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Healthcare Simulation Standards of Best Practice™ Simulation-Enhanced Interprofessional Education

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As the science of simulation continues to evolve, so does the need for additions and revisions to the Healthcare Simulation Standards of Best Practice. Therefore, the Healthcare Simulation Standards of Best Practice™ are living documents.

Standard

Simulation-enhanced interprofessional education (Sim-IPE) enables learners from different healthcare professions to engage in a simulation-based experience to achieve linked or shared objectives and outcomes.[1]

Background

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. Sim-IPE is the overlap of the pedagogy of simulation and interprofessional education (IPE), providing a collaborative approach for the development and mastery of interprofessional practice competencies.[2,3,4] Overwhelming support and recognition of the need to cultivate interprofessional education and to develop interprofessional collaborative practice has grown substantially.[4] Simulation-based experiences remain recognized as an effective way to promote IPE teamwork.

Sim-IPE is designed for individuals to ''learn about, from, and with each other to enable effective collaboration and improve health outcomes'' (p.31) therefore, creating opportunities for purposeful learning.[2] Creating these rich learning opportunities can be difficult given the many natural variables present in simulation education (e.g., simulation, simulator, simulation program, curriculum, schedules, learners, and educators) that may impact learning. As a way to achieve the highest interprofessional learning that can best withstand these variables, educators should

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use published theories (educational, organizational, and/or management), concepts, frameworks, standards, and competencies to guide the development implementation and evaluation of Sim-IPE.[5,6,7]

Strategies from simulation-based education and IPE should be integrated into all aspects of the experience. Additionally, research incorporating strategies from human factors and team performance are essential for gaining insight into effective communication and collaboration in Sim-IPE.[4,8,9,10] An evaluation plan should be considered when designing a Sim-IPE activity to measure the outcome(s) of the methodology, experience, and learning outcomes to contribute to the body of science specific to Sim- IPE.[3,11] Research and evidence-based quality improvement projects utilizing valid and reliable measures designed to link Simulation and IPE to quality care and patient safety has markedly increased.[7,12,13,14] Research focused on exploring the effectiveness of Sim-IPE to include changes in attitudes, changes in clinical practice behaviors, and changes in patient care outcomes continues to emerge in the literature.[15,7,16] However, educators and researchers from all professions are encouraged to disseminate outcomes from Sim-IPE experiences to demonstrate the impact of IPE on interprofessional practice and patient care.[17,18] Guidelines for this standard are provided that apply to interprofessional learning opportunities which promote professional trust and respect, role clarity, and effective collaborative relationships[4,19].

Criteria Necessary to Meet This Standard:

1 Conduct Sim-IPE based on a theoretical or a conceptual framework.
2 Utilize best practices in the design and development of Sim-IPE.
3 Recognize and address potential barriers to Sim-IPE.
4 Devise an appropriate evaluation plan for Sim-IPE.

Criterion 1: Conduct Sim-IPE based on a theoretical or a conceptual framework.[5,6,7]

Required Elements:

- Include adult learning theories, frameworks, standards, and competencies to structure the development of Sim-IPE.
  - Explore teamwork or crisis resource management framework(s) with consideration to adopt for consistency.
  - Intentionally design Sim-IPE using published theoretical models, frameworks, and/or competencies (e.g., nationally accepted core competencies, certifying and accrediting bodies, professional societies).
  - Current theories or frameworks to consider are: Kolb's Adult Learning Theory[7,13,20]; Team-Based Learning[21,22]; Team Reflexivity[23]; Situated Cognition[24,15]; and The NLN Jeffries Simulation Theory[25].
- Conduct curricular mapping to identify potential and/or appropriate integration of Sim-IPE.
- Integrate the theoretical and philosophical models of each health care profession involved in the Sim-IPE.

Criterion 2: Utilize best practices in the design and development of Sim-IPE. (Follow the Healthcare Simulation Standards of Best Practice (HSSOBP™) Design and Prebriefing).

Required Elements:

- Best practices for Sim-IPE should:
  - Develop the design in consultation with experts and representatives of the targeted interprofessional learners.
  - Consider multiple experiences to achieve expected outcomes.
  - Incorporate authentic, challenging, reality-based activities/scenarios developed and reviewed by the professions involved in the simulation.
  - Develop mutual goals among the professions involved in the experience.
  - Base activities on learning objectives, learners' knowledge, skills, needs, and experiences.
  - Ensure a safe learning environment.
  - Provide appropriate team-based structured prebriefing, debriefing, and feedback as appropriate for the goal of the simulation[9,13,26].
    - One curricular example to consider is: TeamSTEPPS®, an evidence-based set of teamwork tools, aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals[26].
    - Conduct a prebriefing with learners when sensitive topics occur in or as a part of the scenario (such suicide or delivering difficult news).
    - Have adequate resources for learners in need of support after participating in a scenario inclusive of sensitive topics.

