**COVID-Related Diet Changes in a Multiethnic Sample of College Students**

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**BACKGROUND**
- Research suggests varied dietary impacts of the COVID-19 pandemic, including an increase in meal and snack frequency.1  
- While some studies report an increase in home cooking and fresh produce consumption, others report less favorable changes in diet patterns.2  
- Limited research examines these patterns in college students.

**OBJECTIVE**
- To explore self-reported changes in food intake patterns during the COVID-19 pandemic in a multiethnic sample of college students.

**METHODS**
- A web-based survey was administered to students enrolled in a general education introductory nutrition course during the 2020-2021 academic year. Participants (n=436) were predominantly (77%) female; 39% identified as Hispanic/Latino, 33% identified as Asian/Pacific Islander, and 19% identified as Caucasian.  
- Two open-ended items were used to capture self-reported changes in food intake and drivers of those changes resulting from the COVID-19 pandemic. Food insecurity was assessed using the USDA six-item food security module.  
- Two researchers collaborated to develop a codebook and assign codes independently to open-ended responses.  
- Chi-square tests were used to investigate relationships between food security status and reported diet changes.

**RESULTS**

<table>
<thead>
<tr>
<th>Factors influencing changes in diet</th>
<th>Eating habits</th>
<th>Motivation</th>
<th>Routine</th>
<th>Activity level</th>
<th>Consciousness of weight</th>
<th>Accessibility at home</th>
<th>Grocery stores</th>
<th>Time availability</th>
<th>Stress</th>
<th>Depression &amp; anxiety</th>
<th>Boredom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases meal frequency (n=24)</td>
<td>Eating healthier (n=21)</td>
<td>Increased consciousness about diet &amp; health (n=10)</td>
<td>Motivation (n=70)</td>
<td>Routine (n=17)</td>
<td>Activity level (n=26)</td>
<td>Consciousness of weight (n=9)</td>
<td>Accessibility at home (n=15)</td>
<td>Grocery stores (n=4)</td>
<td>Time availability (n=15)</td>
<td>Stress (n=12)</td>
<td>Depression &amp; anxiety (n=10)</td>
</tr>
<tr>
<td>Increased home-prepared meal (n=29)</td>
<td>Eating more home-prepared food (n=26)</td>
<td>Increased meal frequency (n=11)</td>
<td>Motivation (n=70)</td>
<td>Routine (n=17)</td>
<td>Activity level (n=26)</td>
<td>Consciousness of weight (n=9)</td>
<td>Accessibility at home (n=15)</td>
<td>Grocery stores (n=4)</td>
<td>Time availability (n=15)</td>
<td>Stress (n=12)</td>
<td>Depression &amp; anxiety (n=10)</td>
</tr>
<tr>
<td>Changes in grocery store availability (n=1)</td>
<td>Grocery stores (n=4)</td>
<td>Increased meal frequency (n=11)</td>
<td>Motivation (n=70)</td>
<td>Routine (n=17)</td>
<td>Activity level (n=26)</td>
<td>Consciousness of weight (n=9)</td>
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<td>Depression &amp; anxiety (n=10)</td>
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<td>Changes in time availability (n=1)</td>
<td>Grocery stores (n=4)</td>
<td>Increased meal frequency (n=11)</td>
<td>Motivation (n=70)</td>
<td>Routine (n=17)</td>
<td>Activity level (n=26)</td>
<td>Consciousness of weight (n=9)</td>
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<td>Time availability (n=15)</td>
<td>Stress (n=12)</td>
<td>Depression &amp; anxiety (n=10)</td>
</tr>
<tr>
<td>Changes in accessibility of household grocery stores (n=1)</td>
<td>Grocery stores (n=4)</td>
<td>Increased meal frequency (n=11)</td>
<td>Motivation (n=70)</td>
<td>Routine (n=17)</td>
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</tbody>
</table>

**CONCLUSIONS**
- A majority of participants (n=295, 67.7%) reported diet changes as a result of the pandemic. Participants indicated mixed impacts on food intake.  
- Participants attributed diet changes to increased health consciousness, increased time at home, eating more home-prepared foods, changes in activity level, and increased feelings of boredom.  
- Among respondents who reported a COVID-related diet impact, those experiencing food insecurity were more likely to report eating less healthy because of the pandemic.  
- As universities develop strategies to promote health in the college student population, targeted strategies are needed.

**REFERENCES**
https://doi.org/10.3389/fnut.2021.626432

https://doi.org/10.3390/nu13082790

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