Standards of Best Practice: Simulation Standard VIII: Simulation-Enhanced Interprofessional Education (Sim-IPE)

Sharon I. Decker, PhD, RN, ANEF, FAAN\textsuperscript{a,b}, Mindi Anderson, PhD, RN, CPNP-PC, CNE, CHSE-A, ANEF\textsuperscript{c}, Teri Boese, MSN, RN\textsuperscript{d}, Chad Epps, MD\textsuperscript{e}, Jennifer McCarthy, MAS, NRP, MICP\textsuperscript{f}, Ivette Motola, MD, MPH, FACEP, FAAEM\textsuperscript{g,h}, Janice Palaganas, PhD, RN, NP, CEN\textsuperscript{i}, Carolyn Perry, MS, CCC-SLP\textsuperscript{j}, Frank Puga, PhD\textsuperscript{k}, Kelly Scolaro, PharmD\textsuperscript{l}

\textsuperscript{a}School of Nursing, Texas Tech University Health Sciences Center, Lubbock, TX 79430, USA
\textsuperscript{b}The F. Marie Hall SimLife Center, Texas Tech University Health Sciences Center, Lubbock, TX 79430, USA
\textsuperscript{c}University of Texas at Arlington, Arlington, TX 76019, USA
\textsuperscript{d}Center for Simulation Innovation, University of Texas Health Science Center at San Antonio, San Antonio, TX 78249, USA
\textsuperscript{e}School of Health Professions, The University of Alabama at Birmingham, Birmingham, AL 35233, USA
\textsuperscript{f}Paramedic Science Department Bergen Community College
\textsuperscript{g}Division of Prehospital and Emergency Healthcare, University of Miami Miller School of Medicine, Miami, FL 33124, USA
\textsuperscript{h}Division of Emergency Medicine, University of Miami Miller School of Medicine, Miami, FL 33124, USA
\textsuperscript{i}Institute for Medical Simulation and Principal Faculty, Center for Medical Simulation, Harvard Medical School, Boston, MA 02129-2011, USA
\textsuperscript{j}Department of Speech-Language and Hearing Sciences, Texas Tech University Health Sciences Center, Lubbock, TX 79430, USA
\textsuperscript{k}The University of Texas Health Science Center at San Antonio, San Antonio, TX 78249, USA
\textsuperscript{l}Pharmaceutical Care Labs, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7355, USA

**KEYWORDS**
- health care simulation
- interprofessional collaboration
- interprofessional education
- interprofessional teamwork
- simulation-enhanced

**Abstract:** The complex health care needs of today’s society require health care professionals to work as a collaborative team. Safe, quality health care depends on the ability of the health care team to cooperate, communicate, and share skills and knowledge appropriately. Interprofessional education provides a collaborative approach for the development and mastery of these competencies. Simulation-based experiential learning is recognized as an effective way to promote interprofessional education teamwork.

**Standard Statement**

Simulation-enhanced interprofessional education (Sim-IPE) occurs when participants and facilitators from two or more professions are engaged in a simulated 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).

**Rationale**

Interprofessional education (IPE) has been identified by accreditation agencies and professional organizations as essential to achieving safe, quality patient-centered care. Simulation-enhanced interprofessional education (Sim-IPE) is the overlap of the pedagogy of simulation and IPE. Sim-IPE empowers individuals to collaborate as a team in a controlled environment that replicates the health care setting. Participation in Sim-IPE has demonstrated improvement in the acquisition of knowledge, skills, attitudes, and behaviors of teamwork required to promote safe, quality patient care.

**Outcome(s)**

Outcomes of Sim-IPE have been studied using both quantitative and qualitative methods. Participants report perceived improvement in

1. knowledge, skills, attitudes, and behaviors related to teamwork
2. appreciation of other professionals, their patient care roles, and skills
3. awareness regarding the effective use of resources
4. communication and collaboration
5. self-confidence as it relates to teamwork
6. clinical reasoning
7. shared mental model, and
8. understanding the importance of patient safety initiatives

Improvement has been observed and measured using reliable evaluation tools in

1. understanding professional health care roles
2. identifying effective team performance supporting the best interest of patients and families
3. improving team communications
4. increasing awareness and acknowledgement of patients’ needs and conditions
5. improving patient outcomes and experiences

**Criteria**

To achieve optimal outcomes, Sim-IPE should

1. be based on theory,
2. follow best practices in simulation-based and interprofessional education,
3. address institutional and local issues institutional and/or community needs or goals,
4. include an evaluation plan. For specific information, see INACSL Standard of Best Practice: Standard VII: Simulation Design.

