



Fitting Food into College: Exploring the Cycle of Food Insecurity in Student Life

“It Just Feels Like You can’t Get a Win when You Just Want to Eat Something Healthy”

(Meza, Altman, Martinez, Leung 2019: 13)

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Abstract: *The majority of research on food insecurity in the United States focuses on adults, seniors, and children. Much of this research relies upon quantitative data that demonstrates food insecurity forms an increasing problem across different sectors of American society. Recent research, however, suggests that college students face food insecurity at rates significantly higher than the general population. This research also points to the need for further studies of this overlooked demographic. For instance, the HOPE center estimates 29% of students at four-year institutions and 39% of students at two-year institutions experience food insecurity. Students experiencing this condition often face poor mental health, sleep quality, academic performance, physical health, and social isolation. While food insecurity is often perceived as stemming from financial barriers that prevent access to healthy food, recent qualitative research warrants a perspective that emphasizes a more holistic view of the condition. Therefore, this study synthesizes and analyzes four recent qualitative studies to examine how students themselves experience food insecurity and manage the condition. Most notably, the interviews reveal that food insecurity forms part of a larger cycle of challenges that trap students and make it difficult for students and university administration to communicate about and address the issue.*

1. INTRODUCTION

Food insecurity affects many people across the United States. According to a 2020 report published by the United States Department of Agriculture (USDA), as many as 38.3 million people experience food insecurity annually in the United States. Recent studies increasingly highlight that this statistic overlooks college students as an important demographic (Ilieva, Ahmed, and Yan 2018; Riddle, Niles, and Nickerson 2020; Landry, Gundersen, Eicher-Miller 2022). This is in large part due to the fact that the majority of research and census data focuses upon adults, seniors, and young children ages 4–6 (Gundersen and Ziliak 2018; Hanson and Connor 2014; Dinosaur, Berger, and Yeh 2007). Notably, the USDA has not published any data regarding food insecurity among college students. As Broton and Goldrick-Rab emphasize, “...none of the national studies of undergraduates, including those led by the federal government (e.g., the Beginning Postsecondary Study or the National Center for Education Statistics transition-to college studies) or by private entities (e.g., the Higher Education Research Institute Freshman Survey or the National Study of Student Engagement), measure food and housing insecurity” (Broton and Goldrick-Rab 2017).

In the studies that have analyzed this demographic, however, it is abundantly clear that college students face food insecurity at rates disproportionately higher than the average population (Bruening, Payne-Sturges, Laska 2017; Bruening, Brennhoder, van Woerden, Laska 2016; Bruening, van Woerden, Laska 2018; Chaparro, Zaghoul, Holck, Dobbs 2009; El Zein, Shelnett, Colby, Vilaro, Zhou, Greence, Olfert, Riggsbee, Morrell, Matthews 2019; Hagedorn, Olfert, Martinez, Grandner, Nazmi, Canedo, Ritchie 2019; Moore, Davis, Wang 2020; Nikolaus, An, Ellison, Nickols-Richardson 2020; Nikolaus, Ellison, Nickols-Richardson 2019; Payne-Sturges, Tjaden, Caldeira, Vincent, Arria 2018). A 2021 study published by The Hope Center discovered that 29% of students at four-year institutions and 39% of students at two-year institutions were food insecure. The study represented over 195,000 students from 130 two-year and 72 four-year colleges in the United States. This makes the Hope Center study the nation’s largest assessment of the basic needs of undergraduate students to date. Due to its large sample size, this study provides the most representative data for the realities of

the college student experience. Other reports from cross-campus compilations of various students and institutions range from 43.5% to >50% of all students (Dubrick, Matthews, and Cady 2016; Broton, Goldrick-Rab 2018; Camelo and Elliott 2019). A 2015 study across 10 University of California campuses reported 42% of students experienced food insecurity, with 57% of whom were experiencing food insecurity for the first time (University of California, 2020). These differences and their varied statistical data draw much needed attention to the overall absence of research on this demographic within the food field and by extension it underscores further how neglected college students remain within the study of food insecurity.

The importance of the conclusions of the Hope Center study has been further underscored by a 2020 CHEGG study that concluded the following (“Hunger and Covid-19”):

- 29% of college students missed a meal at least once a week since the pandemic
- 35% of college students say hunger at some point impacted their ability to study
- 52% of students use off-campus food banks
- 51% of students reached out to family for food support
- 24% of students took loans for food costs
- 34% of students know someone who dropped out of college because of difficulties affording food.

The significant statistics from this study demonstrate the magnitude of the effects of food insecurity on college students. These statistics indicate that food insecurity incites severe consequences like dropping out of school or taking additional loans that further underscores the significance of the quantitative data on food insecurity. The present study builds upon the data and conclusions in these studies by drawing further attention to a variety of ways in which food insecurity remains a neglected issue in the college experience. I argue that the different facets of the college experience require a nuanced and closer look at what food insecurity looks like for this particular demographic. The value of recontextualizing food insecurity in the college living experience is found in how patterns and habits of college life extend beyond this phase to the transition to adulthood and the rest of life. The effects of not directing sufficient attention to this demographic and addressing food insecurity lie in the mental health, sleep qualities, academic performances, physical health, and social experiences of college students in addition to greater social stigmas that revolve around the intersection of food and socializing needs and the lack of awareness about social support systems.

While the Hope Center study and the Chegg study provide important quantitative data about food insecurity, the present paper prioritizes student voices from interviews conducted in several recent studies. By examining this qualitative data, it becomes evident that food insecurity in a university environment perpetuates and participates in a larger cycle of student life. This study shows factors like decreased mental health, sleep quality, academic performance, physical health, and social isolation, stigma, or embarrassment are certainly effects of food insecurity, however, students experiencing these conditions in addition to low financial status are also more likely to experience food insecurity. As such, treating food insecurity cannot solely be financially based solutions. Recognizing that food insecurity exists within a cycle that becomes hard to break warrants a holistic approach to examining food insecurity as part of the greater university and college environment. The interviews presented below indicate that looking at food insecurity through the lens of cause and effect has the potential to oversimplify the issue by overlooking how it intersects many of the complexities of student life.

Extended Background

College forms an important grounding experience for students because it lays the foundation for many future lifestyle habits and opportunities. Most college students move away from home for the first time and in this new environment they must learn to live independently and develop skills needed for life. These skills include shopping, cooking, laundry, time management, financial budgeting, and work experience. It is important therefore to approach food insecurity and the negative impacts that it has upon the college experience from a broader perspective that pays greater attention to the

challenges that this transition poses. Research suggests that some of the main reasons for food insecurity are a lack of money, the demanding schedule that students keep, and general nutrition literacy (Begley, Paynter, Butcher, Dhaliwal 2019). All of these reasons not only form influences on food insecurity but they are all significant pressures related to the transition of moving to college and living independently for the first time. Studies also indicate that students are unaware of government assistance programs like the Supplemental Nutrition Assistance Program (SNAP) or the eligibility requirements (Zigmont, Linsmeier, Gallup 2021; Freudenberg, Goldrick-Rab, Poppendieck 2019; Hughes, R. Serebryanikova, Donaldson, Leveritt 2011) As such, it is critical to understand *how* exactly food insecurity affects college students.

