

Evidence Based Practice Journey: An Implementation Program Initiative Promoting Safety, Healthcare Quality and Patient Outcomes

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Abstract

Today, Evidence-based practice has become a commonly used term in health care. It is important for nurses to know what it meant, how it is use, and how important it is in protecting patient safety. Committed to transform the hospital to deliver quality patient care through adaptation of practice based on evidence. Nursing Department initiated the Evidence Based Practice Program. To commence the program initially, materials that will guide EBP program implementation were created including EBP Guidelines and pathway educating nurses to be aware of evidence-based practice benefits for patient, nurses and healthcare delivery by integrating best available scientific knowledge combined with nursing clinical expertise. Nursing EBP team composed of an appointed Nursing Evidence Based Practice and Research Coordinator. Council was organized that consist of Chair, Co- Chair, Coordinator and members from different clinical unit called as EBP champions. Evidence based practice model was created in reference from the hospital capabilities, support system and resources to start the journey and in the long run achieve desired outcome that EBP can offer utilizing a framework of Input- Process-Output Model. Educational session and training workshop were provided initially to encourage the newly organized EBP council. Initial result after a year of this initiative, produces 9-unit approved project proposals out 16 units and commence with the piloting phase with remaining proposal still in the process of appraising evidences.

Keywords: Evidence Based Practice, Evidence transfer, Patient outcomes, Healthcare Safety, Evidence Based Practice Leadership

Introduction

The need to constantly improve in the complex world of health care has become increasingly important and continuously evolving. Many quality improvement initiatives in health care remain poorly developed, with few patient safety interventions sharing the characteristics of evidence-based medicine. The goal of safety and quality improvement research is to partner with patients, their loved ones and others to, a) eliminate harm, b) continuously optimize processes to improve patient outcomes and experience, and c) eliminate waste in healthcare. Since the publication of the 1999 Institute of Medicine report, *To Err is Human*, patient safety has assumed a central role in health care delivery.

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The impact of evidence-based practice (EBP) has echoed across nursing practice, education, and science. The call for evidence-based quality improvement and healthcare transformation underscores the need for redesigning care that is effective, safe, and efficient (Stevens 2013). It is a key to advancing quality and safety in healthcare. The adoption of Evidence Based Practice (EBP) in healthcare is critical for improving the quality of care and assuring patient safety (Titler 2008). It is now widely recognized throughout the globe that evidence-based practice(EBP) is key to delivering the highest quality of healthcare and ensuring the best patient outcomes (Melnik & Fineout-Overholt 2011).Evidence Based Practice is the use of the best scientific evidence integrated with clinical experience and incorporating patient values and preferences, in the practice of professional patient care .It is client and patient family centered a clinician's task is to interpret best current evidence from systematic research in relation to an individual, including that individual's preferences, environment, culture, and values regarding their health and well-being. Ultimately, the goal of EBP is providing optimal clinical service to that patient on an individual basis. The best research evidence is usually found in clinically relevant research that has been conducted using sound methodology. (Sackett D, 2002).

Security Forces Hospital Program- Dammam is committed in transforming the hospital healthcare to deliver quality patient care by adapting evidence-based practice. Nursing Department initiated the Evidence Based Practice program to show their commitment to Patient safety and quality improvement. Evidence based implementation material were created guiding the program implementation including EBP Guidelines and implementation process pathway educating SFHP-D nurses to be aware of evidence-based practice benefits. These materials will also assist them how to integrate the best available scientific knowledge combined with nursing expertise.

