

# **Prevalence of Food Insecurity Among College Students from a Mid-Atlantic University**

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# Outline

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# Background

- The USDA defines food insecurity as a condition when a person does not have adequate resources to feed themselves, either nutritiously, or not at all (Cady, 2016).
- It is estimated that more than 1 billion people lack sufficient dietary energy availability and about twice that number suffer from micronutrient deficiencies globally (Barrett, 2010).
- According to Hossfeld, Kelly, & Waity (2016), 14% of American households were food insecure in 2014. Among this 14%, 5.6% of them identified as very low food security meaning that their food intake was reduced and normal eating patterns were disrupted.
- Over 2.4 million New York State residents, or 11.9%, are food insecure (United States Department of Agriculture, 2017).

# Food Insecurity on College Campuses

- Reported rates of student food insecurity ranged from 14.8% at an urban university in Alabama to 59.0% at a rural university in Oregon (McArthur, Ball, Danek, & Holbert, 2018).
- In 2017, two-thirds of all college students report being food insecure (Goldrick-Rab, S., Richardson, J., & Hernandez, A., 2017).
- Food security is also tied for highest in northeastern universities at 58% of students reporting. The study collected information from 33,000 students from 24 different states (Anderson, A., 1990).

# Research Questions

1. What is the prevalence of food insecurity among individuals at a Mid-Atlantic University?
2. What are the possible predictors of food insecurity on a Mid-Atlantic University?
3. What strategies can be commonly utilized to overcome barriers of food insecurity on a Mid-Atlantic University campus?

# Rationale for Current Study

- Current estimates suggest that as many as half of American undergraduates experience food insecurity while pursuing college degrees (Broton & Goldrick-Rab, 2017).
- The purpose of this study was to assess the prevalence of food insecurity and possible predictors of food insecurity on a Mid-Atlantic University campus.
  - The research has the potential to aid in new programming or resources on college campuses for those who are food insecure.

# Methodology

- Quantitative Cross-Sectional Study Design
- $N=189$
- A convenience sample of Mid-Atlantic College Students aged 18 or older were recruited to participate in this study.
- Participants were asked to complete a written questionnaire of both open and closed ended questions related to food insecurity.
  - U.S. Household Food Security Survey
- Recruitment of participants took place in various general education courses and health science courses on the college campus.

# Data Analysis

- SPSS version 26 was used to analyze the data.
- Descriptive statistics
  - Frequencies
- Qualitative Analysis
  - Emerging Themes
- Correlations



# Descriptive Statistics Results

- Gender
  - 54.2% of the sample was Female.
  - 42.9% were Male.
- Age
  - 63.5% of participants were between the ages of 18-20.
  - 33.3% were between the ages of 21-23.
- Class Standing
  - 38.1% of the sample were of Freshman class standing.
  - 14.8% were Sophomores.
  - 17.5% were Juniors.
  - Seniors made up 28.6% of the sample.

# Descriptive Statistics Results

- Living Arrangements
  - 61.4% of the participants stated they lived on-campus in the dorms.
  - 3.2% lived in the on-campus Townhouses
  - 24.3% off-campus housing
  - 10.1% commuter living at home

# Food Insecurity Questions

- The Food I bought just didn't last and I did not have any money to buy more in the past 6 months.
  - 29.1% of participants stated this was *sometimes true*
  - 10.1% stated this was *often true*
  - 55.6% of participants stated this was *never true*
- In the last 6 months have you ever been hungry but didn't eat because you did not have enough money/swipes for food?
  - 18.5% of the sample stated "yes"
  - 77.8% of the sample stated "no"

# Food Insecurity Questions

- I cannot afford to eat balanced meals in the last 6 months
  - 13.3% of participants said often true
  - 26.5% of participants said sometimes true
- In the last 6 months, did you ever eat less because you felt you should because there wasn't enough money for food?
  - 5.8% of participants said this was often true
  - 23.8% of participants said this was sometime true
- In the last 6 months have you lost weight because you did not have enough money for swipes/food?
  - 9% of participants said yes

# Food Insecurity Questions

- How often do you worry about where your next meal will come from?
  - 67% of participants said “not very often”
  - 14% of participants said “not often”
  - 4.8% of participants said “often”
  - 3.2% of participants said “very often”
- Do you feel like the food that is supplied to you fits your dietary needs?
  - 65.1% of participants said “yes”
  - 27.5% of participants said “no”

# Food Pantry on Campus

- Are you aware of the food pantry on campus?
  - 57% of First year students answered *no*
  - 75% of Sophomore students answered *no*
  - 66% of Junior students answered *no*
  - 60% of Senior students answered *no*
- How often have you used the food pantry on campus?
  - 96% of first year participants answered *never*
  - 100% of sophomore participants answered *never*
  - 94% of Junior participants answered *never*
  - 91% of Senior participants answered *never*

# Correlations

- There was a positive direct correlation between gender and if participants were aware of the food pantry on campus ( $r=.238$ ,  $p=\leq .001$ ).
  - Participants reported ( $n=116$ ) that they were unaware of SHOP on campus.
- There was also a strong correlation between age and “the amount of food I bought did not last and I did not have money to buy more” ( $r=.190$ ,  $p=\leq .001$ ).
- A strong correlation between where students live while attending the college and “worrying where their next meal will come from” was significant ( $r= .207$ ,  $p=\leq .001$ ).

# Connections to Research Questions

1. Prevalence of food insecurity was connected to the National Average with an estimated 28% stating they sometimes or often have had trouble with access to food, amounts, or money for food.
2. Predictors of food insecurity were found to be gender, age, living arrangements such as on or off campus housing.
3. More education and awareness of the food pantry on campus is needed.
  - a. More volunteers, better hours



# Limitations

- A majority of surveys were distributed in classes that had a large number of freshman students.
  - Freshman are required to have meal plans during their first semester on campus so their experience with food insecurity may not best represent the rest of the campus's student body.
- Access because most students live on campus - getting students who lived off campus would be a better target.
- Students perceptions (personal bias)
- Food insecurity score was not created for the instrument

# Discussion

- From this research it is clear that there is a lack of awareness surrounding the resources on campus such as the food pantry.
  - In order to maximize the use of the food pantry more volunteers should be acquired.
  - Options for free food beyond the campus food pantry.
- Include food insecurity education and discussions about resources on campus.
  - Create future programming on campus related to food insecurity.
  - Collaborate Dining Hall excess food with off-campus food insecure students.
  - Encourage collaboration with clubs and organizations to focus on it to increase awareness of services.
- Address the stigma surrounding food insecurity making the prevalence known
  - Address high cost for food at campus events so to offer food more frequently with limited budgets.

# Discussion

- Eliminate the Freshman from the data set

Target off campus students only

- Study the perception of what food insecurity is.
- Students seem to be unaware of what food insecurity consists of (could be lack of nutritious foods).
- Specifically address what causes food insecurity for college students.
  - Financial hardships
  - Culture/ Religious Beliefs
  - Lack of Access
    - Dietary Restrictions
    - Transportation Issues

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