How do Medical School Experiences Differ between Students from Low- vs. Higher SES Backgrounds? A Multicenter U.S. Survey Study.

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Introduction

- Medical school diversity efforts often focus on visible identities (e.g., race or gender).
- Socioeconomic status (SES) is an invisible aspect of diversity & rarely studied.
- Low-SES students remain significantly underrepresented in medicine, and little is known about their experiences.

Methods

- March-May 2021, students from 14 LCME-accredited US medical schools were surveyed.
- 85-item survey: multiple choice, standardized survey tools, and open-ended questions.
- Low-SES defined as any of 3 measures below:
  1) AAMC Employment-Occupation-SES-disadvantaged indicator based on parental education and occupation6
  2) Parental income during childhood in the bottom two of household income quintiles7,8
  3) Self-classification into low- or low-middle class SES categories7
- Low-SES students' responses compared to higher-SES peers.
- Chi-squared tests & multivariable generalized estimating equation models adjusting for confounding covariates.
- All analyses done in R 3.6.1.

Results

Respondent demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Low-SES, N (%)</th>
<th>Higher-SES, p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25 years</td>
<td>259 (36.8)</td>
<td>445 (63.2)</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>225 (39.1)</td>
<td>351 (60.9)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>281 (36.0)</td>
<td>500 (64.0)</td>
</tr>
<tr>
<td>Male</td>
<td>195 (40.6)</td>
<td>285 (59.4)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>74 (57.4)</td>
<td>741 (64.4)</td>
</tr>
<tr>
<td>Not Hispanic/Latino</td>
<td>410 (35.6)</td>
<td>741 (64.4)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Asian</td>
<td>102 (35.7)</td>
<td>184 (64.3)</td>
</tr>
<tr>
<td>Black</td>
<td>54 (63.6)</td>
<td>42 (34.8)</td>
</tr>
<tr>
<td>White</td>
<td>303 (34.3)</td>
<td>580 (65.7)</td>
</tr>
<tr>
<td>Other</td>
<td>56 (64.4)</td>
<td>31 (35.6)</td>
</tr>
</tbody>
</table>

* Chi-squared test

Representative quotes:

- "I feel wholly out of place coming from a low SES background. Some of my classmates' cars cost the same as my parent's home."
- "[Low-SES students] don't have access to the same advice and social circles of higher SES students. This puts them at a great disadvantage."
- "Nothing specific about the school but more so about the system. The idea that we are expected to pay for away rotations, NBMEs, study resources [...] and travel for interviews [...] is criminal."

Figure 1. Multivariable Logistic Regression Results for Low-SES vs. Higher-SES Medical Students’ Responses to Questions about Medical School Experiences. Only Odds Ratios (ORs) for SES Status Shown for Each Question.

Figure 2. Multivariable Linear Regression Results for Low-SES vs. Higher-SES Medical Students’ Responses to the Standardized Loneliness Questionnaire.

Conclusions

- Low-SES students are academically, financially, and socially disadvantaged compared to higher-SES peers.
- Low-SES students have higher burnout & loneliness rates.
- Underscores importance of data-driven recommendations to provide low-SES students needed support & promote diverse physician workforce.
- Limitations: no uniform qualifier to define low-SES, distribution during COVID-19 pandemic could result in bias, relatively low response rate.

Recommendations to address SES diversity

Financial Support

- Provide financial support targeted to low-SES students for not only room and board, but also resources and experiences that are needed in medical school.

Academic Resources

- Make exam preparation resources (e.g., Step 1, shelf) available so that students who cannot afford them are not at a disadvantage.

Social Support

- Create & raise awareness of identity groups for low-SES students, organize events targeted towards low-SES students.

Mentorship & Networking

- Correct students to faculty from similar backgrounds so students feel less intimidated interacting with faculty & networking.

Connectedness & Belonging

- Foster a sense of community & provide training to address microaggressions low-SES students may experience due to lack of awareness from peers.

Acknowledgments

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References

We refer to the references cited within the text for further details.