



The impact of COVID-19 on nursing education in Sri Lanka: A reflective analysis

Non-Research Paper

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ABSTRACT

In the wake of COVID-19, nursing education has shifted to eLearning from traditional methods. This reflective analysis addresses the impact of COVID-19 on the development of competencies among nursing students in Sri Lanka. Four themes were identified: the direct impact of the COVID-19 pandemic on nursing education; the role of eLearning in nursing education during the COVID-19 pandemic; the acquisition of nursing skills and competencies; and implications for education, research, and policy. Virtual online learning has replaced traditional teaching and learning. Acquiring clinical skills and competencies and completing the practicum are challenging. Since nurses are in high demand; nursing education needs to be accelerated and modified. A change in policies related to education and research is essential for developing countries. Blended learning, which includes more simulation teaching, is recommended.

KEYWORDS

COVID-19, Developing Country, eLearning, Nursing Education, Sri Lanka

INTRODUCTION

COVID-19 has a significant impact on the developing world. By mid-2021, COVID-19 cases had increased substantially in South Asian countries. During the COVID-19 pandemic, special guidelines were implemented to minimize its consequences, and many South Asian countries experienced lockdown, affecting entire regions or countries. As a result, many educational institutions, including universities, were closed. Sri Lanka is one of the countries in South Asia experiencing the third wave of COVID-19. As in other countries, the government of Sri Lanka closed all schools and educational institutions to improve social distance. Considering the current shortage of nurses, closing universities and other nursing educational institutions negatively impacted nursing education in the country.

According to the International Council of Nurses (ICN) (2021a), 73% of its member National Nursing Associations reported disruptions in nursing education in 2020. Today, the impact of COVID-19 has increased or continued in many developed and underdeveloped countries; consequently, the continuation of nursing education has become more challenging (Agu et al., 2021). Nursing education consists of classroom learning with mandatory skill laboratory practice (Morgan, 2006) and clinical practice (Jamshidi et al, 2016). Skill laboratory practice helps nursing students to integrate theory to practice before their first clinical placement (Morgan, 2006). As nursing is a highly skills-based profession, clinical education is mandatory in preparing nursing students for their future roles (Jamshidi et al., 2016; Jonsén et al., 2013). Many nursing educational



institutions in Sri Lanka have closed their physical classes and lab practices and halted clinical placements due to the COVID-19 pandemic. Consequently, eLearning has been integrated into nursing education.

Technology, particularly eLearning plays a vital role in education when students are physically remote from the classroom, and online education has become a global phenomenon considering the COVID-19 pandemic (Rapanta et al., 2020). Educators describe online learning in a variety of ways, such as eLearning (digital learning), web-based learning, online learning, mLearning (mobile learning) and dLearning (digital learning) (Basak et al., 2018; Saiyad et al., 2020). These strategies are practiced in different contexts, including asynchronized learning (e.g., sharing of recorded lectures), synchronized learning (e.g., live video interactions) and blended learning (Taha et al., 2020). Literature suggests these technologies assist in shaping the cognitive, affective, and psychomotor skills of students (Cooper & Higgins, 2015). While many technology-based interventions have been introduced to nursing education (ICN, 2021a), the sustainability and effectiveness of eLearning interventions have been challenged, particularly in low and middle-income countries (Agu et al., 2021). Despite the applicability of new technologies in classroom teaching; skill lab practice, clinical training, and student assessment in nursing education have become difficult to actualize as these forms of teaching require compulsory student attendance.

PURPOSE

The purpose of this reflective analysis was to describe the impact of COVID-19 on the development of competencies among nursing students in Sri Lanka.

METHODS

The authors of this paper participated in an initial discussion. The team included three lecturers in nursing from national universities (SR, DD, CMH), one lecturer (ND) from a private university, one nursing tutor (TJ) from a Diploma School of Nursing attached to the Ministry of Health Sri Lanka (currently, a lecturer in nursing from one of the national universities in Sri Lanka) and Professor in Community Medicine (SD). SR led the discussion. The authors

agreed to provide a written statement on the current situation of nursing education in their institutions, as well as their suggestions for further improvement. A questionnaire guide was created to assist with collecting information about the impact of COVID-19 on nursing education ([Table 1](#)).

All authors except for SD, answered each item on the questionnaire guide. Each response script was read and re-read by two authors (SR and TJ) and basic categories and themes (thematic map) ([Table 2](#)) were identified. Consensus was achieved among two authors (SR and TJ), and it was shared among other authors for any comments/approval. Agreed that the designed thematic map was comprehensive; therefore, our discussion focused on four themes. Ethical approval was not obtained as this was not a research study.

