

The Impact of Technology on the Field of Nursing

Call: The Impact of Technology on the Field of Nursing

SARAH CALL

Introduction:

Nursing is a field that relies so much on human-to-human contact, that it could never be completely replaced by technology, only altered. In order to be introduced into patient care, digital nursing technologies must support the needs of caregivers, contribute to the autonomy of patients, substitute nursing support, or assist in training of new nurses. (Krick et al., 2020). Some nursing technologies that can be seen in everyday practice currently include electronic health records, automatic vital signs monitors and automatic medication dispensing cabinets. Technology has also made its way into nursing education, providing better connections between students and instructors as well as life-like simulation experiences. Technology in healthcare has also become increasingly prevalent during the Coronavirus pandemic for those who do not need emergent help or cannot physically seek care in person.

Technology in Nursing Education:

- Nursing programs throughout the country have access to simulation labs with mannequins that have life-like characteristics and can provide real life practice in a controlled setting.
- These simulation mannequins can talk, have real vital signs and even some of them can give birth.
- Virtual case studies have also been proven to be helpful in the education of student nurses by bridging the gap between lecture content and nursing practice.
- Virtual case studies are also helpful in the sense that they decrease student anxiety and allow for group collaboration between students.
- Technology also opens a more accessible line of communication between students and their professors for feedback and answering questions

Technology in Practice:

- Vitals signs are a major part of the everyday tasks performed by nurses because they must be taken on each patient every 2-4 hours on average and be documented each time you collect them.
- The use of automatic monitors and the electronic health record reduce the amount of time nurses spend on these tasks, making them more available for direct patient care.
- When documenting body system assessments in the HER there are usually shortcuts to be able to document normal findings in order to save time.
- Automatic medication dispensing cabinets and barcode systems have also be introduced into daily practice because they decrease the amount of error in medication administration that occurs due to human error.
- Computerized provider order entry systems have also had a vital impact on the reduction of medication error as well as time management because they order must fulfill a specific criteria and format which reduces the amount of time spent by nurses clarifying orders with pharmacists and doctors.

Telemedicine:

- Telemedicine provides more convenient care for patients with long term conditions as well as patients with high-risk conditions associated with the Coronavirus.
- Telemedicine also has been proven to save patients money, decrease the number of unnecessary admissions and medical materials used. (Driessen et al., 2016).

Virtual Nursing Team:

- In Northern California one hospital implemented a completely remote team of nurses with the sole purpose of monitoring patients in hospitals for signs of decline and initiate preventative or emergency care.
- Since this program's installment, they've saved 169 lives and it's expanded to multiple other hospitals in the area (Lisk et al., 2020).