Tele-delivered vs. In-Person Simulations for Evaluating Interprofessional Collaboration

David N. Dickter, PhD
Susan Mackintosh, DO, MPH
Sheree Aston, OD, MA, PhD
Western University of Health Sciences
Disclosures

Supported in part by:

- AACOM research grant
- Health Resources and Services Administration (HRSA) Cooperative Agreement #6UB4HP19202

Contents of this presentation are solely the responsibility of the authors.
Study Purpose

Online interprofessional simulations...

...Feasible, practical?

...Does delivery mode affect student performance?
Participants

Osteopathic Medicine Students
Completed Phases I & II

I. Team modules/cases, Problem-Based Learning
II. Team projects, internet + in-person capstone
III. Simulations
Methods

• 25 in-person

• 28 online via video connection (Zoom)

• Mean average self-ratings
• Mean average observer ratings
Methods: ATOSCE Overview

- Realistic scenario
- Challenges students to:
  - Be patient-centered
  - Include family
  - Work collaboratively
- Focus on safety; continuity of care
- Ambulatory setting
- Geriatric focus

✓ Ambulatory
✓ Team
✓ Objective
✓ Structured
✓ Clinical
✓ Examination
Methods: Simulation Durations

1. Chart review: 10 minutes
2. Patient Encounter: 12 minutes
3. Follow-up: 8 minutes
4. Debrief: 5 minutes
5. Group Debrief: 15 minutes
Methods: Scenarios, Parallel Format

**Patient**
- Mariam – elderly stroke pt
- Mike – homeless veteran

**Family**
- Joe – caregiver son
- “Max” – dog

**Standardized Clinician**
- Health Care Providers
- Health Care Providers
Analyses

- Mean average self-ratings
- Mean average observer ratings

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student:

1a. Spoke directly with patient about their concerns
1b. Spoke directly with caregiver about their concerns
2a. Mentioned ≥1 physical safety hazards
   (ill-fitting walker, flip flops, lamp cord, throw rug)
2b. Corrected physical safety hazard or suggested a correction
3. Posed a question about medication prescription or compliance
4a. Identified a safety concern regarding medications (not regarding compliance)
Results
Results

Range of performance: Highlights
(Averaged Across Both Conditions)

- Obtained/clarified missing or contradictory information: 0% - 100%
- Confirmed patient understood what next step would be
- Expressing concern to HCP about safety issue in treatment plan
- Called other healthcare providers to make referral appointments
Results

• Mean average self-ratings, in-person vs. Online: n.s.

• Mean average observer ratings, in-person vs. Online: Higher for online
  • 68% of behaviors performed successfully In-person vs. 60% Online

• In-person better nearly across the board
Discussion

• Possible online disadvantage; caution about remote/decentralized delivery

• Future research might investigate sources:
  • Attention?
  • Personal contact?
  • Control?
Thank you!

Questions?

David N. Dickter, PhD
ddickter@westernu.edu

Sheree Aston, OD, MA, PhD
saston@westernu.edu