Defining Food Insecurity

Most studies begin analyzing food insecurity by drawing attention to the definition provided by the USDA. The USDA defines food insecurity as “a...economic and social condition of limited or uncertain access to adequate food” (“Definitions of Food Security”). This definition provides an important starting point for thinking about food insecurity because it draws attention to both the economic and social aspects of the issue of food insecurity. This study will refer to financial security not only as the ability to purchase foods, but doing so without sacrificing other basic necessities like rent, housing, clothes, utility bills, tuition, or travel fare. The social conditions that characterize students include access to transportation, social support programs, knowledge of support programs, stigma and embarrassment, or time constraints from demanding schedules.

We can build upon this definition by exploring what adequate means as an adjective applied to food in the USDA definition. The problem with the terminology of “adequate” is that it is open to a variety of definitions because it does not account for how we define nutrition. For this study, “adequate” will be interpreted as “healthy diet.” While healthy is still a broad term, it is a more commonly understood and defined term. In 2020, the World Health Organization published a list of facts and the following criteria for a healthy diet that this study will roughly follow (World Health Organization, 2020):

- Diets including fruit, vegetables, legumes, nuts and whole grains.
- At least 400 g of fruit and vegetables per day, excluding starchy roots like potatoes
- Less than 10% of total energy intake from free sugars and ideally less than 5% of total energy intake for additional health benefits.
- Less than 30% of total energy intake should come from fats.
- Unsaturated fats (fish, avocado, nuts) are preferable to saturated fats (fatty meat, butter, trans-fats)
- Less than 5g of salt per day.

While this list of criteria is fairly specific, it does not address the totality of the nutritional needs of individuals. For many students, calculating the exact percentages of foods they have eaten on a daily basis contributes to eating disorders or the issue of how and when students would know what the definition of adequate is. This perspective then joins recent studies that emphasize the importance of food literacy (Begley, Paynter, Butcher, and Dhaliwal 2019; Vigden and Gallegos 2014; Colatruglio and Slater 2014). Beyond the need for more emphasis upon food literacy, we might also draw attention to the difficulty that students would have in calculating such numbers in the midst of their complex, busy schedules. It would also be unreasonable for college students to perform these calculations amidst the complex, busy reality of living during college. However, the overall trends and criteria listed within the WHO’s definition should be followed. For the purposes of this study, we will use those general guidelines and trends when referring to healthy diets—consistent consumption of fruits and vegetables, limiting free sugars, tailoring the consumption of fats, particularly saturated and trans-fats, and limiting salt consumption. For this study, a healthy diet means consistently eating foods that meet these general criteria. Food secure college students must be able to afford, access, and generally follow a healthy diet.

The Effects of Food Insecurity in College

Recent studies emphasize that the effects of food insecurity include poor academic performance, mental health concerns, and problems with physical health. College students who experience food insecurity report that they often have trouble focusing upon their academic work, attending class, and performing well in their courses (Zigmont, Linsmeier, Gallup 2021; Bruening, Argo, Payne-Sturges, Laska 2017; Patton-Lopez, Lopez-Cevallos, Cancel-Tirado, Vazquez 2014; Marato, Snelling, Linck 2014; Farahbakshsh, Hanbazaza, Ball, Farmer, Maximova and Willows 2017). Studies highlight that food insecurity participates in a cycle of problems related to academic work since poor mental health very often impedes success in the classroom (Oh, Smith, Jacob, Du, Shin, Zhou, and Koyanagi 2022; Eisenberg 2019; Becerra and Becerra 2020; Diamond, Stebleton, and delMas 2020; Coffino, Spoor, Drach, and Hormes 2020; Raskind, Haardorfer, and Berg 2018). Similar studies argue that students facing food insecurity are more likely to experience depression, anxiety, behavioral disorders, and suicidal ideation (Zickgraft, Hazzard, and O’Connor 2021; Willis 2021; Stebleton, Lee, and Diamond 2020). Food insecurity also elicits physiological effects. The absence of consistent, nutritious foods as well as inadequate amounts of food can lead to diseases like diabetes, obesity, cancers, decreased nutrition intake, hypertension, hyperlipidemia, and cardiovascular problems (Gundersen and Ziliak 2015; Zein et al., 2020; Elzein, et al., 2017). These effects can take effect and present themselves more immediately and also later in life.

Students who seek assistance or support because they are food insecure often face challenges receiving such aid due to the regulations and limitations of social programs. SNAP, a national program that supplements families’ food budget, provides aid to many families nationally. However, SNAP is not easily accessible or inviting to college students. The requirements are also often unrealistic for college students to meet. As Owens states, “SNAP requires that applicants work 20 h per week for three or more months within the last 36 weeks prior to the application. This requirement often disqualifies many college students who are unable to work 20 h or more per week while attending university. According to the USDA, “generally, students attending an institution of higher education (i.e., college, university, trade/technical school) more than half-time are not eligible for SNAP unless they meet an exemption” (Owens, Brito-Silva, Kirkland, Moore, Davis, Patterson, Miketinas, Tucker 2020, 2). The USDA has denied multiple requests to waive SNAP requirements for college students applying for SNAP benefits. (Hope) Furthermore, of the college students who do qualify for SNAP, participation is low. In 2018, the US Government Accountability Office (GAO) published a report on US college students experiencing food insecurity. The GAO estimated 7.3 million US college students had household incomes below the qualifying level for eligibility for SNAP. However, only 2.26 million (31%) were enrolled. (“Trends in SNAP Participation Rates: FY 2016-2018”). By comparison, SNAP served 82% of eligible individuals in the US in 2018. The dispersion in eligible college student SNAP participation lies in a lack of awareness about the program, eligibility requirements, confusing written rules, and the social stigma associated with accepting welfare (Freudenberg, Goldrick-Rab, Poppendieck 2019). College campuses are also not the most SNAP-friendly places—SNAP benefits and EBT cards are only valid in certain stores at certain locations (“Supplemental Nutrition Assistance Program: Students”).

2. METHODOLOGY

The present section offers a synthesis and analysis of four qualitative studies on food insecurity in order to present a holistic perspective on the issue. Qualitative research sharpens an understanding of how food insecurity perpetuates and participates in a cycle of activities that present barriers to student success in college. Students interviewed in this qualitative research stress that decisions about food or the challenges involved in obtaining nutritional food are intricately related to a host of other challenges associated with student life, including financial security, social stigmas, busy schedules, and anxiety over academic performance. Presenting excerpts from student interviews from several studies therefore paves the way for greater appreciation of how we might begin to address the complexity of the issue and work toward solutions.

Toward this end, the following summarizes four recent studies with the goal of highlighting student perspectives on how food insecurity becomes entangled with the broader experiences of college. The

first study addresses the factors and causes for food insecurity while the second focuses on the mental and social effects of the condition. The third study depicts how college students develop and deploy strategies for managing food insecurity within their demanding schedules. The fourth study contextualizes how the COVID-19 affected college food security, offering a unique preliminary insight into the current reality of food insecurity. Collectively, all four studies describe different aspects of food insecurity in order to present a holistic narrative centered around the student college experience.

