National Institute of Health
Phase Two Report
Food Insecurities and Student Success
Maryland's Community Colleges.

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ASCEND Training Model to Increase Diversity in Biomedical Research

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Introduction

Community colleges nationwide rally to meet President Obama's challenge of adding five million graduates by 2020. However, many institutions continue to experience declining retention and attempt lackluster solutions to bolster student success. One often overlooked factor in need of investigation is the impact of food insecurity, an inadequate level of nutritional and safe food or the inability to obtain foods in a socially acceptable manner. The researchers for this project will investigate the levels of food insecurity and the relationship to student success defined as what students must do to complete their college program successfully. For this project, student success includes two elements that can lead to completion - concentration levels and energy levels, and one traditional metric of success, grade point average (GPA). This study will be conducted on Maryland community college students (Spaid, 2016).

Phase 2: This report offers findings from Phase 2 of the project. The six interviews with community college food pantry administrators in the state of Maryland are the focus of this segment. These six community colleges represented urban, suburban, and rural settings.

Definition: Food insecurity is defined as a condition when persons do not have adequate resources to feed themselves, either nutritiously, or at all (United States Department of Agriculture [USDA], 2013).

Significance to Public Health (developed by Principal Investigator, R. Spaid, 2016)

Food insecurity is on the rise. In 2009, 11.01% of American households reported food insecurity (Chilton & Rose, 2009). However in, 2014, the USDA reported that 14% of American households faced food insecurity (Coleman-Jensen, et al, 2015). As defined by the USDA, food insecurity is the limited access to adequate food at some point during the year, due to lack of money or other resources. Compromised cognitive and emotional processes associated with food insecurity are a public health concern. Issues that may be related are limited life span, disease management, and health care costs (Lee, et al, 2012). Further, research is needed on college students, and in particular on the community college student population who is more likely to face food insecurity than the four-year student population (Maroto, 2013). The connection of this proposal to the National Institute of Health (NIH) is that the Office of Nutrition Research within the National Institute for Diabetes and Digestive and Kidney Diseases, is responsible for leadership in nutrition research and collaborating with other NIH institutes. This research study will add to our knowledge about the health of community college students and the connection to student success.

Literature Review

The United States has been addressing the issue of hunger among its citizens since the Great Depression with the establishment of the first food stamp programs (Biggerstaff, Morrs, & Nicholas-Casebolt, 2002). The issue resurfaced during the Kennedy Administration, which paid more attention to domestic poverty. Later in the 1970s, the Nixon Administration held a White House conference on Food, Nutrition, and Health to further address this issue (Carney, 2012; Radimer, 2002). The goal of these initiatives

was to bring attention to the United States' hunger issue and dispel the myth that hunger is not a serious problem in America.

The Nord et. al (2014) and Chang et. al (2014) confirmed that the food insecurity issue becomes more intense with sudden job loss, health problems, or other unexpected issues that drain the household finances. Consequently, the Great Recession of 2008 and soaring unemployment created problems in both rural and urban communities. Many Americans still face economic insecurity regardless of where they reside.

Nord et al. (2014) reported that 16.9 % of households in metropolitan areas, 15.5% from non-metropolitan areas face food insecurities. Piontak and Schulman (2014) reported that rural communities seldom have the infrastructure to support economic growth. Therefore, such regions experienced a slower recovery from the recession.

Food insecurity remains a national issue with the South having 16% of households facing food insecurity, the Midwest with 14.2% of households facing food insecurity, the West with 14.4% of households facing food insecurity, and the Northeast with 11.9% of households facing food insecurity (Coleman-Jensen et. al, 2012, p. 14). Though food insecurity affects all ages and races, female-headed households had the highest percentage with 18.7% and Black – non-Hispanic households reported the second highest rate with 15% reporting food insecurity (Coleman-Jensen et al, 2012).

