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Standards of Best Practice: Simulation

Standards

Standards reflect best practices in health care disciplines and health science education.

Standards—Policies that provide the foundation of decisions and actions defined by shared values, beliefs, and principles. INACSL standards for simulation include Rationale, Outcome, Criteria and Guidelines.

Rationale—Justification for the development of a standard.

Outcome—Intended result(s) of adhering to the standard.

Criteria—Factors such as attributes, characteristics, and/or parameters necessary to meet the outcome(s) of the standard.

Guidelines—Procedures or principles that are not mandatory but are used to assist in meeting standards. Guidelines are not necessarily comprehensive; they provide a framework for developing policies and procedures.

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Editorial

Introduction—Standard Revisions

Jimmie C. Borum, MS, RN, CNS

Looking back……

I clearly remember the day in August 2011, when I received the supplement to *Clinical Simulation in Nursing* containing the *Standards of Best Practice: Simulation.* To me, this was a monumental achievement that should have been trumpeted by all major news outlets. The International Nursing Association for Clinical Simulation and Learning (INACSL) had accomplished a major feat, especially considering that INACSL was less than 10 years old, and had an initial membership of only 41. Publication of the *Standards of Best Practice: Simulation* represented the dedicated work of many individuals. I encourage you to return to the supplement and review the names of those whose dedication made this possible. We must all acknowledge Kim Leighton, INACSL President at that time, whose vision and leadership guided the INACSL Board of Directors (BOD) through the initial phases of the standards development. We must recognize the work of Jana F. Faragher, who graciously served as the first Chair of the Standards Committee and also original Standards Committee members Teri Boese, Sharon Decker, and Carol Sando who refined the BOD's work into the first evidence-based standards on simulation in the nation.

We have reached another milestone in INACSL's history, with this publication of the first revisions to the seven standards and the addition of supporting guidelines for each standard. Although, it is unlikely that INACSL will make the national news, we know that its standards have been an amazing success. The INACSL Standards have been adopted by simulation centers both nationally and internationally. They are frequently cited in simulation literature, and are used in developing research projects. Remember those 41members I spoke of earlier? INACSL has grown from 41 members to 1500. The reason for this phenomenal growth is not due to the development of standards alone. The standards are just an example of INACSL leadership's dedication to meeting the needs of its membership, and INACSL members' willingness to volunteer their time and energy to worthwhile projects.

To proceed with the work of standard revisions and development, the Standards Committee needed to grow. The original Standards Committee members agreed to continue serving, and in January 2012 four members were added: Ashley Franklin, Donna Gloe, Lori Lioce, and Colleen Meakim. Each committee member assumed the responsibility for one standard, and then organized subcommittees to assist with the project. Many of the subcommittee members had previously served as subject matter experts for the original standards. To help with content expertise, the Standards Committee organized a 19 member Standards Advisory Board composed of experts in simulation and leaders in like-minded organization(s). The Standards Advisory Board provides feedback and input to the Standards Committee.

Most of the Standards Committee work is accomplished during conference call meetings, with subcommittees working diligently on reviewing literature and synthesizing evidence. The Standards Committee itself also had frequent conference call meetings and three face-to- face meetings during the 15-month process of standard review and guideline development. This edition of *Clinical Simulation in Nursing* represents the culmination of all of this hard work.

Looking forward……..

The Standards Committee, with input from membership and the INACSL Board of Directors, has identified additional standards that are needed. Literature review has begun for developing standards related to Simulation Design, Interprofessional Simulations, and Simulation Research. The anticipated publication date for these additional standards is 2015.

I feel extremely fortunate to have been a part of the standards process and have appreciated the opportunity to work with such dedicated committee members.

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Editorial

President's Message

Dear INACSL Colleagues

It is my distinct honor to introduce the ''INACSL Standards and Guidelines for Practice: Simulation'' for 2013. This esteemed document is the result of the excellent project management skills of our Standards committee along with input from the expert Standards advisory board and the INACSL board of directors. After the initial release of the Standards in 2011, the INACSL board made a commitment to continuous quality improvement and appointed a Standards committee chairperson, Professor Jimmie Borum, to direct the process for timely updates and revisions of the Standards of Best Practice: Simulation. The board members had the vision and wisdom to recognize that the discipline of simulation would change shape as new research findings emerged. These new findings would definitely impact the scope of the Standards and, therefore, would necessitate revisions. In addition, the board also recognized the need for guidelines to accompany each Standard of Best Practice. The Standards committee was charged with developing a clear set of guidelines to be used when implementing the Standards.

Since the release of the first set of Standards, many health care and academic institutions have adopted the INACSL Standards as a core foundation to be used when implementing simulation-based educational modalities. They have been cited in hundreds of publications and presented to simulation educators both nationally and internationally. The use of the Standards in research and funding proposals demonstrates the use of the most current evidence when designing and implementing simulation experiences. The Standards have provided the foundation for new simulation programs and have clarified the direction for more advanced programs. Although we are celebrating the momentous achievement of publishing the revised Standards and guidelines, the INACSL board of directors recognizes that the work continues, and our Standards committee will continue to work diligently to collect and collate the most current evidence related to the use of simulation for education, training, and evaluation. As new information arises, the committee will share these findings with the Standards advisory board and INACSL board of directors in order to shape the direction for the future. And, as always, we welcome our INACSL members' input during each step in this journey.

In conclusion, I would like to personally thank Jimmie Borum and the members of the Standards committee for the development and distribution of this new document. I would also like to thank the members of the Standards advisory and the INACSL board of directors for their ongoing expertise and support of these monumental initiatives. INACSL is truly appreciative of CAE Healthcare and Elsevier Simulations for generously sponsoring the publication of the Standards and Guidelines. Finally, our thanks go to our INACSL membership, who supported this effort and allowed INACSL to become a leader in simulation standards development. We listened to the expert guidance provided by our members, and now the simulation community is reaping the benefits!!

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Featured Article

Standards of Best Practice: Simulation Standard I: Terminology

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Statement

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.

Rationale

Standardized terminology enhances understanding and communication among planners, participants, and others involved in simulation-based experiences. Terminology is

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descriptive and consistent in a variety of settings, written documents, and publications.

Outcome

Standardized terminology promotes consistency and understanding in education, practice, research, and publication. Standardized terminology also promotes consistency of experiences regardless of the simulation environment.

Criteria

To promote consistent understanding by explicating the terms used in the Standards of Best Practice: Simulation.

Terms

Affective

Refers to a domain of learning that involves attitudes, beliefs, values, feelings, and emotions. Classification of this domain of learning is hierarchal where learning occurs along a continuum of stages related to internal personal and professional growth. In the Quality and Safety Education for Nurses (QSEN) model, this domain of learning is referred to as "attitudes" (QSEN Institute, 2013; Scheckel, 2012).

Andragogy

Expands on pedagogy and refers to active, learner-focused education for people of all ages. It is based on learning principles that involve problem solving that is relevant to the learner's everyday experiences.

Assessment

Refers to processes that provide information about or feedback about individual participants, groups, or programs. Specifically, assessment refers to observations of progress related to knowledge, skills, and attitudes. Findings of assessment are used to improve future outcomes (Scheckel, 2012).

Clinical

Pertaining to or founded on actual or simulated assessment and care of individuals, families, or groups in health care settings, as distinguished from theoretical. Learning in actual or simulated clinical environment(s) permits opportunities for application of knowledge, skills, and attitudes.

