


## Use of Simulation in Master's Education Using the INACSL Standards of Best Practice: Simulation<sup>SM</sup>


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## Disclosures

- Teresa Gore
  - INACSL Board of Directors – President 2015-2017
  - Co-Developer of INACSL-CAE Healthcare Simulation Fellowship


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## Objection

- At the completion of this session, participants will be able to:
  - Verbalize the INACSL Standards of Best Practice: Simulation<sup>SM</sup>
  - Determine the type of simulation required to achieve the learning objectives
  - Identify two strategies for using simulation as an innovative teaching strategy in the Master's Curriculum
  - Identify two approaches for simulation faculty development


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## Simulation

- Why now?
- How?
- What is needed for the change?
- <https://youtu.be/fW8amMCVAJQ>

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## NCSBN National Simulation Study

- Confidence that substituting up to 50% simulation promotes outcomes similar to traditional clinical experience across prelicensure nursing curriculum as long as . . .
- Concern emerged that nursing programs might begin to substitute simulation for clinical without:
  - sufficient number of adequately trained and committed faculty
  - dedicated simulation lab with appropriate resources
  - realistically and appropriately designed scenarios
  - faculty trained in debriefing based on a theoretical model

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Hayden, J.K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P.R. (2014). The NCSBN national simulation study: A longitudinal, randomized controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Education, 49*(4), 244-250.



## History of Standards

- 2009 – Began work on the first INACSL Standards of Best Practice: Simulation<sup>SM</sup>
- 2011 – Published the first standards
- 2013 – Revised/Updated standards and included guidelines
- 2014 – Vetted standards and reviewed by organizations and the NCSBN National Simulation Study Results published - Hayden et al., 2014
- 2015 – Added two new standards and the NCSBN Simulation Guidelines for Prelicensure Nursing Programs published – Alexander et al., 2015

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## Reviewed of Standards

- American Academy of Pediatric Dentistry
- American Nursing Association
- Association for Simulated Practice in Healthcare
- Australian College of Nursing
- Australian Society for Simulation in Healthcare
- British Columbia Institute of Technology School of Health Sciences
- International Council of Nurses
- International Federation of Dental Anesthesiology Societies
- International Simulation and Gaming Association
- National League for Nursing
- Royal College of Physicians and Surgeons of Canada
- Sigma Theta Tau International
- Simulation Task Force of Qatar
- Scottish Centre for Simulation and Clinical Health Factors
- Society for Simulation in Healthcare

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## INACSL Standards of Best Practice: Simulation<sup>SM</sup>

- Terminology
- Professional Integrity of Participant(s)
- Participant Objectives
- Facilitation
- Facilitator
- Debriefing Process
- Participant Assessment and Evaluation
- Simulation Enhanced Interprofessional Education (Sim-IPE)
- Simulation Design

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<http://www.inacsl.org/i4a/pages/index.cfm?pageid=3407>



## Standard I

### INACSL Standards of Best Practice: Simulation<sup>SM</sup>

#### TERMINOLOGY

Meakim, C., Boese, T., Decker, S., Franklin, A. E., Gloe, D., Lioce, L., Sando, C. R., & Borum, J. C. (2013, June). Standards of Best Practice: Simulation Standard I: Terminology. *Clinical Simulation in Nursing*, 9(6S), S3-S11. <http://dx.doi.org/10.1016/j.ecns.2013.04.001>

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## Standard I

Consistent terminology provides guidance and clear communication and reflects shared values in simulation experiences, research, and publications. Knowledge and ideas are clearly communicated with consistent terminology to advance the science of simulation

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## Standard II

### INACSL Standards of Best Practice: Simulation<sup>SM</sup>

#### PROFESSIONAL INTEGRITY

Gloe, D., Sando, C. R., Franklin, A. E., Boese, T., Decker, S., Lioce, L., Meakim, C., & Borum, J. C. (2013, June). Standards of best practice: Simulation standard II: Professional integrity of participant(s). *Clinical Simulation in Nursing*, 9(6S), S12-S14. <http://dx.doi.org/10.1016/j.ecns.2013.04.004>

