

Technology Use During COVID-19 Pandemic

Future Implications for Nursing and Health Care

M. Cynthia Logsdon, PhD, WHNP-BC, FAAN

The COVID-19 pandemic made it necessary for international nurses to adapt and change their approaches and tools used in patient care and staff/patient education, nursing education, and nursing research. Many of the changes involved an expanded use of technology. For example, in nursing practice, it became more common to incorporate telehealth,^{1,2} remote monitoring and wearable devices, and predictive analytic tools and diagnostic algorithms,^{3,4} and expand the use of robots and artificial intelligence chat bots for patient/consumer education. Limits on access to patient populations and health care facilities resulted in creative approaches to data collection and new collaborations for nurse researchers. In addition, the importance of academic-clinical partnerships was never clearer.⁵ International nurse educators were quick to pivot to online learning, facing disruption to clinical learning opportunities but providing resources to attenuate stress experienced by faculty, staff, and students.^{5,6}

In response to this call for articles, seven teams of international authors have added important perspectives on the use of technology during the pandemic.¹ Dr Abdrbo and colleagues demonstrated the effectiveness of a health intervention to improve dyspnea in hospitalized patients in Egypt.² From China, Dr Luo and colleagues showed that virtual reality can be effective in staff training related to isolation procedures, an important component of nursing care during a pandemic.³ From the United States, Griffin and co-authors provided a thought-provoking description of triage algorithms for resource allocation and reallocation in a pandemic.⁴ From Brazil, Dr da Silva Negreiros and colleagues demonstrated the effectiveness of an app to provide diabetes education to nursing students.⁵ From Turkey, Dr Inangil and co-authors showed the added effects of gamification on an intervention to improve diabetes knowledge and motivation in nursing students.⁶ From Iran, Dr Namdar and colleagues described a forecasting model to determine which health care personnel are at most risk of being infected by the COVID-19 virus.⁷ From the United States, Drs Spaccarotella and Gido examined the quality and healthfulness of articles and recipes on food blogs to inform nurses, other health professionals, and patients using these as resources. The use of food blogs became more common during the isolations and quarantines that were common during the pandemic. What thought-proving perspectives and important additions to the literature!

Nurses continue to be on the front line in addressing the COVID-19 epidemic.⁷ Although technology can never totally replace the critical thinking and caring skills of a professional nurse, international nurses and our interdisciplinary partners have developed innovative solutions to enhance health

care, education, and research. Resilient and adaptable nurses in a variety of roles will benefit from lessons learned during the pandemic in the use of technology to enhance their roles.

References

1. Moseley J, Carter-Templeton H, Aying J, & Kristo G. Telehealth utilization to improve the general surgery patient care experience. *The Journal for Nurse Practitioners*. 2021;17(8): 958–962. doi:10.1016/j.nurpra.2021.04.023.
2. Lee WL, Lim ZJ, Tang LY, et al. Patients' technology readiness and eHealth literacy: implications for adoption and deployment of eHealth in the COVID-19 era and beyond. *Computers, Informatics, Nursing*. 2021. doi:10.1097/cin.0000000000000854.
3. Hoelscher D, McBride S. Usability and the rapid deployable infectious disease decision support system. *Computers, Informatics, Nursing*. 2020;38(10): 490–499. doi:10.1097/CIN.0000000000000654.
4. Rickard KNZ, Cohen JS, Chamberlain JM, et al. Validation of “personal protective equipment conservation strategies tool” to predict consumption of

N95s, facemasks, and gowns during pandemic-related shortages, *CIN. Computers, Informatics, Nursing*. 2022;40(1): 28–34. doi:10.1097/CIN.0000000000000831.

5. Leaver CA, Stanley JM, Veenema TG. Impact of the COVID-19 pandemic on the future of nursing education. *Academic Medicine*. 2021. doi:10.1097/acm.0000000000004528.
6. Agu CF, Stewart J, McFarlane-Stewart N, & Rae T. COVID-19 pandemic effects on nursing education: looking through the lens of a developing country. *International Nursing Review*. 2021;68(2): 153–158. doi:10.1111/inr.12663.
7. Choi KR, Jeffers KS, Logsdon MC. Nursing and the novel coronavirus: risks and responsibilities in a global outbreak. *Journal of Advanced Nursing*. 2020; 76(7): 1486–1487. doi:10.1111/jan.14369.

The author has disclosed that she has no significant relationships with, or financial interest in any commercial companies pertaining to this article.

Copyright © 2022 Wolters Kluwer Health, Inc. All rights reserved.
DOI: 10.1097/CIN.0000000000000906