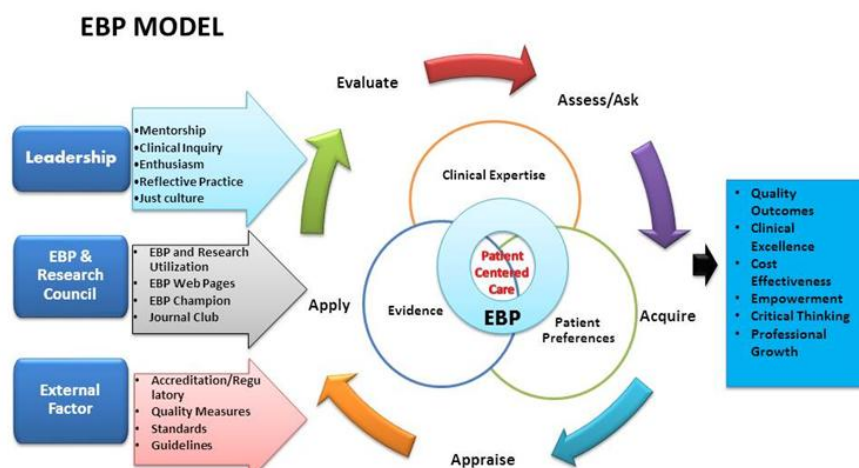
Believing that leadership support is essential in cultivating and enhancing nurses excellent care delivery. Nursing services at SFHD is committed to transformational leadershipthus transforming practice and organization to create valuable and positive change.

Background and Significance

Initiation of the program rooted from the institution quest to deliver care to its optimum level by utilizing evidence-based practices. It's purposes are to provides excellent patient care, promoting professional development and enhance patient experience.

Today, Evidence-based practice has become a commonly used term in health care. It is important for nurses to know what it meant, how to use it, and how important it is in protecting patient safety.To guide the Program Implementation Evidence based practice model was created in reference from the hospital capabilities, support system and resources to possibly start the journey to achieve desired outcome that EBP can offer with a framework of Input-Process-Output Model (IPO)(Fig. 1).It identifies the input, output and required processing task to transform input into output Guo, R, Bain, BA. & Willer, J. (2011)

Fig. 1 EBP Model



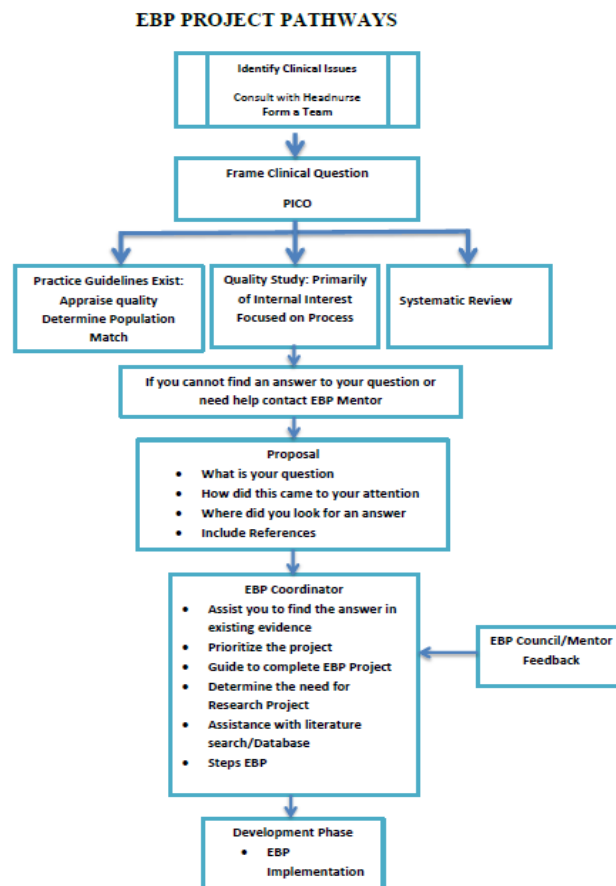
As initiative nursing at all levels plays a key role within the hospital's decision-making activities related to patient care in a collegial and collaborative relationship with leaders and other disciplines. We value diverse representation that includes nurses from all patient care areas and their contribution to move forward in supporting structures and processes that can influence the adoption of best practice.