Criterion 3: Recognize and address potential barriers to Sim-IPE. (Follow the HSSOBP™ Prebriefing: Preparation and Briefing, Simulation Design, The Debriefing Process, and Professional Development for more information).

Required Elements:

- Perform a needs assessment to determine if the organization or program is ready for Sim-IPE and that stakeholders will be able to benefit.[27]
  - Determine if the simulation-based experience meaningfully involves all learners.[28]
  - Ensure current and future practice relevance.[24]
- Determine institutional and leadership commitment to Sim-IPE through supporting dedicated time for training

facilitators and simulationists and for participating in simulation as a part of role/job responsibilities.[2,5,11]
- Utilize Sim-IPE champions and stakeholders throughout the development, planning, and implementation processes.[28]
- Review and ensure adequate resources including financial support, simulation space, equipment, supplies, time, support for staff/simulationists, and a budget plan to ensure sustainability, as Sim-IPE can be resource intensive.[5,25,29]
- Provide formal education and training to effectively utilize Sim-IPE.[30,31]
  - Provide simulationists and/or facilitators with professional development on simulation and simulation-based experiences (pre-briefing, scenario, and debriefing).
  - Provide professional development for simulation roles such as embedded simulation participants.
- Design the simulation to meet the needs of a diverse learner population.[32,33]
  - Develop the learning objectives based on the level of the learners.
  - Consider scheduling constraints and discordant curricula across disciplines.
  - Increase collaboration between colleges and between universities.
- Prepare learners to meaningfully participate in an interprofessional focused simulation.[10,28,33,34]
  - Provide formal education and training so that learners can demonstrate knowledge and skills.
  - Align simulation complexity and taxonomy with progress in program and training.
- Opportunity to reflect on the simulation experience.[7,35]
  - Ensure a structured debriefing is led by trained IPE simulationists.
  - Reflect on learners' decisions, actions, and frames in addition to facts to promote a culture of behavior change.
- Consider that additional barriers to Sim-IPE may occur in some countries.[4]

Criterion 4: Include an appropriate evaluation plan. (Follow the HSSOBP™ Evaluation of Learning and Performance).

Required Elements:

- Develop the evaluation in consultation with experts and representatives of the targeted interprofessional learners (i.e., faculty educators, statisticians, researchers, or psychometricians).[36]
- Incorporate data collection instruments which demonstrate reliability and validity across the professions.
  - Current or emerging instruments to consider are: Health Professional Collaboration Scale[32,37]; Interprofessional Collaborative Competency Attainment Survey[38]; Inter-Professional Activity Classification Tool[39]; Interprofessional Socialization and Valuing Scale[40]; KidSim Team Performance Scale[12]; Readiness for Interprofessional Learning Scale (RIPLS; Revised)[18,22,41]; Student Perceptions of Interprofessional Clinical-Education Revised Instrument[42]; TeamSTEPPS Teamwork, Attitude Q[12]; Team Readiness Assurance Test/Individual Readiness Assurance Test[22]; Interprofessional Collaborator Assessment[43]
- Investigate effectiveness of Sim-IPE after integrated into various curricula or healthcare institutions (pre and post licensure).[44]
- Measure impact of Sim-IPE on individual and team behavior.[44]
- Explore use of Sim-IPE to develop and assess interprofessional competencies.[32,42,45]
- Measure impact of Sim-IPE on learner's understanding of interprofessional teams, to include role clarity, effective communication, mutual respect, and shared values.[4,23,32]
- Measure impact of Sim-IPE on culture change and leads to change in team culture.[23]
- Explore Sim-IPE on achieving sustained learning that impacts patient outcomes.[46]

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About the International Nursing Association for Clinical Simulation and Learning (INACSL)

The International Nursing Association for Clinical Simulation and Learning (INACSL) is the global leader in transforming practice to improve patient safety through excellence in health care simulation. INACSL is a community of practice for simulation where members can network with simulation leaders, educators, researchers, and industry partners. INACSL also provided the original living documents INACSL Standards of Best Practice: Simulation℠, an evidence-based framework to guide simulation design, implementation, debriefing, evaluation, and research. The Healthcare Simulation Standards of Best Practice™ are provided with the support and input of the international community and sponsored by INACSL.