Comparison of Debriefing Methods After Simulation: Discussion of a Videotaped Simulation Session Versus Oral Discussion Alone

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Simulation/Debriefing

• Growing use in nursing and health care education
• Research about simulation in nursing education is limited (but increasing)
• Even less research available specific to **debriefing** in nursing education
• Limited research available concerning the nursing student debriefing experience
Simulation and Debriefing—
Theoretical Framework

Simulation and Debriefing are part of “experiential learning” (Kolb’s Experiential Learning Theory) consisting of

Abstract Conceptualization (Thinking)
Active Experimentation (Doing)
Concrete Experience (Feeling)
Reflective Observation (Watching)
Debriefing

Encompasses the Abstract Conceptualization (Thinking) and Reflective Observation (Watching) stages of experiential learning

• Simulation experts agree that debriefing is essential to the simulation experience:
  • 1. To clarify and resolve questions and feelings brought up during the simulation
  • 2. To solidify learning
Why is this research important?

• Thousands of dollars are spent on simulation equipment with the purpose to enhance the student learning
  --Best techniques should be used to optimize student learning

• While simulation experts agree on most components important to debriefing, little evidence specific to the experience of nursing students is available
The Debriefing Experience Scale
Composed of 20 items defined by students as part of their debriefing experience
8 items identified are related to student learning
### Subscale Areas and Reliabilities for the Debriefing Experience Scale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Cronbach's Alpha “Experience”</th>
<th>Cronbach’s Alpha “Importance”</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyzing Thoughts and Feelings</td>
<td>.80</td>
<td>.61</td>
<td>4</td>
</tr>
<tr>
<td>Learning and Making Connections</td>
<td>.89</td>
<td>.85</td>
<td>8</td>
</tr>
<tr>
<td>Facilitator Skill in Conducting the Debriefing</td>
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<td>.75</td>
<td>5</td>
</tr>
<tr>
<td>Appropriate Facilitator Guidance</td>
<td>.84</td>
<td>.65</td>
<td>3</td>
</tr>
</tbody>
</table>
Subscale: Analyzing Thoughts and Feelings (4 items)

1. Debriefing helped me to analyze my thoughts
2. The facilitator reinforced aspects of the health care team’s behavior
3. The debriefing environment was physically comfortable
4. Unsettled feelings from the simulation were resolved by debriefing
Subscale: Learning and Making Connections (8 items)

1. Debriefing helped me to make connections in my learning
2. Debriefing was helpful in processing the simulation experience
3. Debriefing provided me with a learning opportunity
4. Debriefing helped me to find meaning in the simulation
Learning and Making Connections

5. My questions from the simulation were answered by debriefing
6. I became more aware of myself during the debriefing session
7. Debriefing helped me to clarify problems
8. Debriefing helped me to make connections between theory and real-life situations
Subscale: Facilitator Skill in Conducting the Debriefing (5 items)

1. The facilitator allowed me enough time to verbalize my feelings before commenting
2. The debriefing session facilitator talked the right amount during debriefing
3. Debriefing provided a means for me to reflect on my actions during the simulation
4. I had enough time to debrief thoroughly
5. The debriefing session facilitator was an expert in the content area
Subscale: Appropriate Facilitator Guidance (3 items)

1. The facilitator taught the right amount during the debriefing session
2. The facilitator provided constructive evaluation of the simulation during debriefing
3. The facilitator provided adequate guidance during the debriefing
# Reliabilities for this study

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</thead>
<tbody>
<tr>
<td>All scale items</td>
<td>.90</td>
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<tr>
<td>Analyzing Thoughts and Feelings</td>
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<td>.71</td>
<td>4</td>
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<td>.90</td>
<td>8</td>
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<tr>
<td>Facilitator Skill in Conducting the Debriefing</td>
<td>.80</td>
<td>.82</td>
<td>5</td>
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<tr>
<td>Appropriate Facilitator Guidance</td>
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<td>.89</td>
<td>3</td>
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</table>
Research Question

Do students learn more with one debriefing type as compared to another?
Qualitative Research

Comparative Descriptive Design

- Sample: 64 undergraduate nursing students
- Setting: Brigham Young University College of Nursing (Baccalaureate nursing education)
- Random assignment of student debriefing groups to one of two debriefing types:
  1. Discussion of a videotaped simulation session
  2. Discussion without videotape
Study Design

IRB approval obtained for the study
Following debriefing, students were invited to participate in the study by filling out Informed Consent and the Debriefing Experience Scale
Data obtained from the study was entered into PASW Statistics 18
An independent t-test was performed to compare the groups
Results

No significant difference was found between student debriefing experiences with oral and video-assisted debriefing.
Comparative Studies

• Fanning and Gaba talk of two studies, involving residents—one (Scherer et.al.) stating skills improved after videotape review, one (Salvodelli et. al.) showed no difference, with a trend towards greater improvement using oral feedback alone. Fanning & Gaba, (2007). The Role of Debriefing in Simulation-based learning. Simulation in Healthcare, 2(2) 115-125.

• No differences in post-test nontechnical skills in residents between oral and video-assisted debriefing, with improved post test scores in the oral group. Taylor Sawyer, Can, Berg, & Thompson, (2011), Comparison of video-assisted debriefing versus oral debriefing on neonatal resuscitation nontechnical skills: a randomized trial. Abstract, IMSH.
Debriefing in Nursing Education

- No studies are available comparing debriefing techniques in nursing students
- Considerations for debriefing nursing students include:
  --Exposure to simulation and debriefing
  --Objectives of the simulation and debriefing experience
  --Type of learner, i.e. novice vs. experienced, generational learner, etc.
Implications

• No clear evidence supports use of one of these debriefing types over another in undergraduate nursing students
• What IS important is to debrief: undergraduate students identify learning as part of their debriefing experience
• The debriefing facilitator is important! 8 items related to the session facilitator are identified as part of the student debriefing experience
Future research

• Continued research is needed to examine if different debriefing types might enhance learning for undergraduate nursing students
  -- Combination of debriefing methods, i.e. discussion followed by journaling
  -- Debriefing conducted by facilitators who have been trained differently
  -- Debriefing following simulation sessions with differing objectives, i.e. task learning vs concept learning

Questions?