

Artificial Intelligence in Nursing

Safeena Beevi SS*

Associate Professor, JNMCH, Aligarh Muslim University, Uttar Pradesh, India

***Corresponding Author:** Safeena Beevi SS, Associate Professor, JNMCH, Aligarh Muslim University, Uttar Pradesh, India

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Introduction

In order to find elucidations for intricate healthcare issues, artificial intelligence (AI) is nowadays becoming a widely recognized technique. This editorial focusing on the significance of AI in health care settings especially in nursing field [1]. Innovations in health care like launching of intelligent robots in patient care home settings have great impact in caring of patients. The definition of AI is "Artificial intelligence encompasses the techniques used to teach computers to learn, reason, perceive, infer, communicate, and make decisions similar to or better than humans" [2]. Everywhere, nurses are the major group of health professionals, accounting for approximately 40-50% of the health workforce.

Emerging significance of AI in health care technologies

Nowadays AI are emerging as new innovations and getting popular due to their ability to analyze clinical data and patient details with greater amounts of research evidences for decision making and enhance new knowledge [3]. Because of these capacities, AI can renovate different aspects of health care systems in the forthcoming decades. When we do review of literature on AI in nursing, many scientific papers and research studies had forecasted the impact of AI on nurse educators, nurse practitioners and student nurses [4-7]. These innovation of AI in nursing requires training to transform the nursing education and practice aspects [8, 9]. Nurses need skills and knowledge to integrate AI knowledge to clinical practice [9].

Suggested topics of education and training are "basic informatics competencies" [7, 8, 10-12], "data analytics, predictive modeling and ML principles" [5, 9, 13-16], "engineering principles" [10, 16-18] "digital/data literacy" [5, 19], "ethics" [4, 8, 15, 16, 19], "privacy issues" (including security breaches or "cyberthreats") [4, 8], "big data governance" [4, 16, 19], "technocentric cultural competence" [10], "AI research design" [11], and "robotics care and operations" [10, 17]. Nurse educators, nurse practitioners, and student nurse's need to remain actively engaged in the planning and implementation of these technologies, thereby enhancing opportunities for their successful integration. A significant initial step will be entrenching nursing informatics and digital health technology proficiencies into all extents of nursing education. It has been recommended that the AI industry would benefit from hiring experts from various health disciplines to engage in design processes, and the nursing profession has the potential to provide this proficiency [20]. Empowering nurses and nursing students can be achieved through integrating AI in nursing curriculum. Social robots are devised to intermingle in ways that make them human by responding to human interactions. Eg; Sophia is a social robot. Research findings pointed out that between 8% and 16% of nursing time is spent mainly on non-nursing activities and tasks that can be delegated to others. Nurses with robot support will have the ability to take back this time and nurses can spend more time with patients for better patient care. Curricular reform is mandatory in nursing education programs in educational institutions and clinical practice settings to prepare nurses and nursing students to practice safely and efficiently AI in nursing care by providing patient centered, comprehensive and compassionate, high tech and high touch care [7].

Conclusion

Future research studies are required to conduct in this area of advanced technologies for better patient care in health care systems.

New AI technologies are rapidly emerging within the health systems, integration of AI in nursing curriculum with proper training of health care professionals are essential. Based on these capabilities, AI in health care are forecasted to renovate various aspects of health systems in the coming decade. AI implementation in nursing isn't a perfect science. Accomplishment requires vigilant attention of the most useful device, engagement with the nurses who will actually use the device, and participation of nurses in its implementation and evaluation [22].

References

1. Clancy Thomas R. "Artificial Intelligence and Nursing: The Future Is Now". *JONA: The Journal of Nursing Administration* 50.3 (2020): 125-127.
2. Robert N. "How artificial intelligence is changing nursing". *Nurs Manage* 50.9 (2019): 30-39.
3. Compassion in a technological world: advancing AMS' strategic aims. Associated Medical Services (AMS) Healthcare (2018).
4. Gephart SM, Davis M and Shea K. "Perspectives on Policy and the Value of Nursing Science in a Big Data Era". *Nurs Sci Q* 31.1 (2018): 78-81.
5. Murray TA. "Nursing Education: Our Iceberg Is Melting". *J NursEduc* 57.10 (2018): 575-576.
6. Shorey S., et al. "A Virtual Counseling Application Using Artificial Intelligence for Communication Skills Training in Nursing Education: Development Study". *J Med Internet Res* 21.10 (2019): e14658.
7. Risling T and Low C. "Advocating for Safe, Quality and Just Care: What Nursing Leaders Need to Know about Artificial Intelligence in Healthcare Delivery". *NursLeadersh (Tor Ont)* 32.2 (2019): 31-45.
8. Risling T. "Educating the nurses of 2025: Technology trends of the next decade". *Nurse EducPract* 22 (2017): 89-92.
9. Pepito JA and Locsin R. "Can nurses remain relevant in a technologically advanced future?". *Int J Nurs Sci* 6.1 (2019): 106-110.
10. Tanioka T., et al. "Disruptive Engagements with Technologies, Robotics, and Caring". *Nursing Administration Quarterly* 43.4 (2019): 313-321.
11. Fritz RL and Dermody G. "A nurse-driven method for developing artificial intelligence in "smart" homes for aging-in-place". *Nurs Outlook* 67.2 (2019): 140-153.
12. Liang H., et al. "Nurses' Views on the Potential Use of Robots in the Pediatric Unit". *J Pediatr Nurs* 47 2019: e58-e64.
13. Lynn L. "Artificial intelligence systems for complex decision-making in acute care medicine: a review". *Patient SafSurg* 13 (2019): 6.
14. Linnen DT, Javed PS and D'Alfonso JN. "Ripe for Disruption? Adopting Nurse-Led Data Science and Artificial Intelligence to Predict and Reduce Hospital-Acquired Outcomes in the Learning Health System". *Nurs Adm Q* 43.3 (2019): 246-255.
15. European Observatory on Health Systems and Policies, Beck JP. Are we ready for AI? Why innovation in tech needs to be matched by investment in people. *Eurohealth* 25.3 (2019): 9-11.
16. Preparing the healthcare workforce to deliver the digital future. NHS Health Education England (2019).
17. Sharts-Hopko NC. "The coming revolution in personal care robotics: what does it mean for nurses?". *Nurs Adm Q* 38.1 (2014): 5-12.
18. Glasgow M., et al. "The Nurse-Engineer: A New Role to Improve Nurse Technology Interface and Patient Care Device Innovations". *J Nurs Scholarsh* 50.6 (2018): 601-611.
19. Preparing the healthcare workforce to deliver the digital future. NHS Health Education England (2018).
20. Linnen DT, Javed PS and D'Alfonso JN. Ripe for Disruption? Adopting Nurse-Led Data Science and Artificial Intelligence to Predict and Reduce Hospital-Acquired Outcomes in the Learning Health System. *NursAdm Q* 43.3 (2019): 246-255.
21. Buchanan C., et al. "Predicted Influences of Artificial Intelligence on Nursing Education: Scoping Review". *JMIR Nursing* 4.1 (2021): e23933.
22. Brian J., et al. "Artificial intelligence in nursing – practical implementation in clinical settings". *American Nurse Journal* (2022).

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