Erica Miller

School of Nursing, King University

Emerging Healthcare Technology Trends Assignment

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Emerging Healthcare Technology Trends

 Technology is becoming more prevalent in healthcare and has a great potential to impact nursing practice in the future. To understand just how fast technology has emerged we must reflect on how far it has come. It was not long ago that all medical records were recorded on paper, or that technologies such as virtual reality didn’t exist. This essay will discuss three emerging technology trends and their impacts on healthcare. The first trend we will discuss is Telehealth, followed by robotics, and concluding with wearable devices.

Telehealth has been around for many years but is still new and evolving. Telehealth or Telecommunications is a technology used through telephone, videophone, or computer that provides health-related services to patients to be able to maximize patients' health status (Mcgonigle, D., & Mastrian, K., 2022). Telehealth has proven to offer many different positive and negative impacts to healthcare. Using telehealth to provide healthcare to patients offers many positive impacts including convenience, cost savings, the ability to offer healthcare to those who live in rural areas, and even trying to minimize exposure during the COVID-19 pandemic (Watson, S., 2020). The pandemic was a tremendous boost to telehealth technology revealing that almost three-quarters of Americans said the pandemic made them more eager to try virtual care (Watson, S., 2020). Although telehealth offers many positive benefits there are a few concerns. When using telehealth personal health information is transmitted electronically and the effectiveness of security being able to fully protect patients' information is a concern, as well as insurance companies not fully covering telehealth services causing some out-of-pocket costs (Watson, S., 2020). There are many ways to enhance the use of telehealth one being educating patients on when to utilize telehealth or offering one free session to become familiar with the technology.

Another emerging healthcare technology is robotics. Robotics is defined as the development and implementation of robots or machines to carry out tasks performed by people (Mcgonigle, D., & Mastrian, K., 2022). One of the most heard of robotics in health care would be the Da Vinci Surgical System. The Da Vinci was first introduced in 2000 and its use among healthcare providers has expanded exponentially performing more than 570,000 procedures in 2014 alone (Kirkpatrick, T., & LaGrange, C., 2016). Robotic technologies are increasingly being studied for their safety and effectiveness. Many benefits of robotic-assisted surgeries include smaller incisions, decreased blood loss, shorter hospital stays, and even lower incidence of some surgical complications (Kirkpatrick, T., & LaGrange, C., 2016). Some negative aspects of robotic-assisted surgery would be the potential for human error when operating the robot or the additional risk of mechanical failure to the machine. Many parts of the system can malfunction such as the camera, lenses, arms, or even instruments (Kirkpatrick, T., & LaGrange, C., 2016). I believe that robotic-assisted surgery can be very beneficial not only to patients but to medical providers as well because of the access it can provide to areas that may not be accessible to a surgeon alone. I also believe that promoting educational and safety courses to learn about the devices and being certified in them before any patient use would help to eliminate human error when operating these machines in the future.

This brings me to my last topic wearable devices. Wearable devices are devices that a person can wear that provide remote monitoring or physiologic parameters in care settings and even patients' homes (Mcgonigle, D., & Mastrian, K., 2022). There are many different wearable devices such as heart monitors, pacemakers, defibrillators, and the most familiar continuous glucose monitor, or CGM. As a school nurse in the past, I have had a lot of experience with CGMs. The purpose of a CGM is to reduce the number of finger sticks a patient is having to do daily and allow for quicker blood sugar readings. The advantages of using a CGM would be that it could potentially prevent hyper or hypoglycemic episodes by providing alerts when glucose levels are too high or too low, providing information about what is happening with glucose levels overnight, and even sharing glucose levels with family or healthcare providers (CGM l Pros and Cons of Continuous Glucose Monitors l danatech. (n.d.). Disadvantages include high cost due to certain insurances not covering the wearable device, can cause skin irritation, and be a potential learning curve if the patient is unifiliar with CGM technology. I believe that CGMs in healthcare are becoming more prevalent among patients and think that with the proper education, CGMs can potentially save many lives of patients suffering from diabetes (CGM l Pros and Cons of Continuous Glucose Monitors l danatech. (n.d.).

In conclusion, emerging healthcare technology trends are a broad topic with many different evolving parts and components. This essay discussed only three trends and their impacts on healthcare. The use of telehealth and its benefits of convenience, robotics and their risks for human error, and lastly wearable devices and their potential to save lives. Technology is becoming more prevalent in healthcare and offers great potential for nursing practice in the future.

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