Foundational articles about healthcare debriefing

Steinwachs B. How to facilitate a debriefing. *Simulation Gaming.* 1992;23:186-195.
- Classic article about how to facilitate a debriefing.

Fanning RM, Gaba DM. The role of debriefing in simulation-based learning. *Simul Healthc.* Summer 2007;2(2):115-125.
- Comprehensive review article about healthcare debriefing; represents a good starting point for an overview.

McDonnell LK, Jobe KK, Dismukes RK. Facilitating LOS Debriefings: A Training Manual. National Aeronautical and Space Administration; 1997.
- Excellent overview of general facilitation techniques that highlights strategies tailored to degree of learner engagement (low, intermediate, and high).

Rudolph JW, Simon R, Dufresne RL, Raemer DB. There's no such thing as "nonjudgmental" debriefing: a theory and method for debriefing with good judgment. *Simul Healthc.* Spring 2006;1(1):49-55.
- Classic article about reflective practice in healthcare debriefing that presents three fundamental notions: (a) frames or mental models drive behavior; (b) genuine curiosity on the part of the debriefer/educator promotes exploration of learners' perspectives of simulated events during a debriefing; and (c) the communication strategy of "advocacy-inquiry" whereby simulation educators share their point of view and assumptions during the debriefing and then solicit the learners' perspectives.

Rudolph JW, Simon R, Raemer DB, Eppich WJ. Debriefing as formative assessment: closing performance gaps in medical education. *Acad Emerg Med.* Nov 2008;15(11):1010-1016.
- This articles looks at debriefing as a formative assessment, namely as an assessment strategy *for* learning (as opposed to high stakes summative assessment, or assessment *of* learning). Outlines the notion of performance gaps—namely areas of performance that are good or in need of improvement—that can help guide lines of questioning in a debriefing.

Dieckmann P, Lippert A, Glavin R, Rall M. When things do not go as expected: scenario life savers. *Simul Healthc.* Aug 2010;5(4):219-225.
- This paper outlines key elements of scenario design and implementation, namely planning for and responding to unexpected learner actions during simulation events. Although this paper does not relate directly to debriefing, in my view it is a must read since how simulation educators deal with unexpected learner responses during the simulation will have a subsequent impact on the debriefing.

Zigmont JJ, Kappus LJ, Sudikoff SN. The 3D model of debriefing: defusing, discovering, and deepening. *Semin Perinatol.* Apr 2011;35(2):52-58.
- The authors provide an easy to follow discussion that links phases of the debriefing to applicable learning theories such as Kolb's experiential learning cycle.

Dieckmann P, Molin Friis S, Lippert A, Ostergaard D. Goals, success factors, and barriers for simulation-based learning: a qualitative interview study in health care. *Simulation & Gaming.* 2012;43(5):627-647.
- High-yield article that builds on Dieckmann's "simulation setting model" and enhances the empiric basis for it. Specifically, Dieckmann et al. use his simulation setting model to place debriefing within the larger context of the simulation event to highlight the interrelated elements of simulation-based learning environments.

Eppich W, Cheng A. Promoting Excellence And Reflective Learning in Simulation (PEARLS): Development and rationale for a blended approach to health care simulation debriefing. *Simul Healthc.* 23 Feb 2015 [Epub ahead of print]
- Introduces a novel blended approach to debriefing that integrates approaches such as learner self-assessment, focused facilitation strategies, and providing information in the form of directive feedback and/or teaching.

Cheng, A., Palaganas, J., Eppich, W., Rudolph, J., Robinson, T., & Grant, V. (2015). Co-debriefing for Simulation-based Education: A Primer for Facilitators. *Simul Healthc.* 23 Feb 2015 [Epub ahead of print]
- Provides guidance on managing co-debriefing, including proactive and reactive strategies

Research on debriefing effectiveness

Savoldelli GL, Naik VN, Park J, Joo HS, Chow R, Hamstra SJ. Value of debriefing during simulated crisis management: oral versus video-assisted oral feedback. *Anesthesiology.* Aug 2006;105(2):279-285.
- Important early work in healthcare debriefing that provides empiric evidence that post-simulation debriefing is a critical element of simulation based learning. Of note, the authors found that the addition of video-review did not offer advantages over feedback alone.

Boet S, Bould MD, Bruppacher HR, Desjardins F, Chandra DB, Naik VN. Looking in the mirror: self-debriefing versus instructor debriefing for simulated crises. *Crit Care Med.* Jun 2011;39(6):1377-1381.
- This article explores that value of instructor-lead vs. self-debriefing for nontechnical skills in simulated crises. The authors found that for nontechnical skills, individual self-debriefing lead to similar learning outcomes as did instructor-lead debriefing.

Boet S, Bould MD, Sharma B, Reeves S, Naik V, Triby E, Grantcharov T. Within-team debriefing versus instructor-led debriefing for simulation-based education: a randomized controlled trial. *Ann Surg.* Jul 2013;258(1):53-58.
- This explores the value of instructor-led vs. within-team debriefing for team performance of simulated crisis scenarios. Within-team debriefing may be as effective as instructor-led debriefing. The authors propose that this may improve resource utilization.