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## Standard II

It is essential to provide clear expectations for the attitudes and behaviors of simulation participants. Professional integrity related to confidentiality of the performances, scenario content, and participant experience is required during and after any simulation. Confidentiality is expected in live, recorded, or virtual simulation experiences

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## Standard II

- Criterion 1. Protecting content of scenario and simulation
- Criterion 2. Demonstrating professional and ethical behavior
- Criterion 3. Receiving and providing constructive feedback

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## Standard III

### INACSL Standards of Best Practice: Simulation<sup>SM</sup>

#### PARTICIPANT OBJECTIVES

Lioce, L., Reed, C. C., Lemon, D., King, M. A., Martinez, P. A., Franklin, A. E., Boese, T., Decker, S., Sando, C. R., Gloe, D., Meakim, C., & Borum, J. C. (2013, June). Standards of best practice: Simulation standard III: Participant objectives. *Clinical Simulation in Nursing*, 9(6S), S15-S18. <http://dx.doi.org/10.1016/j.ecns.2013.04.005>

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## Standard III

All simulation-based learning experiences begin with development of clearly written participant objectives, which are available prior to the experience

- Criterion 1. Address domains of learning
- Criterion 2. Correspond to participant's knowledge level and experience
- Criterion 3. Remain congruent with overall program outcomes

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## Standard III

- Criterion 4. Incorporate evidence-based practice
- Criterion 5. Include viewing of client holistically
- Criterion 6. Be achievable within an appropriate timeframe

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## Standard IV

### INACSL Standards of Best Practice: Simulation<sup>SM</sup>

#### FACILITATION

Franklin, A. E., Boese, T., Gloe, D., Lioce, L., Decker, S., Sando, C. R., Meakim, C., & Borum, J. C. (2013, June). Standards of Best Practice: Simulation Standard IV: Facilitation. *Clinical Simulation in Nursing*, 9(6S), S19-S21. <http://dx.doi.org/10.1016/j.ecns.2013.04.011>

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## Standard IV

Multiple methods of facilitation are available, and use of a specific method is dependent on the learning needs of the participant(s) and the expected outcomes

- Criterion 1. Using facilitation methods congruent with simulation objectives
- Criterion 2. Using facilitation methods congruent with expected outcomes

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## Standard V

# INACSL Standards of Best Practice: Simulation<sup>SM</sup>

## FACILITATOR



Boese, T., Cato, M., Gonzalez, L., Jones, A., Kennedy, K., Reese, C., Decker, S., Franklin, A. E., Gloe, D., Lioce, L., Meakim, C., Sando, C. R., & Borum, J. C. (2013, June). Standards of best practice: Simulation standard V: Facilitator. *Clinical Simulation in Nursing*, 9(6S), S22-S25. <http://dx.doi.org/10.1016/j.ecns.2013.04.010>

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## Standard V

A proficient facilitator is required to manage the complexity of all aspects of simulation. The facilitator has specific simulation education provided by formal coursework, continuing education offerings, and targeted work with an experienced mentor

- Criterion 1. Clearly communicates objectives and expected outcomes to participant(s)
- Criterion 2. Creates a safe learning environment that supports and encourages active learning, repetitive practice, and reflection

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## Standard V

- Criterion 3. Promotes and maintains fidelity
- Criterion 4. Uses facilitation methods appropriate to participants' level of learning and experience
- Criterion 5. Assesses and evaluates the acquisition of knowledge, skills, attitudes, and behaviors
- Criterion 6. Models professional integrity

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## Standard V

- Criterion 7. Fosters participant learning by providing appropriate support throughout the simulation activity, from preparation through reflection
- Criterion 8: Establishes and obtains evaluation data regarding the effectiveness of the facilitator and the simulation experience
- Criterion 9. Provides constructive feedback and facilitates debriefing with participants

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## Standard VI

# INACSL Standards of Best Practice: Simulation<sup>SM</sup>

## DEBRIEFING



Decker, S., Fey, M., Sideras, S., Caballero, S., Rockstraw, L. (R.), Boese, T., Franklin, A. E., Gloe, D., Lioce, L., Sando, C. R., Meakim, C., & Borum, J. C. (2013, June). Standards of Best Practice: Simulation Standard VI: The debriefing process. *Clinical Simulation in Nursing*, 9(6S), S27-S29. <http://dx.doi.org/10.1016/j.ecns.2013.04.008>

