

Prior to taking this course, there was a vague knowledge and understanding of the role informatics has in nursing. There was a daily interaction with it that became essential for daily practice, however, after completing this course it was clear the role informatics has in healthcare was taken for granted. The role and responsibility of health information technology has evolved to incorporate all areas of the nursing process. Additionally, it supports and promotes evidence-based practice opportunities that encourage better patient outcomes. For example, the introduction of HEALTH INFORMATION TECHNOLOGY improves patient safety for bedside charting and medication administration. There is improved communication among the care disciplines streamlining patient care plans. Combined with the Quality and Safety Education for Nurses project, the phases address competencies that improve quality within the healthcare system (Nahm and Wilson, 2015). The first phase of QSEN competencies begin with patient centered care and integrates evidence-based practice and safety and then ends with informatics (Nahm and Wilson, 2015). This list follows the most logical order that brings the best integration of informatics and healthcare.

The importance and relevance of health informatics, health information, data/health information technology (HEALTH INFORMATION TECHNOLOGY) to the MSN prepared nurse.

Specific to the MSN prepared nurse, the use of informatics is essential. As many clients will have many specialists on their cases, a streamlined approach to care is necessary. In addition, advanced practice nurses that have access to a universal language improves communication across the care teams. Informatics also allows patients to participate in their care by having access to their records, labs, and imaging. The addition of informatics in nursing has also decreased the time spent on indirect patient care (Darvish et. Al, 2014). Most of the

individuals in nursing did not enter healthcare to have a lack of direct contact with patients. Some would argue the point that baccalaureate level nurses tend to have a high rate of inability to maintain bedside nursing. The advanced practice nurse only has a limited amount of time spend with a patient. A HEALTH INFORMATION TECHNOLOGY system needs to be supportive of this limited time so that the advance practice nurse can be solely focused on the patient.

Healthcare has also advanced with the reality that some patients and cases require additional resources and disciplines. Hunter states that an MSN prepared nurse can be the, “key persons in the design, development, implementation, and evaluation of the technologies and in the development of the specialty’s body of knowledge (Hunter and Bickford, 2015, p. 229). The integration of multiple disciplines within a network of HEALTH INFORMATION TECHNOLOGY can lead to advanced and improved patient outcomes.

To build upon this truth, “current digital era, hospitals cannot be sustained without health information technology (HEALTH INFORMATION TECHNOLOGY), which allows healthcare providers to deliver safer and efficient care” (Nahm and Wilson, 2015, p. 594). With the increase in the volumes of patients that are seeking out healthcare, health information technology integration into the care plan improves patient record maintenance. Not only are immense volumes of patient data managed by health information technologies, there is an improved access to most recent evidence-based information and practices. This impresses the goal of patient safety which is a corner stone with the evolution of informatics in nursing.

The goal as an advanced provider is to provide safe quality care that is evidence based. The degree to which this happens may be large and thus the provider must rely on health information technology to handle such large volumes of information. Andrea Lee said it well,

“Although new technology may be a challenge for some, informatics will enhance nursing practice. We'll have quicker access to patient information, improve overall efficiency, and see a reduction in potential errors” (Lee, 2014).

**How did the weekly activities and course project help you achieve the Essentials
in Informatics defined by AACN?**

Each person presents to the learning environment with a myriad of learning styles. Some can easily gain the required knowledge through daily work with small assignments. Busy work can allow for improved concept acquisition. Unfortunately, there was a challenge in this area for this student. My emergency room background struggled with the detailed reading and subjective concept of informatic integration. It was a challenge to open a learning background to small pieces of information at a time. From the beginning of the course, there has been a steady relay of information that is pertinent to our future practice. There is a hope to one day really rest and marinate on these concepts to ensure success. There is no secret or denial that informatics and nursing will be closely aligned with our advanced practice. One of the assignments that allowed me to really reflect on the importance in my future practice was the pin map. I have a passion to reach those that are challenged with healthcare resources. While placing the required demographic information within the data base, I was amazed to see what areas have the fewest available providers. I was able to see clearly where my own practice may one day be able to help.

An interview with an advanced practice nursing student on her opinion of the weekly activities yielded a unique point of view. Amanda Krantz felt the weekly assignments were essential in learning the American Associations of Colleges of Nursing five areas of informatics

and healthcare technology (Bruey-Pernell & Krantz, "How did the weekly activities and course project help you achieve the Essentials in Informatics defined by AACN?", 2018). She went on further to say the assignment on creating a pin map helped her “achieve the integrate and coordinate care aspect” (Bruey-Pernell & Krantz, "How did the weekly activities and course project help you achieve the Essentials in Informatics defined by AACN?", 2018).

After interviewing Amanda Krantz, time was taken to review the AACNs five areas of informatics and healthcare technology. They include; 1) Use of patient care and other technologies to deliver and enhance care, 2) Communication technologies to integrate and coordinate care, 3) Data management to analyze and improve outcomes of care, 4) Health information management for evidence-based care and health education and 5) Facilitation and use of electronic health records to improve care (American Association of Colleges of Nursing, 2011). These five areas allowed integration of the goals of informatics to meld with the straight-to-the-point emergency room mindset that is familiar to me.

How did the course help you achieve the QSEN informatics competencies?

The main purpose and target of Quality and Safety Education for Nurses (QSEN) is to consider not just the quality and safety of the patient population but the required and necessary competencies required to improve the quality. Specifically, the goal is “to address the competencies necessary to continuously improve the quality and safety of the healthcare system in which they work” (Nahm, 2015, p. 596). In this regard, the ability of informatics to integrate the required competencies within the core of education allows the student to employ the standards from the start of their education. If the course of informatics is based on and within the phases of QSENs competencies, then integrating this into the practice as an advanced practice nurse will be innate.

