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Uluslararası Sosyal ve Beşeri Bilimler Araştırma Dergisi

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## NURSING and TECHNOLOGY

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### ABSTRACT

It was left to the internet, telephones, social internet accounts and constantly renewing technology devices instead of the technology devices that were used in every area of our lives but we didn't realize. Technology devices are used extensively in every aspect of our lives and in every stage of our lives and are still more and more up to date. One of the most affected aspects of technology globally has been the field of health. Within the scope of health field; It has been proven in many research and clinical areas that nurses use at every stage of both professional and care from technological advances and practices. In this study, it is aimed to give information about the definition, history, evolution, and contribution of health technology and informatics to nursing.

**Keywords:** Technology, Health Technology, Health Informatics, Nursing

### 1. INTRODUCTION

#### 1.1. What is Technology?

The technique is the state of creation and discovery. Physically; knowledge of manufacturing simple devices and tools. This includes experience and theoretical knowledge. Technology is; It is the production of devices and inventions based on science and experiment (Günay, 2017).

#### 1.2. Historical Development of Technology

The historical period of technology is divided into four phases:

Paleolithic (Old Stone Age), Neolithic (New Stone Age, 9000 BC), Agricultural civilization, 8 th millennium BC. Industrial civilization covers the last 250 years (Günay, 2001).

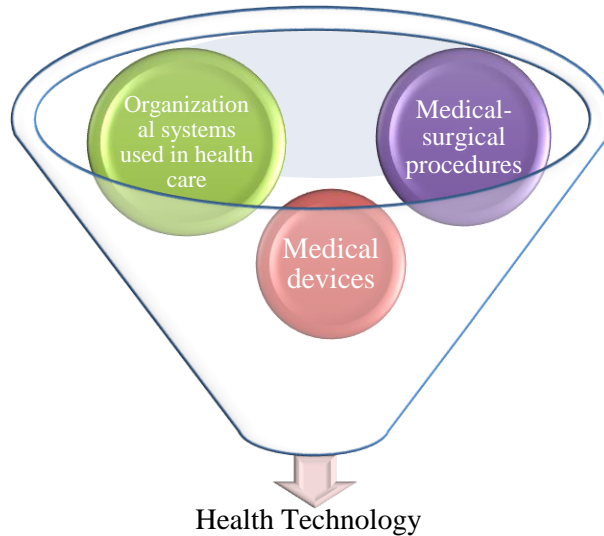
#### 1.3. The Evolution of Technology

Technological evolution is called a contemporary and technological related toeri which defines the change of society and society structure together in technological developments. Theory of technology evolution; It started with the Czech philosopher Radovan Richta (Günay, 1999).

- First stage: The emerging technology development progresses slowly in the early stage.
- Development phase: The state of technology development; It is called the accelerated period in which the researches are supported and ready to be supported.
- Competence period: After the accelerated development phase, the period in which the progress period slows down (Sood ve Tellis, 2005).

#### 1.4. Health Technology

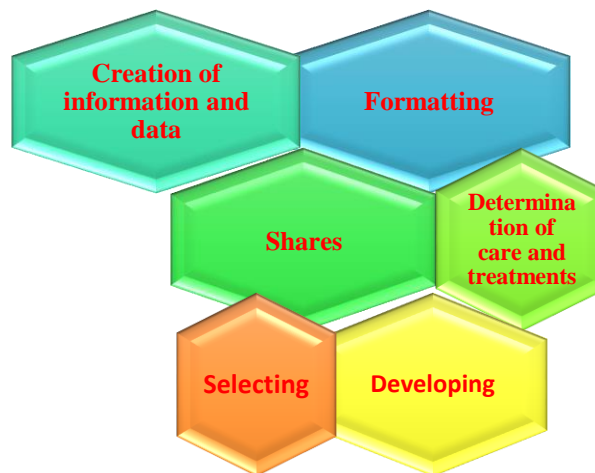
It is the application of organized knowledge and skills in the form of devices, drugs, vaccines, procedures and systems developed to solve a health problem and improve the quality of life (Yiğit ve Erdem, 2016).



