Debriefing: One Size Does Not Fit All

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Sessions aims

- Describe the value of a structured approach to debriefing
- Identify alternative methods for debriefing matched to course or session objectives
- Develop skills in use of a structured debriefing method

Winter Institute for Simulation, Education & Research
Simulation = Bridge… to Competence

Presentation clinical problems authentically..

Didactic

Clinical

How long does it take and what does it take to be competent?

Not competent  Novice  Competent  Expert  Maestro

The Practice Gap

Program Objectives Met (Graduation)

Independent Clinician

Entering Student

Education

Clinical Functionality

New Hire

Debriefing

One tool in bridging some of these gaps!
Debriefing is where the majority of learning occurs in simulation educational encounters...

Who has heard this??

Is there any actual evidence that learning occurs in debriefing?

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2005 BEME Themes in Literature

- Provide feedback during the learning experience (47%).
- Learners should repetitively practice skills (39%).
- Integrate simulators into the overall curriculum (25%).
- Learners should practice increasing levels of difficulty.
- Adapt the simulations for multiple learning strategies.
- Ensure the simulator provides for clinical variation.
- Learning should occur in a controlled environment.
- Provide individualized (in addition to team) learning.
- Clearly define outcomes & benchmarks for the learners.
- Ensure the simulator is a valid learning tool.

McGaghie- 12 Best Practices

1. FEEDBACK
2. DELIBERATE PRACTICE
3. CURRICULUM INTEGRATION
4. OUTCOME MEASUREMENT
5. SIMULATION FIDELITY
6. SKILL ACQUISITION AND MAINTENANCE
7. MASTERY LEARNING
8. TRANSFER TO PRACTICE
9. TEAM TRAINING
10. HIGH-STAKES TESTING
11. INSTRUCTOR TRAINING
12. EDUCATIONAL AND PROFESSIONAL CONTEXT


Understanding the Science

Levels of Evidence

C2104 Levels of Evidence for Studies of Therapeutic Interventions

LOE 1: Randomised Controlled Trials (or meta-analyses of RCTs)
LOE 2: Studies using concurrent controls without true randomisation (eg. “pseudo”-randomised)
LOE 3: Studies using retrospective controls
LOE 4: Studies without a control group (eg. case series)
LOE 5: Studies not directly related to the specific patient/population

AHA International Liaison Committee, 2010

Understanding the Science
ILCOR Consensus on Science and Treatment Recommendations (CoSTAR)

Evidence from 1 LOE 1 prospective RCT\textsuperscript{45} and 16 other studies (LOE 3 to 4\textsuperscript{31,73,83,125,126,132,246–255} documented improvement with briefings/debriefings in the acquisition of the content knowledge, technical skills, and/or behavioral skills required for effective and safe resuscitation. One LOE 4 study\textsuperscript{246} revealed no effect of briefings/debriefings on performance. No studies indicated that the use of briefings/debriefings had any negative effect.

*Treatment Recommendation*

It is reasonable to recommend the use of briefings and debriefings during both learning and actual clinical activities.

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**Feedback**

- Feedback comprises a wide array of informational inputs, which may occur prior to, during, and after an experience.
- Feedback is often pointed to as one of the most important features of simulation-based learning.
  - Knowledge of performance results - key to learning.
  - Appears to slow the decay of acquired skills.
  - Allows for self-assessment.

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**Food for thought & discussion…**

What is the relationship between feedback and debriefing?
Human processing

Natural order of human processing
- Reflect on it
- Experience an event
- Discuss it with others
- Learn & modify behaviors based on the experience

Role of Debriefing in Processing/Reflection

Factors Impacting Debriefing Design
- Objective of the experiential exercise
- Complexity of the scenario
- Experience level of participants
- Experience level of participants with simulation environment
- Time available for the session
- The role of the simulation in the overall curriculum
- Individual personalities and relationships, if any, between the participants
Inducing Anesthesia

- Value:
  - Confidence
  - Basic skills
  - Decreased anxiety

- Strategy is Scaffolding
  - Didactic
  - Standardized patients
  - Part task trainers
  - Full task trainers
  - Practice sessions
  - Full context simulation

Settings: 2nd month CRNA training

Setting the Stage: First chance to put a patient to sleep in a fairly real environment

Primary goal:
- Successfully complete the steps of anesthesia induction
- Perform psychomotor tasks correctly
- Communicate effectively
- Manage personal stress
Structured and Supported Debriefing

