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Exploration of Barriers to Use of Community Food Resources in Community College Students in Rural Appalachia

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ABSTRACT

Food insecurity in college students, worsened during the COVID pandemic. However, students are often hesitant to access food assistance. The purpose of this study was to explore students' perceptions of barriers to the use of food assistance. In 2021, students ($n = 13$) were recruited from a Kentucky college. Virtual interviews were conducted. Further research is needed to explore other barriers to use of food assistance. Research is needed to evaluate interventions aimed at decreasing the stigma of food assistance in college students.

KEYWORDS

Food insecurity; Appalachian region; hunger; social stigma

Introduction

Food insecurity is a significant issue on college campuses with rates ranging from 20–50% among college students.¹ Food insecurity among college students is associated with adverse academic and health outcomes.^{2,3} Students who experience food insecurity have GPAs .14–.18 lower on a 4-point scale than students who are food secure.^{3,4} Among first-year students at eight universities, El Zein and colleagues⁵ reported a 1.91 odds ratio of having an overall GPA < 3.0 in those who experienced food insecurity when compared to students who were food secure. College student food insecurity is also associated with higher rates of obesity, cardiovascular disease risk, depression, anxiety, stress, and sleeplessness.²

The COVID-19 pandemic worsened food insecurity among college students. More than 78% of full-time college students are under the age of 25 years.¹ In young college students, food insecurity indirectly impacts academic performance due to the negative psychosocial health consequences.³ In addition, older students (i.e., 25 years and older) comprise 66% of part-time enrollment.⁶ Many of these older students have families and other financial responsibilities that increase their risk of food insecurity.⁷ Factors contributing to the disproportionately elevated risk of food insecurity in college students during the pandemic included the abrupt unemployment of those working in

the service industry (i.e., a leading source of full- and part-time employment for students), ineligibility for Supplemental Nutrition Assistance Program funds and COVID-19 relief package stimulus payments, and the typical low food literacy (i.e., skills to shop for and prepare affordable, nutritious foods) prevalent in college students.^{8,9}

During an earlier root cause analysis of food insecurity in rural Appalachia conducted by the author, college students who are members of a food security advocacy coalition expressed concerns about the unwillingness of peers to accept community and campus food assistance. Their concerns, along with prior evidence of the role of social stigma in college students' hesitancy to access food resources,⁸ prompted this qualitative study that focused specifically on college students and their perceptions of feelings associated with acceptance of food assistance. The study was conducted one month following the lifting of pandemic restrictions that resulted in record unemployment (16.7%) in Kentucky.^{10,11}

In the study county, where unemployment peaked at 15.8% in April 2020, the economy was and is driven by the fossil fuel industry.^{11,12} As one of eleven "coal counties" in eastern Kentucky, the county experienced a steady decline in employment opportunities during the previous decade due to a lack of economic diversification.¹³ The 2011–2019 losses of coal mining and manufacturing jobs disproportionately affected the Appalachian counties of Kentucky and West Virginia.¹⁴ The imposed restrictions during the pandemic and the subsequent delay in processing unemployment claims in Kentucky resulted in abrupt, marked declines in already marginal household income levels.¹⁵

During the pandemic, the food insecurity rate in the county was 18% for 2020–2021 with surrounding counties experiencing rates of 16.4–29% (compared to 10.5% for the United States over all).¹⁶ While the Central Appalachian region, particularly eastern Kentucky, has since had significant gains in coal production that will likely be sustained through 2023, economists predict a continuous decline in coal production through 2043.¹⁷ Therefore, unemployment and food insecurity rates are likely to increase steadily if the region continues to experience a lack of economic diversification.

Background/Purpose

Four-year degree attainment is a strategic objective for the Appalachian Regional Commission, particularly in counties where the declining fossil fuel industry and loss of manufacturing jobs are worsening economic hardship.¹⁴ Since food insecurity is directly related to academic performance and academic performance predictive of future economic success, it is important that food insecurity in college students be addressed.¹⁸ Education is at the core of economic prosperity in Appalachia and without improvements in meeting

basic nutritional needs during vulnerable times of transition (i.e., college), there will be little economic change in the region.