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## Standard VI

All simulation-based learning experiences should include a planned debriefing session aimed toward promoting reflective thinking

- Criterion 1. Facilitated by a person(s) competent in the process of debriefing
- Criterion 2. Conducted in an environment that supports confidentiality, trust, open communication, self-analysis, and reflection

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## Standard VI

- Criterion 3. Facilitated by a person(s) Who observes the simulated experience
- Criterion 4. Based on a structured framework for debriefing
- Criterion 5. Congruent with the participants' objectives and outcomes of the simulation-based learning experience

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## Standard VII

### INACSL Standards of Best Practice: Simulation<sup>SM</sup> EVALUATION



Sando, C. R., Coggins, R. M., Meakim, C., Franklin, A. E., Gloe, D., Boese, T., Decker, S., Lioce, L., & Borum, J. C. (2013, June). Standards of Best Practice: Simulation Standard VII: Participant Assessment and Evaluation. *Clinical Simulation in Nursing*, 9(6S), S30-S32. <http://dx.doi.org/10.1016/j.ecns.2013.04.007>

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## Standard VII

In a simulation-based experience, formative assessment or summative evaluation can be used

- Criterion 1. Formative assessment
- Criterion 2. Summative evaluation
- Criterion 3. High-stakes evaluation

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## Standard VIII

### INACSL Standards of Best Practice: Simulation<sup>SM</sup> SIMULATION-ENHANCED INTERPROFESSIONAL EDUCATION (SIM-IPE)

Decker S. I., Anderson M., Boese T., Epps C., McCarthy J., Motola I., Palaganas J., Perry C., Puga F., Sclaro K., & Lioce L. (2015, June). Standards of best practice: Simulation standard VIII: Simulation-enhanced interprofessional education (sim-IPE). *Clinical Simulation in Nursing*, 11(6), 293-297. <http://dx.doi.org/10.1016/j.ecns.2015.03.010>

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## Standard VIII

Sim-IPE occurs when participants and facilitators from two or more professions are engaged in a simulation health care experience to achieve shared or linked objectives and outcomes. The Sim-IPE is designed for the individuals involved to "learn about, from and with each other to enable effective collaboration and improve health outcomes" (WHO, 2010, p.31)

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## Standard VIII

- Criterion 1. Based on Theory
- Criterion 2. Follow Best Practices in Simulation-Based and IPE
- Criterion 3. Address Institutional and Local Issues
- Criterion 4. Include an Evaluation Plan

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## INACSL Standards of Best Practice: Simulation<sup>SM</sup>

### SIMULATION DESIGN

Loice L., Meakim C. H., Fey M. K., Chmil J. V., Mariani B., & Alinier G. (2015, June). Standards of best practice: Simulation standard IX: Simulation design. *Clinical Simulation in Nursing*, 11 (6), 309-315. <http://dx.doi.org/10.1016/j.ecns.2015.03.005>.



Simulation-based experiences (SBEs) should be purposefully designed to meet identified objectives

- Criterion 1. Needs Assessment
- Criterion 2. Measurable Objectives
- Criterion 3. Format of SBE
- Criterion 4. Clinical Scenario or Case



- Criterion 5: Fidelity
- Criterion 6: Facilitator/Facilitative Approach
- Criterion 7: Briefing
- Criterion 8: Debriefing and/or Feedback



- Criterion 9: Evaluation
- Criterion 10: Participant Preparation
- Criterion 11: Pilot Testing of the SBE



to develop guidelines to . . .

- assist BON in assessing nursing simulation programs.
- Inform nursing program leaders and faculty to prepare and plan for using simulation successfully in their nursing programs.

Alexander, M., Durham, C. F., Hooper, J. L., Jeffries, P.R., Goldman, N., Kardong-Edgren, S., Kesten, K. S., Spector, N., Tagliarini, E., Radtke, B., & Tillman, C. (2015). NCSBN simulation guidelines for prelicensure nursing programs. *Journal of Nursing Regulation*, 6(3), 39-42.