Structured & Supported Debriefing (SSD)
- Developed in collaboration with American Heart Association
- Definition of ‘structured and supported’
  - Structured elements include three specific debriefing phases with related goals, actions, and time estimates.
  - Supported elements include both interpersonal support as well as use of protocols, algorithms, and best evidence to inform debriefing statements/questions
- Other considerations
  - Simple, can be learned rapidly, scalable, validated by practice


Structured Debriefing
- A deliberative, learner-centric process designed to standardize the instructor/student post-event interaction to assist learners in thinking about:
  - What they did,
  - When they did it,
  - How they did it,
  - Why they did it and
  - How they can improve.
GAS Model

GATHER

Goal: Listen to participants to understand what they think & how they feel

Actions: Request narrative from team leader
Request clarifying or supplemental information from team

Sample Questions:
All: How do you feel?
Team Leader: Can you tell us what happened?
Team members: Can you add to the account?

ANALYZE

Goal: Facilitate reflection on & analysis of actions

Actions: Review accurate record of events
Report observations (correct & incorrect steps)
Reveal participants’ thinking processes
Reflect on performance
Assure continuous focus on session objectives

Sample Questions:
“Tell me more about...”
“What were you thinking when...”
“I understand, however, tell me about “X” aspect of the scenario...”
“Let’s refocus... what’s important is not who is right but what is right for the patient...”
### GAS Model

**Goal:** Facilitate identification & review of lessons learned

**Actions:** Participants identify positive aspects of team or individual behaviors & behaviors that require change

**Sample Questions:**
- "List two actions or events that you felt were effective or well done."
- "Describe two areas that you think you/your team need to work on..."

**SUMMARIZE**

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### Supporting Theory

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<thead>
<tr>
<th>Theorist</th>
<th>Supporting Concept for Debriefing</th>
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<tbody>
<tr>
<td>Goffman (1974)</td>
<td>Pre-existing frameworks of reference based on prior experience (knowledge, attitude, skill) influence current actions</td>
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<td>Bandura (1977)</td>
<td>Social learning theory. Learning through observation, imitation, modeling. Self-efficacy critical to learning and performance</td>
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<td>Lewin (1951) &amp; Kolb (1984)</td>
<td>Experiential learning theory. Learning is enhanced by realistic experience. Learning increases when there is a connection between the learning situation and the environment (synergy)</td>
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<td>Schon (1987)</td>
<td>&quot;Reflective practitioner&quot; where faculty act as coach and mentor. Reflection important both during and after simulation sessions.</td>
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<tr>
<td>Lave and Wenger (1991)</td>
<td>Situated learning theory. Learning is situated within context and activity. Accidental (unplanned) learning is common.</td>
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### Operationalizing the Theory: Ericsson

![Diagram of Ericsson cycle](image)

Figure 1: The Ericsson cycle of deliberate practice applied to simulation sessions and incorporating debriefing and planned change.

Interactive Session: Simulation and Debriefing

Patient is not doing well: breathing difficulty
Hiroko is the nurse, Kasa is the 2nd nurse
Rick is the physician

Objectives: Participants will:
• Assess the patient to identify the problem
• Consult/verify with a colleague
• Provide support to the patient
• Call physician to assess the patient
• Communicate effectively

Is debriefing an art or science?
Why is debriefing hard?

Debriefing is an art form...
One which is honed through repeated practice, and experience...
There are many approaches and techniques...
And very few absolute rules

Who agrees with this?

Reality...

“there are surprisingly few papers in the peer-reviewed literature to illustrate how to debrief, how to teach or learn to debrief, what methods of debriefing exist and how effective they are at achieving learning objectives and goals”

Simulation Rule #1

“The most effective facilitation is achieved when the learners or participants do all of the talking... not the instructor”

Reality...

Some learners or learner groups may lack an adequate understanding of the event and its elements, or possess enough prior learning and experience to effectively reflect and learn.

