Simulation Manual

This manual contains general information related to simulation used to supplement clinical experiences in Health & Public Services Programs. Refer to each individual program’s simulation manual for information specific to how simulation is integrated and facilitated into that program.
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GENERAL INFORMATION

DEFINITION OF SIMULATION

Simulation is:

- A technique that creates a situation or environment to allow persons to experience a representation of a real event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions.
- An educational technique that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner.
- A pedagogy using one or more typologies to promote, improve, or validate a participant’s progression from novice to expert.
- The application of a simulator to training and/or assessment.
- A method for implementing a model over time

(Society for Simulation in Healthcare, 2016)

HEALTH & PUBLIC SERVICES SIMULATION COMMITTEE

The Health & Public Services (H&PS) Simulation Committee consists of the Nursing Simulation Coordinator and simulation faculty from Health & Public Services programs currently implementing simulation. The H&PS Simulation Committee is under the direction of the Dean of Health & Public Services. The H&PS Simulation Committee is responsible for:

- Development of a two – five year plan to meet the learning needs of all DMACC Health & Public Services students utilizing simulation.
- Ensuring best practice in simulation at DMACC
- Recommending equipment purchases

The Health & Public Services (H&PS) Simulation Committee meets at least once each semester and as needed.
SIMULATION FACILITIES

DMACC SIMULATION CENTER
The DMACC Simulation Center is a 2800 square feet facility located on the second floor of the DMACC Capital Center (1300 Des Moines Street, Des Moines Iowa, 50309). The DMACC Simulation Center serves DMACC Nursing, Paramedic, and Respiratory Care students from all campuses.

The DMACC Simulation Center consists of fourteen (14) rooms: five (5) simulation laboratories, three (3) control rooms, one (1) small debriefing room, two (2) large debriefing/classrooms, two (2) restrooms and a student lounge with vending options available. Each simulation room is designed and equipped to represent different healthcare settings. Patient care supplies are located in the room and mock medication administration system is centrally located in the center for use in all simulation laboratories.

- Sim Lab A – Adult/Pediatric Medical-Surgical Room
- Sim Lab B – Adult Medical-Surgical/Obstetric Room
- Sim Lab C – Home/Community Setting
- Sim Lab D – Intensive Care/Emergency Room
- Sim Lab E – Newborn/Nursery Room

Six (6) high-fidelity manikins manufactured by Laerdal Corporation are located at the DMACC Simulation Center:
- SimMan Classic®
- SimMan Essentials®
- SimMom®
- SimJunior®
- SimBaby®
- SimNewB®

DMACC SATELLITE SIMULATION LABORATORIES
DMACC Nursing Program has two (2) Satellite Simulation Laboratories. One located on the Boone campus in Room 158F (1125 Hancock Drive, Boone, IA 50036) and one located on the Carroll campus in Room 146 (906 N. Grant Road, Carroll, IA 51401). Both Satellite Simulation Laboratories consists of room designed and equipped to represent adult/pediatric medical-surgical room and a control room. Patient care supplies and a mock medication administration system are located at each laboratory. Restroom facilities and food/vending options are available in the same building as the laboratories.

The Boone Satellite Simulation Laboratory serves Term 1 and Term 2 Boone campus nursing students and has four (4) medium-fidelity manikins manufactured by Laerdal Corporation; Nursing Anne®, Nursing Kelly®, Nursing Kid®, and Nursing Baby®.

The Carroll Satellite Simulation Room serves all Carroll campus nursing students and has two (2) high fidelity and two (2) medium-fidelity manikins manufactured by Laerdal Corporation; SimMan Essentials®, SimJunior®, and two (2) Nursing Babies®.
SCHEDULING SIMULATION ACTIVITIES

Simulations at the DMACC Simulation Center are scheduled by the Nursing Simulation Coordinator. Requests for specific dates/time are taken under consideration, however final scheduled dates are determined based on student numbers, manikins needed for specific simulations, and simulation room and debriefing room availability. Spring semester schedules are finalized in mid-November, Summer semester schedules are finalized at the end of April, and Fall semester schedules are finalized at the end of August.

Simulations at the DMACC Satellite Simulation Laboratories are schedule by the Program Chair/Campus Coordinator of the campus where the satellite Simulation laboratory is located. Requests for specific dates/time are taken under consideration, however final scheduled dates are determined based on simulation/debriefing room availability.

TOURS OF SIMULATION CENTER/ LABORATORIES

Tours of the DMACC Simulation Center are scheduled by the Nursing Simulation Coordinator. Tours of the DMACC Satellite Simulation Laboratories are schedule by the Program Chair/Campus Coordinator of the campus where the satellite laboratory is located.

Requests for specific dates/time are taken under consideration, however scheduled student simulation activities are given priority over tours. Tours cannot observe or interrupt student simulation activities without prior consent of the students involved.