Clinical Judgment

The art of making a series of decisions to determine whether to take action based on various types of knowledge. The individual recognizes changes and salient aspects in a clinical situation, interprets their meaning, responds appropriately, and reflects on the effectiveness of the intervention. Clinical judgment is influenced by the individual's previous experiences, problem-solving, critical-thinking, and clinical-reasoning abilities (del Bueno, 1994; Dillard, Sideras, Carlton, Lasater, & Siktberg, 2009; Jackson, Ignatavicius, & Case, 2004; Lasater, 2007; Tanner, 2006). See Figure 1.

Clinical Reasoning

The ability to gather and comprehend data while recalling knowledge, skills (technical and nontechnical), and attitudes about a situation as it unfolds. After analysis, information is put together into a meaningful whole when applying the information to new situations (Alfaro-LeFever, 1995; Benner, Sutphen, Leonard, & Day, 2010; Tanner, 2006). See Figure 1.

Clinical Scenario

The plan of an expected and potential course of events for a simulated clinical experience. The clinical scenario provides the context for the simulation and can vary in length and complexity, depending on the objectives. The clinical scenario design includes:

- Participant preparation.
- Prebriefing (Briefing): review of objectives, instructions prior to implementation of scenario, questions, or other resources used in the scenario.
- Patient information describing the situation to be managed.
- Participant objectives.

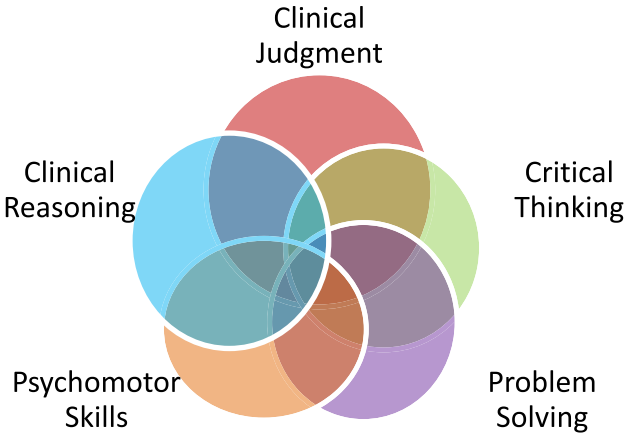

Figure 1 Nursing skill development and clinical judgment model. ©. This model, developed by the International Nursing Association for Clinical Simulation and Learning, reflects the complexity of skill development necessary to progress from more basic skills to the higher-level clinical judgment and reasoning ability used in decision making for safe, effective nursing practice. All levels of development are interrelated, therefore, they interact and affect one another.

- Environmental conditions, including manikin, setting, or standardized patient preparation.
- Related equipment, props, and tools or resources for assessing and managing the simulated experience to increase the realism.
- Roles, expectations, or limitations of each role to be played by participants.
- A progression outline including a beginning and an ending.
- Debriefing.
- Evaluation criteria (Alinier, 2010; Aschenbrenner, Milgrom & Settles, 2012; Jeffries, P. R., & Rogers, K. J. (2012): Waxman, 2010).

Coaching

A method of directing or instructing a person or group of people in order to achieve a goal or goals, develop a specific skill or skills, or develop a competency or competencies.

Cognitive

Refers to a domain of learning that includes knowledge, comprehension, application, analysis, synthesis, and evaluation. The goal of learning in this domain is to help participants progress to higher levels of learning so they are able to make judgments about the subject at hand. In the QSEN project, this domain of learning was referred to as ''knowledge'' (QSEN Institute, 2013; Scheckel, 2012).

Competence

Standardized requirement for an individual to properly perform a specific role. It encompasses a combination of discrete and measureable knowledge, skills, and attitudes that are essential for patient safety and quality patient care.

Concept Mapping

A teaching strategy or method of visualizing relationships among various concepts. It includes a branching, hierarchical diagram of concepts showing how they are connected using arrows and labels to identify interrelationships. In simulation-based learning experiences, concept mapping can be used in preparation to help participants organize patient data, see relationships, and understand the clinical presentation of the patient or during debriefing (Rowles, 2012).

Confederate

A term sometimes used to describe an embedded participant (see also Embedded Participant).

Confidence

Belief in oneself and one's abilities.

Constructivism

Philosophical theory of learning that views knowledge as something that individuals construct for themselves through their interaction with their environment. In constructivism, learning is a process of discovery whereby the learner seeks to understand issues, which guide the discovery process that is personally relevant. Learning is contextual and occurs when situated in a realistic setting. Simulation is based on constructivist theories (Lekalakala-Mokgele & du Rand, 2005).

Critical Thinking

A disciplined process that requires validation of data, including any assumptions that may influence thoughts and actions, and then careful reflection on the entire process while evaluating the effectiveness of what has been determined as the necessary action(s) to take. This process entails purposeful, goal-directed thinking and is based on scientific principles and methods (evidence) rather than assumptions or conjecture (Alfaro-LeFever, 1995; Benner, 2004; Jackson et al., 2004). See Figure 1.

Cueing

Information provided that helps the participant progress through the clinical scenario to achieve stated objectives (NLN-SIRC, 2013).

Debriefing

An activity that follows a simulation experience and is led by a facilitator. Participants' reflective thinking is encouraged, and feedback is provided regarding the participants' performance while various aspects of the completed simulation are discussed. Participants are encouraged to explore emotions and question, reflect, and provide feedback to one another. The purpose of debriefing is to move toward assimilation and accommodation to transfer learning to future situations (Johnson-Russell & Bailey, 2010; NLN-SIRC, 2013).

Decision-Making Abilities

An outcome of mental processes (cognitive process) leading to the selection of a course of action from among several alternatives.

Domains of Learning

''...three separate, yet interdependent components of learning outcomes achievable by human learners. These domains-cognitive, affective, and psychomotor-represent various categories and levels of learning complexity and are commonly referred to as educational taxonomies'' (Menix, 1996, p. 200), See Table 1.

Table 1 Comparison of Bloom's Original (1956) and Bloom's Revised (2001) Taxonomies with QSEN KSAs (Knowledge, Skills, and Attitudes)

Domains of Learning	Knowledge Dimension	QSEN Competencies
Original Bloom's Taxonomy (1956)	*Revised Bloom's Taxonomy (2001)*	*The Quality and Safety Education for Nurses (QSEN) Project 2005-2012*
Cognitive	Factual knowledge Conceptual knowledge	Knowledge
Psychomotor	Procedural knowledge	Skills
Affective	Metacognitive knowledge	Attitudes

(Anderson & Krathwohl, 2011; Bloom, 1956; Cronenwett et al., 2007)

Embedded Participant (also known as Scenario Guide, Scenario Role Player, or Confederate)

A role assigned in a simulation encounter to help guide the scenario. The guidance may be influential as positive, negative, or neutral or as a distracter, depending on the objective(s), the level of the participants, and the scenario. Although the embedded participant's role is part of the situation, the underlying purpose of the role may not be revealed to the participants in the scenario or simulation.

Environmental Fidelity

Refers to the degree to which the simulated environment (manikin, room, tools, equipment, moulage, and sensory props) approximates reality (Dieckmann, Gaba, & Rall, 2007).

Evaluation

A broad term for appraising data or placing a value on data gathered through one or more measurements. It involves rendering a judgment including strengths and weaknesses. Evaluation measures quality and productivity against a standard of performance (Bourke & Ihrke, 2012).