Qualitative Data:

Why Students Experience Food Insecurity

A recent qualitative study conducted by Zigmont, Linsmeier and Gallup details how students perceived financial security and time management as barriers to food security (2021). The study was conducted at a mid-sized public university in New England where 30% of students reported experiencing food insecurity in a separate survey. 19 full-time undergraduate students experiencing food insecurity with a mean age of 22 participated in semi-structured interviews. Of all the participants, four experienced low food security and thirteen experienced very low food security. Eleven students were employed, working an average of 21 hours per week. Additionally, fourteen students reported using at least one type of food assistance resource such as SNAP, food pantries, or campus programs (2021:598-600).

Upon transcription of each interview, two researchers independently coded the data before comparing and coming to consensus on the final themes: risks or preventative factors for food insecurity and the impact of food insecurity and students’ coping methods.

The goal of this section then is to highlight the perspectives and challenges that students face through their own words. The following will offer a variety of student anecdotes stemming directly from the studies in order to synthesize the causes of food insecurity.

Barriers to Food Security

Students who participated in the interview cited financial barriers as the most common causes of food insecurity. Students shared that on-campus dining options often cost too much especially compared to buying groceries, fast food, or convenience stores. Additionally, students felt that the meals available in the dining hall did not feel healthy, nutritious, or worth their money. Additionally, students were unable to afford any additional groceries if on the meal plan. One student stated:

“the prices are very unreasonable for college students. It’s really expensive and they make it really impossible for us to want to buy it. I get that it’s supposed to be there out of convenience so they bump up the price a little bit, but I don’t think you should bump up the price to the point where you have to second guess if you really want to eat the meal or not” (601).

Students shared that the demanding academic, social, extracurricular requirements and needs of the school year limited their ability to work and therefore their ability to purchase foods. Some students expressed an inability to find work on campus and that unreliable access to transportation eliminated their off-campus opportunities. As a result, financially limited students are forced to stretch their money and prioritize bills, health care, gas, family expenses, textbooks and school supplies, or items for personal enjoyment over food. A student explained:

“ ... sometimes going to class and being hungry is better than spending your last \$8 in the student center when you still got ‘til Friday to make it through and you gotta put gas in your car, you gotta do all of that, and you still have to have some left over in case of emergencies” (601).

In another interview, a student similarly commented:

“ ... So at the end of that, all those payments, when I get all my books and all that stuff, food is like the last thing I worry about” (602).

As the interview excerpts highlighted above illustrate, the financial and academic demands of college life often force students to prioritize other necessities above food security.

Beyond financial barriers, students also cited their full-time status as students as a major obstacle to seeking and obtaining nutritional food. Densely packed schedules, homework, and extracurricular

activities severely reduced the time they might have to shop, cook, or eat, forcing students to resort to lower quality, unhealthy meals. For example, one student within the study reported:

“ ... I [do not] take ... a lot of night classes, but with practice and with my class schedule and when [the dining hall] closes at 9:00, sometimes I end up eating packs of ramen at night because things close and everything. So that’s a difficulty” (602).

This statement reveals the pressure, busyness, and general stress placed upon students within a college environment (Sheehan, Heying, Carlson 2022:105-106). Amidst that environment, students are frequently forced to work around their schedules and resort to unhealthy, low-nutritional value, and often highly processed foods like ramen.

In combination with limited time and constricting schedules, unreliable transportation and not having a car interferes with students’ access to healthy foods. Additionally, buying groceries further reduces their time to eat, shop, or cook. A student shared:

“Yeah, if I do wanna buy food to cook it’s hard because I don’t have a car on campus. So if I don’t have money for an Uber, I obviously can’t get to the grocery store” (602).

This student's experience shows that while students want to eat healthier, factors like transportation prevent them. If students want healthy groceries, they must also pay for transportation. Unable to cover the costs for healthy groceries in addition to transportation, students resort to unhealthy on-campus options. College environment without reliable free or low cost transportation forces students to accept poorer diets and perpetuates the cycle of food insecurity.

In addition to their financial status, students avoided cooking even if they had access to healthy groceries because they feared messing up and wasting ingredients or lacked the cooking appliances, supplies, or money to cook. One student explained their situation:

“ ... There’s a bunch of meals that I would love to eat but I’m too intimidated to make. I’m sure it’s not that hard to make, but just the steps alone or possibly just screwing up the meal and then it just went to waste or something like that” (602).

This student’s explanation encapsulates a shared reasoning for avoiding cooking among college students. The broader fear of cooking speaks for a greater need for food literacy among college students. In addition to making meals without messing up, students must know what ingredients are going into their meals and what foods are healthy.

The Impact of Food Insecurity on Students

In the interviews, students shared that experiencing food insecurity negatively affected their health and academic performance. Students felt stress and worry in addition to physical symptoms like hunger, tiredness, and weight loss. As a result, students shared becoming easily distracted and trouble focusing leading to decreases in their academic performance. One student shared how they become distracted amidst school work:

“I do stress a lot about how I’m gonna get food and I start thinking about that more than what I’m doing or the topic I’m doing. So, as I work I might fade away and be like how am I gonna get groceries this weekend?” (604).

Another student shared how the physical feeling of hunger affected them:

“ ... there was a whole month where I couldn’t get lunch because I was out of meal tickets and my family didn’t have any money. So, I had gone from not having breakfast, not having lunch, and on Tuesdays and Thursdays I was in classes until 5 pm. I was hungry all day and I couldn’t really pay attention to what the professor was saying” (604).

These quotes not only exemplify the food trouble many students experience, but also the lasting impacts that the condition has in their academic lives. Food insecurity is not just a condition solely restricted to food access. These students’ experiences demonstrate that the condition impacts every part of one’s life, including mental health and wellbeing and academic performance.

How Students Cope with Food Insecurity

Another revealing aspect of the student interviews was the amount of sharing that students did concerning how they coped with and attempted to mitigate their struggles with food insecurity. Some of the most beneficial strategies students shared were budgeting and time management. Students commonly cited methods like planning ahead and scheduling grocery shopping, cooking, and eating. One student shared their strategy:

“ ... I’m a big budgeter so I give myself an allowance for my summer savings. I try not to work during the school year because I take a lot of classes. I try to make my budget. I don’t buy things that I don’t need. Most of my money goes towards food” (603).

This quote exemplifies how far in advance and the extent to which students plan in order to cope with food insecurity. However, this also reveals a potentially vulnerable demographic: first year students. Without prior experience in college, understanding the demands of college life, or their own future food security, many first years cannot accurately budget for the coming school year. Compared to returning students, they face a steeper learning curve for developing coping strategies.

The interviews revealed that students most commonly cope by prioritizing convenience and cheap prices over quality healthy meals. Students shared that they bought food in bulk to save money or chose foods solely based on price rather than nutritional content. Additionally, students relied on fast foods or other canned, frozen, microwavable meals. One student said:

“Don’t worry too much about the organic labels, the antibiotic labels, we just [buy] what’s there, what’s available, we shop according to price” (605).

Another student similarities shared:

“...inexpensive food is generally not good for you ‘cause it’s just full of junk, so, but when you have a limited amount of money, you have to make do with what you have” (605).

However, the interviews revealed that students would prefer to eat healthier foods and cook for themselves if they had more money. These student experiences speak to the decisions students are consistently forced to make in college.

