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Digital competence: What makes nurses a 'big gun' in the future health industry

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Abstract

This letter aims to respond to the editorial's viewpoint by Aungsuroch, Y. and Gunawan, J. related to nurses' preparation in the industrial revolution 4.0. Without a doubt, the era of disruption creates massive changes in many sectors, including in the health industry, and nurses are demanded to adopt and adapt to the rapid development of information technology. Therefore, digital competence is highly emphasized as an essential skill for today's nurse generation in order to be the "big gun" of tomorrow.

Keywords

Letter to the Editors

An editorial presented by Aungsuroch and Gunawan (2019) raised my eternal concern about how nurses need to adapt in the face of today's era of disruption. In this letter, I would like to share my opinion in regards to this issue.

Firstly, let me begin with the term "big gun" I used in the title, which refers to someone who has a lot of power and influence. While "influence" is the power or capacity to cause an effect in indirect or intangible ways (Merriam-Webster, 2022). In regards to nurse-patient relationships, however, the word "influence" becomes an essential and integral aspect that affects nurses in providing their services and fulfilling unmet basic human needs. Up to this point, nurses, "24/7" health professionals, have indeed become the most considerable influence in health services in various sectors.

Secondly, for reflection, technology has become a big part of our daily life over the last few decades. Almost every aspect of it is being touched by "tentacles" of technology; the concept of digital competencies is then increasingly used in public discourse, including in the health sectors, where improvement and progression in technology utilization directly impact healthcare providers; nurses are no exception. However, for "like and dislike" in the technological era, nurses still become the central points in presenting, applying, and implicating how to use technology within clinical settings, for example, in knowing and responding to patients' health-related devices and effectively using electronic patient records. Moreover, technology becomes a solution in continual development, providing solutions for upcoming challenges within medical management. Thus, knowing, inferring, and using technology effectively has become essential to nurses' technological competencies (Nakano et al., 2021; Risling, 2017). In a broader perspective, the involvement of technology in patients' care shows benefits in improving care quality, emphasizing patient safety, and increasing efficiency (Marzilli, 2022). Consequently, digital competence is a game changer.

Conceptually, digital competence is defined as "the set of knowledge, skills, attitudes (thus including abilities, strategies, values, and awareness) that are required when using information and communication technology (ICT) and digital media to perform tasks, solve problems, communicate, manage information, collaborate, create and share content, and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, and reflectively for work, leisure, participation, learning, socializing, consuming, and empowerment" (Anusca, 2013). Being digitally literate means being able to move through massive amounts of information, understand its message, and know how to communicate with others effectively. Digital literacy also relates to the critical use of technology where awareness and critical analysis should be engaged. With such enormous related skills, "being digital" becomes another challenging competency for nurses.

Seen from a study by Okeyo et al. (2017), it is stated that nurses' technological skills have become challenging. The nurses no longer use some skills because they have become obsolete due to technological advancements. Thus, they must upgrade their skills to incorporate digital changes, and some claim that using technology takes too much time (Okeyo et al., 2017). Another challenge is related to the introduced technology, such as lack of skills in computer use, network connection trouble, limitless computer access, lack of necessary nursing application software in the system, and not being conversant with computer vocabulary or language (Okeyo et al., 2017). However, despite these challenges, most nurses expressed that computers help them in their nursing work and are willing to acquire more skills in technological applications.

Undeniably, the following generation of nurses should be prepared with extensive cognitive, psychomotor, and affective

abilities that will provide us with ideal tools to deliver the complexity of patient care. Furthermore, they would be needed in "technological-care integration," where technology will be an active instrument in the nursing process (Archibald & Barnard, 2018). In order to do that, it is highly emphasized that nurses should equip themselves to be active players in developing, assessing, selecting, implementing, and evaluating technology related to patient care. Moreover, it is indispensable that digital literacy should also be implemented in the school system and the lifelong learning of nurses to ensure the advancement of professional nursing quality. In that case, nursing educational programs always need to be ready to be the place for lifelong learning, and teachers are responsible for making their students active, aware, and capable of using technology in order to overcome future challenges and improve health care quality and safety, dignity, and lives of patients and their relatives.

Lastly, I would like to end this letter by citing an excellent quote from Florence Nightingale: "Let us never consider ourselves finished nurses... we must be learning all of our lives" (Nightingale, 1992).

Declaration of Conflicting Interest
The author declares that there is no conflict of interest in this letter.

Author's Contribution
The corresponding author solely developed this letter.

Author's Biography
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Data Availability
Not applicable.

Ethical Consideration
Not applicable.

References

Anusca, F. (2013). *DIGCOMP: A framework for developing and understanding digital competence in Europe*. Luxembourg: European Commission.

Archibald, M. M., & Barnard, A. (2018). Futurism in nursing: Technology, robotics and the fundamentals of care. *Journal of Clinical Nursing*, *27*(11-12), 2473-2480. https://doi.org/10.1111/jocn.14081

Aungsuroch, Y., & Gunawan, J. (2019). Viewpoint: Nurses preparation in the era of the fourth industrial revolution. *Belitung Nursing Journal*, *5*(1), 1-2. https://doi.org/10.33546/bnj.744

Marzilli, C. (2022). Creating the future of nursing in the post-pandemic world. *Belitung Nursing Journal*, *8*(3), 185-186. https://doi.org/10.33546/bnj.2186

Merriam-Webster. (2022). Merriam-Webster dictionary [online]. In https://www.merriam-webster.com

Nakano, Y., Yokotani, T., Betriana, F., Kawai, C., Ito, H., Yasuhara, Y., Tanioka, T., Locsin, R., & Miyagawa, M. (2021). Perceptions of nurse managers and staff nurses regarding technological competency as caring in nursing theory in general hospitals in Japan. *Belitung Nursing Journal*, *7*(6), 467-475. https://doi.org/10.33546/bnj.1767

Nightingale, F. (1992). *Notes on nursing: What it is, and what it is not*. Philadelphia: Lippincott Williams & Wilkins.

Okeyo, S. M., Karani, A. K., & Matheka, E. (2017). Challenges of technological trends in nursing and coping strategies by nurses at Kenyatta National Hospital. *East African Medical Journal*, *94*(11), 960-971.

Risling, T. (2017). Educating the nurses of 2025: Technology trends of the next decade. *Nurse Education in Practice*, *22*, 89-92. https://doi.org/10.1016/j.nepr.2016.12.007