

**Care givers access to the best available practice (EBP) in
relation to patient safety**

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<p>Abstract: The purpose of this study is to see if access to scientific research articles at work place can positively affect patient safety and enhance care givers adherence to evidence based practice.</p> <p>Method; Qualitative method was used in this study where nineteen scientific research articles were analyzed through deductive content analysis which helped to answer the research question posed for the study. Previous researched articles which are relevant to effectiveness, credibility, acceptability and ethical issue were sought. The findings were presented through the perspective of the advantaged party that is from the patient safety point of view, quality improvement of service centers, cost reduction of organizations and capacity building of health workers.</p> <p>Conclusion; It can be concluded that access to research findings at work place has demonstrated positive effects on patient safety and quality of care. Pre-appraised research findings which are relevant and up-to-date helps care givers to adhere to evidence based practice and save their time. Also care givers will not be worry for verifying credibility of findings and it enable them to cope-up with up to date research findings and technologies.</p> <p>Research demonstrates that access to online evidence systems at work place improves professionals' accuracy and confidence in answering clinical questions and positively impacts upon care delivery and patient outcomes. It also enables nurses to use the best available data or information when it is most use full rather than during documentation.</p> <p>This study was guided by the theory creating conditions for work effectiveness by ensuring employees have access to information, support and resources to get the work done and continuous opportunities for employee development. Anne Marie Kotzer (2008).</p>	
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FOREWORD

This written work was carried out as part of the project entitled “...ELLI” collaboration between the municipality of Espoo and Arcada University of Applied sciences. The views expressed in this study are those of the writer and not the founders. The work was undertaken by the guidance and support Ms Gun-Britt Lejonqvist, I sincerely appreciate the time she spent in reviewing my thesis and recommending strategies in doing this work to its best.

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INTRODUCTION

It has been long since the International Council of Nursing (ICN) has claimed that nurses are independent practitioners. The ICN has promoted several code of ethics, code of conduct and standards of practice competency at different time to be used and followed by professional nurses and are being used. The objective of the code of ethics of the profession is to explicitly define the primary goals, values and obligation of the profession. And accountability or responsibility is one of the ethical concepts of the profession. (Fry & Johnston 2002 p. 48-74)

According to their book the ICN code of Ethics for nurses with regard to the concept of responsibility nurses have four major responsibilities that are to promote health, prevent illness restore health and alleviate suffering. It was described the nurse is accountable when s/he explains how this responsibility has been carried out, justifying the choices and actions according to the accepted moral standards, professional competency and norms. Further the authors have described that one of the most commonly agreed nursing code of ethics by members of the ICN is responsibility for one's action and practice competence.

However, regardless these practice competency expectations medical and nursing errors are high. Mew Shaw (2006) "Medical errors" report shows that most medical mistakes occur not because of negligence or carelessness, but because of complex system errors and the tremendous evolution in healthcare over the last decade. These factors include the explosion of technology and critical personnel shortages.

According to her the problem is not bad people it is that the system needs to be made safer, however this implies that the practice competency are not met for whatever reasons.

Therefore, in order for nurses or other care givers to be in line with practice competency expectation and attain optimum patient safety and adherence to safe practice in attempting to minimize nursing errors it is crucial to update oneself with the ever growing professional science and the technologies required to implement any given procedure. Here access to online up to date evidence based practice at work place can be an important

strategy in addressing those challenges and this motivates for choosing the research topic.

According to Dale (2005) evidence based practice (EBP) promotes the collection interpretation and integration of valid, important and applicable patient reported clinician observed and research derived evidence.

It was also mentioned that the best available evidence has to be moderated by patient circumstances and preferences to improve the quality of clinical judgments and facilitate cost effective care. It also involves complex decision making which is based not only on the available evidence but also on patient characteristics, situations and preferences. It also recognizes that care is individualized and ever changing and involves uncertainties and probabilities.

In his work it was further mentioned that EBP develops individualized guidelines of best practices to inform the improvement of whatever professional task is at hand. EBP is an approach that opposes doing things as a matter of customs and tradition. It was said that it is in opposition to rule of thumb and tradition. Examples of a reliance on the way it was always done can be found in almost every profession even when those practices are contradicted by new better information. (Dale 2005).

Evidence Based Nursing Practice

DiCenso et al (2005 p: 4) in their book evidence based nursing guide to clinical practice, has mentioned that evidence based nursing is the integration of best research evidence with clinical expertise and patient values to facilitate clinical decision making. Evidence based clinical decision should incorporate consideration of the patients clinical state, setting and clinical circumstances. Although some study have shown negative outcomes on integrating patients as well as family or relatives to intervention it was proposed that consideration of patients' preferences and actions were stated as a core to evidence based decision making.

Further it was mentioned that best research evidence are said to be based on the methodology employed, even though which method is best for what kind of study and which discipline is not clear, clinical relevance of researches on their effectiveness and safety of nursing intervention, the accuracy and preciseness of nursing assessment measure-

ments the cost effectiveness of nursing interventions, and the meaning of illness or patient experience.

Similarly Roy (2004) said that evidence based nursing is the process of integrating the best available research evidence their expertise and patient preference in attempting to make clinically sound decision making. According to Roy the three areas of nurses' research competence are: interpreting and using research, evaluating practice, and conducting research.

The nursing discipline supports the use and application of research findings according to the fundamental patterns of knowing in nursing, but why professionals in the nursing field and other care givers as described in many research articles, journals or other related sources that the trend of using or applying evidence to their activity in relation to patient safety, avoiding or minimizing complications from nursing procedures is at its best lower level could have different perspective.

In his book "Philosophical and theoretical perspective for advanced nursing practice" William has sighted that the fundamental patterns of knowing in Nursing, earlier suggested by Carper 1978 and Dale (2005), is Empirical, Ethical, personal and Aesthetics. These are farther strengthened and expanded by Chinn and Kramer about the process with the pattern of knowing. Further in his work he described that the pattern of empirical knowing is verifiable facts descriptions, explanations and predictions based on subjective or objective data this pattern of knowing constitutes the science nursing.

It was also mentioned that empirical knowing is generated and tested by means of empirical research therefore, the primary focus as evidence as a science. According to his work ethical knowing, personal knowing and aesthetical knowing are required for moral, human and personalized nursing practice.

Issues such as moral obligations, moral and non-moral values and others are contained with the pattern of ethical knowing. It was also mentioned that ethical knowing is attested by means of ethical enquires that focus on dialogue and about values and beliefs.

Quality and authenticity of the interpersonal process between the nurse and the patient refers to pattern of personal knowing.

This pattern is concerned with the knowing, encountering and actualizing of the actual self. Nurses' perception of what is significant in the individual patient behavior refers to the pattern of aesthetic knowing.

Further he pointed out that, having sighting other sources, each pattern of knowing is an essential component of the integrated knowledge base for professional practice, and that no one pattern of knowing should be used in isolation from the others.

Therefore, according to his writing given the diversity of kinds of theories needed for nursing practice evidence must extend beyond the current emphasis on empirical research and randomized clinical trials.

Moreover it is not the intention of this study to investigate what patterns of knowing are followed in the medicine field in conducting randomized clinical trials as well as empirical research, to the kind of evidence also generated from ethical theories, personal theories and aesthetical theories (William P. 261).

