Transforming Nursing Knowledge, Education and Practice through Pre-Briefing and Debriefing

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Disclosure Statements

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Symposium Approach

Prebriefing

Simulation

Debriefing

Debriefer Training

Traditional Clinical Settings
1. Identify important components of a model-based prebriefing activity.

2. Describe ways to incorporate a model-based structured prebriefing activity into academic or clinical settings to enhance learning.
Structured Prebriefing Model

Page-Cutrara, 2015
Research Questions

• Is there a difference in students’ competency performance and clinical judgment between those who participate in a structured prebriefing vs traditional prebriefing activities?

• Do students receiving a structured prebriefing intervention perceive the prebriefing experience differently than students receiving traditional prebriefing?

• What is the relationship between students’ competency performance and clinical judgment and the perceived prebriefing experience for those who participate in a structured prebriefing intervention and those who participate in traditional prebriefing activities?
Study Participants

• Experimental, group-randomized design
  • *Structured prebriefing as single intervention*

• Population: BScN students in 4\textsuperscript{th} year medical-surgical course, offered over two terms

• Sample: \( N = 76 \) \( (n_{\text{exp}} = 42; \ n_{\text{con}} = 34) \)
Methodology: Intervention

Control Group

Traditional Prebriefing

• orientation to the equipment, environment, mannequin, roles, time allotment, objectives, and patient situation

• scenario information sent in advance

• opportunity to ask questions

Experimental Group

Structured Prebriefing

• orientation to the equipment, environment, mannequin, roles, time allotment, objectives, and patient situation

• scenario information sent in advance

• opportunity to ask questions

PLUS

• Concept mapping activities (worksheet)

• Facilitated, guided reflection
Methodology: Instruments

*Creighton Competency Evaluation Instrument (CCEI)*
- *competency performance* (Hayden, Keegan, Kardong-Edgren & Smiley, 2014)
  - 23 items, 4 subscales; scored by facilitator
  - *CCEI: Clinical Judgment subscale* (CCEI-CJ) – clinical judgment

*Prebriefing Experience Scale* – perceived prebriefing experience
  - 20 items, 4 subscales; Likert scale, scored by participants
Results and Discussion

• Statistically significant differences found between the higher scoring experimental group in
  • competency performance \((p < .001)\)
  • clinical judgment \((p < .001)\) and
  • perceived prebriefing experience \((p < .001)\)

• No relationship between perceived prebriefing experiences and competency performance or clinical judgment

• \textit{Findings support a model of structured prebriefing}
Implications for Nursing Education?

- Consider the application of a structure to simulation prebriefing that supports learning in this phase and in the simulation process

- Further specific evidence for weak relationship between what students *think they know* and what *they really know*
Uses for Structured Prebriefing

- In the **laboratory setting**, prior to the simulation scenario
  - Consider time, skill of facilitator, etc.
- In the **classroom** with evolving **case studies**
  - Group or individual work
- In the **classroom** prior to attending a simulation experience in the laboratory setting
  - Assignment or non-graded work
- Preparation during **pre-clinical conference**, for clinical experience
  - Reflect clinical assignment
USING DEBRIEFING FOR MEANINGFUL LEARNING TO FOSTER CLINICAL REASONING AND TRANSFORM NURSING PRACTICE

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Objectives:
1. Identify at least two unique aspects of DML debriefing.
2. Develop a plan for using evidence based aspects of DML when debriefing with clinical colleagues or nursing students to uncover and foster thinking and acting like a nurse.
Debriefing for Meaningful Learning© as a clinical Teaching-Learning Method

- Structure:
  - Individual and Group Debriefing
  - Theoretical Underpinning
  - Simple Worksheet

- Iterative Process
  - Consistency
  - Debriefing cues follow E6: Engage, Evaluate, Explore, Explain, Elaborate, Extend
  - Socratic questioning
  - Uncovers thinking and actions (taken for granted assumptions)

- Focus
  - Reflection-in-action, Reflection-on-action, Reflection-beyond-action… Thinking Like a Nurse
So How Does this Work?

