The Relationship Between Food Insecurity and Maladaptive Eating Patterns: A Systematic Review

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Abstract

Objective: Eating disorders are stereotypically associated with thin, white, women; however, studies have indicated that this stereotype has been detrimental to marginalized populations. The purpose of this study was to determine if there is a correlation between individuals who experience food insecurity and those who develop maladaptive eating patterns.

Methods: A systematic review of the literature was conducted using five electronic databases. Inclusion criteria included: studies with more than 50 participants, studies that mentioned both food insecurity and eating disorders, and studies conducted within the U.S. Data extraction was completed using the Academy of Nutrition and Dietetics Evidence Analysis Manual.

Results: Of the 442 records initially identified 424 records were screened and 12 were included in the final analysis. Results from all studies analyzed indicate that there is an association between low food security and maladaptive eating patterns such as binge-eating and purging.

Conclusions: Findings indicate there is a correlation between individuals who experience food insecurity and those who develop maladaptive eating patterns. Additional research is recommended in order to further our understanding of ED pathology among this marginalized population and to eliminate the stereotype that only thin, white women and girls experience ED.

Purpose

The purpose of this systematic review was to review the present literature on individuals who struggle with Food Insecurity (FI) and Eating Disorders (ED) to determine if there is a correlation between individuals who experience FI and those who develop maladaptive eating patterns. Although studies have shown the stereotype that only thin, white women experience eating disorders, this bias still remains among medical professionals and the general public (Mitchison et al., 2014).

The US Department of Agriculture (USDA) views an individual or family's level of food security on a sliding scale:

- **Low food security** (old label: Food insecurity without hunger): reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- **Very low food security** (old label: Food insecurity with hunger): reports of multiple indications of disrupted eating patterns and reduced food intake.

![Figure 1: Prevalence of food insecurity in the US (Coleman-Jensen, 2020)](image)

Additional Quality Assessment Questions:

1. Was the research question clearly stated?
2. Was the selection of study free from bias?
3. Were outcomes clearly defined and the measurements valid and reliable?
4. Are conclusions supported by results with biases and limitations taken into consideration?
5. Is bias due to study’s funding or sponsorship unlikely?

Research Questions

1) Is there a correlation between individuals who experience food insecurity and those who develop maladaptive eating patterns or eating disorders?

2) What types of maladaptive eating patterns are more prevalent for individuals who have or are currently experiencing food insecurity?

Methodology

Key Words Searched:

"Food insecurity AND maladaptive eating"

"Food insecurity AND eating disorders"

"Food insecurity AND disordered eating"

Inclusion Criteria:

1. 2014-present
2. English Language
3. Peer Reviewed
4. Full-text

Exclusion Criteria:

1. Studies with no design
2. Studies conducted outside of the U.S
3. Studies with fewer than 50 participants
4. Studies with no mention of FI or FS
5. Studies with no mention of maladaptive eating, ED, or disordered eating

Quality Assessment:

Data extraction completed using the Academy of Nutrition and Dietetics Evidence Analysis Manual.

Figure 2: AND Quality Assessment Grading

![Figure 3: Article Extraction](image)

Figure 4: Summary of Results

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Article Title</th>
<th>Research Question(s)</th>
<th>Methodology</th>
<th>Sample</th>
<th>Results</th>
<th>AND Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Becker, C. et al., 2019</td>
<td>Food insecurity and eating disorders</td>
<td>To investigate ED pathology in those experiencing food insecurity</td>
<td>Self-reported surveys were utilized based on the Eating Disorder Diagnostic Scale used to assess ED pathology.</td>
<td>503 participants - San Antonio, TX</td>
<td>Results were consistent with the findings of previous research.</td>
<td>Grade I: Good</td>
</tr>
<tr>
<td>Becker, C. et al., 2019</td>
<td>Eating Disorder Pathology Among Individuals Living With Food Security: A Replication Study</td>
<td>Grade I: Good</td>
<td></td>
<td></td>
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<tr>
<td>Becker, C. et al., 2019</td>
<td>Eating disorder pathology among athletes</td>
<td>To investigate ED pathology in athletes</td>
<td>Self-reported surveys were utilized based on the Eating Disorder Diagnostic Scale used to assess ED pathology.</td>
<td>88% participants - San Antonio, TX</td>
<td>Results were consistent with the findings of previous research.</td>
<td>Grade I: Good</td>
</tr>
<tr>
<td>Fulk, J. et al., 2018</td>
<td>Food insecurity associated with disordered eating behaviors in NCAA division I male collegiate athletes</td>
<td>Grade I: Good</td>
<td></td>
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<tr>
<td>Fulk, J. et al., 2018</td>
<td>Food insecurity and binge-eating disorder and obesity</td>
<td>Grade I: Good</td>
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<tr>
<td>Fulk, J. et al., 2018</td>
<td>Excessive food intake among male collegiate athletes</td>
<td>Grade I: Good</td>
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<tr>
<td>Fulk, J. et al., 2018</td>
<td>Relationship of household food insecurity to current disordered eating behaviors</td>
<td>Grade I: Good</td>
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<tr>
<td>Fulk, J. et al., 2018</td>
<td>Healthy Eating and the Relationship Between Maladaptive Eating Patterns</td>
<td>Grade I: Good</td>
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</tbody>
</table>

Discussion and Recommendations

Results from the studies analyzed indicate that there is an association with low and very low food security and maladaptive eating patterns such as binge-eating and purging.

In order to further our understanding of ED pathology among this marginalized population and others, additional research is recommended. Although several studies have shown a correlation between individuals experiencing FI and those also experiencing ED, these results cannot definitively say there is a causation between the two.

As dietetic professionals we must continue to check our biases and recognize that many marginalized groups also experience ED and that by focusing on the stereotypes may cause us to miss out on an opportunity to help the individuals in need.

References


