How Nursing Students Learn to Care for Deteriorating Patients in Debriefing: A Mixed-Methods study

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• Conflict of Interest
  – Patrick Lavoie, Jacinthe Pepin, and Sylvie Cossette report no conflict of interest
  – Julia Greenawalt (INACSL Conference Administrator & Nurse Planner) reports no conflict of interest
  – Leann Horsley (INACSL Lead Nurse Planner) reports no conflict of interest

• Successful Completion
  – Attend 90% of session
  – Complete online evaluation
Upon completion of this presentation, participants will be able to:

1. Describe the mechanisms by which the debriefed led to expected learning objectives according to nursing students
2. Identify potential avenues to optimize debriefing practices
• Simulation to improve nursing students’ clinical judgment when a patient is deteriorating\textsuperscript{1-3}
• Debriefing is a critical part of simulation\textsuperscript{4}
• Previous research on debriefing\textsuperscript{4-7}:
  – Topics (e.g., management, teamwork, leadership)
  – Methods of debriefing (e.g., duration, video playback, educator presence)

What about approaches to debriefing?
Background

- Reflective dEbriefing after a PatieNt Deterioration simulation
  - Medical Research Council (2008) guidelines for complex interventions
    - Dewey’s (1910) account of reflection
    - Tanner’s (2006) model of clinical judgment
• **Process:**
  - Guided group reflection through open-ended questions

**Diagram:**

- Emotional reaction
- Description (ABCDE-FGHI)
- Explanation (Cause)
- Response (Interventions)

• **Outcomes:**

- Observation skills
- Understanding
- Response
Purpose

• To evaluate the contribution of REsPoND to nursing students clinical judgment in patient deterioration simulations

• Sequential explanatory mixed-methods design\textsuperscript{12}

- RCT
  1. Effect of REsPoND

- Qualitative
  2. Active ingredients of REsPoND
• 119 nursing students from a critical care course
• Randomized to REsPoND \((n=63)\) or \(+/\Delta\) \((n=56)\)
• Clinical judgment measured with a situation awareness instrument\(^{13}\)
  – Perception of signs of deterioration
  – Comprehension

Design - RCT

- HEMO
  - 5th or 8th week
  - Debriefing

- SEPSIS-I
  - 11th week
  - Debriefing
  - SEPSIS-II

- TRAUMA
  - 12th week
Design - Quali

• Sample
  – Only REsPoND students \( n=63 \)
  – Maximal variation on either clinical judgment subscores

• A ↓ perception \( n=9 \)
• B ↑ perception \( n=12 \)

• C ↓ comprehension \( n=8 \)
• D ↑ comprehension \( n=12 \)
• Research questions
  1. How do nursing students perceived that the reflection in REsPoND fostered learning?
  2. How did REsPoND contributed to their clinical judgment in patient deterioration simulations?

• Individual semi-structured interview
  – Interview guide designed after the research questions
  – 20 - 30 min.
Analysis

1. How do nursing students perceived that the reflection in REsPoND fostered learning?
   - Thematic analysis
   - All data from the interviews

2. How did REsPoND contributed to their clinical judgment in patient deterioration simulations?
   - Themes contrasted according to learning profiles
   - Comparison of the profiles’ characteristics
1. How do nursing students perceived that the reflection in REsPoND fostered learning?

- Students’ configuration of a framework and appraisal of their own performance
- Guided exchanges between students as sources of insight
• Students’ **configuration of a framework** and appraisal of their own performance
Results

- Students’ configuration of a framework and appraisal of their own performance

[Diagram]

- Pathophysiology (cause)
- Signs and symptoms (observations)
- Interventions

What I should have done

What I did

Strengths

Weaknesses
Results

- Guided exchanges between students as sources of insight

<table>
<thead>
<tr>
<th>Groups of students</th>
<th>Debriefer</th>
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<tbody>
<tr>
<td>Positive dynamic</td>
<td>Role of guidance</td>
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<tr>
<td>Mutually added to each others insight</td>
<td>Pushed students’ reflection beyond description towards analysis</td>
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<tr>
<td>Small size allowed to talk</td>
<td>Practical experience and knowledge</td>
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<tr>
<td>Staying with the same group</td>
<td></td>
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</tbody>
</table>
2. How did REsPoND contributed to students’ clinical judgment in patient deterioration simulations?

– Systematic and chronologic review process
– Anticipation and early configuration of the framework
• Difference between profile A and B:
  – Systematic and chronologic review process

- Hypotheses
- Pathophysiology (cause)
- Preparation (Case story, team meeting)
- Signs and symptoms (observations)
- Interventions
- Description (ABCDE-FGHI)
• Difference between profile C and D:
  – Anticipation and early configuration of the framework

  **Hypotheses**

  **Pathophysiology**
  *(cause)*

  **Preparation**
  *(Case story, team meeting)*

  **Signs and symptoms**
  *(observations)*

  **Interventions**

  **Description**
  *(ABCDE-FGHI)*
Discussion

• Mechanisms of REsPoND
  – Students’ configuration of a framework and appraisal of their own performance
  – Guided exchanges between students as sources of insight

• Potential venues to optimize debriefing practices
  – Value of a systematic assessment approach
  – Importance of students’ expectations

• Reflection VS self-assessment?
Discussion

• Limitations:
  – Small number of interviewees
  – Delay between the debriefings and interviews
  – Results should not be considered as indicators of the effectiveness of REsPoND


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