Food security advocates from Feeding America recommend four categories of effectiveness facilitation in reducing food insecurity among college students: 1) relationships and partnerships, 2) access (including reduction of stigma and bureaucracy), 3) awareness, and 4) operations.⁷ In previous work, we explored the concerns of parents experiencing food insecurity in rural Appalachia. Critical barriers to use of food banks/pantries in rural Appalachia include social stigma and the expectation that one should be able to provide for oneself and one's family without seeking assistance from the community.¹⁹ Stigma is also a primary barrier for college students in accessing food banks/pantries with nearly one-third of students reporting stigma as the highest ranked barrier to seeking food assistance.²⁰

In most high-income countries, food banks/pantries have become a common strategy to reduce food insecurity. However, food banks/pantries appear to lack the capacity to meet the food needs of individuals experiencing food insecurity because many individuals will not access those resources.²⁰ In a review of qualitative and mixed-methods studies related to accessing food banks/pantries, factors decreasing the likelihood of accessing food banks/pantries included stigma, embarrassment, shame, assault to personal pride, feeling "judged," social expectations of parents to provide for children, feelings of "begging," fear of being seen by others while at a food bank/pantry, guilt, feelings of being "lower in the hierarchy," lack of anonymity in smaller communities, perception of charity being something they would never have to accept, fear of "taking food from those more in need," discomfort about being forced to accept a last resort, feelings of dependence, and negative impact on identity, imagine, reputation, self-worth, and dignity.²⁰ Since the impact of food insecurity on academic performance is mediated by poor psychosocial health in college students,³ these perceptions likely potentiate the detrimental impact of food insecurity on academic performance.

Student ambassadors at a community located in a rural Appalachian county, expressed concern that students experiencing food insecurity would not access the campus food bank or community food assistance resources. While the pandemic heightened the need for food assistance, the reluctance to accept food resources was present prior to the onset of the pandemic. In previous studies, college students suggest combining food security resources/opportunities with other events (e.g., concerts, campus-wide events, club member activities, pop-up pantries, markets for all students/staff/family to receive food items) to create a more welcoming environment and reduce the stigma associated with usage of food banks.⁷ Normalizing food assistance (e.g., SNAP considered as financial aid instead of "food stamps") via marketing campaigns and legislation also has the potential to reduce stigma.⁷ One of the objectives of the Aetna Foundation Healthy Communities and Counties

collaboration with the study county's food advocacy coalition was to increase access to and use of community food resources. This study, funded by the Aetna Foundation, explored students' perceptions of the use of food banks and other community and campus food resources in a rural Appalachian county. Rurality of the study location was established using Rural-Urban Community Area codes.²¹ Rural-urban commuting area codes for the study county range from 7 (i.e., small town core, primary flow within an urban cluster of 2,500 to 9,999) to 10 (i.e., rural areas, primary flow to a tract outside an urban cluster).²¹

Methods

Following University of Louisville Institutional Review Board approval (#20.1148), a recruitment e-mail was sent via the Office of Student Affairs' listserv to all students enrolled at a rural Appalachian community college. Thirteen students volunteered to participate. Interested volunteers received a follow-up e-mail from the PI which included the screening question to verify current community college enrollment as eligibility for the study. Electronic survey polls were sent to determine days/times most convenient for each participant to consent and schedule an interview. An unsigned preamble consent was used because the signed consent would have been the only document with an identifier. All contact during recruitment and discussion was conducted virtually using Microsoft Teams software. Interested volunteers who did not have computer access participated via telephone using Teams software. Interviews were conducted in July-September of 2021 when the financial consequences of the pandemic were still prevalent in Kentucky. Interviews lasted between 45–90 minutes and participants received a \$50 electronic gift card as compensation for their time.

Procedure

To encourage participation and uninhibited discussion, no demographic data were obtained. However, three of the participants discussed how having their own children impacted their viewpoints on food insecurity and willingness to accept assistance. A semi-structured interview format was used to explore participants' perceptions of why college students were not accessing campus food resources. Participants were also queried on their suggestions of strategies that would increase the likelihood of students using food resources.

Topics of discussions were not directed toward students' own experiences with food insecurity but focused on their observations/perceptions of how other people react to food insecurity. All participants subjectively reported consistent food insecurity while enrolled at the community college. The nurse researcher initiated the discussion by stating "Tell me about some of the things

we could do so that students who need food resources would be more willing to use the campus and community food resources.” Additional topics were added during the discussion (e.g., “Tell me about the challenges you’ve noticed in your friends related to getting enough food”). Field notes specific to emotional reactions were recorded by the interviewing researcher during the discussion. Constant participant validation was performed throughout the discussion with member checks conducted at the end of the sessions. The audio recorded discussions were transcribed verbatim using Microsoft dictation software and interviews were conducted until data saturation was achieved. Typed text was reviewed for accuracy by the interviewing nurse researcher. Saturation was considered to be at the point when there was only redundant data.