**Guidelines**

**Criterion 1: Simulation-Enhanced Interprofessional Education Should be Based on Theory**

Guideline: Interprofessional learning is dependent on opportunities for learners to learn with, from, and about each other. Sim-IPE, therefore, should create these opportunities in a simulated environment. Creating these rich learning opportunities can be difficult given the many natural variables present in simulation education (e.g., simulation, simulator, simulation program, curriculum, participants, and educators) that may impact learning. As a way to achieve the highest interprofessional learning that can best withstand these variables, educators should use published theories (educational, organizational, and/or management), frameworks, standards, and competencies to guide the development and implementation of Sim-IPE.
Educators developing Sim-IPE should

- consider adult learning theories, frameworks, standards, and competencies to structure the development of Sim-IPE,
- explore teamwork or crisis resource management framework(s) used within their institution and consider adopting for consistency,
- intentionally design Sim-IPE using published theoretical models, frameworks, and/or competencies,
- conduct curricular mapping to identify potential and/or appropriate integration of Sim-IPE,
- explore the theoretical and philosophical models of each health care profession involved in the Sim-IPE.

Criterion 2: Follow Best Practices in Simulation-Based and Interprofessional Education

Guideline: Strategies from simulation-based education and IPE should be integrated into all aspects of the experience. Additionally, strategies from human factors research and team performance are essential to effective communication and collaboration in Sim-IPE.

Best practices for Sim-IPE should

- include multiple experiences integrated throughout curricula,
- incorporate authentic, complex, challenging, reality-based activities/scenarios,
- center activities on safe, timely, effective, efficient, and equitable quality patient care,
- share goals among the professions involved in the experience,
- base activities on participants’ knowledge, skills, needs, and experiences,
- ensure a safe learning environment.
- provide appropriate, team-based structured debriefing and feedback (for specific information, see INACSL Standard of Best Practice: Standard VI: The Debriefing Process),
- promote collaborative, interprofessional teamwork and effective communication.

Criterion 3: Address Institutional and Local Issues

Guideline: To successfully achieve Sim-IPE and have a sustained program, institutional and local issues should be addressed during the development, planning, and evaluation processes. Potential issues/barriers that should be considered include

- a needs assessment to determine if the institution is ready for Sim-IPE,
- an assessment of the institutional and leadership commitment to Sim-IPE,
- a review of the institutional financial support and resources because Sim-IPE can be costly,
- a critique of the available resources to include simulation space, equipment, supplies, and support staff/personnel,
- the resources to provide initial and ongoing faculty development,
- the infrastructure for Sim-IPE, including curricular underpinnings and development of curricula,
- the support for educators to participate in designing, conducting, and debriefing simulation-based activities,
- the plan for sustainment after the initial start-up.

Criterion 4: Include an Evaluation Plan

Guideline: An evaluation plan should be considered when designing a Sim-IPE activity to measure the outcome(s) of the experience and contribute to the body of science specific to simulation-enhanced IPE (Palaganas et al., 2014; Seymour et al., 2013).

Simulation and IPE are both linked to patient safety, but little evidence is available to validate the outcomes of this linkage (simulation-enhanced IPE) and most of the available tools currently lack psychometric development. Research using valid and reliable measures is needed to determine the different aspects and effectiveness of Sim-IPE to include changes in attitudes and approaches to practice and determine if participation in Sim-IPE improves patient outcomes.

To support the advancement of simulation-enhanced IPE, evaluation plans should consider

- using reliable and valid tools if available,
- investigating how Sim-IPE can be effectively integrated into curricula,
- exploring how Sim-IPE can be used to develop and assess interprofessional competencies,
- measuring how participation in Sim-IPE improves learner and patient outcomes,
- measuring how Sim-IPE assists in changing culture.

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Directly Quoted References


Supporting References


