food access. Beyond GPA, students perceived the impact of hunger and issues accessing food negatively. Consequently, these students felt they did not perform as expected in class. In sum, these findings suggest a difference in academic outcomes among food-insecure students compared to those who are not.

DISCUSSION

This study sought to understand the scope of food insecurity at one four-year public institution and whether there were implications on academic outcomes for college students who face it. Although this study successfully addressed the issue of food insecurity on a college campus, it also had several limitations. Students' experiences with food insecurity and academic outcomes were self-reported, raising the potential concern of recall bias. With self-reported data, responding to questions about their food insecurity experience could be over or under-reported. A second concern with self-reported data is the possibility of selective memory in a student's ability to remember if their experience with food insecurity occurred during the 12-month reference period of taking the survey. Therefore, a lack of recall of that specific time may have affected their responses.

There was an overrepresentation of female responses to the questionnaire; therefore, one must consider the potential of gender bias, specifically related to their experience with food insecurity. However, this limitation is well-documented in the research literature that females are more likely to respond to research studies. Finally, the cross-sectional research design has inherent limitations due to data collection at a

specific time. For example, students noted a lower GPA which may or may not be concurrent with the time they recalled their experience with food insecurity. To address this limitation, evaluating changes in GPA over a period of time and assessing for the presence of food insecurity is a stronger indicator to determine the effect. Finally, while these analyses' findings were significant, they should not be generalized to all types of higher education institutions and the general undergraduate student population. Therefore, no definite conclusions can be drawn about the total sampling frame.

Several general themes or conclusions can still be drawn from the data. First, as higher education continues to see a changing student population, there is clear evidence that food insecurity is a real concern on college campuses. This study's findings support the existing literature on food insecurity's prevalence and academic impact. Increasing campus food availability and access is even more critical to students' retention and educational experiences. Findings from our study provided mounting evidence that food insecurity among the undergraduate student population is concerning. For example, the prevalence of food insecurity among this sample (48% of students reported food insecurity) was slightly higher than the average rate of 36%, as reported by Goldrick-Rab et al., 2018 but fell within the 16% to 59% range reported by colleges and universities in various reports. Next, this study found that students who experienced food insecurity were more likely to have a lower grade point average. There were significant differences among students with food insecurity on failing a course, withdrawing, or taking an incomplete compared to students without food insecurity. Higher education professionals need to understand this topic and how food insecurity impacts students' academic outcomes, including measures to support student success.

While this study did not yield significant differences in student food insecurity and race, research literature underscores that students of color disproportionately experience food insecurity at greater rates than white students. Student food insecurity is a social and economic justice issue college campuses must address to better support students' academic achievement.

Practice Considerations

This study contributed to the growing research on the significance of food insecurity on students. Food insecurity extends beyond the K-12 educational system, and accordingly, this issue must draw the attention of administrators to understand the scope and academic implications at their universities. The COVID-19 pandemic worsened food insecurity among college students and exposed the vulnerability of institutions without a food emergency response. With a worsening economy, planning for and addressing student food insecurity grows. The need for higher education to provide students with resources for basic needs, such as food, housing, child care, and transportation, will remain significant. Researchers found that food insecurity was related to lower student grade point averages and indirectly to poor mental health (Martinez, et. al, 2020). In order to connect students with the resources they need to address their social and mental health needs, staff members must receive professional training.

In the absence of standard federal policy, it is the responsibility of higher education institutions and State policy to address student food insecurity on their campuses or in their State. A common approach to this issue is to establish a campus-based food pantry. In addition, instituting a meal swipe program through campus dining would permit students in need to receive unused meal card swipes for campus meals. By broadening eligibility for the Supplemental Nutrition Assistance Program, States can assist college students experiencing food insecurity while attending college. Beyond supporting students with food insecurity, providing resources to meet other fundamental needs, such as clothing, housing, and transportation, is essential. State policy can provide colleges and universities with the necessary funding to address the issue of basic need insecurity among college students. For example, in the State of Oregon, recent legislation and funding now allow for implementing "benefits navigators" to assist students in connecting with public assistance programs, locating housing, and accessing technology (Hatch, 2022). This highlights the need for additional research and advocacy in this area, including the development of federal and State policy as well as university-wide programs to assist students with financial difficulties in achieving academic success.

CONCLUSION

This research study may offer knowledge to these lingering problems by extending our understanding beyond the quantitative prevalence of food insecurity on college campuses. This study advances our understanding of the scope, implications, and severity of food insecurity among undergraduate college students. Nearly two-fifths of students from a random sample of 2,700 undergraduate students reported experiencing food insecurity within the past 12 months. Moreover, food insecurity had a perceived and significant difference in students' academic success. Although this study examined the implications of food insecurity on academic outcomes for college students, there is also the need to explore the impact of basic need insecurity on students' academic success.

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