A recent study reported that food insecurity affected sleep (Ding et al, 2015). In a sample of 5637 men and 5264 women, women experiencing extreme food insecurity reported "significantly shorter sleep duration." Men with moderate to extreme food insecurity reported sleep latency issues, or a compromised ability to transition from

wakeful state to sleep. Munger et al (2015) also reported food insecurity compromises physical and emotional health, pain depression, and anxiety.

College students are not immune to food insecurity issues, and the resulting health and stress issues. Pia Chaparro, et al (2009) reported that 24% of students at the University of Hawaii faced food insecurity. The report also reflected on how food insecurity may have a "negative impact on academic outcomes" (p. 2097). Gaines et al (2014) found that 14% of college students face some type of food insecurity.

Cady (2014) also reflected on food insecurity among college students and noted that poverty is a status many students try to hide; therefore students would try to hide if they are facing good insecurity. In her work, Cady (2014) gathered information from two unpublished studies that found high instances of food insecurity.

A student honors project at Bowling Green State University found 19% of surveyed students to be food insecure (Koller, 2014), and a study conducted at the University of California, Merced, found that 32% were experiencing either food insecurity with hunger or food insecurity without hunger (Lerer, 2013) (Cady, 2014, p. 266).

Further, Freudenberg et al (2012) studied the City University of New York to report that 39.2% of students dealt with food insecurity and 22.7% reported hunger along with food insecurity.

The aforementioned studies acknowledged that food insecurity might affect college students' academic progress. Hungry students are seldom concentrating on academic tasks and instead looking for resources to quell hunger pains. Reasonably, such social conditions from the primary and secondary level do not disappear when students

move to post- secondary education. Therefore, this pilot study on food insecurities seeks to further examine this issue in Maryland community colleges. Specifically, this Phase 2 segment gathered insight from community college food pantry administrators, typically in student services, to further understand the behavior of community college students seeking food pantry assistance on campus.

Purpose Statement

The purpose of Phase 2 was to gather information about administrators' experiences in developing and maintaining food pantries in Maryland's community colleges. Further, this information was meant to gain initial insight to how food insecurities may assist community college students with academic success. Students, who are otherwise distracted by hunger, may face compromised academic success. In addition to understanding the experiences of the food pantry administrators, Phase 2 sought to garner initial information regarding the impact on community college students' energy, concentration and academic performance.

Central Research Question

To better understand the inspiration each community college had in developing food pantries, and to understand how students were served through these community college food pantries, the follow central research question guided this Phase Two of the project.

What is the experience of community college administrators in developing and maintaining food pantries on their respective campuses?

Research Sample

The sample for this project included five women and one man from six Maryland community colleges. None of the community college administrators had prior experience initiating or maintaining a food pantry. The community colleges ranged in environment and enrollment. See Table 1.

Table 1

Community college type and enrollment

	TYPE	Enrollment
CC1	Rural	9220
CC2	Suburban	22300
CC3	Urban	33600
CC4	Rural	4660
CC5	Rural	8440
CC6	Suburban	10500

Limitations

The findings were limited to the honest answers provided by participants. The data also relied on the verbal descriptions of each administrator. While a more in-depth ethnographic, observational approach might provide more insight on the day-to-day food pantry operation, an ethnographic approach was outside the stated scope for Phase 2.

Data Collection and Data Analysis

I served as the co- investigator leading Phase 2 of this project, the qualitative segment, used a qualitative phenomenological method. The participants were interviewed by

phone and audiotaped with their permission to support validity. All participants were

advised that their participation was voluntary and they could withdraw at any time.

Once the interviews were completed, I transcribed the interviews and used

NVIVO software to develop the emerging themes. Consistent with Leedy and Ormrod

(2010), I had developed some phrases that specifically related to the topic before creating

smaller units within the text.

Findings

None of the food pantry administrators had previous experience. All of the

administrators had incorporated the pantry into the community college student services

function. While some were careful to qualify students, others just left the cabinet door

open so hungry students could obtain the food. Only one food pantry administrator

commented on the need for fresh fruit and vegetables to avoid the starchy and high

calorie foods that can lead to diabetes and high blood pressure.

