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OPINION: Use of Simulation in Approved RN/LPN Programs

APPROVED: 5/15/15

**ORIGINATING COMMITTEE:
EDUCATION COMMITTEE**

An advisory opinion adopted by AZBN is an interpretation of what the law requires. While an advisory opinion is not law, it is more than a recommendation. In other words, an advisory opinion is an official opinion of AZBN regarding the practice of nursing as it relates to the functions of nursing. Facility policies may restrict practice further in their setting and/or require additional expectations related to competency, validation, training, and supervision to assure the safety of their patient population and or decrease risk.

ADVISORY OPINION; EDUCATION USE OF SIMULATION IN APPROVED RN/LPN PROGRAMS

DEFINITIONS

For the purposes of this advisory opinion only:

- 1. Simulation** means “planned experiences to develop clinical judgment or validate learning utilizing full scale computerized patient simulators or standardized patients in an environment and under conditions that provide a high level of interactivity and realism for the learner”(NLN-SIRC, 2013). *The Board recognizes that there are broader definitions of simulation, however to meet clinical learning objectives, simulation must realistically mimic the patient care environment.*
- 2. Simulation Performance** means the provision of nursing care in a simulated environment.
- 3. Simulation Observation** means a structured learning experience based on watching a video-recorded simulated performance. Observation may occur in “real time” or following the performance.
- 4. Facilitator** means “an individual who provides guidance, support and structure during simulation-based learning experiences” (INASCL, 2013, p. S.6). The facilitator may engage in one or more of the following activities: operate the manikin, manage the scenario, pre-brief and de-brief performers and/or guide learning activities for observers.
- 5. Summative Evaluation** means a simulation based exam that is:
 - a. Designed to measure a broad spectrum of nursing competencies,
 - b. Scored using a standardized evaluation tool, and
 - c. The results of the student’s one-time performance contribute to the course grade.

POLICY STATEMENT

Approved RN and LPN programs may use simulation, along with actual patient care, to meet clinical objectives. Consistent with A.A.C. R4-19-206 (D)(2), simulation may not be used for an entire clinical experience. Programs reducing clinical patient care hours need to carefully evaluate whether the amount of patient care hours is sufficient to apply core principles of nursing to each population as required in R4-19-206 (D)(2). If clinical time in a specialty is already very limited (less than 30 hours), simulation may only be used to augment patient care hours. In such situations, substitution of any clinical time for simulation may result in both inadequate simulation and inadequate actual patient care experiences. Programs offering less than 30 hours in a clinical rotation and wishing to substitute any of those hours for

simulation should consider asking for a rule exemption under R4-19-214, Pilot Programs for Innovative Approaches in Nursing Education.

Programs incorporating simulation are expected to adopt the standards of the International Nursing Association for Clinical Simulation and Learning (INACSL, 2013) or a later version in its entirety. Programs are encouraged to explore the use of additional evidence-based theoretical frameworks and models that support successful achievement of simulation objectives.

Programs who meet the above criteria may substitute simulation, using simulators or standardized patients, for a portion of clinical time if the following requirements are met.

GENERAL GUIDELINES

1. Programs that use simulation in place of actual patient care need to do so using INASCL Standards. Other evidence-based practices may also be incorporated
2. Simulation scenarios should be integrated within the program's curriculum.
3. All students participating in simulation should have equivalent opportunities to perform in the role of the nurse.
4. Unless conducting institution review board (IRB) approved research or a Board approved innovative program under R4-19-214, all clinical groups in a particular course should receive equivalent amounts and quality of simulation.
5. Simulation facilitators should be prepared to respond appropriately to the psychological impact of simulation on students.
6. Task trainers and virtual clinical programs may be used to prepare students for success in completing medium and high-fidelity simulation scenarios depending on the objectives of the simulation.
7. Verbalization in place of performing psychomotor skills that are part of simulation scenario objectives should occur only when the limits of current technology prevent actual performance of the skill (for example performing all of the steps needed to simulate intravenous medication administration are easily accomplished using current technology, while obtaining liquid gastric aspirate from a nasogastric tube inserted into a high fidelity simulator may require a facilitator to describe the aspirate and its pH).

REQUIREMENTS FOR SIMULATION

A. Personnel

The use of simulation requires faculty/simulation facilitators that are formally trained in simulation (see below) and may require additional faculty and personnel to support the intended use of the simulation.

1. If simulation is used for teaching/learning (formative use), a minimum ratio of 1 facilitator per 4-5 students engaging in simulation performance is required (Facilitators may be faculty or sim-tech specialists).
2. If simulation is used as a summative evaluation (see definition) for an individual student, a minimum ratio of 2 evaluators for each student evaluated is recommended (Williams, Klamen, & McGaghie, 2003). Evaluations may be conducted by direct observation or by recorded video.
3. Adequate personnel and resources are needed to set up and break down the simulation.