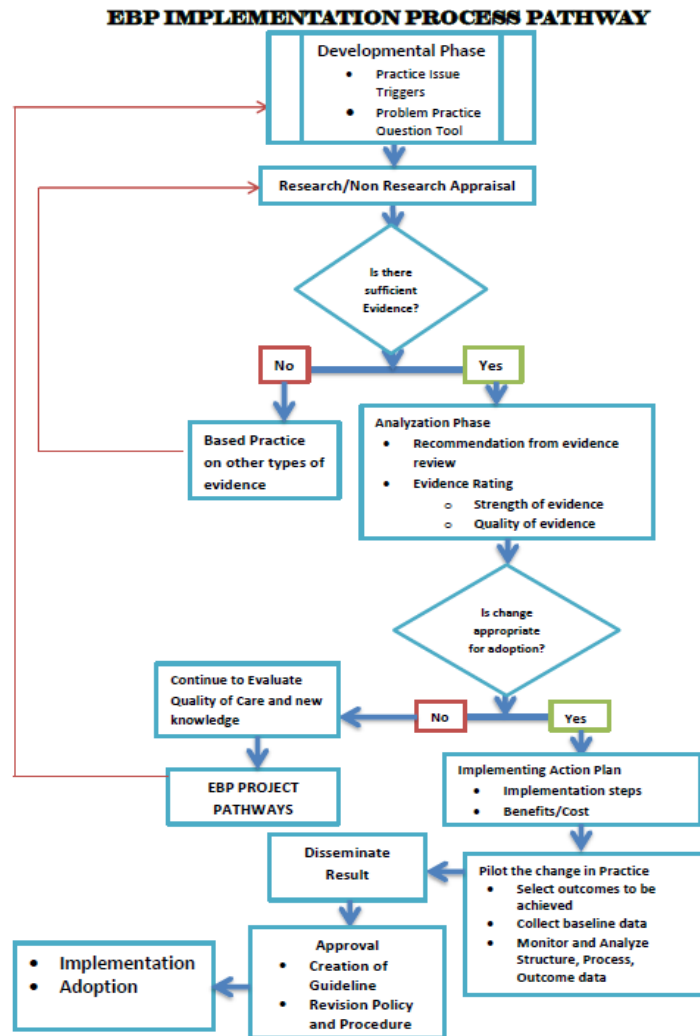
Nursing Quality, as one of the pillars of nursing continues its goal to improve clinical practice utilizing the latest evidence-based practices in the healthcare arena with the support of Nursing and Hospital Administration. Benchmarking with national and international organizations and continuous tracking of International Patient Safety Goal compliance utilizing tracers served as the basis to find best evidence to improve practice.

The Evidence based practice implementation guideline that was created aims to give awareness of the importance of EBP promotion, equip SFHD- Dammam nurses with the knowledge and skills they need to identify nursing practice that might benefits from the use of evidence and provides information essential to understand the steps to evidence based practice. Furthermore the EBP guideline directing nurses to acquire an inquiring mind, forming their own clinical questions and learn how to evaluate healthcare literature and practice, guiding them how to frame clinical questions using PICO, appraise research evidence and helping them how to find information essential for planning for sustainable change from best evidences leading to improvement and high quality outcomes.

To further enhance the coordination and staff motivation to be actively involved in the EBP program implementation, pathways was created(Fig. 2) as well as Evidence Based Practice implementation flow, guiding nurses on the step how to identify clinical issues, framing clinical question directing them on how to start project proposal based on relevance to clinical practice improvement. It also includes triggers why the issues came to their attention, how to determine the needs and how to do literature search. The EBP implementation flow gives guidance to analyze recommendation from evidence review and evidence rating according to strength and quality of evidence. Analyzation phase will determine if the change is appropriate for adoption or not to avoid wasting of time. If it is appropriate the pathway serves as a guide when to implement the action plan, pilot the change in practice, collect baseline data, monitor and evaluate structure-process-outcome data and disseminate the result for adoption and sustainability of practice.