Data trustworthiness was enhanced via purposefully obtained credibility, dependability, and confirmability. An audit trail of recordings and comprehensive notes was reviewed by the interviewing nurse and a second qualitative nurse researcher after the interviews to identify gaps. To enhance credibility, interviews were conducted by a researcher who has been trained in health literacy assessment and has extensive experience in conducting qualitative research. The researcher has also been immersed in Kentucky community food security research, taught at Kentucky universities for decades, is a lifelong native of rural Appalachia, and was born in the study county with current strong family ties to the area. Sufficient time was provided for each participant to add additional thoughts or comments. Confirmation was obtained at the end of each topic to ensure true reflection of accuracy with member checks performed at the end of each session. Dependability was enhanced by the requirement that all participants be individuals attending the community college.

Analysis

Analysis was conducted by the interviewing nurse researcher and guided by the Spiegelberg three-step process of 1) intuiting, 2) analyzing, and 3) describing.²² The procedural steps of Giorgi were used to identify themes.²³⁰ These steps include reading and rereading the entire text to get a sense of the whole, identifying transition units of the experience, clarifying the meaning of constructs to each other and to the whole, reflecting on the meanings in the concrete language of the participants, transforming concrete language into scientific language, and integrating the insight into a descriptive structure of the experience.²³ Open coding was used to identify major themes. Axial coding was used to interconnect themes. Data were aggregated using the procedure for interpretative phenomenological analysis recommended by Smith, Jarman & Osborn.²⁴ The researcher purposively bracketed her perceptions of food insecurity experiences in previous studies via cognitive processes

that focus on the differences in this population (e.g., age, developmental phase, adolescent social implications) and previously interviewed participants.²⁵ Initial analyses were conducted using a pen-paper approach with Dedoose software subsequently used to categorize themes.²⁶

Results

Three distinct themes emerged during analysis. Stigma, pride, and the expected personal responsibility to family were central to the hesitancy to access food resources and/or accept food assistance. Participants also provided potential strategies to enhance the likelihood of students being more amenable to accepting food assistance.

Stigma

Although all study participants reported awareness of food assistance resources within the county and on their campus, a perceived lack of anonymity when accessing food resources and being viewed by others as being unable to provide for self was a significant barrier to students' use of food banks/pantries. Consistent with other studies,²⁷ students who reported struggling with food insecurity were likely to perceive stigma from others, including peers and family members, when accepting food resources.

I was raised to take care of myself and not ask for help

From Day 1, we are taught that having less means you get teased. They are worried about others- they're thinking people will look down on them.

Pride

While perceived stigma from others was a barrier to accessing food resources, students expressed a sense of intrinsic pride as also being a barrier to the willingness to accept food items.

You put on a good face and act like everything is normal, everything is okay. I don't like to ask for help as a man. I was raised to go out and get it on your own.

If you can't get it, then you suffer until you can get it . . . take pride in not needing or asking for help. I'm not saying proud as in being boastful, just pride in thinking you don't need help.

Participants also voiced that hesitancy to accept food assistance was based on the cultural expectation of reliance on family members rather than community organizations for support.²⁸ *He worried people would know he wasn't providing.*

Fear of Taking Food from Those More in Need

Participants expressed concern that their use of food resources would deplete the banks/pantries and result in other individuals, particularly children, the elderly and those with disabilities, not having enough food available to meet their nutritional needs. During the pandemic, the abrupt and unprecedented unemployment rates heightened the perception that food resources were extremely limited, despite additional federal, state, and philanthropic assistance being provided to the county's residents. As a result, this concern was in the forefront of the conversations.

We don't know what somebody else is dealing with at home, you know, as far as finances and stuff and everything else. All we can do is help them reach out and make sure they don't have to worry about that next meal.

You're taking food from someone else who needs that.

Children Needs Priority

While stigma, pride, and concerns of depleting resources needed by others emerged as major barriers to accessing community food resources, participants also expressed a strong willingness to put all concerns aside when their children needed food.

If my baby tells me she is hungry, I will go through hell and high water to get her something to eat. Do whatever I have to do.

People with children will reach out more. My child is my first priority. If I am without food and there is free food, I am absolutely going to get that food for my girl, not for me, for my girl.

Strategies to Increase Use of Food Resources

Enhanced confidentiality and normalization by incorporating food assistance into other programs were the themes offered by participants as strategies to increase students' use of food resources. These strategies focused specifically on how to decrease the stigma associated food assistance. Participants felt that confidentiality and anonymity would lessen the concern that other community members would think negatively about those who accepted food assistance. Normalization strategies have the potential to remove the focus from the food assistance and, instead, allow individuals to focus on the complementary rewards of accepting food. However, participants consistently expressed frustration at their limited knowledge of how these could be accomplished.

