

Impacts of COVID-19 on Nursing Education: A Literature Review

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Abstract: COVID-19 and the resulting lockdown policies have far-ranging effects on nursing education, with an impact in all its aspects, including educational equity, student's well-being, nursing curriculum, clinical placement, and educational outcome. Adaptations to the virus resulted in lockdown precautions and many institutions relying heavily on technology so that services may continue uninterrupted. Based on the author's research, this literature review explores the impacts of COVID-19 on nursing education as it is forced to rapidly change in the wake of the pandemic. Concomitant to change in pedagogy and modes of educational delivery, COVID-19 will indelibly transform the content of curriculums. Both students and educators are cognizant of pressing need to understand evolving knowledge of SARS-COV, COVID-19, and the nursing care of patients and their families.

Keywords: nursing education, education equity, student well-being, impact on clinical placement and nursing educational outcomes, literature review

1. Introduction

The 2019 COVID-19 epidemic has caused significant disruption across the world (WHO, 2020). Many countries have implemented drastic measures, such as highly restrictive lockdowns and selective allowances for mobility, to limit the spread and effect of the disease (UNESCO, 2020). The coronavirus pandemic has particularly badly impacted the academic community. Students and educators across the globe were forced to turn their homes into a virtual classroom, catapulting them into what is for many, unfamiliar terrain (Haslam, 2020). Some adjust better than others, but the fallout is the same: normalcy is postponed, ushering in the period of the new normal. The challenges of managing such rapid transition include new pedagogy, established IT infrastructure, the availability of learning technology services, staff digital literacy, and clinical academic redeployment (Carolan et al., 2020). With the disease dynamic shifting fast across different contexts and our evolving understanding of the disease, it is unclear whether COVID-19 will vanish or persist in the long run. As a result, the COVID-19 pandemic will have lasting changes on the nursing educational landscape (Fogg, et al., 2020).

The objective of this review is to explore the impact of COVID-19 on nursing education. Specifically, this paper seeks to address the following research questions: (i) what are the most recurrent topics explored in nursing education; (ii) how do these recurrent topics impact nursing education; and (iii) what topics need to be examined for further research?

2. Methodology

2.1 Design

To map relevant literature, a methodological approach based on Arskey and O'Malley (2005) was utilized. The method of evaluating research findings in order to contextualize knowledge in terms of:

- Examining the scope, breadth, and type of research activity

- Determining the usefulness of doing a complete systematic review
- Summarizing and distributing research findings
- Identifying research gaps in the current literature (Arskey & O'Malley, 2005).

2.2 Inclusion/ Exclusion Criteria

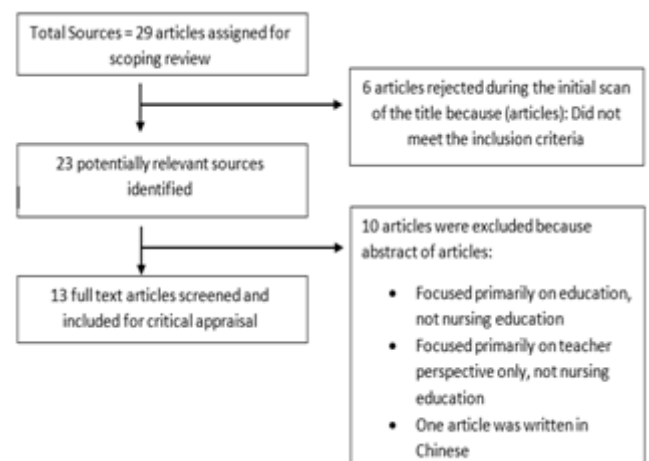


Figure 1: Article Selection Process

The author assessed the articles against the inclusion and exclusion criteria listed below. To determine inclusion or exclusion for review, these studies were reviewed in three stages: (1) Preliminary scan of the title; (2) Abstract viewed; and (3) Full text viewed. The inclusion criteria incorporated: (a) Publication during the pandemic; (b) Published in peer-reviewed journal; and (c) Content related to the research topic. Exclusion criteria incorporated: (a) Content unrelated to the research topic; (b) Lack of original data; and (c) Text not written in English (Fig.1).

2.3 Search Outcome

The author reviewed the titles and abstracts initially against the inclusion criteria. 15 articles were eliminated and 13 articles remained for final appraisal and final review (see Appendices, Table 1). Most of the literature was primarily situated within the discipline of nursing education.

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Literature includes: two reflection articles (Agu et al., 2021; Hsieh et al., 2020), one editorial (Carolan et al., 2020; Morin, 2020), two commentary (Christopher et al., 2020; Haslam 2021), two journal articles (Gresh et al., 2021, Dewart et al., 2020), one survey (Fogg et al., 2020), one mixed method (Michel, 2021), one qualitative (Ramos-Morcillo et al., 2020), one contemporary (Seahe et al., 2021) and two cross-sectional studies (Savitsky et al., 2020; Ulanas, 2021).

