Levels of Evidence

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Abstract

Evidence-based nursing care has become one of the driving forces of continued research and studies in the field of health care. With the rapid advances in technology, longer life spans, and changing health insurance demands, nurses will be held accountable for providing quality, safe nursing care at a faster pace with fewer resources. In order for the nursing profession to achieve this level of care, it must carefully evaluate the sources and credibility of the research outcomes from which they obtain their information for implementation.

Levels of Evidence

Nursing has been identified as one of the most trusted professions. How do we know this? The information was derived from research. Research serves as a valuable link between the use of nursing knowledge and nursing practice. It is through ongoing studies both quantitative and qualitative, the profession of nursing has progressed. We are able to identify problems within the profession, find solutions to improve our standards, translate the information into practice, and provide evidence-based nursing care.

The research process can be conducted in various ways, and by anyone who has a stake or interest in the findings. But are all research outcomes reliable? As with any issue there will be various opinions, along with a diverse interpretation of the conclusions. It is the responsibility of the nursing profession to recognize the need for change, and find the evidence to validate it. As a future nurse educator, this paper will identify the importance of identifying various levels of evidence, and the significance evidence-based practice brings to the nursing profession.

**Levels of Evidence**

With the vast amount of research available for review and use, it is important to evaluate the reliability and vested interest of the researchers performing it. Many professional organizations in both the nursing and medical fields have established guidelines to determine the reliability of information based on levels of evidence. These grading systems range in different complexities and research methods. Some organizations use numbering and lettering systems to indicate the level of reliability, ranking the method of research to provide significance from most to least reliable. Other grading systems use a reverse order. Currently, there is not a standardized version applicable to all disciplines. However, the American Association of Critical-Care Nurses (AACN), and the Quality and Safety Education for Nurses Institute (QSEN), have played an integral part in the movement to accomplish this.

**AACN**

The AACN was a precursor in the development and implementation of evidence grading systems, with the newest version completed in 2009 (Armola et al., 2009). The revision was aimed at the standardization of their grading system with other professional associations, to give a better comparison value when used to evaluate the reliability of research conducted by other disciplines. The AACN considers the type of study used, the consistency of the outcomes supporting the conclusions, and the ability of the knowledge to be implemented from the research into clinical practice (Armola et al., 2009).

**QSEN**

QSEN also uses a grading system to identify the reliability of research data. QSEN has recognized evidence-based practice as an essential graduate competency. The graduate is accountable to recognize the reliability of evidence, and understand the need for quality improvement as a result of the research (Cronenwett et al., 2007). QSEN utilizes a level of evidence also supported by the American Association of College of Nurses. This grading system also uses the study method as the determining factor in the level of reliability with meta-analysis at the top of the pyramid, and expert opinion ranking last (Drenkard, 2013).

**Other considerations.** Although the reliability of evidence is crucial to its usefulness, there are other components that contribute to the credibility of evidence. These components include the consideration of patient values and preferences, and clinician judgment and expertise (Tracy, & Barnsteiner, 2012). The patient is the center of our nursing practice, or in the world of academia this would equate to the student. Without considering personal and professional needs and values, the implementation of a quality improvement outcome may not prove effective. The clinician brings professional nursing judgment, and with time nursing expertise. Their nursing judgment and expertise allows the translation of research findings into active nursing practice. The incorporation of these considerations will add to not only the value, but the credibility of evidence-based practice.

**Significance to Nursing**

Nurses have strived for centuries to achieve recognition as a profession. Not only are nurses an integral member of the health care team, they represent the largest member of the health care profession. Our profession is securing this recognition through the use of evidence-based practice. Evidence-based practice provides nursing with a problem-solving approach to improve the delivery of health care, improved outcomes, increased patient satisfaction, decreased costs, and better nurse retention. The Institute of Medicine has set the expectation by 2020 at least 90% of all clinical decisions will be made using evidence-based knowledge (Melnyk, Fineout-Overholt, Giggleman, & Cruz, 2010).

Evidence-based practice is becoming the foundation of the nursing profession (Earle-Foley, 2011). It was first utilized by Florence Nightingale when she discovered the correlation between poor sanitation and disease. Her recognition of a problem prompted her to analyze cause and effect, formulate an outcome, translate it into nursing practice, and plan implementation. Although it was most likely not recognized as such during that time period. The credit for the use evidence to guide practice originated in the medical field. Since then this process has been utilized by other disciplines, and grown in importance. With the increasing demands on the nursing profession the search for evidence-based practice will increase.

The concept of evidence guiding practice is considered to be fairly new to nursing curriculums. For centuries many nurses have built their nursing practice around their practice experiences. They simply provided patient care from what they had been taught, possibly without knowing the rationale behind it. In the past, nurses were trained to follow a physician’s orders, assuming it was the best practice. Through the development of evidence-based practice, nurses are now involved in clinical decision making. The push to critically think, and be involved in all aspects of research, has elevated nursing as a profession. It has allowed nurses to work in collaboration with physicians instead of for them.

