Nursing education, AI, and best practices

Academic frameworks and guidelines can help ensure appropriate use.

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Artificial intelligence (AI) continues to influence technological advancements and extend its reach to support intellectual growth. Within healthcare, AI enhances diagnostics, supports personalized treatment plans, and aids the prediction of patient outcomes using algorithms to analyze medical images and detect diseases.

AI also has the potential for misuse, especially within academia. To ensure AI's proper use and mitigate misuse, nursing schools must adopt safe methods for integrating it into nursing students' educational journeys.

AI's impact on nursing education

Kitaguchi and colleagues, Hoelscher and Pugh, and Maleki Varnosfaderani and Forouzanfar note that nursing school curriculum should reflect the various AI tools important to healthcare, such as electronic health records, computer vision integration (AI programs that understand objects and people in images and videos to inform clinical decision making), AI-assisted simulation training, remote patient monitoring, and virtual patient admissions management. Inclusion of this technology in nursing education can help improve patient outcomes and decrease human errors.

The dilemma rests in providing education in the use of AI tools while also addressing concerns about integrity and misuse. Many remain wary of AI's potential ethical ramifications, including within nursing education. By acknowledging these concerns, the profession can help ensure its responsible use within healthcare settings.

According to Elgersma, those who oppose AI use (including writing tools such as ChatGPT, Bard, and Gemini) in academic settings fear that students will write papers and complete homework assignments that include inaccurate information. They note that using these tools exclusively doesn't challenge students' critical thinking or promote learning; it also doesn't represent original work. Among educators, the debate centers on whether AI will encourage student development and boost their learning potential or if it presents a threat that diminishes critical thinking and stifles the exchange of ideas.

Strategies to reduce misuse

Schools, faculty, and students should take steps to prevent the improper use of AI. Academic settings can embrace AI while also holding students accountable for original work (unless they're explicitly asked to use a platform for their learning experience).

Schools

Colleges and universities can promote responsible AI use by developing clear policies and practice guidelines and using frameworks (such as Bosun-Arije and colleagues' Collaborative, Harmonious, Ethical, Clear, and Kind [CHECK] approach) that optimize teaching, learning, assessment, and research. In addition, schools should make clearly stated academic integrity policies easily accessible and provide system-wide AI literacy training for all stakeholders (leadership, faculty, and students). (See CHECK it!)

Faculty

Faculty can play a significant role in reducing the risk of AI abuse by clearly communicating expectations and defining what plagiarism means for their course. They can provide examples of plagiarism and note in the syllabus when AI is allowed and when it's considered inappropriate.

Learning individual student's writing patterns and understanding the AI tools students use (many of which lack human–emotional components) can help faculty identify signs of AI use. In addition, incorporating several formative assessments throughout the course to help understand the student's knowledge acquisition and developing assignments that require a scaffolded approach (milestones for drafts) can help minimize the use of AI.

Students

Students should reflect on their personal code of ethics as well as those developed by the American Association (codeofethics.ana.org/home). They can ask faculty about the appropriate use of AI and which tools they approve. Students also should review their school's policies regarding AI.

Guidelines and frameworks

A scoping review by von Gerich and colleagues establishes the necessity of academic guidelines and their importance in ensuring high-quality AI-related research, particularly when reporting critical aspects such as aims, settings, and methods, as well as to address ethical concerns in nursing practice and education. Guidelines can help nurses meet professional, legal, and regulatory requirements; standardize reporting guidelines specific to AI technologies in nursing research; integrate informatics competencies into nursing education; and address critical issues, such as data privacy, ethical considerations, algorithm transparency, bias mitigation, and the appropriate use of AI tools. Guidelines also can help promote consistent quality care outcomes in healthcare and educational settings.

Using the CHECK framework to develop guidelines requires nursing students to agree to follow the university policy and procedures regarding AI in assignments regardless of degree level. They also must declare to faculty when they've consulted or used AI for any part of an assignment. This declaration before, during, and after assessments helps to promote transparency, trust, accountability, and the natural intelligence of nursing students.

Summers notes that lack of transparency can result in accusations of plagiarism and lead to consequences specific to an institution's academic integrity policy. Depending on the situation and severity of the infraction, students may be issued a teachable moment (pointed feedback without penalty and discussion of consequences for continued AI misuse), be required to resubmit an assignment with point deductions, receive a failing grade on the assignment, be dismissed from the class, or, in the case of egregious or repeated offenses, face expulsion from the nursing program.

Bosun-Arije and colleagues recommend that faculty handle academic violations quickly and with respect for the Family Educational Rights and Privacy Act. In addition, faculty should create a transparent and fair process for handling instances of AI misuse. Almulla notes that the process should consider the individual student's stage of learning and their cognitive development. To ensure objective reviews of AI misuse, schools can partner with a third-party reviewer or create review committees.

CHECK it!

The Collaborative, Harmonious, Ethical, Clear, and Kind (CHECK) approach to developing guidelines for the use of artificial intelligence (AI) aims to create a safe atmosphere for learning and recommends that instructors and students work toward improvement. It includes the following elements:

- Encourage collaboration among nurse educators, students, and institutions to develop AI-informed teaching resources and foster a shared approach to using AI in education.
- Promote harmony when integrating AI into nursing education by ensuring that it complements and enhances natural intelligence rather than replaces it.
- Emphasize the importance of ethical considerations in AI use—including transparency, privacy, accountability, and fairness—to ensure responsible and respectful implementation.
- Advocate for clear institutional guidelines and policies that outline the scope of AI use by educators and students, with a focus on maintaining transparency and promoting academic kindness to affirm student dignity and promote social inclusion. Hosoda and Estrada note that academic kindness correlates significantly with increased well-being, reduced stress, and a stronger sense of institutional identity.
- Integrate academic kindness with academic rigor in nursing education to create a supportive and nurturing learning environment that values student well-being and growth.

Prepare the next generation

As academic institutions integrate AI into their programs, they must remain accountable for teaching students how to use it safely. AI offers many potential benefits. For example, Khan describes a scenario in which every nursing student, regardless of degree level, has a virtual personal tutor and every professor or teacher has a virtual dedicated teaching assistant. He envisions a future where AI can elevate an average student to a higher level by providing immediate tutoring through Socratic questioning. However, a crucial challenge remains: How can we guarantee the accuracy of the nursing students' responses? The answer lies in establishing robust academic guidelines specifically tailored for AI systems.

By adopting the CHECK approach as a framework for those guidelines, nurse educators can harness the technology's potential to optimize teaching, learning, assessment, and research. Ultimately, this approach can help promote student learning and prepare the next generation of nurses with the necessary AI literacy and skills for the evolving healthcare landscape. ■

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