



Policies in Nursing Education During the COVID-19 Pandemic in 2020-2021

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Dear Editor,

In December 2019, a new type of coronavirus appeared in Wuhan of China, and led to an epidemic development of acute respiratory syndrome called COVID-19 in humans (1). Within a few months, the virus spread to different countries and killed thousands of people (2). With the involvement of 194 countries, the World Health Organization (WHO) declared the disease as a global epidemic on March 11, 2020 (3).

The COVID-19 epidemic is a major global health crisis and has led to fundamental changes in human behaviors (4). Depending on the prevalence and severity of conditions caused by the COVID-19 pandemic, countries encountered various challenges such as training people about health principles, social distance, quarantine and restrictions on domestic and foreign travels, closing large places and communities, including universities and educational institutions, conducting screening tests, and tracking infected and suspected cases (5). In this regard, education was one of the most vulnerable sectors, while medical and nursing education was also affected by this epidemic (1, 2).

In the first stage, in order to prevent communities and the spread of COVID-19, nursing universities were closed to decide on the educational process continuation, which educational activities had to continue, which activities had to be postponed, and which new educational methods had to be added (2, 5).

Virtual Learning: To prevent educational disruptions, nursing universities started virtual and e-learning for their students. In e-learning, all instructions are usually done in an online environment. Teachers and learners communicate with each other using a platform (6). Electronic platforms, online learning, video conferencing rooms, and social media are used for nursing educational purposes (7).

Electronic Platforms: Learning management systems were created to provide an electronic platform for nursing education. The learning management system is a web-based program which manages, documents, tracks, takes reports, and offers courses and training programs. This software allows nursing instructors to make the contents of the training courses as easy as possible for the participants and students, hold quizzes, tests, and absentee or in-person (online) exams, give the assignments related to the courses to students with a web-based system, track students' status, and access other such features on an Internet-based system. This system was used in different countries with different titles to manage classes and training courses in the field of nursing (1, 8, 9).

Online Learning: One type of virtual learning is online learning. With the onset of the COVID-19 epidemic, online education for nursing students has begun in many countries. In online education, the teacher and the student enter the virtual classroom at a specific time and interact with each other in a virtual environment. In this method, the instructor can transfer the desired educational topics to the student by presenting PDF files, PowerPoint slides, as well as audio and video files. The share of the teacher's computer desktop and the live display of the environment of different software allow learners to receive practical training on various topics, such as working with a variety of software (10). Synchronous and asynchronous online education was used for nursing students (11).

While many nursing universities accepted online education, they prioritized providing online education with a thoughtful, systematic, and successful approach (6). Therefore, educators were recommended to strengthen their skills for effective and attractive training in an online learning environment. To provide effective online edu-

cation, various elements were introduced, including planning for teaching (such as selecting appropriate contents and learning methods), selecting appropriate resources and uploading them to online systems, using appropriate platforms for seminars, conferences, and lectures, and creating preparation and motivation in teachers and students (11, 12).

Six educational strategies for students' learning and participation in online education were also recommended, including designing emergency preparedness programs for unexpected situations, dividing educational contents into smaller sections to improve students' concentration, highlighting the use of "voice" in teaching, collaborating with teaching assistants and receiving online support, enhancing students' ability to actively learn outside the classroom, and integrating online learning and offline effective self-learning to increase focus (13).

Video Conferencing Rooms: Some web portals or software of video conferencing were used to form video conferencing rooms for educational and learning purposes in nursing. Students were also given the opportunity to discuss, exchange educational contents, as well as record and reuse the conference (12).

Social Media: Social media are a good option for nursing education and practical research, data collection, or interventions (14). During the epidemic, various social media platforms were used to disseminate nursing knowledge. Social media enable students to create a sense of community for expanding experiences, discussing concepts, and creating a comfortable environment for shared learning. Instructors can interact with students beyond classroom boundaries, and students can interact with teachers and classmates (3).

Clinical Nursing Skills: Nursing programs include several components of clinical education. Traditionally, this training is conducted in person in clinical settings. With the initial outbreak of COVID-19, nursing students moved out of the clinical environment to pursue a rigorous policy (7). To avoid delays in the academic calendar, a part of the clinical courses was implemented by virtual reality devices, mastering platforms, as well as interesting scenarios and simulation. A part was also presented in clinical and skill lab environments with small groups under full observance of health principles and careful monitoring (6).

Advantages and Challenges of E-learning: At the beginning of the crisis and virtual education, teachers and students faced various challenges, but with efforts, they increased their skills in the use of and familiarity with virtual education systems. Universities and teachers also gained appropriate virtual teaching skills and experiences during the crisis. The use of e-learning has advantages

such as a flexible learning environment (access to educational contents from anywhere), conducting discussions, and creating virtual groups separate from the classroom and student-centered learning. However, the disadvantages of e-learning include learning disabilities, lack of control over assessment parameters, limitations of clinical experiences, and loss of interest in learning and motivation in learners (10).

In conclusion, the complex situation in the COVID-19 epidemic led to instability and numerous challenges in the education process, and various universities tried to manage it with proper planning and the use of technology. In this way, nursing universities used virtual education and various platforms. Hence, it is essential to consider the views and perspectives of nursing administrators, educators, and students on issues such as educational facilitators and challenges during the COVID-19 epidemic to improve the education quality and provide safe patient care.

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