CRITICAL CLINICAL REASONING AND SIMULATION: THE PASSIVE OBSERVER BECOMES ACTIVE LEARNER

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BACKGROUND

• Engaging learners in simulation can be challenging
• Clinical reasoning is required for decision making
• Observation of simulation is an ‘at risk’ activity for disengagement
• Evaluation of observer ‘guided record sheets/worksheets’ is lacking
Clinical Reasoning
Simulation
Observer
Scaffolds
Examine if the Clinical Reasoning Observer Worksheet (CROW) compared to a standard observer worksheet would enhance simulation observers’ active learning behaviours and increase perceptions of their ability to apply the clinical reasoning process to an episode of patient care.
METHODS

QUASI-EXPERIMENTAL

PRE-TEST/POST TEST DESIGN
SAMPLE & SETTING

School of Nursing – Queensland University of Technology

Convenience sample of 2nd yr undergraduate nursing students (n=288) and simulation facilitators (n=7)

Students registered for a simulation session – randomized

30 groups (15 control and 15 intervention)
INTERVENTION & CONTROL

Intervention

- observer worksheet adapted from Clinical Reasoning Cycle (Levett-Jones, 2013)
- Cues to prompt clinical reasoning whilst observing

Standard

- Simulation objectives (assessment, prioritise and communicate)
- Cues to prompt responses whilst observing
### INSTRUMENTS

<table>
<thead>
<tr>
<th>Nurses Clinical Reasoning Scale</th>
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<tbody>
<tr>
<td>15 items based on conceptual definition of the clinical reasoning cycle</td>
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<td>✔️ 5 point Likert: 1 strongly disagree to 5 strongly agree</td>
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<tr>
<td>❓ Open ended question – comment on simulation experience</td>
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<td>📊 Pre and post test</td>
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INSTRUMENTS

The Clinical Reasoning Facilitator Survey

• Researcher developed tool
• Adapted from Lasater’s Clinical Judgement Rubric (Lasater, 2007)
• Capture facilitator perception of how observers used observer worksheets
• 8 items & 3 open-ended questions
• Post only
DATA ANALYSIS

• Qualitative data – SPSS (v 22)
• Non-parametric testing for NCRS
• Reliability for NCRS Cronbach’s alpha
• Thematic analysis of open-ended questions
RESULTS

• 192/233 (82.4%) NCRS response rate
• 29% identifying as observers
• 17% identifying as participants
• Majority female, full time & median age of 21 years
• No significant differences between groups at baseline
RESULTS

NCRS

- Reliable – Cronbach’s Alpha .922
- No statistically significant difference in total pre-test scores between control & intervention observers
- No statistically significant difference in total post-test scores between control & intervention observers
- Statistically significant difference within intervention and control groups post test
RESULTS

Clinical Reasoning Facilitator Survey

• Interaction with the worksheet was evident (standard & CROW)
• Nursing assessment, integration of data into a plan and interventions were evident
• Limited progression to evaluation and reflection with CROW
• Students required prompting to action clinical reasoning cycle in its entirety
• Insufficient as a stand alone tool to assist students to engage in clinical reasoning
DISCUSSION

- No significant difference in clinical reasoning among simulation observers
- Quasi-experimental design ‘good fit’ for self allocation by students to both simulation session and role within simulation
- Overall lack of engagement with observer worksheet
RECOMMENDATIONS FOR MAIN STUDY

• Addition of Educational Practices Questionnaire (NLN, 2005) to understand student preferences for engagement in simulation

• Modify open ended questions to capture student higher level thinking and application to future practice

• Over half of the participants did not document their role (participant/observer) on pre-test survey – demographic information & observer status collected post test

• Offer online survey to students as well as paper based
REFERENCES