RESULTS FROM REFLECTIVE ANALYSIS

There are four main themes to our discussion: (1) the direct impact of the COVID-19 pandemic on nursing education; (2) the role of eLearning in nursing education during the COVID-19; (3) the acquisition of nursing skills and competencies; and (4) implications for education, research, and policy.

DISCUSSION

Direct Impact of the COVID-19 Pandemic on Nursing Education

Worldwide, many countries have devised their own guidelines and measures to minimize the spread of the COVID-19 infection, including those imposed by the World Health Organization (Allain-Dupré et al., 2020). As in many other countries, schools, and other educational institutions in Sri Lanka, including universities, were closed (Wickramaarachchi et al., 2020). Closing NEIs and other measures and guidelines imposed to control COVID-19 infection directly affected nursing education. The impact include disrupted classroom teaching, skill lab practice and clinical learning, delayed research projects, cancellation of examinations, delayed admission, and delayed students' graduation. With the increased demand for nurses during the COVID-19 pandemic, interrupted nursing education directly affected producing an adequate number of nurses for the workforce.



Role of eLearning in Nursing Education During COVID-19 Pandemic

In Sri Lanka, before the COVID-19 pandemic, education in nursing was conducted entirely face-to-face, incorporating skill laboratory teaching and clinical practice. With the presence of the COVID-19 pandemic, this traditional method moved to online, helping students find solutions for direct classroom teaching. Nurse educators have incorporated different eLearning platforms in their practice, such as Zoom, Microsoft Team, Learning Management Systems, emails, and WhatsApp. However, it was difficult for nurse educators to complete nursing courses online because the systems failed to provide sufficient laboratory and clinical practice support. Although students were placed in clinical settings from time to time, the placements were not sufficient to complete their clinical learning. Simulation can be identified as one option for clinical training (Mehdipour –Rabori et al., 2021), its initiation is challenging, particularly for developing countries like Sri Lanka due to inadequate facilities, training, and lack of exposure by nurse educators.

We identified several strengths concerning the initiation of eLearning in nursing education. These strengths include eHealth literacy of students and educators; adaptation and dedication of both educators and students for ad hoc strategies at the beginning; assistance from internet providers in the form of providing low-cost services; availability of personal resources among students and educators and support received from the government and educational administrators.

Despite the above strengths, the challenges associated with transforming face-to-face learning models to eLearning approaches have been identified. A similar situation can be found in other developing countries, including South Asian countries such as India, Bangladesh, and Nepal (Rizvi & Nabi, 2021; Shahriar et al., 2021; Singh & Singh, 2020). Bangladesh researchers have identified these challenges as “common developing country syndrome” (Shahriar et al., 2021). Highlighted challenges in Sri Lanka include limited facilities in educational institutions; social inequality related to online learning, including limited devices and internet connections; non-availability of proper technological

training for teachers and students; acceptance by teachers and students, sustainability of the eLearning, economic barriers, and establishment of these interventions without feasibility studies. Many NEIs, particularly Diploma schools, have student batches with many students; however, there were limited facilities for eLearning, including equipment, internet access and paid user-friendly learning applications or systems. Sustainability is mainly challenged by the motivation of nurse educators, connection issues and related costs for students. Although synchronized methods such as live video interactions are more effective, asynchronous methods also have been incorporated due to challenges posed by resources, connection issues, and availability.

In addition, the advantages, and disadvantages of online learning in nursing education were identified. These advantages include continuity of education during the COVID-19 pandemic without the risk of getting infection; maintaining teacher-learner relationship during the lockdown; the convenience of learning irrespective of boundaries such as time, place, or speed of learning; improving self-directed learning; and cost-effectiveness for the institute. Disadvantages include wasting resources, including time and money; lack of face-to-face social interaction; lack of integration of theory and clinical experiences; difficulty in addressing individualised needs of students; anxieties related to new methods for teachers and students; low satisfaction, difficulty in achieving higher learning outcomes, and sustainability.

