

Overview and Summary: Virtual Opportunities for Nurses

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Overview

To say that technology is transforming healthcare is an understatement. According to Advisory Board's 2022 Strategic Planner Survey ([Gelbaugh, 2022](#)), capital investments in information technology (IT) and digital health technologies have been the top investments for two years in a row, with desired outcomes including better consumer engagement and satisfaction, as well as improved quality outcomes. For care delivery, the array of health technology options continues to expand far beyond telehealth to predictive analytics, remote patient monitoring, clinical artificial intelligence (AI), and virtual care support ([Appleby et al., 2021](#)). Increasing opportunities exist to leverage technology that streamlines, supports, or offloads various types of administrative and non-direct care work as well.

As the largest workforce in healthcare, nurses are key stakeholders in various technology investment decisions and are uniquely positioned to benefit from the digital health ecosystem, in particular, virtual technology. In my role as Advisory Board's chief nursing officer, I work with nurse leaders across the country who are committed to finding impactful strategies to address the profession of nursing's most pressing challenges, leveraging technology whenever possible. Broadly defined, virtual technology for nursing and nurses is the optimization of communication technology that facilitates education, information sharing, and support for nursing work without relying on in-person interactions.

The virtual technology field for nursing is dynamic, with growing choices of existing technology platforms. Clarity regarding the type of problem or challenge for which technology is being considered is critical to platform selection. Data reflect significant impact on process efficiency, care quality and safety, consumer satisfaction, and nurse satisfaction. Amidst clinical workforce shortages and unresolved nurse burnout due to excessive workloads, leveraging virtual technology to streamline work or offload tasks that can be automated is particularly important as well.

OJIN is pleased to share several exciting examples that illustrate the potential to positively impact nurses and nursing practice through virtual technology. The examples vary; with some more applicable to nurse educators, others to frontline practitioners, and still others to nurse leaders at all levels of leadership. Bottom line: this snapshot of how nurses are integrating virtual technology into professional practice is intended to inform you of the 2023 landscape and motivate you to remain updated on emerging technology opportunities for nursing as they evolve.

Regardless of any virtual platform being considered, one thing is clear. Nurses must be involved in these critical technology investment decisions, including selection, implementation planning, and evaluation. The overarching goal is to be sure that the selected technology clearly addresses a specific operational nursing problem or practice challenge that, if automated, could be solved. Embedding virtual technology into workflows will change the work of the end-user. Therefore, organizational change management support; including training, process change, and targeted skill building is essential. As is the case with any change to status quo operations, some resistance can be predicted. The examples presented by our authors demonstrate the power of virtual nursing in a broad array of areas. The need for nurses to share their experiences and learn from each other as the field of virtual technology accelerates will be vital.

In the article, "[Remote Work in Nursing: Facilitators and Barriers](#)," Karen Speroni acknowledges the significant cross-industry reliance on remote work for employees during the height of the COVID-19 pandemic, including in healthcare. However, she notes there are limited opportunities for remote work for nurses, in particular for those in direct care roles. While there are a few positions where remote work is feasible, i.e., care management, direct care roles for registered nurses (RNs) have few functions where remote work is even a possibility; for example, participation in staff or practice council meetings and planning sessions. Using results compiled from a qualitative survey of nurses with experience in remote work situations, Dr. Speroni identified facilitators and barriers for optimizing technology to support remote meetings and sessions with nursing staff. Her recommendations suggest that organizations providing RN access to enabling technology is not enough. Remote

work meeting standards and accountabilities for participants are sorely needed, as well as leadership skills to design meaningful agendas and facilitate effective virtual discussions. If designed and supported fully, access to remote work for select nursing functions can improve nurse satisfaction and work effectiveness.

Virtual nursing is an extremely promising care model for consideration. In "[The Virtual Nurse Program in a Community Hospital Setting](#)," Ruth Sagastume and Jessica Peterson describe the design and implementation of a virtual nurse program in a community hospital, part of a larger southeast healthcare system and one that embraces high reliability as a core operating philosophy. Two key objectives for this program were identified: first, to provide support through virtual technology to novice/early career nurses amidst a well-documented experience/care complexity gap that exists within nursing, and second, to optimize labor resources through the deliberate 'sharing' of nursing tasks/activities between virtual and bedside/in room staff amidst continued RN shortages and turnover. The authors emphasize the importance of viewing a virtual nurse program as a distinctly new model of care delivery, one that moves away from legacy staffing models built on the notion of one nurse assuming all tasks for a full patient assignment. Instead, the virtual nursing model includes both in-room care delivery staff as well as RNs located in remote locations supported by virtual technology; all of this comprises an integrated care delivery team. This model is a substantial investment to address workforce and staffing challenges. Quality, safety, financial, and employee goals should be identified. The ROI will not be immediate; however, longer term impact on quality/safety improvements, labor cost control through workforce stabilization and employee satisfaction are the ultimate outcomes.

