Assessing the impact of mode of delivery and training hours on screening and brief intervention proficiency using a web-based simulated patient

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**BACKGROUND**

- Alcohol and drug screening and brief intervention (SBI) training can take many forms. Didactic curriculum may be delivered face to face or via video modules. Clinical skills development may occur using standardized patients (SPs), role play scenarios, or, more recently, web-based simulated patients. The latter offers the standardization of SPs, and is less costly and more accessible. These programs can also assess trainee proficiency by scoring trainees as they progress through SBI.
- Linger ing questions in SBI training include whether video modules are as effective as live delivery of curriculum and whether more hours of training lead to greater proficiency. This study addresses these questions using a web-based simulated patient to assess SBI proficiency of health professional students.

**METHODS**

- **Study Sample:** Students (N=445) who are enrolled in six types of health professional training programs received a core set of SBI modules.
- **Intervention:** Live vs. Online videos
- **Outcome:** Differences in mean test score and number of attempts were compared using an analysis of variance. Analyses explored possible impact of mode of delivery and number of training hours on proficiency score.

**RESULTS**

<table>
<thead>
<tr>
<th>Number Training Hours</th>
<th>Live/In Person Only (n = 45)</th>
<th>Online Only (n = 372)</th>
<th>Live/In Person with PPT handouts (n = 12)</th>
<th>Live/In Person + Online (n = 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Hours</td>
<td>20 (44.4)</td>
<td>372 (100.0)</td>
<td>5 Hours</td>
<td>12 (100.0)</td>
</tr>
<tr>
<td>3 Hours</td>
<td>15 (33.3)</td>
<td></td>
<td>16 (100.0)</td>
<td></td>
</tr>
<tr>
<td>5 Hours</td>
<td>10 (22.2)</td>
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- The maximum number of recorded test attempts ranged from 1-5 and did not vary significantly by mode of delivery.
- Some students made multiple attempts despite passing scores.
- The mean test score at first recorded attempt was 88.8±7.9 (out of 100) and did not vary significantly by mode of delivery or training hours.
- The mean best recorded score was 92.1±5.4 and did not vary significantly by mode of delivery.
- The mean best test score varied significantly by number of training hours (p=0.035)

**CONCLUSIONS & LIMITATIONS**

- Mode of delivery was not related to SBI proficiency.
- The number of hours of instruction did not impact students’ ability to achieve proficiency.
- More hours of training resulted in slightly higher proficiency scores.
- Study limitations: small sample size for some modes of instruction limit ability to detect statistical significance; relatively high test scores and narrow range of scores on Kognito simulation.

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