Facilitation

A method and strategy that occurs throughout (before, during, and after) simulation-based learning experiences in which a person helps to bring about an outcome(s) by providing unobtrusive guidance (Lekalakala-Mokgele & du Rand, 2005).

Facilitator

An individual who provides guidance, support, and structure during simulation-based learning experiences.

Feedback

Information given or dialogue between participants, facilitator, simulator, or peer with the intention of improving the understanding of concepts or aspects of performance (Van de Ridder, Stokking, McGaghie, & ten Cate, 2008).

Formative Assessment

Assessment wherein the facilitator's focus is on the participant's progress toward goal attainment; a process for an individual or group engaged in a simulation activity for the purpose of providing constructive feedback for that individual or group to improve (Bourke & Ihrke, 2012; NLN-SIRC, 2013).

Formative Feedback

Information communicated to participants with the intent of modifying thinking or behavior to improve learning and future performance. It is provided in response to participation in a simulation-based learning activity. The feedback should be supportive, timely and specific (Shute, 2008).

Fidelity (also known as Realism/Authenticity)

Believability, or the degree to which a simulated experience approaches reality; as fidelity increases, realism increases. The level of fidelity is determined by the environment, the tools and resources used, and many factors associated with the participants. Fidelity can involve a variety of dimensions, including (a) physical factors such as environment, equipment, and related tools; (b) psychological factors such as emotions, beliefs, and self-awareness of participants; (c) social factors such as participant and instructor motivation and goals; (d) culture of the group; and (e) degree of openness and trust, as well as participants' modes of thinking (Dieckmann et al., 2007; NLN-SIRC, 2013).

Guided Reflection

Process used by the facilitator during debriefing that reinforces the critical aspects of the experience and encourages insightful learning, allowing the participant to assimilate theory, practice, and research in order to influence future actions (NLN-SIRC, 2013).

High Fidelity

"Experiences using full scale computerized patient simulators, virtual reality or standardized patients that are extremely realistic and provide a high level of interactivity and realism for the learner" (NLN-SIRC, 2013).

High-Stakes Evaluation

An evaluation process associated with a simulation activity that has a major academic, educational, or employment consequence (such as a grading decision, including pass or fail implications; a decision regarding competency, merit pay, promotion, or certification). High stakes refers to the outcome or consequences of the process.

Holistic Care

Care that involves viewing and treating a patient as a whole person. Holistic care involves support of the physical, mental, spiritual, emotional, social, and environmental needs of the person (Mariano, 2005).

Interprofessional

Two or more professionals collaborating as a team with a shared purpose, goal, and mutual respect to deliver safe, quality health care (Freeth, Hammick, Reeves, Koppel, & Barr, 2005; World Health Organization (WHO), 2010).

Interprofessional Education

"When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (Interprofessional Education and Collaborative Expert Panel, 2011, p. 2).

Knowledge

The awareness, understanding, and expertise an individual acquires through experience or education, See Table 1.

KSA

Acronym for the knowledge, skills, and attitudes necessary to continuously improve the quality and safety of the health care systems within which they work (Cronenwett et al., 2007).

Low Fidelity

"Experiences such as case studies, role-playing, using partial task trainers or static mannequins to immerse students or professionals in a clinical situation or practice of a specific skill" (NLN-SIRC, 2013).

Measurement

The process of quantifying a participant's abilities related to knowledge, skills, or attitudes in the achievement of objectives.

Moderate or Midlevel Fidelity

"Experiences that are more technologically sophisticated such as computer-based self-directed learning systems simulations in which the participant relies on a two-dimensional focused experience to problem solve, perform a skill and make decisions or the use of mannequins more realistic than static low fidelity ones having breath sounds, heart sounds and/or pulses" (NLN-SIRC, 2013).

Moulage

Techniques used to simulate injury, disease, aging, and other physical characteristics specific to a scenario. Moulage supports the sensory perceptions of participants and supports the fidelity of the simulation scenario through the use of makeup, attachable artifacts (e.g., penetrating objects), and smells (Mercia, 2011; Smith-Stoner, 2011).

Objective

Statement(s) of specific measurable results that participant(s) is expected to achieve during a simulation-based learning experience.

Outcome

Measurable results of the participants' progress toward meeting a set of objectives. Expected outcomes are the change in knowledge, skills, or attitudes as a result of the simulation experience.

Participant

One who engages in a simulation-based learning activity for the purpose of gaining or demonstrating mastery of knowledge, skills, and attitudes of professional practice.

Pedagogy

The art or science of instructional methods. The study of teaching methods, including goals of education and the ways those goals can be achieved.

Prebriefing (Briefing)

An information or orientation session held prior to the start of a simulation-based learning experience in which instructions or preparatory information is given to the participants. The purpose of the prebriefing or briefing is to set the stage for a scenario and assist participants in achieving scenario objectives. Suggested activities in a prebriefing or briefing include an orientation to the equipment, environment, mannequin, roles, time allotment, objectives, and patient situation.

Problem Solving

Refers to the process of selectively attending to information in the patient care setting, using existing knowledge and collecting pertinent data to formulate a solution. This

complex process requires different cognitive processes, including methods of reasoning and strategizing, in order to manage a situation (Uys, Van Rhyn, Gwele, McInerney, & Tanga, 2004).

Professional Integrity

A trait exhibited by one's ability to consistently and willingly practice within the guidelines of the code of ethics of a chosen profession.

Program or Process Evaluation

A systematic collection of information about the activities, characteristics, and outcomes of simulation-based learning activities to make judgments about the program, improve or further program effectiveness, increase understanding, and inform decisions about future programming (Horne & Sandmann, 2012).

Prompt

A cue given to a participant in a scenario.

Psychological Fidelity

The extent to which the simulated environment evokes the underlying psychological processes that are necessary in the real-world setting. The degree of perceived realism, including psychological factors such as emotions, beliefs, and self-awareness of participants in simulation scenarios (Dieckmann et al., 2007; Kozlowski & DeShon, 2004).

Psychological Safety

A feeling (explicit or implicit) where in a simulation-based learning activity, participants can speak up, share thoughts, perceptions, and opinions without risk of retribution or embarrassment (Edmondson, 1999; Holcombe, Ishimaru, Fowler, & Higgins, 2012).

Psychomotor

Refers to a domain of learning that involves skills related to professional practice including fine motor, manual, and gross motor skills. The skills involve the particular physical tasks required of that profession. In the QSEN project, this domain of learning is referred to as "skills" (Hodson-Carlton, 2012; QSEN Institute, 2013).

Psychomotor Skill

The ability to carry out physical movements efficiently and effectively, with speed and accuracy. Psychomotor skill is more than the ability to perform; it includes the ability to perform proficiently, smoothly, and consistently under varying conditions and within appropriate time limits (Hodson-Carlton, 2012). See Figure 1.

QSEN

The Quality and Safety Education for Nurses (QSEN) project began in 2005 and was funded by the Robert Wood Johnson Foundation (RWJF). The overall goal of QSEN has been to address the challenge of preparing future nurses with the knowledge, skills, and attitudes (KSA) necessary to continuously improve the quality and safety of the health care systems in which they work (QSEN, 2013), See Table 1.

Questioning

The strategic process of seeking information or knowledge, thoughts, feelings, and judgments before, during, and after a scenario.

