Simulated RCA to Teach Medical Errors and Process Improvement

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RATIONALE/NEED

- Systems-based practice is a difficult core competency to teach and assess.
- It requires understanding the relationship between medical care, the health care system, cost-effectiveness, and patient safety.
- Root cause analysis (RCA) is standard tool to review unexpected outcomes.
- Participation in an actual RCA is stressful which limits the educational value.
- Using results of simulated RCA can reinforce techniques for process improvement.

METHODS/DESCRIPTION

- 4 hour workshop for M4 students during Transition to Residency
- Small group facilitated discussion with large group report out
- Didactic review of human and system errors
- Simulated Root Cause Analysis
  - Previously investigated event
  - Serious safety event
  - Focus on medical staff issues
  - Simulated interview of resident and attending physicians
  - Determine inappropriate acts
  - Determine human errors
  - Determine system failures
  - Compare results to original RCA
  - Didactic review of process improvement
- Use improvement tools to design intervention to mitigate error
  - Aim statement
  - Fishbone diagram
  - Design test of change

WORKSHEETS

- Flow diagram
- Ask Why 5 Times? “Taguchi Method”

RESULTS

- Almost 80 students participated
- Students were able to identify human and system errors
- Students were engaged in simulated interview through active questioning
- Facilitation allowed students to gain understanding of system issues
- Students were able to develop ideas for process improvement

IMPACT/LESSONS LEARNED

- Using real case was well received
- Students tend to focus on individual errors and need to be refocused to systems errors
- Lack of system knowledge impaired student’s ability to completely identify system issues
- Difficult to cover errors and process improvement in single session
- Additional facilitators would be helpful for such a large group
- Engaging M4 students in March can be challenging

EVALUATIONS

<table>
<thead>
<tr>
<th>Response</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>22% (11)</td>
</tr>
<tr>
<td>Good</td>
<td>39% (19)</td>
</tr>
<tr>
<td>Average</td>
<td>22% (11)</td>
</tr>
<tr>
<td>Fair</td>
<td>12% (6)</td>
</tr>
<tr>
<td>Poor</td>
<td>4% (2)</td>
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ACKNOWLEDGEMENTS

This poster was prepared with financial support from the American Medical Association (AMA) as part of the Accelerating Change in Medical Education Initiative. The content reflects the views of the authors and does not necessarily represent the views of the AMA or other participants in this initiative.