Nursing Informatics Annotated Bibliography

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Informatics in an emerging specialty in the nursing world, and one that has the potential to revolutionize the way nursing care is delivered. The following annotated bibliography assesses research articles that address aspects of nursing informatics.

Choi, J., & De Martinis, J. E. (2013). Nursing informatics competencies: assessment of undergraduate and graduate nursing students. Journal Of Clinical Nursing, 22(13/14), 1970-1976. doi:10.1111/jocn.12188

The authors of this article are Jeungok Choi who is an RN, MPH, and PhD, and Jean E De Martinis who has PhD, FNP-BC. The focus of their research article was to determine how prepared undergraduate and graduate nurses were in utilizing health information systems. The goal was to determine areas that educational systems could improve upon to increase new graduates competencies in utilizing health information systems once in practice. They found that student and graduate nurses were confident in basic skills such as Internet usage, basic word processors, and graphics design systems like power point (Choi & Martinis, 2013). Both graduate and undergraduate nurses were lacking in advanced computer skills like navigating health information systems, evaluating health information systems, and retrieving relevant clinical data. Due to the importance of developing informatics skills in today’s nursing word they recommend educational systems review their current teaching patterns and student outcomes to improve their graduates abilities in utilizing health information systems.

Cipriano, P. F., & Murphy, J. (2011). Nursing Informatics. The Future of Nursing and Health IT: The Quality Elixir. Nursing Economic$, 29(5), 286-282.

The lead author of this article, Pamela F. Cipriano, PhD, RN, NEA-BC, FAAN, discusses the need for nurses to lead the way in the transformation of the United States healthcare system. It is a call to action for nurses in practice to step up to the plate and use their clinical experience to create a safer, cheaper, and more readily available system for all patients. The main focus of this change is through utilization, evaluation, and improvement in nursing informatics. The main idea is centered on the continued refinement of healthcare information systems as a means to improve the overall safety and quality of patient care. Nurses are believed to be in a key position to facilitate these changes, but nurses need to drive the way, and more nurses need to become actively engaged in this pursuit. Healthcare information systems are important as we move forward to protect patients from preventable errors. Nurses that can provide some of the most significant contributions are those with clinical experience, skills with technology, and a desire to improve healthcare across the board.

Dykes, P. C., & Collins, S. A. (2013). Building Linkages between Nursing Care and Improved Patient Outcomes: The Role of Health Information Technology. *Online Journal Of Issues In Nursing, 18(*3), 1-17. doi:10.3912/OJIN.Vol18No03Man04

This article discusses the importance of using health information technology in improving patient outcomes. The main audience for this article is healthcare companies that have not yet converted to using electronic healthcare systems. The goal was to show that electronic systems can be utilized to create a link between nursing care, and patient outcomes, and aid in developing methods of improving these patient outcomes. This is significant not only for the sake of improving patient care, but also due to the fact that patient satisfaction now plays an important role in hospital reimbursement since the new health care reform. They found that most organizations were not able to effectively determine links between nursing care and patient outcomes due to the fact that they were still using paper forms to track information, did not utilize advanced electronic health information systems, and did not have personnel that were properly trained in informatics. The main recommendation was a review of alternative health information systems and the training of staff to effectively use these systems.

Mitchell, J. K. (2011). Nursing Informatics 101: Using Technology to Improve Patient Care. (Cover story). *ONS Connect,26*(4), 8-12.

Nursing informatics 101 is an article by Jennifer K. Mitchell, MSN, ANP-BC, GNP-BC. This article was written for educators and healthcare companies, it highlights the importance of technology, and proper training in the use of technology in today’s world of nursing. According to the author some of the important forms of NI systems used to better patient care include, “electronic drug-interaction tools, electronic laboratory and test results reporting, patient portals for communication and education purposes, and oncology nursing smart phone applications such as PEPID ONS” (Mitchell, 2011). For these systems to be effective in improving patient care, however, it takes skilled staff members who are familiar with the systems and have the ability to properly navigate them. According to Mitchell, many nurses in today’s world lack the skills necessary to effectively utilize these systems. She believes more emphasis should be placed on training new staff, but most importantly, in training experienced staff members on the use of new HIT systems as they are being implemented. This is where NI nurses become an invaluable resource in the training of staff members on the job, and also in creating user-friendly systems that allow easy navigation.

Murphy, J. (2011). The Nursing Informatics Workforce: Who Are They and What Do They Do?. *Nursing Economic$, 29*(3), 150-153.

In this article the author Judy Murphy, RN, EACMI, FHIMSS, and vice President of Information Services, Aurora Health Care, Milwaukee, WI, discusses changes happening in nursing informatics. The intended audience was new nurses and currently practicing nurses looking for the right specialty. The aim of this article was to illuminate exciting changes and opportunities happening in nursing informatics, and the role NI nurses play in today’s healthcare environment. One of these new developments was the creation of the chief nursing informatics officer, which the author states, “the CNIO is the senior informatics nurse guiding the implementation and optimization of HIT systems for an organizations” (Murphy, 2011). The world of nursing informatics is continually evolving; it allows an opportunity for nurses to utilize clinical knowledge in developing, implementing, and evaluating health information technology systems to improve patient care. These changes in NI are only the beginning of the exciting changes to come, which will allow exciting new careers for nurses all across the world (Murphy, 2011).

Simpson, R. L. (2013). Chief Nurse Executives Need Contemporary Informatics Competencies. *Nursing Economic$, 31*(6), 277-288.

This article discusses the importance of having chief nursing executives that have a broader knowledge base in informatics than current recommendations require. The author of this article is Roy L. Simpson. He has a DNP, RN, DPNAP, FAAN, and is the Vice President of Nursing at the Cerner Corporation in Kansas City, MO. According to the author the current recommendations for CNE’s set forth by the “American Organization of Nurse Executives” in regards to their knowledge level in nursing informatics, falls short of ideal. This is largely because “CNE’s are charged with creating and implementing a patient-centered vision that drives health care organizations' investment in technology,” (Simpson, 2013). Although there are nurse informaticists who aid in the decision processes, CNE’s also need an understanding of health information technology, and how these systems can affect patient outcomes. This becomes of particular interest when decisions are being made on which HIT systems to utilize, and how these systems will affect current, and future patient care. This article has a similar theme as the previous articles reviewed, which is the emphasis on the importance of NI, and the importance of continuing education for all nurses in practice.