### Faculty Preparation for Increasing Simulation



## Faculty Development

- Dedicated simulation faculty vs. teaching everyone (included in workload)
- Faculty preparation including training on INACSL Standards of Best Practice: Simulation<sup>SM</sup>
- Planned and documented orientation policy
- Ongoing continuing education and CV documentation
- Formalized debriefing training and use of a debriefing methodology
- Evaluation (i.e. learner acquisition of KSAs, program, effectiveness of facilitator, debriefing)
- Sharing of information with clinical faculty

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## Debriefing Methods

- Debriefing for Meaningful Learning (DML)- Kris Dreifuerst
- Promoting Excellence and Reflective Learning in Simulation (PEARLS) – Walter Eppich & Adam Cheng
- Advocacy Inquiry- Jenny Rudolph

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## Program Preparation



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## Guidelines - Programs

- Institutional commitment to the simulation program
- Long range plan documented for simulation usage
- Appropriate facilities to conduct simulation
- Educational and technological resources and equipment for simulation
- Qualified faculty and personnel to conduct simulation
- Policies and procedures for simulation including job descriptions

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## Mentored Education Opportunities

- INACSL-CAE Healthcare Simulation Fellowship  
– <http://www.inacsl.org/i4a/pages/index.cfm?pageid=3476>
- INACSL Research Fellowship  
– <http://www.inacsl.org/i4a/pages/index.cfm?pageid=3297NFLASimulationfocusSSTI>
- NLN Leadership Development Program for Simulation Educators  
– <http://www.nln.org/professional-development-programs/leadership-programs/leadership-development-program-for-simulation-educators>

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## Certificate Programs

- Boise State University - Healthcare Simulation Certificate  
– <https://hs.boisestate.edu/nursing/sgcp/>
- Bryan College of Health Sciences – Clinical Simulation Educator Certificate Program  
– <http://healthysimulation.com/2729/clinical-simulation-educator-certificate-program/>
- Drexel College of Nursing – Certificate in Simulation  
– <http://www.drexel.edu/cnhp/academics/continuing-education/Nursing-CE-Programs/Certificate-in-Simulation/>
- Robert Morris University - Leadership in Simulation Instruction and Management Graduate-Level Certificate  
– <http://admissions.rmu.edu/online/nursing-and-health-care/simulation-instruction>

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### Accreditation and Certification

- The Society for Simulation in Healthcare provides accreditation of simulation programs/centers and certifications
- Accreditation
  - <http://www.ssih.org/Accreditation>
- Certification
  - <http://www.ssih.org/Certification>
- INACSL Webinar January 2016

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### Master of Science – Simulation

- Drexel College of Medical and Healthcare Simulation (MSMS)
  - <http://www.drexel.edu/medicine/Academics/Graduate-School/Medical-and-Healthcare-Simulation/Our-Students-Alumni/>
- University of San Francisco – MS in Healthcare Simulation
  - <https://www.usfca.edu/catalog/graduate/nursing/master-of-science-healthcare-simulation>
- New York College of Osteopathic Medicine of the New York Institute of Technology - MS in Medical/Health Care Simulation
  - <http://www.nyit.edu/medicine/academics/icc/>

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### Training in Simulation

- California Simulation Alliance
  - <http://healthimpact.org/programs/simulation/>
- Center for Medical Simulation Workshops
  - <http://harvardmedsim.org/>
- NYSIM – Simulation Courses
  - <http://www.nysimcenter.org/learn/nysim-courses>
- Stanford Medicine Center for Immersive Simulation-based Learning (CISL)
  - <http://cisl.stanford.edu/>
- Wiser Simulation Training
  - <http://www.wiser.pitt.edu/sites/wiser/training/simTraining.asp>

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### Other Disciplines

- Are other disciplines using simulation as part of their education?
  - Medical Schools
    - Step Exams for competency
  - IPE opportunities
  - Pharmacy
  - Others

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### Use in Programs

- Nurse Practitioner
- CRNA
- CNS
- Nurse Educator
- Nurse Midwife
- Nurse Administration
- CNL

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### APRN in Education

- Above and beyond the 500 hours
- Competitive preceptor clinical placement
- Quality of clinical experiences
- Experiential Learning
- Competencies
- Simulation versus clinical experiences
- Evaluations