Similarly it has been also suggested that the main focus of nursing is a holistic care rather than reductionist approach of medicine. According to Dale a holistic approach is necessary in nursing because patient experiences extended beyond the effect of illness, treatment alone cannot resolve patients' needs in caring situation.

Can this be the reason or the perspective for the nurses in majority for not incorporating evidence based practice in to their everyday activity in relation to patient safety and applying best available nursing practice? Does every research finding in relation to nursing evidence based practice has to fulfill the patterns of knowing in nursing? Further study can be conducted to assess the case for the above questions if not yet been assessed by any researcher.

However in this written work the outcome of access to scientific research articles at work place in relation to patient safety and quality of care will be examined thoroughly, as findings of some research articles show that will enhance the patient safety issue and applying best available evidence based practice.

Aim

The overall purpose of conducting this written work is to understand and to bring to the attention of readers in the health care sector that access to research articles at work place can positively affect patient safety and enhance quality of care by incorporating best available evidence based practice. That is enhancing safe caring practice and patient

safety by enabling care givers to integrate and implement EBP on their day to day activity.

Therefore, this written work will focus on and answer the research questions;

Does access to scientific research findings at work place positively affect the practice of care givers? Does adherence of care givers to EBP enhance the quality of care and patient safety?

Background

The Institute of Medicine's (IOM) publication to err is human building a safer health system concluded that as many as 98,000 people may die in any given year from preventable medical errors to illustrate this analogy was made that "deaths from medical errors were equivalent to one jumbo jet crashing each day". Besides it was mentioned that the culture of healthcare did not support the implementation of safe practice. (Shaw 2006).

This problem is a wide problem deaths sufferings are rampant in many places of the world.

However, it may not be fair to leave the medical errors to physicians only, as usually regarded medical practice to doctors, nurse as part of the health care system they share the same culture that did not support safe practice.

The assumption that everything nurses do is based on physicians order is not always true for example registered nurses are licensed to practice certain procedures with or without the physicians order for example skin care, prevention of fall and many others, whereas in developing countries where the number of physicians are limited especially in rural areas nurses are the front line health service providers. It is common to know in many cases even though physicians order what they want to be done for the patient usually they do not tell how it has to be done.

Therefore the contribution of nurses on the medical error, as part of the health care system, is obvious.

Moreover, according to the International Council of Nurses, in the eyes of the law in almost all countries in the globe nurses are treated as independent practitioners responsible and accountable for what has happened in their presence or practice.

According to Fry and Johnston (2002) nurse's role in patient care has slowly shifted from being the obedient helper of the physician to being independent practitioner who could be held accountable for what had been done or not done in providing patient care.

The concept of accountability was described to have two major attributes answerability and responsibility. Answerability entails giving satisfactory reason and explanation for one's action or how one has carried out ones responsibility, whereas responsibility includes not only ones intentional conduct but also anything with which one is seen to have causal relationship whether this perception is justified or not.

Therefore according to this ethical concept even carrying out physicians order should be carefully handled since nurse are independent practitioners and have their own code of conduct. (International Council of nurse's code of conduct 2002).

The problem with implementing safe practice was also further strengthened by another research study (below) conducted to know individual determinants of research utilization by nurses who are assumed to be the last people to execute a given procedure implies that safe practice without research utilization evidence based practice or best practice seems unthinkable.

Squires et al (2011) has stated that despite increased knowledge of the benefits of adopting a research-based approach to providing nursing care and of increased availability of research findings for nurses, the use of research findings in nursing practice remains at best slow and haphazard which implies that patient safety and adherence to safe practice under question mark. Because of this patients frequently do not receive best or even optimal nursing care.

It was further pointed that there is a call for the implementation of interventions to increase research use by nurses but the problem as observed during collecting and analyzing this study is not the demand or lack of resources but the strategies in implementing was the major problem. However, relatively few reports of research utilization interventions in nursing are reported but more importantly where they do exist positive findings are generally not reported.

However, for anyone who have read the research findings of Campbell &. McDowell; can be clear as to why the research utilization by nurses remains at its best low and hap-hazard.

The study by the above researchers was conducted to explore on the knowledge and skill of nurses on the use computer and computer software applications in relation to the use of electronic health record continues to grow. Accordingly their result has shown that the nurses had little to no experience with nearly half of the items surveyed.

The study has found out that year of birth and educational level were the main determinant of the study. A positive correlation was seen between year of birth and computer literacy the younger the more acquainted to computer applications. The correlation between nurses' educational level and computer literacy was found to be statistically significant that is those with degree are in better position than those without degree.

Regardless the call for evidence based practice by nurses and the number of causalities from medical and nursing practice errors because of different reasons the use of articles is still as mentioned above low (Campbell and McDowell 2011).

Yet, the skills necessary for evidence based practice according to DiCenso et al (2005) is very comprehensive and crucial but doubt full if can be managed to do so at the point of care unless some mechanism are followed.

According to Alba EBP include that the ability to define a patients problem precisely and ascertain what information is required to resolve the problem, to conduct an efficient search of the literature, to select the best of the relevant studies, to apply rules of evidence to determine their validity, to extract the clinical message, to determine how the patients value affect the balance between advantages and disadvantages of the available management options, to involve the patient appropriately in the decision and to implement and evaluate the management plan.

Therefore, the main purpose of this study regardless of the different reasons provided by researchers for not using evidences, the expectations and the competency required, is to understand if at all access to scientific research articles at work will help nurses to incorporate evidence based practice in relation to patient safety and quality of care as regarded in the discipline of the profession.

And regardless the different circumstances that they have, the nature and purpose of research articles and their method of study access may improve their literature utilization and evidence based practice at least in considering the written works of nurse scholars

which may not have different perspective like the studies done by medical professionals.

Since all health related research articles are not expected to be done and are not done from nurses' pattern of knowing and nursing practice perspective in order to be specific and clear concerning this written work it was tried to concentrate and have the concept of evidence based practice and its definition from nursing disciplines perspective.

However, EBP from other discipline perspective was also reviewed and this may give some insight about the different perspective in using research article by nurses. As the components patterns of knowing are included to some extent in the concept of evidence based practice and its definition, which in my opinion and understanding will help nurses or other care givers, will be encouraged to use research articles.

Definitions

Evidence-based practice (EBP) is the conscientious and judicious use of the best evidence to guide practice including using patient values and clinical expertise (Titler et al 2001).

Similarly Aebersold had defined the evidence base for nursing practice as evidence is the basis of belief, the available facts, circumstances and the likes. It is supporting or otherwise a belief proposition or indicating whether a thing is true or valid. S/he and his colleagues have argued that the evidence interests of nursing relate to four areas which they refer to as the 'FAME' scale and they have tried to describe it from clinical point of view these are;

Feasibility of evidence based nursing practice is the extent to which an activity is practical. Clinical feasibility is about whether or not an activity or intervention is physically, culturally or financially practical or possible within a given context.

Appropriateness is the extent to which an intervention or activity fits with in a situation. Clinical appropriateness is about how an activity or intervention relates to the cultural or ethical context in which care is given.