Reflective Thinking

The engagement of self-monitoring that occurs during or after a simulation experience. Considered an essential component of experiential learning, it promotes the discovery of new knowledge with the intent of applying this knowledge to future situations. Reflective thinking is necessary for metacognitive skill acquisition and clinical judgment and has the potential to decrease the gap between theory and practice. Reflection requires the creativity and conscious self-evaluation to deal with unique patient situations (Decker, 2007, 2012; Dewey, 1933; Kolb, 1984; Kuiper & Pesut, 2004; Ruth-Sahd, 2003; Schon, 1983, 1987).

Reliability

The consistency of a measurement, or the degree to which an instrument measures in the same way each time it is used under the same conditions with the same participants. It is the repeatability of a measurement. A measurement is considered reliable if a person's scores on the same test given twice are similar. Reliability can be determined by a test–retest method or by testing for internal consistency.

Remediation

The act or process of correcting a performance gap.

Role

A responsibility or character assumed in a simulation-based learning activity.

Safe Learning Environment

The emotional climate that facilitators create by the interaction between facilitators and participants. In this positive emotional climate, participants feel at ease taking risks, making mistakes, or extending themselves beyond their comfort zone. Facilitators should be thoroughly aware of the psychological aspects of learning, aware of the effects of unintentional bias, aware of cultural differences, and attentive to their own state of mind in order to effectively create a safe environment for learning.

Safe Patient Care

Quality care provided by health care practitioners with a focus on the prevention of harm to patients.

Scenario

See Clinical Scenario.

Simulated-Based Learning Experience

An array of structured activities that represent actual or potential situations in education and practice and allow participants to develop or enhance knowledge, skills, and attitudes or analyze and respond to realistic situations in a simulated environment or through an unfolding case study (Pilcher, Goodall, Jensen, Huwe, Jewell, Reynolds, & Karlson, 2012).

Simulation

A pedagogy using one or more typologies to promote, improve, or validate a participant's progression from novice to expert (Benner, 1984; Decker, 2007).

Simulation Learning Environment

A physical location where a simulation-based learning experience takes place and where a safe atmosphere is created by the facilitator to foster sharing and discussion of participant experiences without negative consequences. The simulation learning environment should facilitate trust and foster learning and support the development of professional and interprofessional competency.

Simulation Testing Environment

An atmosphere that is created by the facilitator to allow for evaluation to occur. The simulation testing environment should provide a valid, reliable, equivalent experience for all participants to test knowledge, skills, and attitudes.

Skill Acquisition (Skill Attainment)

After instruction, the ability to integrate the knowledge, skills (technical and nontechnical), and attitudes necessary to provide safe patient care. The individual progresses through five stages of proficiency: novice, advanced beginner, competent, proficient, and expert (Benner, 1984; Benner, Tanner & Chesla, 1996).

Skill Development

The progress along a continuum of growth in knowledge, skills, and attitudes as a result of educational or other experiences.

Standardized Patient (or Simulated Patient)

A person trained to consistently portray a patient or other individual in a scripted scenario for the purposes of instruction, practice, or evaluation (Robinson-Smith, Bradley, & Meakim, 2009).

Summative Evaluation

Evaluation at the end of a time period, in which participants are provided with feedback about their achievement of outcome criteria; a process for determining the competence of a participant engaged in an activity. The assessment of achievement of outcome criteria may be associated with an assigned grade, demonstration of competency, merit pay, promotion, or certification (Kirkpatrick & DeWitt, 2012; NLN-SIRC, 2013).

Summative Feedback

Information provided by a facilitator regarding aspects of performance that are associated with the assignment of a grade, demonstration of competency, merit pay, promotion, or certification. It usually involves setting of expectations and standards; systematically gathering, analyzing, and interpreting evidence; and using resulting information to document, explain, or improve performance (Bourke & Ihrke, 2012).

Teacher

One who uses a system of directed and deliberate actions and activities for the purpose of inducing learning (Candela, 2012).

Typology

Classification of types. In simulation, it refers to the classification of different educational methods or equipment used to provide a simulated experience. For example, simulation methodologies may include written simulation

cases, three-dimensional models, computer software, standardized patients, partial task trainers, or high-fidelity patient simulators.

Validity

The degree to which a test or evaluation tool accurately measures the intended concept of interest.

Original INACSL Standard I Reference

International Nursing Association for Clinical Simulation and Learning (INASCL). Board of Directors. (2011, August). Standard I: Terminology. *Clinical Simulation in Nursing, 7*, s3−s7.

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Featured Article

Standards of Best Practice: Simulation Standard II: Professional Integrity of Participant(s)

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KEYWORDS
integrity;
participant;
confidentiality;
simulation;
learning

Abstract: It is important for participants to maintain professional integrity related to simulation. Mutual respect and professionalism enhance the simulation learning environment. Thus, lack of professionalism and mutual respect can negatively impact the willingness of the participants to fully participate. It is vital to keep information related to before, during and after the simulation confidential as sharing can bias performance, perception or group dynamics and interfere with simulation outcomes. Sharing of content may alter future learning experiences and decrease the psychological safety of the simulation environment.

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Statement

The simulation learning, assessment, and evaluation environments will be areas where mutual respect among participants

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and facilitator(s) is expected and supported. As such, 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.

Rationale

Failure of participants to maintain professional integrity related to simulation could undermine the benefits of the experience. Lack of participants' professionalism and mutual respect can alter the simulation environment and negatively affect the willingness of the participants to fully engage. Participants' sharing of confidential information of any kind before, during, or after the simulation experience can bias an individual's performance, perception of a safe learning environment, or group dynamics, thereby interfering with simulation outcomes.

- Sharing of content, events, and actions in the simulation with those who were not involved in the event may negatively alter future participants' learning experience(s).
- Sharing of events and individual performances occurring during the simulation experience with those not involved in the event may decrease participants' perception of the psychological safety of the simulation environment.

Outcome

This standard offers the opportunity for similar learning experiences to all participants. Upholding professional integrity promotes a safe learning environment where:

- Formative assessment and summative evaluation can occur.
- Simulation participants will consider their performance and the performance of others as confidential interactions.
- Violation of professional integrity may be viewed as either an honor code or ethical violation with associated consequences.

Criteria

To achieve the desired outcomes, the participant supports a safe learning environment by:

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

Guidelines

Criterion 1: Protecting the Content of the Scenario and the Simulation

Guideline: In order to preserve the integrity of simulation scenarios and provide an equitable experience for each participant, confidentiality is essential.

Guideline Statement: Confidentiality applies to all phases of the simulation-based experience, as well as the debriefing, any feedback provided, and all patient information made available to the participants. The content of the scenario and the simulation should be protected.

Communication to participants should include the following information:

- Protecting the content of the scenario and the simulation requires ensuring confidentiality.
- Violation of confidentiality will be considered a violation of professional ethical conduct.

Criterion 2: Demonstrating Professional and Ethical Behavior

Guideline: Participants are expected to demonstrate professional integrity.

Guideline Statement: Participants should:

- Provide honest and clear feedback in an effective, respectful manner.
- Recognize unprofessional and unethical behavior during simulation and take steps to abate it.
- Demonstrate mutual respect.

Criterion 3: Receiving and Providing Constructive Feedback

Guideline: Participants should receive and provide constructive feedback during simulation and debriefing.

Guideline Statement: Use of constructive feedback can positively influence the milieu of the simulation environment and enhance reflection.

Participants(s) should:

- Utilize clear, concise communication.
- Deliver feedback with mutual respect.

