

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

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» *28th International*

**NURSING RESEARCH
CONGRESS**

27-31 July 2017 | Dublin, Ireland



Disclosure Statements

- The study conducted by Kristina Thomas Dreifuerst PhD RN CNE ANEF was supported in part by the Jonas Center; a grant received from Indiana University, Indianapolis, IN; a grant received from INACSL; and a grant received from Sigma Theta Tau International.
- The study conducted by Cynthia Sherraden Bradley PhD RN CNE CHSE was supported by the Jonas Center and the National League for Nursing, Mary Anne Rizzolo Doctoral Research Award.
- The study conducted by Karin Page-Cutrara PhD RN CCNE was supported in part by a grant received from Faculty of Health, York University, Toronto ON, Canada

Symposium Approach

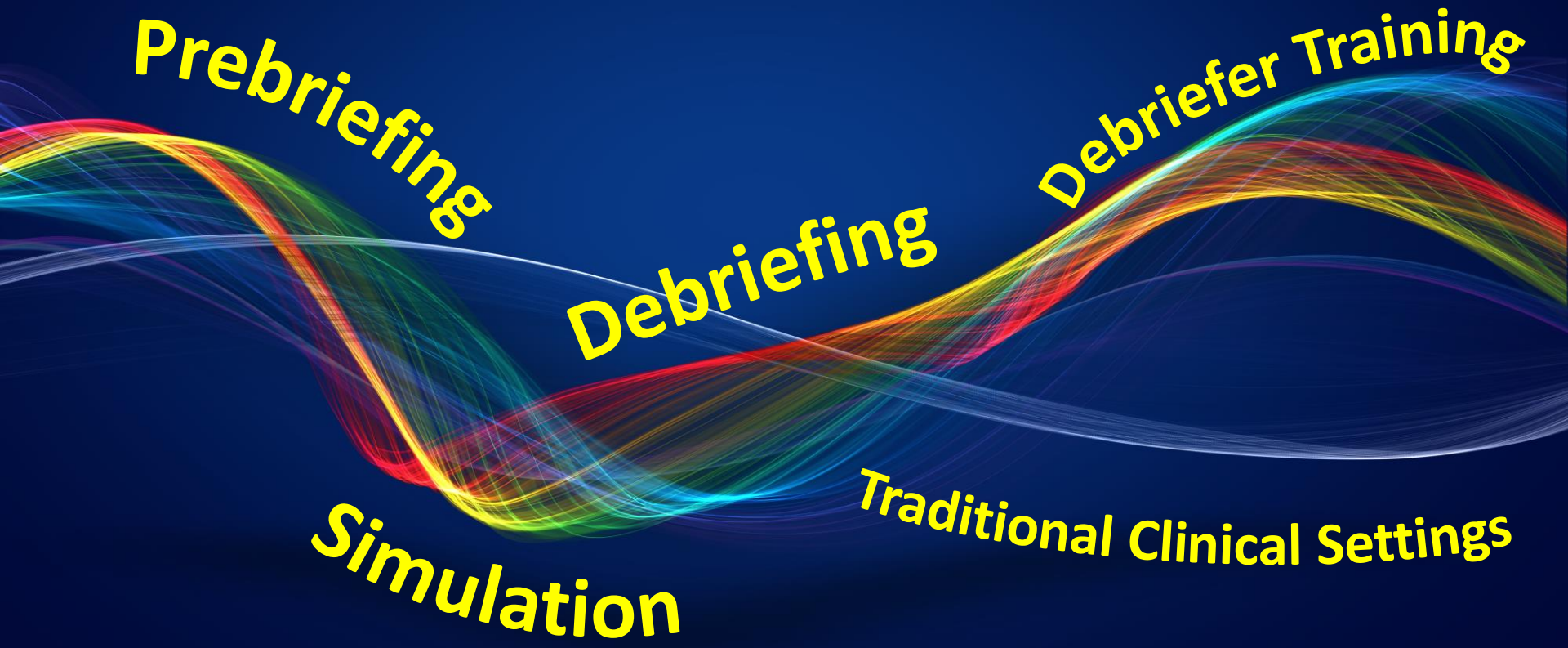
Prebriefing

Debriefing

Debriefing Training

Simulation

Traditional Clinical Settings




**York University
School of Nursing**

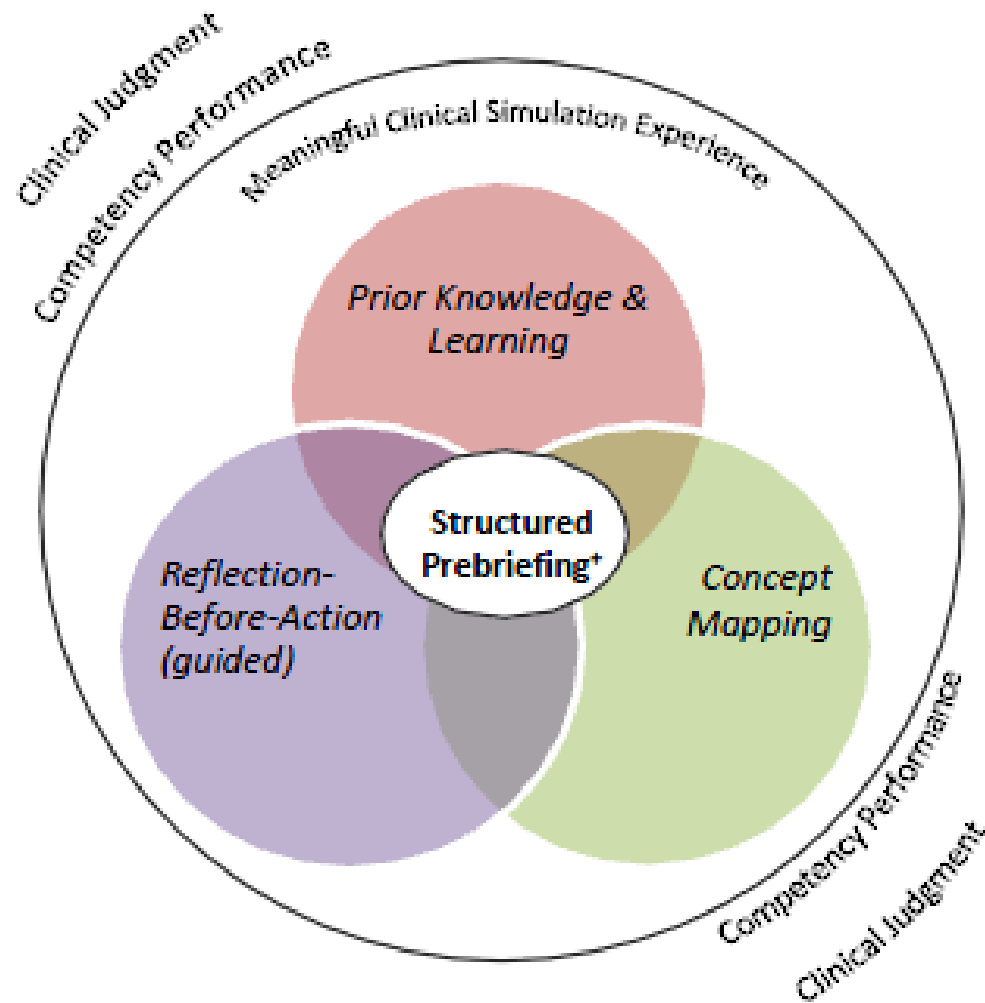
Toronto, ON Canada

Simulation Prebriefing: Supporting Competency and Judgment Development in Nursing Learning

Karin Page-Cutrara PhD RN CCNE

- 
- 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



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 4th 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
- ***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.



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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



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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

Goodness of Fit Indices for Analysis with Structural Equation Models

χ^2	L^2	BIC	AIC	CAIC	Bootstrap p -value
7.26	7.08	6630.79	6910.72	6545.79	0.298

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

DMLI Sum by Source of DML Training

Source of Training	N	M	SD	SE
NCSBN Training for NSS	4	38.75	2.630	1.014
DML Workshop/Conference	58	36.57	6.621	1.119
Attended train-the-trainer session	18	36.56	6.224	1.467
Read more than one article	46	35.63	6.482	.956
Watched a colleague use DML	36	34.31	6.360	.755
Read one article	5	31.00	5.099	2.280

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...