The frequency of student visits and the volume of food used were different

throughout the six community colleges. Those using the food pantry frequented the

service once a week to every month. Some administrators noticed that some students had

occasional use during a rough part of the semester.

Some students took food only for lunch, while others would take enough food to

feed a family of two or three members. Some food pantry patrons offered donations from

food they obtained from other Maryland food banks. For example, if someone received a

food donation in pre-packed grocery bag then was allergic to the included peanut butter,

or did not use other canned goods, the food pantry patron would donate those items back

to the community college food pantry. In these instances, the administrator noticed patrons felt good about contributing to the pantry instead of always taking food.

The overall purpose of this pilot project was to consider the impact of hunger on community college students' energy, concentration, and academic performance. The food pantry administrators anecdotally understood how hunger would hurt students' academic performance. Further, some commented that if hunger was issue, other financial, family, or home issues probably were affecting the students. The administrators had minimal interaction with students and asked few questions, only "how's it going?" or "how are you?" However, administrators typically did not want students to feel awkward with the questions or feel they had to justify why they needed the food pantry. Therefore, the administrators' strategy to protect students' dignity and avoid any possible stigma associated with poverty and hunger, disallowed precise data collection in many instances. In turn, the administrators did not establish a link between food pantry usage and students' academic performance. See Table 2 through 5 which reports on how many students were served, what inspired food pantry development, how the food pantry is supported, and how students qualify.

Table 2

How many students are served

_____

CC1	55
CC2	140
CC3	1000s
CC4	don't know
CC5	20
CC6	64

_____

Table 3

How do students qualify?

_____

CC1	Just show up
CC2	Show paid term bill
CC3	Show ID- but never deny service
CC4	For anyone
CC5	No qualification, no ID needed
CC6	Students show they're registered

_____

Table 4

What inspired you to develop food pantry

_____

CC1	A student passed away and staff reflected on how they used to give her lunch money
CC2	Students showing up in different offices asking for food
CC3	Students came to programs for the food
CC4	Noticed free public school lunch doesn't mean need stopped in college
CC5	Predecessor in student affairs'
CC6	Student Government feedback

_____

Table 5

How is food pantry supported?

_____

CC1   A grant & faculty donations

CC2   Volunteers

CC3   College programs that charge nominal fees, raised $3000

CC4   All donations

CC5   Donations and volunteers

CC6   Donation boxes around campus

_____

The interviews with community college food pantry administrators led to three emerging themes in regard to developing and maintaining food pantries: 1) Defining the need; 2) Protecting students from stigma 3). Generous community.

In regard to theme #1, defining need, food pantry administrators looked to food insecurity in their counties or relied on student feedback. Administrators commented that while they wanted to protect students' dignity, they also would benefit from better data collection to prove to the campus community and to possible grant opportunities about the severity of the need for the food panty. See table 6.

Table 6

Theme 1-Defining the Need

_____

CC4- Listening to the public schools about the number of children involved on free and assisted lunch. The number of students in K to 12 who are homeless.

CC5- Many students use this; it would help if we had data so people could see how many students really do use it.

CC3- We piloted on another campus and we discovered there was a huge need. We could barely keep the pantry stocked. Then, we started on the other two main campuses. Keeping all the food pantries was the same story- very difficult to keep it stocked.

CC4- An idea that came through student government through feedback from the students.

CC1- We got some not so positive feedback at first. People didn't believe there was a need. In our county, the salary for the county is pretty high. We have students who are struggling with food insecurities. I had to convince people at first about the need.

_____

All of the administrators were aware that students and even staff wanted to avoid the stigma potentially associated with poverty and needed assistance. Administrators commented on the students' privacy, and the need to publicize the food pantry as a safe place with trustworthy and empathetic colleagues. Ironically, the focus to protect students' dignity also drives the rationale to avoid imposing on students with a series of questions. One administrator specifically commented, "We really don't know; we don't have data. Given   the pride of students, we try not to ask all kinds of questions" (personal communication, May, 2017). See table 7.

