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ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ОБРАЗОВАНИИ И ПРАКТИКЕ СЕСТРИНСКОГО ДЕЛА

Аннотация: Технологии меняют мир невероятными темпами, и нигде это не проявляется так ярко, как в медицинских учреждениях. В мире, где все больше людей, люди справедливо ожидают, что медицинская помощь будет быстро удовлетворять их потребности. Новые технологии помогают в этом, возвращая власть в руки пациента. Для того чтобы медицина добилась значительного повышения качества, она должна быть преобразована, и информационные технологии будут играть в этом ключевую роль, особенно в плане безопасности.

Ключевые слова: технология, сестринское образование, сестринская практика.

INNOVATIVE TECHNOLOGIES IN NURSING EDUCATION AND PRACTICE

Abstract: Technology is changing the world at an incredible pace, and nowhere is this more evident than in medical facilities. In an increasingly crowded world, people rightly expect medical care to meet their needs quickly. New technologies are helping to deliver these elements, putting the power back in the hands of the patient. If medicine is to achieve a significant improvement in quality, it must be transformed, and information technology will play a key role, especially in terms of safety.

Keywords: nursing, education, nursing practice, technology.

Technology in nursing has been around for a long time, in fact nurses have been able to use and incorporate sophisticated technology into nursing practice for several hundred years, at least since Florence Nightingale of Great Britain and even earlier when Jeanne Mance founded the first hospital in Montreal, Canada, in 1642. Various manipulations using mechanical equipment such as ventilators and physiological monitors were first performed in intensive care units and are now used in an adapted form in less urgent areas, even in home care [1].

There are many different forms that e-health can take, for example: telephone consultation between a patient and a health care provider to provide advice on the use of medicines or monitoring of vital signs, text on health promotion recommendations, remote consultation between a patient and a doctor using videoconferencing [2].

Technological innovation and improved globalisation are closely linked and nursing education must respond in a measured and careful manner to remain relevant. Incorporating information management and interactive technologies promotes student engagement, critical thinking, and improved clinical judgement.

There are many new technologies that will change nursing practice over the next decade. Bioprinters using "bioinks" made from mixtures of living cells can create a 3D structure of cells, layer by layer, to form human tissue and eventually human organs for replacement [3]. Healthcare is just beginning to explore the limits of this technology. There are limitations to the materials that can be used for printing and materials science is lagging behind in 3D printing.

Robotics can provide improved diagnostic capabilities, a minimally invasive and more comfortable experience for the patient, and the ability to perform smaller and more precise interventions simultaneously. In addition, robots can be used as auxiliary health care providers to provide some physical and mental health services [4].

There are several different types of less invasive meters being developed to monitor blood glucose levels. One of them involves a kind of nano-tattoo and

Рисунок 1. Система Symphony ® CGM [5]

Symphony® CGM system. It was developed by a medical device company with expertise in advanced skin penetration technologies (Figure 1).

Information and communication technologies (ICTs) embody all digital technologies that support the electronic collection, storage, processing and exchange of information for health promotion, disease prevention, disease management, chronic disease management and so on.

In the health sector, ICT refers to a set of projects or services that enable remote nursing (telemedicine), interdisciplinary clinical support, and knowledge transfer [6].

The AS introtek non-invasive droplet detection sensor measures instantaneous droplet velocity by accurately delivering a pulse for each drop of liquid.

It is intended to be used as a method to monitor the flow rate of media during intravenous infusion of a patient. The sensor can be used to improve infusion therapy, fluid dosing and pharmaceutical production [5].

The health information management (HIM) profession is dedicated to the effective management of patient information and healthcare data needed to provide quality treatment and care to the public. HIM professionals play a critical role in the successful implementation of electronic health records and

ensure that providers, healthcare organisations and patients have access to the right health information when and where they need it, while maintaining the highest standards of privacy and security [6].

Hands-free communication devices (HFCDs) are an information and communication technology consisting of wearable "badges" and server software. The technology is characterised by three features: 1. It uses Voice over Internet Protocol (VoIP) and wireless local area networks (WLAN);

2. The communication devices are wearable; 3. The technology has voice control capability.

Hands-free communication devices are increasingly being used in healthcare settings, especially among nursing staff.

Student access to technology is no longer a privilege: it is now a prerequisite for full participation in high quality educational opportunities.

Increasingly, important learning resources used by students and teachers are becoming digital, making access to the Internet as basic as access to a library. Access to technology is becoming increasingly important to the college experience itself, as well as enabling students to find and enrol in educational programmes such as summer professional development and college scholarship programmes. Modern technological tools that enable design, media creation, self-expression, research, analysis, communication, collaboration, and programming are commonplace in a variety of professions and disciplines, and the use of these tools is an integral part of students' lives. Engagement with digital learning environments that support the development of deeper learning skills such as problem solving, critical thinking, and enquiry is also critical. The use of innovative technologies in the daily practical activities of nurses makes their work more professional, comfortable, provides safety and convenience in performing basic professional duties, reduces labour costs, allows for quick and high-quality implementation of the therapeutic and diagnostic process.

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