Maybe like having them pick it up somewhere else or deliver it where they don't have people seeing them, confidential sort of.

You could start sending emails, send it to everyone. For everyone who gets a box, you get five extra points in one of your classes. That has happened at the college – they will say if you come you get extra points. And most people come to it . . . not giving out charity, they feel they are earning it.

If you have children, you could get a toy or book with the food box, people would come for the books. Make it a reading program . . . Always make it about something else like reading instead of being about food.

Discussion

The pandemic reversed improvements in food security in the United States. In April 2020, a record number of Kentuckians filed for unemployment resulting in a 15.4% state unemployment rate.²⁹ Kentucky also experienced significant delays in the processing of unemployment claims,³⁰ further placing individuals and households at risk for food insecurity. These interviews, conducted during a time when the consequences of pandemic restrictions were still influencing food security in Kentucky, provide insight into social and cultural influences on acceptance of food assistance.

The restriction of resources experienced by many previously food secure cohorts (e.g., middle-income households) enhanced the awareness of nutritional disparities in vulnerable populations. The stark contrast between the social expectation of self-reliance and the “do whatever it takes” to provide food for children and other vulnerable individuals likely created a moral dilemma for these participants. The three participants who were parents of young children were adamant that they would “go without” with respect to their own nutritional needs but would “put aside pride” to meet the needs of children and older community members. All three parents had sought help from food assistance agencies during the pandemic but repeatedly stated the assistance was only for their children. The sociocultural expectations of providing for children and ensuring that community elders had sufficient food had an exponential effect on the stigma associated with food assistance during the pandemic. Food insecurity is a social determinant of health within the healthy People 2030 economic stability domain.³¹ Healthy People 2030 objectives include the reduction of household food insecurity and hunger from 11.1 to 6%, and the elimination of very low food security in children.³¹ In 2020–2021, Kentucky’s Central Appalachia counties experienced higher rates of food insecurity (18.5–26%) than the state’s non-Appalachian counties (5.4–20%).³² Historically and currently, these counties bear some of the highest rates of poverty and poor health outcomes in the United States.³³ The ability to survive in times of harsh adversity has become a source of pride that unifies

individuals living in Appalachia.³⁴ Generations of poverty and disparities have resulted in an embrace of the historical Appalachian cultural priorities of individualism and self-reliance³⁵ However, Appalachian cultural expectations also include the responsibility for meeting the needs of children, even at the expense of one's own needs.¹⁹

During the pandemic, feelings of shame, guilt, depression, anxiety, and distress were heightened due to financial uncertainty and food insecurity.^{36–39} While rural Appalachia has a history of adaptation to poverty and hardship, the Appalachian cultural expectations of pride and responsibility to family and community likely contributed to poor mental health outcomes. Food banks and pantries have been established in many rural Appalachian communities, but college students are often unlikely to access those food resources.⁸ The developmental expectations of approaching adulthood, the Appalachian priority of self-reliance, a marked resistance to resolutions from outside entities, and the historical tradition of navigating financial obstacles privately compounded to heighten the guilt, worry, shame, and stigma described by these participants.^{27,40}

Limited financial opportunities and other responsibilities impact the ability of college students to afford a variety of healthy foods on a consistent basis. Legislation (e.g., tuition funding, universal meal plans for all students) to reduce the financial burden of community college students has the potential to normalize food assistance in this population. While some states, including Kentucky, offer tuition-free degrees from community colleges, additional benefits such as no-cost campus meal plans for all students should be considered to improve food security. Providing meal plans for all students, irrespective of income or food security status, would normalize food assistance and likely lessen the associated stigma. Given the evidence that food insecure students who have meal plans tend to consume less healthy foods than their food secure counterparts⁴¹ and often do not use all the meals available,⁴² campus meal plans should include promotion of healthy eating.

To reduce the stigma associated with acceptance of food assistance, participants suggested e-mail notification coupled with a discreet food pick-up location, and the incorporation of free food into other programs as potential ways to reduce stigma and enhance acceptance of food assistance. Campus bookstores and other places where students shop have the potential to disseminate food in a manner less obvious to others. Students frequently visit campus bookstores and donated food packaged in typical bookstore totes would make food assistance less conspicuous. While a small number of U.S. campuses partner with bookstores to disseminate food pantry information to students,⁴³ food distribution at bookstores is a novel approach to reducing food assistance stigma.