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## Modalities of Sim

- OSCE
- TOSCE
- High-Fidelity
- Low-Fidelity
- Computer-Based Interactive Simulations
- Standardized Patients
- Hybrid

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## Beginning

- Where to start
- Advanced health assessment course
- Practice for direct care
- Practice for indirect care
- Remediation
- Planned integration
- High-Stakes Evaluation
- Inter-Rater Reliability
- Valid Reliable Tool

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## Examples of Evaluation

- CCEI
- APRN Acute Care
- CRNA Competencies
- Groningen Reflective Ability Scale (GRAS)
- C.A.T.E.S.

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## Future

- Increase use of simulation in MSN curriculum
- Competency based education
- Hybrid simulations
- Research on simulation use in MSN programs
- Simulation as part of interview process
  - Admission into graduate programs
  - Hiring

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## Simulation References

- INACSL Standards of Best Practice: Simulation<sup>SM</sup>
  - [www.inacsl.org](http://www.inacsl.org)
  - [www.nursingsimulation.org](http://www.nursingsimulation.org)
- NCSBN National Simulation Study (Hayden et al., 2014)
  - <https://www.ncsbn.org/5644.htm>
- NCSBN Simulation Guidelines (Alexander et al., 2015)
  - [http://www.journalofnursingregulation.com/article/S2155-8256\(15\)30783-3/pdf](http://www.journalofnursingregulation.com/article/S2155-8256(15)30783-3/pdf)

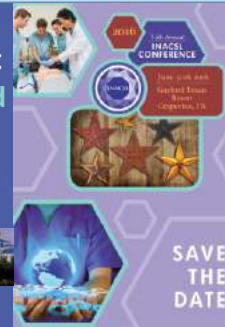
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## INACSL 2016

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## Questions?



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## Debriefing References

- INACSL Standards of Best Practice: Simulation<sup>SM</sup> The Debriefing Process  
<http://www.nursingsimulation.org/article/51876-1399%2813%2900079-0/pdf>
- Eppich, W. & Cheng, A. (2015). Promoting Excellence and Reflective Learning in Simulation (PEARLS): Development and rationale for a blended approach to health care simulation debriefing. *Simulation in Healthcare*, 10, 106-115.
- Draifuerst, K. T. (2015, May). Getting started with debriefing for meaningful learning. *Clinical Simulation in Nursing*, 11(5), 268-275. <http://dx.doi.org/10.1016/j.ecns.2015.01.005>.
- Rudolph, J. W., Simon, R. Dufresne, R. L. and Raemer, D. B. (2006). There's no such thing as "nonjudgmental" debriefing: A theory and method of debriefing with good judgment. *Simulation in Healthcare*, 1(1), 49-55.

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## Graduate References

- AACN White Paper  
– [www.aacn.nche.edu/aacn-publications/white-papers/APRN-Clinical-Education.pdf](http://www.aacn.nche.edu/aacn-publications/white-papers/APRN-Clinical-Education.pdf)
- NONPF Core Competencies  
– <http://c.ymcdn.com/sites/www.nonpf.org/resource/resmgr/competencies/npcorecompetenciesfinal2012.pdf>  
– <http://c.ymcdn.com/sites/nonpf.site-ym.com/resource/resmgr/Competencies/NPCoreCompsContentFinalNov20.pdf>

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- Hunt, C. W., Curtis, A., & Gore, T. (2015). Using simulation to promote professional development of clinical instructors. *Journal of Nursing Education*, 54(8), 468-471. DOI: 10.3928/01484834-20150717-09
- Karen S. Kesten, K. S., Brown, H. F., & Meeker, M. C. (2015) Assessment of APRN Student Competency Using Simulation: A Pilot Study. *Nursing Education Perspectives*: September 2015, Vol. 36, No. 5, pp. 332-334. doi: <http://dx.doi.org/10.5480/15-1649>

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## APRN Sim Reference

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- Shellenbarger, T., & Edwards, T. (2012, July/August). Nurse educator simulation: preparing faculty for clinical nurse educator roles. *Clinical Simulation in Nursing*, 8(6), 249-255. doi:10.1016/j.ecns.2010.12.006.

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