Fig. 2 Evidence Based Practice Pathway/Implementation Process





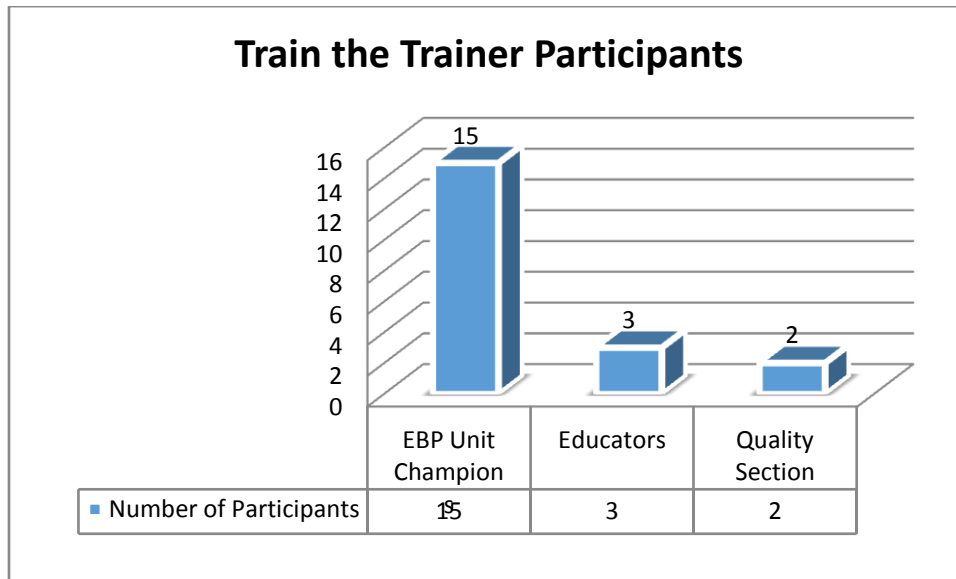
Implementation

Infrastructure is essential for evidenced-based practice. Nursing leadership is the cornerstone of successful evidence-based practice programs within health care organizations. The key to success is a strategic approach to building an EBP infrastructure, with allocation of appropriate human and material resources. To enhance the implementation, creating a conceptual model that served as a guide and determinants of diffusion, dissemination, and implementation of innovations in health care service delivery as well as to organization has been done. Implementation requires multiple strategies to cultivate a culture of inquiry where nurses generate and answer important questions to guide practice. Guiding the implementation phase, utilizing an action-oriented model. In support for this endeavor the hospital provided access for E-library and deep knowledge wherein nurses can register and search for articles and literature. To help nurse develop EBP competencies and to promote professional growth to possibly promotes positive outcome for nurses and patient.

To build the culture of Evidence Based Practice, educational session was provided initially to encourage the newly organized EBP council. Training workshop entitled Train the Trainer was done to assist them to learn how to utilized EBP steps and at the same time be able to apply critical thinking skills as they acquire the inquiring minds and be able to facilitate the EBP initiative in their respective unit. Training module was created that serves as a guide during the training. Participants were the 15 EBP Champion, 3 Nurse Educators and 2 Nursing Quality Practitioner(Fig. 3). The content of the training has been disseminated through unit educational session for one and a half month to fully cover the majority of the staff. Topics includes EBP steps and how to conceptualized EBP proposal, orientation and awareness how to access databases and research journal. A total of 262 (88.5%) out of 296 staff were covered during the two months educational session.

Hands on training in searching for evidences to learn how to search databases which was participated by EBP champions to actively lead their respective unit was done. Creation of Evidence Based Practice awareness was disseminated through departmental e-mail to give information and to encourage nurses to adapt and participate in the EBP program initiative. To develop understanding of evidence-based practice principles, increase critical appraisal skills and to facilitate discussion and evaluation of new research and its application to practice Journal Club has been formed. Scheduled journal club session held regularly to critique articles used as evidences for unit EBP proposal.