Other strategies students commonly shared were rationing meals by intentionally eating less than they should to make food last longer, skipping meals altogether, or replacing meals with snacks due to time constraints. Students also spoke about waiting until later in the day to eat or eating large amounts earlier in the day to last throughout the entire day. One student said:

“I stall. I don’t eat until I finish the 3:00 class and then after that I start eating food so I could have enough for the week. I wouldn’t say starve, I just limit myself” (605).

This student’s statement not only reveals how students severely limit their food intake in order to make meals last, but indicates the severity and degree of those limitations. The student’s language and particularly mention of starving suggests students limit their food intake to a level comparable or adjacent to starving.

Students also shared relying upon friends, family, or faculty members for food assistance while other students shared using programs like food pantries, soup kitchens, and campus events. One student explained:

“I have mentors throughout the campus that sometimes take me to get groceries and stuff. My momma sometimes sends a little bit of money so I can buy some- thing here and there. The food pantry, I signed up for it in the beginning of the year, it’s been helping out a lot” (606).

The quote illustrates how aid from peers, faculty, or family helps address some access or transportation issues. However, social stigma surrounding food insecurity and perceived self-embarrassment prevents some students from finding these support resources.

The Social and Mental Dimensions of Food Insecurity

While Zigmont’s study focused upon causation and academic implications in college, a recent study by Meza, Altman, Martinez, Leung placed emphasis upon the psycho-social effects of food insecurity on students (2019). As a qualitatively designed study, this study examined the mental and social well beings of college students through interviews focused on struggles students encounter with food insecurity, their thoughts and emotions, and coping methods.

The study conducted semi-structured interviews with 25 undergraduate students with a mean age of 22.9 years old from the University of California (UC), Berkeley. UC Berkeley is a large public university located in Berkeley, California. Notably, all participants must have received food or resources from the UC Berkeley Food Pantry in the past year. The study identified that 3 students experienced high or marginal food security, 7 students experienced low food security, and 15 students experienced very low food security (2019:3). Researchers coded each interview after transcription to reveal common themes.

Evaluating the Mental Effects of Food Insecurity

In the study described by Meza et al., students emphasized that anxiety and stress about food and their financial situation had a largely negative effect upon their daily lives and academic performance. One student commented:

“When you’re so stressed about food all the time, that takes a lot of mental power. You need room for creativity, you need room to do certain things. But, if all that’s in your head is cluttered, everything becomes blurry, you’re not focusing on the bigger picture, you’re only focused on what’s happening next” (4).

Some students shared that keeping track of and navigating food resources available and events providing free-food created stress. A student spoke about being forced to resort to eating trans-fat and unhealthy foods created additional stress affecting their mental, physical health. Another student explained how food insecurity affected their recovery with an eating disorder, expressing constant conflicts between knowing they should eat but also needing to save food. One student shared:

“It was just stressful knowing that there’s no food back home. Mostly it affected my studies because instead of being well-fed and working, I would do my work, be hungry, and think about food. I [would] finish my work, finally eat, and then it’s a repeating cycle” (5).

These student experiences speak to the widespread stresses and pervasiveness of the condition in a college student's life. They paint a broader narrative that food insecurity affects multiple aspects of a student’s life and creates an ever-present stress that follows students throughout their daily lives.

In addition to the fear of inadequate nutrition and food, students also expressed fear of disappointing or burdening their families. One student explained:

“I was scared to let my parents know what was going on. I don’t want them to worry too much because they’re pretty old now. If they knew that [I didn’t have enough money for food], they would work even harder. I don’t want them to do that. My parents have a lot of hope in me because they were new to this country and I’m the only one going to college. I don’t want them to feel like a failure because I can’t eat here” (4).

This quote reveals how food insecurity bolsters different pressures college students. As young adults, college students often hold many responsibilities on their shoulders and face expectations to be mostly self-sufficient. However, when students are unable to access basic necessities like food, these pressures exacerbate.

Amidst these pressures in addition to responsibilities like working and studying, students reported feelings of hopelessness and despair. These feelings were heightened especially when students were

forced to take out an unsubsidized loan to pay for short term expenses like food. However, students also expressed feelings that their situations were not significant enough to reach out for help or assistance. A student explained:

“Being in Berkeley and surrounded by homeless individuals, I felt like [I] shouldn’t complain about anything. I have food for the week - just not at the standard that I think a student would need. I felt like talking about my issues were not valid because there are people in worse situations in close proximity to me” (5).

Another student similarly shared:

“I always felt I didn’t deserve the help. It’s probably because of the way I was raised. I felt like I was taking resources from other people who needed it more than I did. In the summer, I got really hungry, because I lost my job. There was one week I just sat in my room and ate nothing but peanut butter” (6).

This quote reveals that students often invalidate their own experiences and the importance of their situations. When numerous students collectively adopt this mindset and invalidate their experiences, food insecurity becomes even more normalized on college campuses. Normalization means that coping methods such as eating nothing but peanut butter for a week becomes a realistic strategy. These interviews indicate that students adopt unhealthy coping habits instead of utilizing resources. As such, this presses the need to raise awareness and understanding for the severity of this condition among college students.

Evaluating the Social Effects of Food Insecurity

Amidst an environment where students invalidate their situations, students also spoke about how interacting with students who were financially stable while unable to afford their own food caused sadness. Students spoke about how their situations negatively affected their social life and relationships, fearing embarrassment and possible resentment from peers. The interviews also revealed students were often unable to participate in events and social gatherings that involved food causing feelings of sadness, isolation, and depression. One student expressed:

“When you aren’t able to afford food, you have to lie and say, ‘I’ve already eaten’ or ‘I’m not hungry.’ Then, you have to keep [lying]. There’s going to be suspicion on the other side and that suspicion is going to strain the relationship that you form. If you are a little bolder [and] if this person is compassionate, you might ask [them to cover you]. That could turn into resentment. Food insecurity, it really affects everything. I try not to feel embarrassed, but it happens. It really hits home with relationships with other people” (5).

Similarly, a student said:

“Food is a very social thing. That’s how people connect. When you go out to a restaurant, that’s how you maintain your friendships and stay connected with people. To not be able to do that, I felt very left out and it was depressing. It was always embarrassing to be like, ‘no, I can’t afford it.’ People would offer to pay, but me being the way I am, I’m like, ‘no, it’s okay.’ It was embarrassing because I’ve never been in [that situation] because I [like to] contribute but I couldn’t. I felt bad about it. I didn’t like the feeling at all” (13).

Another student shared:

“[My roommate] would say, ‘Why do you always not hang out with me?’ She called me cheap for not wanting to spend money. That made me feel really sad. It’s not because I don’t want to – I actually can’t. At times, it would lead to pent up sadness. Life frickin sucks. [When] I experience direct contact with people who just don’t understand, who are not aware of their situation, this makes me realize how much privilege they have. Sometimes you just can’t help but wish ‘why, why couldn’t that be me’” (13).

These student reflections paint a clear picture of the social realities that college students who face food insecurity experience on a regular basis. Beyond physical sensations of hunger, the condition isolates students and by extension further affects their mental well-being. The social stigma and

embarrassment surrounding the condition inhibits students from sharing their experiences or reasoning.