Cheng A, Hunt EA, Donoghue A, et al. Examining Pediatric Resuscitation Education Using Simulation and Scripted Debriefing: A Multicenter Randomized Trial. *JAMA pediatrics.* 2013;167:528-36.

- This rigorous multi-center study explored the benefit of scripted debriefing for novice instructors. When novice instructors used a debriefing script, learner groups had better learning outcomes in simulated pediatric advanced life support scenarios.

Tannenbaum SI, Cerasoli CP. Do team and individual debriefs enhance performance? A meta-analysis. *Hum Factors.* Feb 2013;55(1):231-245.

- This high-yield article explores whether team and individual debriefs enhance performance. This meta-analysis shows that organizations can expect a 20-25% improvement in individual and team performance if debriefings are properly conducted.

Cheng A, Eppich W, Grant V, Sherbino J, Zendejas B, Cook DA. Debriefing for technology-enhanced simulation: a systematic review and meta-analysis. *Med Educ.* Jul 2014;48(7):657-666.

- This systematic review and meta-analysis of debriefing for technology-enhanced simulation, which included 177 studies, sought to characterize how debriefing is reported in the literature and explore features that are associated with improved learning outcomes.

Levett-Jones T, Lapkin S. A systematic review of the effectiveness of simulation debriefing in health professional education. *Nurse Educ Today.* Jun 2014;34(6):e58-e63.

- Systematic review of the effectiveness of healthcare debriefing included 10 randomized controlled trials.

Assessing debriefing quality

Brett-Fleegler M, Rudolph J, Eppich W, Monuteaux M, Fleegler E, Cheng A, Simon R. Debriefing assessment for simulation in healthcare: development and psychometric properties. *Simul Healthc.* Oct 2012;7(5):288-294.

- Provides an overview of the *Debriefing Assessment for Simulation in Healthcare*, both development and psychometric properties. The DASH is a 6 item behaviorally-anchored rating scale that outlines behaviors that promote debriefing effectiveness.

Arora S, Ahmed M, Paige J, Nestal D, Runnacles J, Hull L, Darzi A, Sevdalis N. Objective structured assessment of debriefing: bringing science to the art of debriefing in surgery. *Ann Surg.* Dec 2012;256(6):982-988.

- This paper reports on the development and validation of the *Objective Structured Assessment of Debriefing* in surgical contexts. Outlines effective debriefing behaviors in eight categories.

<u>**Debriefing in Clinical Practice**</u>

Mullan PC, Wuestner E, Kerr TD, Christopher DP, Patel B. Implementation of an in situ qualitative debriefing tool for resuscitations. *Resuscitation.* Jul 2013;84(7):946-951.
- This study examines the feasibility of post-resuscitation debriefing in pediatric emergency settings through implementation of an in-situ debriefing tool. The debriefing tool focuses on what worked well and what could have gone better during the care of the patient. The post-resuscitation debriefing approach integrates the 12 tips for debriefing medical teams outlined by Salas et al. *(see next reference)*

Salas E, Klein C, King H, et al. Debriefing medical teams: 12 evidence-based best practices and tips. *Jt Comm J Qual Patient Saf.* Sep 2008;34(9):518-527.
- A high-yield article by leading experts that outlines 12 evidence based suggestions for debriefing medical teams.

Ahmed M, Arora S, Russ S, Darzi A, Vincent C, Sevdalis N. Operation debrief: a SHARP improvement in performance feedback in the operating room. *Ann Surg.* Dec 2013;258(6):958-963.
- SHARP Tool: Outlines a simple debriefing strategy for performance improvement in clinical practice
  - **S**et learning objectives
  - **H**ow did it go?
  - **A**ddress concerns
  - **R**eview learning points
  - **P**lan ahead'

Wolfe H, Zebuhr C, Topjian AA, Nishisaki A, Niles DE, Meaney PA, Boyle L, Giordano RT, Davis D, Priestley M, Apkon M, Berg RA, Nadkarni VM, Sutton RM. Interdisciplinary ICU cardiac arrest debriefing improves survival outcomes. Crit Care Med. 2014 Jul;42(7):1688-95
- This work underscores the potential of post-resuscitation debriefing in clinical practice.

Kessler, D. O., Cheng, A., & Mullan, P. C. (2014). Debriefing in the Emergency Department After Clinical Events: A Practical Guide. *Ann Emerg Med.* 15 Nov 2014 [Epub ahead of print]

- Overview of debriefing in clinical practice in emergency setting

For those with greater time and interest…

Kolbe M, Weiss M, Grote G, et al. TeamGAINS: a tool for structured debriefings for simulation-based team trainings. *BMJ quality & safety.* Jul 2013;22(7):541-553.
- The TeamGAINS model of debriefing is likely not for beginners. The innovation in this well-referenced article is the integration of more advanced strategies into a larger debriefing model, including systemic constructivist methods taken from family therapy approaches—including circular question—and guided team self-reflection.

Chung HS, Dieckmann P, Issenberg SB. It is time to consider cultural differences in debriefing. *Simul Healthc.* Jun 2013;8(3):166-170.
- This interesting article discusses the potential cultural differences that educators should take into account when debriefing. Key dimensions explored here include: power distance, notions of individualism vs. collectivism, uncertainty avoidance, and masculinity-femininity. The key messages in this paper are particularly helpful for educators working in non-Western cultures and raises questions to guide future research.