The Nurse as Scholar: Promoting Evidence-Based Nursing Practice Among Direct Care Nurses

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Nemours Strategic Plan for Research and Scholarly Activity

Goal: Become a leading child health system in the nation by 2015

- From Bench to Bedside: Clinic to Community
- Scholarship as component of all health professionals' work
- Defined focus areas for research
- "Bottom up" approach with integrated teams of clinicians, bench researchers, educators

The Context for the Nemours Research Strategy

Knowledge Worker Roles

- Analyzing data to establish relationships
- Assessing input in order to evaluate complex or conflicting priorities
- Identifying and understanding trends
- Making connections
- Understanding cause and effect
- Ability to brainstorm, thinking broadly
- Ability to drill down, creating more focus
- Producing a new capability
- Creating or modifying a strategy

Assumption:

Nurses are Knowledge Workers

Boyer's Model of Scholarship

- Discovery
- Integration
- Application
- Teaching
The Process of EBCP

5 Phases:
1. Ask a clinical question
2. Search for the evidence
3. Critically appraise the evidence
4. Apply the evidence
5. Evaluate the effectiveness of the evidence

(Hockenberry et al. .Ped. Nsg. 32(4), 2006)

Iowa Model of Evidence-Based Practice to Promote Quality Care


Skills for EBCP
- Asking a question: PICO (population, intervention, comparison, outcome)
- Literature search: accessing the evidence using electronic databases
- Evaluation of methodological rigor and relevance of literature
- Analytical skills & critical thinking
- Reading with comprehension

KAP Study
- Nursing Shared Governance Research and Education Council goal
- Nurses’ Knowledge, Attitudes and Practices Related to Research
- R. John, J. Prozzillo, E. Bayley
- Over 700 Nemours RNs surveyed using 33-item tool (Burke et al., Aurora Health System)
- >50% response rate
- Results indicated need for increased knowledge

Results
Factor 1: Identifying Clinical Problems
Factor 2: Establishing Current Best Practice
Results

Factor 3: Implementing Research into Practice

1.85 1.9 1.95 2 2.05 2.1 2.15 2.2 2.25 2.3

Factor 4: Administering Research Implementation

0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8

Factor 5: Conducting and Communicating Research

1.65 1.7 1.75 1.8 1.85 1.9 1.95 2 2.05 2.1

AIDHC EBNP Fellowship Program Proposal

Purpose:
- To promote the use of evidence by professional nurses to improve patient outcomes.
- To help nurses learn the essential steps in the process of EBNP and research.
- To enhance nurses’ ability to engage in the scholarship of discovery, integration, application and teaching.

Administrative Support

- Proposal submitted to CNO by Director of Nursing Research
- CNO sought support from COO, CEO, CFO
- Budget Approval for 17 Fellows for 12 paid 8-hr days in 2010

Role of Research and Education Council

- Guided development of program structure
- Reviewed curriculum proposed by Director of Nursing Research
- Reviewed and approved applications
- Received regular reports of program implementation
- Reviewed evaluation of program
AIDHC EBNP Fellowship Program

- 12 days of didactic instruction and independent work time scheduled over 8 months
- Commitment from Fellows for an additional day or > per month working on project
- Classes scheduled at 3-4 week intervals from May 11 to December 17, 2010
- Classes provided primarily by Director of Nursing Research with guest lectures by 2 CNSs (R. Lebet, D. Brecher), UDEL professor (Dr. J. Herrman)
- Medical Librarian (K. Flathers) provided essential support with individual help for searching literature.

Marketing the EBNPF Program

EBNPF Application Process

- Application form, including past EBN/research experience; project ideas
- Letters of recommendation and support from manager and MSN-prepared mentor
- Experience and AIDHC employment criteria
- BSN desirable
- Resume

EBNPF Curriculum: The Process of EBNP

- Nemours Research Strategy
- The Nurse as Scholar
- Evidence-Based Nursing Practice: What It Is and What It Is Not
- Models for EBN
- Research vs. EBNP vs. QI
- Defining an EBP or Research Problem or Question
- EBP Rounding
- Planning and Evaluating Outcomes of Nursing Interventions and Practice Changes
- Evaluation Designs