Students also commonly expressed feeling jealousy, resentment, and frustration at peers who could meet all of their basic needs. Students reported jealousy towards students who could focus on schoolwork without worrying about their basic necessities and being able to eat at restaurants. There was also a major theme of frustration towards other students who can’t understand their situations and food-insecure students face larger obstacles and adversity beyond the individual.. One student shared:

“I have quite a few friends who just don’t understand. They say, ‘You can do it, you can rise out of this.’ Well, [they] don’t understand. I’m doing all that I can. That’s the difference in my friends—some people acknowledge that it’s larger than the individual, and [some] people don’t” (5).

This anecdote coupled with the previous quotes and experiences emphasize how isolating and difficult living with food insecurity can be. In the discussions and dialogues surrounding food insecurity despite social stigma or embarrassment, students express further frustration when their peers are unable to understand the complexity of the issue.

In addition to the disconnects and tensions with food secure students, these students also shared feelings of anger and frustration because their university was unable to provide adequate support systems and resources. One student said,

“The way I tend to look at is I feel like I’m doing everything right. Trying to get my education, trying to support my family, trying to be a good citizen, trying to make a positive impact on society. It just feels like you can’t get a win when you just want to eat something healthy today and you don’t have that option. It makes me angry. (13)”

Another student explained:

“When one isn’t able to afford a meal, it makes you frustrated and angry - angry with the institution that you’re part of. It makes you frustrated at the macrocosmic institution of society that should be offering food - healthy food, good food - and a sustainable conduit through which food can be provided to people who need it more than others. Anger and frustration are certainly there. Then what comes from that is a sense of regret, sadness. It’s a feeling that one is not worth food. (6)”

The emotional tone of these particular excerpts reveal that students feel their institutions are not providing adequate support for them. Although all participants received food from the UC Berkeley Food Pantry within a year of the interviews, their feelings highlight that food pantries are not independently sufficient to provide greater food security in college. Many colleges across the country have begun implementing food pantries as strategies to address food insecurity, however, these interviews show that colleges need to devote more resources to inform themselves about the problem and provide further support to students. Because students’ food security statuses are dependent on numerous variables—for example, money, time, knowledge—interventions should address all factors and barriers.

Evaluating the Academic Effects of Food Insecurity

In addition to the mental and social repercussions, the study revealed what challenges food insecurity posed towards students’ academic performance and success. These obstacles affected some students’ grades so severely that they considered changing majors or dropping out of school. Students spoke about how they were forced to work longer hours in order to afford living expenses which prevented them from studying. One student stated:

“After skipping breakfast and lunch for a few days every week [for a] year, I was definitely more tired than usual. I didn’t have the stamina so that almost made me quit science. I just felt weak most of the time. I felt like I couldn’t continue with the STEM field because I didn’t have the energy. (6)”

Another student shared:

“I would sleep through [class]. I realized that if you’re hungry, sometimes the hunger will go away temporarily. I’d catch up later. So far, that hasn’t worked these past two semesters. (14)”

A student explained:

“It’s two parts of my life. One is the basic needs, like eating and wearing clothes. Another is pursuing academic success and jobs. If I put more of my time and energy on pursuing food, it will keep me from focusing on the education. (14)”

These testaments and stories speak to the challenges students face as a result of hunger and their conditions. The general language and points shared by students in this study indicate that food insecurity perpetuates a cycle of tiredness, inability to focus, and sleep deprivation.

How Do Students Manage and Cope with Food Insecurity

A qualitative study published by Stebleton offers important perspectives beyond the scope of Zigmont et al. or Meza et al. on the strategies that students employ to cope with food insecurity. (2020) The research team interviewed 23 undergraduate college students experiencing food insecurity at a large, public research-intensive institution in the Midwest. (2020:732-733) Upon coding and reviewing, the study team identified students repeatedly cited suppressing and ignoring hunger signs, managing anxieties, and normalizing their experiences with food insecurity as a universally shared part of college life.

Suppressing Hunger in College

According to Stebleton’s study, students developed several short-term strategies to mitigate or manage hunger. Such strategies included skipping meals, eating snacks instead of full and balanced meals, borrowing their friends’ dining card swipes, going to bed early, and suppressing hunger symptoms. The study revealed further that students sought to save money and extend meals by eating meals having a large caloric value without fruits or vegetables. Finally, students also explained that they often chose to eat less before paydays in order to stretch their money.

The interviews were revealing for what they revealed about the variety of ways in which students managed food insecurity. One student shared:

“I don’t have anything to eat so I’m just going to pretend I’m not hungry anymore. So it wasn’t really a conscious decision, it just sort of evolved with knowing that I wasn’t [going to eat] anyway” (738).

Another student shared how they supplemented meals:

“So, smoothies I’d make towards the beginning [of the week] and then towards the end I just usually stick to water or whatever I have left over” (738).

Other students explained sleeping earlier to mitigate hunger. One explained:

“Some nights I went to sleep hungry...sometimes I don’t have time for Ramen, I just do my homework just to get it done so I can get ready for tomorrow...I go to sleep hungry, put on my music so I can sleep” (739).

While Stebleton’s study indicated that government support offered some relief to these problems, students often returned to poor diets after the support ended. One student explained that while pregnant, she received government aid and that this aid allowed her to maintain a well-balanced diet including vegetables and fruit. She added, however, that once the support ended she was forced to resort to purchasing high-caloric products like bread and meat.

The interviews in Stebleton’s study are important because they draw attention to the amount of time and energy students often have to put into managing food insecurity. Students repeated the need to manage their hunger or potential hunger by stretching their available food out as long as possible and in some cases pretending that hunger was not affecting their physical and mental wellbeing.

How Students Manage Anxiety surrounding Food Insecurity

In addition to coping strategies, students spoke about the different anxieties and concerns that food insecurity raised. Every student expressed anxieties regarding money and their ability to afford

expenses including food. Factors like finding healthy food options, mental health, academic performance, and dwelling about their situations exacerbated students’ anxieties. One student stated:

“anxiety [about their food and financial situation], I think, is the reason I wasn’t eating so much; I went to go see a therapist on campus, and so that really helped with my anxiety. One of the things she said is you have to eat because when you don’t eat, you do poorly in school. And that’s part of the reason I was so stressed I had so much to do, and I wasn’t doing as well as I usually do...” (740).

Another student shared that they experienced more mental and physical health problems when food was scarce:

“Well, my mental health has definitely been very, very bad this year. So there’s that. My physical health, well I’m sick right now, I wouldn’t be surprised if part of that is even not eating. I was definitely less sick and less dealing with mental issues last year when I could get food whenever I needed versus this year where it’s kind of a struggle to have everything I need” (741).

Another student explained how hunger negatively impacted their academic work:

“Being hungry and being in class is not a good mixture, that’s happened because like a lot because then I, you start thinking about food and you start thinking about what you want to eat when you have the opportunity or yeah. So then you kind of your attention is steered away from what’s being said or what’s happening in the classroom, and so then you are distracted and that’s not good because then you’ll look at the board or you look at the teacher and you (say), ‘Well I guess I just lost track of what everything was said’” (740-741).

These reflections highlight the difficulties of managing food insecurity as full-time college students. Students express the numerous impacts their situations have in their own lives. However, students’ experiences with campus resources and their positive impacts also shines light on positive management strategies.