Simulation rule #2

“Debriefings should always be conducted in a separate space or environment”
Options in Debriefing
- Private bedside debrief by facilitator immediately post scenario
- Private ‘debriefing room’ debrief by facilitator immediately post-scenario
- Debrief by peers outside of simulation suite
- Self-guided reflection of video performance

Simulation rule #3

“Debriefings should always be held Immediately after the simulation”

G.A.S.-2
- Using the GAS rubric for later reflection
  - Less time constrained, more personal, more individual
    - G: Gather
      - Thoughts and impressions about the experience
    - A: Analyze
      - Plus-Delta from a personal perspective
    - S: Summarize
      - What you plan to change
      - How you plan to change (read, watch video, re-simulate etc)
  - Current using a one week post-simulation notification via our SIMS system
    - Window of reflection
  - Ongoing mental habit...
…we all agree that such learning activities as anesthesia crisis leadership training (ACLT), other WISER simulations, and the variety of clinical experiences that Pitt had to offer are extremely beneficial downrange.

We provide anesthesia in some of the most austere and unforgiving environments, sand, lack of transport for supplies due to bad weather conditions, and overall enemy activity necessitating the need for adaptation and quick thinking when faced with taking care of critical patients.

Simulation rule #4

“Debriefings require video of the simulation session to be effective…..”
Factors Influencing Nurses’ Attitudes Toward Simulation Education
Decarlo D, BSN, MSNEd et al
Simulation in Healthcare; Summer 2008
○ Survey of 523 Nurses in Academic Children’s Hospital
○ Full and Part Time

Barriers
Key Points: >Sim Experience
○ Agreement
- Videotaping
- Stressful environment
- Etc……
○ Non-agreement
- Not the real thing
- More important to subjects with sim experience

Key Points: >Years of Practice
- Agreement
- Videotaping
- Stressful environment
- Infringement of time
- Etc……
- Non-agreement
- Unfamiliar equipment
- Not the real thing
- Both more important to subjects with less experience
Barriers

Key Points: Area of Practice

- Agreement
  - Videotaping
  - Unfamiliar equipment
  - Infringement of time
  - Etc...

- Non-agreement
  - Stressful environment
  - Not the real thing
  - Both more important to subjects from NON-acute care areas

Other considerations

The ultimate failure of debriefing

“Learners are left with the mistaken impression that they are doing just fine”

“Ignorance more frequently begets confidence than does knowledge”

Charles Darwin – The Descent of Man (1871)
Simulation rule #5

“Don’t be direct in correcting errors or mistakes - you will damage people”

Identifying & closing the gaps

Observable performance

Performance perception

Performed well  Feels good
Performed well  Feels bad
Performed well  Feels bad
Performed well  Feels good

GAP

Simulation-debriefing relationship

‘Safe’ Environment

Stressed
Upset
Nervous
Tense

Excited
Alert
Elated
Happy

Bored
Sad
Fatigued
Depressed

Relaxed
Serene
Content
Calm

Activated

Similation

Debriefing

Inactivated
“Participants may only remember a portion of what they did in simulation but they will always remember how you made them feel”

Ami Ziv 2013 IMSH

Sampling of Other Debriefing Models

Plus-Delta
- A student-centric approach simulation debriefing using two simple questions.
- Designed to rapidly elicit meaningful participant feedback

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<th>Plus</th>
<th>Delta</th>
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<tbody>
<tr>
<td>Student</td>
<td>What did you or the team perform effectively in the scenario?</td>
<td>What change would you or the team need to make to perform more effectively?</td>
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<td>Response</td>
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Quest for Excellence Conference
Debriefing With ‘Good Judgment’

Trainee ‘Frames’ Approach
- A frame is the internal trainee environment
- Perceptions, knowledge, assumptions, feelings, training, etc...
- Instructor role ‘cognitive detective’
- Tries to figure out frames through using a stance of curiosity
  - Genuinely curious inquiry
- Advocacy and Inquiry model

Frames to Actions to Results

Prior Mental Models
- Goffman (1974) – Frame Theory

“Given their understanding of what it is that is going on, individuals fit their actions to this understanding.”

Self-Debriefing

Video
- Self-debrief
- With ANTS

Video + Instructor debrief

Quest for Excellence Conference


“Phased-domain” debriefing

Interactive Session: Sim + Debriefing

Operating Room Crisis

Scenario: Mr. Smith is a 45 year old male having vocal cord surgery. Two anesthesia providers take over the case. The surgeon is using a laser.

Objectives: Participants will:
• Assess the patient to identify the problem
• Follow the RACE principles
• Implement DIVER
• Work effectively within the operating room team
• Communicate clearly
Discussion:
Debriefing: Many shapes and sizes....