Meaningfulness of evidence based nursing practice is the meanings patients associate with an intervention or activity as a result of their experience of it. Meaningfulness was also related to the personal experience, opinions, values, thoughts, beliefs, and interpre-

tations of patients or clients. Effects or effectiveness is the extent to which an intervention when used appropriately achieves the intended effect. Clinical effectiveness is about the relationship between an intervention and clinical or health outcomes (Aebersold 2011).

The definition of evidence based nursing practice made by Ingersoll's (2000) also elaborates and incorporates to some extent the patterns of knowing in nurse profession but not different in essence from the other descriptions of EBP. According to Ingersoll evidence based practice is the conscientious, explicit and judicious use of theory derived research based information in making decision about care delivery to individuals or groups of patients and in consideration of individual needs and preferences.

Therefore, the concept of evidence based practice is going to be evaluated from this point of view as this written work is regarded.

Theoretical Framework

Kotzer (2008) theory of organizational empowerment provided the foundation for this research. According to Anne Marie, this days management is challenged to create conditions for work effectiveness by ensuring employees have access to information, professional as well as carrier support and resources to get the work done and continuous opportunities for employee development. It is clear that many are also advertising place of work as health promotion site and not just work place only.

According to Anne employees who believe their work environment provides access to these structures not only feel empowered and experience increased levels of autonomy and self-efficacy but also demonstrate a greater commitment to the organization. It was also mentioned that a positive work environment that supports work effectiveness will increase job satisfaction and commitment and potentially result in greater nurse retention (Kotzer 2008).

PREVIOUS RESEARCH WORK ANALYSIS

Several research articles have been reviewed in attempting to analyze their contents which are related to the research question of this thesis. While gathering the data for the study it was observed that many of the literature agree that access to online resources is crucial in today's health care program and some of the reasons forwarded for their agreement are that the volume of the scientific literatures' produced every time requires quick means of access, the competitive and pressured health care environment and the necessary skills required to judge the quality and validity of research studies (below some IT tools which can help in judging the quality and validity are sighted).

Yet, patients with high awareness and information gathered from the internet and other sources are pressuring professionals to provide accurate and quick answers to complex questions.

To address these issues and problems few providers are working on and some of them have already presented on ways of finding relevant clinical information, necessary skills to judge the quality and validity of research studies and many health care providers are adopting them. Hence, a number of clinical as well as nursing resources exist on line in order to help health workers transfer evidence in to practice and the most efficient resources consist of pre-appraised evidence.

In elaborating this idea Sullivan (2000) In article Health resources for evidence based medicine, has stated that Journal articles are still the primary source for locating new medical information, but much of the information available in large bibliographic databases such as MEDLINE according to the researcher is not evidence based the reason was time constraint that the database offers tremendous articles in a moment and health workers do not have time to select, verify these articles.

To directly put her words "what can busy practitioners do when pre appraised sources of information are not yet available to answer clinical questions". It was further mentioned that to make searching both more effective and efficient filters have been developed by organizations that support evidence based practice to create literature searches that yield a higher percentage of clinically relevant articles. Some relevant tools that facilitate evidence based practice are directly quoted below;

Tools ranging from web based critical appraisal worksheets to sophisticated database for handheld computers the tools of interest include calculators such as the Bayesian, a tool to calcu-

late such as the sensitivity and specificity and predictive values of a given test and the likelihood ratios available through the Medical College of Wisconsin.

(<http://www.intmed.mcw.edu/clicalc.html>). The other critical appraisal worksheet for diagnosis, harm, prognosis, therapy and systematic reviews are available from the center of evidence based medicine at Mount Sinai Hospital University Health Network.

A software tool to create critically appraised topics from Toronto Canada is also available through (<http://www.library.utoronto.ca/medicine/ebm/teach/materials/caworksheets.htm>) **CAT maker**. Similarly (<http://cebm.jr2.ox.ac.uk/docs/catmaker.html>) is also available from the center for evidence based medicine at Oxford. Another software for the desk tops and laptops so called info retriever is available a source for evidence based information which contains over four hundred critical appraisal of the literature from the journal of Family practice POEM. Abstracts of systematic reviews from the Cochran database of systematic review, summaries of selected evidence based practice guidelines and information on diagnostic tests.

(<http://www.infopoems.com/IR95%5fHome.htm>). (Sullivan 2000).

Even though most of the sources mentioned above are related to medicine field it is clear that it shows that different organizations are developing and presenting online access to the best available practice to clearly demonstrate safe clinical practice which results is patient safety, improved quality of care and adherence to the best available evidence.

Therefore based on this finding it is clear that access to scientific research articles at work enhances patient safety and enables care giver to provide the best available quality care.

In a study conducted to explore and determine clinicians' doctors', nurses', and allied health professionals' actual and reported use of a point-of-care online information retrieval system and to make an assessment of the extent to which use is related to direct patient care the result of the study shows that eighty-eight percent of users reported clinical information access program had the potential to improve patient care and forty-one percent reported direct experience of this (Westbrook et al 2003).

A similar study conducted to determine if and when general practitioners use an online evidence system in routine clinical practice, the type of questions for which clinicians seek evidence and the extent to which the system provides clinically useful answers the result of the finding shows that provision of online evidence at the point of care is one strategy that provides clinicians with easy access to up-to-date evidence in clinical settings to support evidence-based decision-making.

Further the report of the finding shows that the most frequent searches conducted are related to diagnosis and treatment, eighty-three percent of clinicians believed that quick clinical access had the potential to improve patient care and one in four users reported direct experience of improvements in care. In seventy-three percent of queries with clinician feedback participants reported that they were able to find clinically useful information during their routine work (Magrabi et al 2004).

Hospital-based clinicians have also been shown to use and attain benefits from online evidence systems. In a study conducted to investigate whether and how ambulance officers use online evidence systems the study result shows that among the users 87.3% believed online clinical information had the potential to improve patient care and 28.2% had directly experienced this.

In addition most of the reasons mentioned as to why they use the online evidence is that in general related to patient safety and improved quality of care and these are to fill a knowledge gap, undertake personal education for a specific course or project, gain access to a standard reference, assist research, support the education of others, improve patient outcomes, confirm a clinical decision, settle a dispute or controversy regarding diagnosis or treatment, make a diagnosis, develop a treatment plan and review policies or guidelines (Westbrook et al 2006).

Winters et al (2007) In their research work to find out how nurses in remote area in the USA access to health information specifically to research finding found out that there is lack of concept as to what research means for example in that specific study the nurses were understanding research as just gathering information two to three times per day/per week and the information was gathered from a colleague at work place.

The consultation to colleagues can have positive effect to patient safety and quality of care but the reliability and consistency and biasedness issues of the information gathered can be put under question mark in addition it clearly shows the knowledge deficit as to what research means. More over the study result shows that lack of computer and internet access on the nursing unit and there is also lack of knowledge on research methods and others.

Similarly In attempting to identify sources of medicine information that nurses use while administering medicine Ndosi (2010) in the UK has found out that nurses primarily use or rely on human sources that is doctors, other nurses and pharmacists for drug information.

However, s/he commented out that human sources or information from human sources is not likely to be critically assessed and may not necessarily be evidence based and are not authoritative and their availability is variable hence both factors limit their efficiency due to this reason s/he suggested that being the key learning environment according to their finding work place should be equipped with adequate and accessible resources to support nurses in their medicine administration role.

