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Editorial

Introduction to the Special Issue: "Nursing Education and Research in the Remote Era"



The spread of severe acute respiratory syndrome coronavirus 2, which started in 2019, reached a pandemic declaration by the WHO on March 11, 2020 [1], and has now penetrated every corner of our lives. As of June 3, 2021, more than 170 million people worldwide have been infected with the coronavirus disease 2019 (COVID-19), and more than 3.7 million have died [2]. The quantitative scale of the number of infected and dead from COVID-19 and related health and medical problems are enormous, and all aspects of society, including the economy, industry, education, research, culture, art, and daily life, have changed since the pandemic. As the importance of social distancing as a strategy to prevent the spread of COVID-19 has been emphasized, the use of online education, electronic payment, and kiosks has skyrocketed along with the words "non-face-to-face" or a newly coined word, "untact."

Education, like other sectors of society, has changed dramatically since the COVID-19 outbreak. Compared to before, interest in online, non-face-to-face, untact, or remote education has increased overwhelmingly. The COVID-19 pandemic has limited classroom learning and clinical practice, two main components of nursing education. Many nursing schools around the world have closed their campuses and maintain only online classes. The increased workload for nurses due to the spread of COVID-19 has pushed back the priority of clinical training for nursing students. Moreover, nursing students have been removed from clinical practice in some countries where the spread of COVID-19 infection has been severe [3]. A virtual classroom education that enables realtime interaction between students and educators has been proposed to replace training in field practice [4]. In addition, a pedagogical caring framework to humanize virtual classrooms and remote or online teaching have also been offered [5].

The differences in infrastructure for digital access between individuals and institutions have created a new issue of educational disparities. Nursing students experienced a number of difficulties with the abrupt transition from traditional learning to remote learning, especially among students with limited electronic resources [6]. Issues such as teaching and learning gaps, inability to conduct proper clinical assessments and standard operating procedures, and disruption towards professional development have been revealed with respect to clinical practice during the COVID-19 period [7]. These issues will inevitably affect nursing students' access to learning opportunities and the establishment of a professional identity and nursing roles, eventually threatening the sustainability of the nursing workforce.

Due to the sudden outbreak of the COVID-19 pandemic, many nursing schools were not sufficiently prepared for education and teaching in remote environments. Limited IT infrastructure, digital illiteracy, and lack of human interaction are some of the challenges facing nursing schools and students. However, an advantage of remote learning is the ability to provide equitable learning opportunities across geographic areas and time. In order to reorganize and promote nursing education in this pandemic era of crisis, we need successful innovation and transformation of on-campus learning and clinical site training so that nursing education can fully progress. Specifically, it requires the joint participation of schools and healthcare providers in governance [8] and the pooling of digital and hands-on education resources such as virtual learning environments [9]. In addition, in order to guide changes in the future, there must be a consideration of the principles, philosophy, and theories of remote education.

The COVID-19 pandemic is also having a profound impact on nursing research. Research into the nursing workforce is on the rise, as medical resources and staff redeployment to support COVID-19 critical care is a global phenomenon. Nursing research to improve understanding of new phenomena, including effective treatment and management of diseases, is also being actively conducted [10,11]. Research in the context of the COVID-19 pandemic has many challenges. First of all, it is essential to establish a good relationship with the clinical team because meeting with patients and their families has become more limited when conducting clinical research [11]. This limitation of access to the field has triggered a digital transformation in nursing research. Researchers are considering non-face-to-face methods such as online or telephone surveys as an alternative to the face-to-face approach. The latest digital technologies, including big data extraction and processing, virtual reality, wearable medical devices, artificial intelligence, and blockchain, have been introduced into the field of nursing research. Their applications in nursing care include hospital information systems, electronic health records, computerized decision support systems, telecare, general communication support, systems to support process planning and/or data exchange, specific applications, and target group-specific interfaces [12]. Digital nursing technologies affect the health, satisfaction, and quality of life of formal and informal caregivers, as well as those in need of care, while influencing the care process, access to care, and communication, and social interaction within healthcare institutions [13]. There are various types of digital technology used in nursing practice, and research and most of them report positive effects, but the level of evidence is relatively weak, or the study sample size is small. Therefore, higher quality studies that can show the effects of digital procedures on nursing care are needed. Meanwhile, a nursing journal club as a means to narrow the gap between research evidence and clinical practice can be implemented virtually, in line with the recent non-face-to-face trend Since the onset of the COVID-19 pandemic, the basis of nursing education and research has been changing, and not all of these changes are negative. Even after the end of COVID-19, education is more likely to maintain blended learning and education rather than returning to the predominantly face-to-face system of education and learning. Nursing practice and research have begun to embrace new technologies more actively and are expanding their scope and applicability. The framework of nursing research has also been shifting towards collaborative research teams rather than individual research [15]. As nursing educators and researchers, we must lead a successful transition to a new normal, beyond overcoming the crisis, by collecting and sharing the changes accelerated by the pandemic.

Asian Nursing Research journal has planned a special issue to prepare for changes in nursing education and research after the pandemic and to guide schedules and timelines of transition. The theme of this special issue is "Nursing Education and Research in the Remote Era." We would like to share with our readers the needs, interests, new knowledge, experiences, and perspectives on the following topics: education technology and electronic platforms to support non-face-to-face education, systems and technologies to support nursing care during the COVID-19 crisis, development, and application of nursing interventions to support non-face-to-face nursing care, and mobile or smartphone applications to manage COVID-19-related situations.

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