Original INACSL Standard II Reference

The INACSL Board of Directors. (2011, August). Standard II: Professional Integrity of Participant. *Clinical Simulation in Nursing, 7*, s8-s9. doi:10.1016/j.ecns.2011.05.006.

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Featured Article

Standards of Best Practice: Simulation Standard III: Participant Objectives

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KEYWORDS
objectives;
simulation;
learning;
outcomes;
critical thinking

Abstract: All simulation-based learning experiences begin with development of clearly written participant objectives, which are available prior to the experience. Participant objectives are the guiding tools for simulation. Objectives are essential to determine if the outcomes for simulation-based learning experience have been achieved. To meet participant objectives, identification of appropriate scenario, fidelity, and facilitation methods is crucial.

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Statement

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

Rationale

Participant objectives are the guiding tools for simulation. Objectives are essential to determine if the outcomes for simulation-based learning experience have been achieved. To meet participant objectives, identification of appropriate scenario, fidelity, and facilitation methods is crucial.

Outcome

Participant objectives promote learning and development of clinical judgment and reasoning with the goal of delivering high-quality and safe care.

Criteria

To achieve the desired outcomes, participant objectives should:

1. Address the domains of learning.
2. Correspond to the participant's knowledge level and experience.
3. Remain congruent with overall program outcomes.
4. Incorporate evidence-based practice.
5. Include viewing of client holistically.
6. Be achievable within an appropriate timeframe.

Guidelines

Criterion 1: Address the Domains of Learning

Guideline: Participant objectives should include the domains of learning.

Guideline Statement: Participants can achieve higher levels of learning, such as critical thinking and clinical judgment, when clear, concise, and realistic objectives are written to drive the simulation scenario. Objectives written using evidence-based concepts of cognitive, affective, and psychomotor domains challenge the participant to become competent and confident through experience and self-assessment.

Participant objectives should:

- Use Bloom's taxonomy to describe the type of knowledge gained by the participant during the simulation experience.
- Incorporate the learning domains of cognitive, affective, and psychomotor.
- Include a verb (cognitive process) and noun (knowledge) to guide effective learning (e.g., evaluate [verb] heart rate [noun]).
- Be clear, concise, and realistic to guide the participant toward clinical competence.
- Guide learning outcomes.

Criterion 2: Correspond to the Participant's Knowledge Level and Experience

Guideline: Objectives should be appropriate to the level of the participant.

Guideline Statement: Participant objectives should be tailored for clinical experience and knowledge level.

Participant objectives should:

- Be specific. Examples: *Novice*—perform and demonstrate understanding and the significance of a technical skill; *Advanced beginner*—recognize clinical signs as manifestations of a disease process and demonstrate clinical judgment and reasoning.
- Be challenging yet attainable.
- Include components of client care (i.e., therapeutic communication, cultural competence, or establishing priorities).
- Be designed to elicit clinical judgment and reasoning.

Criterion 3: Remain Congruent with Overall Program Outcomes

Guideline: Participant objectives should be congruent with overall program outcomes.

Guideline Statement: Participant objectives should facilitate the development of clinical reasoning to enhance high-quality and safe care. Objectives should be congruent with the institutional mission and educational framework.

Participant objectives should:

- Promote knowledge and application transference.
- Include skill performance and effective mastery to increase self-confidence.

Criterion 4: Incorporate Evidence-Based Practice

Guideline: Evidence-based practice should be incorporated into simulation scenario development, implementation, and debriefing through the use of appropriate participant objectives.

Guideline Statement: Evidence-based practice in the clinical setting incorporates the conscientious use of current best practice from high-quality research studies, clinician expertise, and patient values and preferences. Participant objectives may be used to integrate the best available evidence into practice.

Participant objectives should:

- Have a foundation of theoretically sound and clinically relevant content, based on the components of evidence-based practice.
- Components of evidence-based practice:
  i. External evidence from research.
  ii. Evidence-based theories.
  iii. Standards of best practice.
  iv. Opinion leaders.
  v. Experts.
  vi. Clinical expertise.
  vii. Patient values and preferences.
- Incorporate research related to best current clinical practice evidence for specific populations or clinical problems.
- Allow participants to demonstrate evidence-based interventions during simulation. For example:
  i. Formulate a clinical question.
  ii. Use evidence to make clinical decisions.
  iii. Incorporate patient values into decision making.
  iv. Provide rationales for interventions.
- Allow participants to implement evidence-based practice guidelines during the simulation experience. For example: The participant will demonstrate care of a patient in severe sepsis by implementing the sepsis clinical practice guideline.
- Promote continuous improvement in clinical practice.
- Promote reflection related to integration of evidence during the simulation experience.
- Include feedback related to integration of evidence during the simulation experience.

Criterion 5: Include Viewing of Client Holistically

Guideline: Participant objectives should incorporate holistic care.

Guideline Statement: Participant objectives should include holistic care and promote cultural competence when appropriate. Recognizing the interconnectedness of body, mind, spirit, and environment facilitates care of the whole person. The environment includes ''the totality of an event, situation, or particular experience that gives meaning to human expressions, interpretations, and social interactions in particular physical, ecologic, sociopolitical, and cultural settings'' (Leininger, 1991, p. 41).

When appropriate, participant objectives should include:

- Physical assessment and clinical skills.
- Therapeutic communication.
- Mental health assessment.
- Spiritual care.
- Cultural sensitivity and competence (i.e., cultural cues, artifacts, and use of a language interpreter).
- Reflection on holistic and culturally competent care during the debriefing to reinforce learning.

Criterion 6: Be Achievable within an Appropriate Timeframe

Guideline: Completion of participant objectives should be achievable within the designated timeframe (i.e., minutes to hours).

Guideline Statement: Participant objectives should be looked at individually and as a whole for effective achievement of outcomes within an appropriate timeframe.

Participant objectives should be:

- Piloted within the timeframe of the simulation-based learning experience.
- Refined as necessary.

Original INACSL Standard III Reference

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Featured Article

Standards of Best Practice: Simulation Standard IV: Facilitation

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KEYWORDS
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Abstract: 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. Facilitation methods should vary, keeping in mind that participants bring cultural and individual differences that affect their knowledge, skills, attitudes, and behaviors. Facilitation assists participants to meet the objectives by incorporating their needs and experience level into the planning and implementation of a simulation-based learning experience. Facilitators use feedback or debriefing to help participants meet the objectives and expected outcomes. Facilitation should be appropriate to the participants' level of learning and experience and be theoretically based using best practices.

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Statement

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.

Rationale

Facilitation methods should vary, keeping in mind that participants bring cultural and individual differences that affect their knowledge, skills, attitudes, and behaviors. Facilitation assists participants to meet the objectives by incorporating their needs and experience level into the planning and implementation of a simulation-based learning experience. Facilitators use feedback or debriefing to help participants meet the objectives and expected outcomes. Facilitation should be appropriate to the participants' level of learning and experience and be theoretically based using best practices.

Outcome

Facilitation engages participants within the simulation-based learning experience, thereby assisting them to meet the objectives of the simulation.

Criteria

Effective facilitation requires using methods congruent with:

1. Simulation-based learning experience objectives
2. Expected outcomes.

Guidelines

Criterion 1: Using Facilitation Methods Congruent With Simulation Objectives

Guideline: Identify facilitation methods that support simulation objectives.

Guideline Statement: Simulation objectives should guide preparation before the simulation, facilitation during simulation, and feedback or debriefing after simulation.