- Participants
- Environment
  - Private area
  - White Board
  - Around the table formation is best
- Time
  - More than twice the time of the simulation
  - Twice the time of the simulation
- Tools
  - Student Worksheets
  - Faculty Resources and Training
## Research Study

### Method
- Quasi-experimental, pretest posttest design in simulation environment
- 240 Total Subjects. 7th semester traditional BSN student (217 female, 23 male)
  - 2 lost before posttest
  - 122 Experimental (DML©)
  - 118 Control
  - 4 data collection times combined into one
  - Homogeneity of variance (Welsh-Brown-Forsyth)
  - Normality (Kolmogorove-Smirnoff)

### Instruments
- Health Sciences Reasoning Test (33-items with 2 versions for pre-test and post-test)
- Debriefing Assessment for Simulation in Healthcare©-Student Version (6-elements)
- Debriefing for Meaningful Learning Supplemental Questions (4-items)
Research Questions and Findings

1. Does the use of the DML© debriefing method positively impact the development of clinical reasoning skills in undergraduate nursing students, as compared to usual and customary debriefing?

2. Do nursing students perceive a difference in the quality of debriefing when the DML© method is used compared to usual and customary debriefing?

3. Is there a correlation between the quality of debriefing as evaluated by nursing students and a change in clinical reasoning skills?
Limitations

- **Instruments**
  - Difficult to find quantitative, objective instruments to measure clinical reasoning within the domain of nursing
  - Specificity of HSRT to measure incremental change in reasoning skills after a single intervention
  - Cost

- **Selection Bias**
  - Inability to completely randomize into control or experimental

- **Generalizability**
  - Single school of nursing
  - Self-selection into study
  - Bias from debriefing by researcher (Hawthorne Effect)
Initial Implications for Nursing Education

Three areas of focus for nursing education reform:

1. Renewed focus on importance of developing foundational clinical reasoning and clinical decision-making skills that will transfer into practice

2. Expanded use of different pedagogies that incorporate advancing technology

3. Faculty resources to integrate both into curriculum
Further Implications for Nursing Education

1. DML has been used in at least 27 research studies including the NCSBN NSS.

2. Adoption of DML by schools of nursing for prelicensure and graduate students and in other health professions education world-wide.

3. Use of DML in traditional clinical postconference

4. Debriefing across the curriculum

5. Standards of best practice and position statements
Transforming Debriefing by Exploring Faculty Preparation and Use with the Debriefing for Meaningful Learning Inventory©

Cynthia Sherraden Bradley PhD RN CNE CHSE

Objectives:
1. Describe the DMLI and how it can be used to assess debriefing practice.
2. Summarize the impact of different types of training on debriefing use and articulate options for training by clinical colleagues and faculty to learn evidence based debriefing methods.
Research Questions

1. Is the DMLI a valid measure of DML?
2. Is there a difference in how many of the central concepts associated with DML that debriefers understood, when they were grouped according to the training they received?
3. Is there a difference in how many behaviors associated with DML debriefers report they consistently apply during simulation debriefing, when grouped according to the training they received?
Sample

- Nurse Educators
- Debrief prelicensure baccalaureate nursing students
- N = 234

Methods

- Instrument: DMLI
- 57 item self-report measure of DML behaviors
Results

- Confirmatory factor analysis demonstrated DMLI is a valid measure of DML

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Goodness of Fit Indices for Analysis with Structural Equation Models

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Note: BIC, AIC, CAIC all based on $L^2$.

- Differences in DMLI scores by types and sources of training

- Increasing DMLI scores with additive effect of training
Implications for Nursing

• Debriefing training does not ensure consistent application of a debriefing method
  – Challenges the assumption that debriefers apply what was learned during training
• Recommendations for debriefing training and evaluation do not include a standard for debriefing application

• Future Research: Dose, re-dose, and dispersed effect of training
Questions and Connections

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THANK YOU! Let’s continue the dialogue...