



Food Insecurity Among College Students: Implications for Well-being and Academic Success

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Abstract

Introduction: Food insecurity is associated with many negative effects such as increased stress and reduced well-being. Food insecurity among college students is a growing area of research as students often leave school due to financial concerns, mental health struggles, and illness. This study was conducted to assess student food insecurity in the hopes of learning how to better assist students' well-being and success.

Methods: Using both standardized assessments and researcher-developed questions, an online survey was created to examine food insecurity, sleep, mental and physical health, ability to focus on academics, and awareness and usage of food resources. Participants were recruited from Winona State University (N=155).

Results: Of participants surveyed, 21% reported low to very low food security. Among the participants that responded to food resource usage, only 4% reported using any food resources. Correlational analyses found that food insecurity was associated with greater symptoms of stress, anxiety, and depression. Additional correlational analyses found relationships between food insecurity and poor sleep quality, reduced ability to focus on classes, and lower physical health.

Discussion: Findings highlight potential consequences of food insecurity, including concerns for students' well-being and academic success. Negative impacts of food insecurity may extend to students' completion, graduation, and retention rates. Therefore, compelling evidence supports the necessity of additional intervention at the university, state, and federal levels.

Methods

Participants:

- 155 student participants from Winona State University
- Participants were recruited from the WSU Green Bandana Project
- Ages 18-24
- 86.5% Female, 11% Male, 2.5% Non-binary, Gender Queer, or Gender Non-conforming
- 47.7% Freshman, 21.9% Sophomore, 18.1% Junior, and 12.3% Seniors

Procedure:

- Project was approved by Winona State University IRB.
- Participants responded to demographic questions, survey scales, and researcher written questions online.

Measures:

- Demographics
- Researcher written questions about food resource awareness and use, ability to focus on classes, and physical health.
- U.S. Household Food Security Survey Module: Six-Item Short Form
- Center for Epidemiologic Studies Depression Scale Revised (CESD-R)
- Generalized Anxiety Disorder 7-item (GAD-7) Scale
- Perceived Stress Scale
- Single-Item Sleep Quality Scale

Implications

Findings:

- Food insecurity was *significantly positively correlated* with anxiety, perceived stress, and depression; food insecurity was *significantly negatively correlated* with physical health, ability to focus on classes, and sleep quality.
- The percentage of students who reported food insecurity was *over five times higher* than the percentage of students who reported using food resources, and *almost one third* of students reported being unaware of any resources.

Implications:

- The low level of student usage and awareness could suggest issues with stigma and advertisement in the community and on campus. Continued efforts to improve advertisement and decrease stigma are needed.
- The negative outcomes correlated with food insecurity could be detrimental to student well-being and success. Furthermore, retention and graduation rates could be impacted.
- Therefore, evidence supports the necessity of increased intervention at the university, state, and federal levels.

Suggestions for Future Research:

- Broader recruitment of participants could increase generalizability of findings.
- The inclusion of more participants that are upperclassmen could increase representativeness.
- Research conducted on more universities nationwide could shed a light on variation between universities.

Results

Table 1.

Pearson Correlations Across Variables.

	FI	Anx	PS	Dep	PH	FC	Slp
Food Insecurity (FI)							
Anxiety (Anx)	.419**						
Perceived Stress (PS)	.455**	.696**					
Depression (Dep)	.519**	.753**	.789**				
Physical Health (PH)	-.220**	-.110	-.231**	-.125			
Focus on Classes (FC)	-.253**	-.242**	-.392**	-.385**	.233**		
Sleep (Slp)	-.303**	-.350**	-.378**	-.499**	.158*	.282**	

Note. * $p < .05$. ** $p < .01$.

- Food insecurity was significantly positively correlated with anxiety, $r(129) = .42, p < .01$; perceived stress $r(130) = .455, p < .01$; and depression, $r(125) = .519, p < .01$.
- Food insecurity was significantly negatively correlated with physical health, $r(135) = -.220, p < .01$; ability to focus on class, $r(135) = -.253, p < .01$; and sleep, $r(135) = -.303, p < .01$.

Food Insecurity Resource Awareness and Usage	Percentages
Food Insecure	20.8%
Currently Using Resource(s)	3.6%
Aware of Campus Food Shelf	49.6%
Aware of Local Community Food Shelf	34.8%
Aware of SNAP	36.3%
Aware of WIC	25.9%
Unaware of Any Resources	32.9%

Purpose & Hypotheses

Purpose: Investigate the effects of food insecurity on student well-being, success, and student food resource awareness and use.

H1: Students experiencing food insecurity will be more likely to experience greater symptoms of stress, anxiety, and depression.

H2: Students experiencing food insecurity will be more likely to report worse physical health.

H3: Students experiencing food insecurity will be more likely to report lower quality sleep.

H4: Students experiencing food insecurity will be more likely to report less focus on their classes.

References

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*Additional references used available upon request.