Table 7

Theme 2 Protect Students from stigma

_____

CC3- We don't want any stigma attached to a student asking for food in the food pantry. We just talked to them about how's your day going.

CC1- We are off the beaten path. We're trying to give people some privacy. We're trying to protect their dignity.

CC6- One of the reasons that they are looking to move it to a different location. We feel it's underutilized because of the location. We need to provide more privacy. Someone has said they don't feel comfortable going in. People are concerned with the stigma.

CC4- We thought we discouraged students if they had the qualify. Students don't like to disclose they need help.

CC5- We don't want to ask questions. It's always stocked but students don't feel insecure about coming.

_____

In regard to theme #3, many administrators commented that the college community was supportive of the food pantry. In some cases, there might have been some initial skepticism. However, once the pantry was functioning, the administrators could show that students and some staff needed assistance to stem food insecurity. At some community colleges, faculty and staff exclusively supported the food pantries. See table 8.

Table 8

Theme 3 Generous Community

_____

CC3- There is a general understanding of student need. A majority of the people at the college are very invested in the students.

CC4- We have a rural community and towns. We are not the wealthiest county in Maryland. It is very compatible with the culture of the community. It's one of those things that the community supports you. It is a prevailing attitude in our county.

CC- The campus actually did a food drive for opening day of the fall season. They just asked for donations. They filled the entire Pantry with that event alone opening day.

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Conclusion

Phase 2, which represented 37% of Maryland community colleges and over 55,000 potential community college student enrollments, showed that food insecurity is an issue at rural, suburban, and urban community colleges. In turn, all community colleges presented a demonstrated need for food pantries to better assist their students. All of the food pantries were administered in student services and a majority relied on volunteers and donations. One food pantry administrator reported that community college staff at times would access the food pantry, despite that it was originally established for students.

Phase 2 showed that even while community colleges are often under funded in comparison to four-year senior institutions (Hollis 2016a) the administrators maintained a commitment to community through their support of their respective food pantries. Further, administrators recognized the need to support students' pride and the importance

of providing such services with kindness and civility (Hollis, 2016). All of the administrators reflected that they did not want the students to feel ashamed of needing help. Protecting students from shame was critical in graining the students' trust and creating a safe place (Hollis, 2016b). Such concerns informed the food pantry site and procedures for qualifying students to use the service.

Phase 3, led by the principal investigator, Dr. Robin Spaid, will continue with a statistical analysis of the food pantry and students' energy, concentration, and academic performance. Based on the findings of Phase 2, gaining the students' trust will be paramount in working around students' presumed stigma regarding food insecurities. However, such findings from Phase 3 could better support the community colleges in gaining further grant funding for their respective food pantries, and also make a crystalized argument about the impact and the demonstrated need for these services.

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Appendix- Interview protocol

1. What inspired your community college to develop a food pantry?

2. From point of inception to when food pantry first started, how long did it take? What steps did you and your organization take to develop food pantry?

3. Do you and staff have previous experience at another organization managing a food pantry? Please explain.

4. How do students qualify to use the food pantry?

5. In your experience, what percentage of your community college students need food pantry? Does it fluctuate year to year

6. How many students visit every semester?

7. How do you keep data on student usage?

8. Please describe the volume of food students take in a visit… for one person, for multiple people?

9. Do students come one or two times or throughout an entire term? Please describe student traffic.

10. How is food pantry maintained financially? Staffing?

11. How big is food pantry- square footage- offices, storage space?

12. Are there dynamics at the community college that enhance and /or jeopardize existence of food pantry? Please describe why.

13. Do you interact with students who use pantry? If so, please describe your interaction.

14. Does your staff interact with students who use the food pantry? If so, please describe the interaction.

15. What, if any evidence, do you have about how the food pantry helps students in school?

16. Do you find that students are bullied or teased for using the food pantry- if so do you have an example?

17. Other there other perspectives or experiences you would like to share about the community college food pantry administration?