Acquisition of Nursing Skills and Competencies

Nursing education aims to prepare the future nursing workforce with knowledge, skills, and attitudes (World Health Organization, 2021) to promote health, prevent illness, and provide care for ill, disabled and dying people (ICN, 2021b). Nursing education, therefore, places a high emphasis on clinical skills and competencies, which are both complex and challenging components (Spence et., 2019). ICN (2021a) reports that clinical placements have been limited to nursing students to conserve personal protective equipment and prevent exposure to COVID-19. During the COVID-19 pandemic, eLearning strategies enabled nursing students in Sri Lanka to acquire theoretical knowledge. However, the acquisition of clinical skills and competencies was



significantly hindered. Several factors contributed to the disruption of clinical competencies of basic nursing students during the COVID-19 pandemic, for example, lack of opportunities to integrate knowledge, skills, and attitudes, particularly lack of skill lab and clinical training parallel to classroom learning: lack of bed-side teaching, weak assessment and evaluation of clinical competencies, and lack of attitude and soft skill development. This situation adversely affects the development of a skilled nursing workforce to meet future demands, leading to poor patient outcomes. Traditionally, many clinical modules are assessed by clinical examinations and this approach is the widely accepted method for clinical evaluation of nursing degree programs in the country. Although some institutions incorporated objective structured practical examinations (OSPE) in the skill laboratories with standardised patients, the acceptability and effectiveness are not explored. Additionally, a lack of competencies may lead to developing negative consequences among future nurses (Dewart et al., 2020), for example, frustrations, less job satisfaction, stress, burnout and bullying by colleagues and superiors.

In addition to basic nursing training programs, few NEIs under the Ministry of Health conduct diploma courses for nurses to gain competencies in special contexts, for example, pediatric nursing, maternity nursing, psychiatric nursing, community psychiatric nursing, enterostomal therapy, operation theatre nursing, intensive care nursing, pain management and emergency nursing. By cancelling these diploma courses during the COVID-19, nurses are prevented from acquiring new competencies and becoming specialists in the profession.

IMPLICATIONS FOR EDUCATION, RESEARCH, AND POLICY

At present, COVID-19 is out of control and cannot be predicted when it will be contained. Nursing education has faced several challenges, mainly the breakdown of classroom teaching, clinical placements, and uncertainty about future education; therefore, strategies must be carefully planned and implemented. Notably, eLearning is a novel experience for educators and students in developing countries (Oyedotun, 2020), and Sri Lanka is not an exception. To sustain and maintain standards of nursing education considering a COVID-19 pandemic,

comprehensive and collaborative approaches for education, research, and policymaking are essential.

Implications for Education

McGarry et al. (2015) have reported that student-centric curricula are based on engagement, flexibility, active learning, and adaptability. Therefore, it is essential to upgrade the competencies of nurse educators to face challenges during the paradigm shift in nursing education. Several suggestions are identified, and one of the major concerns is revising or modifying the current curricula. Modifying learning outcomes, adding modules of health systems and emerging technologies in healthcare, revising assessment methods, and incorporating simulation and blended learning approaches are recommended. From the authors' point, nurse educators need to pay careful attention to maintaining active learning, sustainability and integrating all learning domains into technology-enabled distance learning. The preparation of nurse educators, including improving the acceptance of technology and new methods for advanced eLearning, is imperative. Additional preparation from teachers, for example, the preparation of pre-recorded videos, are highlighted. Enhancing eLiteracy should be incorporated into the continuous professional development programme of nurse educators. Keeping a backup plan helps to ensure the smooth operation of programs during service interruptions and the absence of teachers. Moreover, maintaining mental well-being while the work-life balance of teachers needs to be prioritized.

With the COVID-19 pandemic, globally, nursing education has adapted to incorporate different eLearning strategies to address cognitive, psychomotor, and affective aspects of the next generation of nurses. Considering the lack of clinical exposure, blended learning and simulation learning provide an opportunity for deep learning. With blended learning methods, face-to-face teaching and learning strategies can be combined with technological innovations (McGarry et al., 2015). To effectively manage these activities, nurse educators can use learning management systems. For example, the project-based learning (PBL) methodology through flipped learning classrooms is viable for blended learning (Chua & Islam, 2020). In addition, simulation sessions, especially debriefing phases, can help students to develop soft skills and attitudes.



Despite the costly high fidelity or virtual simulations (Brown & Tortorella, 2020), low-cost simulation modalities can be used in developing countries, for example, standardised patients, low fidelity mannequin-based simulation, computer-based simulation, and role-plays (Weberg et al., 2021).

Implications for Research

The heavy teaching load faced by nurse educators worldwide and the limited access to research settings have hindered the conducting of successful research during the COVID-19 pandemic (Im et al., 2021). Research on the transformation of nursing education is essential across the globe during the post-pandemic period (Im et al., 2021). Evidence-based and culturally accepted practices are crucial in establishing the suggested implications of nursing education in developing countries like Sri Lanka. For example, research priorities must include need assessment, feasibility and cost analysis, assessment of the acceptance and effectiveness of new teaching and learning approaches, and mental well-being of teachers and students. Moreover, policy-driven research, for example, the development of national frameworks to maintain sustainability in nursing education, is highlighted.