The use of evidence-based practice has empowered nurses in their roles. This empowerment has helped increase job satisfaction. When nurses experience job satisfaction, their patients also reap the benefits. With the increase in evidence-based practice, many nurses become better patient advocates, which improves patient satisfaction, and quality of care (Melnyk et al., 2010). These positive effects also facilitate positive nursing outcomes. Nurse retention is another added benefit, and helps keep expert nurses providing direct patient care.

Health care organizations are facing rising financial strains. Some organizations have been forced to decrease supplies and staff. By investigating areas of cost savings, assessing current practices, conducting research, and evaluating outcomes, evidence-based practice can be developed. Evidence has the potential to streamline costs, and make patient care more time efficient. Improved evidence-based practice also has the ability to improve work environments, thus decreasing nursing turnovers which are very costly to health care organizations (Melnyk et al., 2010).

**Other considerations.** Although there are many benefits to defining evidence-based practice, there are barriers to its implementation into nursing practice. Not all nursing curriculums have incorporated sufficient academic experiences to provide opportunities in developing, synthesizing and implementing evidence-based practice (Finotto, Carpanoni, & Turroni et al., 2013). For these nurses there is less inclination to participate in the process, as they may not understand it, and feel left out. Buy in from the staff is crucial to the outcome of implementation.

While the nursing professional supports the use of evidence-based practice, their organization may not. Some health care organizations have continued to use their current practices because it is the way they have always been done. Other barriers include

* non-supportive organizational cultures;
* lack of administrative support;
* lack of evidence-based practice mentors; and
* lack of tools, resources, and finances (Melnyk et al., 2010).

**Role of the Master’s Prepared Nurse**

It is important for nurses at any level of education to be an active participant in the process of evidence-based practice. There are many ways for nurses to become involved. An associate degree nurse may assist in the implementation of a new practice or procedure, while adding new information from the technical side. The Bachelor’s prepared nurse can discover new research outcomes pertinent to their practice or work setting, and also help implement them. A master’s prepared nurse can participate in all aspects, in addition to identifying problems, conducting the research, mentoring, and implementing the outcomes if indicated.

To better identify the role of the Master of Science Nurse (MSN) in evidence-based practice, several professional nursing organizations have recognized competencies essential to practice at this level. Some of these organizations include, the American Nurses Association (ANA), the National League for Nursing (NLN), and QSEN. These competencies originated and evolved, as a result of research identifying evidence-based outcomes. These competencies help insure the MSN will be prepared to practice evidence-based nursing in the area of their specialty, while promoting quality care and safety to individuals, families and the communities.

**ANA**

The scopes and standards of the ANA outline additional competencies for graduate level nurses. Standard 9 specifically addresses the nurse’s role in evidence-based practice. All registered nurses have the expectation to use evidence-based information to guide their daily practice, at a level appropriate to their education (ANA, 2010). The graduate nurse must take the knowledge she has, process it, conduct research for new outcomes, and if warranted translate the findings from research into evidence-based practice (ANA, 2010). A MSN is held accountable to share information and commit to life-long learning. With this commitment the MSN becomes a leader, educator, mentor and most important an expert nurse.

**NLN**

The NLN, with a focus on nursing education has developed four primary graduate nurse competencies, “human flourishing, nursing judgment, professional identity, and spirit of inquiry”, with specific essentials under each (NLN, 2013). All competencies have the underlying theme of nursing practice supported by evidence. The spirit of inquiry focuses heavily on research with the graduate nurse as the leader, analyzing, evaluating, formulating, and implementing, to establish an environment of safe quality health care (NLN, 2013). The NLN supports science in nursing through nursing education. It empowers nurses to become involved, and assume this responsibility as a critical part of their role.

**QSEN**

QSEN has developed competencies which are appropriate for all nurses, independent of their level of education. They support research in obtaining evidence to advance the professional practice of nurses. These competencies are considered essential, but not expected for all nurses. It is the responsibility of nurse educators to take these competencies and give students opportunities to experience them through active participation. The goal of QSEN is to have educators at a minimum teach undergraduates elements of evidence to consider, such as patient preferences and values, and clinical judgment and expertise (Cronenwett et al, 2007).

**Conclusion**

Knowledge obtained through research facilitates evidence-based nursing practice. The credibility of the research needs to be evaluated using a reliable level of evidence approach. Professional nursing organizations such as the AACN and QSEN, provide the means to compare evidence credibility. It is also important to consider the patient’s values and preferences, along with the clinician’s nursing judgment and expertise. By utilizing all of these resources, the value and credibility of the evidence will be strengthened.

As nursing grows a profession, evidence-based practice will not be an option, it will be an expectation. Thus, in order to meet the expectations of the Institute of Medicine by 2020, nursing must begin transforming their practice now. Both academic and health care settings need to support the movement into evidence-based practice. They must make a commitment to take the barriers of implementing evidence-based practice down. The benefits of evidence-based practice outweigh the negatives such as cost.

Nursing roles will continue to expand. Nurses at every educational level will need to take an active part in some way. Graduate level nurses will be the leaders in this mission. Their roles have been defined through nursing organizations such as, the ANA, NLN, and QSEN. With evidence-based practice becoming the foundation to our profession, and nurses being the largest group of health care members, we have the power to assure continuous quality improvement in patient safety and care.

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