Fig. 3: Train the Trainer 15 (100%) EBP Champions, 3 (50%) Educators 2 (100%) Nursing Quality



Implementation of Evidence –Based Leadership Initiative

In an effort to create a healthy nursing work environment, unit-level evidence-based leadership initiatives to improve nursing work environment as well as care delivery was organized. Quality Council, Unit Based Council and Evidence Based Council had been the leadership frontrunners to promote change. These initiatives were guided by the Executive Council. Implementation of Evidence Based initiative encompasses with collaboration, communication, authentic leadership and meaningful recognition promoting a healthy nursing environment thus improving patient care.

Leadership commitments to build a culture of quality and safety that encourage, support, and teamwork to achieve excellence in all areas of nursing utilizing the best available evidences. Policy of just culture has been implemented to fully support the model of shared accountability a culture that holds organization accountable for the system they design and responding to staff behavior fairly and justly. By implementing this policy staff encouragement to notice needs for change and initiate improvement increased as evident by reporting of error through OVR system. Nurses at Security Forces Hospital Dammam continuously give a tremendous contribution, participating in decision making and keeping abreast with the culture of safety. Expanding the Evidence based practice knowledge with the guidance of nursing leaders will always be on top priority. Continuous support to all unit base initiative with regard to Evidence based practice will be fully implemented.

Continuous monitoring of the EBP implementation are through the numbers of EBP approved proposal and finally adopted. Measuring the impact on implementing the EBP Practice are in terms of clinical outcomes, influence on health status, and long-term sustainability, as well as resource utilization impact will be continuously performed. The implementation of evidence-based practice lies at the organizational level, it is of interest to devise and assess the effectiveness of model to change healthcare organizations in order to promote the use of EBP among nurses successfully. After a practice change has been implemented, it is important to ask if the expected outcome was achieved by determining whether program activities have been implemented as intended by evaluating the process implementation.

Outcomes

Enabling EBP within organizations is important for promoting best patient care delivery. Fostering EBP is not a static or immediate outcome, but a long-term developmental process within organizations and can lead to a favorable outcome that can be utilized in the quest for achieving quality service and patient care. Nurses play an important role in health service delivery. There is potential to improve health care quality if nurses routinely use the best available evidence in their clinical practice. Evidence Based Practice initiative by utilizing the conceptual model of input –process –outcome and following the step of EBP as the process, expecting the outcome of applying best quality of care by adapting new innovation in practice proposed by the stakeholders. Empowerment and staff motivations to introduce practice change and ensuring that the change we wanted to happen actually occurred.

Patient-related outcomes can be psychosocial, physiologic (reduction in catheter-associated urinary tract infections) which is one of the hospitals EBP proposal initiated and started the pilot implementation as well as a video assisted teaching in the management of pain and decreasing anxiety of pregnant women on labor. Outcomes can also be process related, such as reduced readmissions or more efficient discharge planning that lead to the revision of the policy on discharge planning. The value driven outcome of the EBP project proposals that was implemented are with expectation that in the long run and upon adoption will not only improved healthcare quality and patient outcomes as well as decrease the cost of hospitalization.

Dissemination Plan

When the outcomes have been measured and evaluated, it may appear as if the project is complete, but work still needs to be done. Plan dissemination occurred in many forms within healthcare organization. For our organization it is a part of the planning process for the full project. Considering the used of internal, interdepartmental in-services, journal club's session, online media, lectures, conference presentation, abstract submission, posters, and manuscripts. Sharing the outcomes and also the process of the project, what worked, what didn't, what we learned, and what we would do or what not to do again during storytelling. The EBP council including the unit EBP team for the specific unit proposal will disseminate result by first presenting the result of the pilot and continuously monitor the result of the final adoption to practice and integration of evidence in the system and its sustainability.