On another recent study conducted to learn the confidence and attitude of doctors, nurses and other allied health worker on their perception of barriers to evidence based practice shows similar finding, a study from developing country Malaysia, that poor access to IT support at the point-of-care such as a lack of computer with reliable internet access as well as a lack of time and poor awareness of EBP are barriers to implementing EBP. In particular poor IT support was a barrier (Lai et al 2010).

Another extensive research work from Canada which was done on an existing hierarchy of preprocessed research work was successful in adopting the work that is implementing evidence based practice in to the public health setting as a result attained high quality of care and patient safety.

According to Robeson et al (2010) this public health-relevant pyramid that is the preprocessed research will facilitate easier and faster access to high quality public health evidence with the intent of promoting evidence-informed decision making.

It was further mentioned that access to such resources addresses several barriers identified by public health decision makers to evidence-informed decision making most importantly time as well as lack of knowledge of resources that incorporate relevant evidence and access to evidence that has been assessed for methodological quality and synthesis.

According to Robeson enhanced access to high quality synthesized research evidence is one component of a knowledge translation strategy to support and encourage evidence-informed public health practice, program, and policy decision making. (Robeson et al 2010).

Educational qualification was also seen to be positively associated with the use and adherence to evidence based practice. A cross sectional study report conducted to explore the relationship between nurses personal and professional factors and evidence based nursing practice shows that professional behavior of nurses with a degree qualification was more evidence based than those without a degree.

Patient safety and quality of care was more reliably with those who adhere to the best available practice.

It was also suggested that evidence-based nursing practice was more likely where there was access to a rich library with nursing and medical journals and opportunities for working with a computer and for searching the internet in the workplace.

As it was seen in the above literatures such as the article on ambulance workers the variables emerging as predicting evidence-based nursing practice in this cross sectional study were education, skills in locating various research sources, support of the organization for searching and reading professional literature, knowledge sources based on colleagues and system procedures/inhibiting variable, knowledge sources based on reading professional literature, and knowledge sources based on experience or intuition (Eizenberg 2011).

Similar study result shows facilitation of implementing evidence based practice should be supported by strategies such as establishment of and access to a network of research mentors through professional organizations become essential.

A cross-sectional survey conducted by the Emergency Nurses Association (ENA) to understand levels of education in research, the extent of experience and needs and barriers to research at the individual and organizational levels in emergency nursing finds out that facilitation of implementing evidence as the third concept in the framework for integrating evidence into practice.

According to the literature it was an area requiring more attention and based on the study findings the barriers cited by study participants included limited resources not only time but also support e.g. administrative, research, and statistical support.

These findings are consistent with reports from other studies, identifying lack of organizational and structural support for research activities and the theory on which this study report based on.

The foundation for evidence-based practice guided by research must be supported throughout the health care facility not only to establish such practices but also to sustain the efforts. The study concluded by suggesting strategies such as the establishment of and access to a network of research mentors through professional organizations as essential.

In addition formal and informal continuing education offerings through the internet and symposium may help to meet this need. At the same time nurses may have to seek guidance and support focused on research (Chan et al 2009).

The justification provide by Rawlings and Tieman (2011) when they develop and open the so called “Nurses hub” new online tool in palliative care to be accessed and used by nurses in Australia was that the information and resources provided in the nurses’ hub have been written and reviewed by academician and experienced registered nurses specifically for nurses working in any care setting not just palliative care.

According to their literature palliative care nurses Australia provided formal external peer review on these pages.

Also they have mentioned that this ‘hub’ of knowledge helps link the specialist and academic evidence base to the practical information and care needs of nurses. Significantly it provides timely access to free, up to date and good quality palliative care information and resources enabling improvements in patient care, patient safety and adherence to the best available evidence based nursing practice.

It was also mentioned that access to a free monthly electronic newsletter is available to keep nurses up to date on new content and what’s happening in the community.

The resources provided within the nurses’ hub have been developed to support nurses in their practice for examples on how this can be achieved include answering any clinical questions that nurses might have using the clinical pages and associated literature searches and providing education using the nurses news case studies or via a journal club. The nurses’ hub is free and available now at www.caresearch.com.au.

In supporting access to scientific research articles at work place Matter (2006) has also mentioned that like any other field in healthcare and as independent practitioners discipline nursing has the potential to be transformed by advances in medical science and technology.

At the same time it was mentioned that the challenges remain in empowering nurses with the needed information technology (IT) tools to cope up with an ever-growing clinical knowledge base to improve practice, increase patient safety, and meet regulatory and credentialing standards in other words to bring EBP to fruition. It may be important to remember the different tools being used, as stated above, in the medicine field and the same can be applied on the nursing field as well.

According to his suggestion the first challenge of EBP is synthesizing the latest research and making it actionable. Putting it into practice is the second, as developing comprehensive plans of care supported by the best available evidence is only half the equation. The resources have to be accessible when they're needed most at the point of care and integrated within the nurse's workflow.

It was suggested that dis-connect here can translate into a low compliance rate by the nursing staff or care givers in general.

As many of the research findings suggest so far reviewed to truly implement EBP that the relevant evidence needed to be incorporated into the nurses' workflow and care processes by integrating clinical data with clinical IT system and provide evidence-based knowledge to nurses at the point of care.

At the Pinnacle health it was sought to facilitate EBP at the point of care by embedding evidence-based nursing within clinical documentation IT solution. By doing this clinical knowledge to the bedside nurses was been provided with a reference shelf of vital care information at their easy access.

Achievement according to the report bedside access to well integrated referential clinical resources has provided good value to Pinnacle- Health's nurses that is helping nurses to standardize best practices, improve adherence to care protocols, and reduce the time to gather and access relevant data.

The study shows that nurses have reported benefiting from valuable evidence-based information that they were unaware of or would not have had the opportunity to seek out due to time constraints during care delivery. Due to the evidence sources are integrated within the nurses' each activity nurses are able to access the information during care provision when it's most useful rather than during documentation. In addition, nurses find it valuable having access during rounds and shift report.

According to this study result cultural transformation among nursing staff was also possible that staff nurses are increasingly making the shift from simply carrying out procedures and orders to managing patient problems, from task-based documentation to knowledge-based decision making.

This cultural transformation fights the idea which was for example mentioned by the IOM that the culture of the health care does not support patient safety, however, based on this finding it is possible to conclude that access to literature at workplace has a posi-

tive impact not only on patient safety and improving quality of care but also cultural transformation.

It was also mentioned that the information flow between staff during shift and the possibility to access to resources substantially elevates the critical thinking and collaboration between staff and advanced practice nurses.

In addition, they have found that pain reassessment compliance after 2 hours of administering medication increased by seventy six percent. This study result shows that access to research works enables to attain high quality of care through adherence to best available evidence based practice and improve patient safety (Matter 2006).

Another cross-sectional survey conducted to explore the relationship between nurses' personal and professional factors and evidence-based nursing practice analysis that the relationship between availability of resources or opportunities to find material in the workplace and to work with a computer and evidence based nursing practice. Most researchers point to the great importance of the organization's role in implementing evidence based nursing practice.

