California Simulation Alliance
a program of HealthImpact

**Simulation Supports Students to Achieve Learning Objectives**

**May 11, 2020 Synopsis**

The California Simulation Alliance (CSA) supports the use of well-executed simulation as clinical hours for nursing students to develop nursing core competencies similarly, and possibly better than, direct patient care experiences.

**Problem**

During the current COVID-19 pandemic, it is critical that the nursing pipeline remains intact. Academic nursing programs are rapidly reviewing and revising teaching strategies to achieve clinical course objectives and student learning outcomes. Despite these efforts, the following problems exist:

- Limited opportunities for direct patient care due to limited personal protective equipment, radical reduction of hospital elective cases to make room for a COVID-19 surge, and furloughs of hospital nurses due to low hospital census,
- Student and faculty health or social situations make direct care clinical experiences hazardous,
- Some hastily-created alternative direct care experiences are not evidence-based, and
- Board of Registered Nursing restrictions that limit the implementation of evidence-based learning strategies that would optimize the students learning experience to achieve course objectives and student learning outcomes.

Students are unable to progress toward graduation with the core competencies required for successful entry into practice.

**Background**

Redesigning nursing education was identified over 10 years ago as an urgent societal agenda.[1] This was reinforced by the 2011 Institute of Medicine Future of Nursing Report, calling for a transformation in the way nursing graduates are prepared to work effectively in a complex and evolving health care system.[2] Nursing Faculty have been urged to revamp the curriculum and innovate teaching strategies that place more emphasis on clinical reasoning in efforts to transform nursing education.[1,3-6]

Prior to COVID-19, access to direct patient care experiences posed considerable challenges for nursing programs. In 2017-2018 a total of 75 programs (53.2% of all programs) reported that they were denied access to a clinical placement, unit, or shift.[7] In addition, 61 programs (43.3%

of all programs) reported that there were fewer students allowed for a clinical placement, unit, or shift in 2017-2018 than in the prior year[7]. Furthermore, 92 (65.7%) nursing schools reported that pre-licensure students in their programs had encountered restrictions to clinical practice imposed on them by clinical facilities.[7] *Health**Impact***, in collaboration with the Board of Registered Nursing, conducted a series of regional summits[8] throughout California and identified that academic and clinical practice leaders agreed that academic programs should be allowed to have up to 50% of clinical experiences in simulation that follow national standards.

Therefore, it is evident that, even prior to COVID-19, clinical education for nursing students has been suboptimal in regards to quality and access. Yet little has changed. The current crisis provides the opportunity to address the ongoing concerns highlighted in the research by transform nursing education, while maintaining the nursing pipeline to practice.

**Current State**

The California Board of Registered Nursing (BRN) approval of registered nurse (RN) education programs is vital for protecting the public. The purpose of program approval is to ensure the program comprehensively covers the knowledge and skills that students will need to be licensed as an RN and to practice safely and competently as new graduate nurses.[9]

On March 30th, 2020 Governor Newsom issued an Executive Order[10] that directed the California Department of Consumer Affairs (DCA) to waive any appropriate professional licensing requirements to continue to educate health professional students so they can progress to graduation and enter the workforce. California regulation, 16 CCR §1426(g)(2), requires that 75% of clinical hours in a course must be in direct patient care. On April 3rd, 2020 the Director of the DCA temporally waived this requirement for 60 days allowing nursing programs to use alternate learning strategies to complete 50% of clinical hours.[11] The rationale for a prescriptive percentage of time in direct patient care appears to be grounded in history rather than in current research and evidence.

The Advisory Board Company's CNO/Dean survey, identified that Chief Nursing Officers do not feel that new graduates are prepared to work in their clinical settings.[12] New graduate nurses lack the necessary clinical reasoning and collaboration skills needed to be safe and effective practitioners.[13-16] Additionally, they are drastically underprepared to translate their knowledge into clinical decisions when working within fast-paced, complex practice settings.[17]

To narrow the academic-practice gap and improve the preparation of new graduates, strategies need to be adopted that allows the student to build a knowledge base while they are developing a sense of salience – recognizing quickly what is most important in each particular clinical situation.[1] This is challenging with the heavy emphasis of clinical hours being in direct patient care.

