Evaluating and Obtaining Annual Competencies Utilizing Simulation in Pediatric Intensive Care
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LEARNING OBJECTIVES

- Describe the goals of this study
- Describe the methods used for this study
- Briefly describe the unanticipated results

Lubbock
GOALS

- Introduce simulation to the PICU nursing staff
- Utilize simulation to evaluate PICU staff competency in clinical situations
METHODS:

- Root cause analysis
- PICU staff needs assessment
- Develop scenario
- Evaluation tool(s)
- Staff orientation to technology
RESEARCH QUESTIONS:

- Does integrating simulation into existing educational curriculum for PICU nurses have an impact on **proficiency** as measured by annual multimodal exams?
RESEARCH QUESTIONS:

- Does integrating simulation into existing educational curriculum for PICU nurses have an impact on knowledge as measured by annual multimodal exams?

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RESEARCH QUESTIONS:

- Does integrating simulation into existing educational curriculum for PICU nurses have an impact on skills as measured by annual multimodal exams?
NEEDS ASSESSMENT

- What skills (technical and non-technical) do you feel you need more experience with?
- What skills (technical and non-technical) do you feel are critical to your nursing success in the PICU?
- What skills (technical and non-technical) do you feel are critical to patient safety?
SCENARIO DEVELOPMENT

- Results of staff needs assessment
- Scenario written to center around an unplanned extubation
- Scenario written and reviewed prior to implementation

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EVALUATION TOOLS

- Learner Self-Efficacy Scale
  - Pre & Post Test

- Lasater’s Clinical Judgment Rubric (modified)
## Learner Self-Efficacy Scale

<table>
<thead>
<tr>
<th>Self-confidence in Learning (IV)</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident that I have the knowledge needed to start an IV.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I am confident that I have the skills needed to perform an IV start.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am confident that I can recognize and assess IV access findings on real patients.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
# LASATER’S CLINICAL JUDGMENT RUBRIC

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Exemplary</th>
<th>Accomplished</th>
<th>Developing</th>
<th>Beginning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective noticing involves:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focused observation</td>
<td>Focuses observation appropriately; regularly observes and monitors a wide</td>
<td>Regularly observes and monitors a variety of data, including both subjective</td>
<td>Attempts to monitor a variety of subjective/objective data but is</td>
<td>Confused by the clinical situation and amount and kind of data; observation is</td>
</tr>
<tr>
<td></td>
<td>variety of objective/subjective data to uncover any useful information</td>
<td>and objective; most useful information is noticed; may miss the most subtle</td>
<td>is overwhelmed by array of data; focuses on most obvious data, missing</td>
<td>not organized and important data are missed, &amp;/or assessment errors are</td>
</tr>
<tr>
<td>Recognizing deviations from expected</td>
<td>Recognizes subtle patterns &amp; deviations from expected patterns in data and uses these to guide assessment</td>
<td>Recognizes most obvious patterns and deviations in data &amp; uses these to continually assess</td>
<td>Identifies obvious patterns &amp; deviations, missing some important information</td>
<td></td>
</tr>
<tr>
<td>Information seeking</td>
<td>Assertively seeks information to plan intervention; carefully collects</td>
<td>Actively seeks subjective information about patient’s situation from patient/family to support planning interventions; occasionally does not pursue important leads</td>
<td>Makes limited efforts to seek additional information from the patient/family; often seems not to know what information to seek &amp;/or pursues unrelated information</td>
<td>Is ineffective in seeking information; relies mostly on objective data; has difficulty interacting with patient/family &amp; fails to collect important subjective data</td>
</tr>
</tbody>
</table>
LIMITATIONS

Exploratory pilot study
- One unit
- Small sample size (n=33)
- First time simulation was used to evaluate staff
- First time video taping was used to evaluate staff
- More stringent inter-rater reliability
- Staff was not in professional attire
RESULTS

- Pre/Post self evaluations
- Clinical Impact
UNANTICIPATED RESULTS

- Arterial lines
- Resuscitation cart