Implications for Policymaking

Policymakers in developing countries like Sri Lanka should support nursing education and research. The policy priorities from the national level to institutional level include the need for identifying nursing education as a national priority, evidence-based transforming of traditional education strategies and ad hoc strategies, budgeting and improving infrastructure and other resources, recruiting and retaining of nursing students and educators, capacity building of nurse educators, rescheduling flexible clinical timeframes, establishing clinical mentorship and essential internships for nurse graduates and work-life balance during the COVID-19 crisis. The Sri Lankan nursing education system still does not offer clinical mentorship and compulsory internship, which should be a top priority in national nursing education policies to prepare students for the nursing profession effectively. The need for effective mentoring for nursing students is highlighted during the COVID-19 pandemic.

Recruitment and retention are supported by safe working conditions, recognition, and respect (Chamanga et al., 2020). Im et al. (2021) have explored implications for policy changes in nursing education based on a study across five regions of the world. These policy suggestions are also applicable to developing countries like Sri Lanka. These include the provision of human resources and administrative and technological support; provision of targeted support, for example, pilot grants for promoting nursing education in selected areas; investment in nursing priorities such as mental health issues amidst the pandemic; initiation of research, such as changes in curricula and providing grants for researchers; opening to new technologies and innovations for future usage; developing new care models and devices for nursing care, and continuity of research to enhance the visibility and image of nursing during the COVID-19 pandemic.

LIMITATIONS

The paper contains reflections and opinions limited to five nurse educators in Sri Lanka.

CONCLUSION

COVID-19 poses a threat to nursing education worldwide, including in developing countries. Based on the reflections of nurse educators in Sri Lanka and literature, we discussed nursing education during the COVID-19 pandemic from the eye of a developing country in South Asia (i.e., Sri Lanka). Additionally, we provided several recommendations for nursing education in the Sri Lankan context. The nurse educators in Sri Lanka have continued nursing education with ad hoc plans to transform face-to-face education into eLearning strategies. Amidst the COVID-19 pandemic, eLearning strengthens the cognitive component of education; however, psychomotor, and affective domains are under-addressed. Therefore, educational, research and policy implications are recommended to prepare the future nursing workforce. Revision of curricula is essential to overcome the challenges of the COVID-19 pandemic. Modifications of learning outcomes, changes in teaching-learning strategies and changes in evaluation methods need to be incorporated. Blended learning activities, for example, project-based learning, are suggested to achieve higher-level learning outcomes. Developing countries can utilise



low-cost simulation practices to enhance the clinical skills and competencies, and attitudes of nurse professionals. It is essential to conduct research studies to identify changes required for current curricula and examine their effectiveness. Incorporating feasibility studies and cost analysis into research when planning changes in nursing education are highlighted.

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Table 1. Questionnaire Guide

No.	Question
1	What is the present situation in nursing education institutions (NEIs) under the impact of the COVID-19 pandemic?
2	What are the challenges faced by NEIs to continue nursing education?
3	What are the strategies started at the institutional level?
4	What are the pros and cons of the above initiatives?
5	As nursing is a discipline that is based on hands-on skills, how do you think about meeting the goals of each program/job prospective?
6	What are the suggestions to improve or continue nursing education? i.e., implications for education, research, and policy Competency development in Classroom teaching Practical and clinical learning Examinations Changing curriculum to face current and future challenges related to pandemics like COVID-19 Meeting the learning objectives of nursing programs



Table 2. Thematic Map

<p>The direct impact of the COVID-19 pandemic on nursing education</p> <ul style="list-style-type: none">COVID-19 guidelines and disruption nursing education<ul style="list-style-type: none">Administration of nursing educational institutesClassroom learningSkill-lab practice and clinical trainingCommunity health programFinal year research projectStudent evaluationPost-phoning new recruitmentDelayed graduation
<p>Role of the eLearning in nursing education during COVID-19 pandemic</p> <ul style="list-style-type: none">Introduction of eLearning strategiesChallenges faced<ul style="list-style-type: none">Limited facilities in nursing educational institutesSocial inequity and online nursingTraining staff and studentsSustainabilityPros and cons of online teaching
<p>Acquisition of nursing skills and competencies</p> <ul style="list-style-type: none">Integration of knowledge, skills, and attitudesSkill lab practice and clinical trainingStudent assessment and evaluation<ul style="list-style-type: none">Application of alternative methodsEffectiveness of online assessmentAttitudes and soft skills developmentPreparation for future work
<p>Implication for education, research, and policy</p> <ul style="list-style-type: none">Education-Need for curriculum changesResearch-Need for expanded researchPolicy- Providing adequate facilities<ul style="list-style-type: none">Recruitment and retaining of nurses