A study on how informatics affect the clinical nursing practice

Computers have played an important role in every profession includingnursing. Informationtechnologyis widely used by different hospitals worldwide to strengthen the quality that was given to the patients. Hence, nursing informatics has emerged in the past and continues to boom and being used by the medical practitioners nowadays.

Nursing Informatics is a specialty that integrates nursingscience, computer science and information science to manage and communicate data, information and knowledge in nursing practice. It facilitates the integration of data, information and knowledge to support patients, nurses and other providers in their decision making in all roles and settings.

This support is accomplished through the use of information structures, information processes and information technology. (ANA, 2001, p. 17)

It is anticipated that majority of nurses who will enter the profession will be computer literate by the year 2010. In addition, it is also anticipated that everyhealthcare setting will employ at least one Nurse Informatics specialist and will implement some type of a Clinical Information System.

It is designed to support clinical nursing practice. It requires not only an understanding of professional nursing but also technology that is the application of science to function electronically. [1]

Nursing practice has evolved and changed radically. It has become an integral part of the Electronic Health Record. Computer systems with nursing and patient care data, nursing care plans were integrated into one interdisciplinary patient health record in the Electronic Health Record.

Continued advancement of information and technology and its application to the nursing practice plays an important role and greatly affect each nurse especially those registered nurses who are more experienced, that is why this term paper seeks to present and discuss the role of informatics in clinical nursing practice. More specifically, it answers the following:

1.   What are the nursing tasks and responsibilities that will apply to the use of computer technology that will contribute to good clinical governance?

2.   How can the nurses further involve themselves both in the use of technology and decision making process in regards to the evaluation and selection of applications in the computer software and hardware?

3.   What are the strategies that can be used to bridge the age and digital experience gap between participating nurses and the influx of the next generation new graduates that apply to informatics application?

This particular topic needs a great deal of general description method. In the process, it can also be helped with the use of review of some studies that is related to the impact of nursing informatics to clinical nursing.

I. Body

The application of Nursing Informatics provides great benefits not only to the patients but to the nurses themselves as well. The health care team especially nurses makes use of Electronic Health Record (HER) in documenting the case of the patient. It is a secure, real time point of care, patient-centric information resource for clinicians. The EHR can include dental and other records concerning a patient. It represents the portions of a

patient's medical record that are stored in a computer system as well the functional benefits derived from having an electronic health record. (HIMSS Analytics, INC, 2007) (Gartee, 2007)

One advantage of an electronic health record is that it can be simultaneously available to everyone who needs to use it. Secondly is that, electronic records necessitate the collection of structured data. The nurse can systematically collect data that can be transformed into information for decision making and can also be used to examine what practices, treatments, and procedures are associated with the best outcomes.

The nursingresponsibilitythat will apply to the use of informatics is mainly the nursing documentation. Because it encompasses most of the nursing tasks which includesobservation, plan of care which is also known as nursing care plan that has to be documented. Each and every procedure and intervention may it be dependent or independent nursing intervention has to be documented in a proper way.

The strategies that can be used by nurses to involve themselves in informatics is based in the result of the study which was published in 2005 that examined the readiness of nurses in the United States for a shift to evidence based practice.

There are several issues that has to be addressed to involve nurses to participate in the use of technology in delivering quality health care to their patients. These issues are the following: (1) lack of access to research findings; (2) lack of ability to mine the information from the bibliographic databases; (3) lack of time; and (4) lack of the value in research.

The first issue according to Diane Pravikoff, the presence of rich and appropriate resources for use in gathering the evidence is one of the most important factors in incorporating EBP into practice.

Based on the issues that was given, the strategies that can be used to involve nurses in informatics is mainly participation to researches and breakthroughs that is given by accredited organization to foster the scarcity of nurses who are not aware to the rapidly increasing discoveries and breakthroughs in the field of nursing.

Secondly is in the participation of nurses to seminars. In addition, it will also be a great help if the nursing professionals will involve themselves in the continuingeducationto further enhance their knowledge in improving the quality of care of the patients.

Moreover, it will have a great outcome if all nurses will be trained on how to use the information technology and study the applications that are needed in using and accessing the electronic health record of the patient. Lastly, it is more important that this knowledge gained from experiences, researches and seminars and education must be put into practice and be mastered to provide the optimum health of the patients.

As previously discussed, to bridge the age and digital experience gap between participating nurses and the influx of the next generation new graduates that apply to informatics application, all nurses should participate in a training in information and technology and involve themselves in continuing education especially in the field of nursing informatics to address

the anticipated outcome of the American Nurses Association which is by year 2010, majority of nurses should be computer literate.

Nurses should participate to formal trainings and pursue the course either through a traditional type of degree such as a Masters or via a Certificate program.

Information relevant to clinical decision making continues to expand, and its relevance will only increase as the electronic health record becomes a standard part of practice. The examples of information technology support for Evidenced Based Practice are internet resources, and software applications for EBP. When it comes to EBP, internet is one of the most valuable sources of information.

Different organization especially the US government provides several website that can be accessed to update the medical professions in expanding their knowledge regarding informatics. Internet can be accessed in different modes. It can be provided through a wireless broadband, mobiles used as a modem for internet connection and some makes use of dial up connection.

Whether access is in mobile or not, the internet is increasingly an important adjunct to safe practice. The number of practical tools available on the internet increases each year which may result into information overload, unless the user knows how to retrieve and structure available tools. Basic and advanced internet skills are needed to adapt to a frequently changing internetenvironmentand to retrieve the wealth of internet information applicable to clinical practice in an efficient manner.

According to the University of California at Berkeley's Library (2007), there are five internet steps strategy for effective internet searches: (1) Analyze your topic to decide where to begin; (2) pick the right search engine; (3) learn as you go and vary approach as what you have learned; (4) don't bug down in a search strategy that does not work; and (5) return to any of the previous strategies with the insights and the information gained and repeat the process.

The software application for EBP is supplied by the Electronic Health Record. The EHR has many components that incorporate EBP at the bedside, including Clinical Decision Support Systems (CDSS) and Computerized Provider Order Entry (CPOE).

This is of great importance because is always updated in terms of knowledge and applied reasoning by a CDSS. The clinical tasks performed by the decision support are the following: alerts and reminders, diagnosticassistance, therapy plans, medication orders and information retrieval. As a result, the appropriateness of data regarding this updates is validated because of their responsibilities.

II. Conclusion

Patient safety continues to be a well-documented priority for healthcare organizations. This is the reason why many research was made and is continuously being done to improve the delivery of optimum health care to the clients. Nursing informatics greatly affects the nurses especially the old nurses who were not able to catch up with the advancement of technology.

But in the long run, many of them wants to improve their knowledge and be part of the rapid immersion of information technology in the field of nursing to provide benefits both in the patient and nurses such as more accurate data and zero errors in drug administration, accessibility and easy view of the patients record by the health care team at the same time when needed.

Bibliography

American Nurses Association (ANA). (2001). Scopes and Standards of Nursing Practice for Nursing Informatics. Washington, DC: American Nurses Publishing

Gartee, R. (2007). Electronic Health Records: Understanding and Using Computerized Medical Records. Upper Saddle Rivers, NJ: Prentice Hall

HIMSS Analytics, INC. (2007). Definitions. Retrieved January 27, 2008, from HIMSS Analytics: http://www. himssanalytics. org/docs/Definitions-By-Term. pdf

McCormick, K. A. . Essentials of Nursing Informatics. International edition 2006.

[1]   Kathleen A. McCormick, Essentials of Nursing Informatics (International edition 2006), 4