

**The Use of AI in Nursing Care**

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**Abstract**

This paper examines the ethical implications of utilizing AI nurses in healthcare, illustrated through the case of Melinda, a patient dissatisfied with her care at MercyOne North Iowa Medical Center. The analysis focuses on issues of patient privacy, informed consent, nurse accountability, and the potential limitations of AI technology in replacing human judgment and care. Ethical considerations are explored within the framework of maintaining patient trust, safeguarding confidentiality, and upholding professional responsibilities in nursing practice.

Keywords: confidentiality, HIPAA, nurse, privacy

## **The Use of AI in Nursing Care**

### **Introduction**

The integration of artificial intelligence (AI) into healthcare, particularly in the role of AI nurses, highlights complex ethical challenges. The case of Melinda, a patient facing inadequate care and privacy concerns at MercyOne North Iowa Medical Center, emphasizes the ethical implications of relying on AI systems for patient management. This situation brings to light concerns about patient privacy, informed consent, and the potential diminishment of traditional nursing roles. As healthcare moves towards greater reliance on technology, understanding and addressing these ethical considerations is crucial to ensuring patient safety, maintaining trust, and upholding professional standards in nursing practice.

### **Analysis**

Melinda is a 36-year-old female and a United States Navy Veteran. She is a wife, as well as a mother to two children, she also works as a content creator. In February of 2024 Melinda began to start feeling some numbness and tingling in her arm, she knew something was wrong and went to MercyOne North Iowa Medical Center, in Mason City, IA. When Melinda got to the ER, she described that her fingers appeared completely blue and that she couldn't feel anything in her arm, as was also experiencing tinnitus. When she got settled into the ER a doctor walked in, and didn't perform any type of assessment on Melinda, including not obtaining any vital signs, and stated that they believed Melinda was experiencing nerve pain but that they wouldn't be able to figure it out until they run a scan in the morning, so the doctor had stated that they would just refer her out, but we're going to check with neurology beforehand. The doctor then wheels a cart in with what seems to be a screen, with a virtual neurologist from another hospital. The neurologist asks that a nurse come in, and the nurse begins to assess the direction of the

neurologist. After being there for over an hour, the neurologist asked to see Melinda's blood work as well as any tests that had been done, but no one in the hospital had run any labs yet or performed any tests. The neurologist at this point believes that Melinda is having a stroke and talks to the doctor in the ER, and they get several tests ordered. Melinda then gets admitted to the hospital and then learns about her virtual nurse. Melinda said that the reason she was put into a room with an AI nurse was because the hospital did not have enough staff. She was instructed that there was something on the wall and that it would be her virtual nurse. She talked about how the virtual nurse would make a knocking sound and you could allow it to "come in" and the camera would flip around, and the virtual AI nurse would show up on the TV screen. Melinda shared that the AI nurse can answer basic questions about medications, as well as help you with prescriptions, however, she did emphasize that the AI nurse wasn't always available, and when she pushed the button and no one came, eventually a nurse would come in. She said that the AI nurse would just contact the nurses on the floor when the patient needs something. Melinda stated, "So it is basically just a filler until they (referring to the nurses) are available" (Melinda, TikTok, 2024). I had the opportunity to interview Melinda, when asked how the AI nurse compared to having a real human nurse compared with how she would normally receive patient care, she stated "From my experience, I would have to say it was not like having a physical nurse present. It felt more like a babysitter rather than someone who could assist me if needed" (Melinda, personal communication, April 23, 2024). Melinda shared concerns about the use of her AI nurse in a TikTok video where she stated "Okay so we're basically just convinced that this virtual nurse is just a way of them listening to you in the room while they're not in here" (Melinda, TikTok, 2024). She then goes on to share a story about how she was telling a family member about how the nurse was putting too much ice in her water. She talked about how no one

else was in the room, the Virtual Nurse was not turned on or present, and the nurse on the floor came in to apologize for adding too much ice to her water. Melinda also explained in our interview “The AI nurse would turn on without telling me they were there, and I felt like I had no privacy when speaking to family members or my husband” (Melinda, personal communication, April 23, 2024). Melinda expresses being freaked out by the use of the AI nurse in her room, and shares concern that if compromised, it could be a HIPPA violation if her medical information were to be leaked (Melinda, TikTok, 2024). Throughout her stay at Mercy One Hospital, Melinda shared that this was the worst medical care she had ever received. She shared about how the nurses never knew what medications she was taking or when they were due. She shared her frustration that the charge nurse on the floor didn’t know what Lamotrigine was. She also shared her experience of being admitted with the diagnosis of a Transient Ischemic Attack, also known as a mini-stroke, and the nurses only came in every 5 hours to take her blood pressure. Melinda also shared during an interview when asked what the connection felt like with the AI nurse she stated “Definitely more transactional. Yes, having just an AI nurse would lack human connection and leave me feeling anxious about my overall care. Human nurses give a feeling of comfort, knowing someone is there if I had a reaction to my medicine or needed anything to put my anxiety at bay” (Melinda, personal communication, April 23, 2024). Further emphasizing that the human connection component for nursing care is something that AI could never replace. After a couple of nights in the hospital and taking some blood thinner medications, she was discharged. She shared that her primary care provider got her in quickly to follow up on how she was doing. She is doing well now but was overall displeased by the care she received at Mercy One Hospital.