In this study the organization's function was tested using questions dealing with the opportunity offered by the workplace to look for research material, to use the library medical and nursing materials and to work with computers and search the internet for answers to clinical questions. Accordingly the study result shows the implementation rate of evidence-based practice found amongst nurses employed by organizations that made these opportunities available was higher than in organizations that did not facilitate or support such activity (Mashiach 2010).

Therefore access to research works can enhance evidence based practice and patient safety.

Simpson(2004) stated that the research utilization competency in nursing main problem is an increasingly critical nursing shortage and the lack of a nursing-specific language unlike the other fields in the health care system that make it difficult for the profession to accumulate the research it needs for evidence-based care.

He further mentioned that to have a body of current research there must be enough people/academicians with enough time and enough expertise to conduct it such as validation and credibility and to use research there must be structured, standardized ways to aggregate it and access it that is software tools.

Simpson's suggestion was similar like the other study findings looking for IT solutions and human expertise and accessibility. At the same time the researcher was also asking what time do the nurses have to go to library for evidence based nursing practice to become a reality? According to Simpson information technology solutions are the answer to encounter those challenges that is on how to involve the models of evidence based nursing practice and how to convert the information into practical accessible data that can inform practice.

In addition he has mentioned that most healthcare organizations understand automated clinical documentation is the only way to reduce nurses' administrative tasks. It improves accuracy and interdisciplinary communication. It gives nurses more time for patient care.

Similar to the above where one should not expect for the nurses to go to library it was also suggested that for EBN to become a reality it is not possible to expect nurses to go to the evidence rather it is must to bring the evidence to nurses.

This requires collaboration between those who have the knowledge that is academician nurse and experienced staff who can validate the research findings and those who can deliver it by developing necessary tools professionals with IT which is occurring with the help of universities and information technology vendors.

Similarly a study that was conducted to learn registered nurses use of research finding in the care of the elderly in the Swedish health care system has showed that the registered nurses with access to research and development resources at the municipal level reported more research use and more implementation of specific research findings than the nurses without these resources. Previous studies have also shown that access to research-related resources in organizations is associated with research use.

Furthermore, the study as a means of enhancing the use of research by nurses in clinical practice has suggested four factors and theses are access to research findings at the work place, access to librarian this was also suggested by other writers as access to mentors, discussing research with colleagues and reading research reports in the communication channels were significantly associated with research use.

Health workers need good access to information sources at their work place to cope up with relevant knowledge in their field. Supporting health workers to use IT and the internet are ways for finding relevant research but to introduce new tools also requires additional training (Boström et al 2009).

Other study have also showed that access to best available evidence based practice and research results in quality improvement, patient safety and cost reduction and employees engagement. Intermountain Healthcare has been recognized as a national leader in high-performance healthcare delivery (Clark et al 2010).

According to the organization three foundational elements contribute to Intermountain performance that is clinical integration, quality improvement training, and information systems. The organization has its own tools which enable care givers to access to a clinical data and this clinical data includes scientific research articles and decision making support tool which may be similar to SPSS and this enables them to incorporate evidence based care.

The health workers use a clinical integration strategy focused on some selected clinical programs to support the practice of evidence-based care and then improvements that enhance patient safety, clinical excellence, and operational efficiency are tested and based on their finding results spread across the system through the organization care process models. One of the entities of the care process model is implementation of evidence based practice.

A similar study conducted to determine the feasibility to find and apply evidence during clinical rounds using evidence cart that employ different sources such as the Cochrane library, MEDLINE, PUBMED and others shows that some sources could be accessed quickly enough to be practical on their service. According to the study eighty one percent of their searches sought evidence that could affect diagnostic and or treatment plan. It was also mentioned that the approach has helped junior team members in patient evaluation and care management.

Other results of the study was such as attaining new diagnostic skill and additional tests or a new management decision and correcting previous diagnostic tests, clinical skills and treatment which has a great influence on patient safety and improve quality of care. On conclusion the author has suggested that making evidence quickly available to clinicians on a busy medical inpatient service using an evidence chart increased the extent to which evidence was sought and incorporated into patient care decisions.

Another similar study conducted in a district general hospital to learn on whether teaching evidence based medicine skills and providing evidence-based resources, that is according to the literature provision of evidence-based resources on the hospital network, result in change in behavior or clinical outcomes the primary finding of the study shows

that patients admitted after implementation of the evidence based medicine intervention were significantly more likely to receive therapies proven to be beneficial. Further the study suggested that if care facilities provide evidence resources in a convenient and readily accessible format, clinicians with training in EBM will use them.

From the reviewed literatures it can be concluded that nurses have limitation in utilizing research findings due to various reasons the main limitations are shortage of time, lack of skill/knowledge, lack of supportive organizational policy, personal motivation and user friendly technologies.

Table 1; previous research study summary, (see appendix)

The reviewed articles for this study are listed in a table format in the appendix alphabetically and according to their year of publication. And the name of each articles author, their location/database, the title of the research article and main findings are shown.

METHODS

This study is a qualitative study in which the methods used in building the entire study are literature review and content analysis. Content analysis in a deductive way was used because the study is conducted based on earlier studies and from which the main categories was derived. Selected research articles are reviewed and analyzed.

The methodology used in this study was suggested by Elo. S. & Kyngäs H (2008) in their research article “Qualitative Content Analysis Process, in advanced nursing practice” has mentioned that deductive content analysis is used when the structure of the analysis is operationalized based on previous knowledge.

Literature review is used in writing the theoretical background, analysis of previous research articles and progression of the study in general while deductive content analysis is used to analyze and conclude on the data derived (that is general statements of the analyzed articles are used to come in to specific instances) from the previous researchers in order to arrive at the results and answer the research questions of the study.

Data Collection

The study is based on a review of past research articles on the subject access to scientific research articles EBP in the health care center including medicine and other fields, it also reviews its effects on patient safety and enhancing quality of care. The literature review in this study is used to develop a frame for the main work. The review of past research articles is done by summarizing the findings of these studies and grouping them down into themes, categories and subcategories. Reviewed articles for this study can be accessed at the appendix.

The search words used are evidence based nursing practice, access to research articles, source of knowledge, decision making, research utilization, patient safety and quality of care.

The search resulted in the collection of 619 hits these were further narrowed down to 125 hits due to change of some key words it was again narrowed down which resulted in the inclusion of 59 hits after adding some key words like EBP results from fifty-nine hits most effective articles corresponding to the research question were selected nineteen in total and mostly those thought to have positive result.

Also the articles which had well elaborated findings were put into consideration compared to those who had limited findings.

The selection criteria for the articles was topics which details with barriers to evidence based practice, online access to evidence practice, positive as well as negative outcomes of online access to evidence based practice, professional and personal factors with regard to evidence based practice, implementation and the utilization of scientific research articles were the main to be sought in attempting to get the intended result.

The articles are found from the EBSCO, CINHALL, PUBMED and Google scholar data bases as. Other literatures are cited from books relating to the topic of the study. It was attempted to use recent articles if not as criteria used in selecting the researched articles. In this study free secondary articles published from year 2001-2011 which are related to the topic of interest are incorporated.

Comprehensive search of Meta databases was done to identify potentially use full resources. It is possible to say there are adequate and relevant articles but most of the best articles need subscription, however for this study free articles which deal with evidence based nursing and online access to research findings were sought.

Though, other older published articles which seemed of beneficial to this study were also included.