PARTICIPATION IN SIMULATION

SIMULATION FACULTY EDUCATION AND PROFESSIONAL DEVELOPMENT

Education and training of new simulation equipment will be arranged by the Nursing Simulation Coordinator.

Each program is responsible for ensuring simulation faculty are provided education related to facilitating simulation in their program.

When the Nursing Simulation Coordinator becomes aware of simulation faculty professional development opportunities these will be disseminated to all simulation faculty.

STUDENT ORIENTATION

Students attending simulation for the first time participate in a simulation orientation. Orientation includes information regarding the purpose of simulation, general simulation objectives, and descriptions of briefing, simulation scenario, and debriefing. A tour of the simulation center/labs, location of supplies, descriptions of how equipment functions, simulation roles, and opportunities to touch and interact with manikins is also included in orientation.
STUDENT RESPONSIBILITIES
Students sign a Simulation Contract that includes agreement to engage with the manikins/standardized patients and simulated environment as if they are real, conduct themselves in a professional manner during the simulation, provide feedback to peers with respect and professionalism, and maintain strict confidentiality about the details of simulated clinical experiences, the simulation scenarios, and the performance of any participant(s).

SIMULATION LAB CONDUCT/DRESS CODE:
- Clinical attire is expected while in the simulation center/laboratories
- NO eating, drinking, or gum chewing in simulation laboratories.
- NO ink pens allowed in simulation rooms.

INTERPROFESSIONAL EDUCATION SIMULATIONS
Interprofessional education (IPE) simulations will be developed using the INACSL Standards of Best Practice: SimulationSM: Simulation-enhanced interprofessional education (sim-IPE) (2016) and the IPEC Core Competencies (2016).

IPE simulation scenarios will be developed by faculty from all programs participating in the IPE simulation. IPE scenarios will include objectives related to the IPEC Core Competencies and specific objectives for each discipline participating. Debriefing questions will focus on three or more of the IPEC Core Competencies. Opportunities to reflect upon discipline specific actions will also be provided.

VIDEO RECORDING
During orientation students are informed that simulated clinical experiences will be audio and video recorded to be used for debriefing and educational purposes and that no future use of the recordings will be made without written permission.

Simulation video recordings are held on a server accessible only with a password. Only simulation faculty will be given the passwords to access the server. Simulation video recordings will be deleted (either manually or automatically depending on the A/V system) after 30 days and are not retrievable.
EQUIPMENT AND SUPPLIES

EQUIPMENT
Simulation equipment (manikins, A/V, computers/monitors, medical equipment, furnishing, etc.) purchases are recommended by the Health and Public Services Simulation Committee. The following considerations must be taken into account when determining what equipment to purchase:

1. Supports the two – five year plan for simulation at DMACC.
2. Meets the simulation/scenario learning objectives of students from multiple programs/campuses.
3. Falls within funds available.

All equipment requests are submitted to the Dean of Health & Public Services for review and final decision making.

SUPPLIES
Moulage supplies (wigs, make-up, trauma kits, etc.) are purchased by each individual program as needed to meet simulation/scenario learning objectives of their students. Moulage supplies are shared among different programs to meet the simulation/scenario learning objectives of all students.

Reusable supplies (such as O2 devices, NG tubes, feeding tubes, braces, etc.) are purchased by each individual program as needed to meet simulation/scenario learning objectives of their students. Sharing of reusable supplies among different programs to meet the simulation/scenario learning objectives of all students is encouraged.

Disposable supplies (such as IV fluids/tubing, dressing, sterile procedure kits, etc.) are purchased by each individual program for use by their students only.

MAINTENANCE OF EQUIPMENT/FACILITIES

SIMULATION MANIKINS
Preventative maintenance (PM) is performed on all simulation manikins on a rotating schedule with each manikin receiving PM at least once a semester. Only faculty and/or staff who have received training will complete PM. Checklists are utilized to ensure consistency. PM Checklists are submitted to the Nursing Simulation Coordinator for review and follow-up on any issues.
MANIKIN REPAIR/REPLACEMENT ACCOUNT
The Dean of Health and Public Services will designate a specific amount of funds each semester for manikin repair/replacement. The amount in this account is subject to budget constants and will vary from fiscal year to fiscal year.

These funds will be used for replacement parts, repairs, and upgrades. Any funds remaining after the purchase of replacement parts, repairs, and/or upgrades may be put towards the purchase of new manikins. Capital budget requests and grants may be used to purchase new manikins and other simulation related equipment.

SIMULATION FACILITIES
The DMACC Simulation Center, Satellite Simulation Laboratories, and all simulation manikins are thoroughly cleaned at the end of every semester using a checklist to ensure consistency.

REFERENCES