Facilitation methods *before the simulation* should include:

- A prebriefing orientation, the length of which can vary depending on the complexity of the simulation-based learning experience. Prebriefing orientation should include the following:
    i. Orienting participants to the simulation laboratory and manikins.
    ii. Providing ground rules to maintain a psychologically safe, noncompetitive environment.
    iii. Discussing with participants the expectation that they will perform at their optimal best, and acknowledging that mistakes may be made.
    iv. Briefing participants on background information and roles for the scenario.
    v. Providing time for participants to develop a plan.
- Writing objectives to drive simulation scenarios. Objectives should be based on the level of the participant and reflect intended outcomes of the experience.
- Preparing the scenario, setting expectations, and considering how the scenario fits within curriculum or practice context.
- Developing an evaluation plan with appropriate tool.
- Communicating objectives, including psychomotor competencies, to the participants before simulation.

Facilitation methods *during the simulation* should include:

- Allowing the simulation scenario to progress without interruption, allowing the participants to problem solve independently.
- Observing simulations and monitoring for appropriateness of participants' interventions.
- Maintaining a constructivist instructional style, where facilitators provide opportunities for participants to incorporate content and context through critical thoughts.

Facilitation methods *after the simulation* should include:

- Engaging participants in debriefing.
- Acknowledging participants' feelings and perspectives.
- Creating transparency in the communication and helping participants achieve key objectives.
- Exploring participants' decisions and actions and linking the simulation experience to authentic patient care.
- Facilitating feedback from standardized patients or peers.
- Encouraging participants to evaluate what they did well, what they need to improve, and offering suggestions on how participants can improve their care in the future.
- Providing feedback.

Criterion 2: Using Facilitation Methods Congruent With Expected Outcomes

Guideline: Identify facilitation methods that enable participants' achievement of expected outcomes.

Guideline Statement: Preparation before the simulation, facilitation during simulation, and feedback or debriefing after simulation should help participants achieve the expected outcomes.

Facilitation methods *before the simulation* should include:

- Developing a list of expected behaviors to ensure learning objectives are met.
- Planning when to support participants with cues during a scenario.

Facilitation methods *during the simulation* should include:

- Providing cues to redirect the scenario and guide participants down the path of discovery.
  i. Cues may involve laboratory results, phone calls from providers or other health care departments, directions from a family member, or equipment available in the room.
  ii. Cues may also be from the patient, via a live verbal stream, to alert the participants to symptoms and direct assessment or attention to a particular problem.
  iii. Cues should coach the participant to achieve key outcomes.
  iv. Cues should not distract from the participant-focused simulation.
- Coaching participants to achieve the expected outcomes, if appropriate.

Original INACSL Standard IV Reference

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Supporting Materials

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Featured Article

Standards of Best Practice: Simulation Standard V: Facilitator

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professional;
safe environment

Abstract: 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. The facilitator is key to participants' learning. The facilitator guides and supports participants to understand and achieve the objectives. The facilitator helps the participants explore the case and their thought processes used in decision making. In addition, the facilitator engages the participants in searching for evidence-based practice solutions to foster skill development, clinical judgment, and reasoning. The facilitator adjusts the simulation to

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meet the learning objectives based on the participants' actions or lack of actions. The facilitator leads the participants in identifying the positive actions, the actions that could have been changed to promote better patient outcomes, and how the actions could have been changed to meet the learning objectives, if these objectives have not been met.

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Statement

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.

Rationale

The facilitator is key to participants' learning. The facilitator guides and supports participants to understand and achieve the objectives. The facilitator helps the participants explore the case and their thought processes used in decision making. In addition, the facilitator engages the participants in searching for evidence-based practice solutions to foster skill development, clinical judgment, and reasoning. The facilitator adjusts the simulation to meet the learning objectives based on the participants' actions or lack of actions. The facilitator leads the participants in identifying the positive actions, the actions that could have been changed to promote better patient outcomes, and how the actions could have been changed to meet the learning objectives, if these objectives have not been met.

Outcome

The facilitator guides the simulation-based learning experience to optimize opportunities for participants to meet expected outcomes.

Criteria

To achieve the desired outcomes of a simulation-based learning experience, the facilitator:

1. Clearly communicates the objectives and expected outcomes to the participant(s).
2. Creates a safe learning environment (see Standard II: Professional Integrity of Participant) that supports and encourages active learning, repetitive practice, and reflection.
3. Promotes and maintains fidelity.
4. Uses facilitation methods appropriate to the participants' level of learning and experience (see Standard IV: Facilitation Methods).
5. Assesses and evaluates the acquisition of knowledge, skills, attitudes, and behaviors.
6. Models professional integrity.
7. Fosters student learning by providing appropriate support throughout the simulation activity, from preparation through reflection.
8. Establishes and obtains evaluation data regarding the effectiveness of the facilitator and the simulation experience.
9. Provides constructive feedback and debriefing with the participants.

Guidelines

Criterion 1: Clearly Communicates the Objectives and Expected Outcomes to the Participant(s)

Guideline: The facilitator communicates the objectives and expected outcomes prior to the simulation-based experience. The level of detail revealed to participants will depend on the objectives.

Guideline Statement: It is the facilitator's responsibility to prepare the participant by communicating the objectives and expected outcomes. Participants should know what to expect of the simulation-based experience.

The facilitator should:

- Use effective communication skills.
- Plan simulations appropriate to participant learning needs.
- Assume a participant-centered approach to the simulation.
- Orient participants to the environment (manikin, standardized patient, recording, roles, etc.).
- Guide the participant in a manner consistent with the simulation objectives.

Criterion 2: Creates a Safe Learning Environment That Supports and Encourages Active Learning, Repetitive Practice, and Reflection

See Standard II: Professional Integrity of Participant.

Guideline: Establishment of a safe learning environment.

Guideline Statement: Participants should feel that the simulated environment is a safe learning environment that encourages active learning and reflection and supports repetitive practice.

The facilitator should:

- Understand the needs of the participants in a simulated environment.
- Establish an environment in which the participants feel psychologically safe without fear of negative consequences to their status or relationships.

Criterion 3: Promotes and Maintains Fidelity

Guideline: Simulation is developed with the level of fidelity needed to meet the desired outcomes.

Guideline Statement: The simulated environment should replicate the actual environment as closely as possible.

The facilitator should demonstrate current knowledge related to:

- Simulation as a pedagogy.
- Simulation design and fidelity.
- Technology.
- Scenario content.

Criterion 4: Uses Facilitation Methods Appropriate to the Participants' Level of Learning and Experience

See Standard IV: Facilitation Methods.

Guideline: Facilitator designs the simulation-based learning experience at the appropriate level for the participant.

Guideline Statement: Methods used to facilitate the simulated-based learning experience should be appropriate for the level of learning, experience, and competency of the participants.

The facilitator should possess and demonstrate a substantial skill set of current knowledge related to:

- Characteristics, abilities, and level of the participants.
- Expected outcomes for simulation.
- Understanding the theories and principles of experiential and contextual learning.
- Modeling and systems theory.
- Attributes of debriefing to inform the teaching role: reflection, emotion, reception, integration, and assimilation.

Criterion 5: Assesses and Evaluates the Acquisition of Knowledge, Skills, Attitudes, and Behaviors

Guideline: Assessment and evaluation of the simulation-based learning experience.

Guideline Statement: The facilitator assesses and evaluates the acquisition of knowledge, skills, attitudes, and behaviors.