4. Participating faculty shall complete preparatory activities which include reading the assigned material, reviewing the objectives and being familiar with the evaluation criteria prior to their participation.
 5. If simulation observation is part of the experience, a facilitator's presence (in the observation room) is required to assist observing students in focusing on pertinent aspects of the simulation.
- B. Physical Resources and Policies
- The use of simulation requires physical resources and policies that preserve the confidentiality of the student and security of the simulation scenario including all video materials. Minimum requirements include:
1. Simulation suite with observation/operator space
 2. Equipment of a fidelity identical or nearly identical to that commonly used in clinical settings
 3. Audio and video recording and playback capabilities that allow learners and faculty to review performance
 4. If students are observing the performance simultaneously, a separate room with remote video access to the simulation
 5. Informed consent and confidentiality agreements for students
- C. Learning Materials/Scenarios
- The use of simulation requires the faculty to adopt processes, templates and documentation forms for each scenario consistent with INACSL standards, including, at a minimum:
- a. Incorporation of specific objectives for each simulation scenario that relate to the course and clinical objectives and are of a level consistent with course expectations.
 - b. Objectives include the required cognitive, affective and psychomotor skills.
 - c. Required student/faculty preparation for the scenario.
 - d. Storyboard that includes report, simulator actions, patient cues, expected student roles and actions.
 - e. Description of set-up, equipment and faculty notes.
 - f. Evidence of validation of each scenario in its entirety prior to use.
 - g. Assignment of an active role to all students in the simulation room—e.g. nurse, family member, CNA, LPN etc.
 - h. Utilization of an evidence-based guide to provide feedback to students for each simulation activity.
 - i. Incorporation and assessment of student documentation for each scenario
 - j. Structured debriefing with scenario participants consistent with Standard IV, Criteria 4 (INACSL, 2013, p. S24).
 - k. When a group of students is observing, structured observational assignments to develop critical thinking and noticing in observers.
 - l. Evidence of annual review to ensure that scenarios are consistent with current practice standards.
- D. Programs shall evaluate and revise simulation experiences as part of the program Systematic Evaluation Plan (SEP).

TRAINING REQUIREMENTS FOR FACILITATORS

Guideline Statement: Facilitating simulation scenarios requires skill in diagnosing learning needs and managing optimal group processes to adjust the level of facilitation to the needs of the group. For best outcomes during simulation-based experiences, facilitators should have formal immersion training and competency assessment specific to their role (Jeffries et. al., 2015). To meet this criteria, training of facilitators shall:

- A. Be offered as an immersion course, continuing education or planned orientation with ongoing in-service followed by targeted work with and evaluation by an experienced, trained facilitator.
- B. Be based on a curriculum incorporating best practices in simulation including, but not limited to:
 1. For all facilitators:
 - i. Conducting a pre-briefing and debriefing sessions including both diagnosing learning needs and managing optimal group processes to adjust the level of facilitation to that which is required by the group. The ultimate goal of the debriefing is to foster meaningful learning (Jeffries, et.al., 2015), therefore, the debriefing framework should be evidence based and consistently applied across all simulations.
 - ii. Scenario implementation consistent with scenario progression timeline and script
 - iii. Validation of the learner's competence through use of an established instruments and input from both the learner, experienced facilitators and clinical faculty. (INACSL, 2013; Jeffries, et.al., 2015)
 2. For those who operate the equipment:
 - i. Operation of the manikin (if used), software and other equipment used as part of a scenario
 - ii. Operation of simulation media capture system
- C. The program establishes a robust, periodic evaluation of simulation practices to ensure that simulation best practices are consistently applied throughout the curriculum (Jeffries, et.al., 2015)

RATIONALE:

Simulation, used appropriately, has the potential to enhance the learner's safety and position graduates to exert a positive influence on the provision of health care. Simulation used inappropriately or by an untrained facilitator has the potential to increase mistakes in practice, focus on negative factors or for the learner to become obsessed with one aspect of simulation (IANSCL, 2013).

BASIC CHECKLIST FOR SIMULATION

Checklist for readiness for basic high-fidelity simulation for program use to replace some clinical experiences. Specific simulations may require additional items.

1. Must have items/processes for all simulations:

- ✓ Specific leveled objectives for each simulation
- ✓ Written, planned simulations that allow student performers to achieve the objectives
- ✓ Manikins or standardized patients with fidelity consistent with the simulation objectives
- ✓ Audio and video recording and playback equipment in working order
- ✓ Separate simulation room
- ✓ Debriefing space that supports confidentiality
- ✓ Documentation system realistic to the health care environment

- ✓ Confidentiality agreements/signed consent
 - ✓ Evidence-based structure for debriefing
 - ✓ Validation of each simulation
 - ✓ Validated assessment tool for evaluation of students performing the simulation
 - ✓ Sufficient trained facilitators for group size
 - ✓ Supplies and equipment similar to those used in clinical settings as required by the simulation
2. Depending on the objectives of the simulation, these common items may be needed:
- ✓ IV and Enteral delivery devices that are realistic and comparable to those used in health care settings
 - ✓ Medication dispensing system
 - ✓ Furnishings to provide an environment realistic to the setting of the simulation
 - ✓ Durable medical equipment to support the simulation
 - ✓ Disposable supplies—gloves, alcohol wipes, simulated medications, medication supplies, etc.
 - ✓ Patient monitoring system
 - ✓ Hand hygiene/infection control systems
 - ✓ Infectious waste and sharps disposal containers
3. For student observers the following are needed:
- ✓ Separate room with streamed video
 - ✓ Structured assignments for each student
 - ✓ Trained facilitator presence at all times

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