3. Results and Discussion

The majority of the identified literature comes from the United States and European countries (8/13). One article in particular emphasized that academic approaches may need to be altered in order to maintain a caring presence when instruction shifts to distant learning approaches during and after the epidemic. Five articles examined the challenges, effects and disruptive impacts on nursing education, four articles include student experiences in learning during COVID 19, two focused on service learning and clinical placements, and one included curriculum changes for nursing students. After careful examination, four recurrent topics that impact nursing education were identified in the literature (see appendix, Table 2): (1) educational equity; (2) student well-being; (3) nursing curriculum, (4) clinical placement; and (5) educational outcomes (see appendix, table 2).

3.1 Impact on Educational Equity

The migration of nursing education to online platforms has generated a new challenge: the digital divide between the most affluent and least fortunate students. Many learners live in remote locations with limited or no internet connection, insufficient financial resources, no access to required textbooks or campus libraries, and do not own computers (Agu, et al., 2020; Haslam, 2020). While students may utilize their mobile phones for access, the device's type and capacity provide a challenge due to limited memory space to download more complex learning resources such as videos or voice-over PowerPoint presentations (Morin, 2020). The battery life of these devices is also a limitation (Haslam, 2020).

One approach for addressing some of these challenges is to rethink the delivery of online content in a low-fidelity manner. However, doing so necessitates forethought and deliberate preparation. Both of these tasks take time, a privilege not accorded during the epidemic. Institutions must play their part to ensure sufficient resources to students from lower-socioeconomic backgrounds are not disadvantaged and that equity in student experience is guaranteed. Furthermore, it is critical that the technology utilized contributes to, rather than detracts from, learning, teaching, and evaluation, and that the technological approach is properly integrated with the course learning objective and content.

3.2 Impact on Student Well-being

Nursing students have reported poor mental health during the COVID-19 outbreak (Ramos, et al., 2020). Michel, et al.,

(2021) conducted a mixed method study in which students discussed how the epidemic has caused substantial stressors in their life such as financial problems, the need to relocate, and/or a lack of public transportation. Obscured distinctions between home and school environments, as well as family obligations such as caring for children and their schoolwork, were also identified as stressors. Some students may quickly welcome this transition to e-learning, embracing its flexibility in geographical place and time, whereas others will feel uneasy due to lack of computer literacy or an absence of physical human connection and camaraderie (Carolan, et al., 2020). In addition, the minimal in-person interaction between nurse educators and nursing students gave prominence to poor motivation and reduced communication skills, causing many other students to express uncertainties around their progression and assessment (Moawad, 2020).

To address this challenge, attempts must be made to promote and sustain engagement through an instructor presence. Human caring has long been established as a fundamental principle in nursing education and can be regarded an essential practice in addressing this problem (Christopher, et al., 2021). Optimizing caring pedagogical practices in a remote learning environment may therefore generate further displays of caring presence. Academic practices may need to be modified to ensure continued caring presence as instruction transitions to remote learning methodologies during and after the pandemic. Through the Caritas-Veritas processes and deliberate, transpersonal relationship attunement, caring methods are feasible. Despite the physical separation necessitated of nursing educators and students amid this global crisis, caring pedagogy fulfills the nursing education's holistic demands. Collaborative learning approaches with peers also promote dialogue and enhance greater understanding, skill development, knowledge building and application (Savitsky, et al., 2020).

3.3 Impact on Nursing Curriculum

Concomitant to change in pedagogy and modes of educational delivery, COVID-19 will indelibly transform the content of curriculums. Both students and educators are cognizant of pressing need to understand evolving knowledge of SARS-COV, COVID-19, and the nursing care of patients and their families. It is difficult to imagine that another such virus or other health calamity will not emerge at some point in the future. Curriculum content must incorporate new knowledge (or possibly review knowledge that has been discarded) in epidemiology, public health, and health promotion (Carolan, et al., 2020). Surveillance and detection, isolation, quarantine, and containment, as well as basic hand washing, cough, and respiratory etiquette, should all be covered (Morin, 2020). There may also be a need for more advanced understandings of critical care nursing and supportive care for patients who undergo sudden transitions to end-of-life care, as well as a deeper comprehension of the ethical issues posed by events such as the COVID-19 epidemic among nursing students. Simultaneously, educators must strive much harder to include practices that promote student well-being and emotional resilience into their curricula.

In the study by Seah et. al. (2021), the pandemic also prompted more academics to consider the rising importance and the feasibility of integrating telehealth knowledge and experience in nursing education. In times of the prolonged management of COVID-19 pandemic and future infectious disease outbreaks, telehealth emerges as an imperative strategy to provide health screening, continual consultations and patient education remotely. Its uses extend beyond triaging COVID-19 patients (Ulaner et al., 2020). However, developing virtual nursing competence and patient engagement among nursing students to be 'telehealth ready' can be complex; its primary mode of knowing and caring for patient is via language and it involves the cultivation of e-professionalism on screen while establishing positive nurse-patient relationship. While telehealth has been established in both the practice and education of nurses working with rural communities, readiness, and integration of telehealth in nursing education curriculum within academic institutes are still limited.