Additionally, students shared how the general stress and hecticness of college combined with stressors they faced from food insecurity posed greater challenges. One student shared:

“Last year and the first semester, I had a lot of different factors going into it and I just didn’t feel very healthy and everything. This semester I went to a dietician here at (the health clinic), she kind of helped me a lot with doing the, set out the meals, 9 or 10, whatever. I’ve been trying to work out and have time, like set off time to do that. Because you know with a college schedule it’s really hard...” (741).

Other students cited managing meal swipes as a source of anxiety. At this university, students use food swipes to access residential dining halls. Students choose from three meal plans: unlimited swipes, 14 meals per week, and 11 meals per week. As the cheapest option, students commonly select the 11 meals per week plan. However, many students run out of meals by the end of the week, resulting in constant negotiations and internal conflicts. Students are forced to choose when to use meal swipes in order to make food last. One student said:

“I think it’s more of a distraction that shouldn’t be there. Because thinking about food shouldn’t be an issue. If you paid that eighteen hundred dollars for the lowest possible meal plan, you should be guaranteeing yourself that the thought of food shouldn’t be a problem” (742).

As part of the college environment and personal financial situations, students experience a never ending balance between saving money or spending money on food. One student stated:

“I need to eat food, but I don’t want to spend money, too much money on food because I’m worried I won’t have any. Or I’m worried I won’t have enough money to buy food in the first place, so then I get stressed and either I’ll start eating a bunch of food and then I’ll run out, or I won’t eat as much food and then I’ll be stressed because I’m hungry. So it’s kind of like there’s really no winning...” (740).

For many students, the constant anxieties they face in life created a feeling of hopelessness. A student shared:

“Sometimes I think it would have been better if I would have taken out the loans, but then like I know I would have had more anxiety about that, so it’s just kind of like picking what anxiety I want to have” (740).

These students’ experiences further contextualize the reality of living in college while experiencing food insecurity. Students felt like they were living a never ending battle filled with impossible choices. The various factors and different tensions students express speak to a greater problem of an generally unsupportive college environment and the cycle of food insecurity.

How Food Insecurity Becomes Normalized at College

The qualitative interviews revealed students believed that dealing with food insecurity was a universally shared experience among other college students. They indicate that students have more or less accepted the condition as part of university experience—an extremely pressing finding that quantitative research could not identify. One student said:

“One thing for sure is that we are all hungry; that is just a for sure thing. Almost everybody I’ve talked to on campus we’ve shared our hunger stories, so to speak, where it’s like, ‘Oh my God I ran out of meals.’ I casually just mention to my friends, “Yeah, I’m out of meals this week” and three of them help me, “Okay, you can use my guest pass.” Because we all understand how it feels, and most of us understand how it feels to not be able to eat” (742).

However, students try to live their daily lives as normally as possible in spite of their food and financial situations. A student shared:

“We don’t want our financial insecurities to get in the way of us doing what we normally do, going out and celebrating a friend’s birthday” (742-743).

Another shared how her roommates adjusted their meals when food was scarce:

“We all go grocery shopping together, and so we’ll get to the point where maybe we haven’t been grocery shopping in a couple weeks, and we all get to the point where we’re kind of modifying our eating habits.” (743)

These student perspectives reveal that among other students struggling with food security, the prevalence and effects of food insecurity are normalized in college. Students see the condition as an inevitable side-effect of college.

Many students also spoke about the stigma and embarrassment about insecure food access they experienced. Especially around other students and friends who were food secure, students felt embarrassed when they were unable to pay for food which prevented them from socializing. A student explained:

“I didn’t have money to go out and do things with friends so I didn’t really feel like I was part of the group a lot because everybody; you know they all had these little inside jokes and stories from when they went out...” (744).

Another shared:

“I mean it doesn’t seem like [my friends are going through food insecurity]; and I know that if I think about it, they probably could be, but then I don’t want to bring it up; I’d be uncomfortable, they’d be like, ‘no, of course not’ and I’d be, ‘yeah, me neither”” (744).

Some students felt that their institution and professors partially contributed to the stigma and had a responsibility to help address the problem. A student explained:

“[Professors] might think, ‘oh you did not go sleep early last night so that’s why you didn’t have the energy to be in class.’ So they might blame other stuff but they might not know that the student did not eat or can’t eat because he has to save this or that, so that’s why he’s tired. They might not notice” (744).

These student responses illuminate the social impacts and consequences of poor food security. The stigmatization and embarrassment on college campuses prevents students from fully interacting and engaging in their college lives. Additionally, the social stigma and the disparity between student, faculty, and administrative awareness about the issue contributes to the lack of support systems.

Food Insecurity during the COVID-19 Pandemic

The effects that the COVID-19 pandemic has had upon students and the experiences of attending college over the past few years presents a host of new questions about food insecurity in this environment. The pandemic altered many of the routines, schedules, and resources of students attending college. This reality warrants a consideration of how the challenges of food insecurity intersect with the challenges that COVID-19 posed to this demographic.

While studies are only beginning to collect data on how the pandemic affected food security for students, we might include here one recent study in order to offer some qualitative perspectives on this important area of research. A recent dissertation by Amy E. Kendrick provides a preliminary glimpse into the state of student food security. (2022) The recruitment progress spanned from May 2021 to October 2021. The study interviewed 24 college students experiencing food insecurity who had also been enrolled in either a two-year or a four-year post-secondary institution since the beginning of the pandemic in March 2020.

One of the more noticeable features of Kendrick’s study is the great variation in responses offered by students. The student responses indicate that this variation was caused in large part by the effects that the pandemic had upon the living situations of students and the increase in governmental and institutional support. For instance, several students in Kendrick's study reported an increase in access to food and support from their families during the pandemic. One student shared:

“When I was home different story... I have a grandmother that cooks, I have my aunt that cooks, my mom cooks, so there’s always food. So, when I got back home.. I was back to my regular schedule” (40).

Another student stated:

“I was not worrying about paying for my own food... I did have more access” (40).

These statements show that some students experienced greater food security during the pandemic while living with other family members who were able to support them. One sentiment echoed in both statements rests in how living at home reduced many stressors and obstacles students typically face on campus. The interviews indicated that moving back home tempered some of the stresses associated with living independently in college. Living back with family also makes the problem of students not knowing how to shop, prepare, or cook nutritious food for themselves less of a contributing factor to food insecurity.

Some students in Kendrick’s study reported that moving home added further challenges to their food security especially if one or both of their parents had lost employment. One student explained:

“[my] father and my mother lost jobs.... It was hard for us to find resources, along with money to save up to have food on our plate and to pay the bills” (41).

One student said:

“We were just praying that we would have at least enough to pay rent and get food on the table” (41).

Another student commented similarly:

“My mom wasn’t working for a long time... we didn’t know what to do... there was no money” (41).

These responses point further to the variation of experiences of students during the pandemic. While some experienced more food security by moving home and living with family, others moved home to situations where their parents had lost employment. Students whose parents had lost jobs expressed that they had poorer access to food even though they had moved back home with family.

Students also shared that their own loss of jobs or reduction in wages compounded the challenges that were posed by their parents’ loss of employment. One student shared:

“I was only working a minimum wage job and then.... They cut staff down. So granted I was still working, but you know I wasn't working as much as I was before Covid” (41).