The facilitator should:

- Use tools that have been tested for reliability and validity on a like population or situation, when possible.
- Use knowledge of best practice to identify knowledge and performance gaps.

Criterion 6: Models Professional Integrity

Guideline: Facilitator attributes.

Guideline Statement: Facilitators' professional and ethical behaviors are required in the simulated environment. Facilitator attributes can influence participants' outcomes.

The facilitator should be:

- Flexible and resourceful.
- Positive.
- Enthusiastic.
- Motivational.
- Calm and engender a sense of trust.
- Well organized, prepared, and responsible in managing simulation activities.
- Prepared for simulation prior to actual event.
- Clinically proficient.
- Able to share the expertise, using good judgment.
- Cognizant of issues related to the care of diverse populations and diversity among participants.
- Mindful of the value of ethical issues related to the simulation-based experience.
- Sensitive to ethical issues related to the simulation-based experience.

Criterion 7: Fosters Participant Learning by Providing Appropriate Support Throughout the Simulation Activity, from Preparation through Reflection

Guideline: Supports participant during the simulation-based learning experience.

Guideline Statement: Effective facilitators must be advocates for simulation as a pedagogy.

The facilitator should:

- Role model the expected outcomes.
- Mentor other simulation faculty.
- Be a simulation advocate.
- Embrace professional and faculty development.

Criterion 8: Establishes and Obtains Evaluation Data Regarding the Effectiveness of the Facilitator and the Simulation Experience

Guideline: Simulation evaluation.

Guideline Statement: The facilitator is responsible for the evaluation of all aspects of the simulation experience.

In addition to managing the simulation, the facilitator should:

- Use and promote reflective thinking.
- Make adjustments to the simulation experience based on evaluation data from facilitators and participants.

Criterion 9: Provides Constructive Feedback and Facilitates Debriefing with the Participants

Guideline: Feedback and debriefing.

Guideline Statement: Feedback and debriefing to simulation participants must be constructive (see Standard VI: The Debriefing Process).

The facilitator should:

- Encourage participant self-evaluation and reflection.
- Encourage peer to peer evaluation.
- Analyze the simulation to provide meaningful feedback to allow the participants to enhance their practice.
- Use objectives and expected outcomes to frame feedback about participants' performance.

Original INACSL Standard V Reference

The INACSL Board of Directors. (2011, August). Standard V: Simulation facilitator. *Clinical Simulation in Nursing, 7*, s14-s15.

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Featured Article

Standards of Best Practice: Simulation Standard VI: The Debriefing Process

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KEYWORDS
debrief;
reflection;
facilitation;
reflective thinking;
clinical judgment/
reasoning

Abstract: All simulation-based learning experiences should include a planned debriefing session aimed toward promoting reflective thinking. Learning is dependent on the integration of experience and reflection. Reflection is the conscious consideration of the meaning and implication of an action, which includes the assimilation of knowledge, skills, and attitudes with pre-existing knowledge. Reflection can lead to new interpretations by the learner. Reflective thinking does not happen automatically, but it can be taught; it requires time, active involvement in a realistic experience, and guidance by an effective

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facilitator. The skills of the debriefer are important to ensure the best possible learning; learning without guidance could lead the learner to negatively transfer a mistake into their practice without realizing it had been poor practice, repeat mistakes, focus only on the negative, or develop fixations. Research provides evidence that the debriefing process is the most important component of a simulation-based learning experience.

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Statement

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

Rationale

Learning is dependent on the integration of experience and reflection. Reflection is the conscious consideration of the meaning and implication of an action, which includes the assimilation of knowledge, skills, and attitudes with pre-existing knowledge. Reflection can lead to new interpretations by the learner. Reflective thinking does not happen automatically, but it can be taught; it requires time, active involvement in a realistic experience, and guidance by an effective facilitator. The skills of the debriefer are important to ensure the best possible learning; learning without guidance could lead the learner to negatively transfer a mistake into their practice without realizing it had been poor practice, repeat mistakes, focus only on the negative, or develop fixations. Research provides evidence that the debriefing process is the most important component of a simulation-based learning experience.

Outcome

Integration of the debriefing process into simulation-based experience enhances learning and heightens participant self-confidence. Debriefing promotes understanding and supports transfer of knowledge, skills, and attitudes with a focus on best practices to promote safe, quality patient care.

Criteria

To achieve the desired outcomes, the effective debriefing process is:

1. Facilitated by a person(s) competent in the process of debriefing.
2. Conducted in an environment that is conducive to learning and supports confidentiality, trust, open communication, self-analysis, and reflection.
3. Facilitated by a person(s) who observes the simulated experience.
4. Based on a structured framework for debriefing.
5. Congruent with the participants' objectives and outcomes of the simulation-based learning experience.

Guidelines

Criterion 1: Facilitated by a Person(s) Competent in the Process of Debriefing

Guideline: Identify the process to achieve competency in debriefing.

Guideline Statement: Debriefing is a learner-centered reflective conversation. It is intended to assist learners in examining the meaning and implications of actions taken during a simulated experience. Through this process of understanding, new knowledge can be created. Reflective thinking does not happen automatically and requires guidance by an effective debriefing facilitator, commonly called a debriefer. Debriefing facilitators require skill both in diagnosing learning needs and managing optimal group processes to adjust the level of facilitation to that which is required by the group. For best outcomes during simulation-based experiences, debriefers should have formal training and competency assessment.

The debriefer should:

- Understand best practices in debriefing with regard to structuring the format of the debriefing and facilitating reflective discussion.
- Acquire specific education provided by a formal course, a continuing education offering, or targeted work with an experienced mentor.

- Validate competence through the use of an established instrument.
- Validate competence through input from both learners and experienced debriefers.
- Actively maintain debriefing skills through practice in simulation-based experiences.

Criterion 2: Conducted in an Environment That Supports Confidentiality, Trust, Open Communication, Self-Analysis, and Reflection

Guideline: Create a safe environment for participant debriefing.

Guideline Statement: Although active learning educational methods such as simulation promote learning, these strategies may be stressful and cause feelings of anxiety.

Therefore, to create a safe environment for the debriefing process, in an effort to achieve desired outcomes, the debriefer should:

- Orient the participants to the overall objectives and purposes of the debriefing process.
- Establish expectations regarding confidentiality of participants' work, the content of the simulation scenario, and the content of the debriefing process.
- Develop rules of participant conduct concerning constructive, honest, yet respectful feedback.
- Demonstrate positive regard for participants.
- Encourage participants' reflection related to personal culture, background, experiences, personality, skills, and knowledge.
- Use verbal and nonverbal supportive demeanor to encourage discussion.
- Allow sufficient time for the early reaction phase of the debriefing process to elicit the participants' emotional response and their primary concerns prior to engaging in an analysis of actions.
- Explore the participants' perspectives and understandings of the situation to close gaps between actual and desired performance.
- Engage both participant observer and active participants in debriefing to support collaborative learning.

Criterion 3: Facilitated by a Person(s) Who Observes the Simulated Experience

Guideline: Identify the facilitator's responsibilities during the debriefing process.

