Commentary

Use of Artificial Intelligence in Nursing Informatics

Bita Dymchuk*

Department of Nursing, Central South University, Tongzipod, Changsha, Hunan, China

***Corresponding author:** Bita Dymchuk, Department of Nursing, Central South University, Tongzipod, Changsha, Hunan, China; E-mail: dymchukb@gmail.com

Description

Artificial Intelligence (AI) is revolutionizing the healthcare industry, and nursing informatics is no exception. Nursing informatics is the combination of nursing science, information science, and computer science to manage and communicate data, information, and knowledge in nursing practice. The use of AI in nursing informatics has led to significant advancements in patient care, workflow efficiency, and data analysis. The use of AI in nursing informatics and its potential impact on patient care. One of the primary uses of AI in nursing informatics is in the development of Clinical Decision Support Systems (CDSS). These systems use algorithms to analyze patient data and provide real-time feedback to clinicians, aiding them in making clinical decisions. CDSS can help nurses identify patients at risk of adverse events, recommend appropriate treatments, and alert clinicians to potential medication errors. This technology allows for a more accurate and efficient decision-making process, ultimately leading to better patient outcomes. AI can also aid in the identification and analysis of patient data. With the vast amount of patient data generated daily, AI can help nurses extract relevant information from large datasets quickly. AI algorithms can detect patterns and trends that might not be immediately visible to the human eye, enabling nurses to make more informed decisions. This technology also helps nurses monitor patients in real-time, detecting changes in their condition and alerting clinicians to potential issues.

Another significant benefit of AI in nursing informatics is its potential to improve workflow efficiency. By automating tasks that are repetitive and time-consuming, nurses can focus on more complex and meaningful patient care activities. AI-powered chatbots, for example, can answer patient questions and provide information, reducing the need for nurses to spend time on these tasks. This technology can also reduce documentation time, automatically updating patient records with vital signs and other data. The use of AI in nursing informatics is not without its challenges. One significant challenge is the potential for bias in AI algorithms. Bias can occur when algorithms are trained on datasets that are not representative of the patient population, leading to inaccurate or discriminatory recommendations. Nurses must be aware of these biases and work to ensure that AI algorithms are as fair and unbiased as possible. Another challenge is the potential for AI to replace human clinicians. While AI can automate many tasks, it cannot replace the human touch of nursing care. Patients need emotional support and human interaction, which AI cannot provide. Nurses must balance the use of AI with the delivery of personalized care to ensure that patients receive the best of both worlds.

In conclusion, the use of AI in nursing informatics has the potential to transform patient care. CDSS can help clinicians make more accurate and efficient decisions, while AI algorithms can extract relevant information from large datasets. AI-powered chatbots and other technologies can reduce documentation time and automate repetitive tasks, freeing up nurses to focus on more meaningful patient care activities. However, nurses must be aware of potential biases and work to ensure that AI algorithms are fair and unbiased. Additionally, nurses must balance the use of AI with the delivery of personalized care to ensure that patients receive the best of both worlds. Ultimately, the use of AI in nursing informatics can lead to better patient outcomes and improved healthcare delivery.