### Reflection

There are several ethical considerations when it comes to stories like Melinda, and the care she received from MercyOne Hospital as well as through her AI nurse. First and foremost, Melinda's concern about the AI nurse getting compromised and leaking her medical information, thereby breaking the laws of HIPAA is valid. Patient privacy and confidentiality is an ethical consideration, and the use of AI systems typically involves the collection and processing of sensitive patient data. Ensuring that patient information is adequately protected from unauthorized access or disclosure is essential to maintaining patient trust and complying with ethical standards (Prainsack et al., 2018). "Provisions 3.1 and 3.2: The nurse promotes, advocates for, and protects the rights, health, and safety of the patient. The nurse has authority, accountability, and responsibility for nursing practice; makes decisions; and takes action consistent with the obligation to promote health and to provide optimal care" (American Nurses Association, 2015, p. 5). This statement emphasizes the nurse's responsibility to protect patient rights, health, and safety, which includes safeguarding patient privacy and confidentiality.

Another consideration with the use of AI nurses is the process of informed consent. Although Melinda didn't directly state that she did or didn't receive informed consent, it is implied by what she shared that she was not given the option of whether or not to be placed in a room with the AI nurse. It was reported to her that the hospital was short-staffed and that this was a way she could receive care. Informed consent was implied by the option to not allow the AI nurse "in the room" when it knocked, however, Melinda also shared concerns that the AI nurse could listen to the conversations happening in the room even when she did not permit it. Patients have the right to be informed about the use of AI technology in their care and to consent to its use. Transparent communication about the capabilities, limitations, and potential

implications of AI systems empowers patients to make informed decisions about their healthcare (Mittelstadt et al., 2016).

According to the American Nurses Association (2015), nurses have "authority, accountability, and responsibility for nursing practice; [they] make decisions; and take action consistent with the obligation to promote health and to provide optimal care" (p. 5). If the AI nurse is perceived as merely a "filler" until human nurses are available, this undermines the nurse's authority and accountability for patient care, potentially compromising the provision of optimal care. I feel as though this was seen in the experience that Melinda had. If hospitals become too reliant on AI nurses and do not have the hands-on staffing to care for the patients they have, then accountability for patient care would be impossible for the nurses who are working at the hospital. I believe Melinda's experience being at the hospital with the diagnosis of a mini-stroke and only having her blood pressure checked every 5 hours highlights that the hospital is reliant on the use of AI nurses. The provision for optimal patient care is not possible if there are not human nurses on the floor don't have enough time to thoroughly care for their patients. Nurses need to come together to fight against the use of AI nurses taking over in hospitals. This situation represents an ethical crisis: hospitals are resorting to AI as a quick fix for staffing shortages instead of considering its potential to supplement patient care while maintaining optimal staffing ratios for efficient treatment.

According to the Code of Ethics for Nurses with Interpretive Statements (ANA, 2015), advanced technologies, including AI, do not replace nursing skills or judgment. The Code of Ethics for Nurses Interpretive Statement 4.2 clarifies that "nurses in all roles are accountable for decisions made and actions taken in the course of nursing practice. Systems and technologies that assist in clinical practice are adjunct to, not replacements for, the nurse's knowledge and

skill” (ANA, 2015, p. 15). I believe that any type of AI use that is implemented to replace the judgment of nurses, and/or replace their roles is not ethical, and should never be used to replace nurses.

If I were the nurse in this case I would first, be advocating for my patient. It appears when Melinda was sharing her story, she felt as though no one knew how to care for her. No one knew what type of medication she was on, no one even knew her diagnosis. She explained a situation where when she asked for her medication, the nurse replied that wasn’t taking any medication. The American Nurses Association (2015) emphasizes that "the nurse’s primary commitment is to the patient, whether an individual, family, group, community, or population" (p. 5). If Melinda were my patient, I’d carefully review her chart to spot any missing info and talk to the doctor if her diagnosis or care plan didn’t make sense. I would push for more frequent check-ins than every 5 hours, making sure her blood pressure was monitored closely. If we were short-staffed and I could not keep up, I’d take my concerns to the administrators, stressing the need for more nurses. I’d point out that relying solely on virtual AI nurses won’t cut it for hands-on care—hiring more nurses might be a better bet. I would have advocated for Melinda and her family, that she was able to see a doctor, get the tests she needed quickly, and would have been present to get the answers to any of the questions that she had, rather than relying on the use of an AI nurse, that didn’t always work when the button was pushed. If Melinda had addressed me with the concern of her medications, and they weren’t in her chart, that is something I would have promptly taken up with her physician as well. I would have also listened to her concerns regarding the use of the AI nurse. I would have asked for her feedback and examined what decisions I was capable of making to allow her to feel more comfortable and protected in the hospital.

### **Summary**

This paper explores the case of Melinda, a 36-year-old veteran and content creator who went to MercyOne North Iowa Medical Center to receive care. This paper highlights the ethical considerations related to the use of AI nurses, including nurse accountability, the limitations of AI technology in replacing human judgment and care, as well as the implications the use of AI poses for HIPAA violations, if compromises were to occur and data were to be leaked.

Understanding and thinking about the ethical implications in healthcare, especially regarding the use of AI nurses, will help us to reach the goal of providing ethically appropriate patient care. It allows nurses to take a step back, analyze the situation, and think about who is in charge, what decisions they are allowed to make, and what they can do as nurses to provide the best care to patients and their families. My understanding of ethical principles and analysis will enhance my ability to navigate ethical dilemmas by recognizing the responsibilities of nurses and the public in maintaining ethical standards and delivering appropriate care. This knowledge will contribute to deeper comprehension and wisdom in ethical decision-making scenarios.

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TikTok

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