Sustainability

Creation of culture where EBP is valued and expected continuous monitoring measurement and review of every practice adopted for enhancement. Support of senior leadership to maintained share governance giving attention to staff inquiry and concerns for every practice that they found out to have gap and possibly to innovate new practice. Staff participation contributes to an organizational culture that emphasizes collaboration in working toward program sustainability (Mancini & Marek, 2004).

Evidence based practice leader must be knowledgeable, skillful and flexible in order to address organizational EBP needs. A policy revision to sustain and standardized the practice as well as creation of clinical practice guidelines to support the practice. Staff awareness of outcome will be regularly disseminated. Procurement of adequate resources to implement, sustain and evaluate the change. Continuous assessment of clinical practice through staff education and development of acquire knowledge to determine potential cues to new practice. Asking feedback to those making the change to assure that they fully understand when outcomes had been optimized and a complete facilitation effort to assure sustainability.

Conclusion and Implication to Practice

Developing a culture of inquiry to adapt with the integration of Evidence based practice assisted by knowledge dissemination is found to be an important instrument to initiate the EBP implementation. The findings from this program initiative point out that from the beginning of initial action to start the culture majority of the nurses are not all familiar with the term Evidence Based Practice utilization. However, they showed enthusiasm and willingness to participate. Mostly they verbalized that they are not familiar with different databases and how to search literature.

The support provided by the Nursing Leadership to equip nurses with the knowledge and skill needed to start implementing evidence-based practice opens an opportunity for nurses to identify nursing practice that might benefit from the use of evidence. Awareness and educational session provide direct care nurses with the skills and knowledge to evaluate healthcare literature and practice. It helps them how to find answer on their clinical inquiry by searching information essential for planning for sustainable change leading to improvement.

As evidence by 6unit EBP proposals (Table 1) that were approved and already commence with the piloting phase and remaining proposals still in the process for approval, a conclusion of success of this EBP initiative can be on its way in the future. Leadership support sustain development of EBP by allowing nurses to continuously learn skill related to EBP, such as searching bibliographic databases or learning how to critically appraise and evaluate research studies. Leaders must also provide expertise and funds so that library holding will include research relevant to clinical practice, including the continuous subscriptions to research journals, electronic access to databases, full text journal articles and resources such as the Cochrane Library. This requires a positive attitude to research from the part of the nursing director and an ability to support research utilization.

Finally, EBP is a relatively new concept for nurses and other healthcare practitioner. New innovation needs to be evaluated to sustain the practice and search for creative ideas based on the best available evidence remain to be continuously discovered.

Table 1: EBP Proposals initiated

Unit	Evidence Based Practice Project Proposal	Date Approved
AICU	Clinical Effectiveness of chlorhexidine gluconate 2% wipes for infection prevention for adult patient in acute care	November 2018
MSW	Utilizing an Innovative Patient Centered Approach Nurse Driven Protocol in Preventing CAUTI	December 2018
PW	Using Braden Q Risk Assessment scale in General Pediatric Ward	February 2019
L&D	Video Assisted Teaching in Decreasing Fear and Anxiety during Labor Process	February 2019
Endoscopy Unit	The importance of having crisis management Protocol during Anesthesia Drug Reactions: basis for formulation of a Nursing Algorithm Guideline of an Anaphylactic Endoscopy Patient	February 2019
ER	Fast Track for Category 3 Patients in Emergency Department Process for Timely Management and Improving Patient Flow	April 2019
OB	Effectiveness of Cryotherapy on Perineal Pain Relief after Vaginal Birth with Episiotomy.	May 6, 2019
NESD	Standardization of Competency Revalidation Process: Evaluation of its effectiveness adapting evidence based Competency Model	June 17, 2019
Nursing Admin	Using tablet (ipad) as tool during Nurse leader's rounds to improve communication and decision making process regarding patient care.	June 18, 2019
NICU	Adapting Kangaroo Care (Skin to Skin Contact) benefits neonatal neurological and physical development, promotes maternal infant bonding and is effective in improving lactation	for approval

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