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POLICY FOR TRAINING AND ASSESSMENT OF STUDENTS IN CLINICAL SKILL LAB/SIMULATION

Introduction

A long-standing development and focus of studies have been well documented with empirical evidence of the simulation-based clinical skill training that has been widely used to optimize the clinical learning activities in the University. Many research efforts have verified the positive outcomes on the impacts of simulation-based tools for supporting various functions in clinical skill training for education.

Measurement of performance outcomes from the simulation-based clinical skill training is part of the vital role and process in educational evaluation. This requires the process of characterizing and appraising the aspects of learning as required and defined in accordance with the learning expectations, generated from the Intended Learning Outcomes (ILOs) as part of quality assurance of the standards ensured under the paradigm of the Hong Kong Government's Qualifications Framework in Education.

The provision of feedback gathered from the evaluation of the simulated clinical assessment practices is of significant for the students' experiential learning. Oermann has echoed this aspect of importance and stated that "Excellence in education requires evidence-based curricula, teaching approaches, and evaluation methods". This article creates the concept of a newly inventive Simulation Evaluation Rubrics (SER) for evaluating the impact of simulation-based clinical skill training on various essential aspects such as communication, critical thinking, health assessment and interventions, etc.

Rubrics can in fact help students to see the connections between learning (what will be taught) and assessment criteria (what will be evaluated) by making use of the informative requirements as derived from the ILOs. In addition, the feedback generated together with detailed quantitative and qualitative information and comments of identifying the students' outcomes of performance from simulated practices that can also be communicated to students as part of debriefing process. For this reason, rubrics are generally designed to be simple, explicit, and easily understood for this intended purpose of evaluation, which can be used by different users, i.e. teachers, assessors, clinical instructors, as a way to maintain consistency and objectivity with valid informative comments for such intended purposes for professional usage in teaching, learning and educational assessments and evaluation of performance outcomes in clinical learning. This paper proposed a newly constructed conceptual model of inventive Simulation Evaluation Rubric by comprising the dimensions of Tanner's clinical judgment model with constructed concept of "Knowledge about Knowledge", so as to support this purpose, as well as for promoting and facilitating the effectiveness of clinical learning from the simulation-based skills training.

Mission :

The Clinical Skills laboratories mission is in accord with the mission of College of nursing - University of Dammam. The mission acknowledges that each student will receive a quality education, training, information and cultural opportunities. The Clinical Skill Laboratories will continue to serve students as part of an innovative institution that provides a powerful learning environment for all. The Clinical Skills laboratories will provide a replica of the patient care environment where students can learn and apply cognitive, psychomotor, and affective skills and instructors can facilitate learning and objectively measure student performance and competency.

Vision :

The Clinical Skills Laboratories are a local center of excellence and innovation for health care simulation, education, patient safety and research. This will be achieved by :

- (a) Promoting experiential learning using adult learning principles in a safe environment
- (b) Playing a critical role in shaping patient safety initiatives by national and institutional assessment of needs for simulation-based education. The implementation of simulation-based initiatives will result in improvements in patient care
- (c) Targeting multi-disciplinary health care teams, helping all members understand their roles and communicate effectively
- (d) Exercising expertise in curriculum development, execution of simulation-based curricula and evaluation of technical and non-technical skills
- (e) Establishing local, regional and national partnerships
- (f) Advancing the field of health care simulation through research and dissemination of our work in relevant local, regional and national forums of CLINICAL SKILL LABORATORIES

Objectives :

- (a) Reinforce learning using simulation technology and related resources
- (b) Provide educational materials for college of Nursing students, faculty, and staff
- (c) Provide hands-on learning experiences specific to course objectives as directed by the nursing curriculum
- (d) Reinforce independent student learning opportunities, which promote a model for life long learning
- (e) Accommodate unique learning needs of students with diverse backgrounds, abilities, and educational experiences
- (f) Demonstrate competence of undergraduate health care providers
- (g) Integrate Clinical Simulation into Undergraduate Nursing Education
- (h) Increase preparedness of nursing students before introduction to hospital training
- (i) Increase preparedness for dealing with high acuity cases
- (j) Entice well-qualified postgraduate and nurse practitioner students to enroll in our college
- (k) Enhance communication skills
- (l) Demonstrate the value of team-building and collaboration
- (m) Integrate Clinical Simulation into Continuing Nursing Education (CNE) and Faculty development.

Simulation for Practices

Connecting Education with Technology Safe practice is undoubtedly important in the training of nursing and health care professionals. Clinical reasoning and competency are the

essential elements in safe practice. As Practice makes perfection of clinical skills, however, we cannot learn by trial and error in the actual real clinical settings. It is now possible and ethical to practice, with unlimited trials till the required clinical skills are perfected, with the use of simulation-based clinical skill training, which is also supported by the World Health Organization Simulation-based training can provide pedagogical guidance to fulfill the required and intended learning outcomes through the cognitive instruction together with corrective feedback by using specifically designed Simulation Evaluation Rubric, which serves as a critical guide to inform and shape the nursing students' clinical learning.

Jeffries postulated that "Simulations are defined as activities that mimic the reality of a clinical environment and are designed to demonstrate procedures, decision-making, and critical thinking through techniques such as role playing and the use of devices such as interactive videos or mannequins". This is also echoed by Gaba with further illustrations on affirming "simulation is a technique, not a technology, to replace or amplify real experiences with guided practices, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion". The IOM report on nursing work environments recommends simulation as a method to support nurses in ongoing acquisition of knowledge and skills. The benefits of using simulation for the practices and experiential learning in clinical skills training are evidenced by the features as illustrated by Issenberg & Scalese that include the capabilities for :

- (a) Repetitive practice
- (b) Range of difficulty level progressively
- (c) Multiple learning strategies
- (d) Clinical variations
- (e) Controlled environment or situation
- (f) Individualized learning
- (g) Defined outcomes and benchmarks
- (h) Simulator realism with validity empowered
- (i) Curricular integration

Providing high quality clinical experience for students has been a perennial challenge for nursing programs – short patient length of stay, high patient acuity, disciplines in learning experiences and amount of time instructors spend supervising skills along with recently more programs competing for limited clinical sites, faculty shortages and patient safety initiatives reduce the number of students allowed on a patient unit or restrict their activities to only observing care.

A study conducted by Jannifer K Hayden Etal by National council of State Boards of Nursing in U.S. has provided substantial evidence that substituting high quality simulation experience for upto half of traditional clinical hours produces comparable end of program educational outcome and produces new graduates that are ready for clinical practice.

With all of these capabilities as mentioned and affirmed, simulation-based education has become more important technological and educational tool for nursing education. Subsequently, the crucial and central concern is of great consequence for nurse educator to formulate some guiding principles in effectively evaluating students' performance outcomes in clinical learning from their simulation-based clinical skill training and practices. One of the way to ensure the quality standard of assessment from the simulation-based clinical skill training is by using the "Simulation Evaluation Rubric", in which we can communicate to our students ahead of time for what the required skills they will be expected

to know and do, together with a framework for the assessors to evaluate the students' work from this simulation-based practices. In turn, it also helps :

- (a) to eliminate some of the possible subjective views, components or expectations of such assessment;
- (b) to keep track of the processes in such assessment;
- (c) to allow this evaluation and feedback to take place concurrently and/or afterward as part of debriefing process from the simulation-based practices.

The linkages in the use of simulation evaluation rubric to evaluate clinical learning performance have been explored by many research studies throughout the last decade, with empirical results and findings generally suggesting and supporting better achievement and deeper or more effective learning by students who have rubrics to guide their work of the required expectations or intended learning outcomes and objectives