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Healthcare Simulation Standards of Best Practice™ Evaluation of Learning and Performance

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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-based experiences may include evaluation of the learner.

Background

Simulation-based experiences (SBEs) support evaluation of the learner's knowledge, skills, attitudes, and behaviors demonstrated in the cognitive, psychomotor, and/or affective domains of learning.[1] Formative evaluation of the learner is meant to foster development and assist in progression toward achieving objectives or outcomes. Summative evaluation focuses on the measurement of outcomes or achievement of objectives at a discrete moment in time, for example, at the end of a program of study.[2] High-stakes evaluation refers to an assessment that has major implications or consequences based on the result or the outcome, such as merit pay, progression or grades. Research has identified learning benefits to the observer as a learner in the simulation experience.[4] If the learner is in an observer role in the SBE, the facilitator may consider evaluating the observer. [3,4]

Evaluation of the learner(s) using SBEs includes the following elements:

(a) determine the type of evaluation for the SBE
(b) design the SBE to include timing of the evaluation
(c) use of a valid and reliable evaluation tool
(d) evaluator training
(e) completion of the evaluation, interpretation of the results and provision of feedback to the learner(s).[5]

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Potential consequences of not following this standard are learner dissatisfaction with the SBE, failure to achieve learning outcomes, inaccurate evaluation, and assessment bias.

Criteria Necessary to Meet This Standard

1 Determine the method of learner evaluation before the SBE.
2 SBEs may be selected for formative evaluation.
3 SBEs may be selected for summative evaluation.
4 SBEs may be selected for high-stakes evaluation.

Criterion 1: Determine the method of learner evaluation before the SBE.

Required Elements:

Learner evaluation is:

- directed by the objectives, outcome and/or the level of the learner.
- guided by the type: formative, summative, or high-stakes evaluation.

Criterion 2: SBEs may be selected for formative evaluation.

Required Elements:

Formative evaluation is conducted:

- with the purpose of:
  - facilitating teaching and learning.
  - identifying and closing gaps in knowledge, skills, and attitudes.
  - monitoring progress toward achieving outcomes.
  - developing learner's clinical competencies.
  - providing ongoing formative feedback.[6,7]assessing readiness for entry to the clinical setting.

- after adequate evaluation training for facilitators, evaluators and standardized patients. (Follow the Healthcare Simulation Standards of Best Practice™ (HSSOBP™) Facilitation).
- using the most appropriate evaluation tool.[7,8]
- using an appropriate group ratio to optimize learning. The ideal ratio of facilitator to learner will vary based on each SBE.[1,2,9,18,19]

Criterion 3: Simulation-based experiences may be selected for summative evaluation.

Required Elements:

Summative evaluation is conducted:

- after learners are informed of the evaluation process.[1]
- to evaluate learning, skill acquisition, and academic achievement at the conclusion of a defined period time, such as completion of a course.[10]

- to establish competence in an identified skill or skill set.[11]
- to promote patient safety.[11,12]
- with a pre-briefing component designed to orient the learner to the environment and equipment and to reduce learner anxiety.[13,14] (Follow the HSSOBP™ Prebriefing: Preparation and Briefing)
- with the appropriate level of fidelity necessary to achieve the learner outcomes.[9]
- with facilitators, evaluators and standardized patients trained in the principles of SBE and evaluation techniques and tools.[12,14]
- using a valid and reliable instrument, with SBE-specific interrater reliability, and a standardized format to determine passing scores. A video recording of the SBE allows evaluation by multiple trained facilitators.[9]
- with feedback provided to the learner(s) at the conclusion of the evaluation regarding achievement of outcomes.[13,14] This evaluation may take place during a debriefing activity (Follow the HSSOBP™ The Debriefing Process)

Criterion 4: Simulation-based experiences may be selected for high-stakes evaluation.

Required Elements:

- High-stakes evaluation is conducted:
  - to determine competence, gaps in knowledge, skills, behaviors and/or to identify safety issues.
  - based on specific learner objectives.
  - after the potential implications have been explained to the learners.
  - with predetermined learner actions that would result in the conclusion of the SBE.
  - after the SBE has been pilot tested.
  - by formally trained evaluator(s).
  - after the learner has had the opportunity for multiple exposures to various SBEs including those with summative evaluations.[15,16]
  - use an evaluation instrument previously tested with similar and/or comparable populations.
  - if using an observation-based instrument, consider using more than one rater or evaluator for each learner, either directly observed or through a video recording.[17]

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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.