Guideline Statement: The role of the facilitator during the debriefing process is to guide the participants as they reflect on the events of the simulated experience and the actions taken or not taken during the event. The discussion should be guided by the participant objectives with the aim of closing the gap between the desired and actual performance of the participants through constructive feedback or debriefing. (See ''Standard III: Participant Objectives,'')

The debriefer should:

- Establish a climate of professional respect, including a requirement for confidentiality related to the content of the debriefing discussions.
- Outline the process for debriefing, including the expectation that the discussion will be driven by the participants as they critically analyze their own performance.
- Facilitate participants' engagement in the reflective process.
- Adjust the level of facilitation needed to engage every participant in discussion.
- Provide constructive feedback or debriefing based on participants' decisions and actions, including reinforcing positive behaviors, correcting misunderstandings, and clarifying cognitive frames that led to incorrect decisions.
- Assist participants in conceptualizing how the learning constructed during the simulation and debriefing can be applied to future clinical situations.
- Summarize learning at the end of the debriefing process

Criterion 4: Based on a Structured Framework for Debriefing

Guideline: Identify the structural elements of debriefing to include the optimal time and duration required to achieve the objectives.

Guideline Statement: The optimal time length for a debriefing session depends on the objectives and type of simulation-based experiences. An experience designed for novice-level critical thinking and skills demonstration may require only constructive feedback and guided reflection. Complex simulation-based experiences that require clinical judgment or reasoning while demonstrating skill competency or are emotionally charged require debriefing sessions of longer duration. The longer time period is required to facilitate deeper thinking and critical reflection. Additionally, a period of self-reflection after the debriefing session may be necessary to achieve desired objectives. Therefore, the optimal time and duration of debriefing should be flexible.

The debriefer should:

- Create a safe and supportive environment (See Criteria 5).
- Use the appropriate style of debriefing (including video playback) based on participant objectives (See Criteria 4).
- Allow progression through the phases of debriefing (reaction, analysis, and summary).
- Allow unexpected topics to be addressed.
- Facilitate appropriate clinical judgment, reasoning, and reflection.
- Allow facilitation to be modified based on assessed participant needs and the impact of the experience.
- Allow for postdebriefing activities that promote self-reflection and critique.

Criterion 5: Congruent with the Participants' Objectives and Outcomes of the Simulation-Based Learning Experience

Guideline: Focus debriefing on the participant objectives and outcomes.

Guideline Statement: Debriefing should be based on preset participant objectives and the outcomes of the simulation-based experience. Participant objectives guide the development and appropriate implementation of the experience, whereas outcomes provide an assessment of the participant's performance and clinical judgment or reasoning based on the predetermined objectives or critical events that occurred during the simulation-based experience.

The debriefer should:

- Consider participant objectives in the debriefing session.
- Facilitate participant's identification of strengths in performance and clinical judgment or reasoning.
- Identify performance gaps based on the outcomes of the simulation-based experience at the end of the debriefing session.
- Recommend activities to alleviate identified performance gaps at the end of the debriefing session.

Original INACSL Standard VI Reference

The INACSL Board of Directors. (2011, August). Standard VI: The debriefing process. *Clinical Simulation in Nursing, 7*, s16-s17.

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Featured Article

Standards of Best Practice: Simulation Standard VII: Participant Assessment and Evaluation

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KEYWORDS
simulation;
high-stakes evaluation;
formative assessment;
summative evaluation;
standard;
guideline

Abstract: In a simulation-based experience, formative assessment or summative evaluation can be used. Formative assessment fosters personal and professional development and helps participants progress toward achieving objectives. Summative evaluation focuses on measurement of outcomes or achievement of objectives. The use of simulation supports assessment or evaluation of behaviors demonstrated in the domains of learning: cognitive (knowledge), affective (attitude), and psychomotor (skills).

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Statement

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

Rationale

Formative assessment fosters personal and professional development and helps participants progress toward achieving objectives. Summative evaluation focuses on measurement of outcomes or achievement of objectives. The use of simulation supports assessment or evaluation of behaviors demonstrated in the domains of learning: cognitive (knowledge), affective (attitude), and psychomotor (skills).

Outcome

The outcome of formative assessment is the improvement of participants' performance. The outcome of summative evaluation or high-stakes evaluation may be an assigned grade, promotion, merit pay, certification, or demonstration of achievement of objectives or competency.

Criteria

To promote valid and reliable results, determine the type of participant assessment or evaluation prior to the simulation-based experience. Participant assessment or evaluation may include:

- Formative assessment.
- Summative evaluation.
- High-stakes evaluation.

Guidelines

Criterion 1: Formative Assessment

Guideline: Formative feedback provides information for the purpose of improving performance and behaviors associated with the three domains of learning: cognitive (knowledge), affective (attitude), and psychomotor (skills).

Guideline Statement: To help participants meet expected outcomes, formative assessment should be consistent, providing constructive feedback, such as coaching, cueing, prompting, or concept mapping.

Formative assessment in simulation should be:

- Based on developmental objectives that are designed to (1) meet participant outcomes, (2) provide feedback, and (3) remedy errors in thinking and practice.
- Accommodating for participants who need extra learning time.
- Appropriate for the level of experience of the participants.
- Specific to provide supplemental strategies for achieving participant outcomes.
- Completed in a manner consistent with those described in Standard VI.

Criterion 2: Summative Evaluation

Guideline: Summative evaluation focuses on measurement of outcomes or achievement of objectives.

Guideline Statement: Summative evaluation of the participant's performance or competence occurs at the end of a predetermined time period. In some cases, the evaluation tool may be shared with participants in advance.

Summative evaluation in simulation should be:

- Previously tested for evidence-based content.
- Based on evaluation tools previously tested with like populations for validity and reliability; when there is more than one evaluator, establish interrater reliability.
- Standardized in format and in scoring methods.
- Accompanied by specific participants' objectives.
- Appropriate in its level of fidelity to achieve participant outcomes.
- Explained before the start of the evaluation process.
- Held in an environment with equipment to which the participant has been oriented.
- Based on preestablished guidelines pertaining to participant errors.
- Conducted by trained objective observers or raters.
- Inclusive of:
  i. Guidelines for cueing.
  ii. Predetermined parameters for terminating the scenario before its completion.
  iii. Preestablished criteria allowing the evaluator to rate the participant(s).
  iv. Self-assessment by the participant, when this is a requirement of the simulation-based experience.

Criterion 3: High-Stakes Evaluation

Guideline: Because familiarity with participants is a significant source of observer bias, the influence of observers' previous knowledge of participants should be avoided whenever possible.

Guideline Statement: Evaluation of participants' performance by objective observers or raters increases objectivity and diminishes biased assessment. Moreover, interrater objectivity and reliability are enhanced by the use of standardized checklists that focus on assessment of specific skills. Detailed tools specifically identify appropriate as well as inappropriate behaviors and help to decrease subjectivity.

High-stakes evaluation with high-risk consequences should be:

- Explained to participants before the start of the evaluation process.
- Pilot tested.
- Standardized in format and in scoring methods.
- Based on evaluation tools previously tested with like populations for validity and reliability; when there is more than one evaluator, establish interrater reliability.
- Conducted at an appropriate level of fidelity to achieve participant outcomes.
- Based on specific participant objectives.
- Developed with preestablished guidelines for the type (if any) of consistent cueing of the participants.
- Designed with predetermined parameters for terminating the scenario before its completion.
- Designed to include the participant's self-assessment of performance as part of the evaluation, when this is a requirement of the simulation-based experience.
- Conducted by trained objective observers or raters.

Original INACSL Standard VII Reference

The INACSL Board of Directors. (2011, August). Standard VII: Evaluation of expected outcomes. *Clinical Simulation in Nursing, 7*, s18-s19.

Supporting Materials

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