Whether living at home with parents or independently, job loss and wage reductions severely impact students’ food security. As the Zigmont et al. and Stebleton et al. studies both found, one key strategy

for managing college food insecurity is planning ahead to save money and budget (Zigmont et. al. pg 603-605; Stebleton et. al. pg 739, 741, 743). In Zigmont’s study, students explicitly stated that they specifically worked over the summer to earn enough money to eat. Students who lose their jobs or wages are unable to effectively plan ahead with limited money and further potential wage decreases. Students in this position are forced to spend their already limited funds on basic necessities and towards crisis management rather than saving money.

The interviews in Kendrick’s study also revealed that some students experienced more access to government and community based support like food pantries, SNAP, or donations. One student said:

“I actually applied for SNAP which I guess I’m eligible for now because of some recent changes regarding how students can apply” (40).

Another student explained how other adaptations increased access to resources:

“the option of delivery now is available, and I feel like that’s more accessible... I feel like that’s more available” (40).

The statements provided in these student interviews show that in some cases the pandemic brought about significant changes to governmental and institutional resources that gave students greater awareness and accessibility. In addition to more food resource availability, the unprecedented nature of the pandemic led to a greater focus on expanding access to information about food resources. These interviews indicate that government and community based organizations did a better job in informing people about different support options.

While general access to resources expanded in certain sectors, students also shared the impact of losing access to campus-specific resources like food pantries, discounted meal plans, or free foods at events when schools closed. One student explained:

“A lot of options that I knew would be available to me were not just because of campus being shut down” (42).

Another student shared:

“They used to have stations... popcorn... soup... things like that the student could get for free.. But due to Covid those are gone now” (42).

A student said:

“When campus wasn’t open, having the food pantry on campus... that immediately takes something away” (42).

Although some food pantries remained open on campus, many instituted new guidelines that posed more challenges for students. A student shared:

“You have to place an order online so it’s kind of hard... it’s a bit harder to access because you just can’t go in and get what you need at any time” (42).

Another student reflected:

“You have to pick a general thing on a form, and they pick it for you... I asked for hand soap and instead I got hand sanitizer. So, it’s like a gamble now.. And I feel really guilty because I end up with things that I won’t use.... Like a cereal I won’t eat or something like that” (42).

Losing resources that students relied on forced students to find support on their own. A student explained their thought process:

“I started to look at food banks, I started to contact the school... just trying to figure out a way. And it took a while to get appointments or access to the food” (42).

Another student shared:

“Because they closed the campus so there was none of that... it was not a good moment in time and I’m like ‘Okay, you have to figure out what to do for yourself’” (42).

These reflections indicate that losing reliable and familiar campus resources could exacerbate feelings of isolation students face dealing with food insecurity. Particularly revealing in these interviews is language about students just having to figure things out on their own and doing it themselves. Such expressions may be interpreted as conveying further feelings of isolation that the pandemic produced.

The Role of University and Campus-Based Support

Students also expressed the desire to see more university or campus-based support since food is necessary to succeed in academics. One student shared:

“I feel like an educational setting is like... people sometimes underestimate how your food intake affects the way you learn and the way that you like perform as a student... and if your students are not eating how can you expect for them to... even just get to class” (43).

Another student explained:

“In order to succeed in school you gotta eat.. Tackle it as a ‘we’ problem and not a ‘you’ problem” (43).

This response stresses the importance for colleges to recognize food insecurity as a problem that affects everyone. The web of effects from academic performance, social stigma, isolation, decreased mental and physical health affects others at the institution. As such, students shared different solutions and strategies for institutions to address the problem. Students spoke about raising awareness about food insecurity and normalizing the use of resources. One student suggested:

“[food insecurity] should be assessed every year like honestly every semester... a lot of people feel like they can’t go to the food pantry or feel looked down... I feel like colleges and more... maybe explain the popularity and how many people used it...” (43).

Students stressed that colleges must proactively provide aid and support to students experiencing food insecurity. A student explained:

“Realize that... college kids need help when it comes to food... don’t just assume... talk to us and... you will get your answer” (43).

Another student shared the importance for college institutions to reach out to students:

“I wouldn’t go out of my way to tell someone... so I think if someone came and asked me, I feel like... ohh... yes, I do need help... I’d be more likely to tell them if I was asked” (43).

A commonly suggested desire was a referral system that could connect students to the appropriate resources.

These student responses emphasize that students want colleges to proactively reach out to them to provide support. As some students mentioned, in order to reduce the fear of using food support systems, colleges must recognize the problem and share the resources that are available throughout campus. Such an approach mitigates feelings of isolation and begins to break down the social stigma.

3. DISCUSSION

Qualitative research offers a unique vantage for exploring and analyzing student experiences on food insecurity. While quantitative research provides important measures and statistical data, drawing attention to student perspectives through interviews better situates the problem within the wider experiences of students in college. One of the more significant results that the present study shows is that the problem of food insecurity for this demographic is deeply entangled within the daily activities, schedules, stresses, and routines of students. While some might attribute food insecurity in this demographic to a single cause, the interview reveals that there are a multitude of factors that impede students from accessing nutritious food. These factors include financial and social realities as well as the demands that are placed upon student schedules and indicate that a more holistic approach to the problem is warranted. The student testimonies revealed five key components that play roles in the student experience of food insecurity:

1. Students *want* to eat well but barriers like money, time, transportation, access, and health force them to choose between food and other expenses. This was indicated in student statements like “being hungry is better than spending your last \$8”, “can’t get to the grocery store”, “second guess if you really want to eat”, “don’t have time for Ramen”, “with a college schedule it’s really hard”, “I wouldn’t say starve, I just limit myself”, “you just want to eat something healthy today.” Language like “better”, “last”, “second guess”, “just” indicates the prioritization and decisions students are often forced to make. Students repeatedly emphasized that circumstances beyond their control like money, time, transportation, access, and health prevented them from accessing healthy foods. Students resorted to cheaper meals or buying in bulk or altogether skipping meals. Statements like “eating packs of ramen”, “ate nothing but peanut butter”, or “out of meal this week” provide valuable insights into how students coped with these challenges.

2. Students *feel* trapped, hopeless, and ashamed when they are unable to achieve food security. The language that arose in student reflections like “there’s really no winning”, “it’s a repeating cycle”, “don’t want them to feel like failure because I can’t eat here”, and “feeling that one is not worth food” speak to some of the psychological effects of food insecurity. Students expressed how being unable to escape or address the different factors that created their food insecurity left them feeling despair.

3. Many students *experience* further social isolation because they believe that food insecurity represents an individual problem and not a larger social reality. Consequently, students who experience food insecurity also feel that they need to tackle the problem alone and without sharing their struggles. These feelings were exacerbated when students were around students with resources to provide for themselves. In interviews student shared similar thoughts like, “strain the relationship”, “always embarrassing”, “felt left out and it was depressing”, “It’s not because I don’t want to [hang out]— I actually can’t”, “didn’t really feel like I was part of the group”, “they don’t understand. I am doing all that I can”, “I don’t want to bring it up; I’d be uncomfortable”, “can’t go to the food pantry or feel looked down”, and “figure out what to do for yourself”. The interviews revealed how isolating food insecurity is—not only are students often forced to skip social gatherings or hang out with friends, but students also tend to deal with their food security alone. Language like “feeling embarrassed”, “left out”, or “uncomfortable” further indicates that the isolation students experience results in a greater social stigma whereby students are unable to voice their fears and anxieties surrounding food. However, some student reflections like “we all understand how it feels” also indicated that food-insecure students could find solace and support in each other.

