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Evaluating Clinical Judgment in a Nursing Capstone Course

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Evaluating Clinical Judgment in a Nursing Capstone Course

R E B E C C A  J E N S E N ,  M S ,  R N

Background

- Graduating Nursing Students
  - Demonstrate adequate Clinical Reasoning (CR) skills
  - Patient care arenas not amenable to CR evaluation
  - Human Patient Simulation (HPS) better environment

Clinical Reasoning Competency Evaluation (CRCE)

- Summative assessment of nursing students’ CR skills in a simulated patient care environment
- Evaluated by nursing faculty using Lasater Clinical Judgment Rubric (LCJR)
  - LCJR
  - Simulation

LCJR

- Based on Lasater’s Interactive Model of Clinical Judgment Development
  - Which is based in part on Tanner’s Clinical Judgment Model

Tanner’s Clinical Judgment Model (2006)

[Diagram of Tanner's Clinical Judgment Model]
**Dimensions of LCJR**

<table>
<thead>
<tr>
<th>LCJR Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Noticing</strong></td>
</tr>
<tr>
<td>Recognizing deviations from expected patterns</td>
</tr>
<tr>
<td>Information seeking</td>
</tr>
<tr>
<td><strong>Interpreting</strong></td>
</tr>
<tr>
<td>Prioritizing data</td>
</tr>
<tr>
<td>Making sense of data</td>
</tr>
<tr>
<td><strong>Responding</strong></td>
</tr>
<tr>
<td>Calm, confident manner</td>
</tr>
<tr>
<td>Clear communication</td>
</tr>
<tr>
<td>Well-planned intervention, flexibility</td>
</tr>
<tr>
<td>Being skillful</td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
</tr>
<tr>
<td>Evaluation/self-analysis</td>
</tr>
<tr>
<td>Commitment to improvement</td>
</tr>
</tbody>
</table>

**4 - Levels for Each Dimension**

- Beginning (1)
- Developing (2)
- **Accomplished** (3)
- Exemplary (4)

Possible score range of 11 - 44

**Reliability of LCJR**

- Cronbach alphas not reported from development of instrument
- Current study:
  - LCJR total scale (α = .95)
  - Each subscale
    - noticing (α = .88)
    - interpreting (α = .88)
    - responding (α = .88)
    - reflecting (α = .86)

**Structure of CRCEs (Simulation)**

- 20-minute simulation
- 2 students care for 4 patients in a Progressive Coronary Care Unit
- Have opportunities to
  - review charts and patient information sheets (Kardex)
  - examine surroundings and equipment
- Listen to taped report of current patient conditions
- Simulation starts when students have finished listening to the report

**CRCEs continued**

- One faculty assigned to each of the 2 students
- Students and faculty rated the performance when the simulation was finished in separate rooms
- Then, students debriefed about experience and provided faculty's decision about outcome
  - Pass
  - Pass with remediation
  - Fail and repeat CRCE after remediation
CRCEs continued

- If failed, completed second CRCE
- Second round
  - 4 different patients
  - Same type of unit
  - Same basic structure: 20 minutes, taped report, etc.

Open Houses

- 1st semester – anxiety seemed to interfere with performance for some students
- 2nd semester offered optional Open Houses
  - Learned about basic structure of CRCE
  - Could perform in example patient care simulation of 1 patient with a crisis
  - Some students actively participated and some observed simulation examples

Results of 2 Semesters of CRCEs

<table>
<thead>
<tr>
<th>Program</th>
<th>AS</th>
<th>BS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>62 (70.5%)</td>
<td>26 (29.5%)</td>
</tr>
<tr>
<td>Semester</td>
<td>Fall 2009</td>
<td>Spring 2010</td>
</tr>
<tr>
<td></td>
<td>38 (43%)</td>
<td>50 (56.8%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attend Open House</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Times attended Open House 2nd semester (24/50 – 48%)</td>
<td>6 (25%)</td>
<td>8 (16%)</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

CRCE Outcomes Across 2 Semesters

<table>
<thead>
<tr>
<th>CRCE Outcomes</th>
<th>First Round</th>
<th>Second Round</th>
<th>First Round</th>
<th>Second Round</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>16 (42.1%)</td>
<td>9 (64.3%)</td>
<td>34 (38.6%)</td>
<td>19 (58.3%)</td>
</tr>
<tr>
<td>Remediation</td>
<td>7 (18.4%)</td>
<td>3 (21.4%)</td>
<td>22 (25%)</td>
<td>9 (29%)</td>
</tr>
<tr>
<td>Fail</td>
<td>15 (39.5%)</td>
<td>2 (14.3%)</td>
<td>17 (34%)</td>
<td>1 (5.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>14</td>
<td>50</td>
<td>17</td>
</tr>
</tbody>
</table>

Statistical Analyses

- Between programs, AS/BS, and rounds, 1st/2nd
- Compared outcomes with
  - Attend/not attend Open Houses
  - Program AS/BS
- Relationship between student ratings and faculty ratings across all dimensions and total LCJR scores

LCJR Score Comparisons

- Program AS vs. BS
  - BS (M = 34.33; SD = xx) > AS (M = 30.90; SD = xx) – significantly (p = .01; Cohen’s d = .65)
- Rounds
  - 2nd round (M = 35.88; SD = xx) greater mean scores than 1st round (M = 31.86; SD = xx) – significantly (p = .005; Cohen’s d = .12)
Relationships Between Student and Faculty Ratings

- Of the 11 dimensions over 2 semesters, only 2 were significant & both were during the 1st round of CRCEs:
  - Calm, confident manner ($r_{(72)} = .27; p = .021; 95\% \text{ CI} = .251 - .307$)
  - Well planned intervention ($r_{(72)} = .28; p = .019; 95\% \text{ CI} = .255 - .311$)

Nonsignificant Findings

- No differences, using Chi Square, between categories of CRCE outcomes and
  - Open House attendance
  - Type of Program

Online Survey – 2nd Semester

- 9 Respondents (50 students potentially in the 2nd semester – 18% response rate)
  - 66% - Open Houses helpful in preparing for CRCEs
  - 22% - Open Houses helpful overall
  - 55% - CRCE was a good evaluation of patient care skills
  - 78% - able to make sound clinical judgments during the CRCE
  - Average of 2.4 Open Houses with respondents
  - CRCE’s were described by one respondent as: “some of the best learning experiences I had in the program”

Limitations

- Single site study
- No interrater reliability among faculty for use of LCJR
- Faculty using new clinical judgment rating instrument and simulation procedure
- Reasons for differences in ratings weren’t explored
- Unknown if skills learned during the CRCE are transferred to actual patient care

Implications

- Rating students with the LCJR did differentiate between students with varying decision making skills
- Student anxiety needs to be managed in some way so that skills can be assessed
- Future research
  - Multi site
  - Interrater reliability assessed
  - Determine reason for few student/faculty rating relationships

References

References


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