Having reviewing Arcadas thesis guide scientific way of writing was followed in preparing this study.

As stated above the main aim of this study is to find out and explain the positive effects of access to evidence based nursing practice in enhancing quality care and patient safety. This being the case, the articles chosen were literatures relating to the main aim of the study and also led to answering research question used in the study.

Qualitative Content Analysis

Graneheim & Lundman (2004) have described that qualitative content analysis is a research method for the subjective interpretation of text contents and data's by systematic classification and identity themes or patterns. The researcher has to read thoroughly in order to identify the themes which are useful for analysis and group them as they are related to each other. Similarly content analysis was also described as a systematic and objective means of describing and quantifying phenomena.

Elo & Kyngäs (2008) have also describe content analysis as a research method of making replicable and valid inferences from data to their context with the purpose of providing knowledge new insights a representation of facts and a practical guide to action.

As discussed above relevant articles are carefully selected and credibility of sources is affirmed through citation and full documentation of the author, year of publication, data base of the source and the presentation of the findings.

By inference there were common themes that emerged from all the articles that were collected from the articles that highlighted the positive effects of access to evidence based practice at work place and its positive results. The comment them were reviewed several times in attempting to create categories and sub categories. This helped in answering the research question posed for the study.

Since the method used for this study was content analysis the author have grouped the common themes that emerged from the findings into different categories which are as follows; improved patient safety through up to date positive clinical nursing outcomes, time and cost saving through adherence to best available evidence based practice or best

practice and enhancing care givers skill and knowledge and enhancing access to scientific research articles. The main idea was to analyze the findings which intended to answer the research question.

Deductive Content Analysis

Since this study is done based on earlier studies, literature review, deductive method is used in analyzing the contents of the selected articles. It was possible to put almost all findings in same matrix of analysis which means all findings are in relation to the positive impacts of the study and there was no any article which stands in the contrary of the positive impacts of access to research findings at work place. Selected research articles, which are related to the study interest, are used in analyzing and answering the research question of this study

Based on the literature review the core theme and as many headings as possible which are the findings of earlier research articles and the categories which are the implications of the headings are developed.

Below is the category matrix, which will be further, used in coding the data and show the reliability of the study results.

Ethical Consideration

Helsinki declaration regarding research ethics was revised before writing this study work. Accordingly published scientific research articles that were used as the bases for the study are fully documented and cited in the truth throughout the study.

Ideas, quotation which seemed to be relevant to the study work found from scientific research articles as well as other resources such as books have been directly quoted and represented in inclusive of the authors name and the year of publication and their data base.

The writer has fully documented sources for ideas and words used in the study. According to Elo & Kyngäs (2008), authentic citation could also be used to increase the trustworthiness of the research and to point out to readers from where or from what kind of original data categories area formulated and this has been employed in this study.

RESULTS

The results are described as meanings of the categories, the data's which are used to build the categories are reliable because they are formerly the findings of other research works and valid because sources are quoted. It was difficult to build up the categories however based on the findings of earlier research works it was possible to draw their meanings which are set as categories.

Category Matrix,

Table 2

Core theme	Headings	Categories
Evidence Based Practice	Correcting previous diagnostic tests, skills and treatment. Attaining new diagnostic skills. Improve clinical outcomes at low cost. Access to research is associated with research use. Improves accuracy inter discipline communication. Pattern of EBP high in organizations that make it possible. Potential to and direct experience of improvement in patient care. Self-efficacy, higher motivation and job satisfaction. Greater achievement and success.	Quality improvement. Patient safety Cost effectiveness. Updating care givers/nurses knowledge and skills. Access to up to date best available practice.

Timely access to good quality
palliative care information.
Improve adherence to care pro-
tocol.
Prescribing therapies proven to
be efficacious.

Coding the Data in to Category Matrix

Elo & Kyngäs (2008) have suggested that through content analysis deductive in this case it is possible to distil words in to fewer content related categories; it was also assumed that when classified in to the same categories, words, phrases and the likes share the same meaning. Therefore, based on this concept the category for this study was made by inference from the findings of the previous studies and deductive content analysis was employed to come up with the categories.

Moreover, in affirming the method used in this content analysis Elo & Kyngäs have also suggested that content analysis is a research method for making replicable and valid inferences from the data to their context with the purpose of providing knowledge, new insight, In addition the same representation of facts and practical guide to action. Accordingly the author of this paper believes that the study result will bring confirmation about the study interest.

Below table shows the themes, sub themes and categories of the study. Based on the table it is possible to trace out the contribution of each research finding to the categories and its implication to access to evidence based at work place. The categories were formulated based on the aim of the study. Elo & Kyngäs (2008), have described that researcher is guided by the aim and research question of the study in choosing the contents they analyze.

The findings of the previous research articles which are listed as sub themes in the above table were further analyzed and their meaning were interpreted in showing the outcomes of the study which in this regard are mentioned on the categories.

TABLE TO ANALYSE THE FINDINGS

Table 3.used to analyses and show the links between the data and the result,

THEMES	SUBTHEMES	CATEGORIES				
		PATIENT SAFE- TY	QUALITY CARE IM- PROVEMENT	COST EFFECTIVE- NESS	UPDATING CARE GIVERS SKILL & KNOWLEDGE	ENHANCING ACCESS TO RESEARCH FINDINGS
Does Access to research articles at work place enhance patient safety and quality of care?	Correcting previous diagnostic tests, skills and treatment.	x	x	x	X	X
	Attaining new diagnostic skills. Improve clinical outcomes at low cost.	x	x	x	X	X
	Access to research is associated with research use.	X	X		X	X
	Improves accuracy and inter discipline communication.	x	x		X	
	Pattern of EBP high in organizations that make it possible.				X	X
	Potential to and direct experience of improvement in patient care.	x	x	x		
	Self-efficacy, higher motivation and job satisfaction. Greater achievement and success.	x	x	x	X	X
	Timely access to good quality palliative care information. Improve adherence to care protocol.	x	x		X	X
	Prescribing therapies proven to be efficacious.	x	x	x	X	

Critical Review of Results,

Some literatures reviewed for this study reports that nurses utilization of research articles in order to implement evidence based practice and attain patient safety and provide quality of care is increasing from time to time, However many also reported that underutilization of research works especially when nurses are compared to physicians some of the reasons forwarded by researcher for this underutilization was lack of access, lack of competency in using and appraising research works, too much research proposals and lack of time to refer to especially during busy hours.

It was also observed that on the medicine field there are electronic tools/application to be accessed which are developed by universities and organization on the other hand no tools were observed for nurses' application.

However, there was no any finding that antagonize the idea of access to scientific research work enhances patient safety and improves quality of care.

Limitation of the method employed was that only free secondary sources were sought which may constrain the study result from seeing both sides of impacts access to evidence based research articles at work place. Primary data collection and analysis could have been more specific for example in finding out practice discordances on those who implement the approach if any.

The findings of this study as illustrated on the above table are carefully reviewed below;

Quality of Care Improvement,

According to the literatures analyzed in this study access to scientific research articles at work place directly positively affects the outcome of the service provided, for example it increased efficiency, increase motivation and job satisfaction of health workers and ultimately greater achievement and success on those who access research articles (Kotzer and Arellana 2008).