4. Students *dismiss* the severity of food insecurity and invalidate their own experiences or feel guilty about using resources. Students shared sentiments like “shouldn’t complain about anything”, “taking resources from other people who needed it more”, “pretend I’m not hungry anymore”, “feel really guilty” and “we are all hungry”. The interviews indicated that many students didn’t feel like they deserved or faced significant enough problems to utilize food resources. These feelings normalize this condition on college campuses as students come to believe that food insecurity is part of the college experience. Because of this perceived truth about college, the condition is not widely spoken about and creates a problem of awareness among students, staff, and greater universities. This makes it difficult for universities to identify the problem.

5. Food insecurity *consumes* students’ attention and focus and thereby distracts and disrupts their focus on academic performance. Students frequently expressed this problem using language like “as I work I might fade away”, “hungry all day and I couldn’t really pay attention”, “do my work, be hungry, and think about food”, “almost made me quit science”, “underestimate how your food intake affects the way you learn”, and “lost track of what everything was said”. These statements show that unstable food access and hunger diverts student’s attention from studying or class. Students are unable to successfully perform academically in school.

What is perhaps most revealing about these interviews is the picture that they create of the struggle that students face in maintaining healthy lifestyles in college. Taken collectively, the interviews show that the demands of college often place students in a cycle of impossible decisions that often results in poorer nutrition and deprioritization of food further perpetuating food insecurity. The stigma and

embarrassment about not being able to afford food prevents students from sharing their experiences, especially with other food-secure students or faculty and administrators at universities. Subsequently, the silence around the topic means that students are forced to tackle their problems alone. Without being able to connect or hear other student experiences, it becomes easier for students to dismiss their own situations. Students assume that addressing food insecurity is an individual challenge not a collective solution.

A large barrier to using food support resources that students reported was feeling that they were taking resources away from someone who needs it more or is experiencing a worse situation. However, when students see food insecurity solely as an individual challenge, they are unable to comprehend the severity of their own circumstances. Unhealthy coping habits like skipping or stretching meals and eating unhealthy meals become normalized as typical college behaviors. Students may feel that food assistance exists for other groups who possess less than they do or who do not have the benefit of attending college and as a result they will attempt to manage their own food insecurity with other strategies than seeking assistance.

When students don’t use food resources and stay silent about their conditions, universities are unable to recognize how prevalent food insecurity is or how the condition affects their students. As such, universities don’t understand the various factors that contribute to food insecurity. Institutions may only have a limited scope for why the condition exists—namely that students have low financial security. Universities will likely not understand other severely limiting factors like time, transportation, access to resources, and mental and physical health or even the complete context and factors of a student’s financial insecurity. An incomplete understanding of food security could mean that universities wrongfully interpret the causes for poor academic performance among students. An incomplete understanding of causation ultimately means an inadequate response for solutions. Because these different factors for low food security are interconnected and often compound with each other, without any institutional support, students are left even more paralyzed in their food security situation as their academic performance increasingly decreases.

Students trapped in this seemingly inescapable cycle feel hopeless and despair. Students primarily attend college in order to receive an education. However, when food insecurity disrupts students’ academic performance, often so severely that students resort to switching majors, quitting subjects, or dropping out of school, students are left feeling embarrassed and dejected. The negative feelings that come from being unable to afford and access healthy foods and the consequences of food insecurity causes students to hide their situation and problems. Resultantly, students avoid social gatherings and the subject around classmates and friends creating feelings of isolation. Social isolation has severe negative mental health repercussions on students’ that create a broader feelings of sadness, depression, and that students’ must face food insecurity alone. Thus, the cycle continues as different variables continue to interact with one another.

Synthesizing these student interviews together also reveals the beginning frameworks to addressing college food insecurity and this cycle. Statements like “went to a dietician here at [the health clinic]”, “went to go see a therapist on campus”, “[the food pantry] been helping out a lot”, “wouldn’t go out of my way to tell someone”, “talk to us and you will get your answer”, “explain the popularity and how many people used [food pantry]”, and “a ‘we’ problem and not a ‘you’ problem” indicate helpful resources students utilize or advocate for. Students expressed a desire to expand and make on-campus resources such as therapy, dietitians, food pantries, more accessible. These resources are able to address specific factors of food insecurity and begin to interrupt the cycle. However, in order to create solutions, the issue of communication must first be resolved. Through these interviews, students repeatedly expressed hiding their food security status and avoiding initiating conversations related to food insecurity. Language from student reflections like “talk to us” and “we problem” emphasize universities need to institute a top down approach to change the stigma around food insecurity. Students believed that beneficial change would occur if colleges reached out to students, conducted food security surveys, and broadcasted what resources are available and how popular they are. While these methods begin to destigmatize food insecurity, students stressed that colleges must also institute systems in which students can receive support without exposing their food insecurity.

4. LIMITATIONS

This study’s survey group consisted of 94 total students enrolled in undergraduate schools across the United States. The 19 students from Zigmont’s study attended a mid-sized university in New England. The 25 students from Meza’s study attended UC Berkeley—a large public university, in California. The 23 students from Stebleton’s study attended a large, public research-intensive institution in the Midwest. The 24 students from Kendrick’s study attended several different colleges but primarily one located in the Northeast. The limits of this particular study then rest in the difficulties involved in representing all of the diverse landscapes of the college experience in the United States. The scope of the present study does not account for the many different types of institutions and learning environments represented in the country or the different learning modalities offered by universities and colleges. Factors like community college, increasing variation in the ages of college students, regional differences, state differences, unique school cultures and identities, gender differences, or differences between different ethnic groups are unaddressed by this study. Finally, although the COVID pandemic is still ongoing, colleges have experienced numerous changes namely the transition from remote learning to in person learning. The study is limited by the research and studies currently available in the field and is unable to evaluate how these new developments affect college food insecurity and the cycle. Future research will undoubtedly be conducted on how the pandemic affected campus resources and universities' ability to address the cycle of food insecurity.

5. CONCLUSION

This study reveals that food insecurity affects college students not only through hunger, but also through academic performance and mental and social health. The numerous factors that contribute to this condition like demanding college schedules, nutrition literacy, transportation, and access to food support in addition to a surrounding stigma around the issue traps students in a continuous cycle of food insecurity. This study further indicates that inadequate communication and knowledge among students themselves and with colleges about many shared experiences with food insecurity perpetuates this cycle. As such, universities and colleges must proactively engage with students experiencing low levels of food security in order to tailor holistic solutions that might break this cycle. Future research of various interventions to disrupt this cycle must be conducted to evaluate the most effective solutions. Additionally, more studies should qualitatively research how different peoples with various identities factors such as race, gender, or sexuality experience food insecurity in order to create a greater holistic picture of the state of food insecurity at colleges. It is crucial that future studies and reviews consult qualitative data about food insecurity to standardize vocabulary and language. More food insecurity research on this specific demographic of college students is a crucial necessity as students return to campuses after quarantine and colleges were given an opportunity to step back and reevaluate student needs.

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