Impact of Information Sources on Adherence to COVID-19 Related Safety Measures Among US College Students

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Introduction

This study explores the persuasiveness of information sources during the COVID-19 pandemic in predicting behaviors such as adherence to safety measures and hygiene practices among college students. The Learning Objectives are:

• Identify the most persuasive sources for COVID-19-related information.
• Compare adherence to COVID-19-related safety measures among different sub-groups.
• Explain the association between COVID-19 information sources and adherence to safety measures.

Methods

Data:

• We analyzed data from the Healthy Minds Study (HMS) 2020-2021 COVID-19 Module (Fall and Winter/Spring), a cross-sectional survey of college students.
• The HMS is an annual national web-based survey that examines mental health, service utilization, related stressors.

Analysis:

• Multivariable Logistic regression analyses were used to test for associations between the source of information and adherence to COVID-19-related safety measures adjusting for sociodemographic covariates and COVID-19-related stressors.
• Additional analyses were conducted among the sub-sample by gender, citizenship status, race, and educational level, to explore whether the source of information was associated with adherence to COVID-19-related safety measures.
• Sample probability weights were used, and Standard errors were clustered at the institutional level.

Results

Odds ratios (OR) from logistic regressions

• Individuals with elected public officials (federal) (OR 1.24; 95% CI [1.04, 1.48]) as their most trusted source of information were more likely to engage in hygiene practices.
• College students engaged in facemask-wearing practices more if their trusted source of information was elected officials (state or local) (OR 1.63; 95% CI [1.08, 2.45]).
• Individuals with national or international media as the main COVID-19 information source were more likely to engage in hygiene practices.
• Information received from officials of the college/University resulted in statistically significant hygiene practices.
• Undergraduate students were significantly less likely to engage in COVID-19-related safety measures than graduate students.
• African American college students were significantly more likely to engage in safety practices than other races.
• The association between social networking sites as the most trusted source of information and face mask wearing when required was opposite between females (OR 1.26; 95% CI [1.10, 1.43]; p<0.001) and males (OR 0.92; 95% CI [0.80, 1.07]).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hygiene practices</th>
<th>Social / physical distancing</th>
<th>Facemask in public when required</th>
<th>Facemask in public when not required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main source of information (Ref.: Public health agencies)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Elected officials (federal)</td>
<td>1.156* (0.079)</td>
<td>0.965 (0.043)</td>
<td>0.702** (0.096)</td>
<td>0.828*** (0.032)</td>
</tr>
<tr>
<td>Elected officials (state or local)</td>
<td>1.394*** (0.093)</td>
<td>1.242*** (0.054)</td>
<td>1.917*** (0.310)</td>
<td>1.416*** (0.055)</td>
</tr>
<tr>
<td>Officials from my college/ university</td>
<td>1.401*** (0.094)</td>
<td>1.254*** (0.055)</td>
<td>1.913*** (0.309)</td>
<td>1.418*** (0.055)</td>
</tr>
<tr>
<td>National or international media</td>
<td>1.261* (0.059)</td>
<td>1.452*** (0.049)</td>
<td>2.632*** (0.359)</td>
<td>1.740*** (0.053)</td>
</tr>
<tr>
<td>Local media</td>
<td>1.357*** (0.073)</td>
<td>1.343*** (0.050)</td>
<td>3.729*** (0.688)</td>
<td>1.499*** (0.051)</td>
</tr>
<tr>
<td>Social networking sites</td>
<td>0.906* (0.045)</td>
<td>0.897** (0.031)</td>
<td>1.216 (0.154)</td>
<td>1.033 (0.033)</td>
</tr>
<tr>
<td>Discussion forums</td>
<td>1.262*** (0.059)</td>
<td>1.461*** (0.049)</td>
<td>2.619*** (0.358)</td>
<td>1.742*** (0.053)</td>
</tr>
<tr>
<td>Friends and family</td>
<td>0.675*** (0.028)</td>
<td>0.657*** (0.020)</td>
<td>0.567*** (0.053)</td>
<td>0.657*** (0.018)</td>
</tr>
<tr>
<td>Other source</td>
<td>1.072 (0.072)</td>
<td>1.010 (0.048)</td>
<td>1.123 (0.175)</td>
<td>0.869*** (0.034)</td>
</tr>
</tbody>
</table>

Descriptive Analysis:

• About three-quarters were aged 18-24 years of age. The sample was predominantly White (62.89%), majority female (71.27%), mostly domestic students (90.49%), spoke only English (67.62%), lived in off-campus non-university housing (41.44%) and single (50.19%), 85.62% of the sample were current smokers, and 45.15% had alcohol over the past two weeks.
• About 33% of college students expressed public health agencies as their most trusted source of information regarding the COVID-19 pandemic, while 13.37% reported national or international media as the source of such information.

Discussion

• The study explores barriers to health-related information among college students from sub-group analysis by gender, citizenship status, race, and educational level.
• Significant differences were found in adherence to safety practices when information was received from various sources, including public officials, social media, and college/University officials.
• It identifies how different demographic sub-groups within the college student population depended on different sources of COVID-19-related information during the pandemic.

Policy Implications

• This study enables the learner to understand the impact of information sources on adherence to COVID-19-related safety measures among college students in the US.
• Analysis reveals the necessity for targeted health-related messaging among college students.