Achieving the QSEN competencies during this course required dedication and detailed reading. While perusing the required reading and PowerPoint lectures, I was able to practice putting the material into a logical structure to lead me to an understanding of the course. This forced me to move out of my comfort zone and open my mind to an alternative discipline to nursing. As I have stated before, my back ground is emergency nursing and as such, we tend to think in a quick, straight-to-the-point manner that leaves very little for cogitation on topics. While working through the modules, I found I am gaining an appreciation for the important role informatics has in nursing. Completing the QSEN competencies checklist, (Figure, 1), required a certain amount of reflections. The list I completed is included to demonstrate the careful consideration I gave to each concept. I wondered if I had achieved relative mastery on these concepts. For some my answer was a resounding yes, and as for others, I feel my grasp on the concepts was tenuous at best. One such concept was the Project 1 analysis of patient care integration with technology. I was not well prepared with a clear understanding of the programs needed nor were available to meet home healthcare needs. That by far was the most challenging exercise for me.

Conclusion

This was an amazing course that allowed me to move out of my comfort zone. I was able to see nursing from another perspective. The role informatics has in today's age is invaluable. While the assignments were time consuming, there was an advantage in the integration of them in my overall practice. At one point I was addressing a patient safety network complaint and one of the required questions was, "Was this a result of HIT?". The question gave me pause as to the far-reaching effects technology will have on nursing. We must learn to adapt and help our patients do the same. There will be better outcomes and improved practice techniques. It

behooves us all to consider embracing the discipline of informatics. In closing, as I established earlier in this paper, my role can be, “key person in the design development, implementation, and evaluation of these technologies and in the development of the specialty’s body of knowledge (Hunter and Bickford, 2015, p. 229).

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QSEN Competency Checklist

End of Semester

Knowledge	Not Applicable	Novice	Intermediate	Expert	Comment
Analyze systems theory and design as applied to health informatics			X		
Evaluate benefits and limitations of common information systems strategies to improve safety and quality			X		
Evaluate the strengths and weaknesses of information systems in practice			X		
Know the current regulatory requirements for information systems use			X		
Identify the critical and useful electronic data needed to provide high quality, efficient care Search, retrieve, and manage data to make decisions using information and Appreciate the importance of valid, reliable and significant data to improve quality and provide efficient 16 through effective decision support (clinical,			X		

financial and administrative outcomes)					
Evaluate benefits and limitations of different health information technologies and their impact on safety and quality			X		
Understand how technology can be used to engage and empower patients as partners in managing their own care			X		
Describe and critique taxonomic and terminology systems used in national efforts to enhance interoperability of information systems and knowledge management systems			X		
Skills	Not Applicable	Novice	Intermediate	Expert	Comment
Use performance improvement tools (e.g., Lean, Six Sigma, PDSA) in system analysis and design to assess use of technology to improve care)	X				
Use project management methods in relation to implementation of new technologies		X			

Model behaviors that support theories and methods of change management			X		
Skills	Not Applicable	Novice	Intermediate	Expert	Comment
Participate in the selection, design, implementation, and evaluation of information systems			X		
Consistently communicate the integral role of information technology in nurses' work				X	
Model behaviors that support implementation and an appropriate use of electronic health records			X		
Assist team members in adopting information technology by piloting and evaluating proposed information technologies			X		
Participate in the design of clinical decision supports (CDS) systems (e.g., alerts and reminders in electronic health records)			X		

Anticipate unintended consequences of new technology			X		
Use federal and other regulations related to information systems in selecting and implementing information systems in practice			X		
Search, retrieve, and manage data to make decisions using information and knowledge management systems			X		
Use the existing coding and billing system to appropriately reflect the level and type of service delivered in practice			X		
Model behaviors that support implementation and appropriate use of data accessed through databases, electronic health records, dashboards, remote monitoring devices, telemedicine and other technologies			X		
Access and evaluate the use of mobile technologies (e.g., sensing devices, mobile communication devices, smart phones and			X		

other devices) to improve quality and safety					
Access and evaluate high quality electronic sources of health care information			X		
Support efforts to develop interoperable regional health information systems			X		
Attitudes	Not Applicable	Novice	Intermediate	Expert	Comment
Value systems thinking and use of technology to improve patient safety and quality			X		
Appreciate the Systems Development Lifecycle (SDLC) in the design of information systems			X		
Recognize nursing’s important role in selecting, designing, implementing and evaluating health information systems for practice environments.			X		
Appreciate the need for an interprofessional team to make final decisions related to selection and use of			X		

new information systems					
Value the use of information technologies in practice			X		
Appreciate the role that federal regulation plays in developing and implementing information systems that will improve patient care and create more effective delivery systems			X		
Appreciate the importance of valid, reliable and significant data to improve quality and provide efficient and effective care			X		
Appreciate the need for consensus and collaboration in developing systems to manage information in practice			X		
Value the confidentiality and security of all electronic information			X		
Appreciate the benefits of socio-technology innovation for improving patient safety and quality			X		
Value the importance of standardized terminologies in conducting searches for			X		

information					
Appreciate the contribution of information technology to improve patient safety (e.g, alerts reminders and other forms of CDS)			X		
Appreciate the time, effort, and skill required for computers, databases, and other technologies to become reliable and effective tools in practice			X		

Figure 1. The QSEN analysis chart of achieved goals and requirements. Nursing informatics gave enough information to introduce intermediate tools available for integration.

Reference

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