Current Gaps in Medical Education as Illustrated by the COVID-19 Pandemic: Interviews with Physicians Across Various Medical Specialties

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To understand the effect of the COVID-19 pandemic on physicians in various medical specialties across Colorado
Background

The COVID-19 pandemic had most heavily impacted:

• mental health
• physician burnout
• increased use of telehealth visits
• disproportionate impact of the pandemic on underserved populations
Methods

**Interview Physicians**
- 31 physicians across 19 specialties in Colorado in **April 2020**

**Standard Interview Questions**
- Focused on the impact of the pandemic:
  - in the context of physicians’ practices
  - the effect on patient care
  - adaptations to practice and/or patient care
  - the impact on trainees’ education

**Data Analysis**
- Audio files of interviews transcribed and analyzed to identify common themes
- Identified themes that highlight gaps in current medical education that could be used as opportunities for positive change in medical education

**Follow-up Survey**
- Follow-up survey in **January 2022** included solutions proposed to address gaps in medical education identified in April 2020
Physician interviewed and their specialties

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction medicine</td>
<td>1</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>1</td>
</tr>
<tr>
<td>Critical care</td>
<td>4</td>
</tr>
<tr>
<td>ED</td>
<td>1</td>
</tr>
<tr>
<td>Family medicine</td>
<td>2</td>
</tr>
<tr>
<td>Family planning</td>
<td>1</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>1</td>
</tr>
<tr>
<td>Infectious disease</td>
<td>1</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>2</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>2</td>
</tr>
<tr>
<td>Oncology</td>
<td>1</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>1</td>
</tr>
<tr>
<td>Orthopedic surgery</td>
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</tr>
<tr>
<td>Palliative care</td>
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<tr>
<td>Pediatrics</td>
<td>4</td>
</tr>
<tr>
<td>PM&amp;R</td>
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</tr>
<tr>
<td>Psychiatry</td>
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</tr>
<tr>
<td>Radiology</td>
<td>1</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>31</td>
</tr>
</tbody>
</table>
Results: Tally of themes in April 2020 Interviews

- Lack of data to drive clinical decisions: 20
- Disproportionate impact on underserved communities: 19
- Presentation of unique and positive training opportunities: 17
- Interaction with patients and their families: 14
- Patient anxiety: 11
<table>
<thead>
<tr>
<th>Theme</th>
<th>Proposed Solution</th>
<th>“Strongly agree” with theme and proposed solution</th>
<th>Regarded issue as “very important”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of data to drive decisions</td>
<td>Challenge students to navigate cases that may lack absolute answers to emphasize critical thinking and problem solving</td>
<td>57.1%</td>
<td>71.4%</td>
</tr>
<tr>
<td>Mental health impact</td>
<td>Provide more integrated training on mental health disorders to ensure future physicians treat patients as a whole and consider mental health regardless of specialty</td>
<td>42.9%</td>
<td>71.4%</td>
</tr>
<tr>
<td>Challenges in communication with patients and their families</td>
<td>Incorporate more training and practice with virtual health visits and communication via phone calls.</td>
<td>42.9%</td>
<td>50%</td>
</tr>
<tr>
<td>Disproportionate impact on underserved communities</td>
<td>Provide more education on the healthcare system in the US and topics such as health policy and health economics to give students the knowledge base needed to be able to make actionable change as future physicians</td>
<td>42.9%</td>
<td>89.7%</td>
</tr>
</tbody>
</table>
More themes that highlight opportunities to address gaps in medical education

- Prioritization of patients when volume is at capacity: 50%
- Potential impacts of delayed healthcare due to the pandemic: 42.9%
- Minimizing risk through PPE protocol changes and restricting contact: 28.6%
- Financial impact on hospitals, providers, and private practices: 42.9%
Conclusions

1. Common themes identified during initial interviews present opportunities for positive change in medical education
   • Encourage students to grapple with the lack of data to drive clinical decisions
   • Increase training in teleheath
   • Incorporate strategies to solve the disproportionate impact on underserved during a pandemic
   • Incorporate strategies to improve the mental health impact of COVID

2. Follow-up survey allowed original physicians interviewed to reflect on additional topics for medical education
   • Increase teaching on how to triage
   • Emphasize training in preventive care
Implications

• Challenge trainees to think critically to better prepare them for the complexities of medicine
• More education on health equity, policy reform and advocacy, and health economics to equip future physicians with the tools needed for actionable change
• Students must learn to navigate the nuances of virtual care without sacrificing the quality of care
• Essential for physicians to address the mental health and well-being of patients regardless of specialty
• Need for increased teaching on how to triage appropriately
• Emphasize role of preventive care in medicine
Limitations & Future Directions

Limitations

• Small sample size (n=31)
• Two time points (April 2020, January 2022)

Future Directions

• Interview respondents to the follow-up survey for more granular detail on recommended changes to medical education
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Literature Cited


