

Let's Get Cooking with EBP

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BACKGROUND

There is currently a strong emphasis in nursing aimed at transforming the practice environment with evidence-based knowledge. Prior to mid-2006, there was no research and evidence-based practice (EBP) program at this 258-bed, Magnet community hospital. An administrative directive to enculturate EBP into point-of-care nursing resulted in the creation of the Department for Research & Evidence-Based Practice and the Research & EBP Council of nurses. Given that frontline nurses were highly motivated to improve their clinical practice, a research scientist was hired to direct the facility's research and evidence-based practice program.

A baseline anonymous survey identified an EBP knowledge deficit among nurses. Though many were familiar with the term, EBP, few could articulate its meaning. Therefore, the Council's first initiative was staff education. Early education focused on a) defining the components of EBP – best clinical research, clinical expertise and patient preferences (1), and b) the concept (2). This foundation set the stage for EBP process education. Given the educational diversity among the nursing staff, the Centre for Health Evidence model (3) was adapted and used.

LET'S GET COOKING WITH EBP

LEVEL of EDUCATIONAL PROGRAM

- Introductory – assumes no prior knowledge of EBP process
- Builds on foundational knowledge of EBP concept

EDUCATIONAL APPROACH

- Use of an Analogy: cooking by recipe
- Interactive learning environment
- Review of EBP components and concept

TARGETED LEARNING OUTCOMES

- Compare the steps of the EBP process with cooking
- Apply the EBP process to a nursing practice intervention

TARGET AUDIENCE

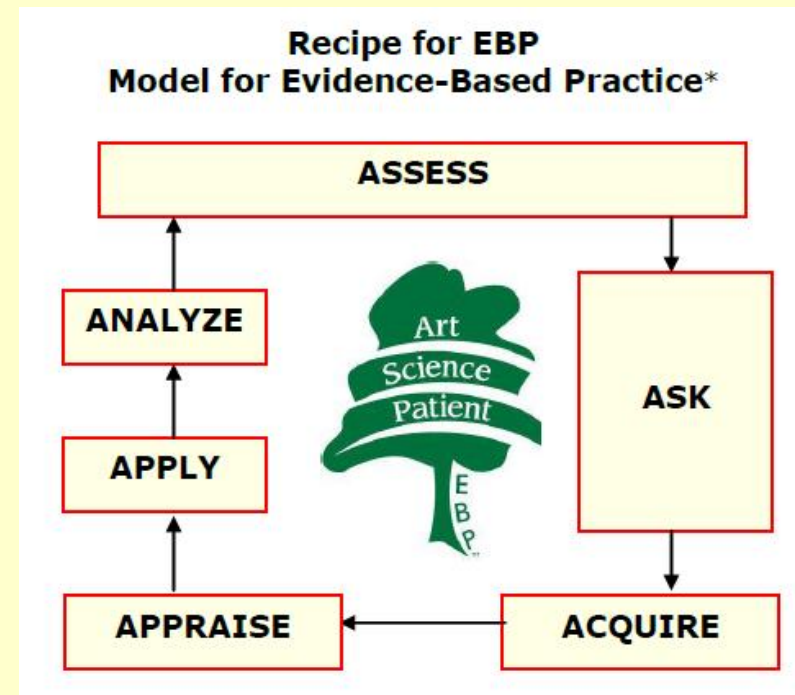
- Adult learners
- Diploma-trained to master's prepared nurses

CONTACT HOURS

- 1.5 CH offered for Let's Get Cooking with EBP course
- Note: CVMC Dept. of Organizational Learning is an approved provider of continuing nursing education by the NC Nurses Association, an accredited approver by the ANA



EVIDENCE-BASED PRACTICE MODEL



*Model for EBP adapted from Centre for Health Evidence

TEACHING – LEARNING ACTIVITIES

- Participants cooked apple crisp at start
- Each step of the EBP process was explained didactically
- Analogies were drawn between EBP process and cooking
- Emphasis on PICO methodology & clinical evidence resources
- Baked apple crisp taste test to reinforce EBP process steps
- Temporal artery thermometry pilot conducted and data evaluated, i.e., EBP process applied to a practice situation