**Figure 1.** Health Technology Diagram (Mitchell, Williams, Kuntz, & Umscheid, 2011)

#### 1.5. Health Informatics

Information technologies used in the field of health are called health information systems (Ömürbek ve Altın, 2009). Health promotion and care in the best, professional sense; It is used in the identification, planning, implementation and evaluation and has an important place (Bilgiç ve Şendir, 2014).



**Figure 2.** Health Informatics Scheme (Ömürbek ve Altın, 2009)

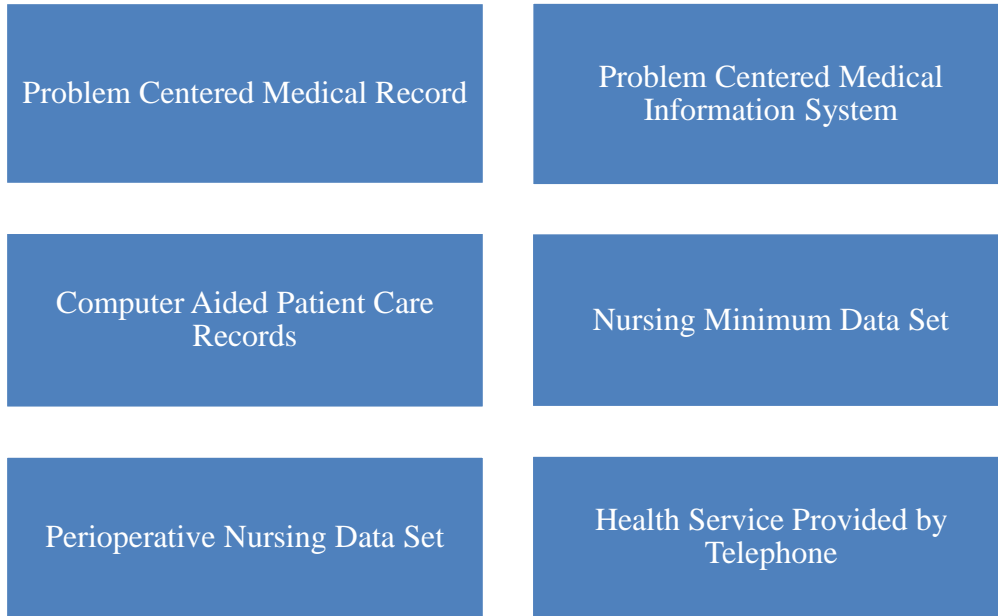
#### 1.6. Nursing and Technology

Diagnosis, planning and treatment of health problem; nurses benefit from technological advances in evaluating the results of care (9).

- Increasing patient safety issues
- Reduction of redundancy of procedures and procedures
- Quality care coordination

- Acceleration of laboratory results
- Increased access to patient information
- Improved performance quality
- Technology is used effectively in areas such as easy recording method (10).

**Nursing Informatics**, which performs the measurement, evaluation, processing and management of nursing data; These are computer based systems that enable information and communication technologies to be applied on nursing related fields and procedures (Ay, 2009).



**Figure 3.** Nursing Informatics Schema (Ay, 2009)

The relationship between nursing practices and information / technology; While maintenance; Reduces time and costs associated with additional operations during the planning process. Increases the time allocated to the patient (Türkoğlu, 2010). Helps make maintenance plans more standardized Develop maintenance plans using the appropriate maintenance plan adapted to the computer environment. It changes how nurses plan, deliver, document and review clinical care (Mutluay ve Özdemir, 2014).

Increases the reliability and accuracy of observations. Reduces errors and omissions. This improves the quality of care. Since it enables the recording and storing of patient-related data, plans, it creates data for statistical evaluations and researches (Zlabek, Wickus ve Mathiason, 2011).

It contributes to the minimization of errors in patient records and other records. Prevents data loss. As a result, the accuracy and reliability of the maintenance plans are increased. Patient data is shared, health and patient care continuity is ensured. It provides access to patient records, results and clinical data electronically (Mutluay ve Özdemir, 2014).

It has been concluded that the use of health technology increases the communication between health professionals and multidisciplinary coordination develops. It ensures that patient records are kept regularly, distinctly, concise and concise. Creates a database. These records also constitute a legal document for the protection of the nurse and increase the responsibility of the nurse (Ünlütürk, Atay, Kurtel, 2010).

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