Background

- Handoff failures, stemming from communication errors, contribute to approximately two-thirds of sentinel events in healthcare (Joint Commission, 2011).
- Standardized handoff tools, such as I-PASS (Illness severity, patient summary, action list, situation awareness/contingency planning, synthesis by receiver), offer an evidence-based approach to improve communication between providers during transitions of care.
- However, medical student perceptions on their confidence in delivering effective handoffs is unclear.

Objectives

- Our study sought to assess differences in perceptions and the use of standardized handoff tools between medical students near completion of their third and fourth years of medical school at Sidney Kimmel Medical College.
- We hope to use this information to create targeted medical education interventions to better expose pre-clinical medical students to standardized handoff tools in the first and second years of medical school, before entering the wards.

Methods

- Third (MS3) and fourth (MS4) year medical students at our institution were anonymously surveyed eight months into their respective years about their comprehension of in-hospital handoffs.
- Using a 5-point Likert scale (1=strongly disagree, 5=strongly agree), responses were compared across grade by Student’s t-test (using integers as a surrogate for their agreement).

Results

- Based on total enrollment by grade, 73% of MS4’s (n=198) and 33% of MS3’s (n=89) responded.
- Compared to MS3s, MS4s feel more comfortable in giving (p value) and receiving (p value) a patient handoff and feel they have adequate training to do so (p value).
- Additionally, MS4’s expressed being more aware of handoff tools like SBAR or IPASS (4.1±0.9 vs 2.4±1.4, p<0.001), expressed their use (3.2±1.2 vs 1.8±0.9, p<0.001) more frequently, and preferred receiving handoffs with a standardized tool (3.8±0.9 vs 2.9±1.0, p<0.001).

<table>
<thead>
<tr>
<th>Please mark much how much you agree/disagree with the following statements</th>
<th>MS4’s (n=198)</th>
<th>MS3’s (n=89)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have received adequate training on how to handoff a patient to another student/resident.</td>
<td>4.1 ± 0.7</td>
<td>3.2 ± 1.0</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>I have witnessed a handoff in the hospital.</td>
<td>4.7 ± 0.5</td>
<td>4.7 ± 0.6</td>
<td>0.29</td>
</tr>
<tr>
<td>I have performed a handoff in the hospital.</td>
<td>4.1 ± 1.1</td>
<td>3.5 ± 1.3</td>
<td>0.0002</td>
</tr>
<tr>
<td>I am comfortable handing off a patient to another student/resident.</td>
<td>4.0 ± 0.9</td>
<td>3.5 ± 1.0</td>
<td>0.0001</td>
</tr>
<tr>
<td>I am comfortable receiving a patient handoff from a student/resident.</td>
<td>4.1 ± 0.7</td>
<td>3.8 ± 0.9</td>
<td>0.0021</td>
</tr>
<tr>
<td>I am aware of handoff tools like SBAR or IPASS.</td>
<td>4.1 ± 0.9</td>
<td>2.4 ± 1.4</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>I use a standardized handoff tool like SBAR or IPASS to give handoffs.</td>
<td>4.2 ± 1.2</td>
<td>1.8 ± 0.9</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>I prefer receiving a handoff if the student/resident uses a standardized handoff tool like SBAR or IPASS.</td>
<td>3.8 ± 0.9</td>
<td>2.9 ± 1.0</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Significance

- Our results show significant differences in the comfort and comprehension of using standardized handoff tools, such as I-PASS, between medical students at Jefferson nearing completion of their third and fourth years.
- Although continued improvement throughout clinical years is promising, we believe these results demonstrate a need for education in pre-clinical years on the importance and proper implementation of handoffs.

Future Steps

- We are currently in the process of implementing an intervention involving I-PASS training sessions, with the help of HQSLC residents, to teach students in their pre-clinical years how to conduct an I-PASS hand-off.
- We ran an initial survey following this intervention to assess improvement in student perceptions of handoffs and their comfort in participating in handoff communication in the hospital.
- We hope to continue to partner with the HQSLC to provide I-PASS training sessions for pre-clinical students.

![Handoff Training in Undergraduate Medical Education - Identifying and Closing the Gaps](image)

Q1) I have received adequate training on how to handoff a patient to another student/resident.
Q2) I have witnessed a handoff in the hospital.
Q3) I have performed a handoff in the hospital.
Q4) I am comfortable handing off a patient to another student/resident.
Q5) I am comfortable receiving a patient handoff from a student/resident.
Q6) I am aware of handoff tools like SBAR or IPASS.
Q7) I use a standardized handoff tool like SBAR or IPASS to give handoffs.
Q8) I prefer receiving a handoff if the student/resident uses a standardized tool like SBAR or IPASS.
Q9) I feel comfortable handing off to another student/resident in the future.
Q10) I think medical students would benefit from learning a standardized handoff tool like SBAR or IPASS.