"Let's Get Cooking With EBP" on The Food EBP Network		
EBP Process	Analogy to Cooking	Analogy to Pilot Study
Assess the need for a practice change	I'm hungry and have apples. How can I use them to satisfy my sweet tooth?	Observation: nurses use temporal artery thermometers differently. Is this affecting temperature values?
ASK a clinical question that can be answered using evidence-based resources	Will "Apple Crisp" satisfy my desire for dessert?	Is there variability between a patient's temperature readings when measured by different practitioners? Hypothesis developed by group.
ACQUIRE relevant evidence by searching the literature	Gather ingredients	Research studies have been conducted comparing TA thermometry with other types (rectal, tympanic, oral, etc.)
APPRAISE the validity and usefulness of the evidence	Price, brand and quality of ingredients, apple variety	Depending on the population studied results vary, e.g., in the pediatric population the research is inconclusive
APPLY evidence to practice by performing a pilot "study"	Mix ingredients per recipe and bake apple crisp	Temperature pilot: educate on use of temporal artery thermometer; each participant takes a single patient's temperature
ANALYZE findings – (a) process results	Serve apple crisp with vanilla ice cream	Data recorded by researcher, entered in MSExcel and tabulated
ANALYZE findings – (b) evaluate results	Record apple crisp taste results (+/Δ)	Group evaluation of data to determine if hypothesis supported or refuted; discuss controls

EVALUATION of APPROACH

Anonymous responses to the 2009 post-implementation survey to new questions emphasizing the EBP education initiatives of same year.

Theme of Question	% Direct Care Staff Nurse Responses n=138	% Nursing Leadership Responses n=48
Identification of EBP process steps		
Correct	54.3	75.0
Incorrect	42.7	25.0
Active participation in a departmental or housewide research study or EBP project		
Yes	41.3	50.0
No	58.7	50.0
Internet sources used to search for best clinical evidence (all that apply)		
AHEC Digital Library	73.9	81.3
AHRQ, NGC	63.0	75.0
Yahoo, Google, MSN	34.8	27.1
Specialty Org. (AORN, ENA, etc.)	76.8	79.2

- Majority of nurses, both frontline and in positions of leadership, correctly differentiated the EBP process from the nursing process, scientific method and plan-do-study-act
- Staff nurses reported utilization of sound online sources for evidence searching 2 times as frequently as their use of nonclinical search engines

EBP PROJECTS

- Roundings – housewide EBP initiative
- Capnography in Moderate Sedation – Emergency Department
- Postoperative Order Set for Cocktail Patients – Ortho/Neuro
- Suicide Prevention Outside Psychiatry Services – ED and CCU
- Laboring Down During the 2nd Stage – Birthing Center

CONCLUSIONS

- Opportunities for nursing staff to increase their knowledge of evidence-based practice and research have increased substantially since establishment of the Department for Research & EBP and the Research & EBP Council
- Nurses at the frontline of patient care and nurse leaders retained knowledge of EBP process steps and evidence sources, and many have become involved in EBP projects
- Since nurses unfamiliar with the EBP process may avoid EBP opportunities due to their lack of knowledge, it is crucial to fill this knowledge gap enabling them to transform their practice and improve patient outcomes

EDUCATION INITIATIVE EXPANSION

- Searching the Literature** (1.5 CH): hands-on computer tutorial facilitated by the Area Health Education Center (AHEC) Librarian



- Appraising the Literature** (2.0 CH): combination didactic and group activity education focuses on how to dissect a research article and evaluate its validity and usefulness
- Grading the Evidence** (1.5 CH): presents a scale for grading the strength of evidence obtained from the literature to determine whether the evidence can be used to initiate practice change
- EBP courses on HealthStream™**: EBP101 presents the basics of EBP terminology and concept explanation, while EBP201 covers the steps of the EBP process emphasizing PICO and evidence sources

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