Assessing Identity-Based Bias in Problem-Based Learning Curriculum Through a Community Lens

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ABSTRACT

Identify-based bias in medical education contributes to discrimination in healthcare and health inequities. Community-Students Together Against Healthcare Racism (C-STAHR) was created in 2010 to combat healthcare racism using community-based participatory research. The aim of this analysis was to evaluate the problem-based learning (PBL) curriculum at a US medical school for identity-based bias through a community lens. An evaluation tool was developed from prior C-STAHR focus group data and Sadker Foundation’s Seven Forms of Bias. Participants evaluated PBL cases using this survey and qualitative discussions in focus groups. Community participants were recruited via snowball sampling. Survey responses were assigned value based on ideal answer. Questions were summed and divided by total possible points to create a percentage referred to as the Bias Score. Bias Scores corresponding to particular cases were averaged. We used a multivariate mixed effects linear regression model to associate corresponding to a particular case were averaged. We used a multivariate mixed effects linear regression model to associate community participant demographic variables to the Bias Score (1-5 based on value); (1.0=off to 5.0=on). Community members are valuable assets to identify identity-based bias in medical education curricula. PBL cases included cases from identity-based cases (Latinox, transgender, uninsured) and non-identity-based cases (age, gender, insurance status). These findings represent a larger need to evaluate and address issues around bias and representation in medical education curricula.

METHODS

• Physician identity-based bias contributes to discrimination in healthcare and health inequities
• Community-Students Together Against Healthcare Racism (C-STAHR) was created in 2010 with the mission of using community-based participatory research to reduce racism
• Problem-Based Learning (PBL) cases were identified as a potential source of identity-based bias
• Aim: We aimed to utilize community member perspectives to evaluate CUSOM PBL cases for identity-based bias

INTRODUCTION

• Six focus groups conducted
• 41 participants, mean 6.8 per group
• Five cases per focus group and 15 unique cases reviewed
• Each case reviewed by two focus groups

Figure 1. Participant demographics

![Participant demographics](image1)

Table 1. Participants

<table>
<thead>
<tr>
<th>Identity</th>
<th>Crude</th>
<th>Multivariable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effect Estimate</td>
<td>P-value</td>
</tr>
<tr>
<td>Race</td>
<td>14.9</td>
<td>0.001</td>
</tr>
<tr>
<td>Latinx</td>
<td>2.5</td>
<td>0.30</td>
</tr>
<tr>
<td>Unspecified</td>
<td>4.5</td>
<td>0.42</td>
</tr>
<tr>
<td>Gender</td>
<td>1.6</td>
<td>0.60</td>
</tr>
<tr>
<td>Transgender-Man</td>
<td>9.6</td>
<td>0.005</td>
</tr>
<tr>
<td>Any Minority</td>
<td>11.4</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Figure 2. Crude and multivariable effect estimates of race, gender, insurance and any minority on the Bias Score.

CONCLUSIONS & LIMITATIONS

• PBL cases included several incidences of identity-based bias that may perpetuate harmful stereotypes and implicit bias of future physicians
• Cases with patient-characters who were Latinox or uninsured showed significantly more bias than other cases
• Findings represent a larger need to evaluate and address issues around bias and representation in medical education curricula
• Changes were suggested to the PBL Course Director and community involvement is ongoing
• Study Limitations:
  - Participants were English speakers only
  - Low percentage of participants were Latino
  - Limited time for each focus group
  - Participant confusion about cases being fictional stories versus real patients

REFERENCES

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