Participants encouraged stigma reduction strategies that incorporate food assistance into other activities. The willingness to accept assistance when family members' needs were of concern provides opportunities for

food advocacy and assistance agencies to partner with family-centered organizations in the community. Partnerships with libraries, public health departments, and cooperative extension offices are potential and novel venues for providing food items during structured events. Academic-community partnerships have long provided mutually beneficial outcomes in primary and secondary disease prevention, food security strategies (e.g., community gardens), and most recently, COVID-19 mass vaccinations.⁴⁴⁻⁴⁷ Students, particularly those in healthcare career and nutrition programs, can provide services to community members while earning clinical hours and/or academic credit. While caution should be taken to ensure that student involvement in food security strategies aimed at peers does not potentiate stigma, food security strategies informed by student input will enhance the likelihood of success.

Every Central Appalachian county has a public library and many of these facilities already have reading programs for children and adults.⁴⁸ Food items can be included when free books are provided to students who have children participating in these programs. In addition, collaborations between food advocacy groups and school, college, and private libraries can be established to provide food assistance. Specifically for college students, study sessions that include a free meal can be coordinated with food advocacy groups both on campus and in the community at large.

Each county in Central Appalachia also has a public health department.⁴⁹ One of the current strategic goals of the Kentucky Department of Public Health is engagement and partnership with community health advocates.⁵⁰ Resolution of food insecurity is considered a health intervention and within the purview of the public health system.⁵¹⁻⁵⁴ Personnel at health departments, in partnership with food advocacy groups, could provide food items during healthy eating campaigns. Additionally, public health departments have the professional capacity to better monitor epidemiological evidence of changes in food insecurity rates and intervention effectiveness. This is particularly beneficial in more rural areas, such as Central Appalachia, where data collection and opportunities for analyses are often limited.

The U.S. Department of Agriculture Cooperative Extension Offices successfully implement nutrition education programs that improve food security and nutritional content of diets.⁵⁵⁻⁵⁷ Cooking skills and nutrition classes taught by Family and Consumer Science cooperative extension agents have the potential to improve household food budgeting while enhancing food preparation skills.⁵⁶ These programs should be conducted by individuals who reside in the community being served. Cooperative extension agents typically reside in the communities where they work and are able to build strong relationships with community members and businesses. Established camaraderie and respect are important elements of Appalachian culture that must be considered when partnering with agencies.⁵⁷

Cooperative extension offices also partner with farmers' markets in providing vouchers to purchase fruits and vegetables. Providing all students with weekly access to a small amount of fresh produce may normalize acceptance of this type of food assistance.⁵⁸

Appalachia has a long held tradition of food preservation (i.e., drying, brining, and canning) and being skillful in these techniques is often a source of pride in Appalachia.⁵⁹ School sponsored partnerships with cooperative extension agents who currently provide classes on food preservation may also be successful in providing food items without the perceived stigmatization in accepting food assistance.⁶⁰ Involving campus student groups in these activities and/or incorporating completion of these classes into course credit (e.g., nutrition, economics, or history courses), would likely make them more acceptable to college students.

Limitations

This study was conducted during the COVID-19 pandemic in one of the eastern Kentucky coalfield counties of rural Appalachia. Data were collected during the academic school year. Contact restrictions necessitated virtual interviewing, which may have limited the willingness of participants to discuss personal experiences. In addition, demographic and food security data were not collected. Future research should include these variables to determine differences in perceived stigma based on participant characteristics.

The long-held expectations of self-reliance and responsibility to family that permeate Appalachian culture are reflected in the findings. Although the interview was structured to elicit discussion about peers' experience with food insecurity and stigma, and not specifically those of the participant, social desirability bias may have influenced the results. These results may not be reflective of other regions. However, the stigma associated with food insecurity and subsequent need for food assistance tends to be a universal barrier to resolution of food insecurity.²⁰

Conclusion

In this study of college students living in rural Appalachia, stigma, pride, and personal responsibility were barriers to the willingness to accept food assistance. Additional research is needed to determine additional barriers to acceptance of food assistance in this and other populations. Stigma reduction strategies that account for sociocultural norms and expectations in reducing food insecurity should also be developed, implemented, and evaluated. The long-term educational, economic, physiological, and mental health impacts of food insecurity are well documented. Longitudinal studies to quantify the impact of food assistance stigma and food insecurity reduction on health outcomes should also be conducted in marginalized populations.

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