It was also reported that access to scientific research articles enhances patient safety and improves quality of care because it provides timely access to free, good quality palliative care information and resources, enabling improvements in patient care (Rawlings and Tie man 2011).

Patient Safety,

Patient safety is a new health care discipline that emphasizes the reporting, analysis and prevention of medical as well as nursing errors that often leads to adverse health care events.

EBP helps to standardize best practices, improve adherence to care protocols and reduce the time to gather and access relevant data. Matter (2006), have pointed out that the significant advantage access to EBP with regard to patient safety the reason is evidence links are integrated within the nurses' workflow and nurses are able to access the information during care provision when it's most useful rather than during any other time of the care delivery and documentation.

He further mentioned that patients were prescribed with therapies proven to be efficacious and which were significantly more likely to be high quality than before the evidence based medicine (EBM) intervention. It was also reported that pain reassessment compliance after two hours of administering medication increased by seventy six percent.

Cost Effectiveness,

It was also reported that in addition to the patient safety and improved quality of care it has cost cutting impact because evidence based care and decision support tools that make it easy to do the right thing is employed. To directly quote "As we implement evidence-based practices, we've demonstrated that we not only improve clinical outcomes, but we do so at a lower overall cost to the community" (Clark et al 2010)

Updating Care Givers Skill and Knowledge,

This practice was also reported to have a positive impact on the user the nurse or any health worker in terms of building knowledge, patient management and evaluation, learning new skills and correcting errors.

Affirming this fact Sackett and Straus (1998) have stated those sources are accessed quickly enough to be practical on their service. According to their literature searches sought affect patient safety and quality of care positively by providing evidence that could affect diagnostic and or treatment plan and helped junior team members in patient evaluation and management, attaining new diagnostic skill and additional tests or a new

management decision and correcting previous diagnostic tests, clinical skills and treatment.

Enhancing Access to Research Findings,

Moreover due to the application of this practice that is accessing to scientific research article and adhering to evidence based practice previous study findings show that significantly improved practice patterns in a district general hospital. Eizenberg MM. (2011), have pointed out that the rate of evidence-based practice found amongst nurses employed by organizations that made these opportunities available that is opportunities to find material in the workplace and to work with a computer was higher than in organizations that did not facilitate or support such activity.

VALIDITY AND RELIABILITY OF THE STUDY

As described above this research work is done based on analysis of related previous research works. According to Hsiu-Fang and Shannon (2005) qualitative content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns. They have also described that the goal of content analysis is to provide knowledge and understanding of the phenomenon under study.

Therefore, since this study is done based on content analysis, text content's related to the research question will be interpreted and classified.

In addition in this study two approaches will be employed which the writer believes that the approach directly shows the validity and reliability of this study. These are conventional and directed/deductive content analysis, the approach to content analysis is conventional because relevant theories or other research findings are addressed in the discussion section of the study and directed or deductive approach to content analysis is to validate or extend conceptually a theoretical framework of this study. (Hsiu-Fang & Shannon 2005)

LIMITATION OF THE STUDY

This study has been based on a single methodological approach, further research including interview, observational case studies could allow for a better results. This constrains the study from investigating all sides the negative as well as the positive effects of the study as there are some suggestions that show access to internet at work place does not necessarily mean that health workers are considering the opportunity in implementing EBP.

The study have also encountered several limitation, among the many the main limitation was research articles which are directly related to the study could not be accessed directly because most of them require some kind of subscription that includes payment per page or for full access.

Some of the study which was been able to be accessed were studies which have been conducted on the medicine field even though it was used in this written work. Besides most of the related research articles are also concerned with investigating barriers to implementing evidence based practice and some of them are checking for nurses' skill in using information technology materials or has to do with nurses or health workers attitude towards evidence based practice.

Due to this reason the period for search for research article publication was broaden that is articles published between 2001 and 2011 are incorporated, However this has contributed little in terms of founding the right article.

In this study it was also observed that access to scientific research article does not necessarily mean that those who have access have got the right material on the right time. Finding up-to-date or best practice material has to be synthesized and made easily accessible in advance. Health workers most of the time have no or little time to synthesize best practices while they are at work and it is common to understand that care giver use computers at work place for data entry or reporting, and most organizational policy would not encourage this kind of approach.

Some organizations and countries for example the Canadian public health and the Australian health care system have tried to build extensive pre-processed best practices available to their health professionals, but most private organization would not allow those data bases to be accessed from external users because of this some outstanding studies were not been able to be accessed.

In addition the nature of the method of study which is analyzing secondary data or research has also limited the study for if interviewed or primary data were carried out the study findings could be of more detail specially in showing the practice pattern in the metropolitan area.

DISCUSSION

In this study report findings from different professions such as findings from study done at assessing online access to evidence practice from general practitioners perspective, ambulance officers, nurse practitioners and other allied health workers were incorporated and study results from different health care set ups perspective such as from rural area health care centers, district general hospitals, elders home, health offices, education and research institutes are incorporated. And almost all the analyzed articles support that access to scientific research articles enhance patient safety and improve quality of care.

We now have a growing body of research which demonstrates that access to online evidence systems improves professionals' accuracy of and confidence in answers to clinical questions and positively impacts upon care delivery and patient outcomes (Westbrook et al 2006).

This study finding shows that access to research findings at work place enhance patient safety and improve quality of care by enabling users to adhere to the best available evidence based practice. Many Countries as well as governmental and non-governmental organizations are have developed the system which enables health care providers to access research findings' online at work place in a way that the evidence links are integrated within the nurses' workflow nurses are able to access the information during care provision when it's most useful rather than any other time. As stated above among others pain management was increased through the application of this system which shows improved quality of care and patient safety.

Moreover, by understanding the advantage of this approach pre-processed best available research findings have been made at easy access to care givers in order to avoid spending time on looking relevant findings for a given information or procedure, these best practices are also updated every time according to new findings which enables health workers to cope up with the rapidly flourishing new research findings and new technologies.

Access to research findings at work place besides to patient safety and quality of care it was also reported to have cost reduction advantage for both the patient and the organiza-

tion, for the patient it avoids for example longer hospital stay and the chance for readmission since patient is receiving best available practice and most effective treatment/management plan and for the organization by spending few time in searching for relevant research findings, reducing in spending medical supplies, hospital bed accommodation time and attaining goodwill. Insurers are also expected to be benefited from this approach where currently they are advocating payment per outcome.

In addition it was also proven to have the advantage of building new knowledge, skills of health professionals and correct their previous mistake and misconceptions which have a direct impact on the quality of care and patient safety. It was also observed in reducing practice discordance between different health care systems for a given procedure by adherence to the best available evidence based practice. In general access to scientific research findings were considered as the most enablers to implement evidence based practice in which the final outcome of evidence based practice is patient safety and improved quality of care.

The major problems observed in the literatures reviewed for this study in relation to the research question was lack of knowledge on how to use research findings and how to appraise the different findings, in addition to lack of time and lack of access to research findings however, access to research and development resources was reported to enhance more research use and more implementation of specific research findings than without these resources.

CONCLUSSION

Evidence based practice is well accepted approach in today's health care system, the demand for it goes far from minimizing the number of deaths due to medical as well as nursing errors and commenting the culture of the health care system which does not support and implement safe practice. A pressure toward evidence based practice has also come from public and private insurers in some nations, which have sometimes refused coverage of practice which is lacking systematic evidence. Therefore the implementation of the approach is mandatory. However, even though the approach is accepted in many disciplines the strategy in implementing is still ambiguous.