EBNPF Curriculum: The Process of EBNP

- Planning and Implementing a Change in Practice: Models and Strategies for Change
- Forming Teams for Research and EBNP
- Diffusion of Innovations
- Strategies for Championing EBN on the Clinical Unit
- Exemplars of EBNP Projects
- Implementation Science
- TeamSTEPPS – A Process for Implementing Evidence-Based Clinical Practice
EBNPF Curriculum: Accessing, Reviewing, and Appraising Evidence
- Essentials of Searching the Literature
- Introduction to InfoLink
- Anatomy of a Research Study: Reading Published Research
- Appraising the Literature and Developing an Evidence Table
- Hierarchy of Evidence
- Guidelines for Critique of Research Literature
- Guidelines for Critique of Clinical Literature
- Meta-Synthesis
- Meta-Analysis

EBNPF Curriculum: Research Design and Process
- Research Design Overview: Sampling, Setting, Methods
- Qualitative Research Methods
- Quantitative Research Methods and Designs
- Triangulation
- Measurement: Selection and Development of Instruments for EBN and Research: Reliability and Validity
- Data Collection
- Exemplars of Nursing Studies
- Funding Research

EBNPF Curriculum: Ethics of Research and Human Subject Protection
- Human Subject Protection: CITI and Nemours University Programs
- History of Ethics in Research: The Deadly Deception
- Navigating the Clinical Research Review Committee and the Institutional Review Board
- Nurse’s Role in Clinical Research

EBNPF Curriculum: Data Management and Analysis
- Data Management and Security for Research, Quality Improvement, and Evidence-Based Practice
- Planning for Data Analysis
- Interpreting and Summarizing Findings
- Statistics for Healthcare Research:
  - Level of Measurement
  - Hypothesis Testing
  - Probability
  - Power Analysis
  - Descriptive Statistics
  - Analysis of Associations: Chi square
  - Analyzing Relationships: Correlation
  - Analyzing Differences:
    - Variance
    - Analysis of Variance
    - Factorial Analysis
    - Analysis of Covariance
    - Multivariate Analysis of Variance
  - Analyzing Complex Relationships: Multiple Regression
  - Biostatistics: Survival Analysis; Odds Ratios

EBNPF Curriculum: Presenting Scholarly Work
- Writing an Abstract
- Podium Presentations
- Designing a Poster
- Using PowerPoint for Presentations and Posters
- Writing for Publication
- Oral and Poster Presentations of EBN Projects or Research Proposals

Project Topics- 2010
- Obtaining Tobramycin Levels in Patients with Cystic Fibrosis
- Procedural Pain Management for Infants with Congenital Heart Defects
- The Use of EMLA Cream for Procedural Pain Relief in Children
- Hemostatic Dressings for Femoral Access Sites in Percutaneous Cardiac Catheterization Procedures
- Fever: Friend or Foe
Project Topics - 2010

- The Effect of Healing Touch Therapy on the Adolescent with a Gastrointestinal Medical Condition***
- Transitioning to an Evidence Based Protocol for the Infusion of Infliximab (Remicade) in a Pediatric Ambulatory Care Setting
- Compassion Fatigue: Nothing Left to Give***
- Assessing the Comfort Level of Bedside Nurses Implementing Sedation Protocols
- Sedated Children: Oxygen or Not

Project Topics - 2011

- Family Centered Care in the Cardiac Center
- An Evidence-Based Protocol for Prevention and Care of Mucositis in the Child with Oncologic Treatment
- Patient Positioning in the OR
- Guided Imagery for Pain Management in Post-Operative Spinal Surgery Patients
- An Evidence-Based Position Description for the Surgical Nurse Liaison
- Temporal Artery Thermometers: EBN Procedure for Use in ED

Evaluation

- Baseline and at End of Program KAP Tool: 33 item instrument that measures Knowledge, Aptitude, and Practices related to research/EBP
- UG Competencies: Likert-type scale applied to Undergraduate Competencies for Evidence-Based Practice (U. TX Acestar Essentials)
- Mid-Program
- End of Program
- Overall Program Evaluation Tool; KAP, UGC
- Occasionally – 5-Minute Feedback Form
- Implementation and Dissemination Activities
2011 EBNP Fellowship Program

- 15 nurses applied and approved
- 6 new units represented
- 7 new mentors
- Classes began on March 17
- 13 projects were presented December 9 in podium and poster session

Plan for 2012

- Modify curriculum based on 2011 evaluations
- Apply similar marketing and application process
- Engage more nurses from units that did not participate in 2011
- Increase mentor communication and support
- Classes began March 15 with 20 Fellows

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