The traditional model provides students with a snapshot of patient care as clinical hours typically occur one to two days a week for 6 to 8 hour per day.[18] Furthermore, in a direct

patient care setting, faculty often move rapidly from floor to floor, room to room, and student to student. They focus on tasks, with little time devoted to helping students develop clinical judgment.[19,20] Additionally, it is often difficult to guarantee that patients with conditions that reflect curricular content are available for students to care for. Increased hospital concerns about liability often prevent students from taking responsibility for patients or performing key tasks; they can often only observe in many situations. The ability to practice delegation, communication with other healthcare professionals, and teamwork are rarely, if ever, available.[21] Finally, caring for multiple patients in order to prepare students for transitioning to the practice environment cannot take place due to student-to-faculty ratios, high patient acuity, and patient safety considerations.[21]

An evidence-based pedagogy that emerged at a time that constraints were being imposed on clinical experiences for nursing students is simulation-based education (SBE). The recognized definition of simulation-based learning experiences is, "an array of structured activities that represent actual or potential situations in education and practice. These activities allow participants to develop or enhance their knowledge, skills, and attitudes, or to analyze and respond to realistic situations in a simulated environment."[22] Simulation modalities include, but are not limited to, computer-based simulation, mannequin-based simulation, role play, and standardized patients (i.e., actors trained to portray patients in simulations).

Initially, many schools implemented simulation because clinical placements for students were difficult to find. However, recognition that simulation is effective at recreating essential clinical encounters to meet student learning outcomes in a safe educational setting where no harm can come to patients soon followed.[23]

The majority of nursing programs in California (98.6%) report using simulation.[7] SBE is being used to achieve learning objectives that have been identified as weaknesses in the new graduate nurse. A significant number of nursing programs in California (97.8%) are using simulation to achieve learning outcomes in critical thinking, decision making, and priorities of care, 92.8% are using SBE to achieve learning objectives in direct patient care, and 91.3% have adopted SBE for teamwork and interprofessional care.[7]

Simulation significantly improves clinical knowledge from baseline in pre-licensure nursing students.[24] Additionally, students spend more time performing at an application and analysis level in simulation than in clinical rotations in the direct patient care environment.[25] Furthermore, higher levels of performance occurred in much less time in simulation than in the direct patient care environment.[25] Unlike faculty development for faculty in traditional direct patient care environments, there is mounting evidence as to the best practices for simulation faculty development.[26-35]

Finally, a landmark large-scale, randomized, controlled study conducted by the National Council of State Boards of Nursing in 2014 determined that simulation is as effective, if not better than, traditional methods of preparing pre-licensure students.[36]

**Proposed Future State**

The current COVID-19 crisis has highlighted a problem that was hiding in plain sight-- the traditional model of clinical education for nursing students is insufficient to develop requisite nursing competencies and the availability of high-quality direct care experiences to achieve student learning outcomes is limited.

The CSA supports the position of the International Nursing Association of Clinical Simulation and Learning (INACSL, www.inacsl.org) and the Society for Simulation in Healthcare (SSH, www.ssih.org) that based on the current and anticipated shortage of healthcare workers, the regulatory bodies and policymakers demonstrate flexibility by allowing the replacement of clinical hours usually completed in a healthcare setting with that of virtually simulated experiences during the pandemic.[37]

Specific recommendations:

The Board of Registered Nursing suspends section §1426(g)(2)of Title 16 and replace it with the following suggested language to mitigate the current challenges and allow nursing students to graduate timely and enter the workforce:

- Until December 31, 2020, all Board of Registered Nursing approved pre-licensure nursing programs may decrease direct care experiences to 25% and use simulation and distance learning methods for clinical experiences such as, but not limited to, computer-based simulation and telehealth without pre-approval to meet the program and student learning objectives.

***Beyond COVID-19***

The CSA recommends a change in BRN regulations to allow nursing faculty and nursing programs the flexibility to implement evidence-based educational strategies that optimize the students learning experience to achieve course objectives and student learning outcomes.

Specific recommendations include:

Change 16 CCR §1426(g)(2) to read:

> (a) Three (3) hours of clinical practice each week throughout a semester or quarter equals one (1) unit. With the exception of an initial nursing course that teaches basic nursing skills in a skills lab, 50% of total curriculum hours must be in direct patient care.
>
> (b) Any clinical experiences that utilize simulation shall follow the standards published by the International Nursing Association for Clinical Simulation and Learning (INACSL) [38-45] , the National Council of State Boards of Nursing[46], the Society for Simulation in Healthcare[47], or equivalent standards approved by the board.

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