As a result, COVID-19 highlighted curriculum gaps. One step toward closing this gap is to create a set of readiness competencies that will serve as a curriculum aim. With the constraints imposed by COVID-19, a new standard curriculum may potentially incorporate content integration. This method allows for a reduction in the number of hours spent on each subject while still meeting all of the curriculum goals. This technique will allow for the incorporation of curriculum content demands from diverse subjects in the design of instruction (Romano et al., 2012).

3.4 Impact on Clinical Placement

The disruptive effects of COVID-19 have forced a quick shift in clinical practice for nursing students (Carolan, et al., 2020). As clinical sites rebuffed practical experiences for students integrating clinical skills, developing needed competencies has become one of the most difficult curricular problems in nursing education (Agu, et al., 2021). Patient interaction is unique to nursing students' learning experiences. However, because patient interaction has been restricted and constrained, nursing students may have difficulties developing their patient care competencies.

While some faculty members have opted to increase their use of video demonstrations, simulation-based training, and online modules to help students develop clinical competency, these choices may not be easily available in resource-constrained universities (Agu, et al., 2020; Seah, et al., 2021). Furthermore, virtual simulations and high-fidelity simulation technology are not widely available in developing countries due to access and cost constraints. Restoring students to the clinical area may provide difficulties in terms of professional supervision and safety. The expense of supplying personal protection equipment to students and faculty for each clinical practicum interaction may also be too expensive (Savitsky, et al., 2020).

While rapid redevelopment of the curriculum is necessary given the circumstances, it is important to prioritize students' dispositions and views during this process (Ulenaers, et al., 2021). Clinical placement may be a tough component of training even without the extra challenges of a pandemic.

Students strive to fit in, create their professional personalities, and feel self-conscious about their abilities. Students' self-concept and academic ability might suffer as a result of ineffective coping. The combination of an uncertain and stressful setting and insufficient student support may jeopardize students' learning results. As a result, it is critical for nursing schools to acquire insight into their students' experiences. Such understandings can be used to optimize current coaching strategies but can also be used during future similar events.

3.5 Impact on Nursing Educational Outcomes

Countries that choose to delay formative assessments and national licensure exams will have an immediate impact on educational outcomes, limiting the availability of nurses in healthcare workforce and affecting the range of possibilities available during and after the pandemic (Seah, et al., 2021). An overlooked component of assessment that should be highlighted during the COVID-19 outbreak is the capacity to tolerate stress, adapt to rapidly changing circumstances in resource-poor settings, and have management and organizational abilities (David, et al., 2005, Adams and Walls, 2020). These aspects may now be more evident in the pandemic, and rubrics for student assessment and professional licensure may be changed to reflect these elements.

This aspect of change may have a larger influence on educational outcomes, influencing the perspective of nurses in the health workforce being formed and developed in the COVID-19 environment. This atmosphere of urgency, danger, and on-the-fly innovation may result in future emergency-ready nurses who will face these circumstances in the future. As a result, the previously stated COVID-19-induced curricular modifications will eventually have an influence on the graduates of such curricula.

3.6 Limitations

After thorough review of the literature, there was lacking evidence of how COVID-19 has impacted student assessments. Many student assessment mechanisms in nursing education rely on an in-person examination, both written and oral. COVID-19 has prevented these in-person examinations from occurring and instead, many schools have shifted to online assessments. Research must be employed to determine if these assessments and evaluations are effective, as online examinations can give students the ability to game the system and potentially cheat.

4. Conclusions and Recommendations

Adaptations to the pandemic and lockdown measures have relied heavily on technology. Some students may easily embrace the shift to e-learning, but others may feel uneasy owing to a lack of computer competence or a lack of tangible human connection and camaraderie, both of which contribute to poor mental health. Other stressors include poor motivation and reduced communication skills, which cause many other students to voice their concerns around their development and assessment.

Other challenges of online learning include educational disparities and the clinical practice component. Due to inequities, the impact of the COVID-19 pandemic on nursing education in underdeveloped nations may be higher than in affluent countries. Due to access and cost restrictions, virtual simulations and high-fidelity simulation technology are not generally available in developing countries. Returning students to clinical settings may provide challenges in terms of professional oversight and safety. The cost of supplying personal protection equipment to students and educator for each clinical practice encounter may also be a barrier.

As such, multi-sectoral intervention should be implemented through a collaborative effort of the government, healthcare institutions, universities, and nursing regulating organizations, who must always be prepared to respond to any future catastrophes. The pandemic of COVID-19 should be regarded as an opportunity rather than a threat to curriculum delivery and clinical placement. Video presentations, high-fidelity simulations, and telehealth are all areas that should be investigated, and a research-based assessment should be conducted to determine their effectivity.

As a result, COVID-19 has had an incredible impact in all its aspects, including educational equity, student's well-being, nursing curriculum, clinical placement and educational outcome. The full scope of these rapid changes in nursing education is unknown at this time, and nurse educators and leaders must lead the way in navigating this moment of uncertainty.

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