However, according to this study result implementing access to evidence based practice at work place seems to be all round advantageous from the perspective of patient safety, improved quality of care, updating care givers skill and knowledge and others which are directly related to minimizing the huge amount patient suffering and death. For this pre appraised, relevant and up-to-date best available practice should be made available by

health facilities and/or organizations and nurses as well as other care givers should be able and allowed to access and use them when it is most use full than any other given time.

Moreover, caregivers with lack of skill and knowledge on using computer either because of age or educational background should be given a capacity building training that is related to the rapidly growing information communication technology applications. Organizational policies and rules should also enhance and support the utilization and implementation of online resources. Accountability and responsibility should be also stressed.

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Appendices;

TABLE TO SUMMARISE THE PREVIOUS STUDY

AUTHORS/ SOURCES	ARTICLES	RESULTS
1.Garrett K. Chan et al (2011)	Barriers and perceived needs for understanding and using research among emergency nurses	Establishment and access to a network of research mentors through professional organizations become essential. In addition formal and informal continuing education offerings through the internet and symposium may help meet this need. At the same time nurses may have to seek guidance and support focused on research.
2.Eizenberg MM. (2011)	Implementation of evidence-based nursing practice nurses' personal and professional factors	The rate of evidence-based practice found amongst nurses employed by organizations that made these opportunities available (opportunities to find material in the workplace and to work with a computer) was higher than in organizations that did not facilitate or support such activity.
3.Eizenberg MM (2011)	Implementation of evidence-	Evidence-based nursing practice was more likely where there was

	based nursing practice, nurses' personal and professional factors.	access to a rich library with nursing and medical journals and opportunities for working with a computer and for searching the internet in the workplace.
4.Rawlings Deb and Tie man, Jennifer (2011)	Nurses hub new online tool in palliative care	This 'hub' of knowledge helps link the specialist and academic evidence base to the practical information and care needs of nurses. Significantly it provides timely access to free, quality palliative care information and resources, enabling improvements in quality of care and patient safety.
5.David D. Clark et al (2010)	Cost cutting in health care system without compromising quality of care.	Physician acceptance of the electronic medical record has been high because it incorporates evidence based care process model and decision support tools that make it easy to do the right thing. As we implement evidence-based practices we have demonstrated that we not only improve clinical outcomes but we do so at a lower overall cost to the community.
6.Nai Ming Lai et al (2010)	The place and barrier of evidence based practice knowledge and perception of medical nursing and allied	Doctors, nurses and allied health practitioners had similar degree of concerns on the major barriers to EBP with poor IT support at the point-of-care observed by most as a barrier followed by time constraint and a lack of awareness to the importance of EBP.

	health practitioners in Malaysia	
7.Ndosi M (2010)	Medicine information sources used by nurses at the point of care.	Being the key learning environment workplaces need to be equipped with adequate and accessible resources to support nurses in their medicine administration role.
8.Paula Robeson et al 2010	Facilitating access to pre appraised research evidence in public health	Enhanced access to high quality synthesized research evidence is one component of a knowledge translation strategy to support and encourage evidence-informed public health practice, program, and policy decision making.
9. David L. Sackett, MD and Sharon E. Straus, MD	Finding and applying evidence during clinical rounds	Sources could be accessed quickly enough to be practical on their service, eighty one percent of their searches sought evidence that could affect diagnostic and or treatment plan. It has also helped junior team members in patient evaluation and management. Other results of the study was such as attaining new diagnostic skill and additional tests or a new management decision and correcting previous diagnostic tests, clinical skills and treatment
10.Anne-Marie Boström et al (2009)	Registered nurses' use of research findings in the care of	The RNs with access to research and development resources at the municipal level reported more research use and more implementation of specific research findings than the RNs without these re-

	older people	sources. Previous studies have shown that access to a research-related resource is associated with research use.
11. Anne Marie Kotzer and Kerry Arellana (2008)	Defining an evidence based work environment for nurses in the USA	Providing staff with access to information, resources and support leads to increased self-efficacy, higher motivation and job satisfaction and, ultimately, greater achievement and success.
12. Winters CA et al (2007)	Access to and use of research by rural nurses.	Barriers to using research included lack of knowledge of research methods, lack of time at work or at home to look up information, and the lack of computers and internet access on the nursing units. When computers are available the nurses reported that poor computer literacy decreased their ability to quickly find and evaluate information.
13. Johanna I Westbrook et al (2006)	Ambulance officers use of online clinical evidence	Reasons for using online evidence was to fill a knowledge gap, undertake personal education e.g. for a specific course or project, gain access to a standard reference, assist research, support the education of others, improve patient outcomes, confirm a clinical decision, settle a dispute or controversy regarding diagnosis or treatment, make a diagnosis, develop a treatment plan and review policies or guidelines.

<p>14. Sharon E. Straus et al (2005)</p>	<p>Teaching evidence-based medicine Skills can change practice in a community hospital</p>	<p>The study result shown that a multifaceted intervention designed to teach EBM skills and implement evidence resources significantly improved practice patterns in a district general hospital.</p> <p>After the EBM intervention, more patients were prescribed therapies proven to be efficacious in randomized trials, and the trials supporting these therapies were significantly more likely to be high quality than before the EBM intervention</p>
<p>16. Sheri Matter, RN, MS, FABC (2006)</p>	<p>Empowering nurses with evidence based knowledge</p>	<p>Bedside access to tightly integrated referential clinical content has provided tremendous value to Pinnacle- Health's nurses, helping to standardize best practices, improve adherence to care protocols, and reduce the time to gather and access relevant data. Because the evidence links are integrated within the nurses' workflow, nurses are able to access the information during care provision when it's most useful, rather than during documentation. In addition, nurses find it valuable having access during rounds and shift report.</p>
<p>17. Farah Magrabi et al (2004)</p>	<p>General practitioners' use of online evidence during consul-</p>	<p>Most frequent searches conducted related to diagnosis (40%) and treatment (35%). 83% of clinicians believed that Quick Clinical</p>

	tations	had the potential to improve patient care, and one in four users reported direct experience of improvements in care. In 73% of queries with clinician feedback participants reported that they were able to find clinically useful information during their routine work
Roy L. Simpson (2004)	Evidence-based nursing offers certainty in the uncertain world of healthcare	Health care organizations understand automated clinical documentation is the only way to reduce nurses' administrative tasks. It improves accuracy and interdisciplinary communication. It gives nurses more time for patient care. And clearly, all these things improve care indirectly
18. Johanna I Westbrook et al (2003)	Do clinicians use online evidence to support patient care? a study of 55,000 clinicians	The result of this study shows that eighty-eight percent of users reported clinical information access program had the potential to improve patient care and 41% reported direct experience of this.
19. Sullivan, Eileen M (2000)	Healthy resources for evidence based medicine	The very best health care providers integrate clinical expertise with high-quality external evidence and their patient's values and choices. Public access to health information on the World Wide Web is further fueling this trend. Increasingly, both patients and health professionals will access, utilize, and benefit from sources

		of evidence based medicine	
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