Diet, Physical Activity, and Weight Gain among Undergraduate Students in the United States during COVID-19 Pandemic

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BACKGROUND
➢ Diet, physical activity, and tobacco lead to cancer, heart disease & stroke, type 2 diabetes, and lung disease, which result in 50% of deaths in globally.
➢ In the U.S., 39.8% of adults are struggling with obesity.¹
➢ The COVID-19 pandemic has significantly increased students' sedentary behavior, reduced their level of physical activity, negatively affecting their nutrient and caloric intake.²,³

METHODS
➢ A cross-sectional study was conducted among undergraduate students (n=166) across the U.S.
➢ In April 2021, the anonymous 21-item online survey was distributed to students through diverse social media platforms (Facebook, Instagram, Reddit).
➢ The Godin Leisure-Time Exercise Questionnaire was used to score a person's leisure time and physical activity and diet that play a role on weight gain according to race/ethnicity, gender, age, culture, and geographical location.
➢ Based on the responses to zero frequency across all levels indicates an increase in physical inactivity behavior due to the COVID-19 pandemic.
➢ Participant feedback demonstrates a shift in students' dietary patterns. Results display an increase in snack intake since the start of the COVID-19 pandemic supporting responses of gained weight.

OBJECTIVE
➢ To identify behavior change in diet, physical activity and weight gain before and during the pandemic among undergraduate students across the U.S.

RESULTS
➢ Al/AN = American Indian or Alaska Native
➢ B/AA = Black or African American
➢ NH/PI = Native Hawaiian/Other Pacific Islander
➢ Other = Latino/Hispanic, Armenian, Middle Eastern, Mutli, and Sri Lankan

- 62% Off-campus
- 35.5% On/Off-Campus
- 91% CA
- 1.2% AZ
- 1.2% TX
- 3.6% Other

Table 1. Change in weight since the start of COVID-19 pandemic

<table>
<thead>
<tr>
<th>Responses (%)</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>83 (50%)</td>
<td>I've gained weight</td>
</tr>
<tr>
<td>41 (24.7%)</td>
<td>I've lost weight</td>
</tr>
<tr>
<td>41 (24.7%)</td>
<td>I have maintained my weight</td>
</tr>
</tbody>
</table>

Table 2. Diet Change since the start of the COVID-19 pandemic

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
<th>Responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you snack on a typical day?</td>
<td>Less</td>
<td>37 (22.3%)</td>
</tr>
<tr>
<td></td>
<td>More</td>
<td>74 (44.6%)</td>
</tr>
<tr>
<td></td>
<td>Same amount</td>
<td>54 (32.5%)</td>
</tr>
</tbody>
</table>

Figure 1. Participant Demographics

Figure 2. Age

Figure 3. Respondants of Frequency "0" of Physical Activity Levels

CONCLUSIONS
➢ These results highlight why it is important to consider multiple factors besides physical activity and diet that play a role on weight gain such as race/ethnicity, gender, age, culture, and geographical location.
➢ Based on the responses to zero frequency across all levels indicates an increase in physical inactivity behavior due to the COVID-19 pandemic.
➢ Participant feedback demonstrates a shift in students' dietary patterns. Results display an increase in snack intake since the start of the COVID-19 pandemic supporting responses of gained weight.

POLICY IMPLICATIONS
➢ Implementing a policy that requires universities to redirect part their gym facility funds into financing a virtual health community.
➢ The online program would intel fitness videos and nutritional diet plans/recipes.

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REFERENCES