The field of virtual nursing is dynamic and presents myriad opportunities for practice innovation. Drs. Oriana Beaudet, Daniel Pesut, and Olivia Lemberger describe the American Nurses Association's (ANA) commitment to advancing innovation throughout the nursing profession. In their article, "[The ANA Innovation Engine: Activating Innovation Through Education and Communities of Practice](#)," the authors describe how the ANA Innovation Department works across the entire ANA enterprise to instill innovation through the establishment of key structures, core innovation principles, and potential key roles for nurses in the innovation arena. The article lists seven "Advisory Committees" within which Communities of Practice could convene; one of which is called "Medical Technology and Devices." The opportunity for a Community of Practice for virtual nursing to be supported through the ANA Innovation Department has great potential. More broadly, this article validates the incredible potential for nurses to participate and lead innovation.

A healthy work environment for nurses has always been important, but amidst continued RN workforce challenges, this is a more important priority for leaders than ever before. In the article, "[Meaningful Recognition of Pediatric Nurses via a Closed Facebook Group](#)," Dr. Christine LaGrasta and a team of colleagues acknowledge meaningful recognition for RNs as one of five American Association of Critical Care Nurses (AACN) standards of a healthy work environment. At this northeast, Magnet designated pediatric hospital, LaGrasta and her colleagues examined creative approaches to expand meaningful recognition for RNs specifically involved in clinical inquiry initiatives throughout the hospital nursing enterprise. In collaboration with internal media experts, the team committed to using social media; i.e., Facebook, to accomplish this broader recognition aim. Project design was discussed in the article, as well as the significant level of nurse satisfaction in using the Facebook group to share information, provide feedback, and commend peers for clinical inquiry achievements. This represents a unique, but valuable approach to leveraging virtual technology, in this case social media-related, to advance creative options for peers to provide meaningful recognition of each other's contributions to professional nursing practice.

In the article, "[Belonging in Online Nursing Education](#)," Dr. Breana Taylor and her colleagues introduce the concept of "a sense of belonging" and its relevance to online nursing education. The authors begin by acknowledging increased utilization of online nursing education during the COVID-19 pandemic, and they predict the continuation of this trend for reasons including the promotion of flexible learning options for students and extending faculty bandwidth. The authors note limited research on 'sense of belonging' as an important component of nursing education, regardless of in person or virtual content delivery. Also presented is a convincing argument that directly links nursing students' sense of belonging during undergraduate education to developing professional identity and community. This development is critical to successful transition from academia into practice and the potential for organizational commitment. The understandable challenges of cultivating a sense of belonging for nursing students via online learning are highlighted, and strong suggestions for mitigating barriers are provided. In particular, the "Community Inquiry Framework" is offered as a solid approach to cultivate a sense of belonging through online nursing education. In addition, the distinction is clearly made between optimizing a virtual learning community for nursing students and didactic lectures being videotaped by faculty for students to access at their convenience. Recommendations include comprehensive professional development programs for nursing school faculty focusing on how to teach virtually and adjustments for student populations either underrepresented or without access to requisite technology support.

Undergraduate level nursing educators have relied on simulation learning for many years, in particular, technology driver simulators, i.e., manikins. In the article, "[Advances in Technology Mediated Nursing Education](#)," Drs. Michelle Aebersold and Laura Gonzalez provide a straightforward assessment of newer forms of simulation using virtual reality; in particular, immersive and desktop. Using virtual reality as an educational medium, they present the positive impact on various types of

technical skill building and related knowledge acquisition for nursing students. This article also details student satisfaction with various virtual technologies, along with support that both students and faculty need to optimize this learning method. While the use of virtual technology is a safe and effective way to improve mastery of skills for nursing students, questions need answered regarding whether this learning strategy impacts student development of behaviors and skills essential for effective, compassionate, in-person care. **Highly effective virtual reality technology can supplement certain types of in-person skill building.** However, the criticality of ensuring maximal student time for in person learning with patients and families cannot be emphasized enough.

The journal editors invite you to share your response to this OJIN topic addressing Virtual Opportunities for Nurses either by writing a Letter to the Editor or by submitting a manuscript which will further the discussion of this topic which has been initiated by these introductory articles.

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