Benefits of Nursing Informatics

This is a Brief Online Learning Tutorial (or BOLT) brought to you by the LISTEN project, a HRSA funded project focusing on improving the information literacy competencies of nursing students and professional nurses.
Did you know that nursing informatics is a specialty area within the nursing discipline? Nursing informatics helps you manage nursing information and incorporate technology to support nursing practice and to provide optimal patient care. This BOLT will focus on the benefits of nursing informatics.
Healthcare Informatics is the overarching term which combines multiple disciplines; computer science, healthcare, and information sciences. Healthcare informatics examines the processes involved around healthcare data, information, knowledge and wisdom. The Institutes of Medicines in 2003 included “Informatics” as a core competency required for all healthcare professionals. There are several areas within Healthcare Informatics such as; Medical Informatics, Dental informatics, Health Information Management and Nursing Informatics.
The goals of NI are to support nursing practice with effective information management practices and the design of new, efficient and safe information systems and technologies. The goal is to support nursing practice and ultimately affect patient care by providing the safest and highest quality care for patients, families and communities (ANA, 2008)

“Nursing informatics (NI) is the specialty that integrates nursing science, computer science and information science to manage and communicate data, information, knowledge and wisdom in nursing practice.”

~ANA, 2008, p.65
The Nursing Informatics conceptual framework is based on Data, Information, Knowledge and Wisdom. Imagine you work in an outpatient setting. An example of Data would be vital signs, after looking at B/Ps and heart rates over a period of time you incorporate this data into your assessment and know it is “information”. Based on your nursing assessment and the trends of “information” you have obtained, you determine the patient is dehydrated. The determination of dehydration is the “knowledge” aspect of this framework. With knowledge you are able to move into more complex concepts such as “wisdom”. “Wisdom” involves the application of knowledge. An example of moving from knowledge to wisdom involves determining the appropriate education for the patient or family to prevent dehydration in the future.
Although all nurses require competence in informatics, some nurses have become more specialized within the specialty. The Informatics Nurse Specialist (INSs) are graduate prepared nurses working in related fields. Many nurses work and have years of experience within informatics but do not have formal, graduate training. These nurses are referred to as informatics nurses (INs).

There are numerous roles for nurses working within informatics. These nurses have an understanding of both patient care, information management, information technology and evidence-based practice. Some roles are listed here.
All of the organizations above support Nursing Informatics. In 1995 The ANCC first offered a certification for Informatics Nurses. Several of the organizations are specific to only Nursing Informatics such as; ANIA and CARING. The ANA supports informatics as well as many other nursing specialties. HIMSS is a national organization specializing in information management with a Nursing Informatics community. The AMIA is primarily a medical informatics organization but with a very active Nursing Informatics working group.
In 2003 the Institutes of Medicine (IOM) stressed informatics as one of 5 competencies necessary for all healthcare workers. Since President Bush issued his directive in 2004 for every American to have an Electronic Health Record by 2014; healthcare has focused on the implementation of various electronic health records and clinical information systems in order to improve safety, quality and efficiency of patient care.

Currently and in the years to come with the rapid increase in technologies and information, competencies for the Informatics Nurse Specialist will change just as the basic informatics competencies of the practicing nurse will be more advanced than they are now. With rapid advancements in technologies, genomics, nanotechnology, wireless capabilities and regulatory emphasis on safety and quality; Nursing Informaticists will be poised to work with multiple disciplines to influence healthcare and ultimately patient care in the 21st century.
Continue to visit the LISTEN website, at listenuphealth.org, for more helpful tips on using technology and seeking, evaluating, and applying information in nursing to support evidence-based nursing practice.
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